



LACERS
LA CITY EMPLOYEES'
RETIREMENT SYSTEM

PORTFOLIO PERFORMANCE REVIEW

LOS ANGELES CITY EMPLOYEES'
RETIREMENT SYSTEM

QUARTER ENDING SEPTEMBER 30, 2022

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Appendix:

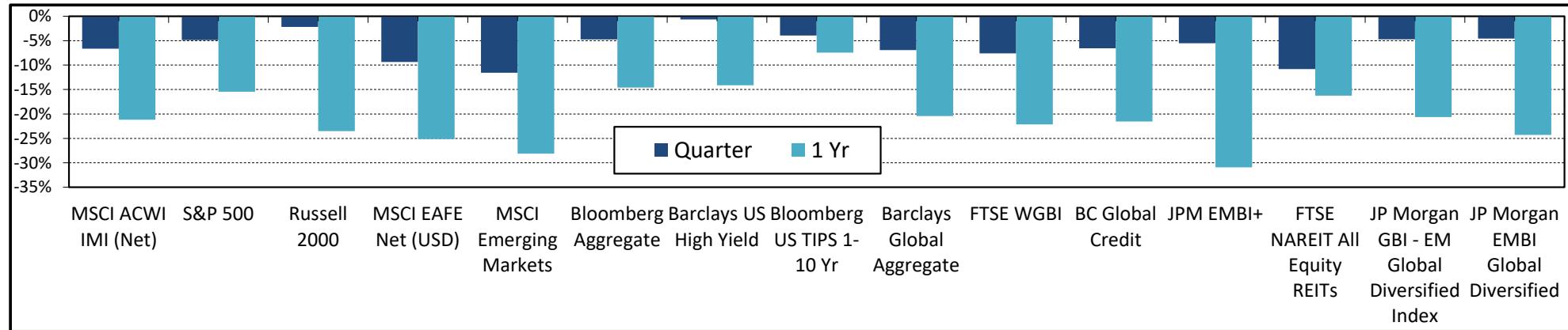
- U.S. Equity Manager Performance**
- Non-U.S. Manager Performance**
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EXECUTIVE SUMMARY

PERFORMANCE OVERVIEW

Q3 Market Summary – Equities in Bear Market



	Market Value (\$)	3 Mo (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	15 Yrs (%)	Inception (%)	Inception Date
LACERS Master Trust	19,934,673,693	-5.3 (83)	-16.7 (68)	-13.1 (68)	4.7 (67)	5.2 (70)	7.3 (52)	5.4 (61)	7.8 (73)	Nov-94
Policy Index		-5.9 (94)	-18.0 (78)	-14.0 (78)	4.1 (75)	4.9 (76)	6.9 (71)	5.3 (67)	7.7 (83)	
InvMetrics Public DB \$5-50B Gross Median		-4.4	-15.0	-11.4	5.2	5.6	7.4	5.4	7.9	

Note: Performance is gross of fees

Equities continued their decline through the third quarter as geopolitical tensions, high inflation and dramatic increases in interest rates ratcheted up concerns of a recession.

U.S. Equity and Non-U.S. Equity and Private Equity outperformed contributing positively relative to policy benchmarks.

Fixed income markets continued to decline in Q3 as the Federal Reserve boosted the Fed Funds rate by 75 basis points in September—its fifth rate hike this year—bringing the benchmark rate to 3%-3.25%.

Core Fixed Income and Credit Opportunities underperformed

Private Real Estate and Public Real Assets outperformed





MARKET ENVIRONMENT

THE S&P 500 INDEX REMAINS IN A BEAR MARKET

LENGTH AND DEPTH OF S&P 500 BEAR MARKETS

Start	End	Length of Bear Market (Months)	Length of Recovery* (Months)	S&P 500 Decline
01/03/2022	?	9*	?	-24%*
02/19/2020	03/23/2020	1	5	-34%
10/09/2007	03/09/2009	17	59	-55%
03/24/2000	10/09/2002	31	80	-47%
08/25/1987	12/04/1987	3	20	-34%
11/28/1980	08/12/1982	21	3	-27%
01/11/1973	10/03/1974	21	69	-48%

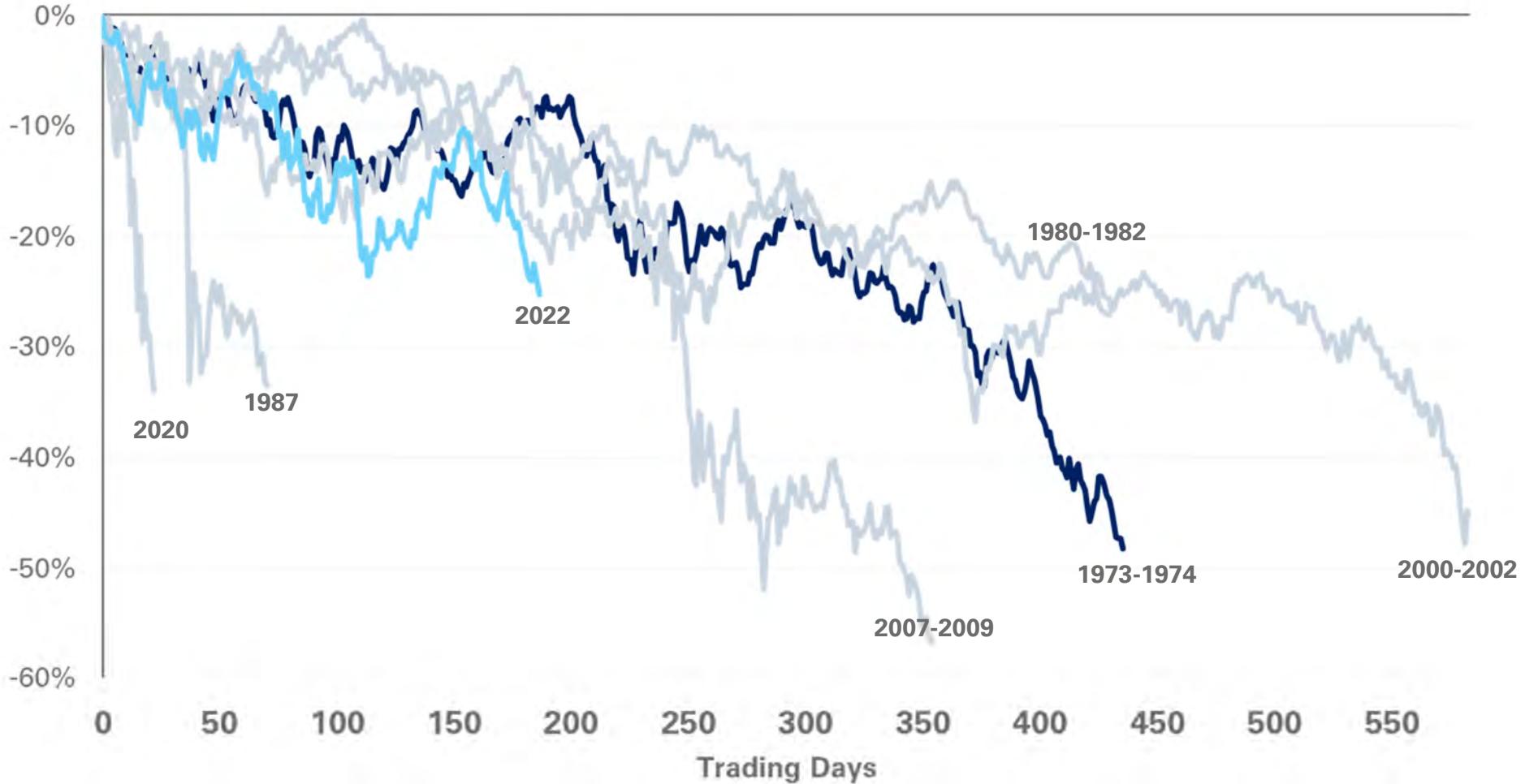
Notes: 2022 bear market is ongoing; represents historical bear markets since 1970. *Length of Recovery represents time to recoup losses from the start of the bear market.

Sources: S&P, FactSet, NEPC



THE BEAR MARKET IS TRENDING WITH THE PAST

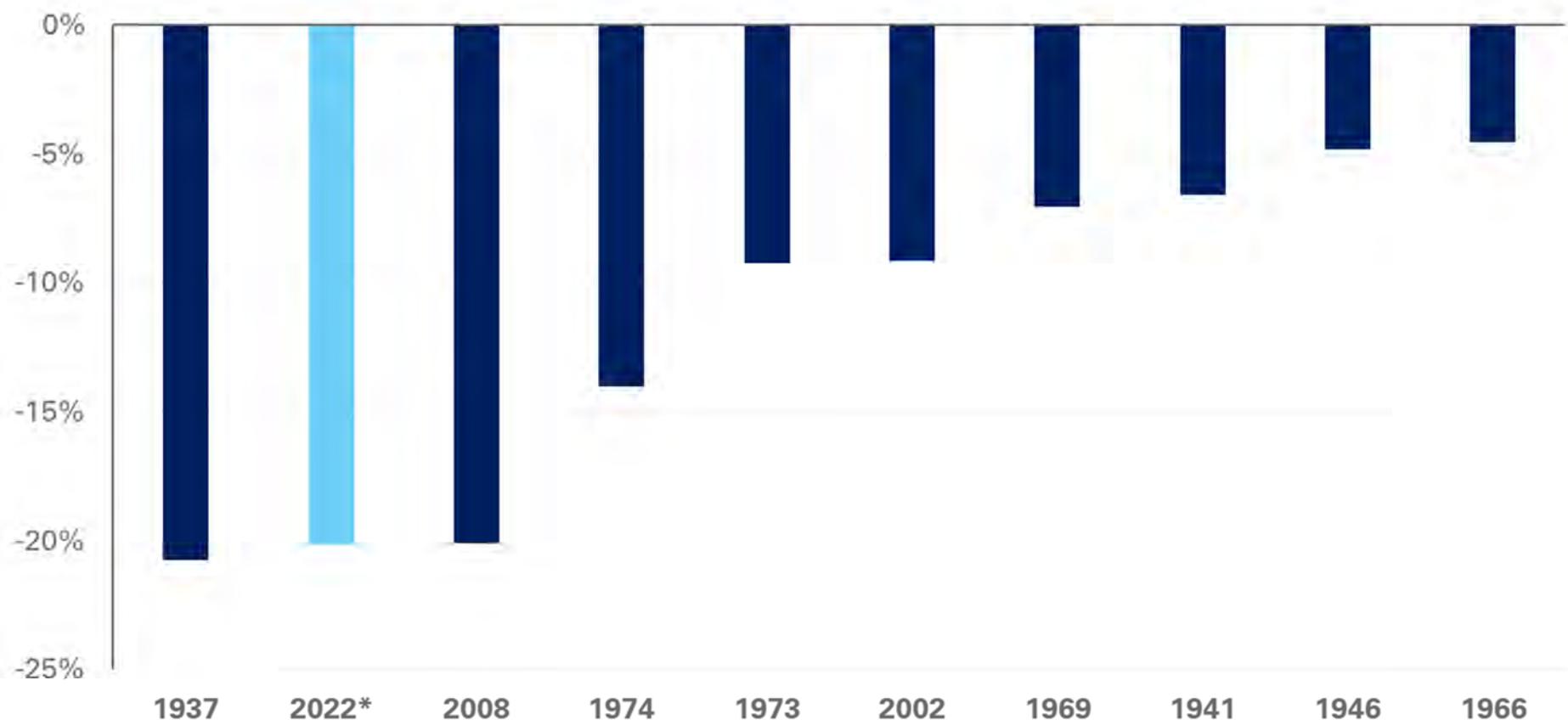
HISTORICAL S&P 500 BEAR MARKET PATHS RELATIVE TO TODAY



Sources: S&P, FactSet, NEPC

60/40 PORTFOLIO ON TRACK FOR WORST YEAR

WORST ANNUAL RETURNS: 60/40 PORTFOLIO



60/40 Portfolio represents 60% S&P 500 and 40% U.S. Aggregate Bonds (post 1975) and 40% Treasury (prior to 1974)

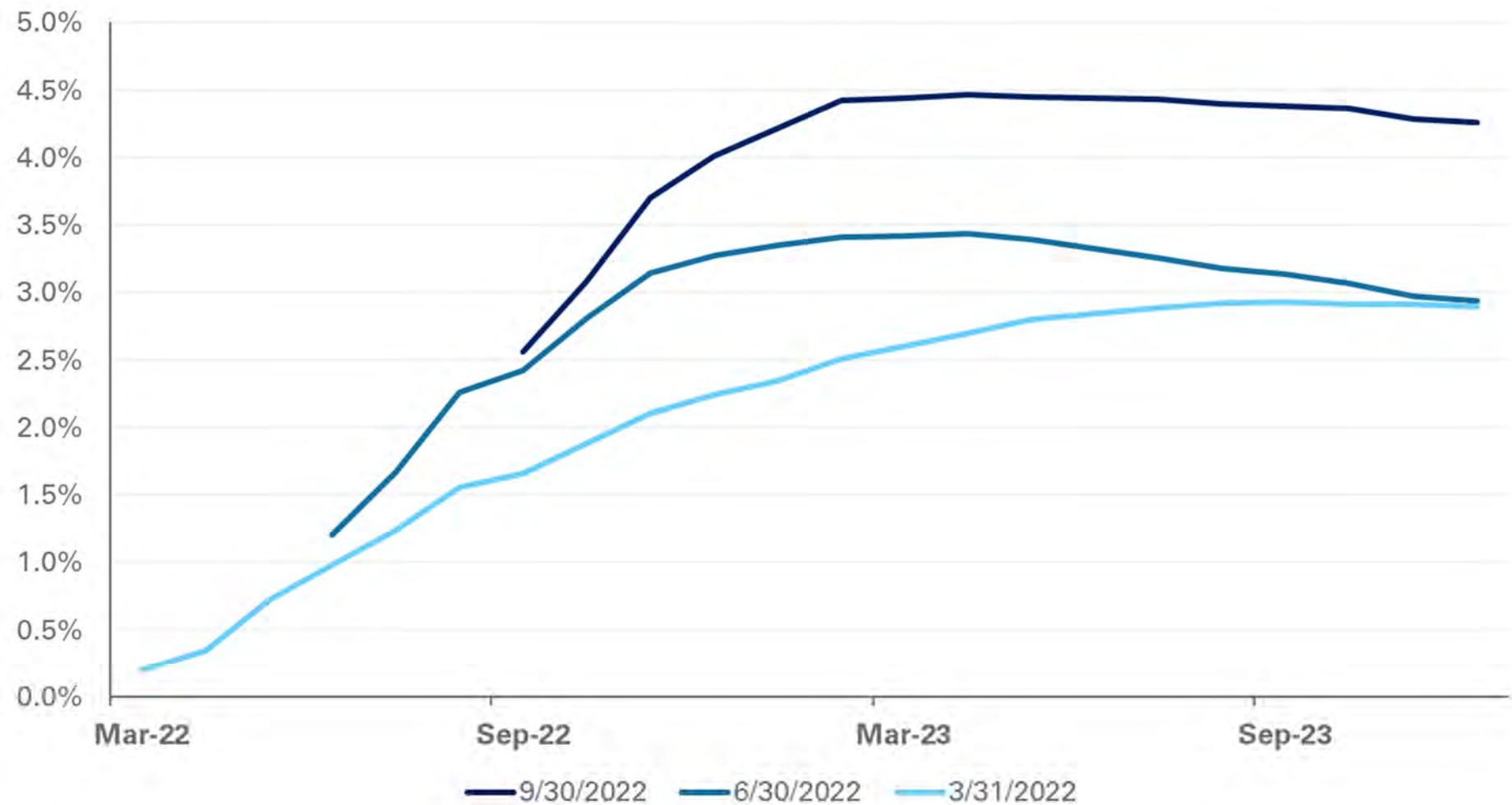
Data calculated from 12/31/1936; 2022 represents returns through the first nine months of the year

Source: S&P, Bloomberg, FactSet



FED FUNDS EXPECTATIONS ROSE

FEDERAL FUNDS FUTURES

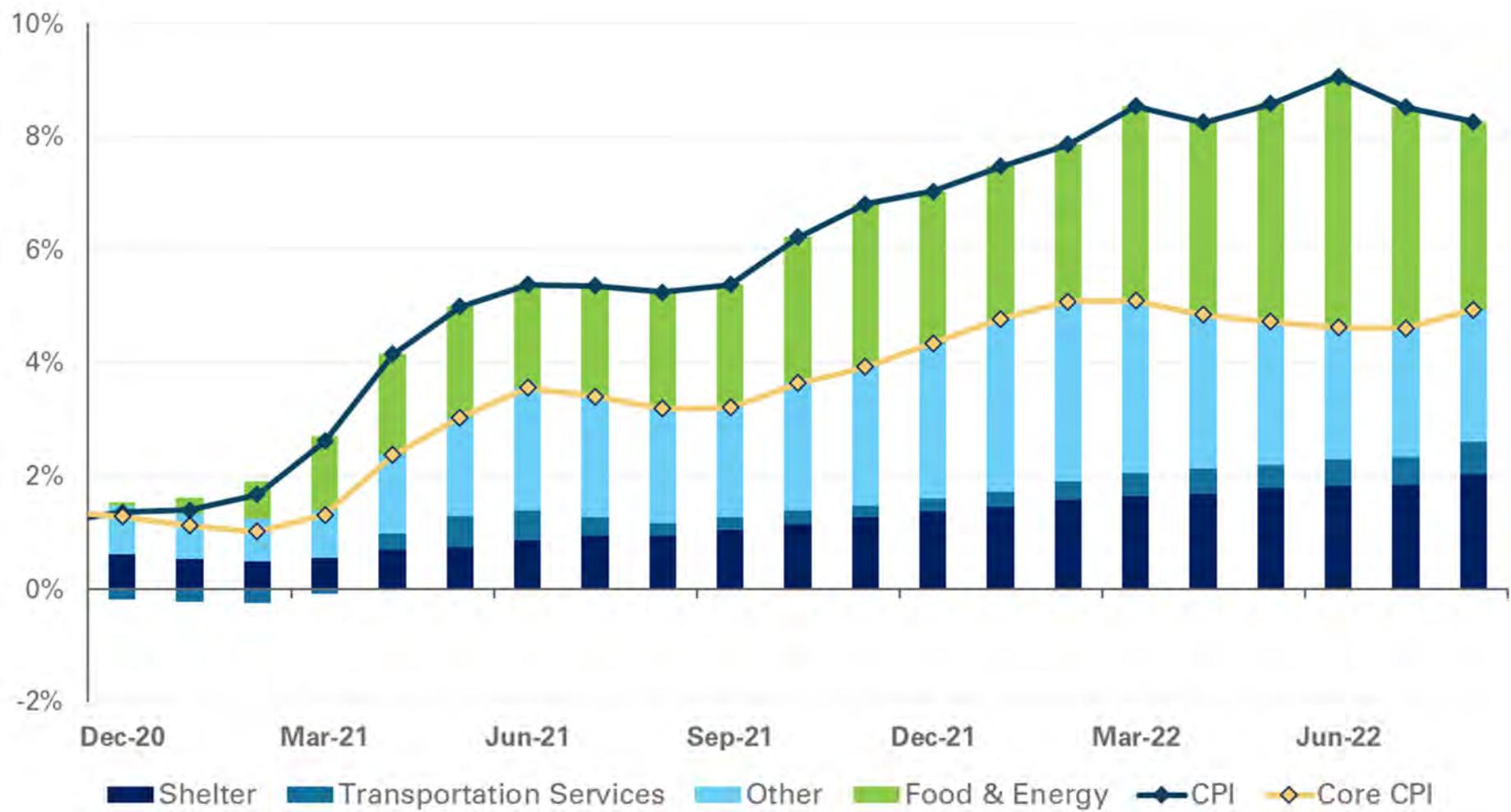


Source: FactSet



CORE INFLATION INCREASED

ANNUAL U.S. CPI-U CHANGES



Source: Department of Labor, FactSet

THE DOLLAR STRENGTHENED

THE U.S. DOLLAR INDEX



U.S. Dollar Index represents the value of the U.S. Dollar relative to the currencies of major trade partners. The Euro, Japanese Yen, Pound Sterling, and Canadian Dollar represent the largest weights within the Index.

Source: FactSet

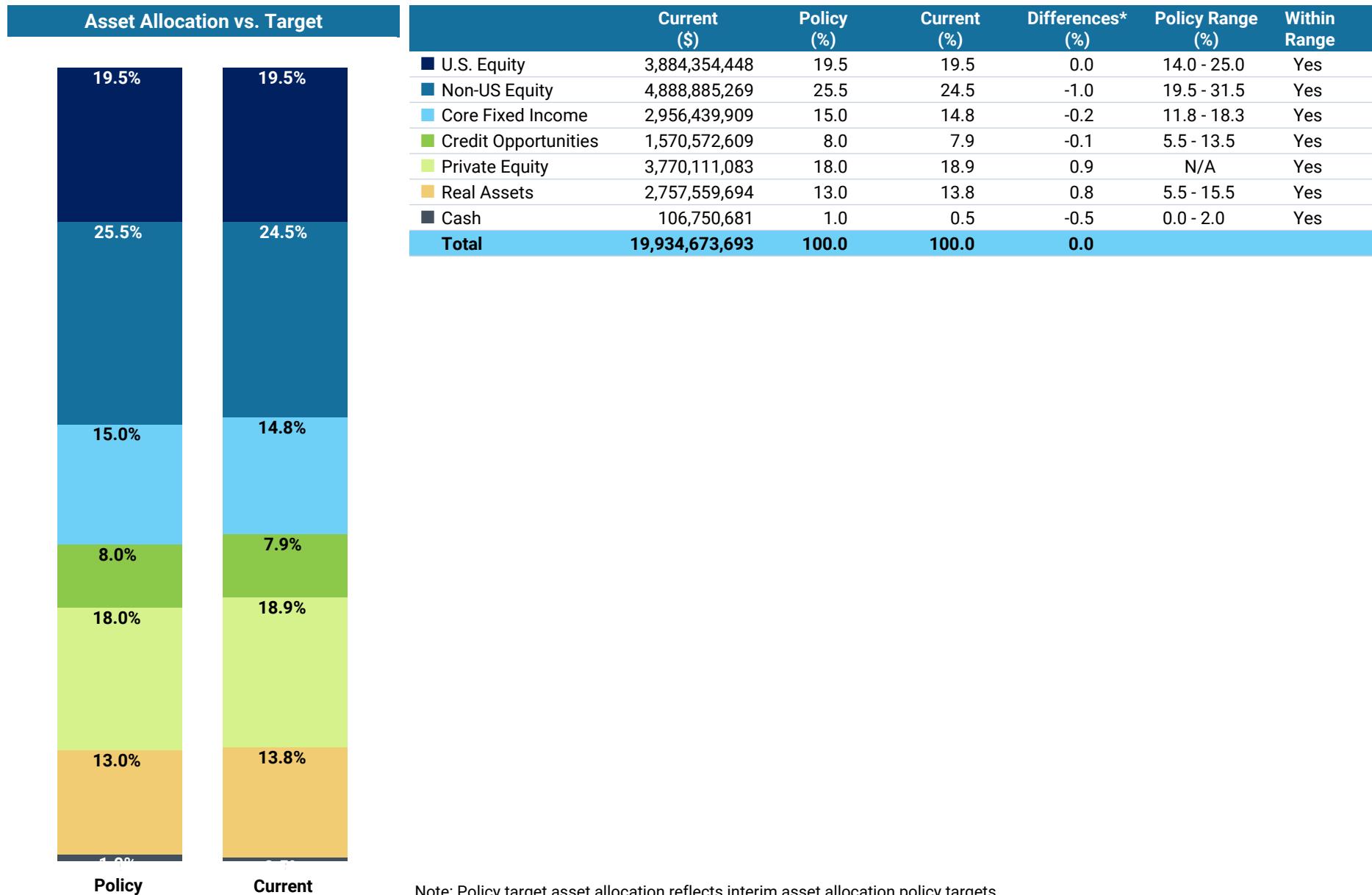
KEY THEMES FOR INVESTORS

-  **Stagflation dynamics** pose a challenge to portfolio diversification and represent a headwind for equity valuations and profit margins
-  **The path of U.S. corporate earnings** do not reflect material weakness for 2023 despite the tightening monetary policy environment
-  **Europe's economy is exposed to an energy shock** as its infrastructure undergoes an emergency transplant to pivot from Russian energy
-  **China's zero-COVID policy** has global supply chain implications and continues to dampen consumer spending and industrial activity
-  **U.S. Dollar strength reveals risks in the global financial system** and will continue to pressure weaker markets, companies and nations



ASSET CLASS POLICY OVERVIEW

ASSET ALLOCATION VS. POLICY

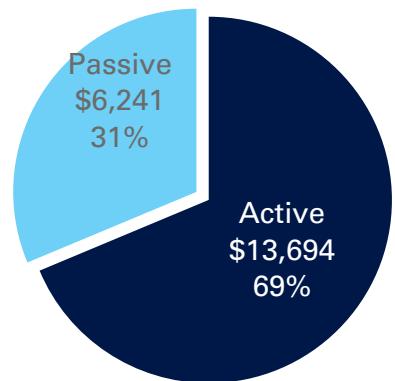


*Difference between Policy and Current Allocation

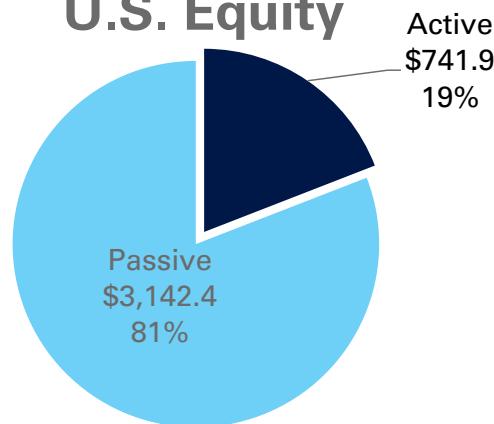
ACTIVE AND PASSIVE MANAGER BREAKDOWN

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

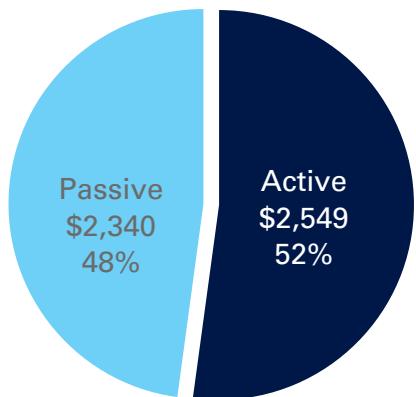
Total Fund



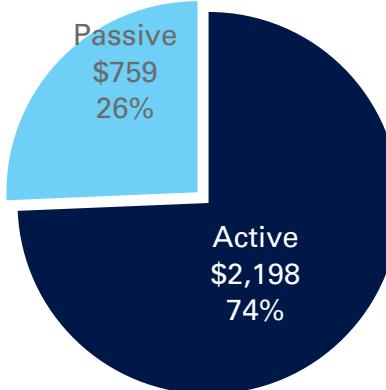
U.S. Equity



Non-U.S. Equity



Core Fixed Income



- LACERS allocated 69% to active managers and 31% to passive managers.
- Credit Opportunities, Private Equity, and Real Assets programs are active and therefore are not shown.



PERFORMANCE OVERVIEW

TOTAL FUND PERFORMANCE SUMMARY

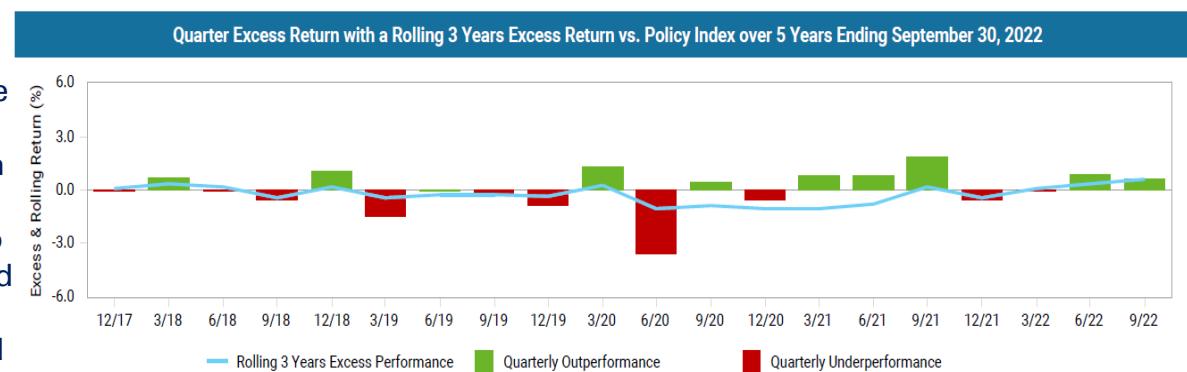
GROSS OF FEES

	Market Value (\$)	3 Mo (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	15 Yrs (%)	Inception (%)	Inception Date
LACERS Master Trust	19,934,673,693	-5.3 (83)	-16.7 (68)	-13.1 (68)	4.7 (67)	5.2 (70)	7.3 (52)	5.4 (61)	7.8 (73)	Nov-94
Policy Index		-5.9 (94)	-18.0 (78)	-14.0 (78)	4.1 (75)	4.9 (76)	6.9 (71)	5.3 (67)	7.7 (83)	
InvMetrics Public DB \$5-50B Gross Median		-4.4	-15.0	-11.4	5.2	5.6	7.4	5.4	7.9	

Over the past five years the Fund return of 5.2% outperformed the policy index by 0.3% and ranked in the 70th percentile within the Public Funds \$5 Billion- \$50 Billion universe. The Fund's volatility of 10.2% ranked in the 61st percentile over this period. The Fund's risk-adjusted performance, as measured by the Sharpe Ratio ranked in the 70th percentile and the Sortino Ratio ranked in the 66th percentile. Both measures outperformed the benchmark indicating that active management benefited the Plan.

Over the past three years the Fund return of 4.7% outperformed the policy index by 0.6% and ranked in the 67th percentile in its peer group. The Fund's volatility ranked in the 59th percentile and the Sharpe Ratio ranked in the 75th percentile. The Sortino Ratio of 0.6 ranked in the 67th percentile.

In the one-year ended September 30, 2022, the Fund returned -13.1% and outperformed the policy index by 0.9%. The Fund's return ranked in the 68th percentile in its peer group.



5 Years Ending September 30, 2022									
	Return	Rank	Standard Deviation	Rank	Sharpe Ratio	Rank	Sortino Ratio	Rank	
LACERS Master Trust	5.2	70	10.2	61	0.4	70	0.6	66	
Policy Index	4.9	76	11.5	92	0.4	83	0.5	83	
InvMetrics Public DB \$5-50B Gross Median	5.6		9.6		0.5		0.7		
3 Years Ending September 30, 2022									
	Return	Rank	Standard Deviation	Rank	Sharpe Ratio	Rank	Sortino Ratio	Rank	
LACERS Master Trust	4.7	67	11.7	59	0.4	75	0.6	67	
Policy Index	4.1	75	13.0	84	0.3	81	0.5	81	
InvMetrics Public DB \$5-50B Gross Median	5.2		11.1		0.4		0.6		

EXECUTIVE SUMMARY

	Market Value (\$)	3 Mo (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	15 Yrs (%)	Inception (%)	Inception Date
LACERS Master Trust	19,934,673,693	-5.3 (91)	-16.7 (71)	-13.1 (67)	4.7 (47)	5.2 (45)	7.3 (29)	5.4 (34)	7.8 (23)	Nov-94
Policy Index		-5.9 (98)	-18.0 (81)	-14.0 (77)	4.1 (65)	4.9 (56)	6.9 (52)	5.3 (42)	7.7 (29)	
InvMetrics Public DB \$1-50B Gross Median		-3.9	-13.9	-10.3	4.5	5.0	7.0	5.2	7.5	

3 Years Ending September 30, 2022				
	Return	Standard Deviation	Sharpe Ratio	Sortino Ratio
LACERS Master Trust	4.7	11.7	0.4	0.6
Policy Index	4.1	13.0	0.3	0.5
InvMetrics Public DB \$1-50B Gross Median	4.5	11.7	0.4	0.5

5 Years Ending September 30, 2022				
	Return	Standard Deviation	Sharpe Ratio	Sortino Ratio
LACERS Master Trust	5.2	10.2	0.4	0.6
Policy Index	4.9	11.5	0.4	0.5
InvMetrics Public DB \$1-50B Gross Median	5.0	10.0	0.4	0.6

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	19,934,673,693	100.00		-5.28	-16.67	-13.06	4.74	5.18	7.33	7.88	7.79	Nov-94
Policy Index				<u>-5.89</u>	<u>-17.96</u>	<u>-14.00</u>	<u>4.09</u>	<u>4.86</u>	<u>6.91</u>	<u>7.63</u>	<u>7.67</u>	
Over/Under				0.61	1.29	0.94	0.65	0.32	0.42	0.25	0.12	
U.S. Equity	3,884,354,448	19.49		-3.99	-24.02	-16.85	7.60	8.42	11.44	10.06	10.11	Nov-94
U.S. Equity Blend				<u>-4.46</u>	<u>-24.62</u>	<u>-17.63</u>	<u>7.70</u>	<u>8.62</u>	<u>11.39</u>	<u>9.93</u>	<u>9.19</u>	
Over/Under				0.47	0.60	0.78	<u>-0.10</u>	<u>-0.20</u>	0.05	0.13	0.92	
Non-U.S. Equity	4,888,885,269	24.52		-9.63	-27.50	-26.35	0.31	0.47	4.60	7.22	4.57	Nov-94
MSCI AC World ex USA (Net)				<u>-9.91</u>	<u>-26.50</u>	<u>-25.17</u>	<u>-1.52</u>	<u>-0.81</u>	<u>3.01</u>	<u>6.37</u>	<u>4.21</u>	
Over/Under				0.28	-1.00	-1.18	1.83	1.28	1.59	0.85	0.36	
Core Fixed Income	2,956,439,909	14.83		-4.65	-14.31	-14.27	-2.45	0.26	1.50	-	1.77	Jul-12
Core Fixed Income Blend				<u>-4.75</u>	<u>-14.61</u>	<u>-14.60</u>	<u>-3.26</u>	<u>-0.27</u>	<u>0.94</u>	-	<u>1.11</u>	
Over/Under				0.10	0.30	0.33	0.81	0.53	0.56	-	0.66	
Credit Opportunities	1,570,572,609	7.88		-1.65	-14.52	-14.96	-2.59	0.37	-	-	3.03	Jul-13
Credit Opportunities Blend				<u>-2.75</u>	<u>-15.91</u>	<u>-16.32</u>	<u>-2.55</u>	<u>0.28</u>	-	-	<u>3.16</u>	
Over/Under				1.10	1.39	1.36	<u>-0.04</u>	0.09	-	-	<u>-0.13</u>	
Real Assets	2,757,559,694	13.83		-3.28	-5.26	-0.13	4.26	4.85	6.74	4.71	6.10	Dec-94
Real Assets Policy Benchmark				<u>-3.86</u>	<u>-8.41</u>	<u>-1.32</u>	<u>5.47</u>	<u>6.12</u>	<u>6.24</u>	<u>6.31</u>	<u>7.67</u>	
Over/Under				0.58	3.15	1.19	<u>-1.21</u>	<u>-1.27</u>	0.50	<u>-1.60</u>	<u>-1.57</u>	
Public Real Assets	1,463,879,570	7.34		-6.84	-17.92	-13.41	1.19	2.38	-	-	1.70	Jul-14
Public Real Assets Blend				<u>-7.38</u>	<u>-19.18</u>	<u>-13.13</u>	<u>1.24</u>	<u>1.96</u>	-	-	<u>0.26</u>	
Over/Under				0.54	1.26	-0.28	<u>-0.05</u>	0.42	-	-	1.44	
Private Real Estate	1,274,301,050	6.39		1.13	16.73	23.00	8.97	8.32	9.64	6.12	7.11	Nov-94
Real Estate Blend				<u>0.72</u>	<u>13.75</u>	<u>23.05</u>	<u>13.26</u>	<u>11.12</u>	<u>11.52</u>	<u>9.96</u>	<u>10.20</u>	
Over/Under				0.41	2.98	<u>-0.05</u>	<u>-4.29</u>	<u>-2.80</u>	<u>-1.88</u>	<u>-3.84</u>	<u>-3.09</u>	
Private Equity	3,770,111,083	18.91		-4.18	0.79	8.99	21.10	18.04	14.98	13.55	11.66	Dec-95
Private Equity Blend				<u>-6.16</u>	<u>-3.38</u>	<u>6.34</u>	<u>19.57</u>	<u>17.01</u>	<u>17.31</u>	<u>15.03</u>	<u>13.70</u>	
Over/Under				1.98	4.17	2.65	1.53	1.03	<u>-2.33</u>	<u>-1.48</u>	<u>-2.04</u>	
Cash	106,750,681	0.54										

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	19,934,673,693	100.00		-5.32	-16.77	-13.20	4.57	5.01	7.14	7.68	6.41	Jul-01
Policy Index				<u>-5.89</u>	<u>-17.96</u>	<u>-14.00</u>	<u>4.09</u>	<u>4.86</u>	<u>6.91</u>	<u>7.63</u>	<u>6.34</u>	
Over/Under				0.57	1.19	0.80	0.48	0.15	0.23	0.05	0.07	
U.S. Equity	3,884,354,448	19.49		-4.01	-24.07	-16.92	7.53	8.34	11.33	9.88	7.94	Sep-01
U.S. Equity Blend				<u>-4.46</u>	<u>-24.62</u>	<u>-17.63</u>	<u>7.70</u>	<u>8.62</u>	<u>11.39</u>	<u>9.93</u>	<u>7.84</u>	
Over/Under				0.45	0.55	0.71	<u>-0.17</u>	<u>-0.28</u>	<u>-0.06</u>	<u>-0.05</u>	<u>0.10</u>	
Non-U.S. Equity	4,888,885,269	24.52		-9.69	-27.69	-26.60	-0.03	0.12	4.25	6.86	5.02	Jun-01
MSCI AC World ex USA (Net)				<u>-9.91</u>	<u>-26.50</u>	<u>-25.17</u>	<u>-1.52</u>	<u>-0.81</u>	<u>3.01</u>	<u>6.37</u>	<u>4.27</u>	
Over/Under				0.22	-1.19	-1.43	1.49	0.93	1.24	0.49	0.75	
Core Fixed Income	2,956,439,909	14.83		-4.67	-14.38	-14.36	-2.54	0.17	1.39	-	1.66	Jul-12
Core Fixed Income Blend				<u>-4.75</u>	<u>-14.61</u>	<u>-14.60</u>	<u>-3.26</u>	<u>-0.27</u>	<u>0.94</u>	-	<u>1.11</u>	
Over/Under				0.08	0.23	0.24	0.72	0.44	0.45	-	0.55	
Credit Opportunities	1,570,572,609	7.88		-1.74	-14.74	-15.27	-2.88	0.06	-	-	2.70	Jul-13
Credit Opportunities Blend				<u>-2.75</u>	<u>-15.91</u>	<u>-16.32</u>	<u>-2.55</u>	<u>0.28</u>	-	-	<u>3.16</u>	
Over/Under				1.01	1.17	1.05	<u>-0.33</u>	<u>-0.22</u>	-	-	<u>-0.46</u>	
Real Assets	2,757,559,694	13.83		-3.31	-5.34	-0.24	4.12	4.70	6.59	4.55	4.95	Jun-01
Real Assets Policy Benchmark				<u>-3.86</u>	<u>-8.41</u>	<u>-1.32</u>	<u>5.47</u>	<u>6.12</u>	<u>6.24</u>	<u>6.31</u>	<u>6.24</u>	
Over/Under				0.55	3.07	1.08	<u>-1.35</u>	<u>-1.42</u>	0.35	<u>-1.76</u>	<u>-1.29</u>	
Public Real Assets	1,463,879,570	7.34		-6.87	-18.01	-13.54	1.01	2.18	-	-	1.51	Jul-14
Public Real Assets Blend				<u>-7.38</u>	<u>-19.18</u>	<u>-13.13</u>	<u>1.24</u>	<u>1.96</u>	-	-	<u>0.26</u>	
Over/Under				0.51	1.17	-0.41	<u>-0.23</u>	0.22	-	-	1.25	
Private Real Estate	1,274,301,050	6.39		1.11	16.66	22.92	8.88	8.23	9.54	5.98	6.33	Jul-01
Real Estate Blend				<u>0.72</u>	<u>13.75</u>	<u>23.05</u>	<u>13.26</u>	<u>11.12</u>	<u>11.52</u>	<u>9.96</u>	<u>9.71</u>	
Over/Under				0.39	2.91	<u>-0.13</u>	<u>-4.38</u>	<u>-2.89</u>	<u>-1.98</u>	<u>-3.98</u>	<u>-3.38</u>	
Private Equity	3,770,111,083	18.91		-4.18	0.80	9.01	21.12	18.05	14.99	13.48	11.81	Sep-01
Private Equity Blend				<u>-6.16</u>	<u>-3.38</u>	<u>6.34</u>	<u>19.57</u>	<u>17.01</u>	<u>17.31</u>	<u>15.03</u>	<u>12.82</u>	
Over/Under				1.98	4.18	2.67	1.55	1.04	<u>-2.32</u>	<u>-1.55</u>	<u>-1.01</u>	
Cash	106,750,681	0.54										

Refer to appendix for blended benchmark definitions.



RISK STATISTICS

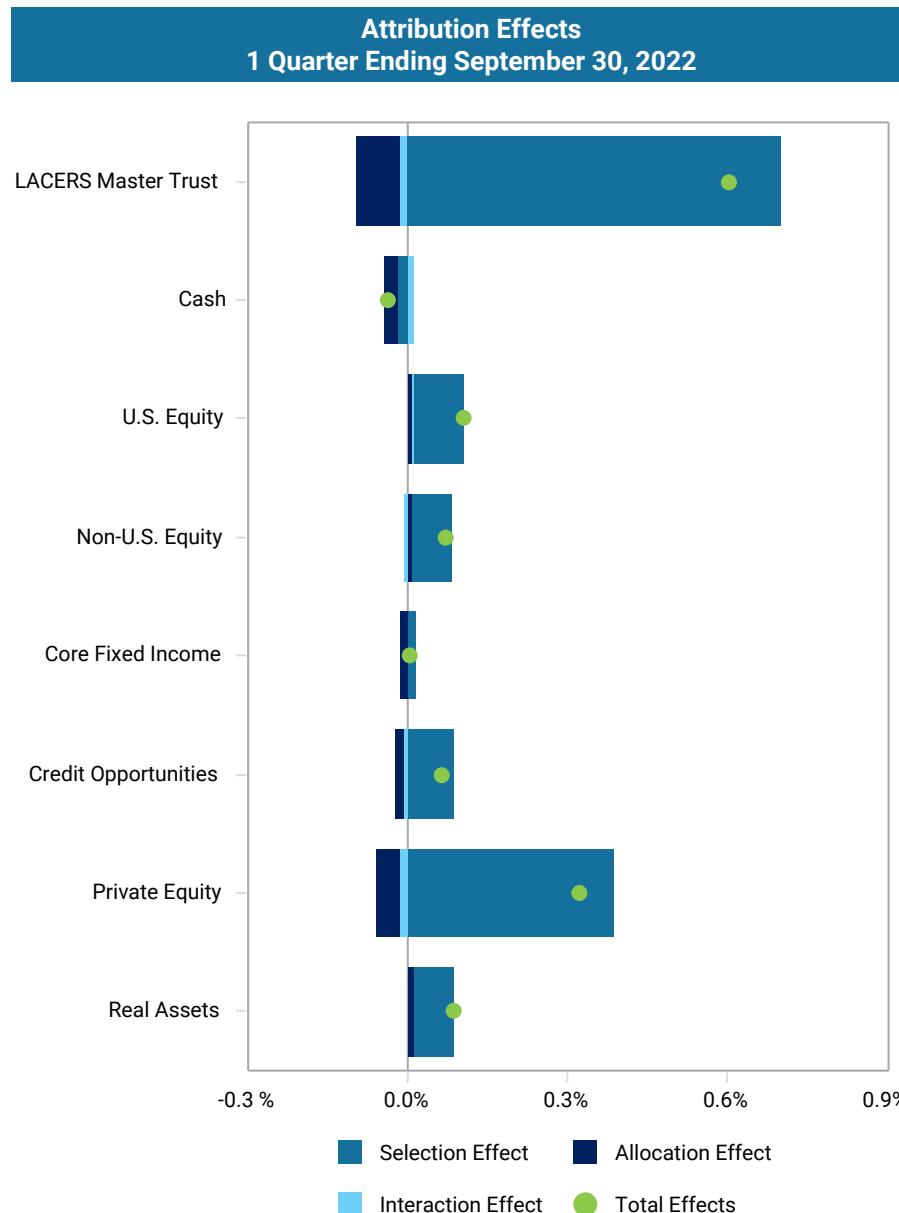
	3 Years Ending September 30, 2022					
	Return	Standard Deviation	Alpha	Information Ratio	Sortino Ratio	Tracking Error
LACERS Master Trust	4.74 (53)	11.68 (44)	1.02 (54)	0.19 (53)	0.57 (50)	2.35 (33)
InvMetrics Public DB \$1-50B Gross Median	4.86	11.90	1.10	0.20	0.57	3.08

	5 Years Ending September 30, 2022					
	Return	Standard Deviation	Alpha	Information Ratio	Sortino Ratio	Tracking Error
LACERS Master Trust	5.18 (56)	10.24 (50)	0.83 (53)	0.08 (55)	0.61 (49)	2.05 (32)
InvMetrics Public DB \$1-50B Gross Median	5.38	10.24	0.93	0.15	0.61	2.72

	3 Years Ending September 30, 2022					
	Return	Standard Deviation	Alpha	Information Ratio	Sortino Ratio	Tracking Error
LACERS Master Trust	4.74 (67)	11.68 (59)	1.02 (71)	0.19 (67)	0.57 (67)	2.35 (37)
InvMetrics Public DB \$5-50B Gross Median	5.18	11.13	1.47	0.37	0.63	3.15

	5 Years Ending September 30, 2022					
	Return	Standard Deviation	Alpha	Information Ratio	Sortino Ratio	Tracking Error
LACERS Master Trust	5.18 (70)	10.24 (61)	0.83 (70)	0.08 (70)	0.61 (66)	2.05 (34)
InvMetrics Public DB \$5-50B Gross Median	5.62	9.59	1.22	0.26	0.67	2.89

ATTRIBUTION ANALYSIS



**Attribution Summary
1 Quarter Ending September 30, 2022**

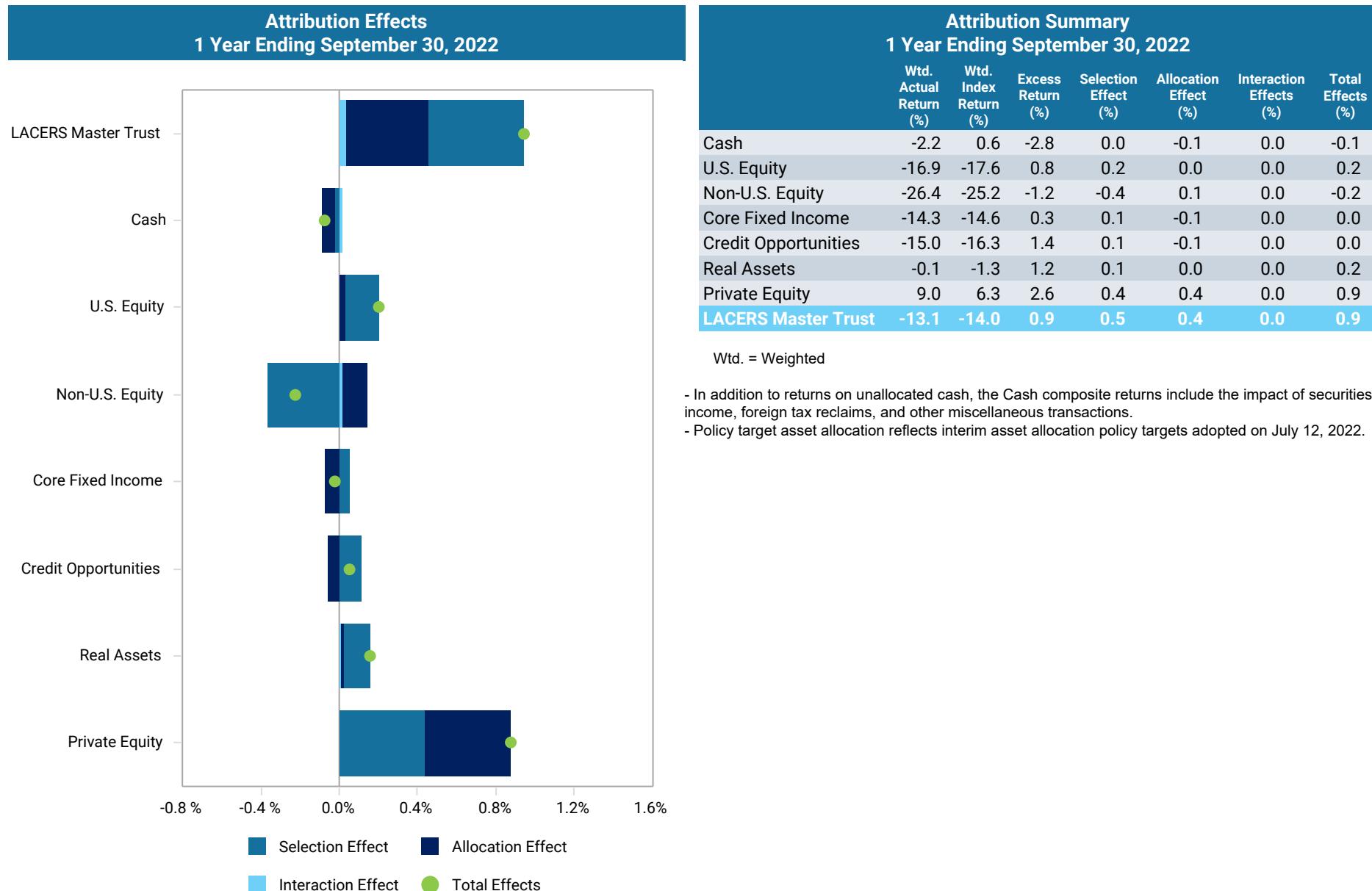
	Wtd. Actual Return (%)	Wtd. Index Return (%)	Excess Return (%)	Selection Effect (%)	Allocation Effect (%)	Interaction Effects (%)	Total Effects (%)
Cash	-1.3	0.5	-1.8	0.0	0.0	0.0	0.0
U.S. Equity	-4.0	-4.5	0.5	0.1	0.0	0.0	0.1
Non-U.S. Equity	-9.6	-9.9	0.3	0.1	0.0	0.0	0.1
Core Fixed Income	-4.6	-4.8	0.1	0.0	0.0	0.0	0.0
Credit Opportunities	-1.6	-2.8	1.1	0.1	0.0	0.0	0.1
Private Equity	-4.2	-6.2	2.0	0.4	0.0	0.0	0.3
Real Assets	-3.3	-3.9	0.6	0.1	0.0	0.0	0.1
LACERS Master Trust	-5.3	-5.9	0.6	0.7	-0.1	0.0	0.6

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.

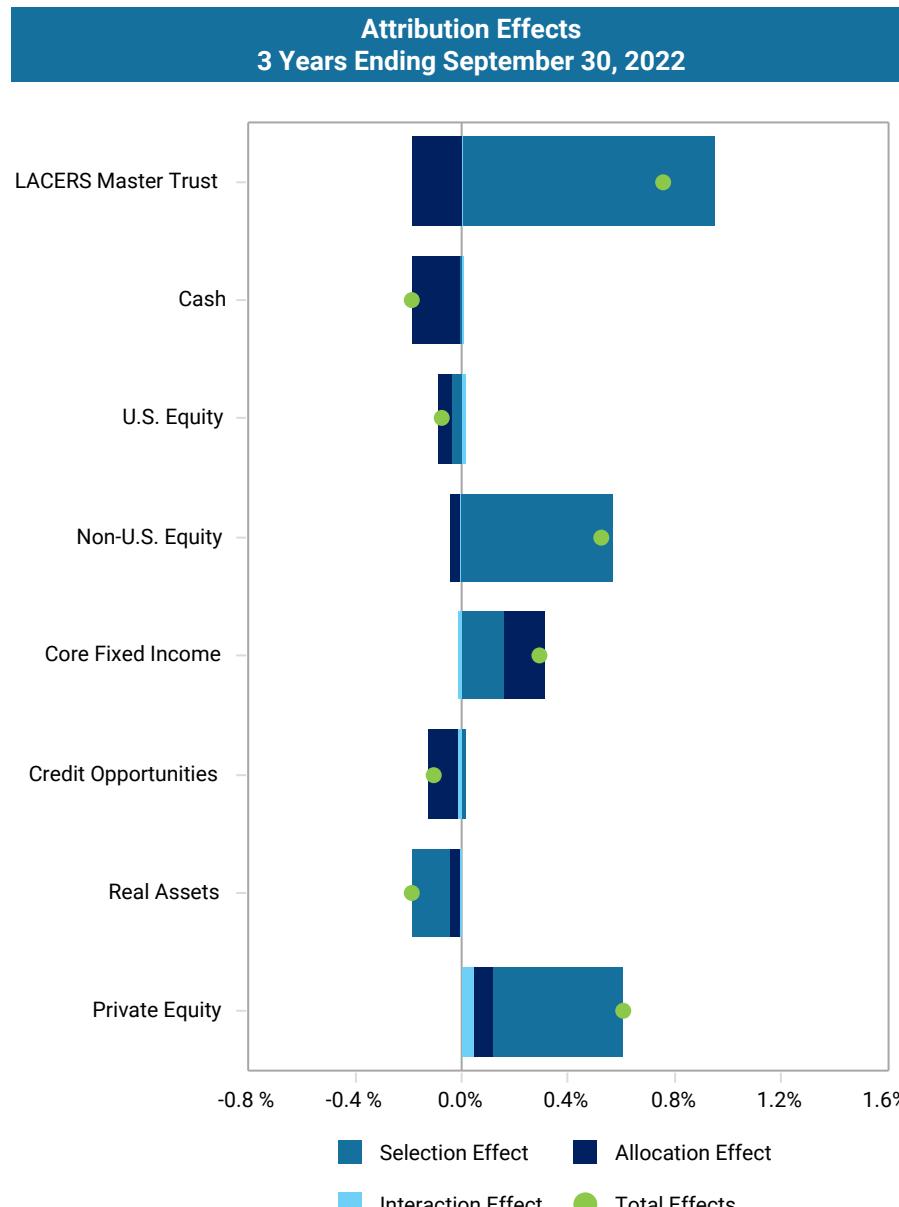
*Total Actual and Index returns are weighted average calculations.

ATTRIBUTION ANALYSIS



*Total Actual and Index returns are weighted average calculations.

ATTRIBUTION ANALYSIS



**Attribution Summary
3 Years Ending September 30, 2022**

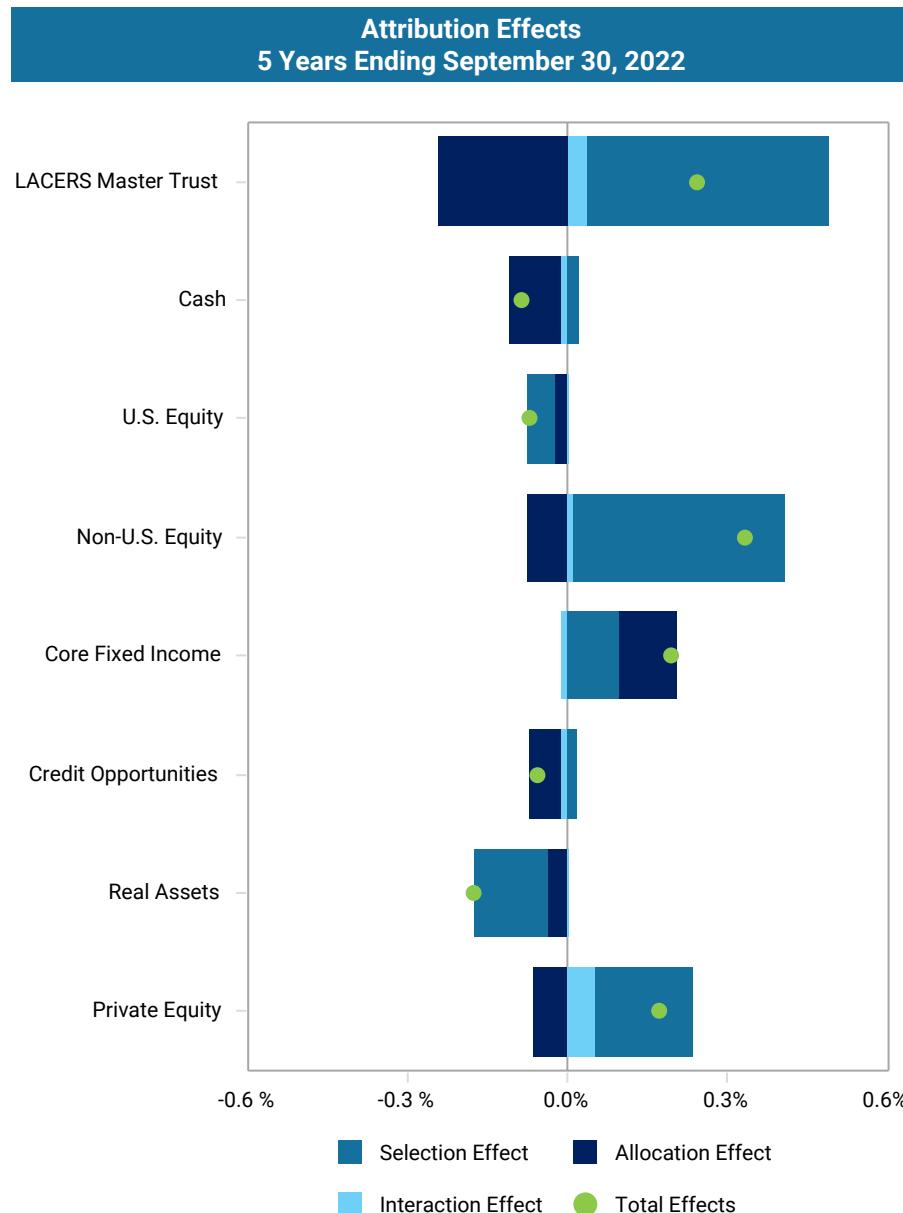
	Wtd. Actual Return (%)	Wtd. Index Return (%)	Excess Return (%)	Selection Effect (%)	Allocation Effect (%)	Interaction Effects (%)	Total Effects (%)
Cash	0.0	0.6	-0.6	0.0	-0.2	0.0	-0.2
U.S. Equity	7.6	7.7	-0.1	0.0	-0.1	0.0	-0.1
Non-U.S. Equity	0.3	-1.5	1.8	0.6	0.0	0.0	0.5
Core Fixed Income	-2.4	-3.3	0.8	0.1	0.2	0.0	0.3
Credit Opportunities	-2.6	-2.5	0.0	0.0	-0.1	0.0	-0.1
Real Assets	4.3	5.5	-1.2	-0.1	0.0	0.0	-0.2
Private Equity	21.1	16.9	4.2	0.5	0.1	0.0	0.6
LACERS Master Trust	4.7	4.0	0.8	1.1	-0.2	0.0	0.8

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, 2022**

	Wtd. Actual Return (%)	Wtd. Index Return (%)	Excess Return (%)	Selection Effect (%)	Allocation Effect (%)	Interaction Effects (%)	Total Effects (%)
Cash	3.5	1.1	2.3	0.0	-0.1	0.0	-0.1
U.S. Equity	8.4	8.6	-0.2	-0.1	0.0	0.0	-0.1
Non-U.S. Equity	0.5	-0.8	1.3	0.4	-0.1	0.0	0.3
Core Fixed Income	0.3	-0.3	0.5	0.1	0.1	0.0	0.2
Credit Opportunities	0.4	0.3	0.1	0.0	-0.1	0.0	-0.1
Real Assets	4.9	6.1	-1.3	-0.1	0.0	0.0	-0.2
Private Equity	18.0	16.2	1.8	0.2	-0.1	0.1	0.2
LACERS Master Trust	5.2	4.9	0.2	0.6	-0.2	0.0	0.2

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, 2022

Private Equity	10 Year IRR	Since Inception IRR	Since Inception Multiple
Aggregate Portfolio	15.2%	12.5%	1.69x
Core Portfolio	16.0%	13.0%	1.71x
Specialized Portfolio	2.1%	2.0%	1.13x
Russell 3000 + 300 bps	17.5%	13.4%	N/A

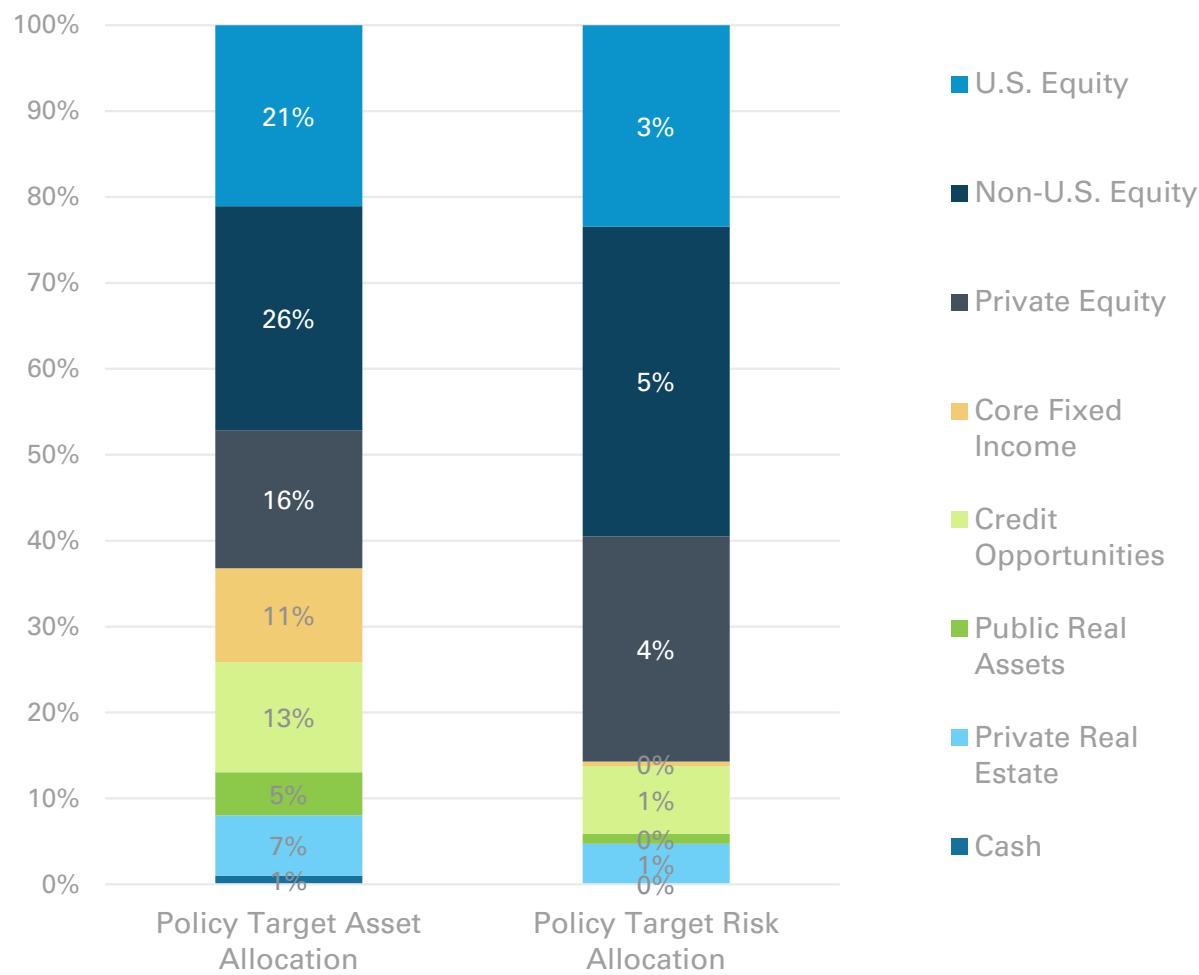
Real Estate	10 Year Return (Net)	Since Inception Return (Net)
Total Portfolio (TWR) ¹	9.74%	6.39%
NFI-ODCE + 80 basis points (TWR)	10.95%	7.58%

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, 2022

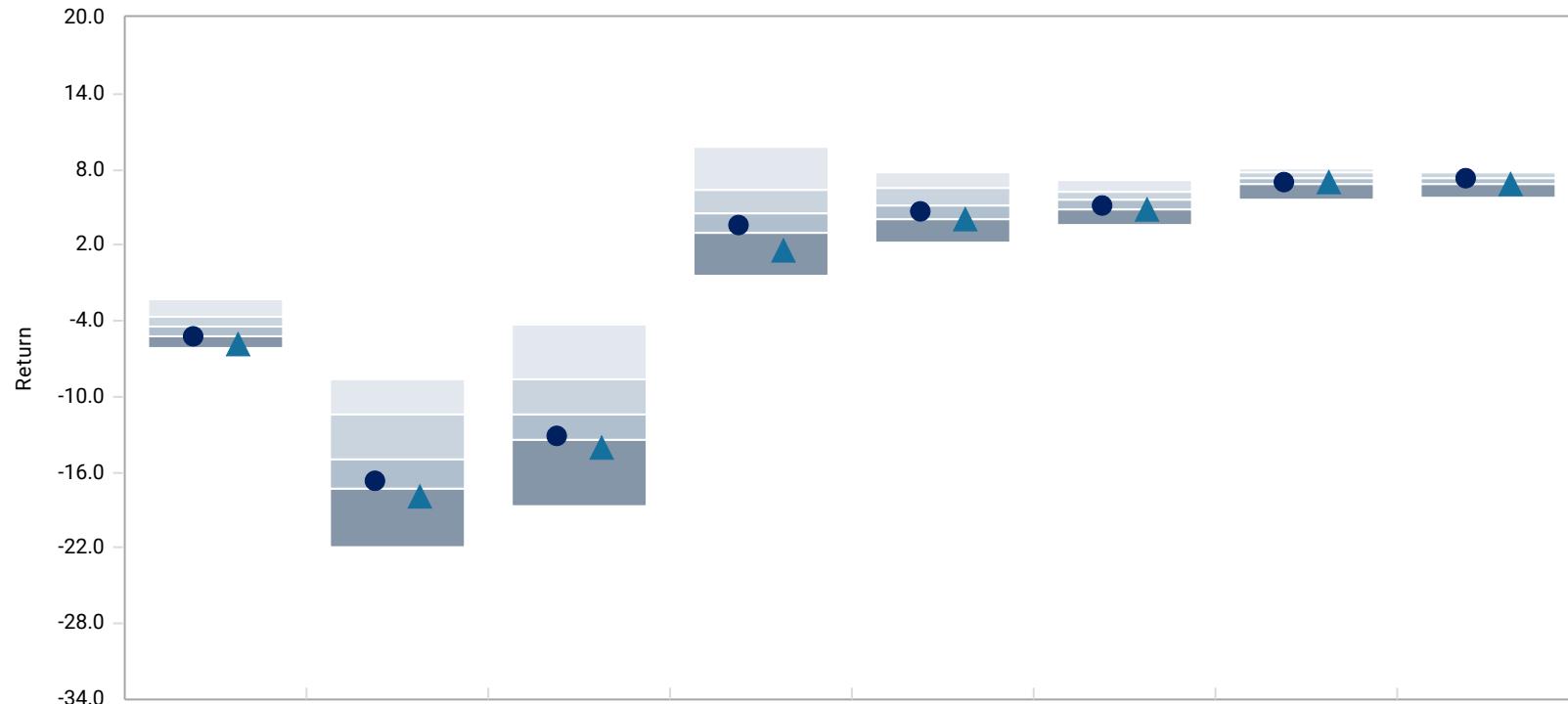
Public Markets Asset Class	Target Risk Budget	Actual 3 Yr Tracking Error
U.S. Equity	1.25%	1.26%
Non-U.S. Equity	1.75%	1.86%
Core Fixed Income	1.75%	0.55%
Credit Opportunities	3.50%	1.94%
Public Real Assets*	1.25%	4.57%

- 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.
- All equity public markets asset classes are within an appropriately narrow range of their respective risk budgets.
- Both Core Fixed Income and Credit Opportunities have exhibited lower than expected active risk.
- The Public Real Assets composite is not at its target strategy allocation.
- 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

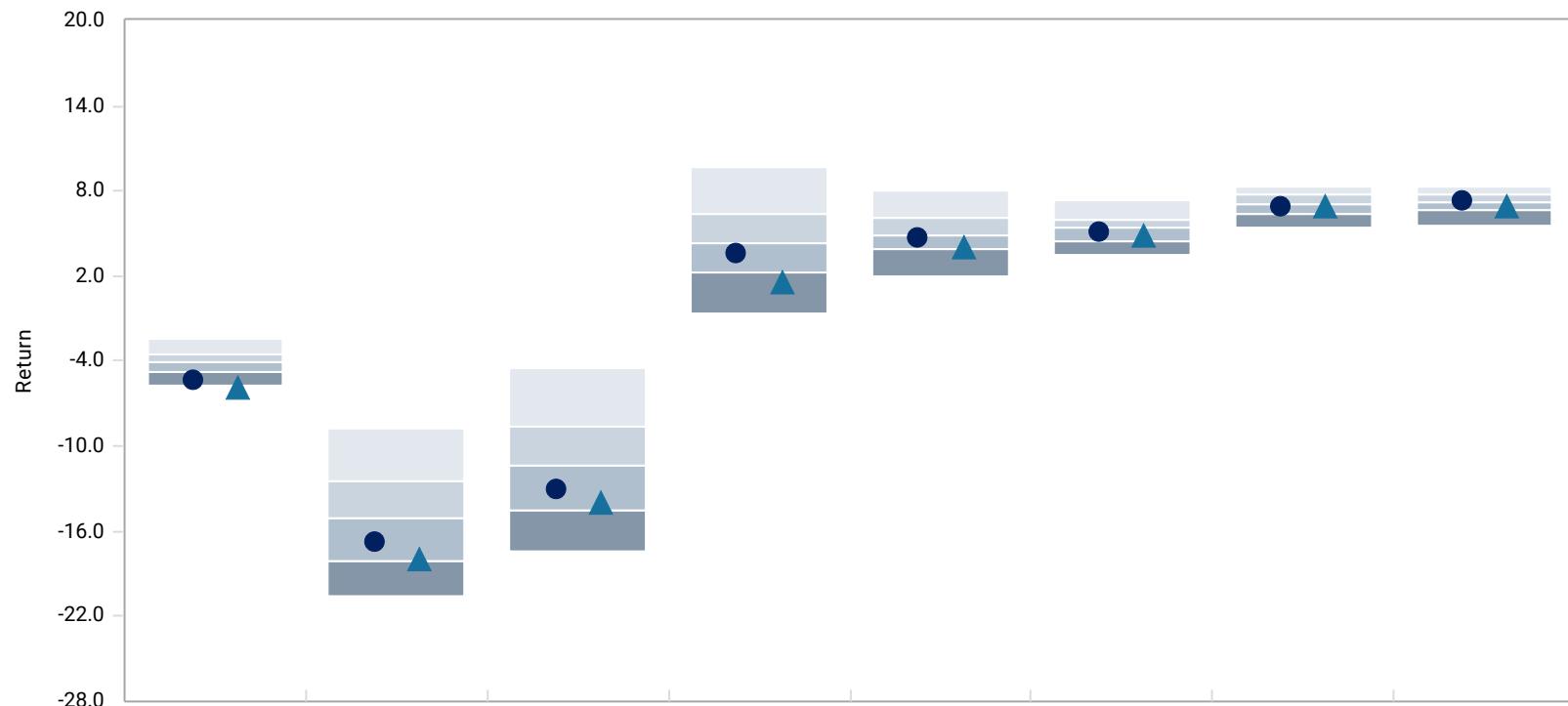
LACERS Master Trust vs. InvMetrics Public DB \$5-50B Gross



	3 Mo (%)	YTD (%)	1 Year (%)	2 Years (%)	3 Years (%)	5 Years (%)	7 Years (%)	10 Years (%)
● LACERS Master Trust	-5.3 (83)	-16.7 (68)	-13.1 (68)	3.6 (71)	4.7 (67)	5.2 (70)	7.0 (61)	7.3 (52)
▲ Policy Index	-5.9 (94)	-18.0 (78)	-14.0 (78)	1.6 (93)	4.1 (75)	4.9 (76)	7.0 (67)	6.9 (71)
5th Percentile	-2.2	-8.6	-4.3	9.7	7.8	7.2	8.1	7.9
1st Quartile	-3.6	-11.4	-8.6	6.3	6.6	6.2	7.8	7.7
Median	-4.4	-15.0	-11.4	4.6	5.2	5.6	7.3	7.4
3rd Quartile	-5.2	-17.3	-13.4	3.0	4.1	4.9	6.9	6.9
95th Percentile	-6.1	-21.9	-18.7	-0.4	2.2	3.6	5.6	5.7
Population	29	29	29	28	28	27	26	26

RETURN SUMMARY VS. PEER UNIVERSE

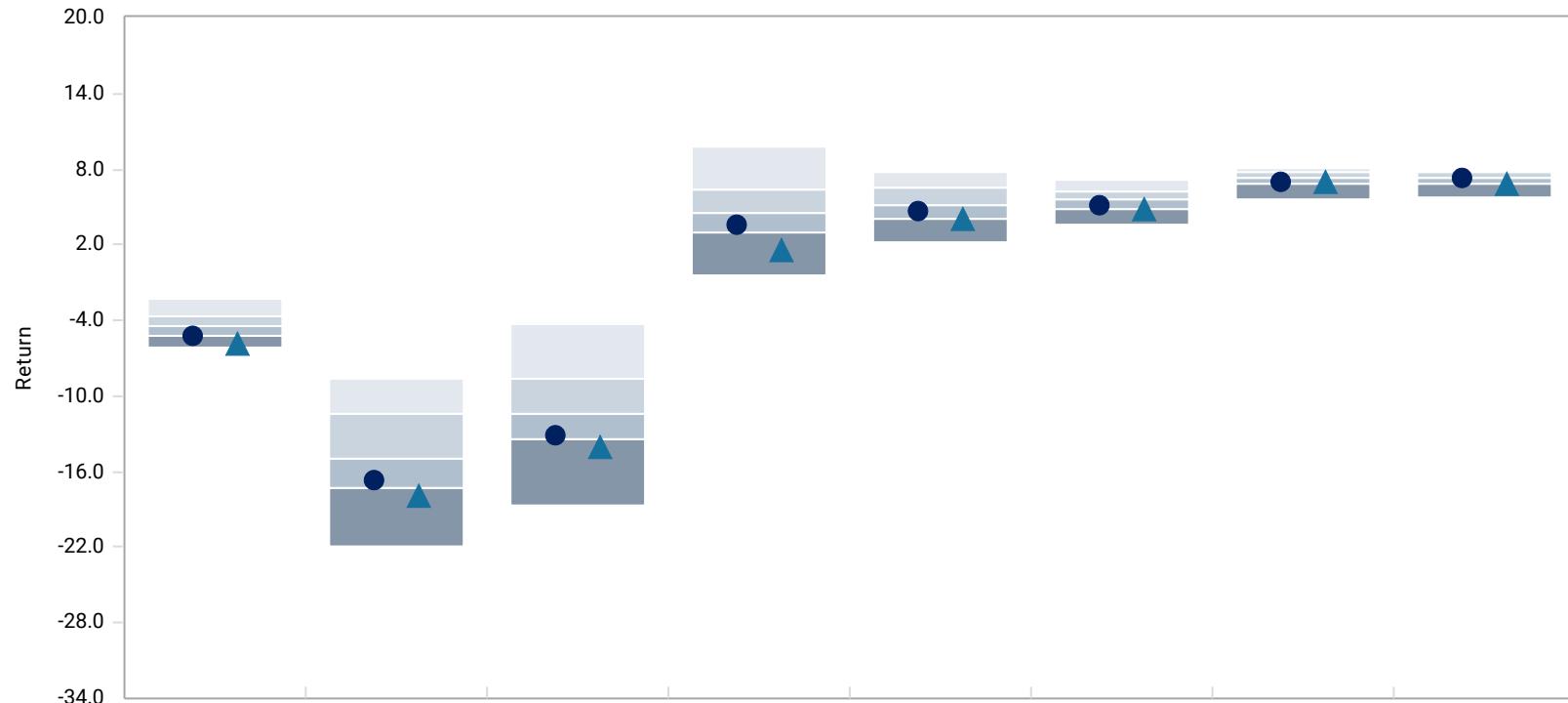
LACERS Master Trust vs. InvMetrics Public DB \$1-50B Gross



	3 Mo (%)	YTD (%)	1 Yr (%)	2 Yrs (%)	3 Yrs (%)	5 Yrs (%)	7 Yrs (%)	10 Yrs (%)
● LACERS Master Trust	-5.3 (88)	-16.7 (64)	-13.1 (60)	3.6 (58)	4.7 (53)	5.2 (56)	7.0 (54)	7.3 (46)
▲ Policy Index	-5.9 (97)	-18.0 (74)	-14.0 (71)	1.6 (89)	4.1 (70)	4.9 (62)	7.0 (57)	6.9 (63)
5th Percentile	-2.4	-8.8	-4.5	9.6	8.0	7.3	8.3	8.4
1st Quartile	-3.5	-12.4	-8.7	6.4	6.0	5.9	7.7	7.7
Median	-4.0	-15.1	-11.4	4.4	4.9	5.4	7.1	7.3
3rd Quartile	-4.7	-18.1	-14.5	2.2	3.9	4.5	6.4	6.6
95th Percentile	-5.7	-20.6	-17.4	-0.6	2.0	3.4	5.4	5.5
Population	72	72	71	70	70	69	68	67

RETURN SUMMARY VS. PEER UNIVERSE

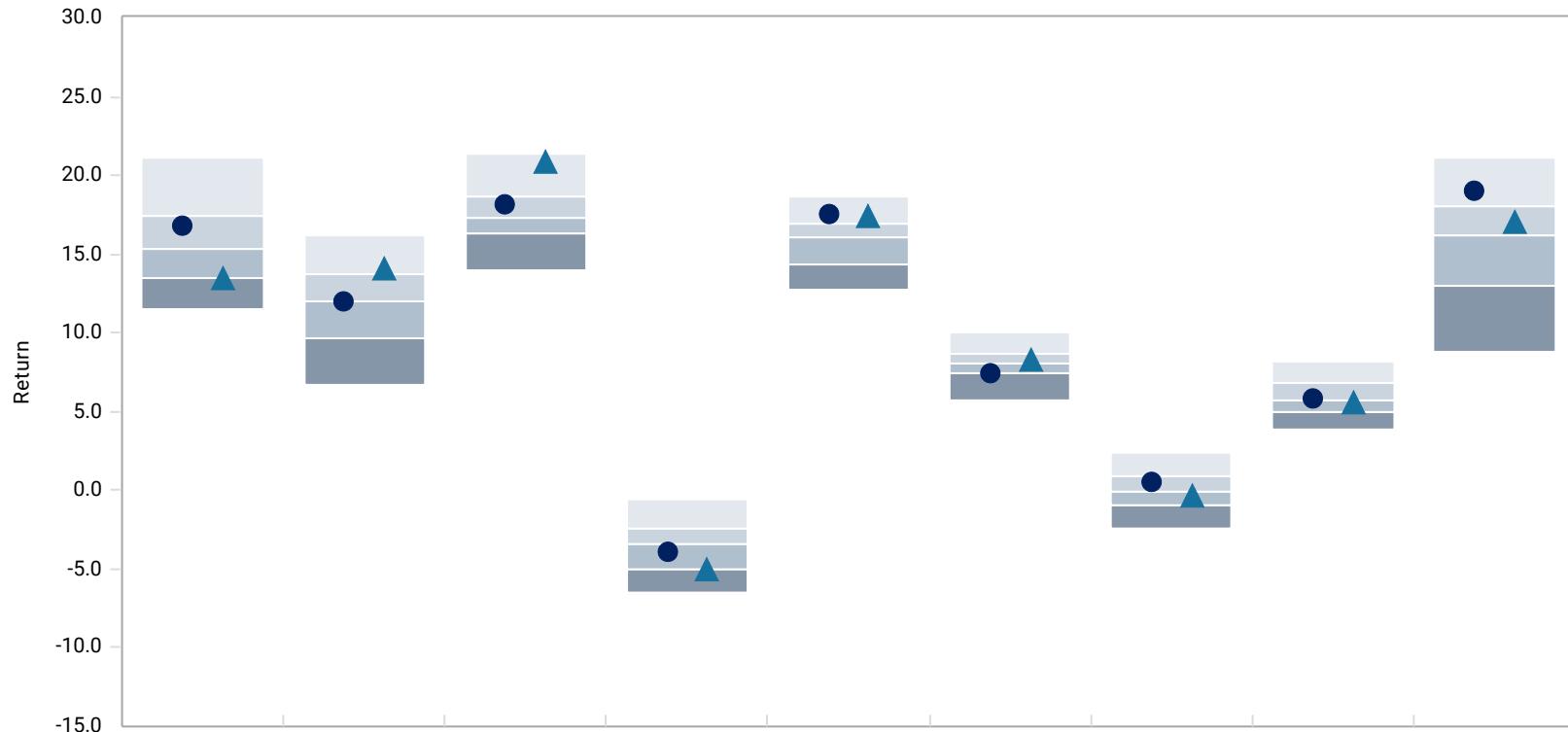
LACERS Master Trust vs. InvMetrics Public DB \$5-50B Gross



	3 Mo (%)	YTD (%)	1 Year (%)	2 Years (%)	3 Years (%)	5 Years (%)	7 Years (%)	10 Years (%)
● LACERS Master Trust	-5.3 (83)	-16.7 (68)	-13.1 (68)	3.6 (71)	4.7 (67)	5.2 (70)	7.0 (61)	7.3 (52)
▲ Policy Index	-5.9 (94)	-18.0 (78)	-14.0 (78)	1.6 (93)	4.1 (75)	4.9 (76)	7.0 (67)	6.9 (71)
5th Percentile	-2.2	-8.6	-4.3	9.7	7.8	7.2	8.1	7.9
1st Quartile	-3.6	-11.4	-8.6	6.3	6.6	6.2	7.8	7.7
Median	-4.4	-15.0	-11.4	4.6	5.2	5.6	7.3	7.4
3rd Quartile	-5.2	-17.3	-13.4	3.0	4.1	4.9	6.9	6.9
95th Percentile	-6.1	-21.9	-18.7	-0.4	2.2	3.6	5.6	5.7
Population	29	29	29	28	28	27	26	26

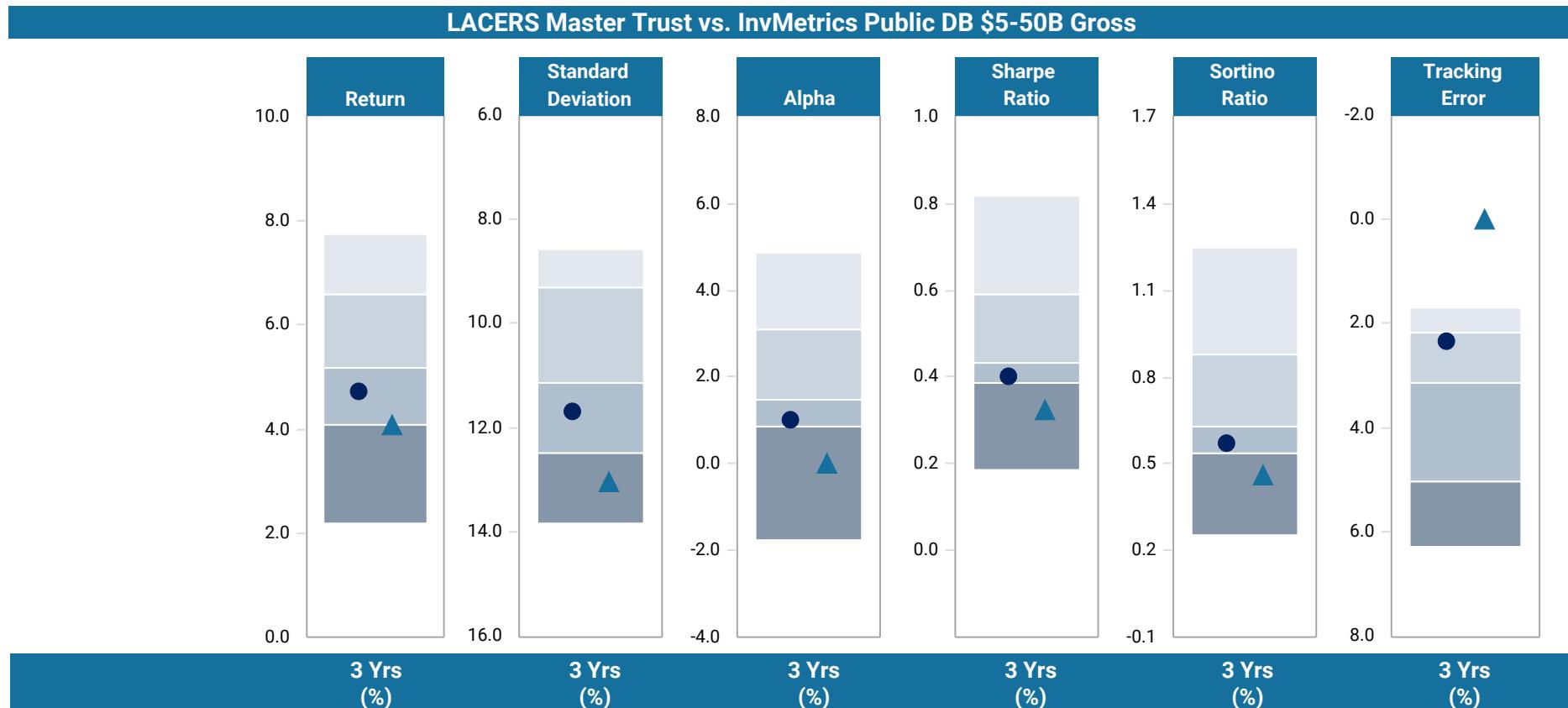
RETURN SUMMARY VS. PEER UNIVERSE

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



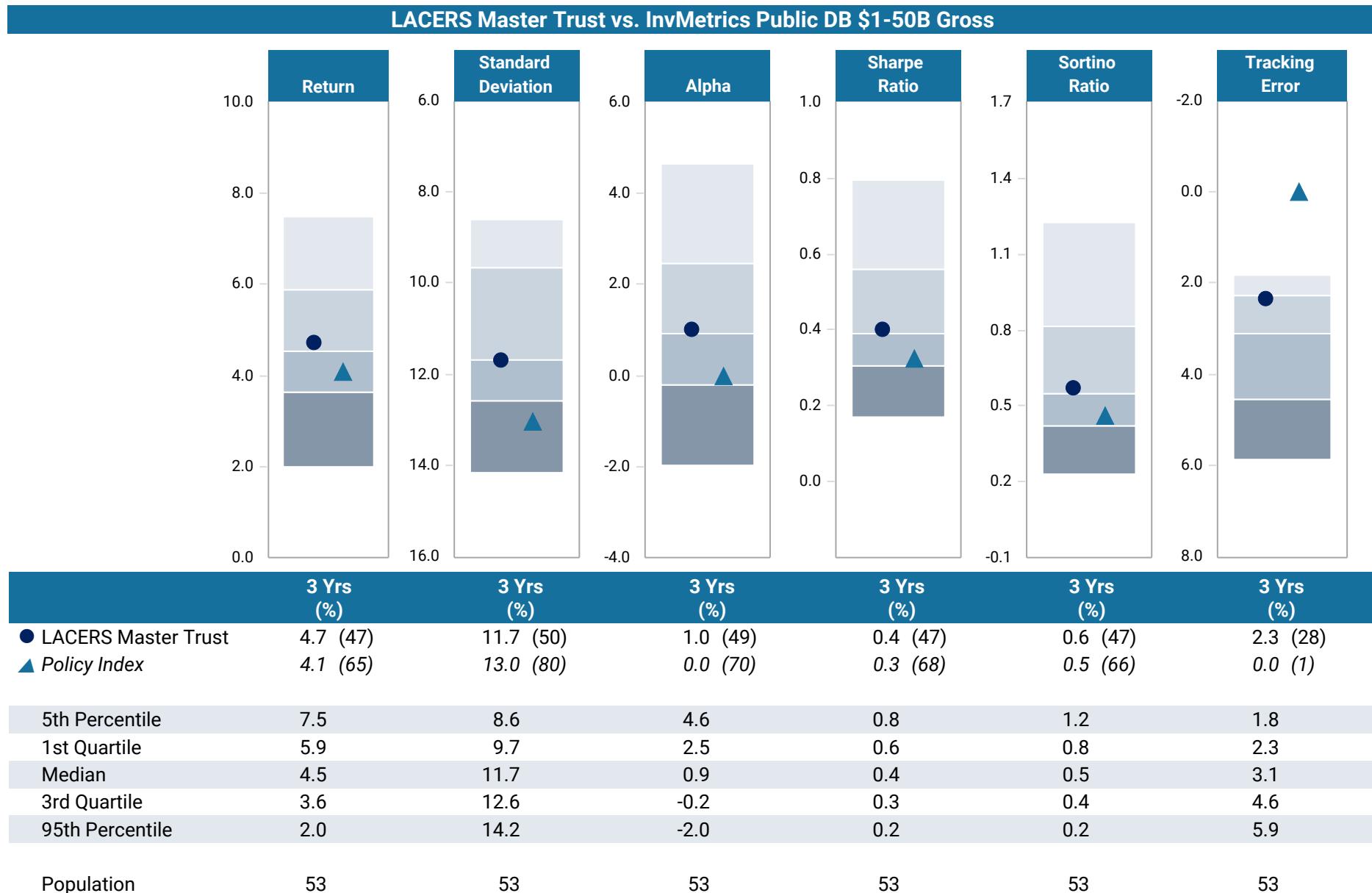
	2021	2020	2019	2018	2017	2016	2015	2014	2013
● LACERS Master Trust	16.8 (37)	12.1 (50)	18.1 (32)	-3.9 (57)	17.6 (15)	7.4 (76)	0.5 (34)	5.9 (48)	19.0 (18)
▲ Policy Index	13.5 (75)	14.1 (21)	20.9 (9)	-5.0 (76)	17.4 (15)	8.3 (35)	-0.4 (57)	5.6 (53)	17.1 (33)
5th Percentile	21.1	16.2	21.4	-0.6	18.7	10.0	2.3	8.2	21.1
1st Quartile	17.4	13.8	18.6	-2.4	17.0	8.6	1.0	6.9	18.0
Median	15.3	12.1	17.3	-3.5	16.1	8.0	-0.1	5.7	16.2
3rd Quartile	13.4	9.7	16.3	-5.0	14.4	7.4	-0.9	5.0	13.0
95th Percentile	11.5	6.7	13.9	-6.5	12.8	5.7	-2.4	3.8	8.7
Population	131	151	120	106	114	122	117	116	111

RISK STATISTICS VS. PEER UNIVERSE

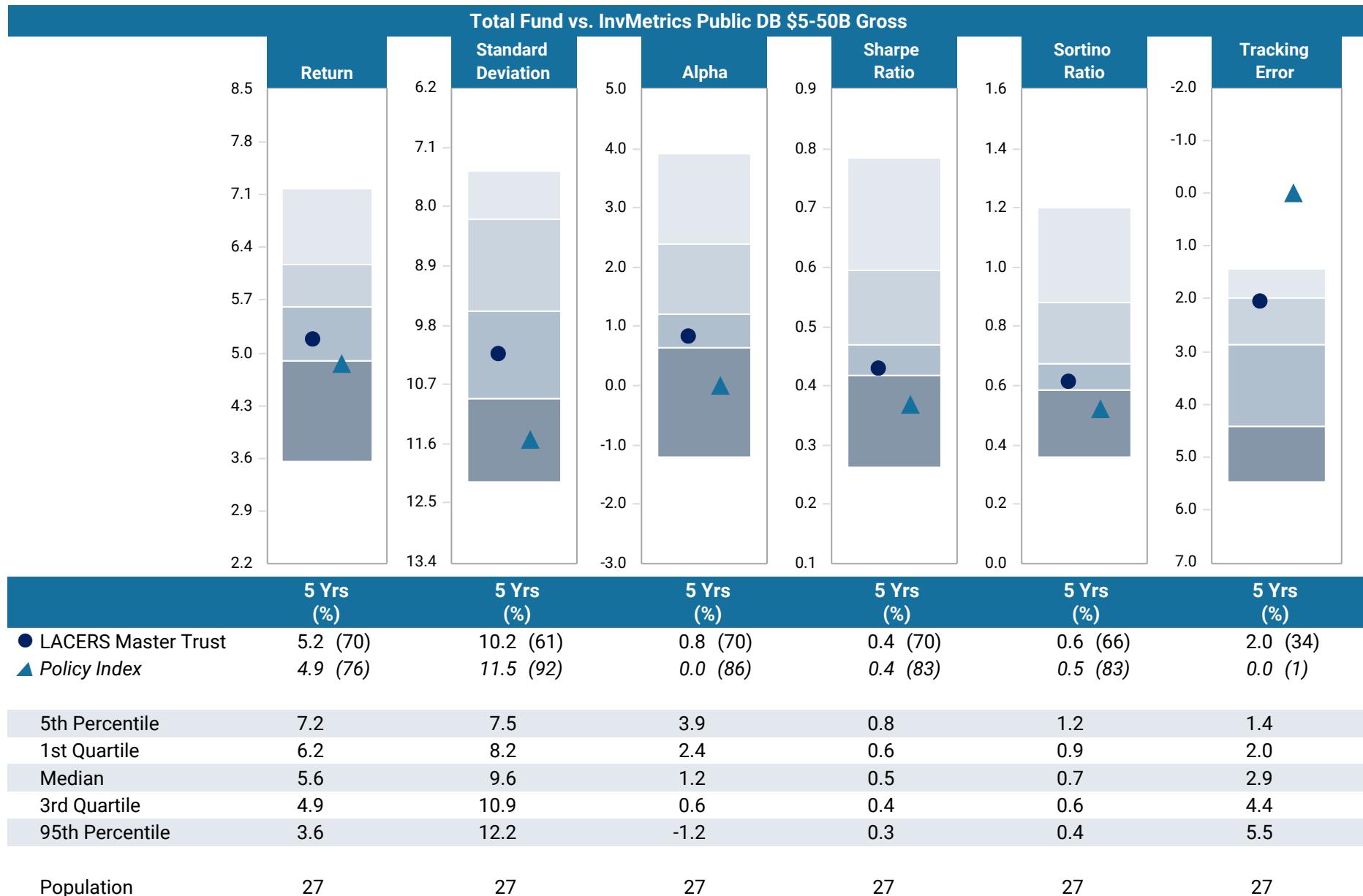


	3 Yrs (%)					
● LACERS Master Trust	4.7 (67)	11.7 (59)	1.0 (71)	0.4 (75)	0.6 (67)	2.3 (37)
▲ Policy Index	4.1 (75)	13.0 (84)	0.0 (82)	0.3 (81)	0.5 (81)	0.0 (1)
5th Percentile	7.8	8.6	4.9	0.8	1.2	1.7
1st Quartile	6.6	9.3	3.1	0.6	0.9	2.2
Median	5.2	11.1	1.5	0.4	0.6	3.2
3rd Quartile	4.1	12.5	0.8	0.4	0.5	5.1
95th Percentile	2.2	13.8	-1.7	0.2	0.3	6.3
Population	28	28	28	28	28	28

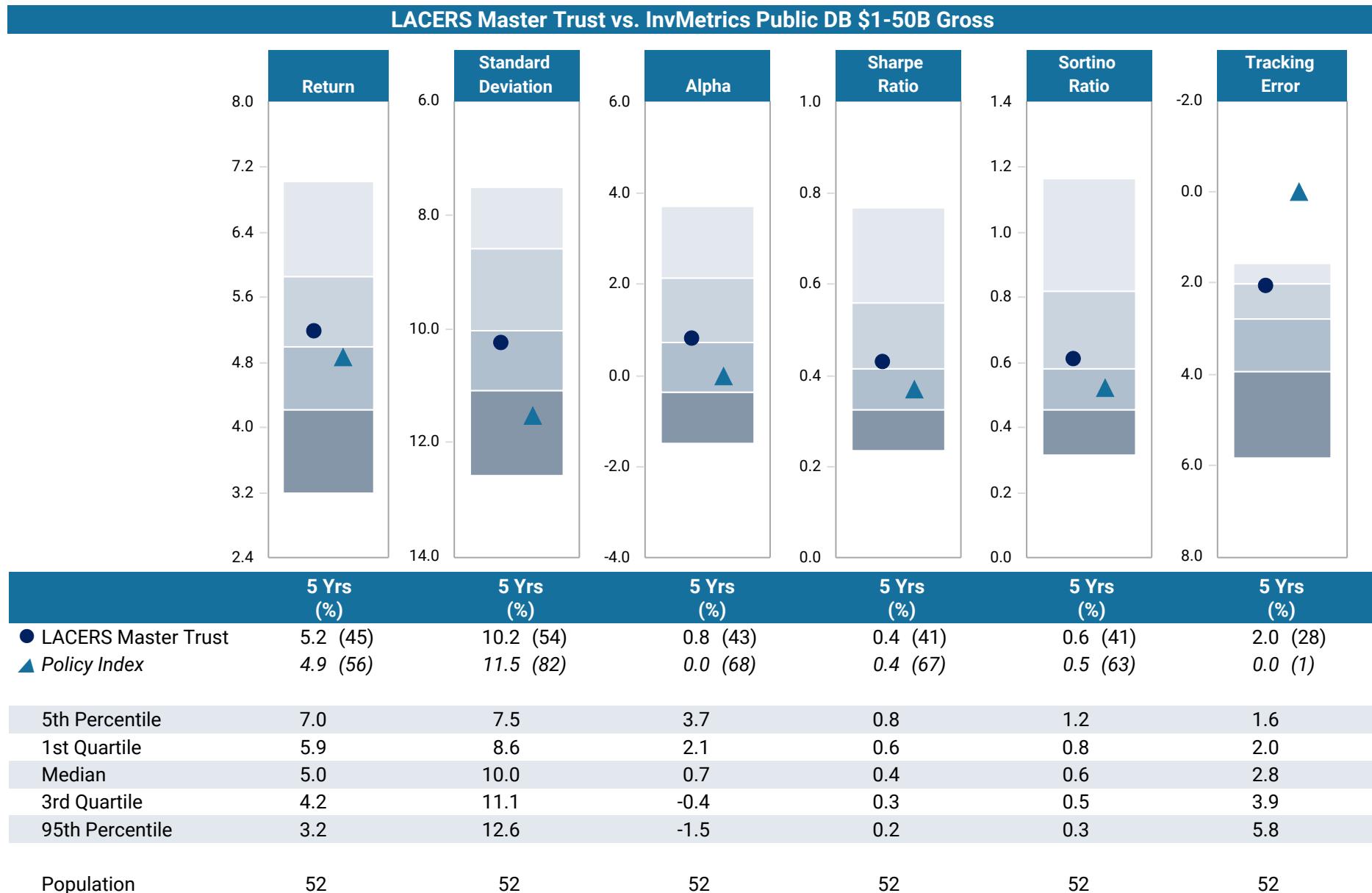
RISK STATISTICS VS. PEER UNIVERSE



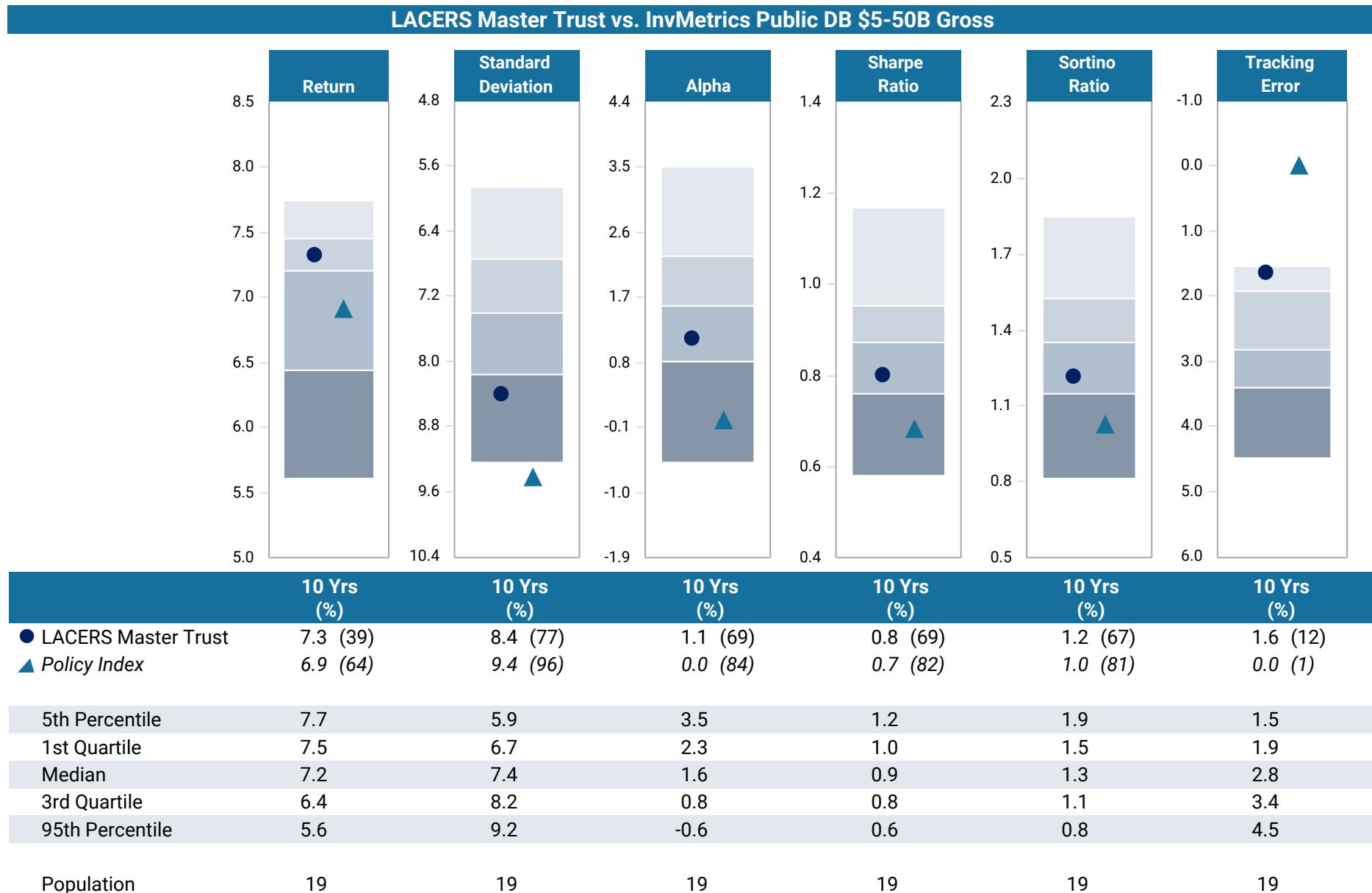
RISK STATISTICS VS. PEER UNIVERSE



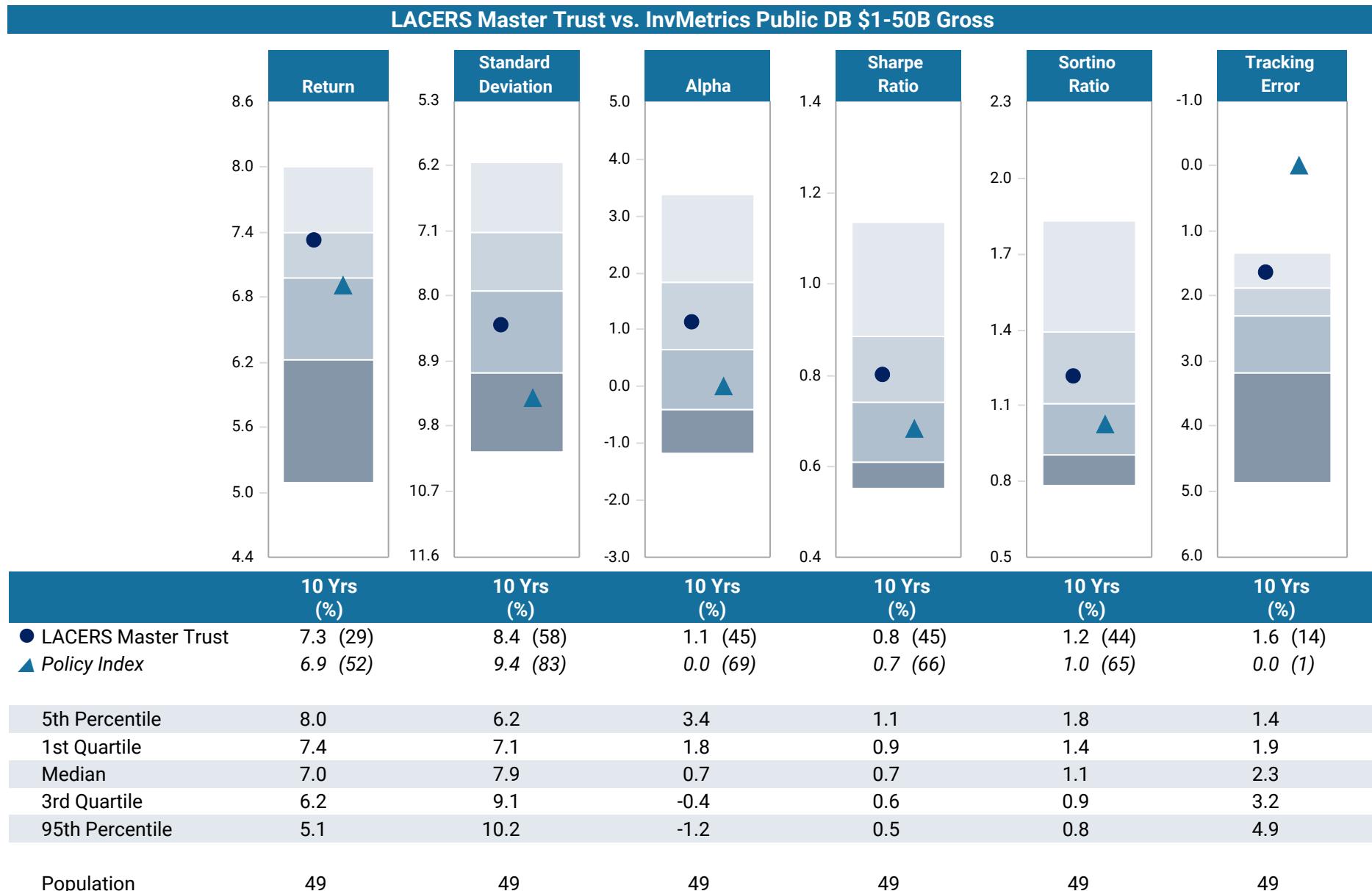
RISK STATISTICS VS. PEER UNIVERSE



RISK STATISTICS VS. PEER UNIVERSE

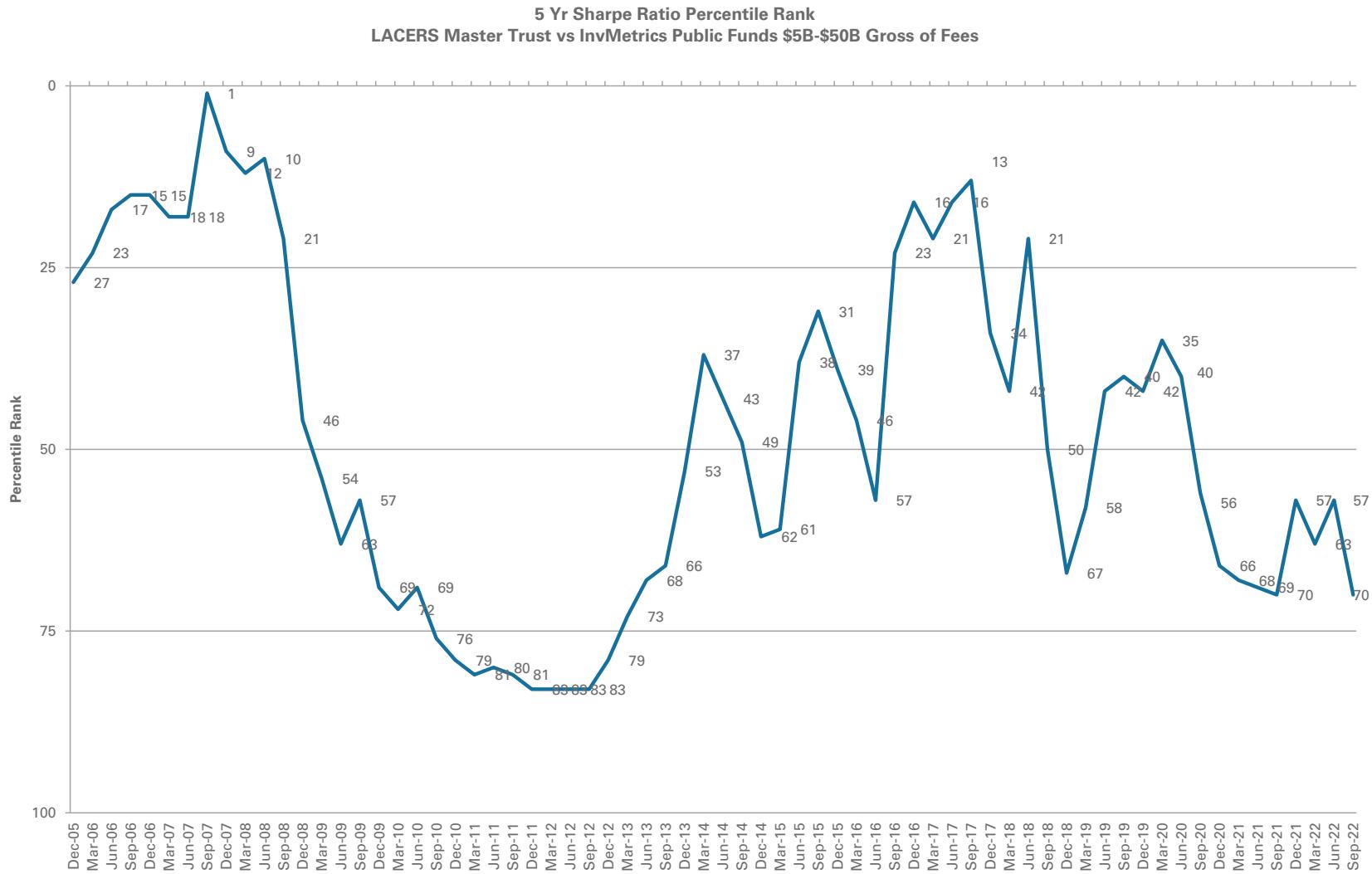


RISK STATISTICS VS. PEER UNIVERSE



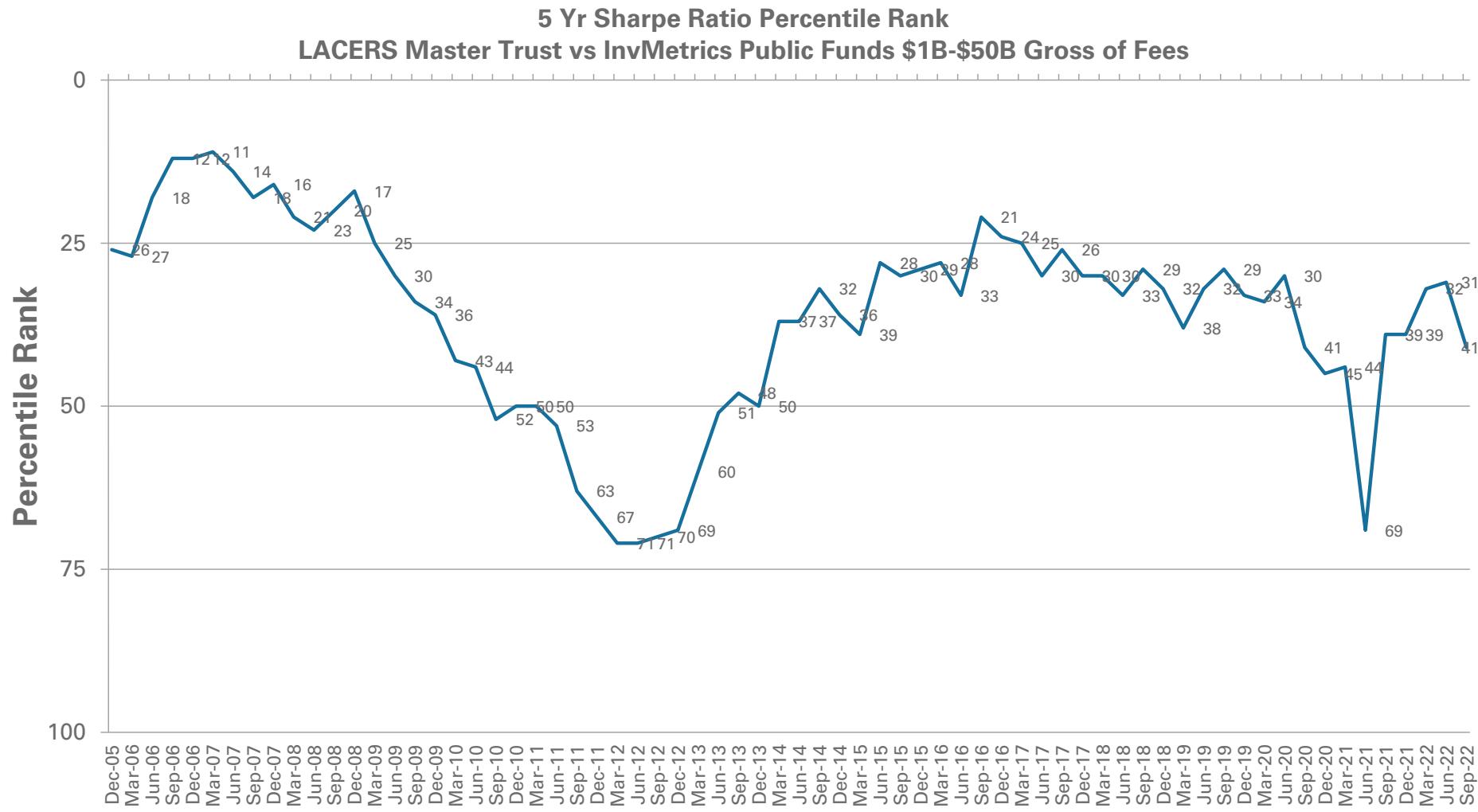
HISTORICAL RISK ADJUSTED RETURN

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



HISTORICAL RISK ADJUSTED RETURN

UNIVERSE COMPARISON (\$1-\$50 B 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	3,884,354,448	100.00		-3.99	-24.02	-16.85	7.60	8.42	11.44	8.13	Sep-01
U.S. Equity Blend				-4.46	-24.62	-17.63	7.70	8.62	11.39	7.84	
Over/Under				0.47	0.60	0.78	-0.10	-0.20	0.05	0.29	
RhumbLine Advisers Russell 2000	267,782,702	6.89		-2.16	-24.99	-23.36	4.35	3.62		5.24	Apr-15
Russell 2000 Index				-2.19	-25.10	-23.50	4.29	3.55	8.55	5.25	
Over/Under				0.03	0.11	0.14	0.06	0.07		-0.01	
Rhumbline Advisers Russell 2000 Value	125,085,796	3.22		-4.56	-21.05	-17.60				0.67	Jan-21
Russell 2000 Value Index				-4.61	-21.12	-17.69	4.72	2.87	7.94	0.67	
Over/Under				0.05	0.07	0.09				0.00	
EAM Investors	80,823,363	2.08		-1.43	-32.72	-29.12	4.06	7.00		8.67	Oct-15
Russell 2000 Growth Index				0.24	-29.28	-29.27	2.94	3.60	8.81	7.12	
Over/Under				-1.67	-3.44	0.15	1.12	3.40		1.55	
Principal Global Investors	254,207,141	6.54		-2.94	-27.95	-20.24	5.08	9.52		10.98	Aug-14
Russell Midcap Index				-3.44	-24.27	-19.39	5.19	6.48	10.30	7.62	
Over/Under				0.50	-3.68	-0.85	-0.11	3.04		3.36	
RhumbLine Advisers S&P 500	2,749,558,158	70.79		-4.66	-23.63	-15.20	8.18	9.22	11.67	6.09	Sep-00
S&P 500 Index				-4.88	-23.87	-15.47	8.16	9.24	11.70	5.99	
Over/Under				0.22	0.24	0.27	0.02	-0.02	-0.03	0.10	
Copeland Capital Management	204,844,107	5.27		-3.42	-20.76	-14.03				10.30	Oct-20
Russell 2000 Index				-2.19	-25.10	-23.50	4.29	3.55	8.55	6.29	
Over/Under				-1.23	4.34	9.47				4.01	
Granahan Investment Management	106,427,491	2.74		7.31	-35.03	-43.01				-5.37	Oct-20
Russell 2000 Growth Index				0.24	-29.28	-29.27	2.94	3.60	8.81	-2.91	
Over/Under				7.07	-5.75	-13.74				-2.46	
Segall, Bryant & Hamill	95,612,590	2.46		-7.47	-23.10	-19.32				7.74	Oct-20
Russell 2000 Value Index				-4.61	-21.12	-17.69	4.72	2.87	7.94	16.16	
Over/Under				-2.86	-1.98	-1.63				-8.42	

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	3,884,354,448	100.00		-4.01	-24.07	-16.92	7.53	8.34	11.33	7.94	Sep-01
U.S. Equity Blend				-4.46	-24.62	-17.63	7.70	8.62	11.39	7.84	
Over/Under		0.45		0.55	0.71	-0.17	-0.28	-0.06		0.10	
All Public Plans > \$1B-US Equity Segment Median											
RhumbLine Advisers Russell 2000	267,782,702	6.89		-2.16 (31)	-24.99 (55)	-23.36 (65)	4.35 (67)	3.61 (67)		5.23 (65)	Apr-15
Russell 2000 Index				-2.19 (32)	-25.10 (55)	-23.50 (65)	4.29 (67)	3.55 (68)	8.55 (69)	5.25 (65)	
Over/Under		0.03		0.11	0.14	0.06	0.06	0.06		-0.02	
eV US Small Cap Equity Median				-3.42	-24.17	-19.84	5.61	4.79	9.31	6.07	
Rhumline Advisers Russell 2000 Value	125,085,796	3.22		-4.57 (45)	-21.06 (60)	-17.60 (74)				0.67 (64)	Jan-21
Russell 2000 Value Index				-4.61 (45)	-21.12 (60)	-17.69 (74)	4.72 (63)	2.87 (79)	7.94 (75)	0.67 (63)	
Over/Under		0.04		0.06	0.09					0.00	
eV US Small-Mid Cap Value Equity Median				-4.85	-19.60	-13.86	5.51	4.44	8.78	2.03	
EAM Investors	80,823,363	2.08		-1.60 (58)	-33.11 (65)	-29.65 (47)	3.34 (79)	6.25 (67)		7.91 (78)	Oct-15
Russell 2000 Growth Index				0.24 (30)	-29.28 (34)	-29.27 (45)	2.94 (84)	3.60 (86)	8.81 (88)	7.12 (85)	
Over/Under		-1.84		-3.83	-0.38	0.40	2.65			0.79	
eV US Small Cap Growth Equity Median				-1.27	-31.47	-30.14	5.62	7.59	10.45	9.83	
Principal Global Investors	254,207,141	6.54		-3.02 (42)	-28.16 (64)	-20.54 (59)	4.72 (60)	9.13 (14)		10.59 (6)	Aug-14
Russell Midcap Index				-3.44 (52)	-24.27 (53)	-19.39 (56)	5.19 (54)	6.48 (49)	10.30 (41)	7.62 (48)	
Over/Under		0.42		-3.89	-1.15	-0.47	2.65			2.97	
eV US Mid Cap Equity Median				-3.39	-23.47	-17.57	5.42	6.35	10.01	7.54	
RhumbLine Advisers S&P 500	2,749,558,158	70.79		-4.66 (38)	-23.63 (57)	-15.20 (51)	8.17 (26)	9.22 (28)	11.67 (25)	N/A	Sep-00
S&P 500 Index				-4.88 (44)	-23.87 (58)	-15.47 (52)	8.16 (26)	9.24 (28)	11.70 (25)		
Over/Under		0.22		0.24	0.27	0.01	-0.02	-0.03			
eV US Large Cap Equity Median				-5.13	-22.54	-15.10	6.49	7.62	10.42		

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	204,844,107	5.27	-3.53 (52)	-21.04 (29)	-14.43 (22)				9.91 (48)	Oct-20
Russell 2000 Index			-2.19 (32)	-25.10 (55)	-23.50 (65)	4.29 (67)	3.55 (68)	8.55 (69)	6.29 (65)	
Over/Under			-1.34	4.06	9.07				3.62	
eV US Small Cap Equity Median			-3.42	-24.17	-19.84	5.61	4.79	9.31	9.51	
Granahan Investment Management	106,427,491	2.74	7.20 (2)	-35.39 (78)	-43.44 (96)				-5.99 (75)	Oct-20
Russell 2000 Growth Index			0.24 (30)	-29.28 (34)	-29.27 (45)	2.94 (84)	3.60 (86)	8.81 (88)	-2.91 (63)	
Over/Under			6.96	-6.11	-14.17				-3.08	
eV US Small Cap Growth Equity Median			-1.27	-31.47	-30.14	5.62	7.59	10.45	-1.15	
Segall, Bryant & Hamill	95,612,590	2.46	-7.58 (88)	-23.46 (82)	-19.82 (82)				7.14 (92)	Oct-20
Russell 2000 Value Index			-4.61 (49)	-21.12 (58)	-17.69 (74)	4.72 (58)	2.87 (63)	7.94 (63)	16.16 (44)	
Over/Under			-2.97	-2.34	-2.13				-9.02	
eV US Small Cap Value Equity Median			-4.82	-20.36	-14.89	5.15	3.42	8.56	15.23	

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	✓	✓	✗	✗	✗	✗	✓	✓	✓	1133.1	Performance compliant with LACERS' Manager Monitoring Policy
EAM Investors	Sep-15	Small Cap Growth	✗	✗	✗	✓	✓	✗	✓	✓	✓	760.6	Performance compliant with LACERS' Manager Monitoring Policy
Copeland	Oct-20	Small Cap Core	✗	✗	✓	✓	N/A	N/A	N/A	N/A	✓	1108.7	Newly hired manager pursuant to Section VIII.D of the Manager Monitoring Policy
Granahan	Oct-20	Small Cap Growth	✓	✓	✗	✗	N/A	N/A	N/A	N/A	✗	622.1	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	N/A	N/A	✗	565.8	Newly hired manager pursuant to Section VIII.D of the Manager Monitoring Policy. Placed on watch status for organizational change as of 2/9/21; removed from watch status as of 5/6/2022.
RhumbLine (Passive)	Dec-20	R2000 Value	✓	✓	✓	✗	N/A	N/A	N/A	N/A	=	8.426	Performance compliant with LACERS' Manager Monitoring Policy
RhumbLine (Passive)	Feb-93	S&P 500	✓	✓	✓	✗	✓	✓	✗	✓	✓✓	212.4	Performance compliant with LACERS' Manager Monitoring Policy
RhumbLine (Passive)	Jun-15	R2000	✓	✓	✓	✗	✓	✗	✓	✗	✗	18.2	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, 2022.
- * 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	4,888,885,269	100.00		-9.63	-27.50	-26.35	0.31	0.47	4.60	4.57	Nov-94
MSCI AC World ex USA (Net)				<u>-9.91</u>	<u>-26.50</u>	<u>-25.17</u>	<u>-1.52</u>	<u>-0.81</u>	<u>3.01</u>	<u>4.21</u>	
Over/Under				0.28	-1.00	-1.18	1.83	1.28	1.59	0.36	
Developed ex-U.S.	3,462,412,361	70.82		-9.59	-26.80	-25.48	0.11	0.62	4.88	5.51	Jul-12
MSCI EAFE (Net)				<u>-9.36</u>	<u>-27.09</u>	<u>-25.13</u>	<u>-1.83</u>	<u>-0.84</u>	<u>3.67</u>	<u>4.25</u>	
Over/Under				-0.23	0.29	-0.35	1.94	1.46	1.21	1.26	
Barrow Hanley	429,003,070	8.78		-13.52	-16.29	-14.75	3.51	1.50	-	2.77	Dec-13
MSCI EAFE Value Index (Net)				<u>-10.20</u>	<u>-21.08</u>	<u>-20.16</u>	<u>-2.79</u>	<u>-2.74</u>	-	<u>-0.32</u>	
Over/Under				-3.32	4.79	5.41	6.30	4.24	-	3.09	
Lazard Asset Management	451,093,285	9.23		-9.54	-26.73	-26.90	-1.73	0.57	-	2.27	Dec-13
MSCI EAFE (Net)				<u>-9.36</u>	<u>-27.09</u>	<u>-25.13</u>	<u>-1.83</u>	<u>-0.84</u>	-	<u>1.21</u>	
Over/Under				-0.18	0.36	-1.77	0.10	1.41	-	1.06	
MFS Institutional Advisors	470,181,149	9.62		-6.35	-24.66	-21.10	1.56	3.68	-	4.94	Nov-13
MSCI World ex USA Growth NR USD				<u>-8.14</u>	<u>-32.33</u>	<u>-29.44</u>	<u>-1.14</u>	<u>0.85</u>	-	<u>2.56</u>	
Over/Under				1.79	7.67	8.34	2.70	2.83	-	2.38	
Oberweis Asset Mgmt	271,907,449	5.56		-11.96	-43.88	-46.02	1.93	0.51	-	4.74	Feb-14
MSCI EAFE Small Cap (Net)				<u>-9.83</u>	<u>-32.11</u>	<u>-32.06</u>	<u>-2.16</u>	<u>-1.79</u>	-	<u>2.50</u>	
Over/Under				-2.13	-11.77	-13.96	4.09	2.30	-	2.24	
SSgA World ex US IMI	1,578,776,713	32.29		-9.13	-26.56	-24.51	-0.56	0.08	4.28	3.83	Jul-98
MSCI World ex U.S. IMI Index (Net)				<u>-9.23</u>	<u>-26.97</u>	<u>-24.99</u>	<u>-1.23</u>	<u>-0.53</u>	<u>3.77</u>	<u>3.84</u>	
Over/Under				0.10	0.41	0.48	0.67	0.61	0.51	<u>-0.01</u>	
State Street EAFE SC	261,450,693	5.35		-9.65	-31.65	-31.61	-	-	-	<u>-14.99</u>	Jan-21
MSCI EAFE Small Cap (Net)				<u>-9.83</u>	<u>-32.11</u>	<u>-32.06</u>	-	-	-	<u>-15.34</u>	
Over/Under				0.18	0.46	0.45	-	-	-	0.35	

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	1,426,472,908	29.18		-10.01	-29.74	-29.07	0.53	-0.34	1.77	2.49	Jul-12
<i>MSCI Emerging Markets (Net)</i>				<i>-11.57</i>	<i>-27.16</i>	<i>-28.11</i>	<i>-2.07</i>	<i>-1.81</i>	<i>1.05</i>	<i>1.76</i>	
Over/Under				1.56	-2.58	-0.96	2.60	1.47	0.72	0.73	
Axiom Emerging Markets	255,596,907	5.23		-14.09	-34.75	-35.69	-1.97	-1.37	-	2.03	May-14
<i>MSCI Emerging Markets (Net)</i>				<i>-11.57</i>	<i>-27.16</i>	<i>-28.11</i>	<i>-2.07</i>	<i>-1.81</i>	-	<i>0.92</i>	
Over/Under				-2.52	-7.59	-7.58	0.10	0.44	-	1.11	
<i>MSCI Emerging Markets Growth (Net)</i>				<i>-12.13</i>	<i>-30.65</i>	<i>-32.09</i>	<i>-1.75</i>	<i>-1.64</i>	-	<i>2.09</i>	
Over/Under				-1.96	-4.10	-3.60	-0.22	0.27	-	-0.06	
DFA Emerging Markets	419,409,055	8.58		-9.83	-19.44	-19.05	1.74	0.03	-	0.43	Aug-14
<i>MSCI Emerging Markets Value (Net)</i>				<i>-10.95</i>	<i>-23.32</i>	<i>-23.63</i>	<i>-2.57</i>	<i>-2.13</i>	-	<i>-1.48</i>	
Over/Under				1.12	3.88	4.58	4.31	2.16	-	1.91	
State Street Emerging Markets	499,593,393	10.22		-12.14	-27.55	-28.28	-	-	-	-15.44	Jan-21
<i>MSCI Emerging Markets (Net)</i>				<i>-11.57</i>	<i>-27.16</i>	<i>-28.11</i>	-	-	-	<i>-17.80</i>	
Over/Under				-0.57	-0.39	-0.17	-	-	-	2.36	
Wasatch Global Investors	251,715,784	5.15		-4.26	-40.86	-37.04	-	-	-	-11.66	Jan-21
<i>MSCI Emerging Markets Small Cap (Net)</i>				<i>-5.25</i>	<i>-24.23</i>	<i>-23.23</i>	-	-	-	<i>-5.87</i>	
Over/Under				0.99	-16.63	-13.81	-	-	-	-5.79	
Sanctioned Asset	157,580	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	4,888,885,269	100.00		-9.69 (53)	-27.69 (41)	-26.60 (47)	-0.03 (39)	0.12 (36)	4.25 (49)	5.02 (50)	Jun-01
MSCI AC World ex USA (Net)				<u>-9.91</u> (56)	<u>-26.50</u> (31)	<u>-25.17</u> (33)	<u>-1.52</u> (64)	<u>-0.81</u> (61)	<u>3.01</u> (82)	<u>4.27</u> (76)	
Over/Under				0.22	-1.19	-1.43	1.49	0.93	1.24	0.75	
eV All ACWI ex-US Equity Median				-9.65	-29.00	-27.20	-0.79	-0.46	4.22	5.00	
Developed ex-U.S.	3,462,412,361	70.82		-9.65	-26.94	-25.67	-0.16	0.32	4.59	5.23	Jul-12
MSCI EAFE (Net)				<u>-9.36</u>	<u>-27.09</u>	<u>-25.13</u>	<u>-1.83</u>	<u>-0.84</u>	<u>3.67</u>	<u>4.25</u>	
Over/Under				-0.29	0.15	-0.54	1.67	1.16	0.92	0.98	
Barrow Hanley	429,003,070	8.78		<u>-13.62</u> (91)	<u>-16.57</u> (4)	<u>-15.14</u> (5)	3.04 (2)	1.02 (5)	-	2.27 (11)	Dec-13
MSCI EAFE Value Index (Net)				<u>-10.20</u> (41)	<u>-21.08</u> (26)	<u>-20.16</u> (27)	<u>-2.79</u> (63)	<u>-2.74</u> (65)	-	<u>-0.32</u> (79)	
Over/Under				-3.42	4.51	5.02	5.83	3.76	-	2.59	
eV EAFE Value Equity Median				-10.73	-23.65	-22.90	-1.74	-2.04	-	0.57	
Lazard Asset Management	451,093,285	9.23		<u>-9.65</u> (46)	<u>-27.00</u> (41)	<u>-27.26</u> (62)	<u>-2.20</u> (66)	0.07 (26)	-	1.76 (47)	Dec-13
MSCI EAFE (Net)				<u>-9.36</u> (38)	<u>-27.09</u> (42)	<u>-25.13</u> (41)	<u>-1.83</u> (59)	<u>-0.84</u> (47)	-	<u>1.21</u> (65)	
Over/Under				-0.29	0.09	-2.13	-0.37	0.91	-	0.55	
eV All EAFE Equity Median				-9.87	-27.98	-26.03	-1.44	-0.98	-	1.58	
MFS Institutional Advisors	470,181,149	9.62		<u>-6.44</u> (1)	<u>-24.89</u> (1)	<u>-21.43</u> (1)	1.16 (16)	3.24 (1)	-	4.43 (1)	Nov-13
MSCI World ex USA Growth NR USD				<u>-8.14</u> (24)	<u>-32.33</u> (37)	<u>-29.44</u> (31)	<u>-1.14</u> (43)	<u>0.85</u> (32)	-	<u>2.56</u> (42)	
Over/Under				1.70	7.44	8.01	2.30	2.39	-	1.87	
eV EAFE All Cap Growth Median				-8.53	-32.94	-31.27	-2.54	0.26	-	2.48	
Oberweis Asset Mgmt	271,907,449	5.56		<u>-12.09</u> (95)	<u>-44.22</u> (96)	<u>-46.46</u> (97)	1.12 (16)	<u>-0.31</u> (19)	-	3.86 (7)	Feb-14
MSCI EAFE Small Cap (Net)				<u>-9.83</u> (46)	<u>-32.11</u> (44)	<u>-32.06</u> (49)	<u>-2.16</u> (61)	<u>-1.79</u> (47)	-	<u>2.50</u> (40)	
Over/Under				-2.26	-12.11	-14.40	3.28	1.48	-	1.36	
eV EAFE Small Cap Equity Median				-9.93	-32.78	-32.69	-1.71	-2.15	-	2.15	

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	1,578,776,713	32.29	-9.13 (34)	-26.57 (28)	-24.53 (29)	-0.58 (31)	0.06 (24)	4.26 (46)	N/A	Jul-98	
<i>MSCI World ex U.S. IMI Index (Net)</i>			-9.23 (36)	-26.97 (35)	-24.99 (34)	-1.23 (46)	-0.53 (38)	3.77 (64)			
Over/Under		0.10	0.40	0.46	0.65	0.59	0.49				
eV EAFE Core Equity Median			-9.67	-28.32	-26.51	-1.46	-0.98	4.10			
State Street EAFE SC	261,450,693	5.35	-9.65 (43)	-31.67 (43)	-31.64 (44)	-	-	-	-15.02 (50)	Jan-21	
<i>MSCI EAFE Small Cap (Net)</i>			-9.83 (46)	-32.11 (44)	-32.06 (49)	-	-	-	-15.34 (53)		
Over/Under		0.18	0.44	0.42	-	-	-	0.32			
eV EAFE Small Cap Equity Median			-9.93	-32.78	-32.69	-	-	-	-15.15		
Emerging Markets	1,426,472,908	29.18	-10.10	-30.08	-29.50	0.03	-0.86	1.19	1.90	Jul-12	
<i>MSCI Emerging Markets (Net)</i>			-11.57	-27.16	-28.11	-2.07	-1.81	1.05	1.76		
Over/Under		1.47	-2.92	-1.39	2.10	0.95	0.14	0.14			
Axiom Emerging Markets	255,596,907	5.23	-14.25 (98)	-35.19 (94)	-36.24 (93)	-2.66 (68)	-2.07 (60)	-	1.34 (48)	May-14	
<i>MSCI Emerging Markets (Net)</i>			-11.57 (71)	-27.16 (47)	-28.11 (50)	-2.07 (60)	-1.81 (56)	-	0.92 (62)		
Over/Under		-2.68	-8.03	-8.13	-0.59	-0.26	-	0.42			
eV Emg Mkts Equity Median			-10.05	-27.34	-28.11	-1.37	-1.52	-	1.25		
<i>MSCI Emerging Markets Growth (Net)</i>			-12.13 (80)	-30.65 (75)	-32.09 (76)	-1.75 (56)	-1.64 (52)	-	2.09 (30)		
Over/Under		-2.12	-4.54	-4.15	-0.91	-0.43	-	-0.75			
DFA Emerging Markets	419,409,055	8.58	-9.91 (50)	-19.69 (10)	-19.40 (10)	1.27 (26)	-0.45 (32)	-	-0.04 (65)	Aug-14	
<i>MSCI Emerging Markets Value (Net)</i>			-10.95 (63)	-23.32 (22)	-23.63 (25)	-2.57 (67)	-2.13 (62)	-	-1.48 (92)		
Over/Under		1.04	3.63	4.23	3.84	1.68	-	1.44			
eV Emg Mkts Equity Median			-10.05	-27.34	-28.11	-1.37	-1.52	-	0.39		
State Street Emerging Markets	499,593,393	10.22	-12.15 (81)	-27.57 (53)	-28.30 (53)	-	-	-	-18.07 (57)	Jan-21	
<i>MSCI Emerging Markets (Net)</i>			-11.57 (71)	-27.16 (47)	-28.11 (50)	-	-	-	-17.80 (54)		
Over/Under		-0.58	-0.41	-0.19	-	-	-	-0.27			
eV Emg Mkts Equity Median			-10.05	-27.34	-28.11	-	-	-	-16.96		

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.

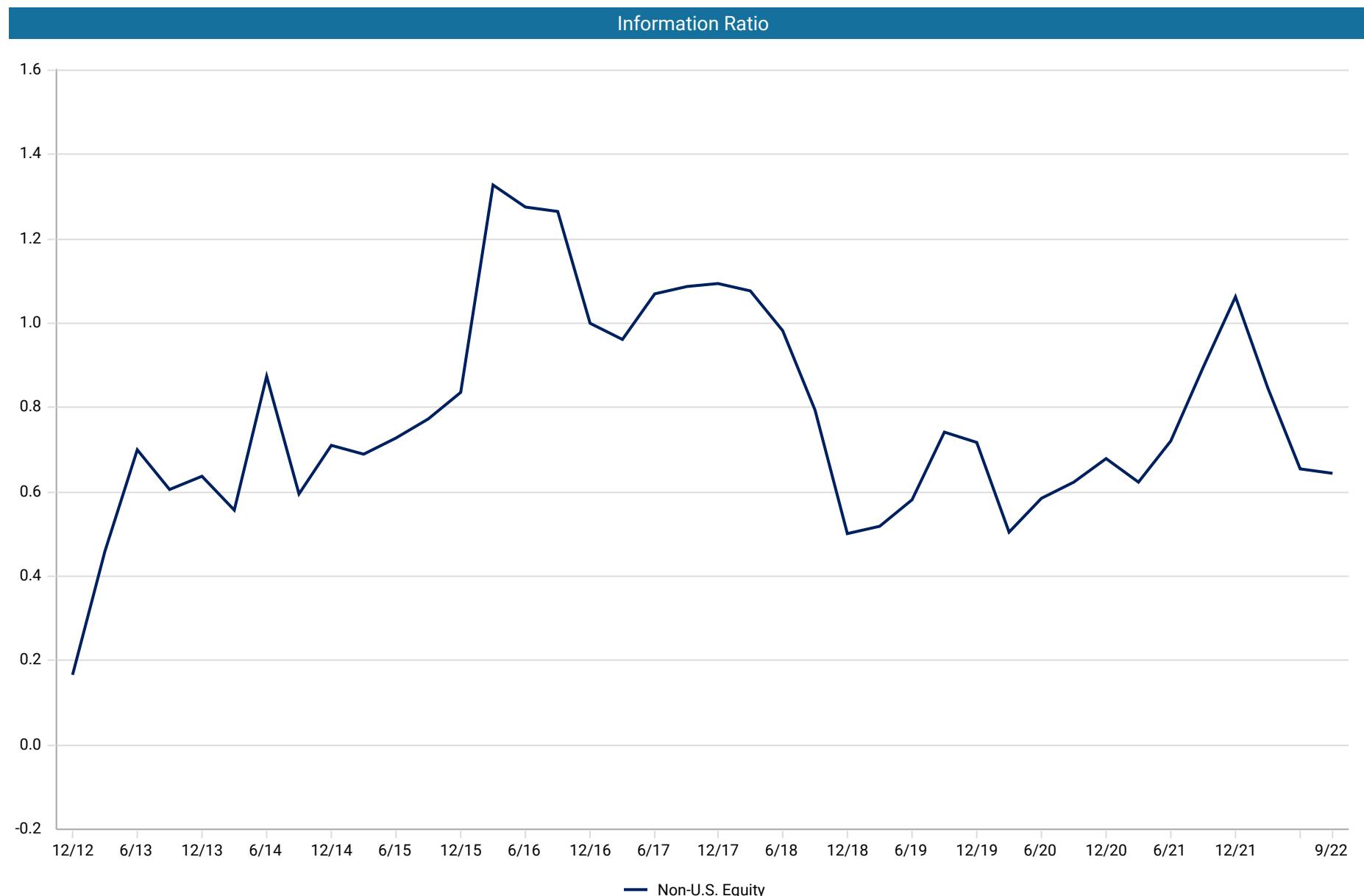
NON-U.S. EQUITY (NET)

	Allocation			Performance (%)							
	Market Value (\$)	% of Portfolio		3 Mo (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Wasatch Global Investors	251,715,784	5.15	-4.41 (28)	-41.53 (100)	-37.87 (97)	-	-	-	-	-12.53 (82)	Jan-21
<i>MSCI Emerging Markets Small Cap (Net)</i>			-5.25 (43)	-24.23 (42)	-23.23 (47)	-	-	-	-	-5.87 (41)	
Over/Under		0.84		-17.30	-14.64	-	-	-	-	-6.66	
eV Emg Mkts Small Cap Equity Median		-5.71		-25.37	-23.37	-	-	-	-	-7.38	
Sanctioned Asset	157,580	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	✗	141.2	Performance compliant with LACERS' Manager Monitoring Policy
Axiom International	Mar-14	Emerging Markets	✗	✗	✗	✗	✗	✗	✗	✗	✓	2,182.0	Released from Watch as of 10/1/22
DFA Emerging Markets	Jul-14	Emerging Markets	✓	=	✓	✓	✓	✓	✓	✓	✓	1,786.4	Performance compliant with LACERS' Manager Monitoring Policy
Wasatch	Dec-20	Emerging Markets Small Cap	✓	✓	✗	✗	N/A	N/A	N/A	N/A	✗	2,300.0	Newly hired manager pursuant to Section VIII.D of the Manager Monitoring Policy
Oberweis Asset Mgt.	Jan-14	Non-U.S. Developed	✗	✗	✗	✗	✓	✓	✓	✓	✓	2,378.7	Performance compliant with LACERS' Manager Monitoring Policy
Barrow, Hanley, Mewhinney & Strauss	Nov-13	Non-U.S. Developed	✗	✗	✓	✓	✓	✓	✓	✓	✓	2,345.7	On Watch in August 2020 due to organizational change, Watch status extended in August 2021 due to organizational change and AUM Strategy Concentration. Watch extended in August 2022 due to Pendal acquisition.
Lazard Asset Mgt.	Nov-13	Non-U.S. Developed	✗	✓	✗	✗	✗	✗	✓	✓	✓	2,719.0	Removed from Watch status as of September 2022.
MFS Institutional Advisors	Oct-13	Non-U.S. Developed	✓	✓	✓	✓	✓	✓	✓	✓	✓	2,309.0	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	✓	128.5	Performance compliant with LACERS' Manager Monitoring Policy
SSgA (Passive)	Aug-93	Non-U.S. Developed	✓	✓	✓	✓	✓	✓	✓	✓	✓✓	447.7	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, 2022.
- * 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	2,956,439,909	100.00		-4.65	-14.31	-14.27	-2.45	0.26	1.50	1.77	Jul-12
Core Fixed Income Blend				-4.75	-14.61	-14.60	-3.26	-0.27	0.94	1.11	
Over/Under				0.10	0.30	0.33	0.81	0.53	0.56	0.66	
Loomis Sayles & Co. Core Fixed Income	560,780,214	18.97		-4.38	-14.41	-14.07	-2.01	0.73	2.03	8.19	Jul-80
Loomis Custom Benchmark				-4.75	-14.61	-14.60	-3.26	-0.27	0.94	6.75	
Over/Under				0.37	0.20	0.53	1.25	1.00	1.09	1.44	
SSgA U.S. Aggregate Bond	758,598,777	25.66		-4.74	-14.60	-14.61	-3.24	-0.24	-	0.90	Aug-14
Blmbg. U.S. Aggregate Index				-4.75	-14.61	-14.60	-3.26	-0.27	-	0.87	
Over/Under				0.01	0.01	-0.01	0.02	0.03	-	0.03	
Baird Advisors Core Fixed Income	537,783,023	18.19		-4.66	-14.99	-14.99	-	-	-	-12.02	Jul-21
Blmbg. U.S. Aggregate Index				-4.75	-14.61	-14.60	-	-	-	-11.81	
Over/Under				0.09	-0.38	-0.39	-	-	-	-0.21	
Garcia Hamilton & Associates	364,542,365	12.33		-5.31	-13.05	-13.03	-	-	-	-10.58	Jul-21
Blmbg. U.S. Aggregate Index				-4.75	-14.61	-14.60	-	-	-	-11.81	
Over/Under				-0.56	1.56	1.57	-	-	-	1.23	
JP Morgan Investment Management	364,150,119	12.32		-4.33	-13.62	-13.67	-	-	-	-10.97	Jul-21
Blmbg. U.S. Aggregate Index				-4.75	-14.61	-14.60	-	-	-	-11.81	
Over/Under				0.42	0.99	0.93	-	-	-	0.84	
Income Research & Management	370,585,356	12.53		-4.50	-14.41	-14.52	-	-	-	-11.66	Jul-21
Blmbg. U.S. Aggregate Index				-4.75	-14.61	-14.60	-	-	-	-11.81	
Over/Under				0.25	0.20	0.08	-	-	-	0.15	

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)

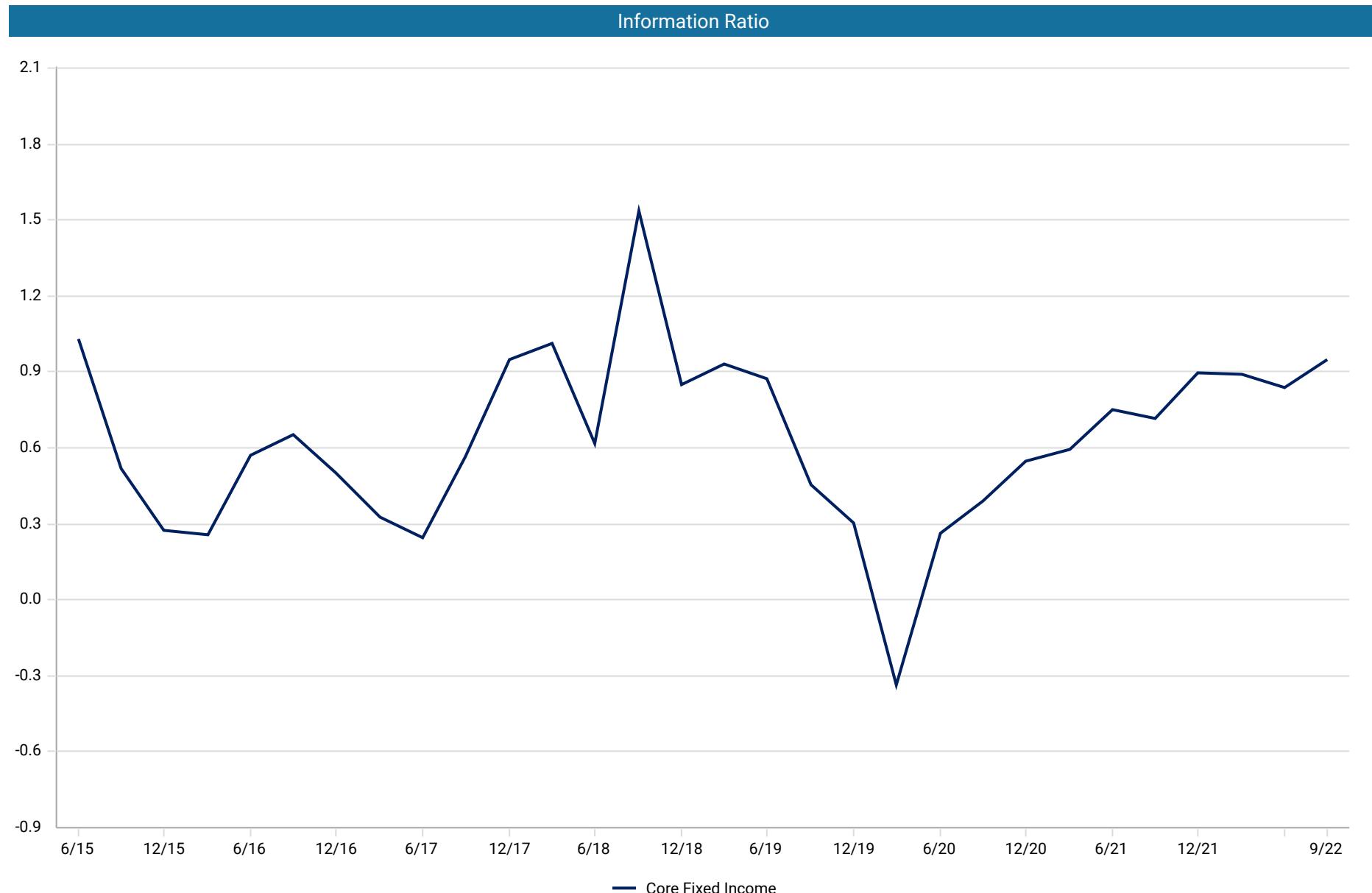
	Allocation			Performance (%)							
	Market Value (\$)	% of Portfolio		3 Mo (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Core Fixed Income	2,956,439,909	100.00		-4.67	-14.38	-14.36	-2.54	0.17	1.39	1.66	Jul-12
Core Fixed Income Blend				-4.75	-14.61	-14.60	-3.26	-0.27	0.94	1.11	
Over/Under				0.08	0.23	0.24	0.72	0.44	0.45	0.55	
Loomis Sayles & Co. Core Fixed Income	560,780,214	18.97		-4.41 (31)	-14.50 (45)	-14.22 (28)	-2.13 (10)	0.61 (7)	1.90 (3)	8.12 (-)	Jul-80
Loomis Custom Benchmark				-4.75 (73)	-14.61 (51)	-14.60 (50)	-3.26 (76)	-0.27 (77)	0.94 (71)	6.75 (-)	
Over/Under				0.34	0.11	0.38	1.13	0.88	0.96	1.37	
eV US Core Fixed Inc Median				-4.56	-14.61	-14.62	-2.97	-0.05	1.11	-	
SSgA U.S. Aggregate Bond	758,598,777	25.66		-4.74 (73)	-14.61 (51)	-14.63 (51)	-3.26 (77)	-0.28 (78)	-	0.86 (75)	Aug-14
Blmbg. U.S. Aggregate Index				-4.75 (73)	-14.61 (51)	-14.60 (50)	-3.26 (76)	-0.27 (77)	-	0.87 (75)	
Over/Under				0.01	0.00	-0.03	0.00	-0.01	-	-0.01	
eV US Core Fixed Inc Median				-4.56	-14.61	-14.62	-2.97	-0.05	-	1.06	
Baird Advisors Core Fixed Income	537,783,023	18.19		-4.68 (68)	-15.06 (74)	-15.08 (74)	-	-	-	-12.10 (64)	Jul-21
Blmbg. U.S. Aggregate Index				-4.75 (73)	-14.61 (51)	-14.60 (50)	-	-	-	-11.81 (47)	
Over/Under				0.07	-0.45	-0.48	-	-	-	-0.29	
eV US Core Fixed Inc Median				-4.56	-14.61	-14.62	-	-	-	-11.84	
Garcia Hamilton & Associates	364,542,365	12.33		-5.34 (97)	-13.13 (13)	-13.14 (12)	-	-	-	-10.68 (12)	Jul-21
Blmbg. U.S. Aggregate Index				-4.75 (73)	-14.61 (51)	-14.60 (50)	-	-	-	-11.81 (47)	
Over/Under				-0.59	1.48	1.46	-	-	-	1.13	
eV US Core Fixed Inc Median				-4.56	-14.61	-14.62	-	-	-	-11.84	
JP Morgan Investment Management	364,150,119	12.32		-4.37 (29)	-13.70 (18)	-13.78 (19)	-	-	-	-11.06 (17)	Jul-21
Blmbg. U.S. Aggregate Index				-4.75 (73)	-14.61 (51)	-14.60 (50)	-	-	-	-11.81 (47)	
Over/Under				0.38	0.91	0.82	-	-	-	0.75	
eV US Core Fixed Inc Median				-4.56	-14.61	-14.62	-	-	-	-11.84	
Income Research & Management	370,585,356	12.53		-4.54 (47)	-14.50 (44)	-14.63 (51)	-	-	-	-11.75 (42)	Jul-21
Blmbg. U.S. Aggregate Index				-4.75 (73)	-14.61 (51)	-14.60 (50)	-	-	-	-11.81 (47)	
Over/Under				0.21	0.11	-0.03	-	-	-	0.06	
eV US Core Fixed Inc Median				-4.56	-14.61	-14.62	-	-	-	-11.84	

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

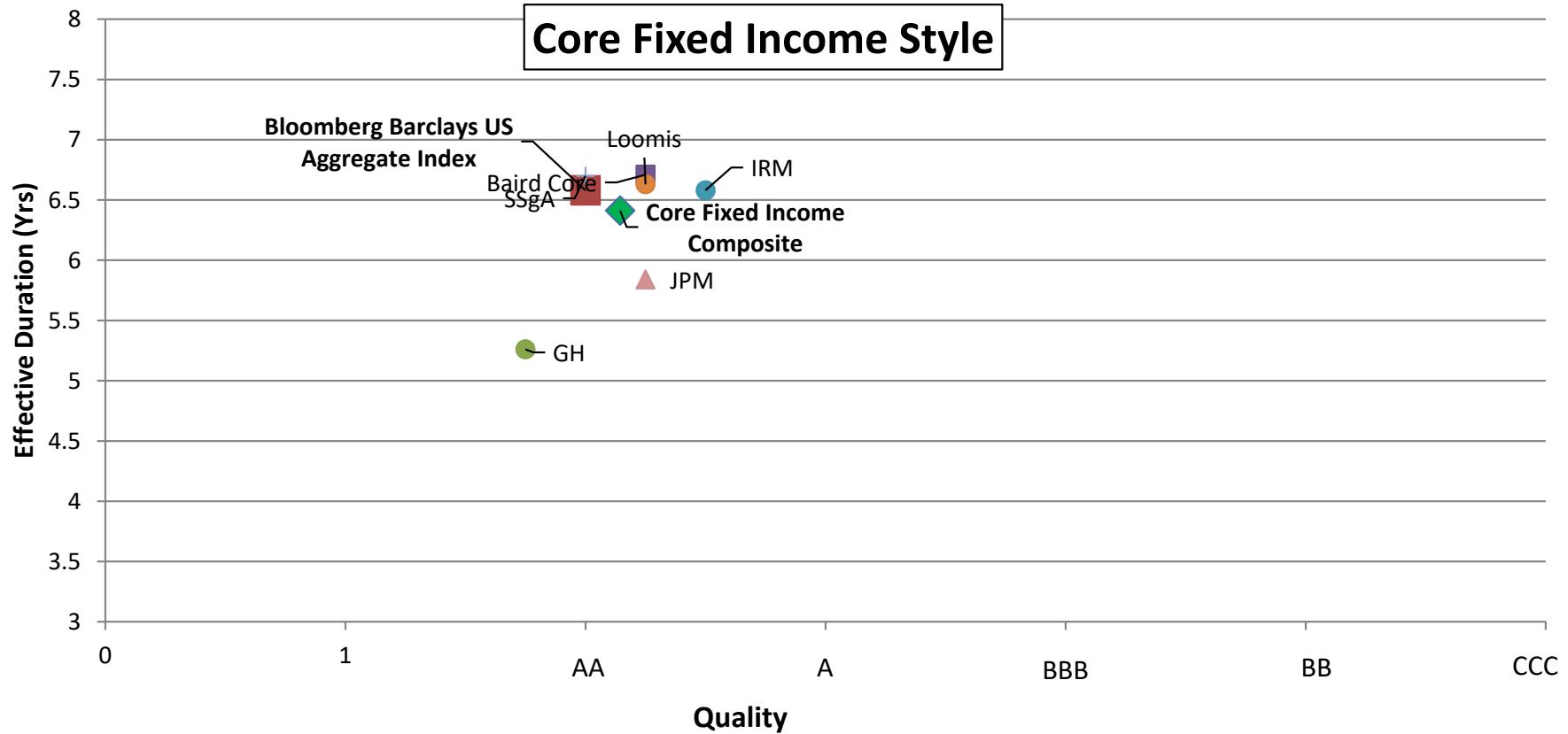
Refer to appendix for blended benchmark definitions.

CORE FIXED INCOME 3 YEAR INFORMATION RATIO



CORE FIXED INCOME

STYLE ANALYSIS



- LACERS Core Fixed Income Composite has a slightly lower duration (interest rate risk) 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	✓	✓	✓	✓	✓	✓	✓	✓	✓✓	887.5	Performance compliant with LACERS' Manager Monitoring Policy
Baird Advisors	Jul-21	Core	✓	✗	✗	✗	N/A	N/A	N/A	N/A	✗	673.3	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	✓	514.0	Newly hired manager pursuant to Section VIII.D of the Manager Monitoring Policy
IR&M	Jul-21	Core	✓	✓	✗	✗	N/A	N/A	N/A	N/A	✓	544.4	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	✓	518.0	Newly hired manager pursuant to Section VIII.D of the Manager Monitoring Policy
SSgA (Passive)	Aug-14	Core	✓	✗	✗	✗	=	✗	✗	✗	✗	272.3	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, 2022.
- * 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	1,570,572,609	100.00		-1.65	-14.52	-14.96	-2.59	0.37	-	3.03	Jul-13	
Credit Opportunities Blend				-2.75	-15.91	-16.32	-2.55	0.28	-	3.16		
Over/Under				1.10	1.39	1.36	-0.04	0.09	-	-0.13		
PGIM Blended	398,833,776	25.39		-3.03	-18.94	-20.06	-	-	-	-13.93	Feb-21	
50% JPM EMBI Global Diversified/ 50% JPM GBI-EM Global Diversified				-4.63	-21.28	-22.45	-	-	-	-15.62		
Over/Under				1.60	2.34	2.39	-	-	-	1.69		
Wellington	390,252,068	24.85		-3.62	-19.96	-21.17	-	-	-	-14.49	Feb-21	
50% JPM EMBI Global Diversified/ 50% JPM GBI-EM Global Diversified				-4.63	-21.28	-22.45	-	-	-	-15.62		
Over/Under				1.01	1.32	1.28	-	-	-	1.13		
Bain Capital Senior Loan Fund, LP	232,258,294	14.79		0.70	-5.27	-4.31	2.59	3.22	-	3.38	Jun-15	
Credit Suisse Leveraged Loan Index				1.19	-3.31	-2.62	2.12	3.00	-	3.28		
Over/Under				-0.49	-1.96	-1.69	0.47	0.22	-	0.10		
Polen Capital	217,132,009	13.83		-0.74	-11.00	-11.02	-	-	-	-1.03	Nov-20	
50% BBgBarc US High Yield 2% Issuer Cap / 50% Credit Suisse Leveraged Loan Index				0.31	-9.10	-8.46	-	-	-	0.12		
Over/Under				-1.05	-1.90	-2.56	-	-	-	-1.15		
Loomis Sayles & Co. High Yield	209,677,070	13.35		0.06	-14.29	-13.94	-	-	-	-2.25	Nov-20	
Blmbg. U.S. High Yield - 2% Issuer Cap				-0.64	-14.73	-14.15	-	-	-	-2.60		
Over/Under				0.70	0.44	0.21	-	-	-	0.35		
Benefit Street Partners LLC	68,098,981	4.34		0.49	2.90	6.64	-	-	-	3.61	Dec-20	
Credit Suisse Leveraged Loan Qtr Lag				-4.35	-3.77	-2.68	-	-	-	2.75		
Over/Under				4.84	6.67	9.32	-	-	-	0.86		
Crescent	9,474,001	0.60		0.16	-7.07	-	-	-	-	-7.07	Dec-21	
Credit Suisse Leveraged Loan Index				1.19	-3.31	-	-	-	-	-2.70		
Over/Under				-1.03	-3.76	-	-	-	-	-4.37		
Monroe	44,846,411	2.86		0.81	1.20	-	-	-	-	1.20	Dec-21	
Credit Suisse Leveraged Loan Qtr Lag				-4.35	-3.77	-	-	-	-	-3.14		
Over/Under				5.16	4.97	-	-	-	-	4.34		

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	1,570,572,609	100.00		-1.74	-14.74	-15.27	-2.88	0.06	-	2.70	Jul-13
Credit Opportunities Blend				-2.75	-15.91	-16.32	-2.55	0.28	-	3.16	
Over/Under				1.01	1.17	1.05	-0.33	-0.22	-	-0.46	
PGIM Blended	398,833,776	25.39		-3.11 (26)	-19.15 (52)	-20.33 (50)	-	-	-	-14.17 (53)	Feb-21
50% JPM EMBI Global Diversified/ 50% JPM GBI-EM Global Diversified				-4.63 (68)	-21.28 (67)	-22.45 (66)	-	-	-	-15.62 (74)	
Over/Under				1.52	2.13	2.12	-	-	-	1.45	
eV All Emg Mkts Fixed Inc Median				-4.16	-19.00	-20.42	-	-	-	-13.96	
Wellington	390,252,068	24.85		-3.74 (41)	-20.27 (60)	-21.57 (60)	-	-	-	-14.84 (63)	Feb-21
50% JPM EMBI Global Diversified/ 50% JPM GBI-EM Global Diversified				-4.63 (68)	-21.28 (67)	-22.45 (66)	-	-	-	-15.62 (74)	
Over/Under				0.89	1.01	0.88	-	-	-	0.78	
eV All Emg Mkts Fixed Inc Median				-4.16	-19.00	-20.42	-	-	-	-13.96	
Bain Capital Senior Loan Fund, LP	232,258,294	14.79		0.70 (78)	-5.27 (79)	-4.31 (75)	2.59 (5)	3.22 (4)	-	3.38 (10)	Jun-15
Credit Suisse Leveraged Loan Index				1.19 (45)	-3.31 (21)	-2.62 (23)	2.12 (16)	3.00 (9)	-	3.28 (12)	
Over/Under				-0.49	-1.96	-1.69	0.47	0.22	-	0.10	
eV US Float-Rate Bank Loan Fixed Inc Median				1.08	-4.23	-3.58	1.39	2.38	-	2.73	
Polen Capital	217,132,009	13.83		-0.89 (76)	-11.36 (30)	-11.49 (33)	-	-	-	-1.46 (39)	Nov-20
50% BBgBarc US High Yield 2% Issuer Cap / 50% Credit Suisse Leveraged Loan Index				0.31 (16)	-9.10 (21)	-8.46 (20)	-	-	-	0.12 (21)	
Over/Under				-1.20	-2.26	-3.03	-	-	-	-1.58	
eV US High Yield Fixed Inc Median				-0.50	-13.53	-12.88	-	-	-	-2.10	
Loomis Sayles & Co. High Yield	209,677,070	13.35		-0.05 (28)	-14.54 (71)	-14.34 (80)	-	-	-	-2.57 (62)	Nov-20
Blmbg. U.S. High Yield - 2% Issuer Cap				-0.64 (58)	-14.73 (75)	-14.15 (77)	-	-	-	-2.60 (62)	
Over/Under				0.59	0.19	-0.19	-	-	-	0.03	
eV US High Yield Fixed Inc Median				-0.50	-13.53	-12.88	-	-	-	-2.10	
Benefit Street Partners LLC	68,098,981	4.34		0.49	2.90	6.64	-	-	-	3.61	Dec-20
Credit Suisse Leveraged Loan Qtr Lag				-4.35	-3.77	-2.68	-	-	-	2.75	
Over/Under				4.84	6.67	9.32	-	-	-	0.86	
Crescent	9,474,001	0.60		0.16	-7.07	-	-	-	-	-7.07	Dec-21
Credit Suisse Leveraged Loan Index				1.19	-3.31	-	-	-	-	-2.70	
Over/Under				-1.03	-3.76	-	-	-	-	-4.37	
Monroe	44,846,411	2.86		0.81	1.20	-	-	-	-	1.20	Dec-21
Credit Suisse Leveraged Loan Qtr Lag				-4.35	-3.77	-	-	-	-	-3.14	
Over/Under				5.16	4.97	-	-	-	-	4.34	

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	✓	1,548.7	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	✓	2,218.7	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	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	✗	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	✗	986.6	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	✗	1,445.2	Newly hired manager pursuant to Section VIII.D of the Manager Monitoring Policy. On Watch since December 2021 due to organizational change.

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, 2022.
- * 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	2,757,559,694	100.00		-3.28	-5.26	-0.13	4.26	4.85	6.74	6.10	Dec-94
Real Assets Policy Benchmark				<u>-3.86</u>	<u>-8.41</u>	<u>-1.32</u>	<u>5.47</u>	<u>6.12</u>	<u>6.24</u>	<u>7.67</u>	
Over/Under				0.58	3.15	1.19	<u>-1.21</u>	<u>-1.27</u>	0.50	<u>-1.57</u>	
Public Real Assets	1,463,879,570	53.09		-6.84	-17.92	-13.41	1.19	2.38	-	1.70	Jul-14
Public Real Assets Blend				<u>-7.38</u>	<u>-19.18</u>	<u>-13.13</u>	<u>1.24</u>	<u>1.96</u>	-	<u>0.26</u>	
Over/Under				0.54	1.26	<u>-0.28</u>	<u>-0.05</u>	0.42	-	1.44	
TIPS	1,007,415,897	36.53		-5.11	-14.14	-12.33	0.87	2.02	-	1.56	Aug-14
Blmbg. U.S. TIPS				<u>-5.14</u>	<u>-13.61</u>	<u>-11.57</u>	<u>0.79</u>	<u>1.95</u>	-	<u>1.53</u>	
Over/Under				0.03	<u>-0.53</u>	<u>-0.76</u>	0.08	0.07	-	0.03	
DFA US TIPS	1,007,415,897	36.53		-5.11	-14.14	-12.33	0.87	2.02	-	1.64	Aug-14
Blmbg. U.S. TIPS				<u>-5.14</u>	<u>-13.61</u>	<u>-11.57</u>	<u>0.79</u>	<u>1.95</u>	-	<u>1.53</u>	
Over/Under				0.03	<u>-0.53</u>	<u>-0.76</u>	0.08	0.07	-	0.11	
REITS	456,463,673	16.55		-10.20	-26.06	-14.93	1.80	6.32	-	6.57	Apr-15
FTSE NAREIT All Equity REITs				<u>-10.83</u>	<u>-27.93</u>	<u>-16.27</u>	<u>-1.10</u>	<u>4.10</u>	-	<u>4.51</u>	
Over/Under				0.63	1.87	1.34	2.90	2.22	-	2.06	
CenterSquare US Real Estate	456,463,673	16.55		-10.20	-26.06	-14.93	1.80	6.32	-	7.09	May-15
FTSE NAREIT All Equity REITs				<u>-10.83</u>	<u>-27.93</u>	<u>-16.27</u>	<u>-1.10</u>	<u>4.10</u>	-	<u>5.28</u>	
Over/Under				0.63	1.87	1.34	2.90	2.22	-	1.81	
Private Real Estate	1,274,301,050	46.21		1.13	16.73	23.00	8.97	8.32	9.64	7.11	Nov-94
Real Estate Blend				<u>0.77</u>	<u>13.93</u>	<u>23.31</u>	<u>13.50</u>	<u>11.35</u>	<u>11.71</u>	<u>10.96</u>	
Over/Under				0.36	2.80	<u>-0.31</u>	<u>-4.53</u>	<u>-3.03</u>	<u>-2.07</u>	<u>-3.85</u>	
Timber	19,379,074	0.70		-0.11	8.83	9.30	4.79	3.67	5.81	8.67	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	2,757,559,694	100.00		-3.31	-5.34	-0.24	4.12	4.70	6.59	4.95	Jun-01
Real Assets Policy Benchmark				<u>-3.86</u>	<u>-8.41</u>	<u>-1.32</u>	<u>5.47</u>	<u>6.12</u>	<u>6.24</u>	<u>6.24</u>	
Over/Under				0.55	3.07	1.08	<u>-1.35</u>	<u>-1.42</u>	0.35	<u>-1.29</u>	
Public Real Assets	1,463,879,570	53.09		-6.87	-18.01	-13.54	1.01	2.18	-	1.51	Jul-14
Public Real Assets Blend				<u>-7.38</u>	<u>-19.18</u>	<u>-13.13</u>	<u>1.24</u>	<u>1.96</u>	-	<u>0.26</u>	
Over/Under				0.51	1.17	<u>-0.41</u>	<u>-0.23</u>	0.22	-	1.25	
TIPS	1,007,415,897	36.53		-5.12	-14.17	-12.37	0.82	1.97	-	1.50	Aug-14
Blmbg. U.S. TIPS				<u>-5.14</u>	<u>-13.61</u>	<u>-11.57</u>	<u>0.79</u>	<u>1.95</u>	-	<u>1.53</u>	
Over/Under				0.02	<u>-0.56</u>	<u>-0.80</u>	0.03	0.02	-	<u>-0.03</u>	
DFA US TIPS	1,007,415,897	36.53		<u>-5.12</u> (62)	<u>-14.17</u> (82)	<u>-12.37</u> (87)	0.82 (57)	1.97 (43)	-	1.59 (24)	Aug-14
Blmbg. U.S. TIPS				<u>-5.14</u> (63)	<u>-13.61</u> (68)	<u>-11.57</u> (56)	<u>0.79</u> (57)	<u>1.95</u> (46)	-	<u>1.53</u> (32)	
Over/Under				0.02	<u>-0.56</u>	<u>-0.80</u>	0.03	0.02	-	0.06	
eV US TIPS / Inflation Fixed Inc Median				<u>-5.00</u>	<u>-13.40</u>	<u>-11.52</u>	0.91	1.94	-	1.44	
REITS	456,463,673	16.55		-10.27	-26.27	-15.24	1.41	5.90	-	6.14	Apr-15
FTSE NAREIT All Equity REITs				<u>-10.83</u>	<u>-27.93</u>	<u>-16.27</u>	<u>-1.10</u>	<u>4.10</u>	-	<u>4.51</u>	
Over/Under				0.56	1.66	1.03	2.51	1.80	-	1.63	
CenterSquare US Real Estate	456,463,673	16.55		<u>-10.27</u> (43)	<u>-26.27</u> (7)	<u>-15.24</u> (5)	1.41 (9)	5.90 (7)	-	6.65 (8)	May-15
FTSE NAREIT All Equity REITs				<u>-10.83</u> (62)	<u>-27.93</u> (33)	<u>-16.27</u> (29)	<u>-1.10</u> (56)	<u>4.10</u> (45)	-	<u>5.28</u> (30)	
Over/Under				0.56	1.66	1.03	2.51	1.80	-	1.37	
eV US REIT Median				<u>-10.49</u>	<u>-28.71</u>	<u>-17.46</u>	<u>-0.89</u>	3.66	-	4.45	
Private Real Estate	1,274,301,050	46.21		1.11	16.66	22.92	8.88	8.23	9.54	6.33	Jul-01
Real Estate Blend				<u>0.77</u>	<u>13.93</u>	<u>23.31</u>	<u>13.50</u>	<u>11.35</u>	<u>11.71</u>	<u>10.37</u>	
Over/Under				0.34	2.73	<u>-0.39</u>	<u>-4.62</u>	<u>-3.12</u>	<u>-2.17</u>	<u>-4.04</u>	
Timber	19,379,074	0.70		-0.11	8.83	9.30	4.79	3.67	5.60	7.72	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	✓	✗	✗	✗	✗	✗	✓	✓	✓	610.5	Performance compliant with LACERS' Manager Monitoring Policy
CenterSquare	Apr-15	REITS	✓	✓	✓	✓	✓	✓	✓	✓	✓	1,828.2	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, 2022.
- * Where net of fees performance is not available gross of fee returns are evaluated.

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

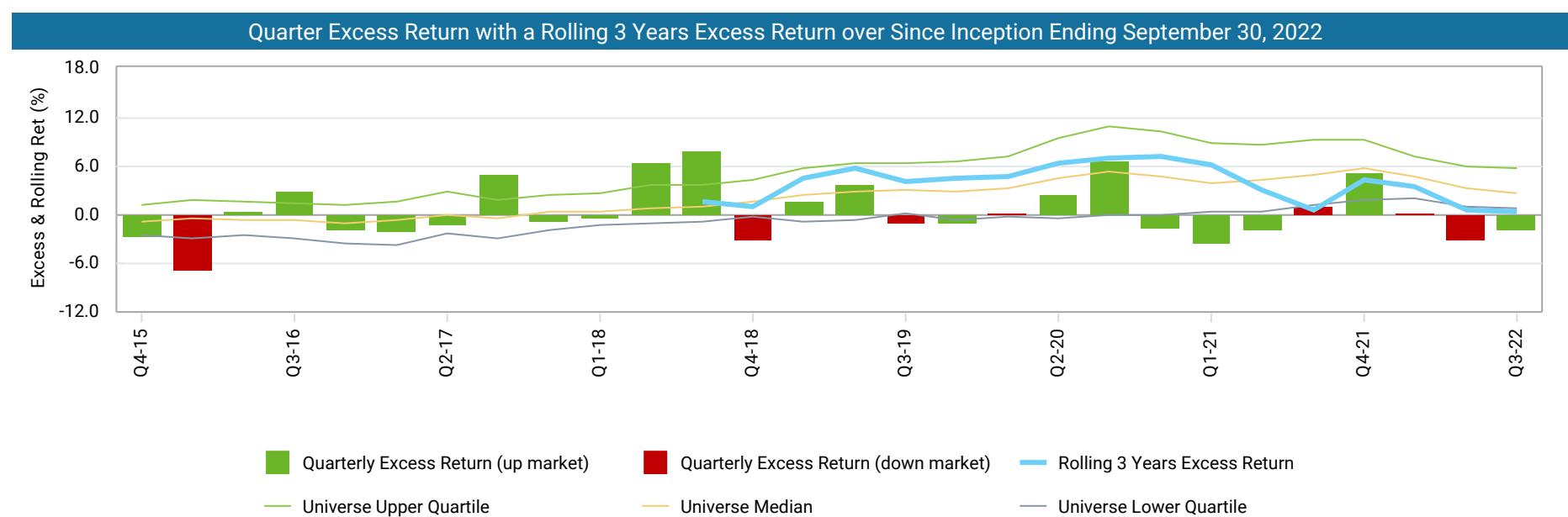
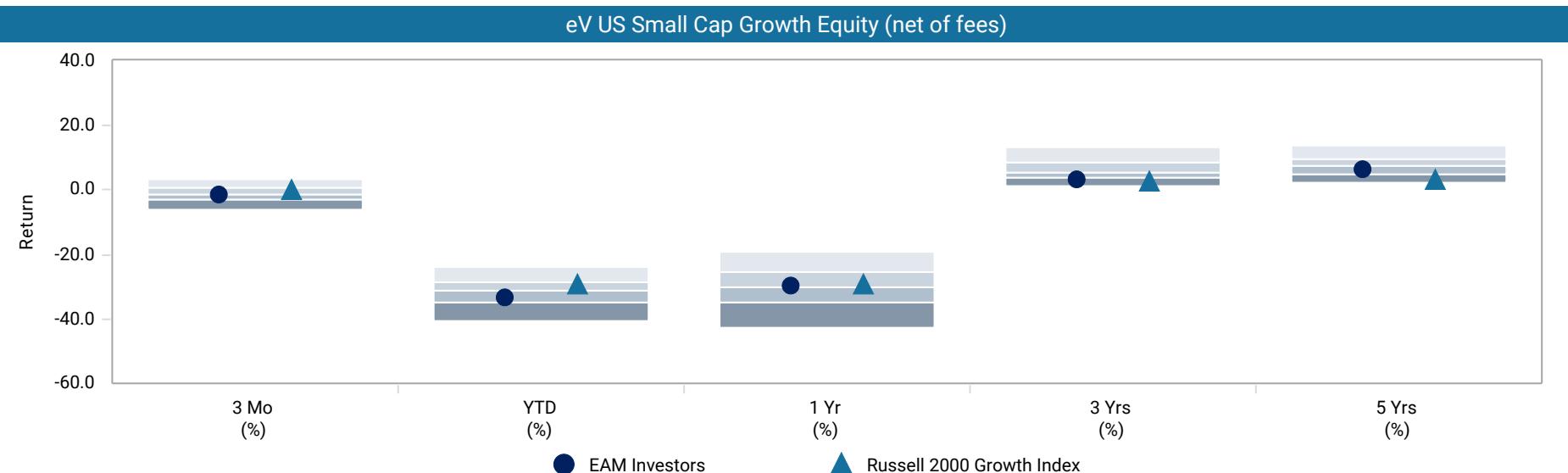


APPENDIX



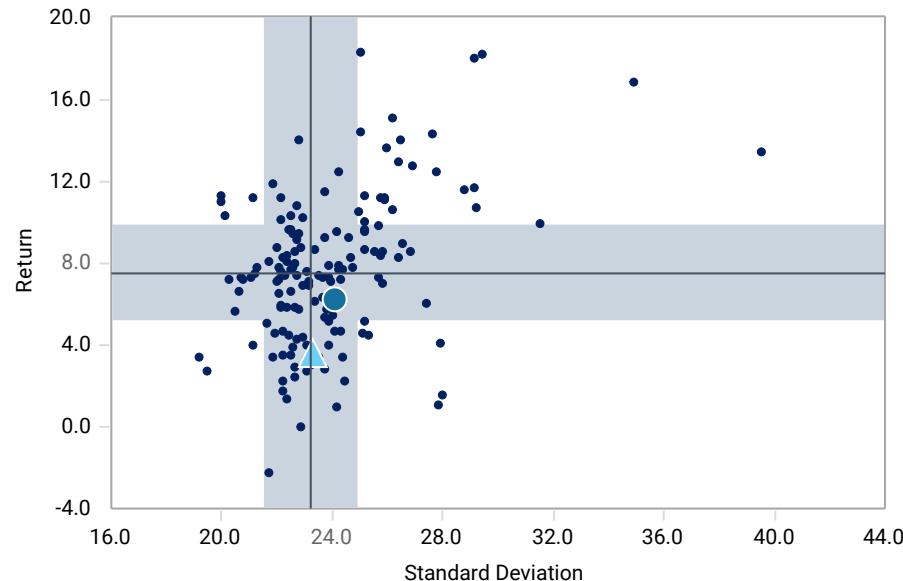
U.S. EQUITY MANAGER PERFORMANCE

EAM INVESTORS

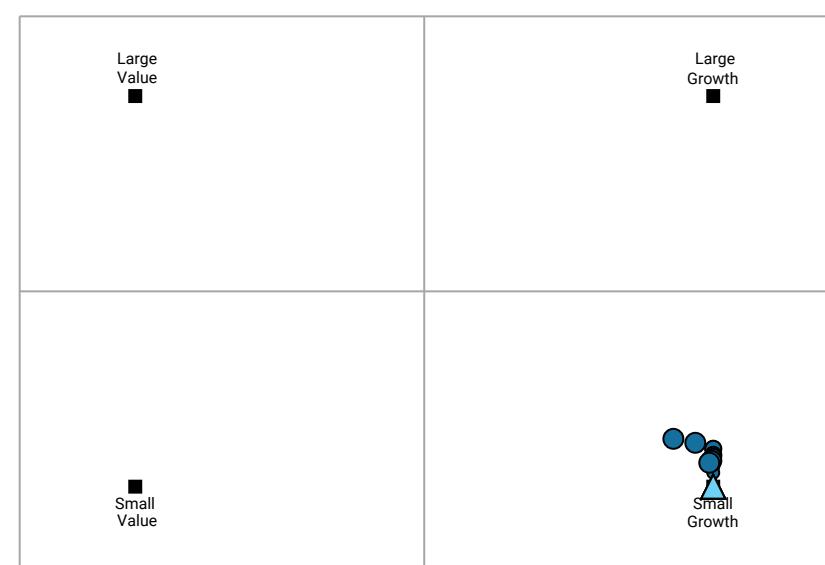


EAM INVESTORS

5 Years Return vs. Standard Deviation



Rolling 3 Years Style Map

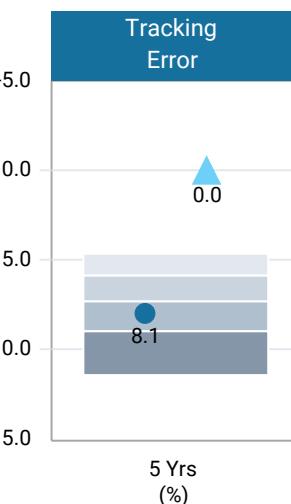
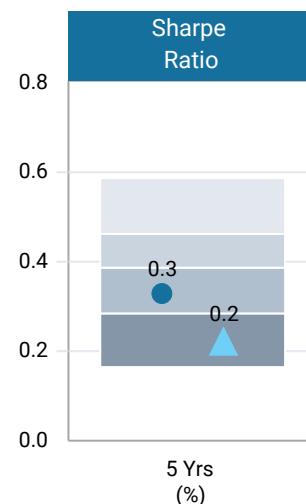
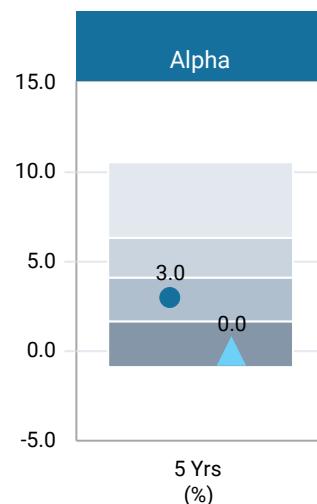
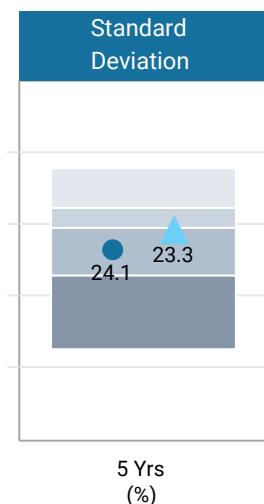
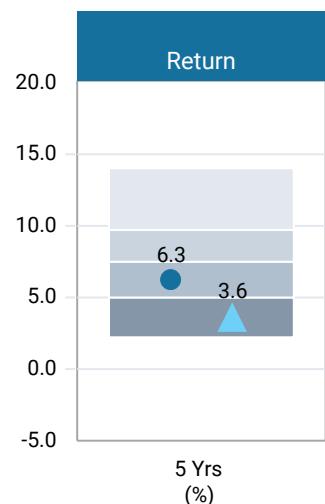


● EAM Investors

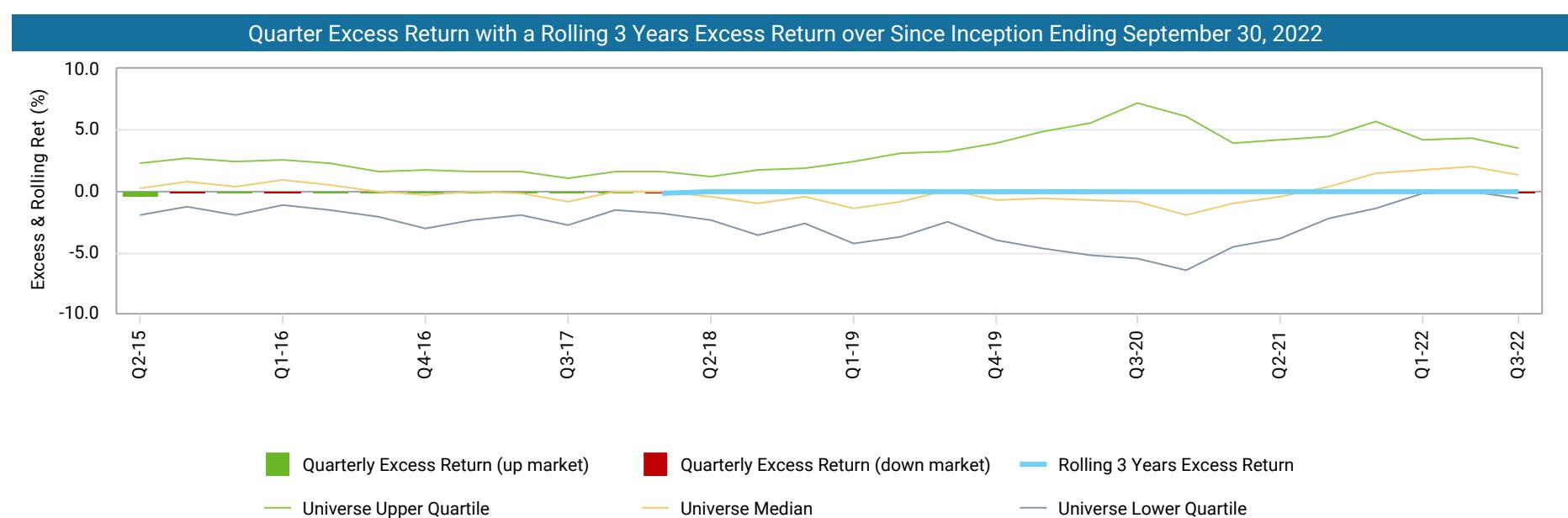
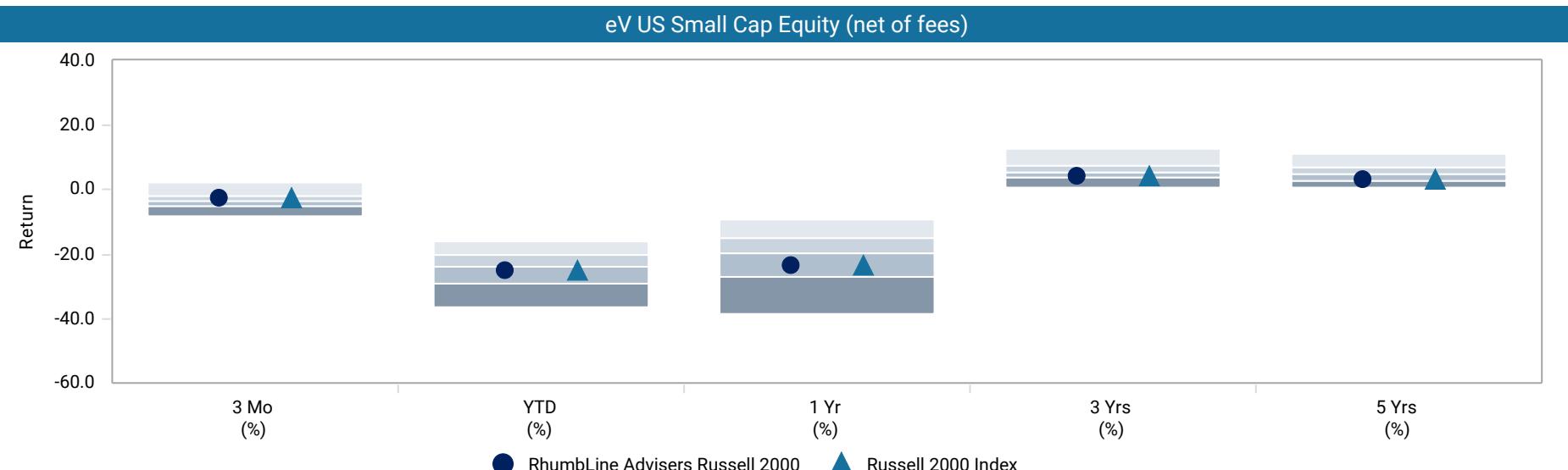
▲ Russell 2000 Growth Index

● EAM Investors

▲ Russell 2000 Growth Index

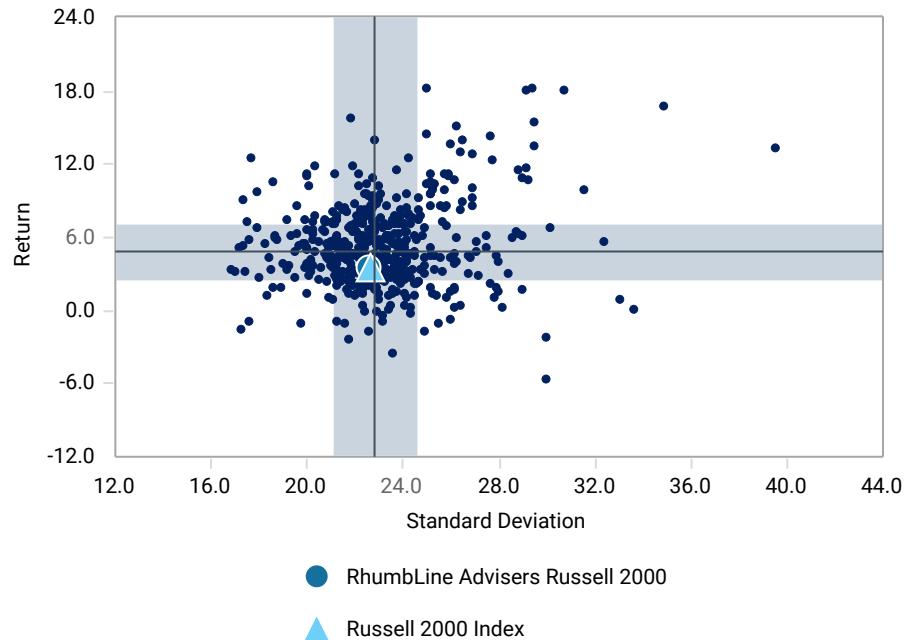


RHUMBLINE ADVISORS RUSSELL 2000

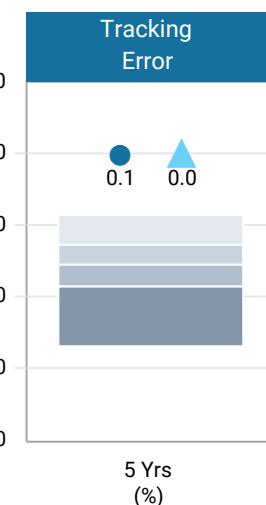
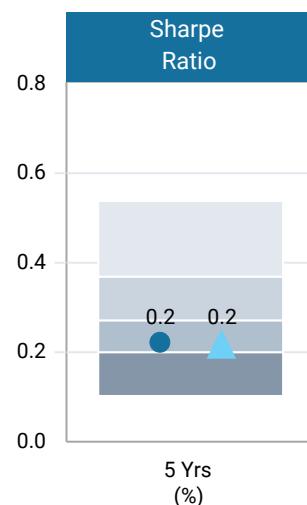
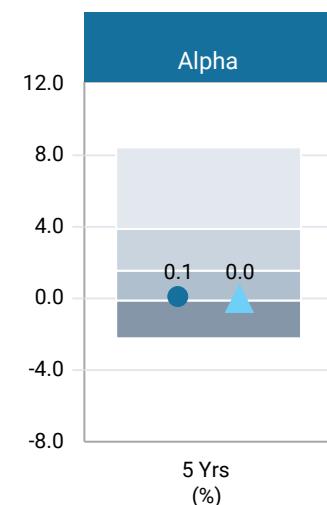
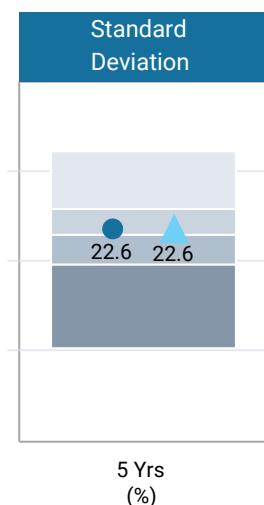
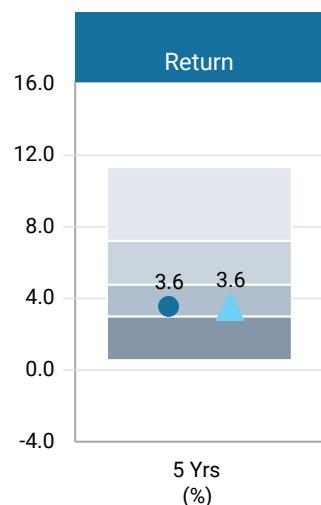
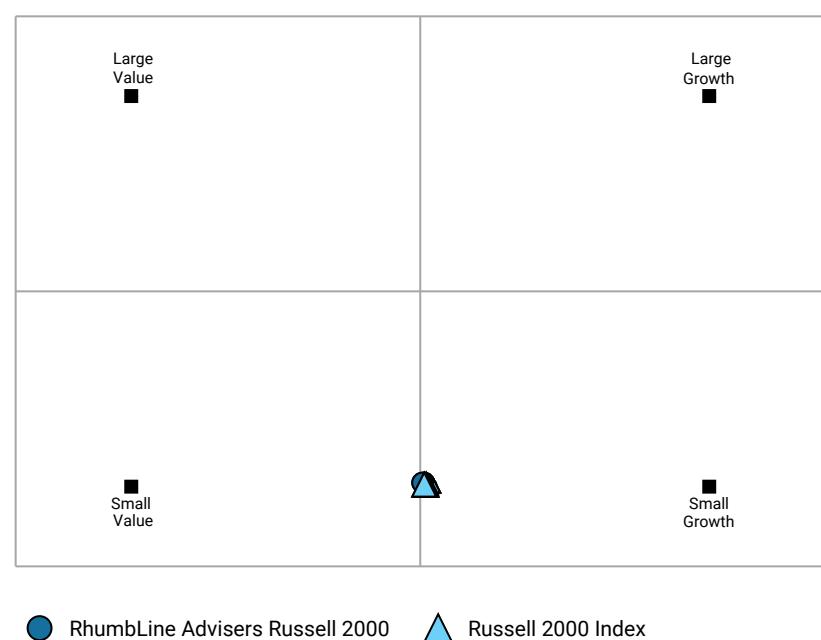


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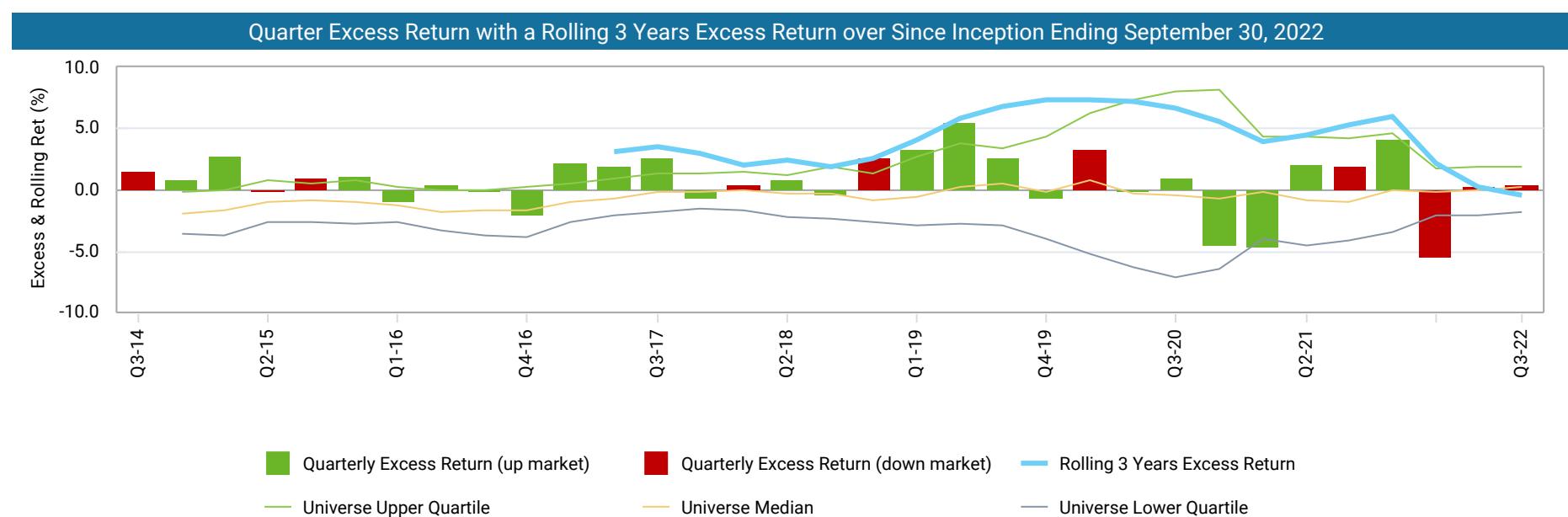
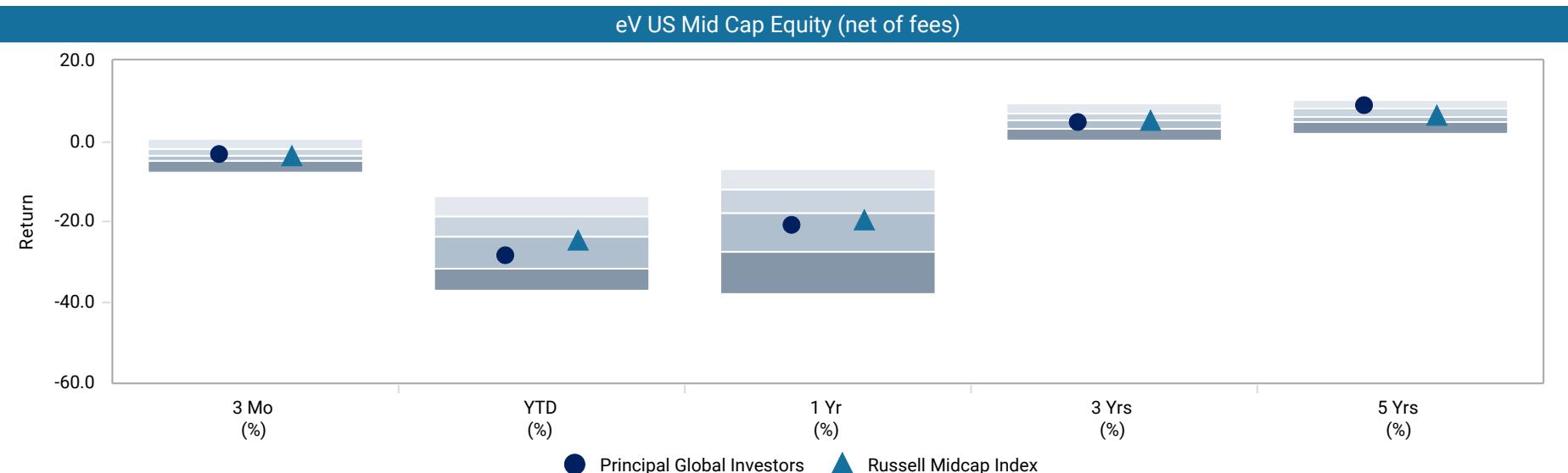
5 Years Return vs. Standard Deviation



Rolling 3 Years Style Map

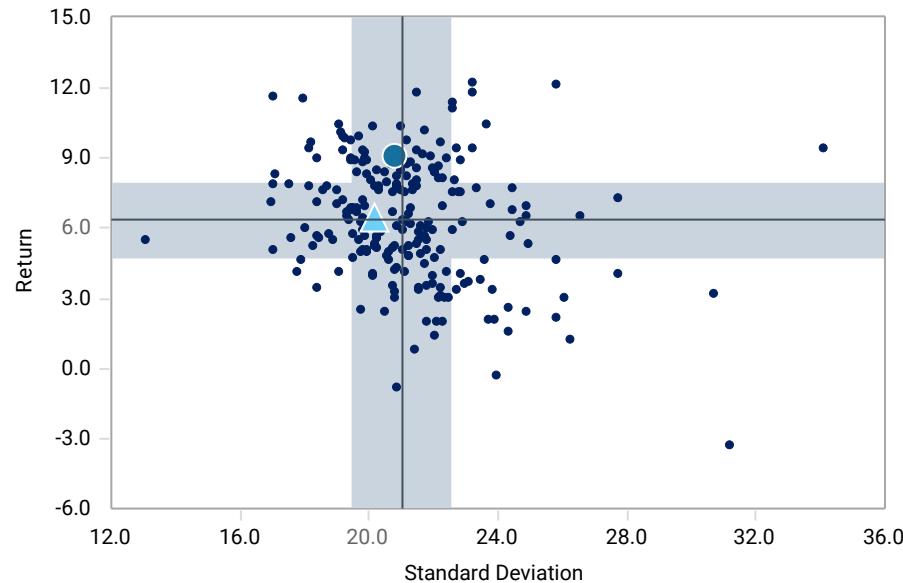


PRINCIPAL GLOBAL INVESTORS

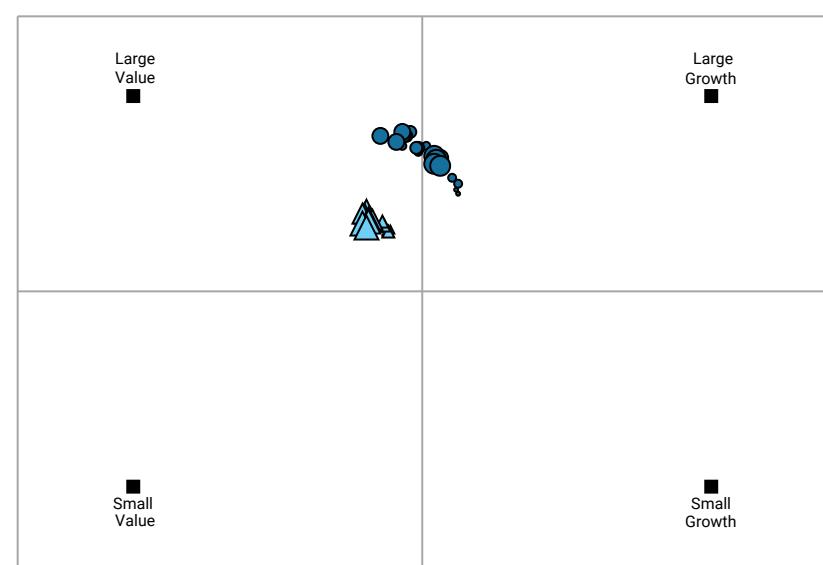


PRINCIPAL GLOBAL INVESTORS

5 Years Return vs. Standard Deviation

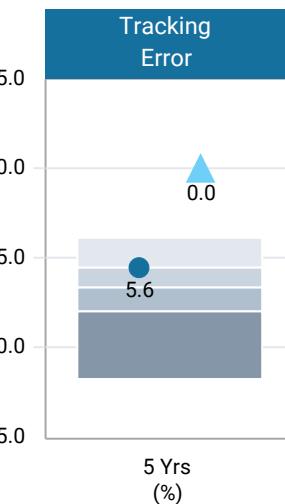
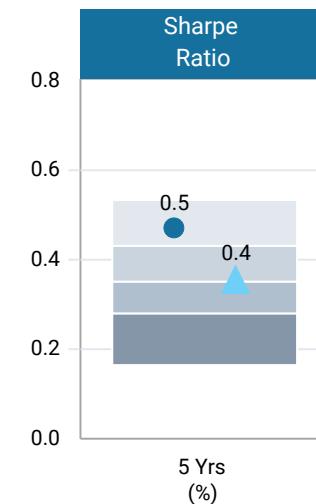
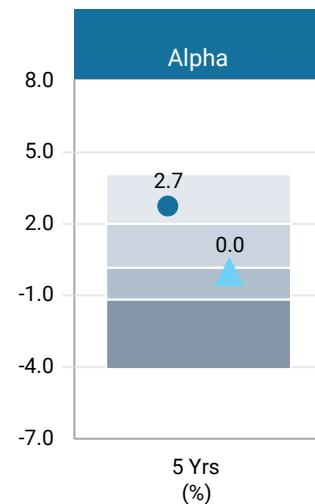
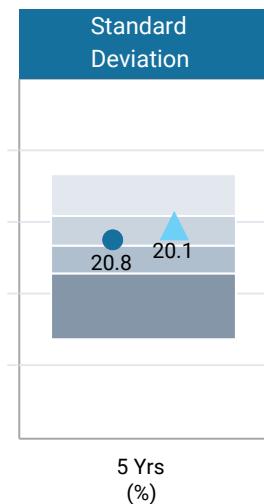
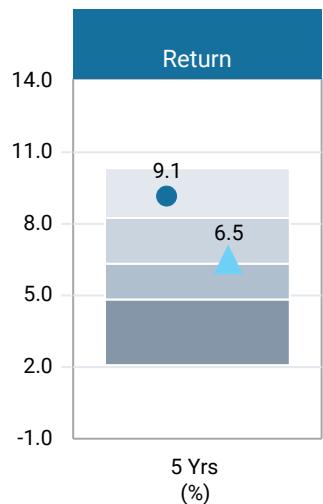


Rolling 5 Years Style Map

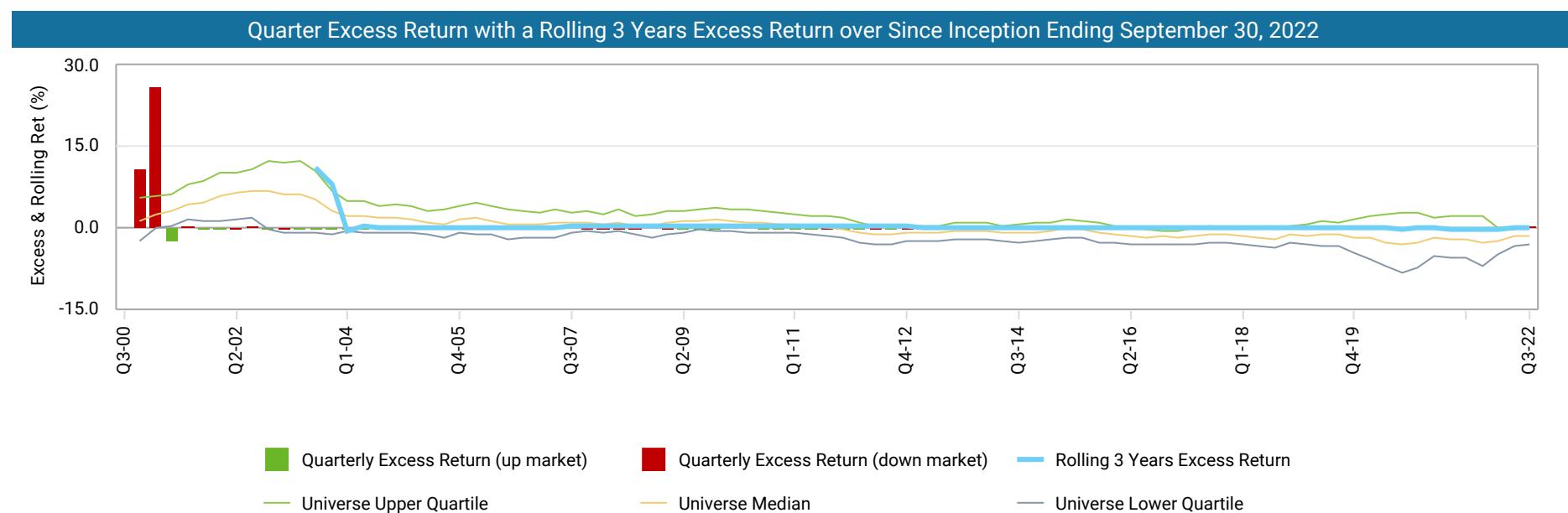
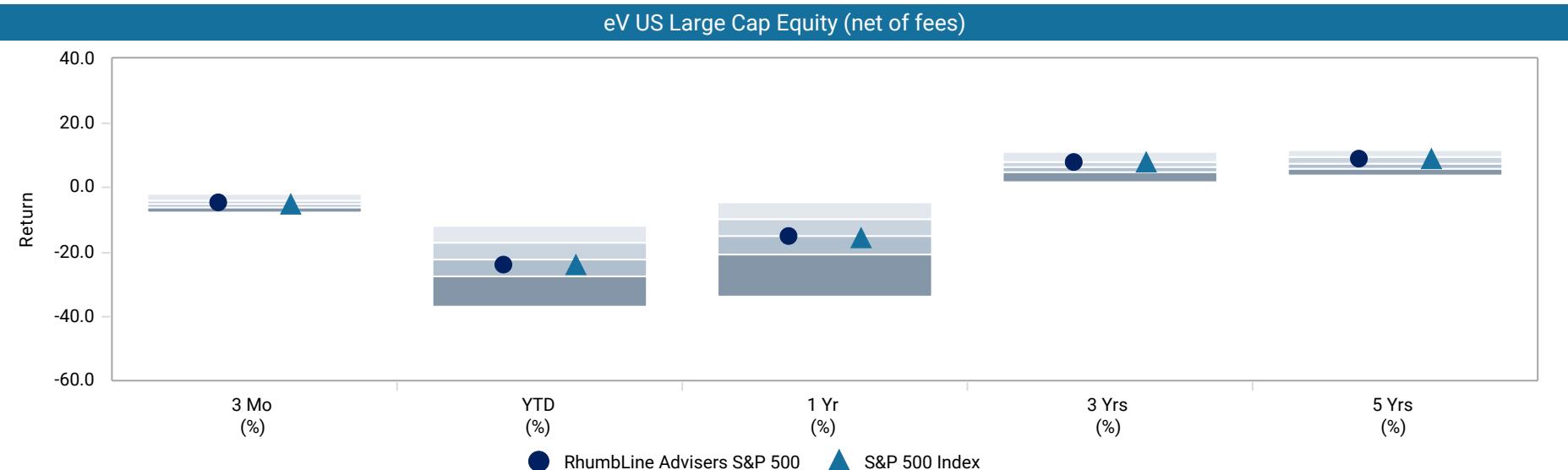


● Principal Global Investors ▲ Russell Midcap Index

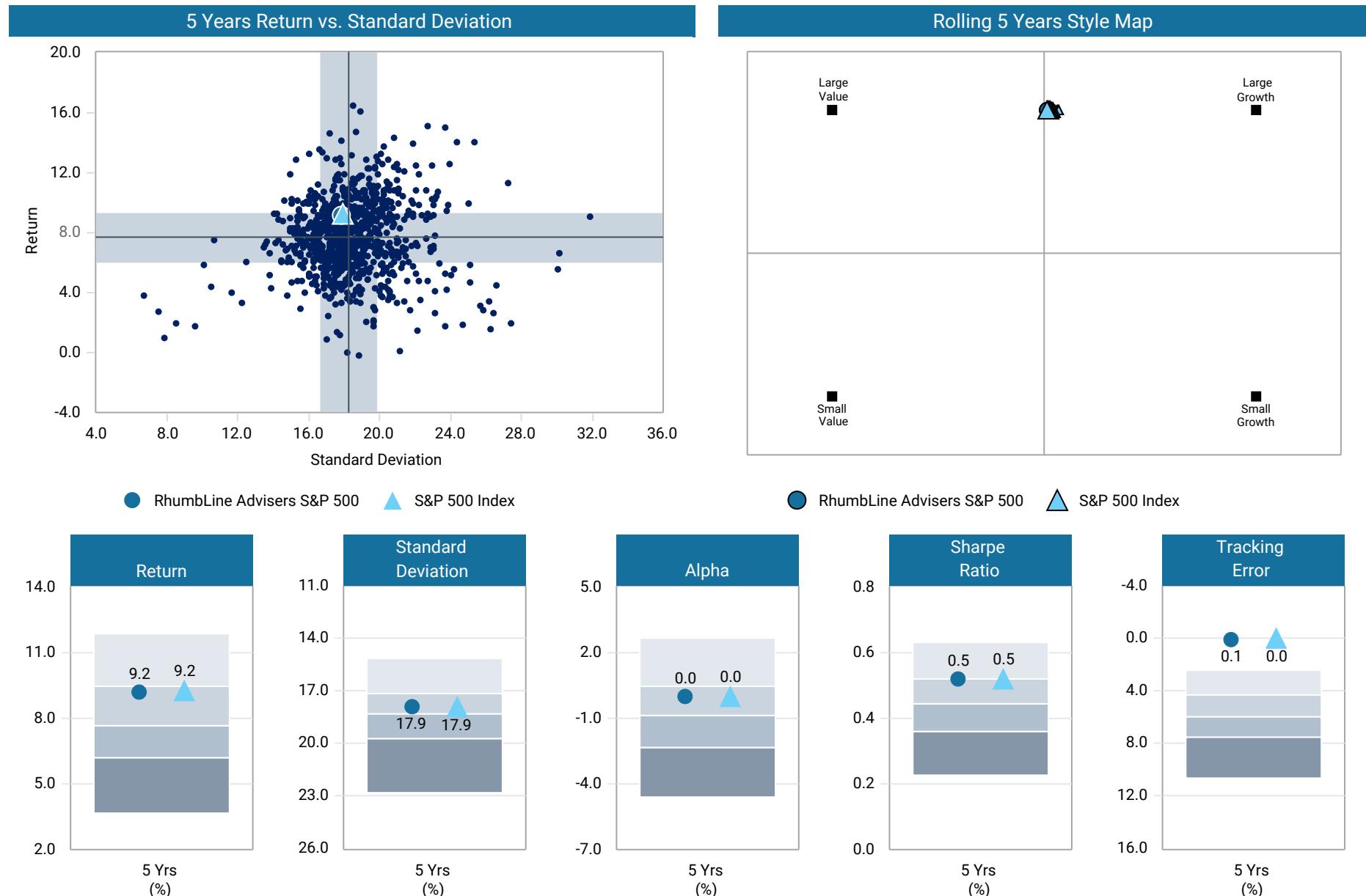
● Principal Global Investors ▲ Russell Midcap Index



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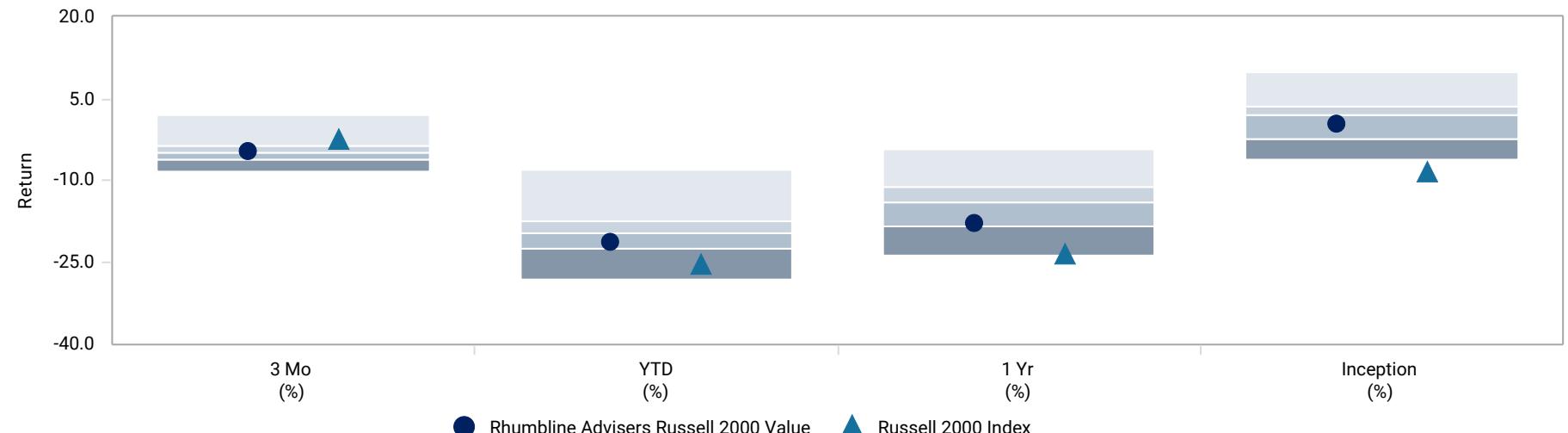


RHUMBLINE ADVISORS S&P 500

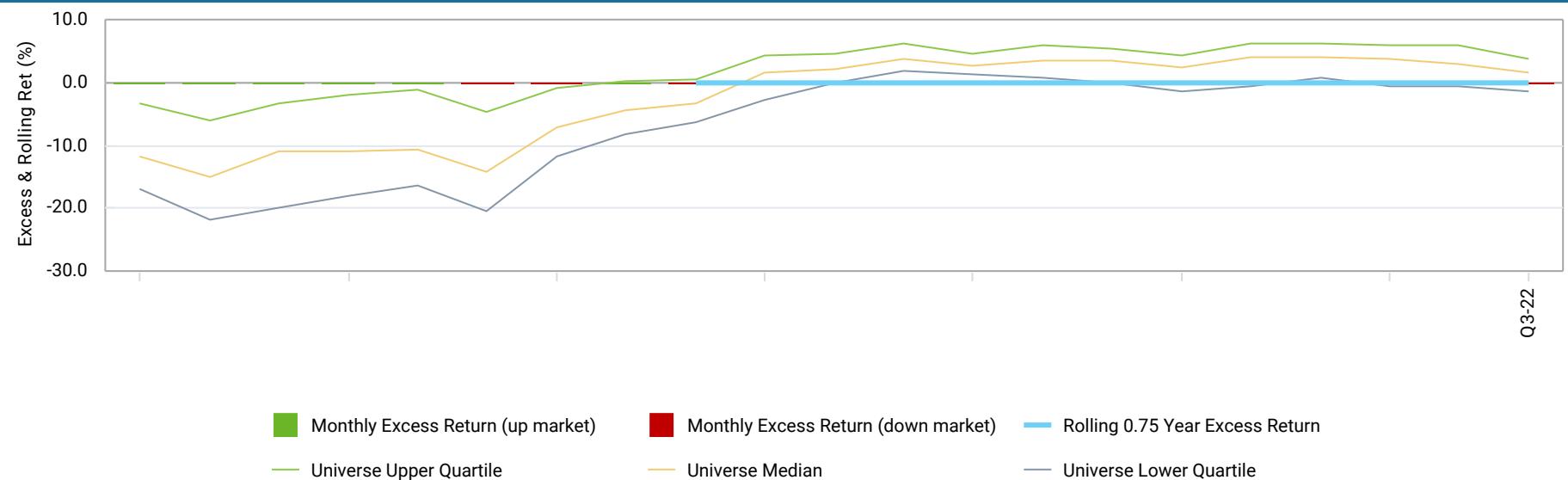


RHUMBLINE ADVISORS RUSSELL 2000 VALUE

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

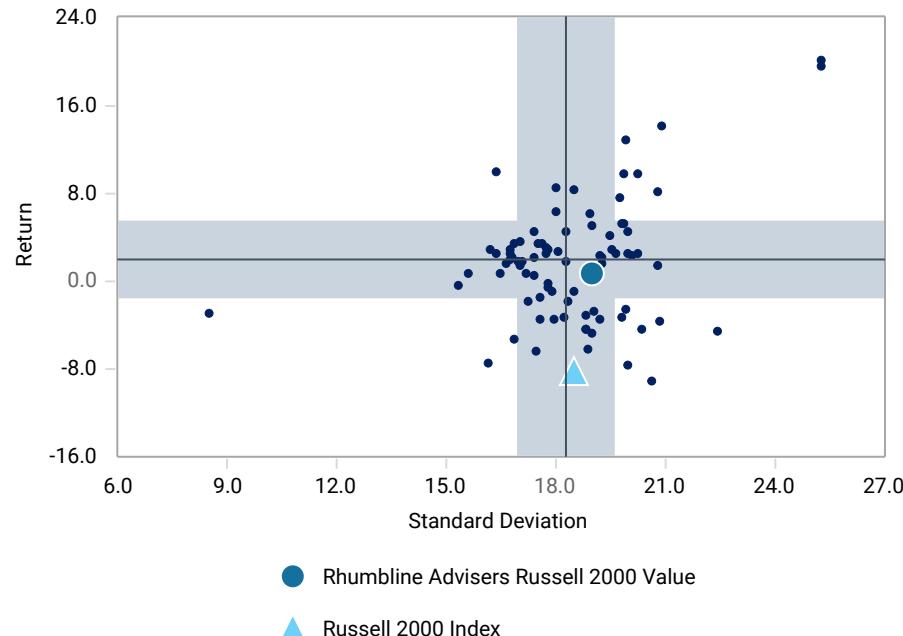


Quarter Excess Return with a Rolling 0.75 Year Excess Return over Since Inception Ending September 30, 2022

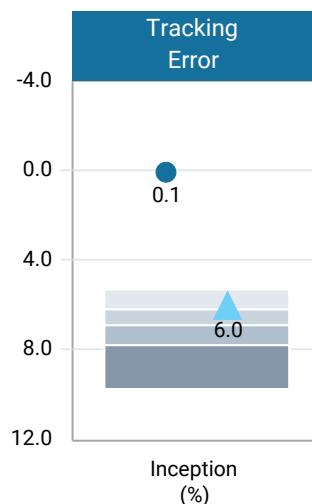
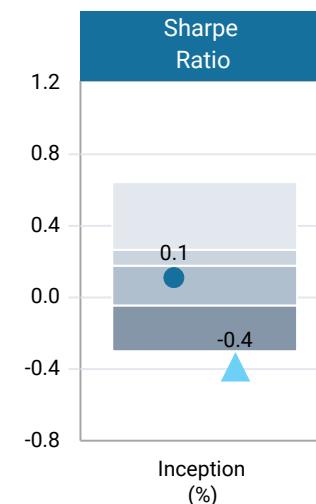
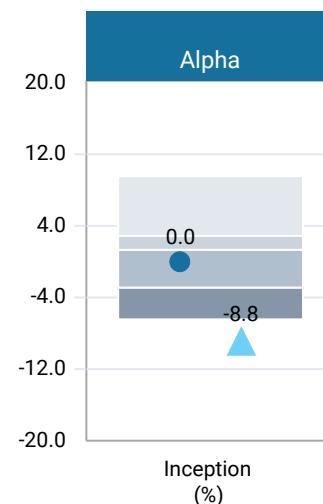
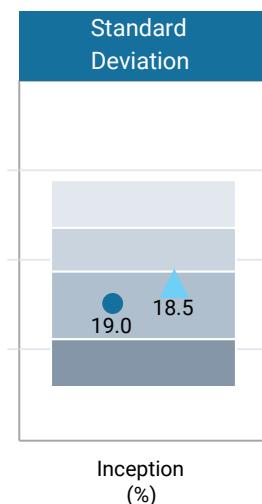
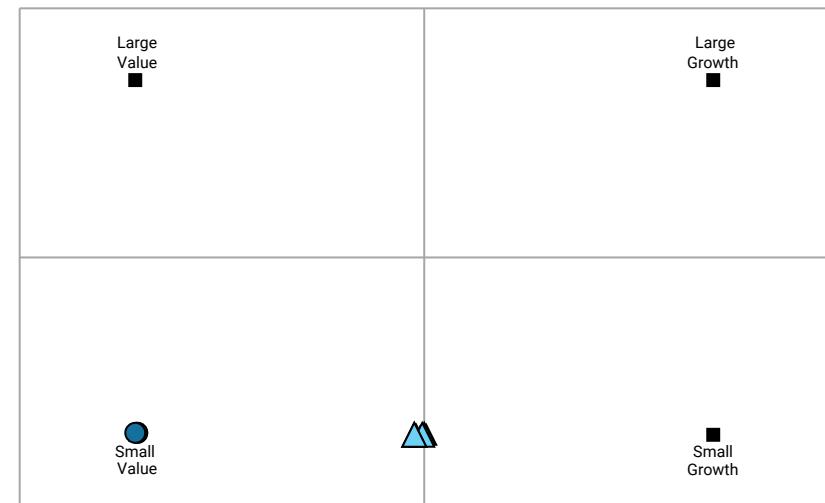


RHUMBLINE ADVISORS RUSSELL 2000 VALUE

Since Inception Return vs. Standard Deviation

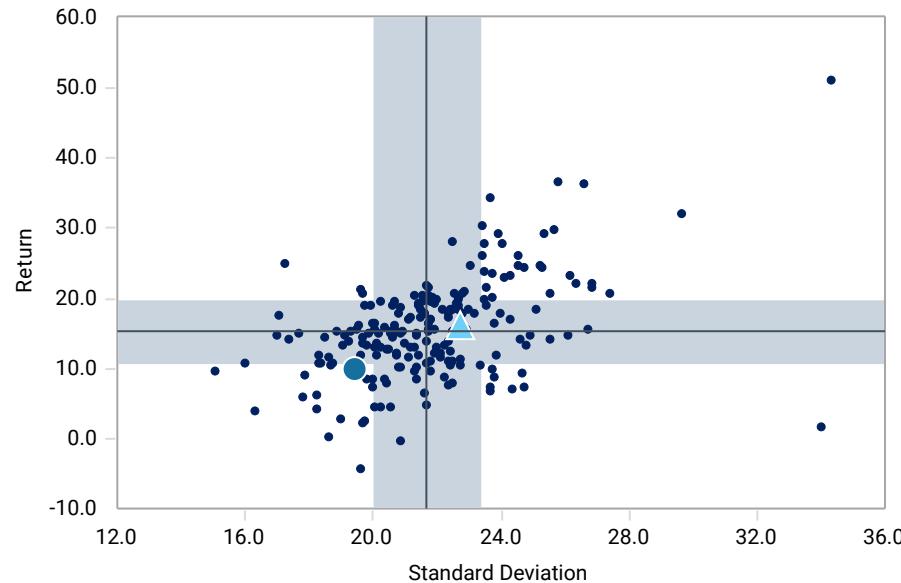


Rolling 0.75 Year Style Map



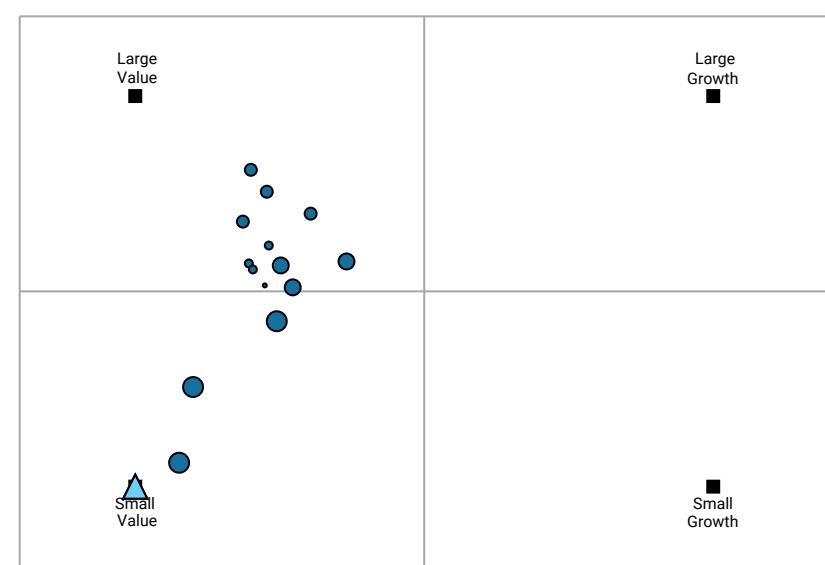
COPELAND CAPITAL MANAGEMENT

Since Inception Return vs. Standard Deviation

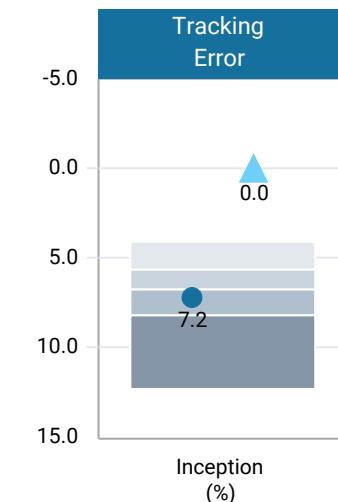
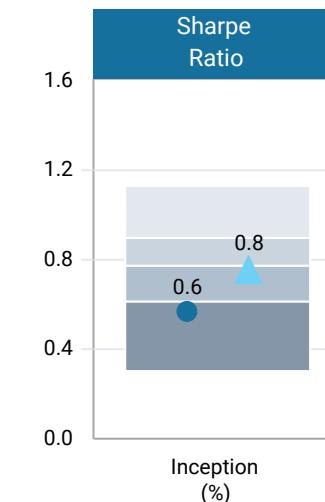
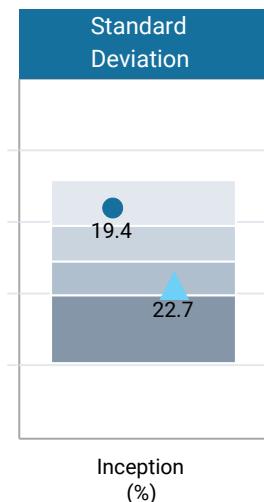
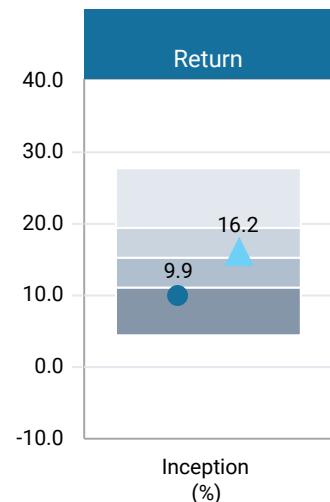


● Copeland Capital Management ▲ Russell 2000 Value Index

Rolling 0.75 Year Style Map

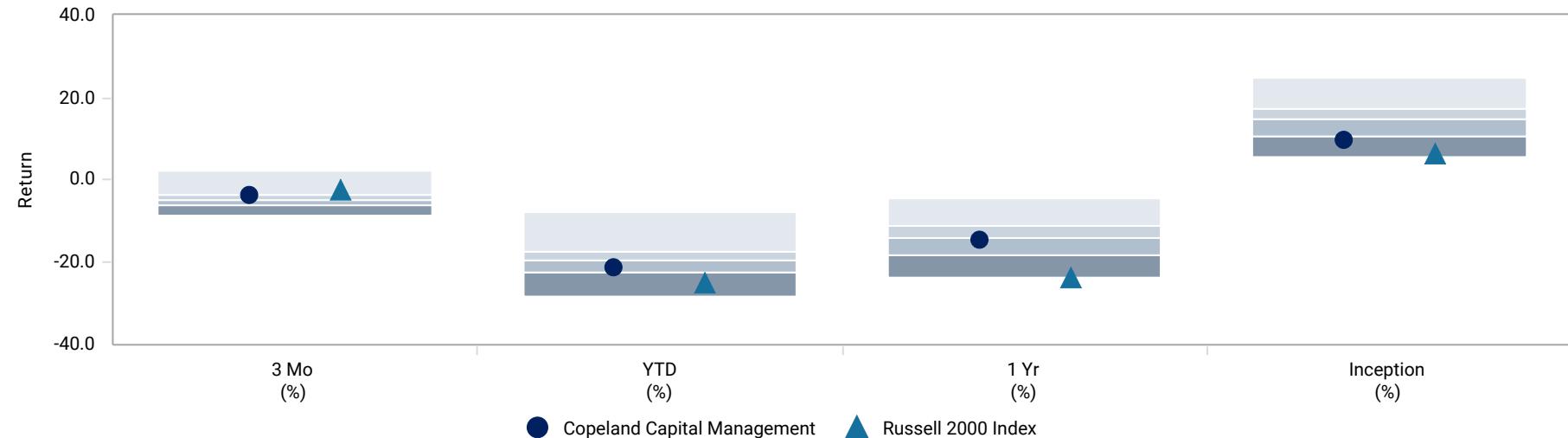


● Copeland Capital Management ▲ Russell 2000 Value Index



COPELAND CAPITAL MANAGEMENT

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

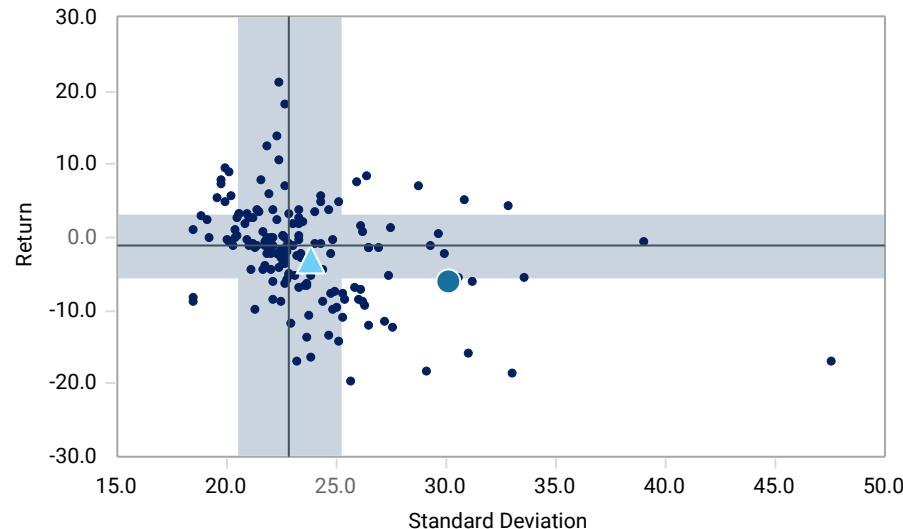


Quarter Excess Return with a Rolling 0.75 Year Excess Return over Since Inception Ending September 30, 2022



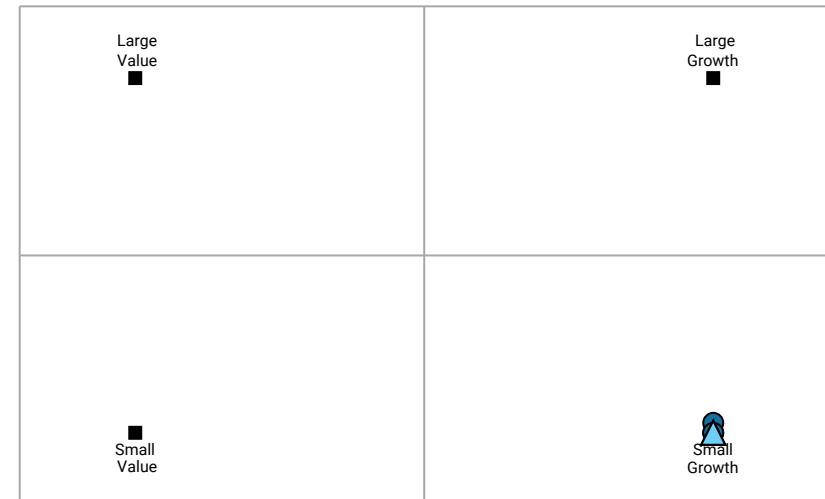
GRANAHAN INVESTMENT MANAGEMENT

Since Inception Return vs. Standard Deviation

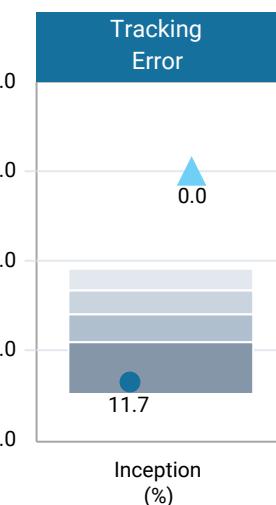
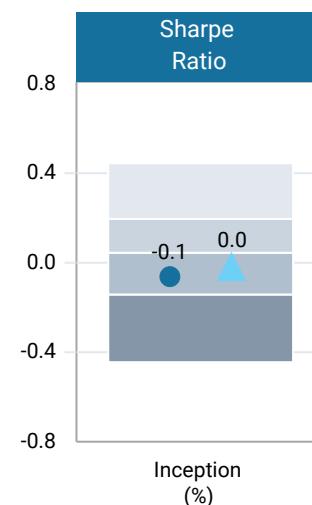
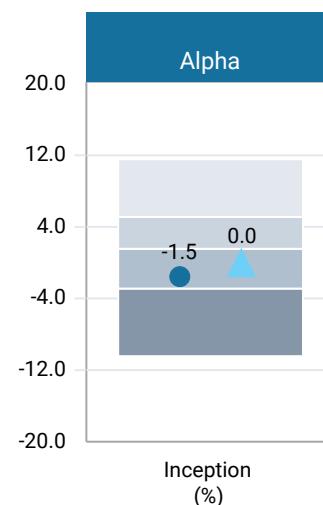
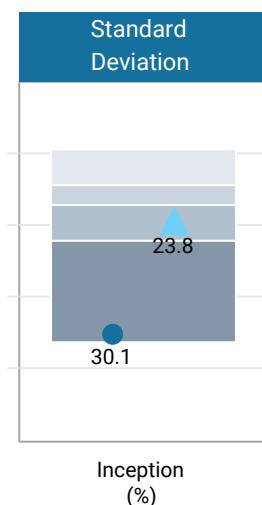
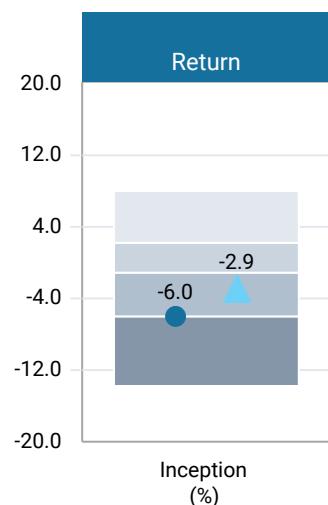


- Granahan Investment Management
- ▲ Russell 2000 Growth Index

Rolling 0.75 Year Style Map

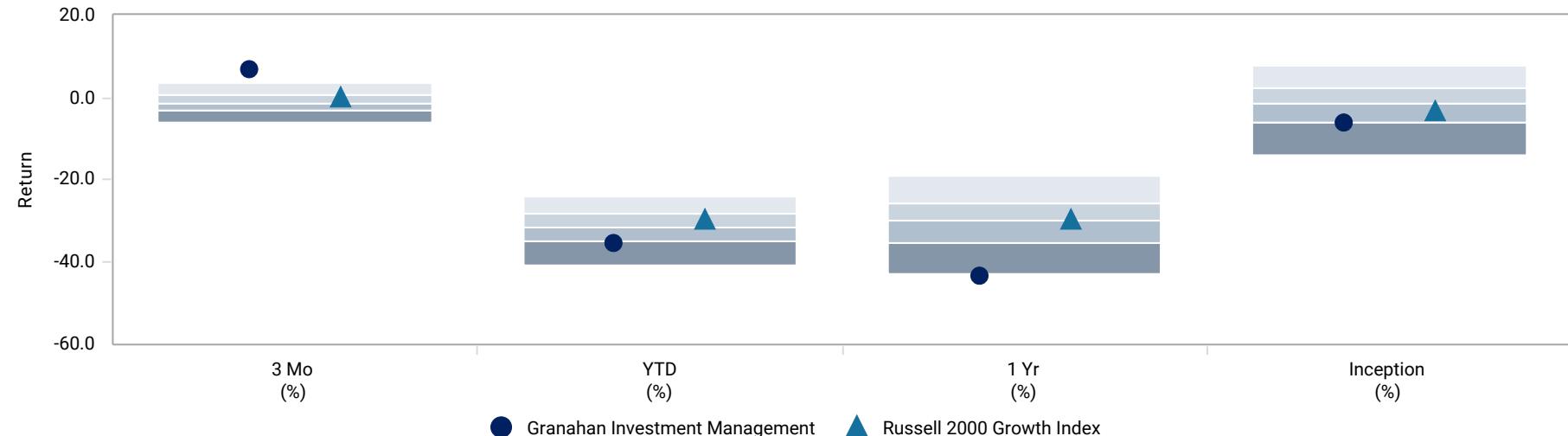


- Granahan Investment Management
- ▲ Russell 2000 Growth Index

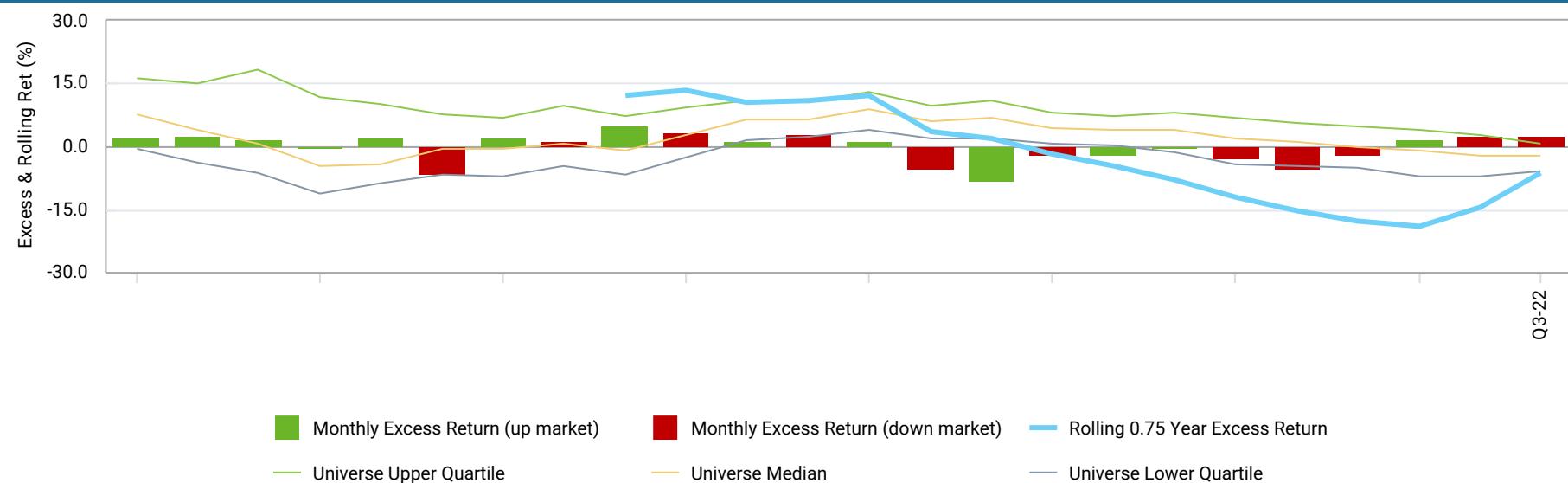


GRANAHAN INVESTMENT MANAGEMENT

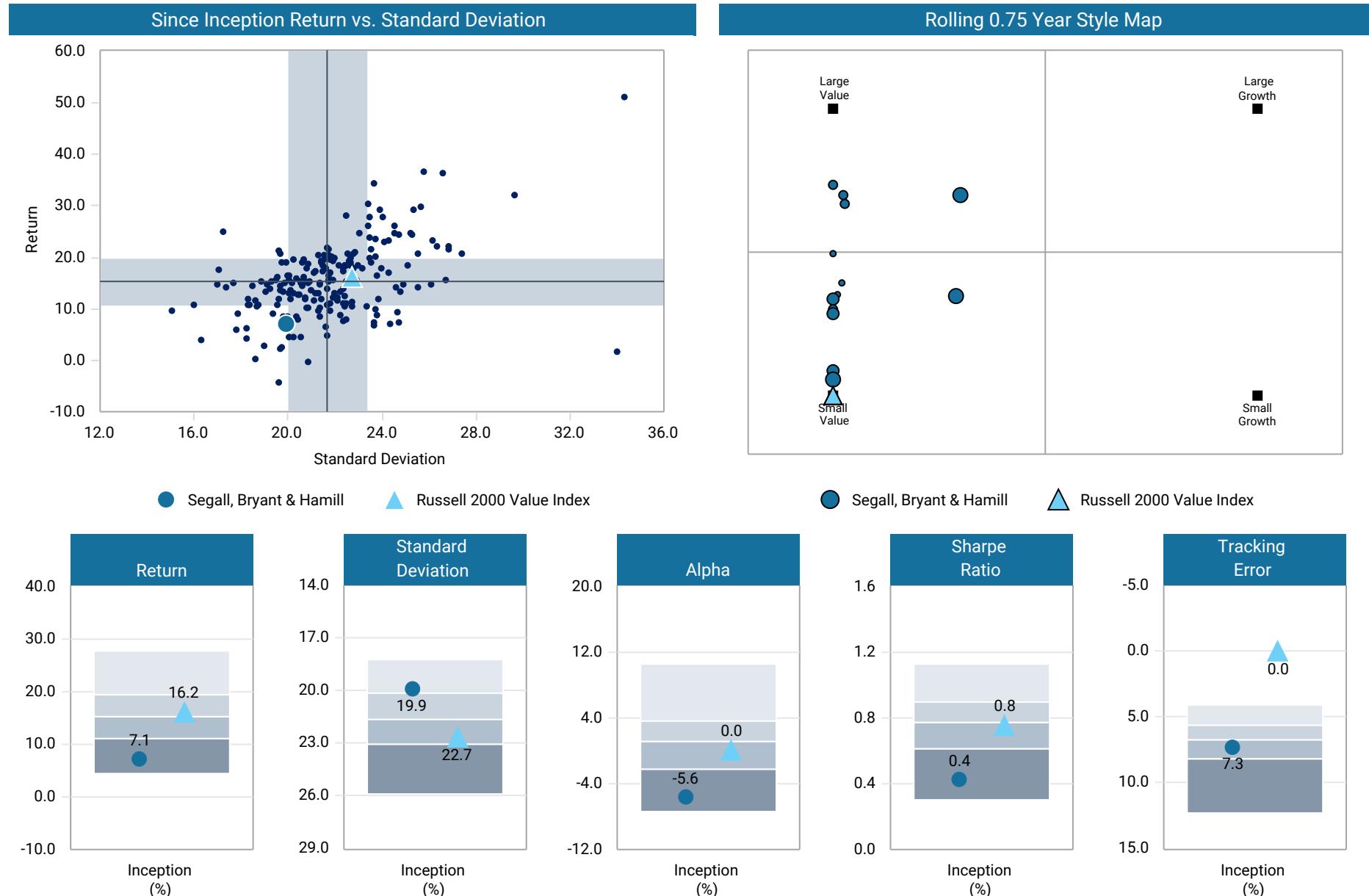
eV US Small Cap Growth Equity (net of fees)



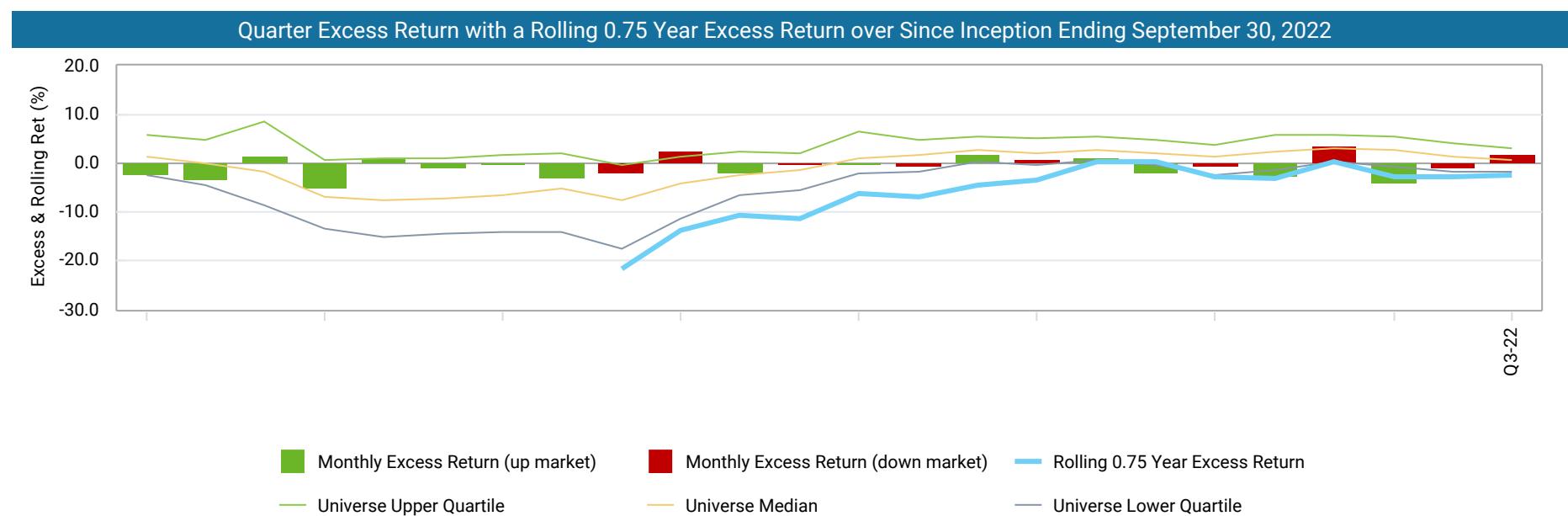
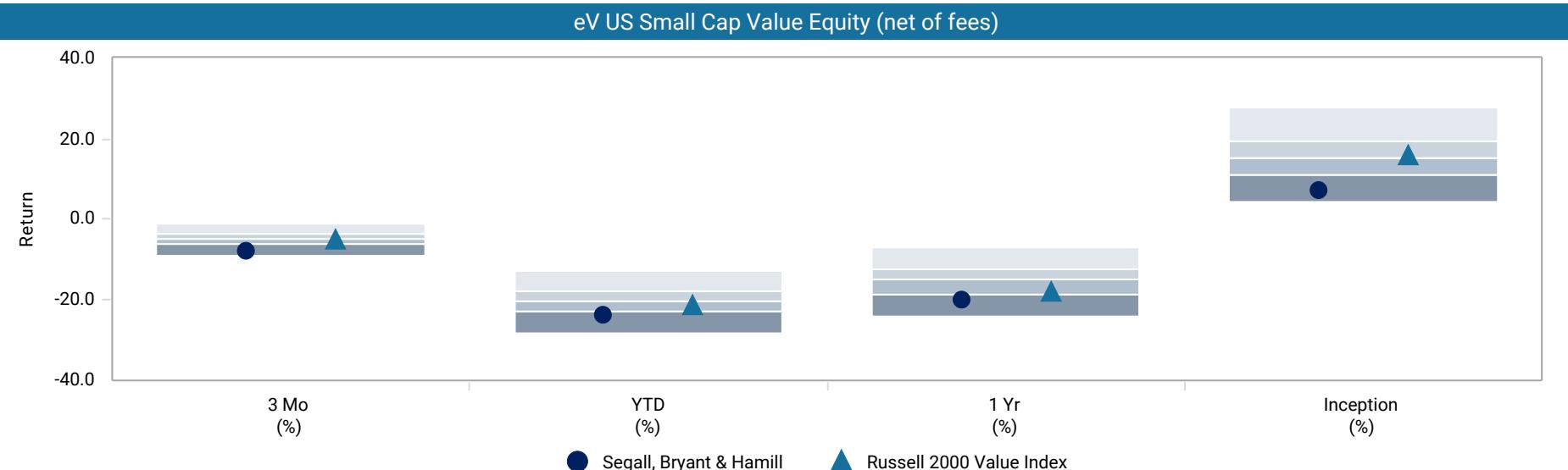
Quarter Excess Return with a Rolling 0.75 Year Excess Return over Since Inception Ending September 30, 2022



SEGALL, BRYANT & HAMILL

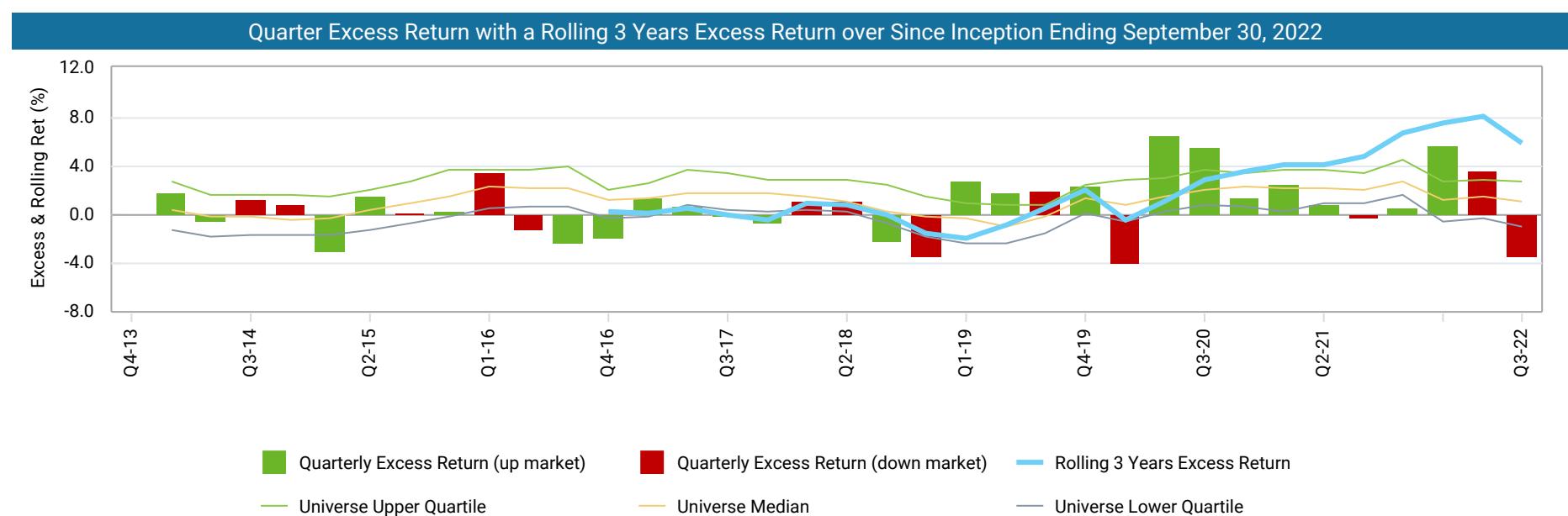
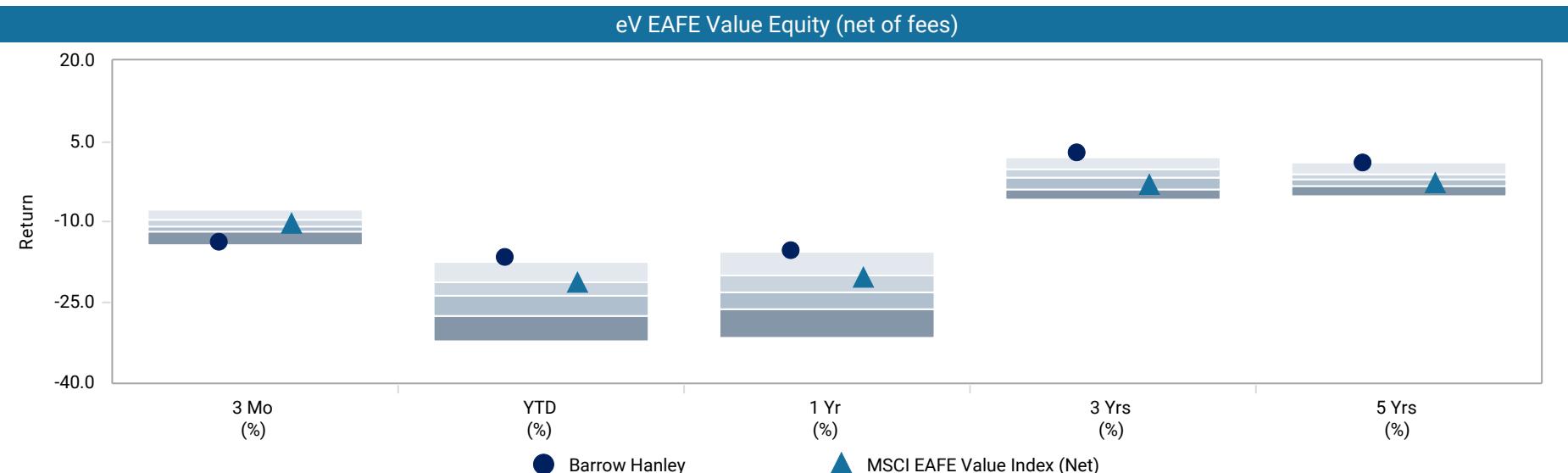


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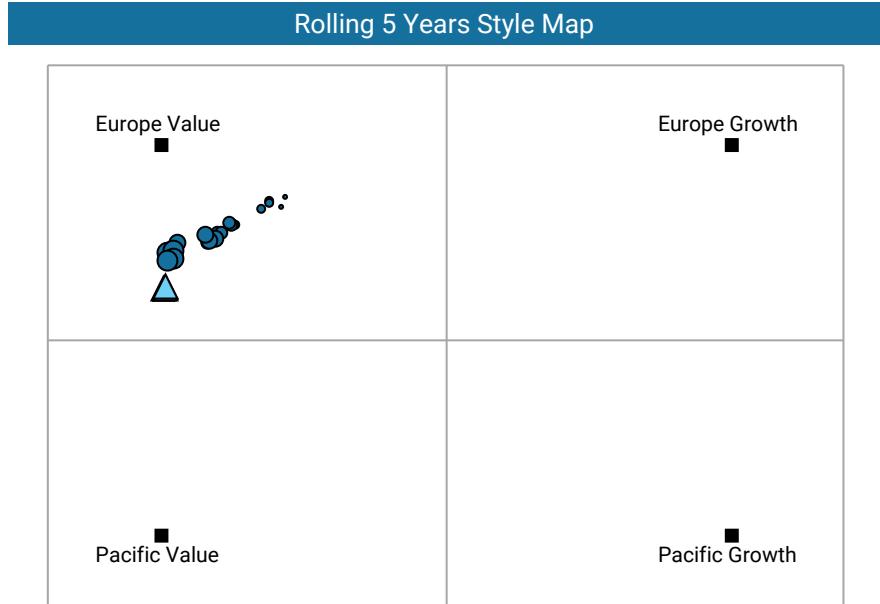
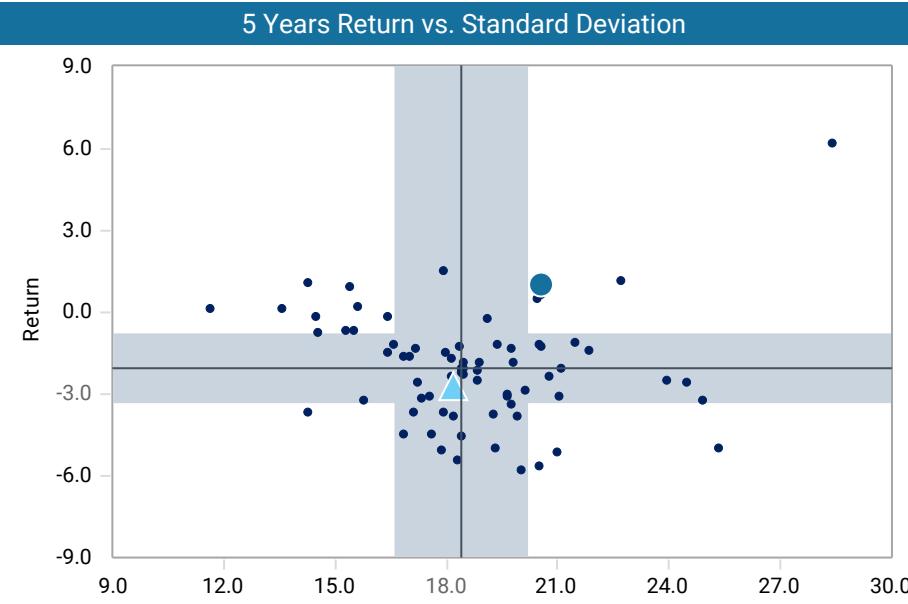




NON-U.S. EQUITY MANAGER PERFORMANCE

BARROW HANLEY

BARROW HANLEY

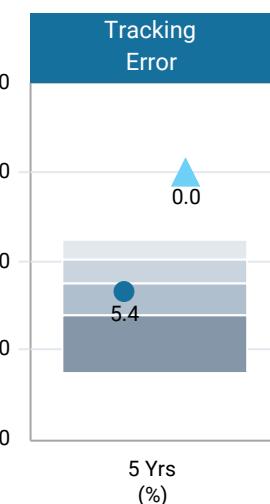
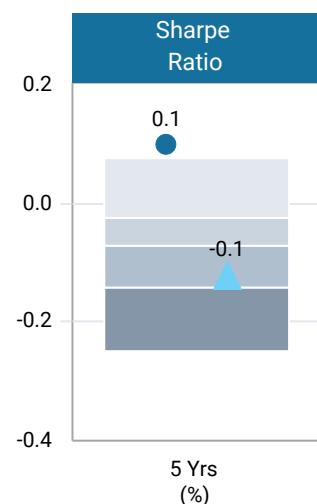
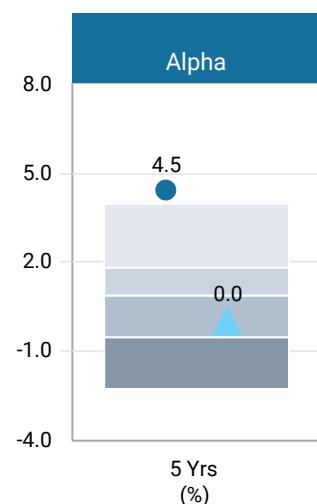
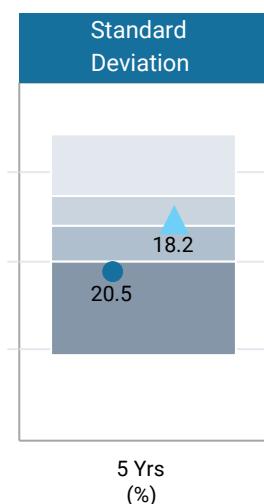
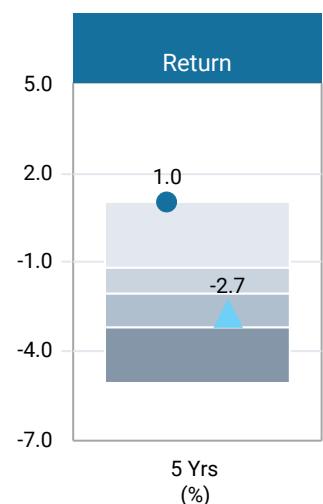


● Barrow Hanley

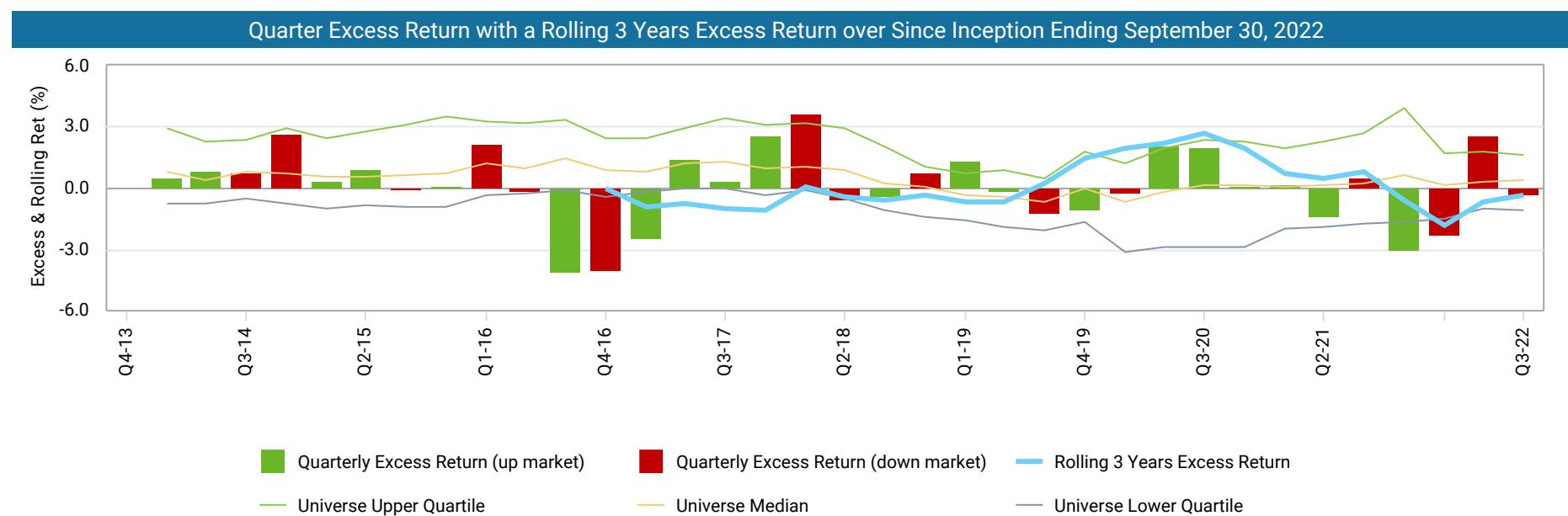
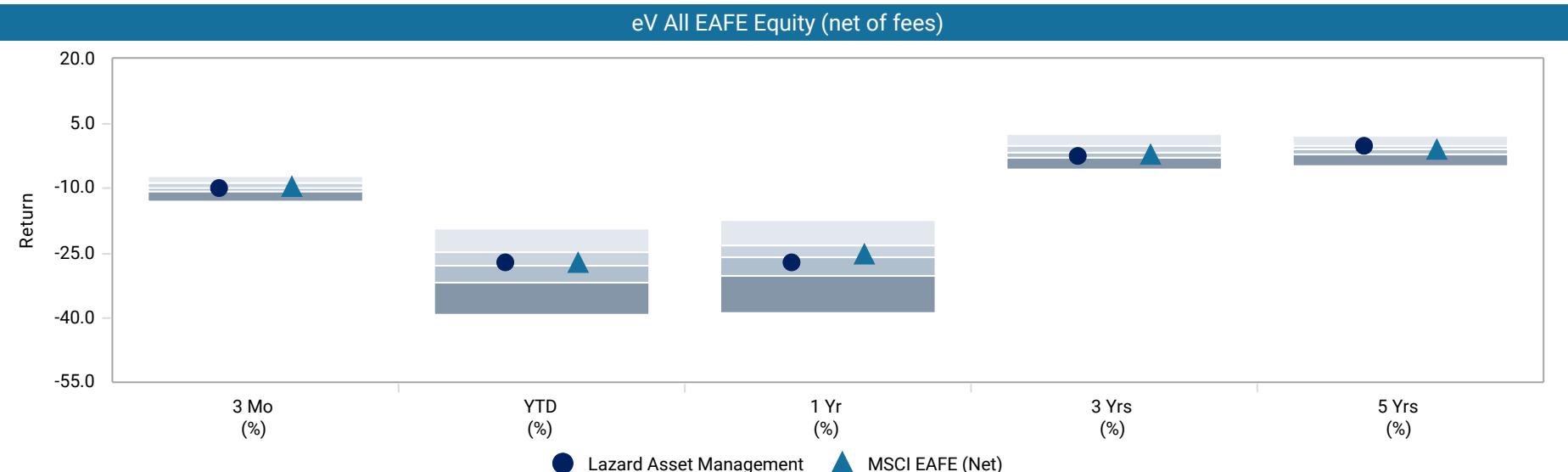
▲ MSCI EAFE Value Index (Net)

● Barrow Hanley

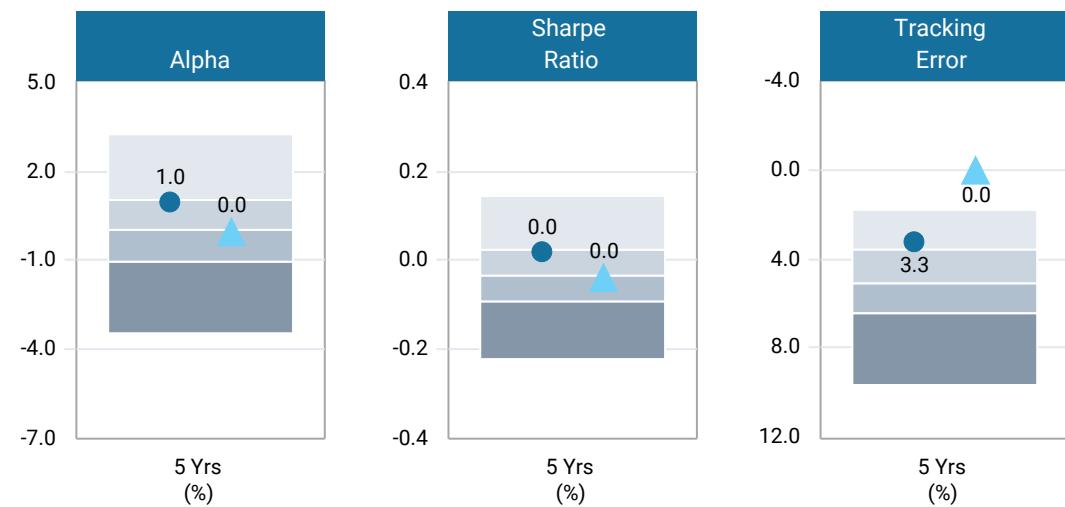
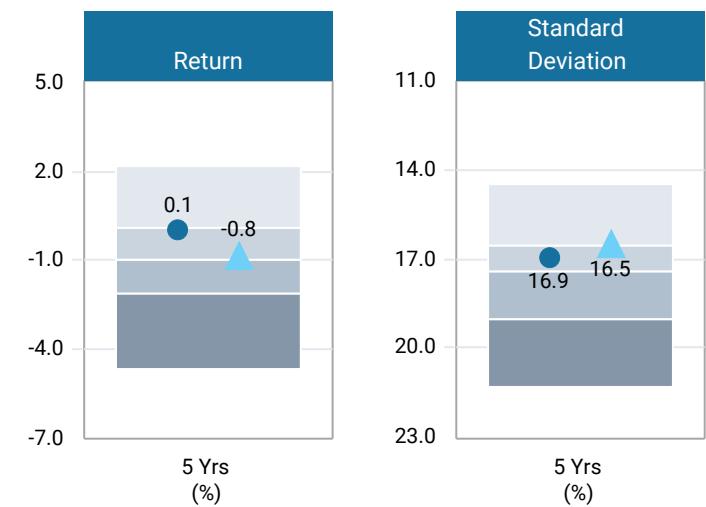
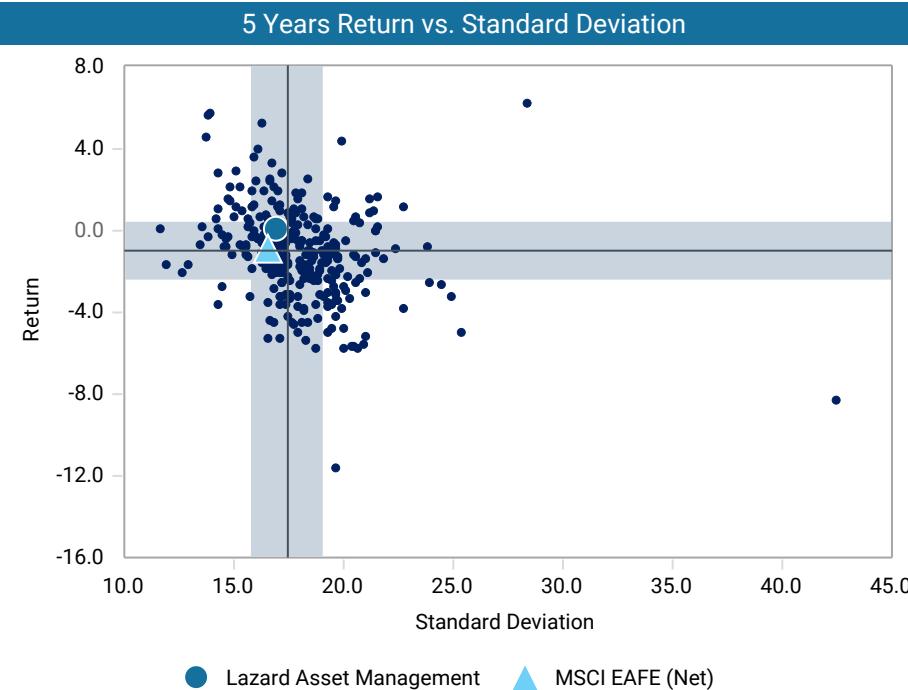
▲ MSCI EAFE Value Index (Net)



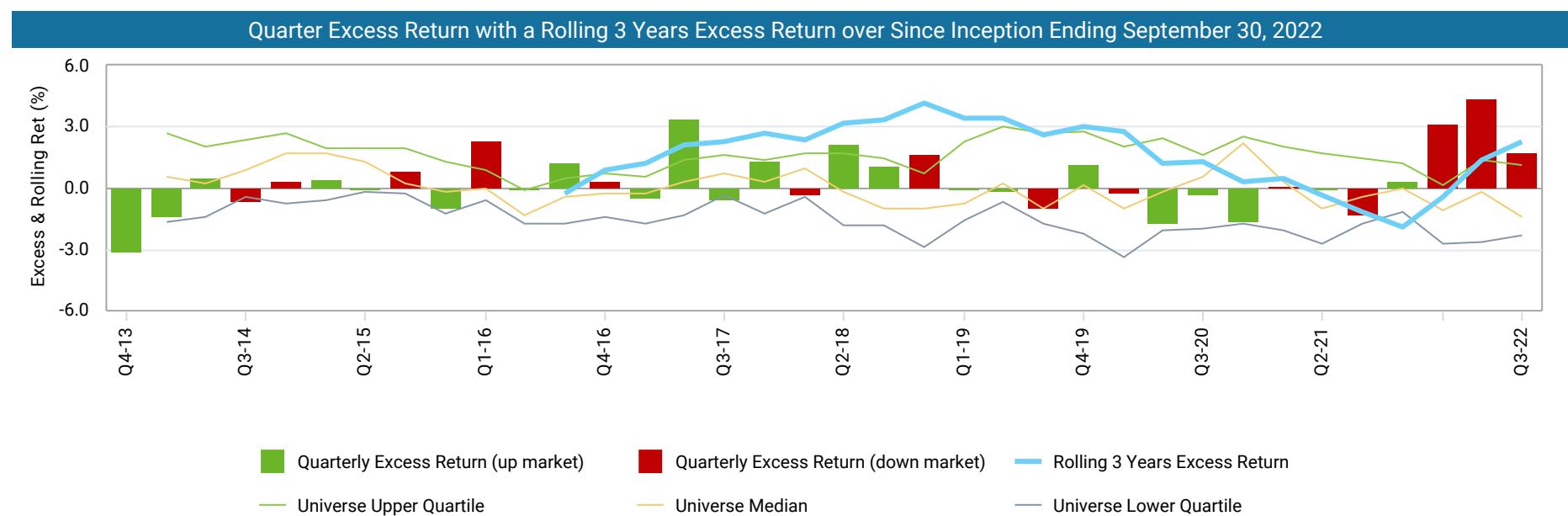
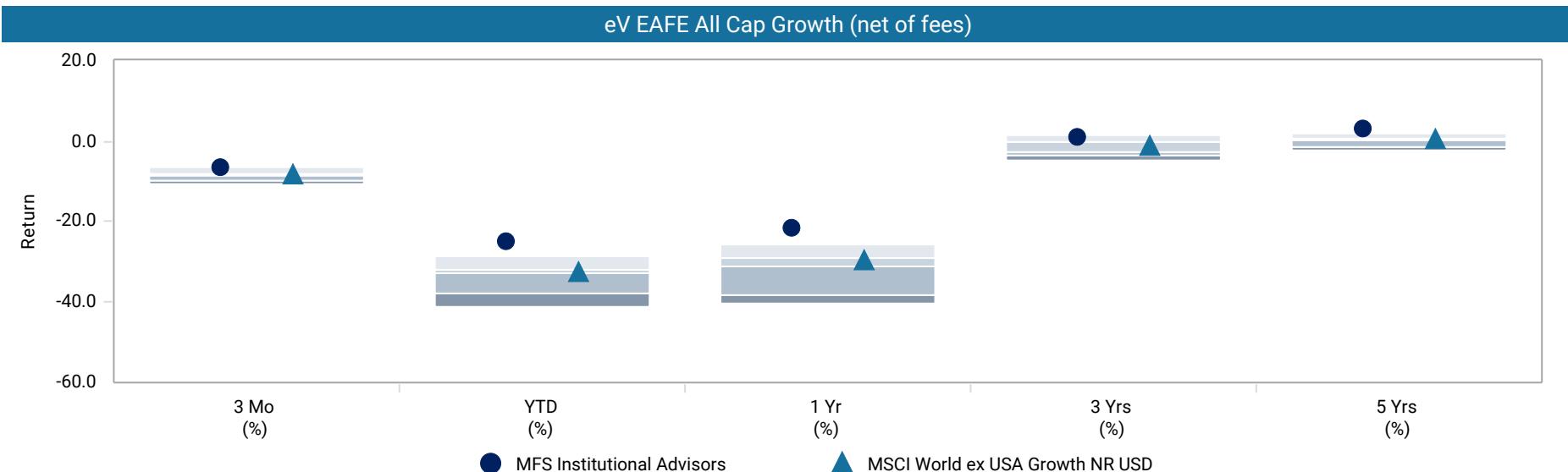
LAZARD ASSET MANAGEMENT



LAZARD ASSET MANAGEMENT

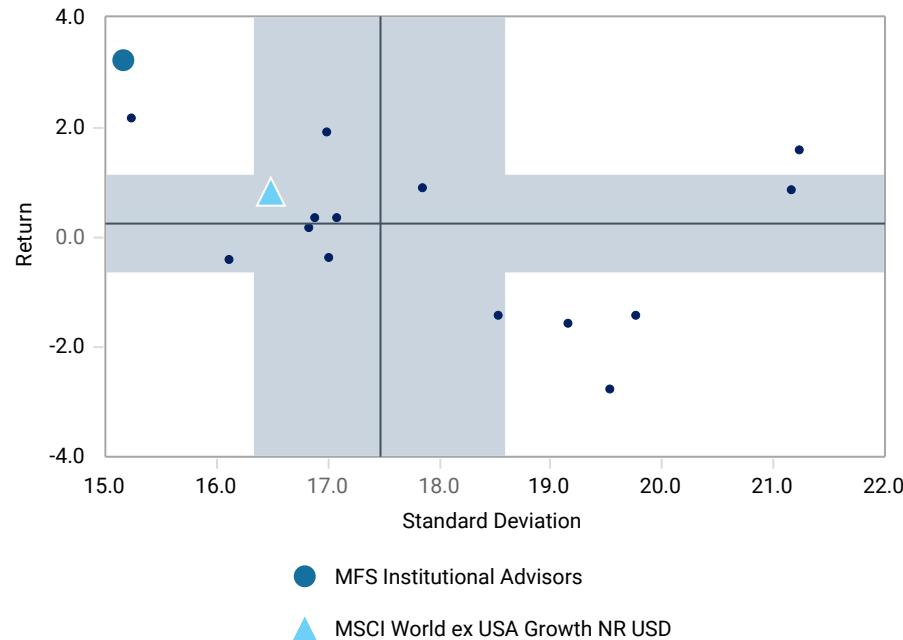


MFS INSTITUTIONAL ADVISORS

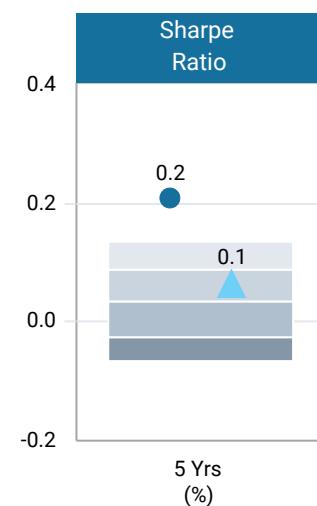
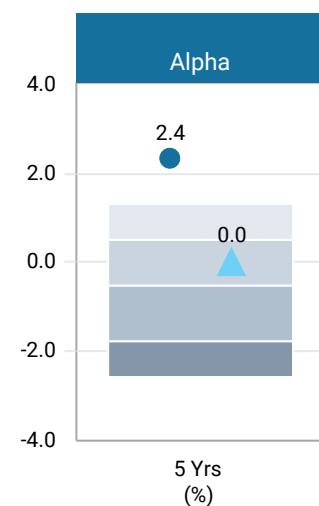
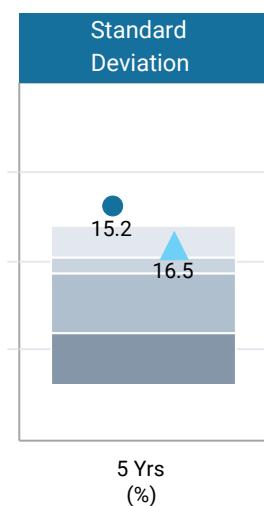
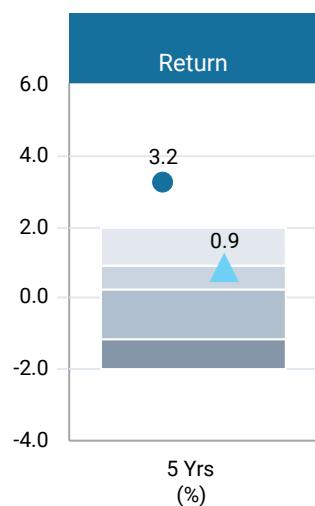
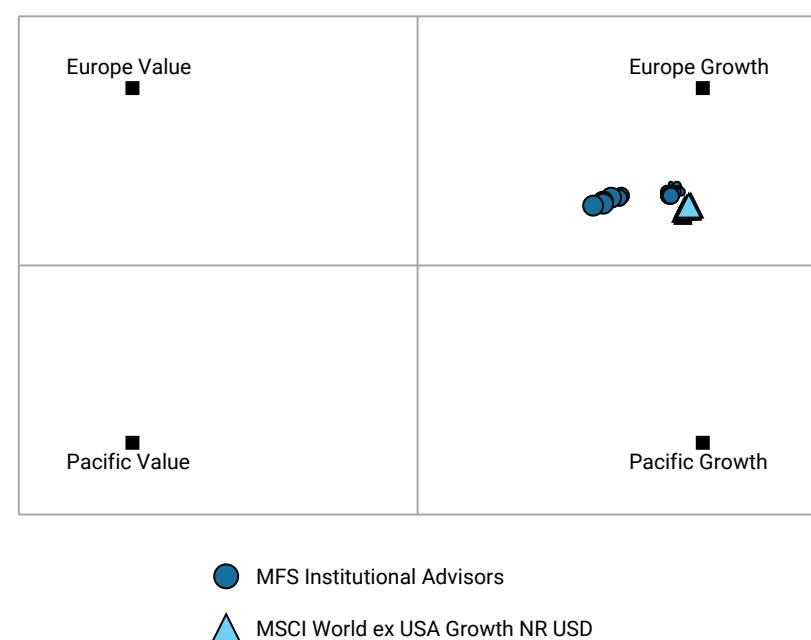


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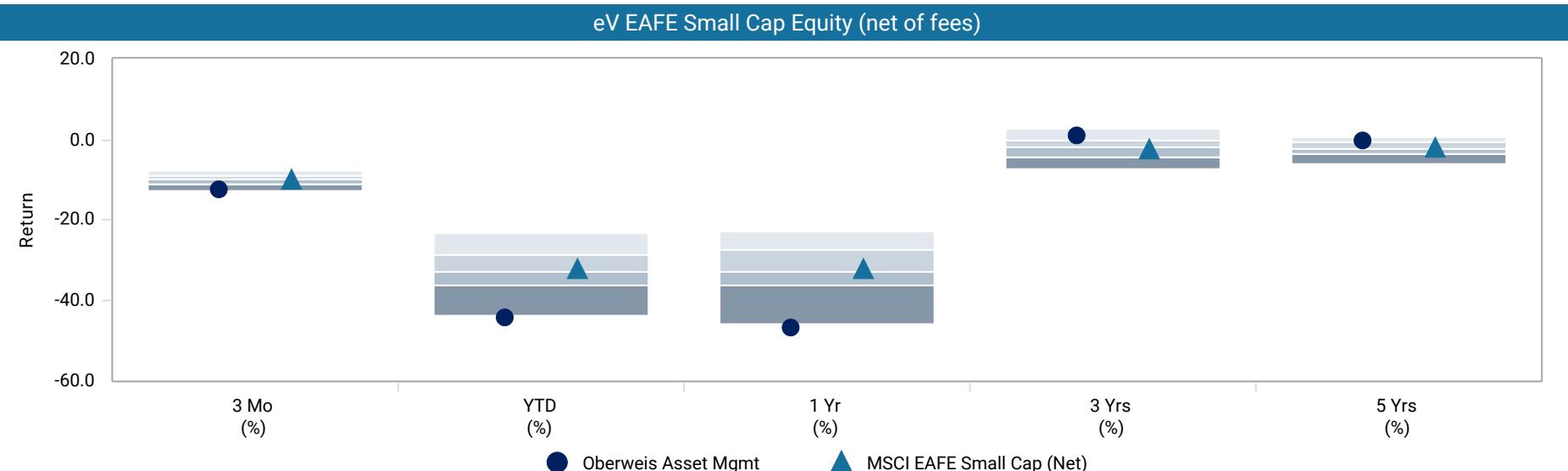
5 Years Return vs. Standard Deviation



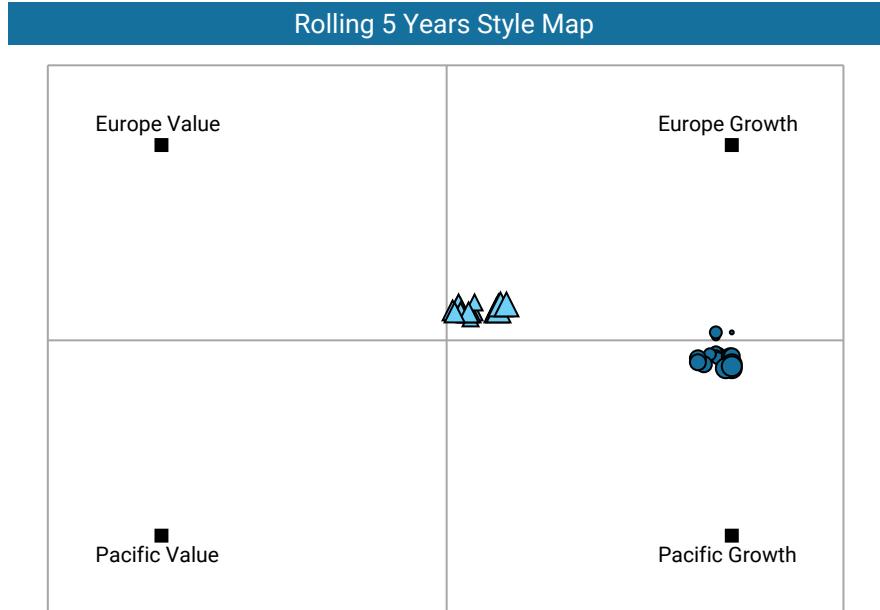
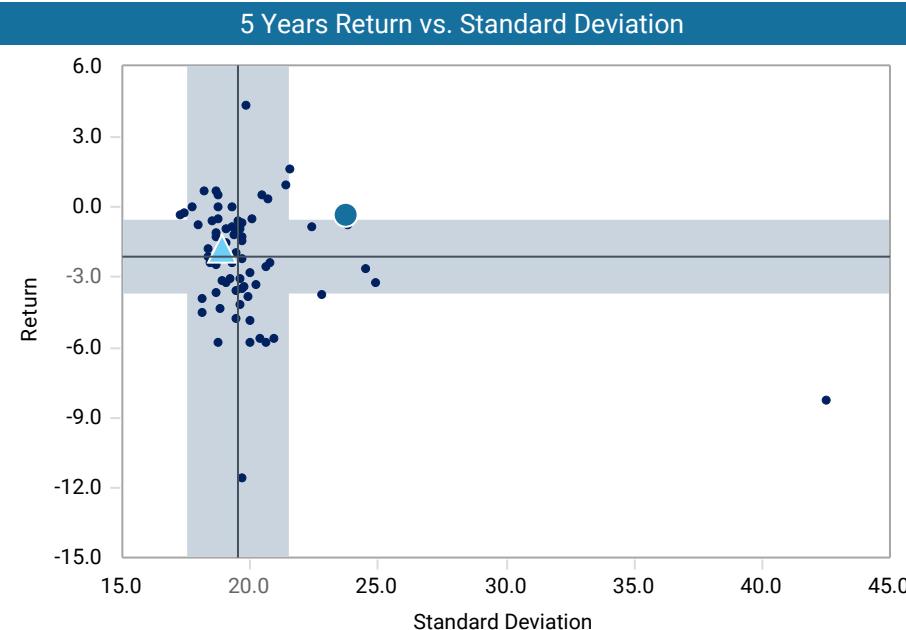
Rolling 5 Years Style Map



OBERWEIS ASSET MGMT



OBERWEIS ASSET MGMT

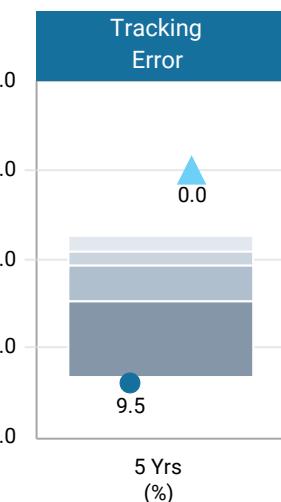
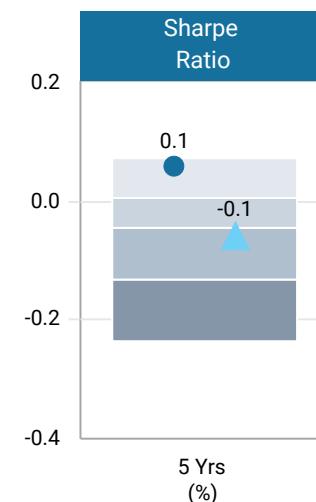
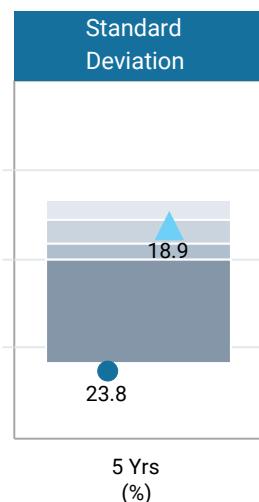
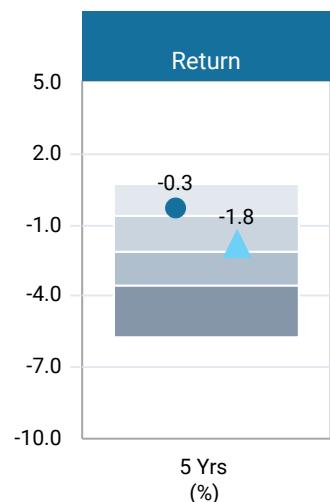


● Oberweis Asset Mgmt

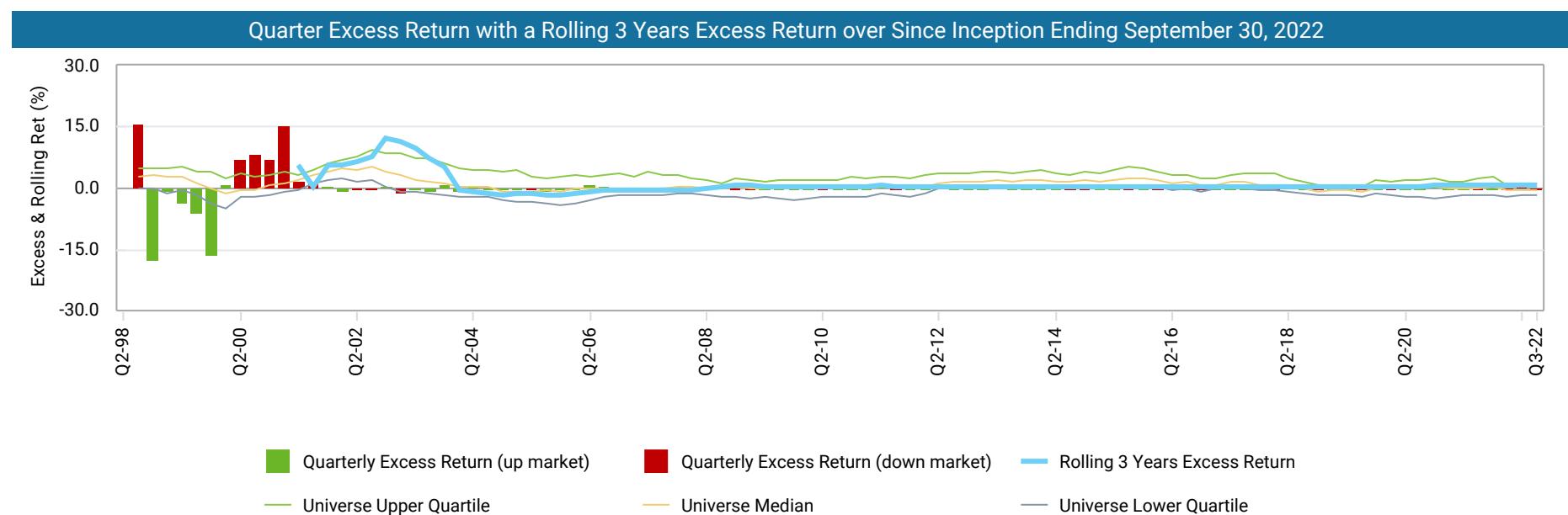
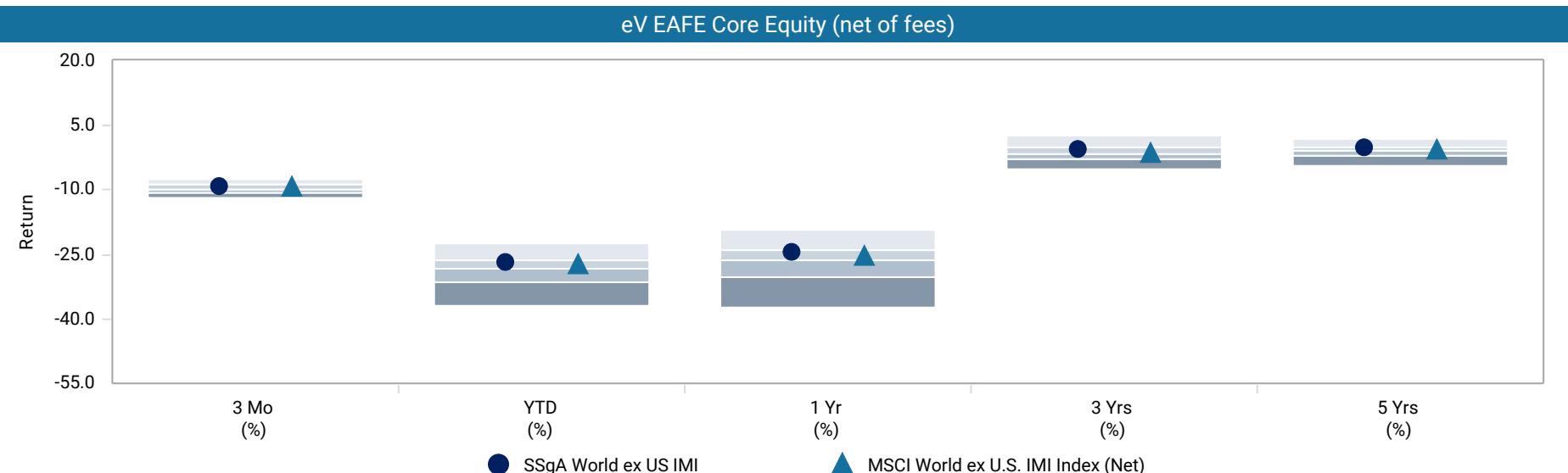
▲ MSCI EAFE Small Cap (Net)

● Oberweis Asset Mgmt

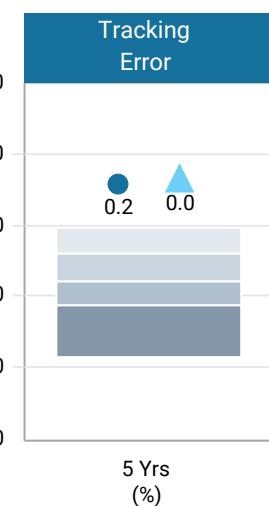
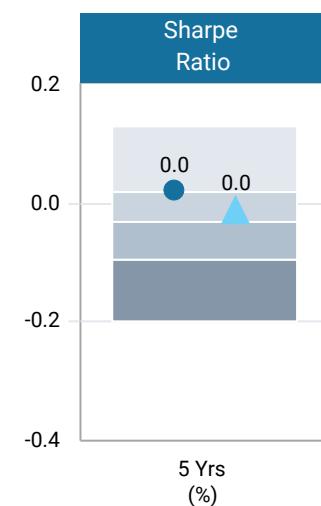
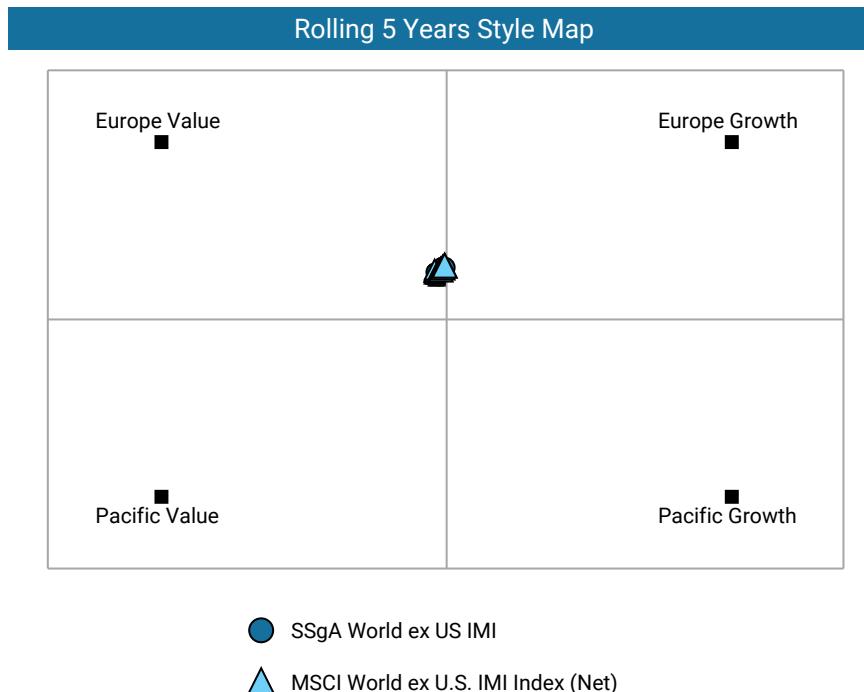
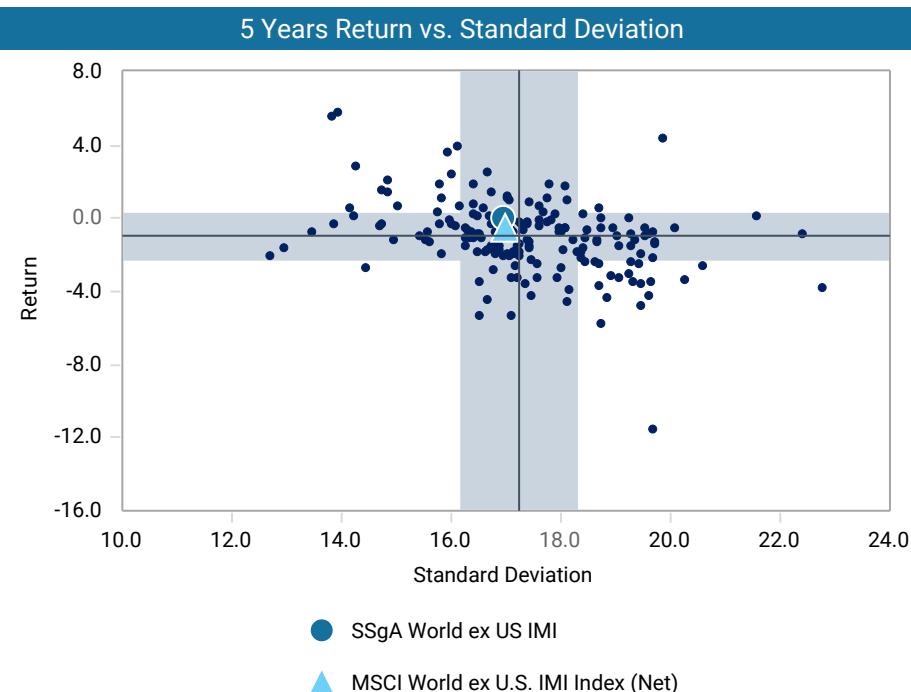
▲ MSCI EAFE Small Cap (Net)



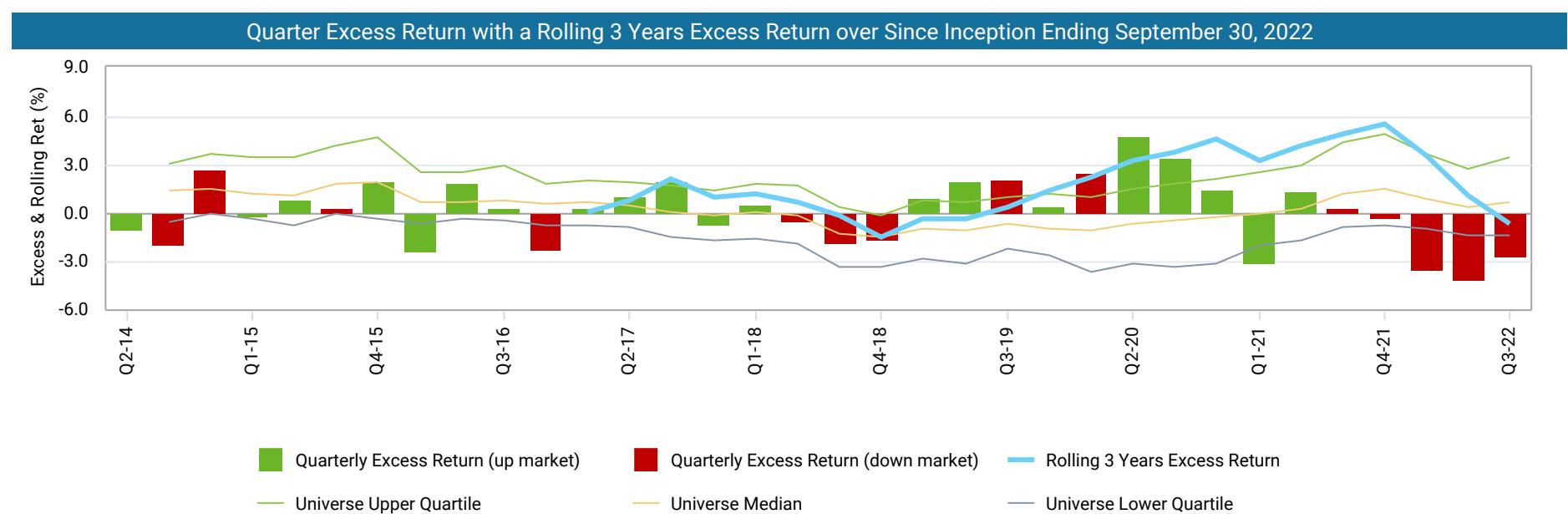
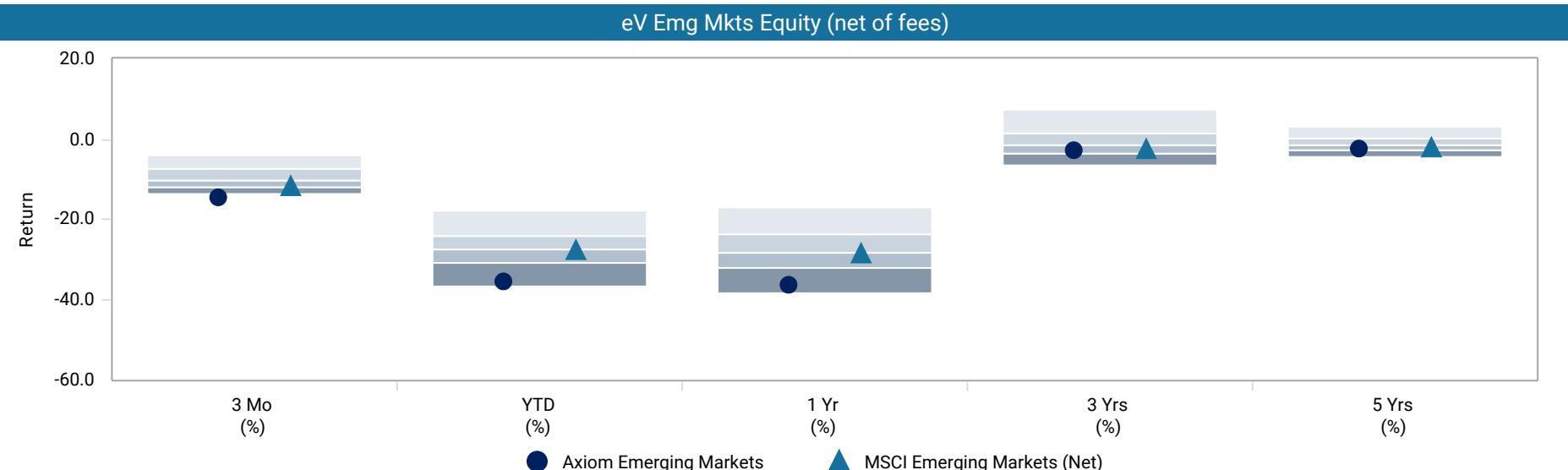
SSGA WORLD EX US IMI



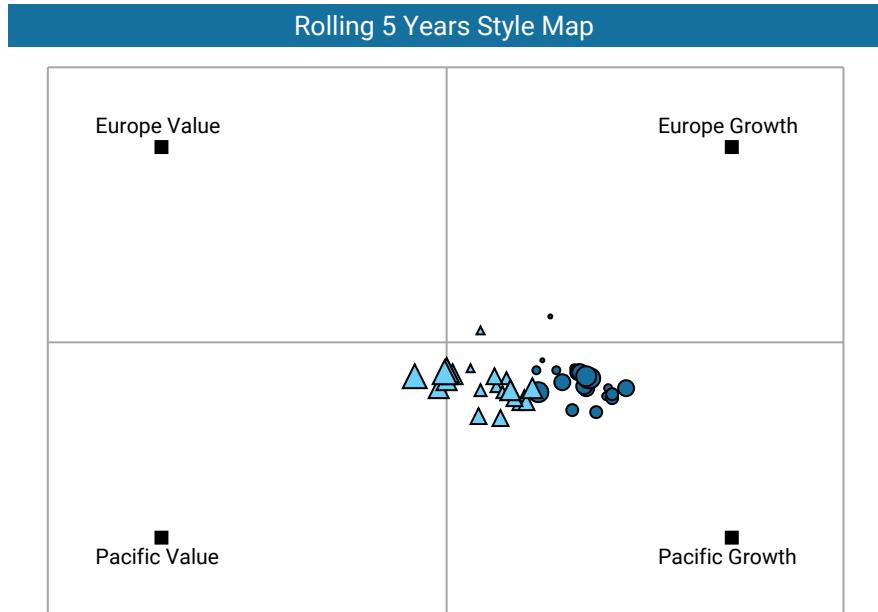
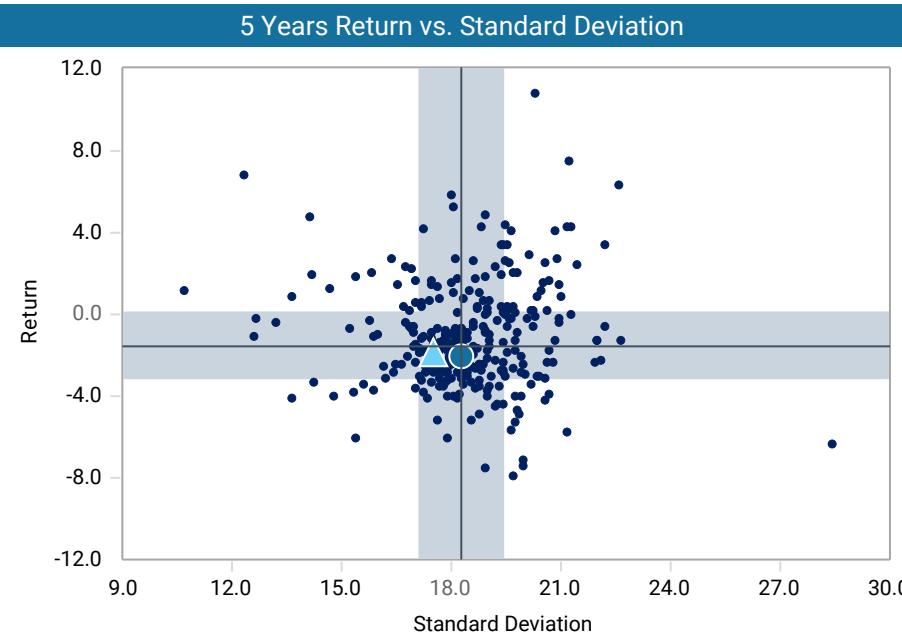
SSGA WORLD EX US IMI



AXIOM EMERGING MARKETS



AXIOM EMERGING MARKETS

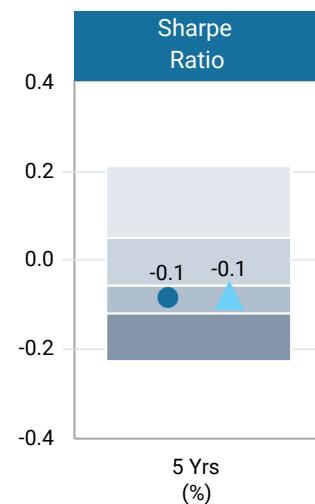
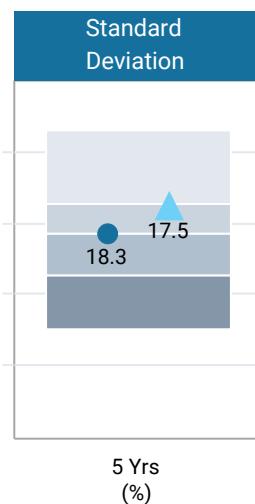
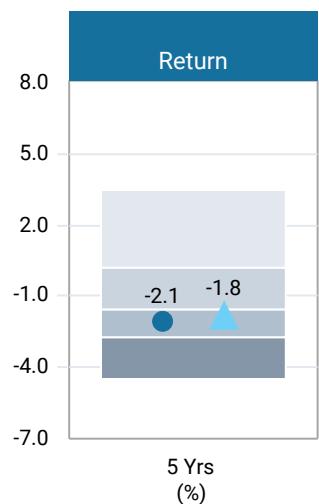


● Axiom Emerging Markets

▲ MSCI Emerging Markets (Net)

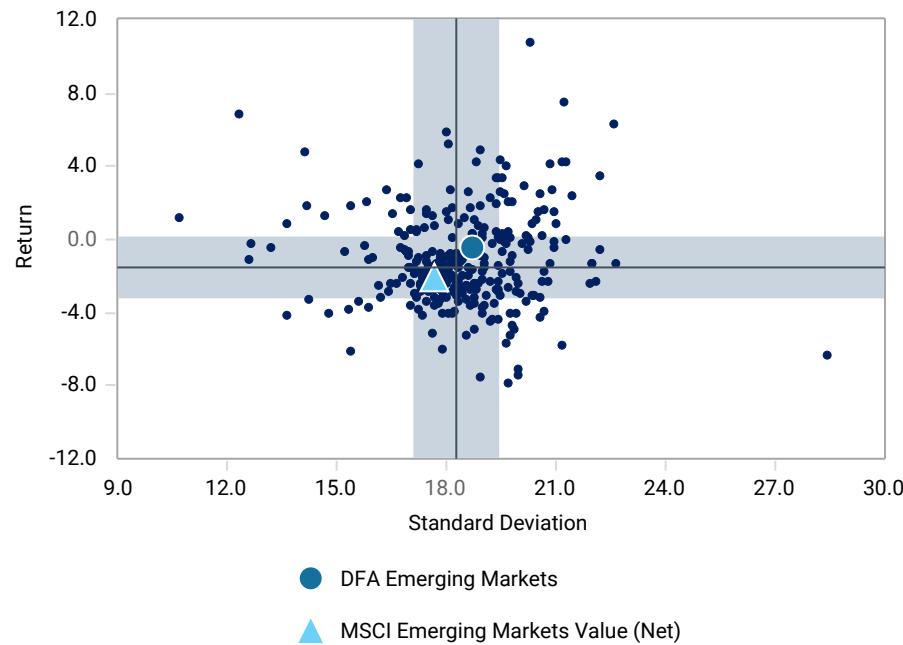
● Axiom Emerging Markets

▲ MSCI Emerging Markets (Net)

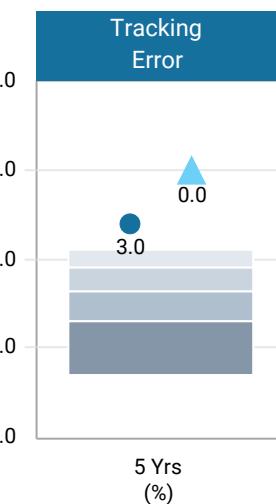
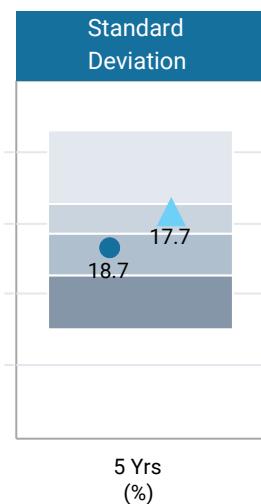
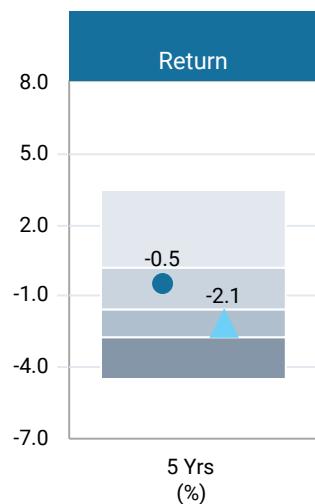
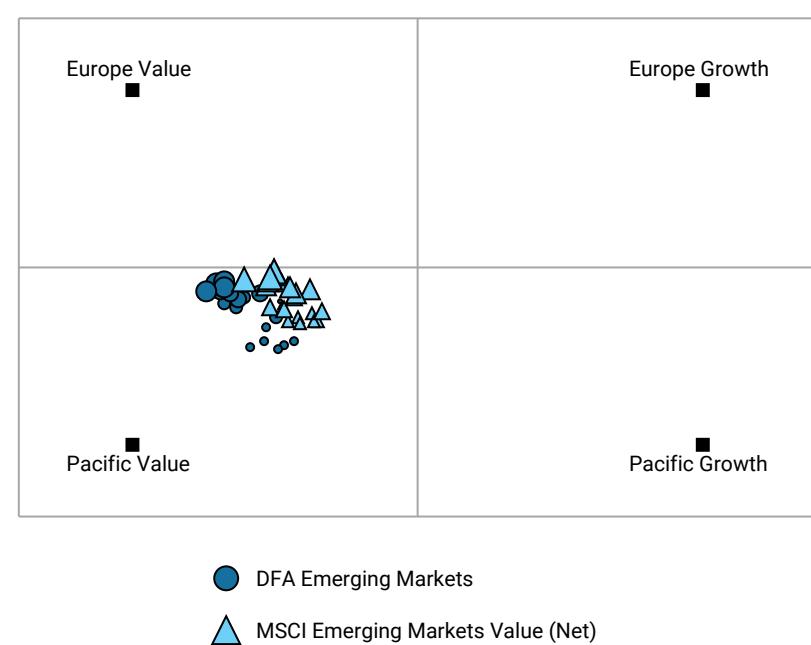


DFA EMERGING MARKETS

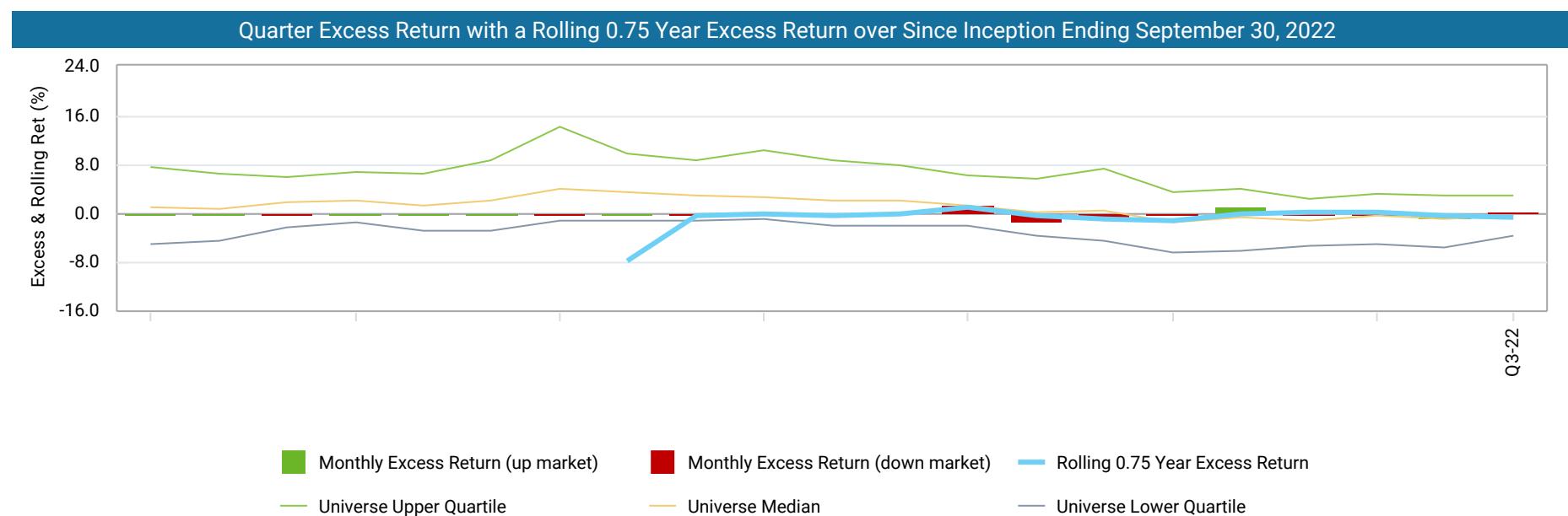
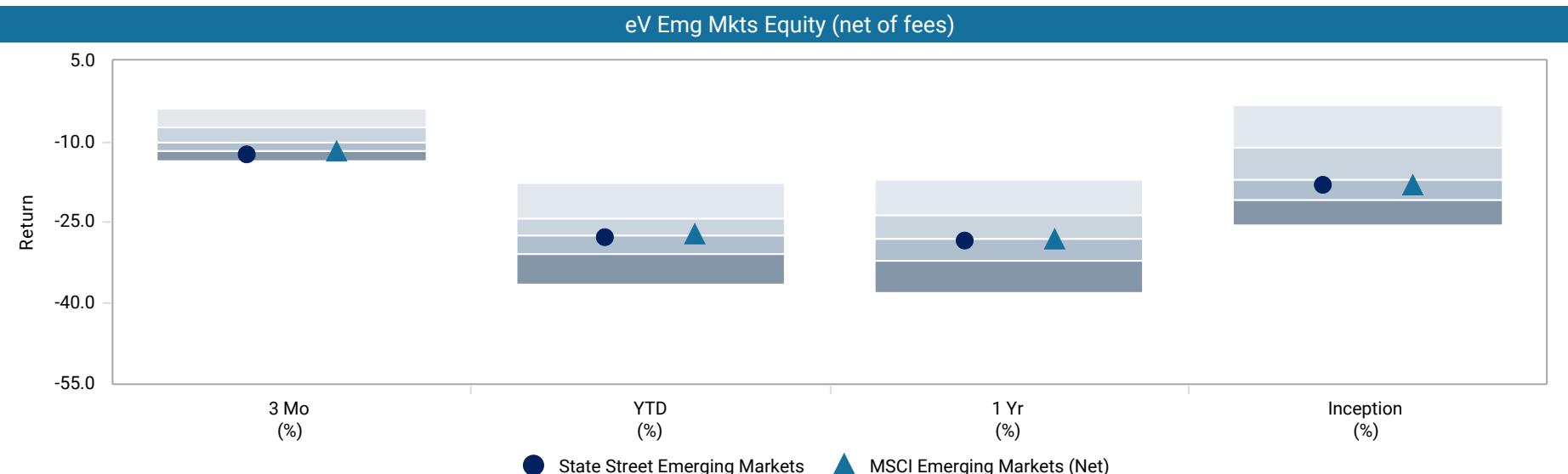
5 Years Return vs. Standard Deviation



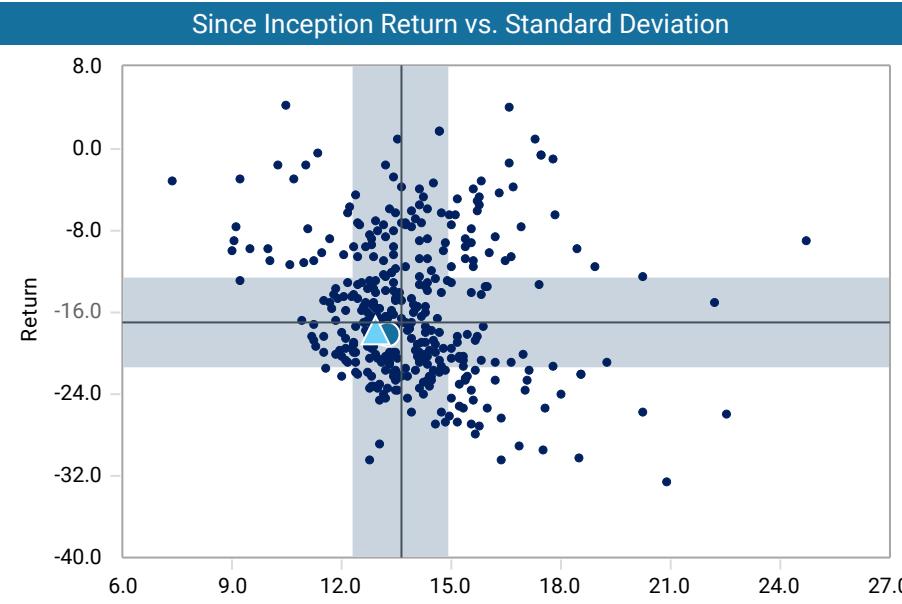
Rolling 5 Years Style Map



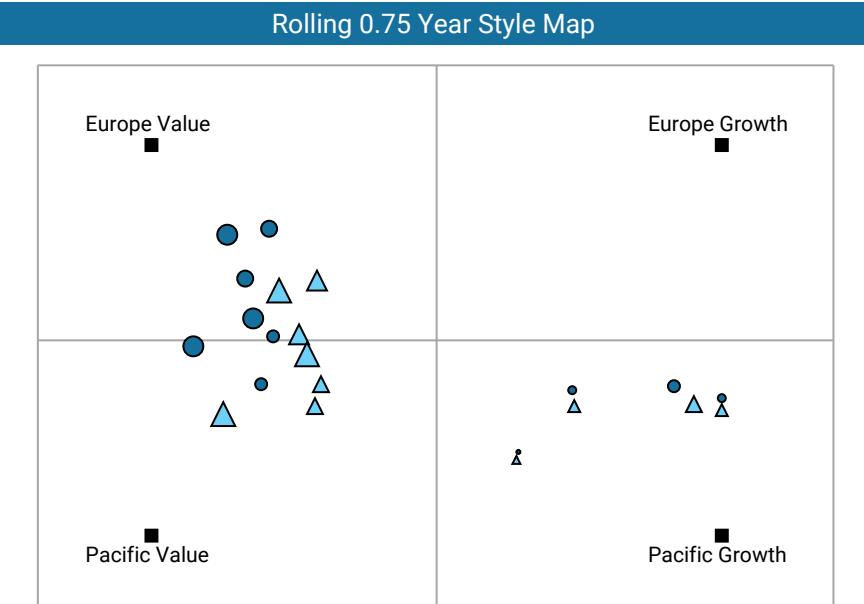
SSGA EMERGING MARKETS



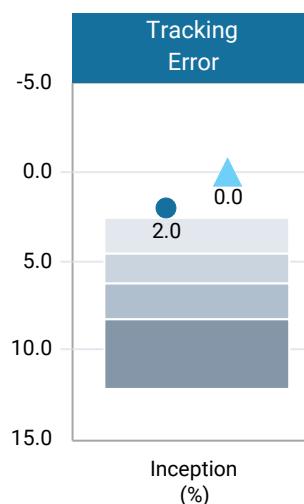
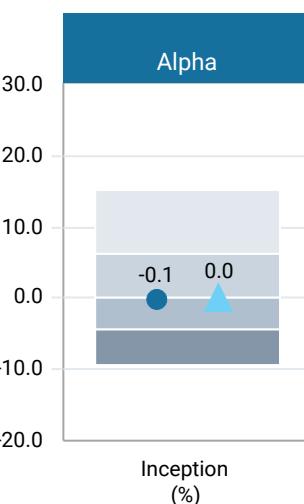
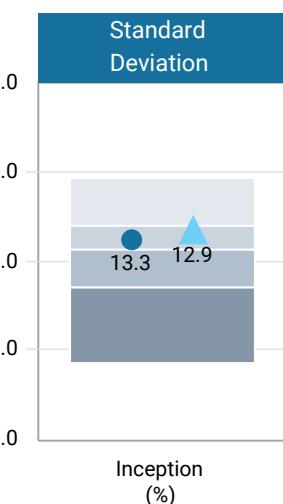
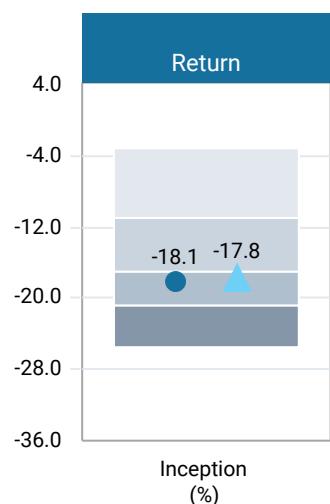
SSGA EMERGING MARKETS



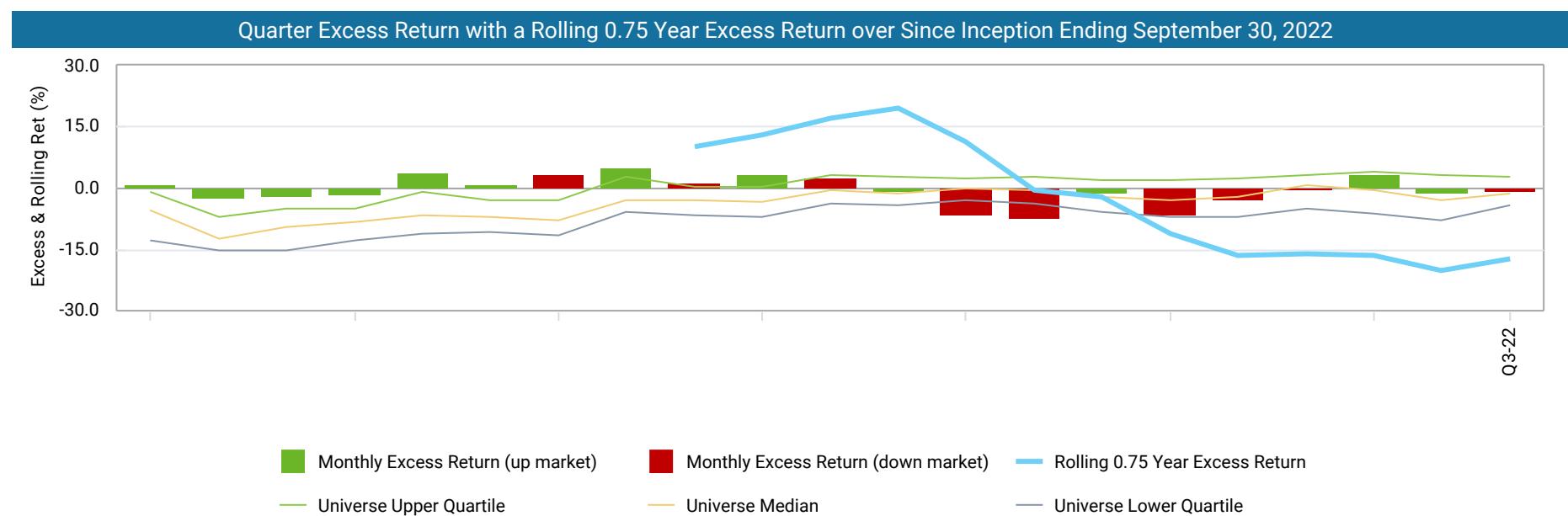
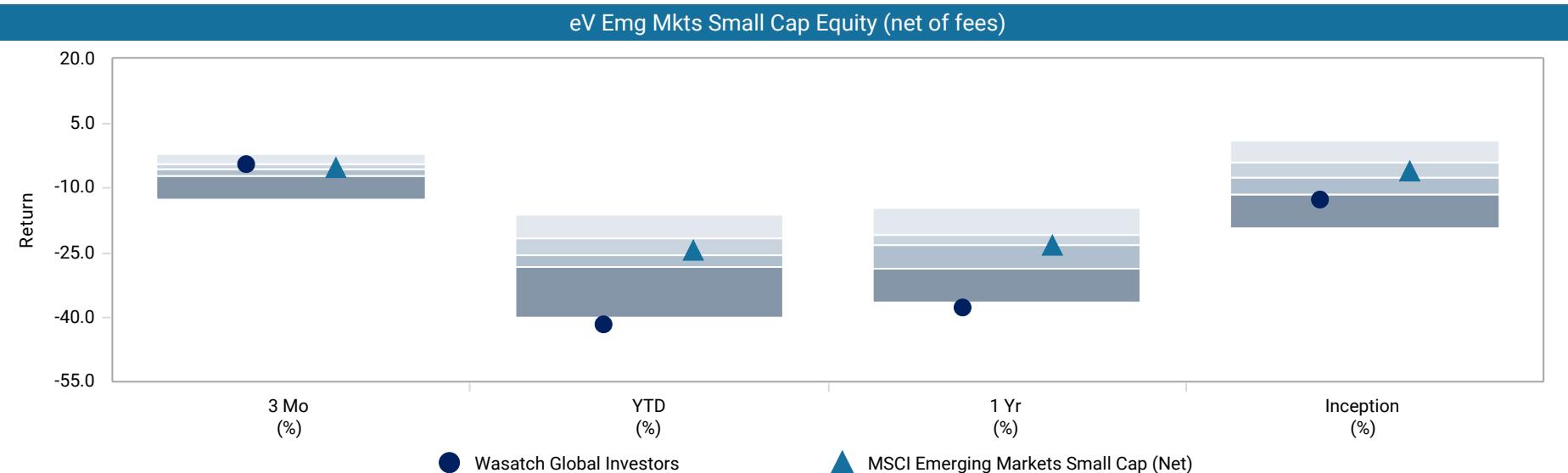
● State Street Emerging Markets ▲ MSCI Emerging Markets (Net)



● State Street Emerging Markets ▲ MSCI Emerging Markets (Net)

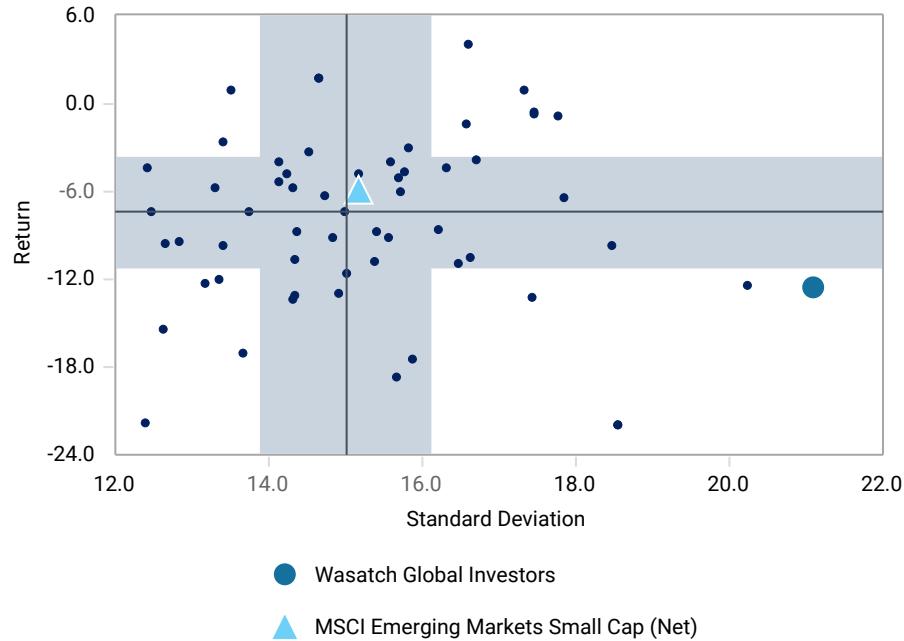


WASATCH GLOBAL INVESTORS

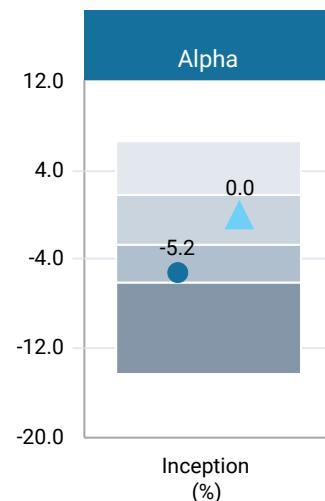
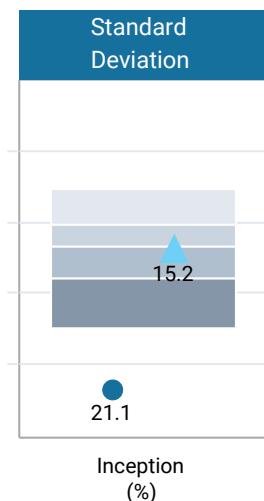
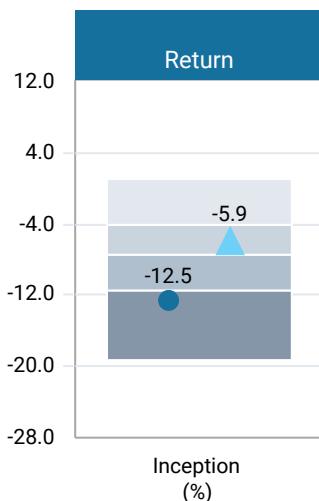
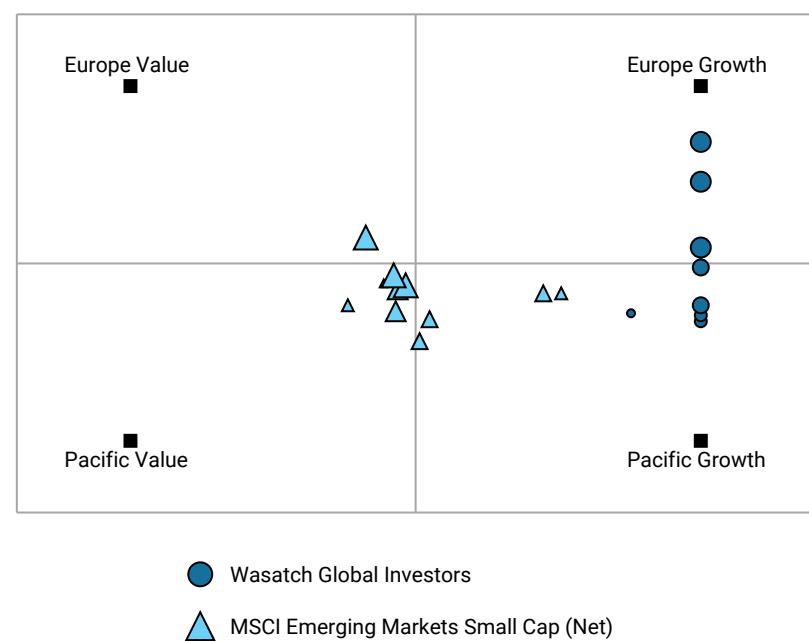


WASATCH GLOBAL INVESTORS

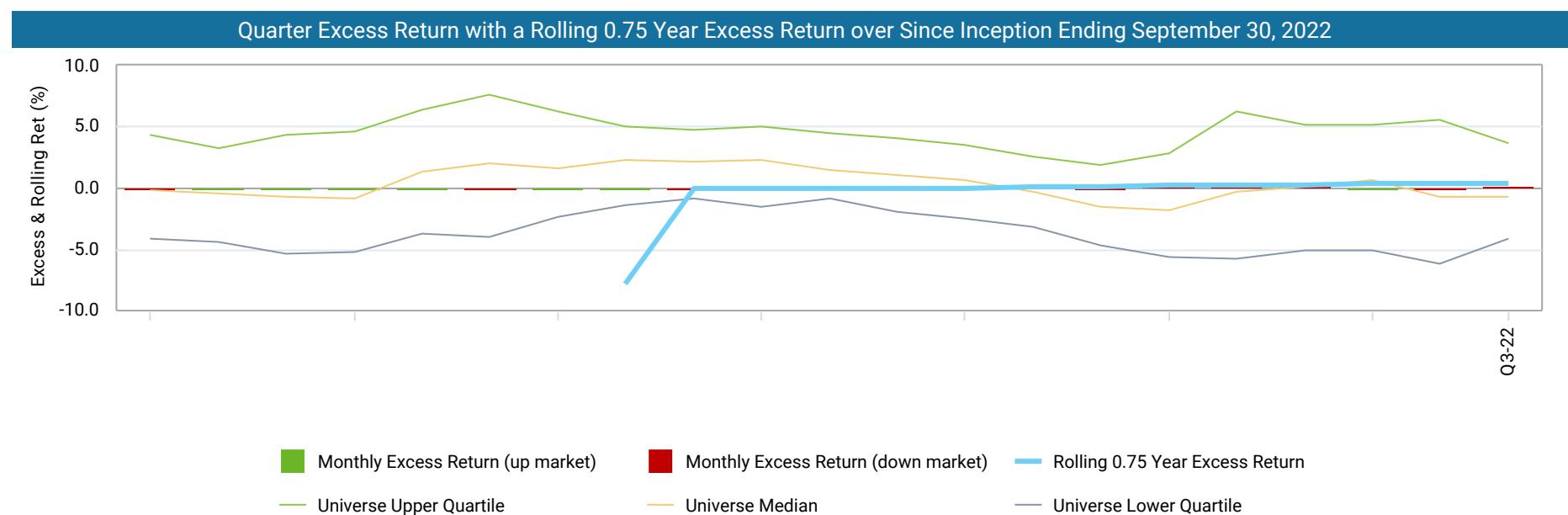
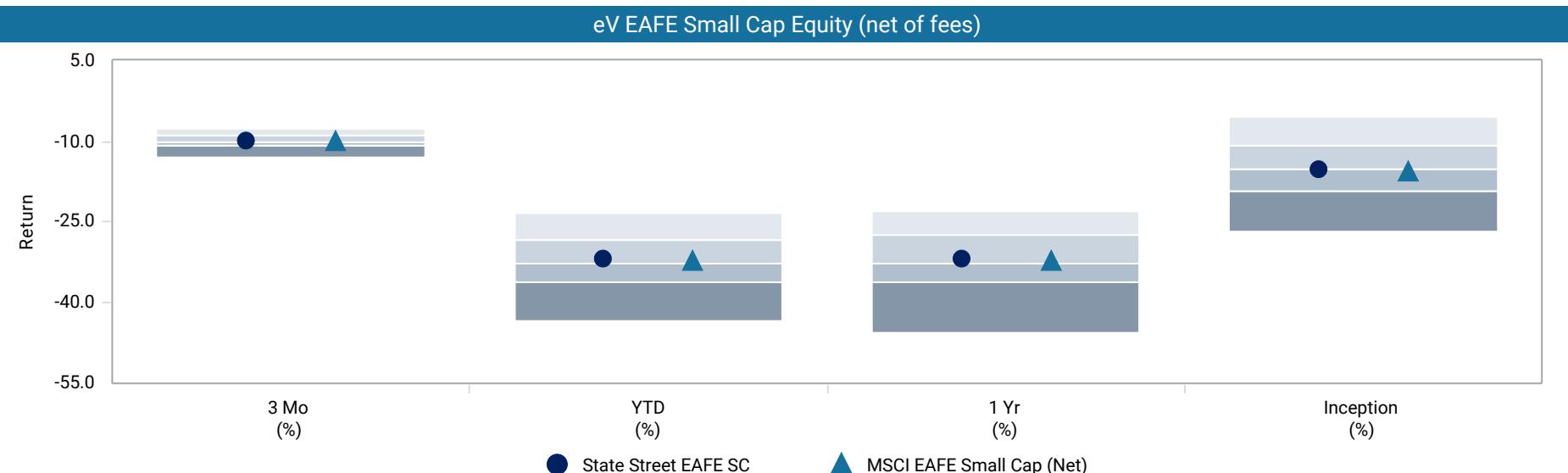
Since Inception Return vs. Standard Deviation



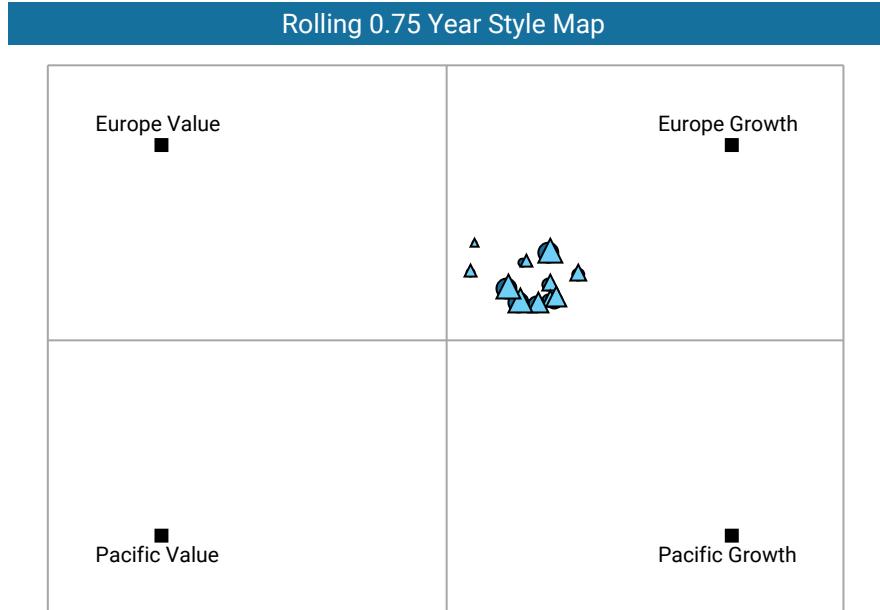
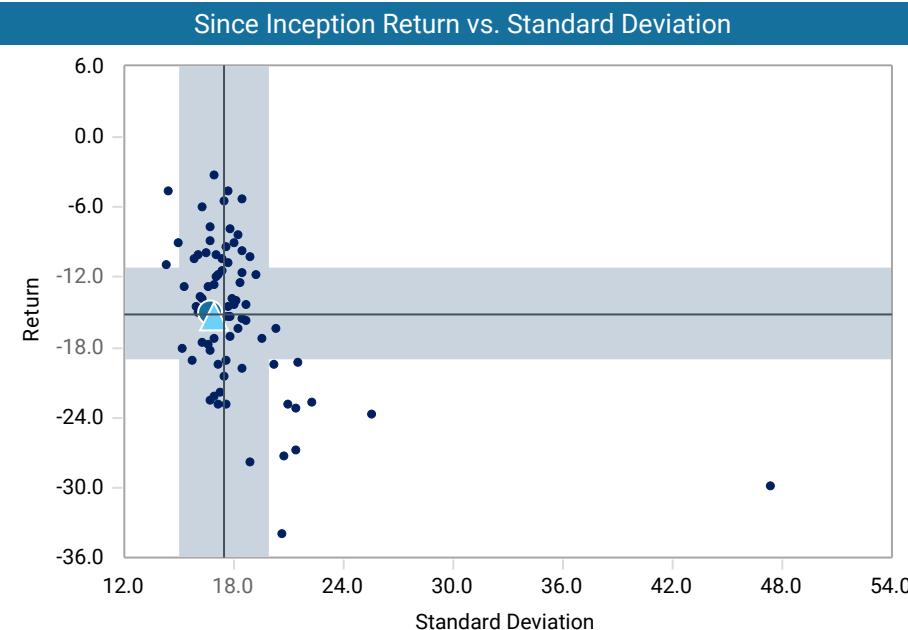
Rolling 0.75 Year Style Map



SSGA EAFE SC



SSGA EAFE SC

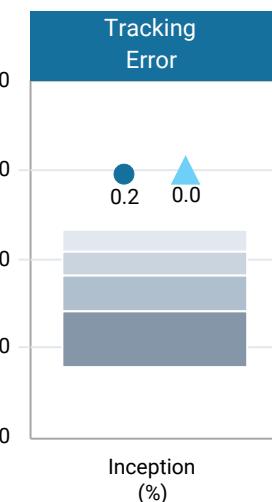
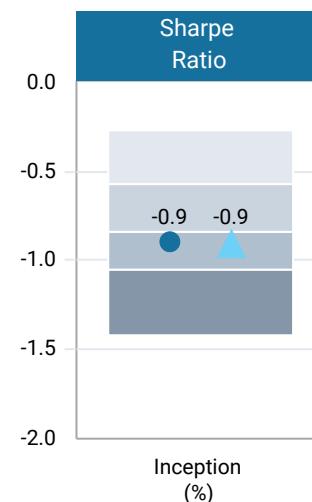
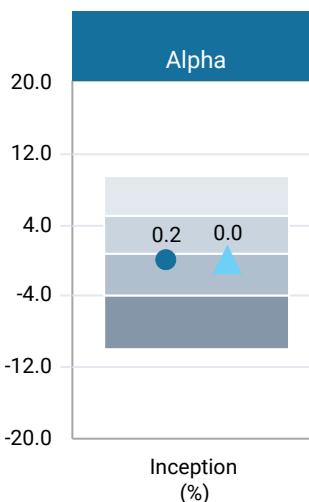
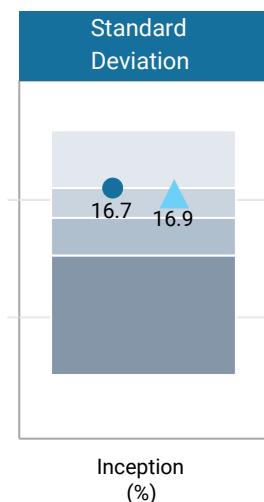
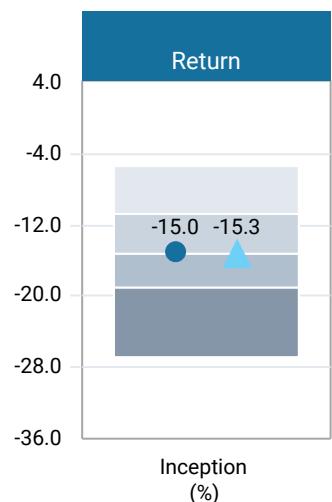


● State Street EAFE SC

▲ MSCI EAFE Small Cap (Net)

● State Street EAFE SC

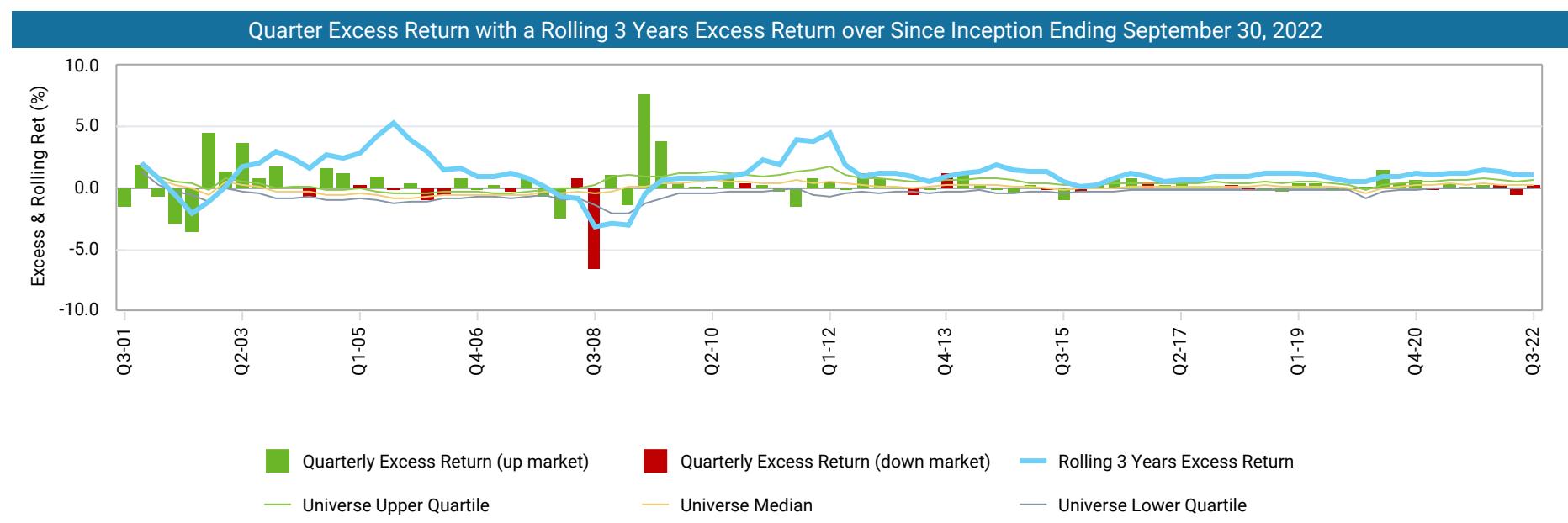
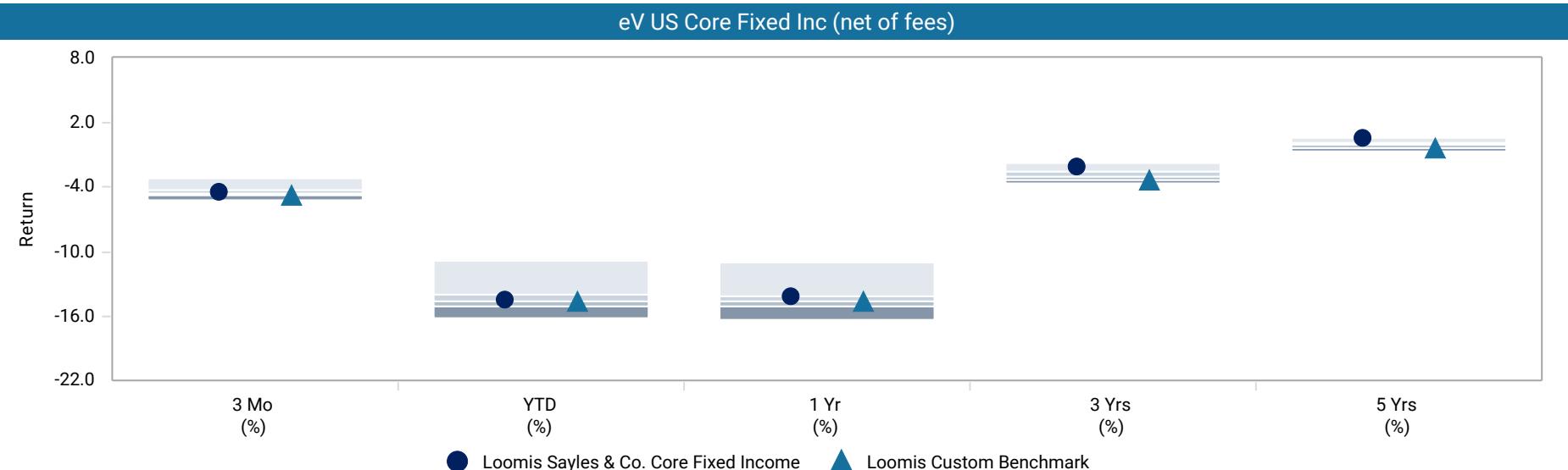
▲ MSCI EAFE Small Cap (Net)



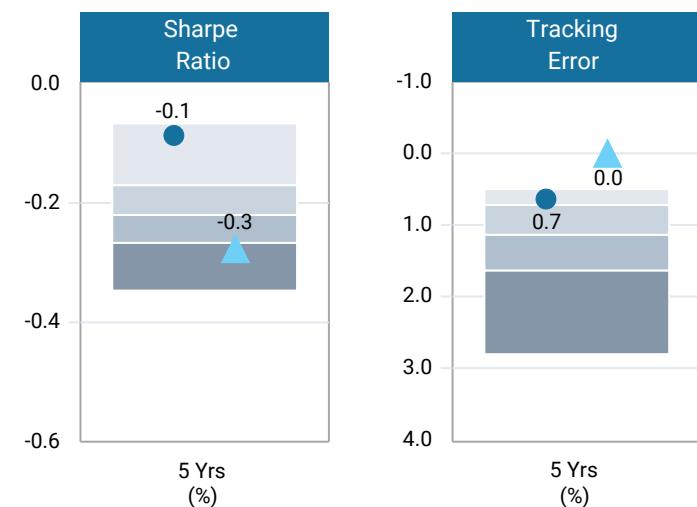
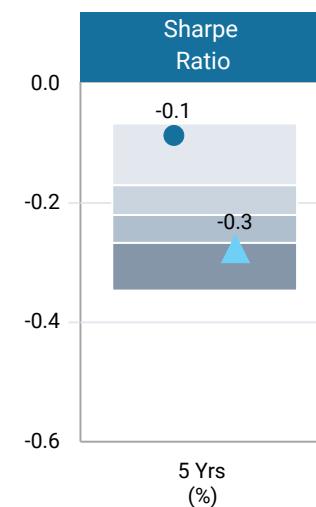
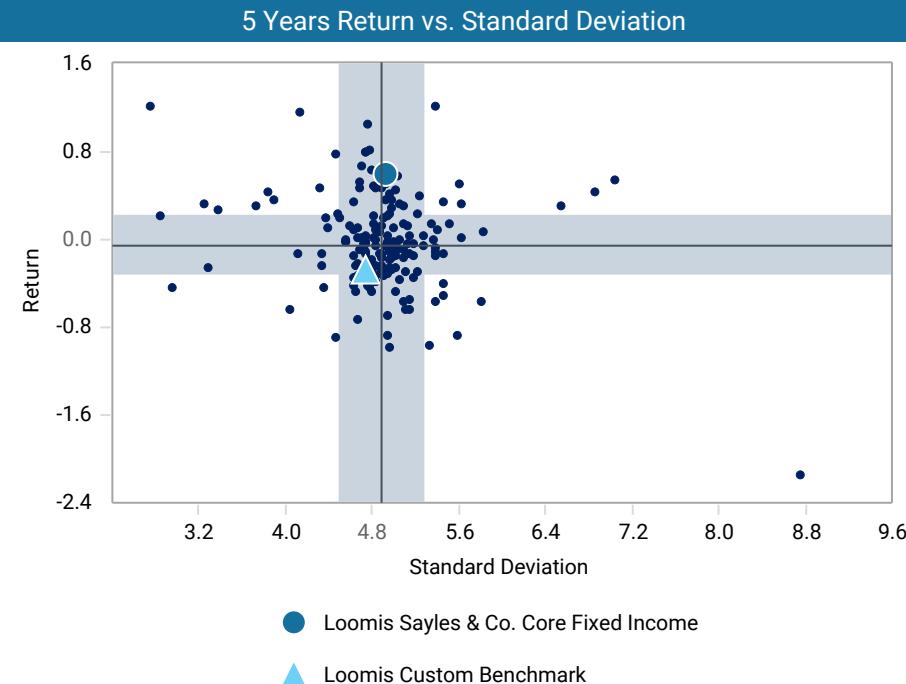


CORE FIXED INCOME MANAGER PERFORMANCE

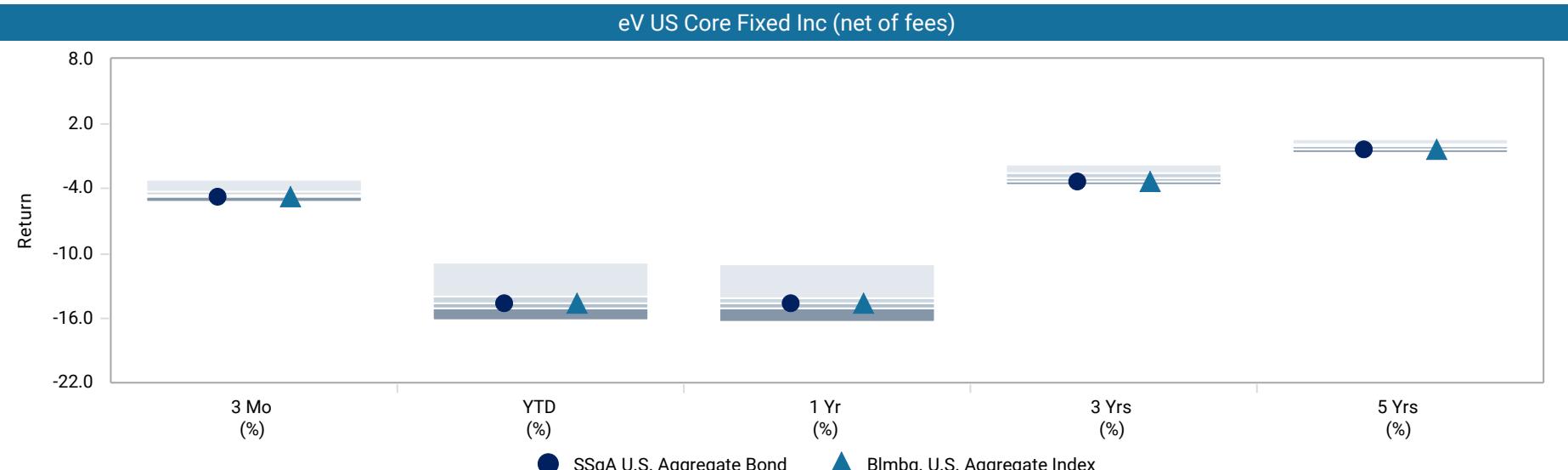
LOOMIS SAYLES & CO. CORE FIXED INCOME



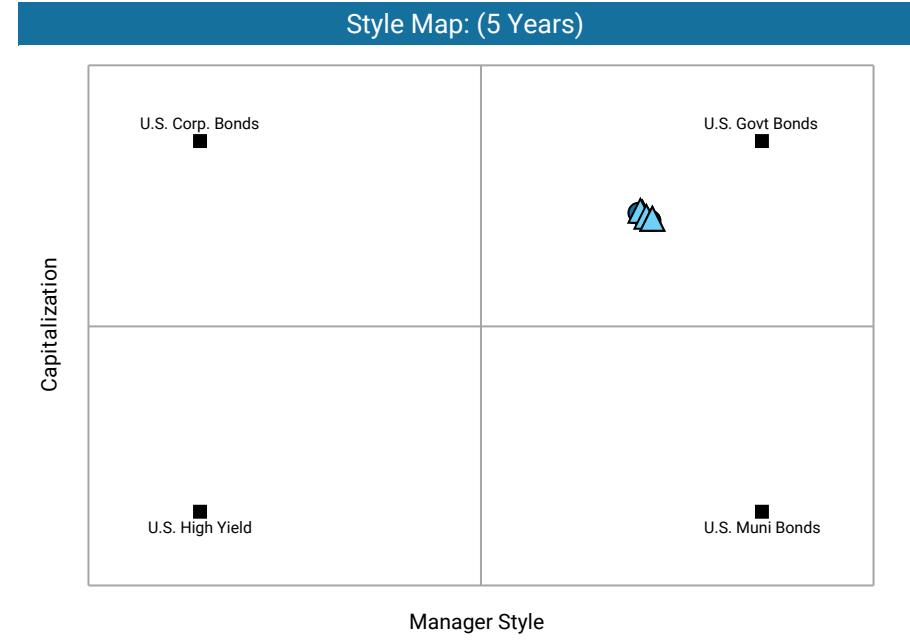
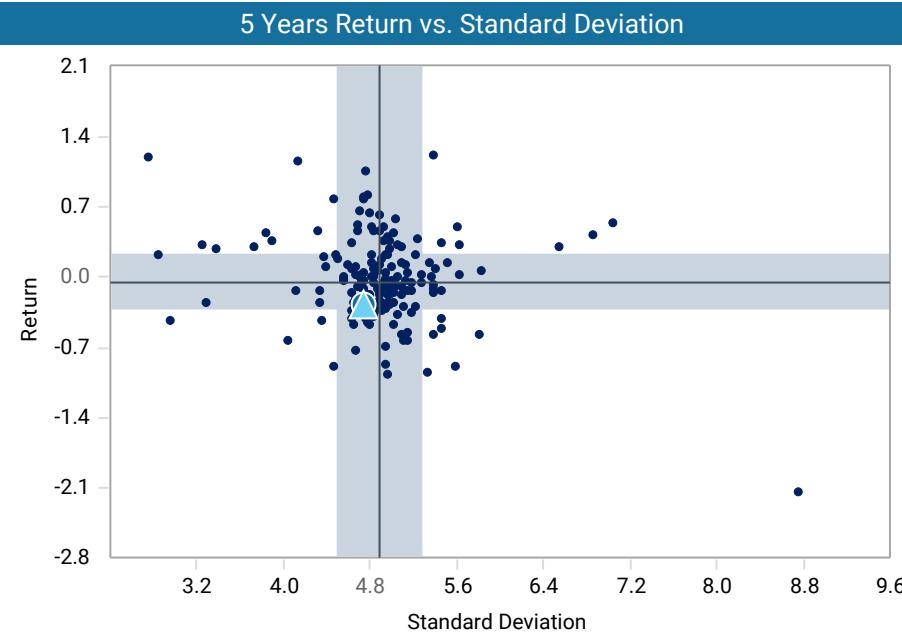
LOOMIS SAYLES & CO. CORE FIXED INCOME



SSGA U.S. AGGREGATE BOND

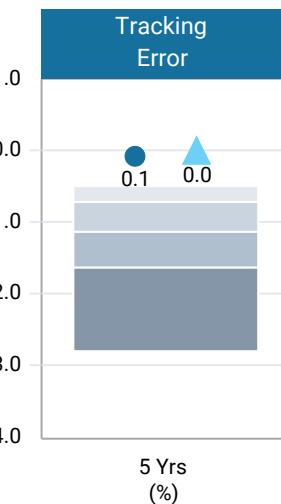
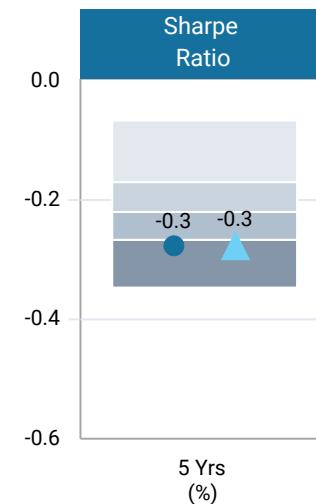
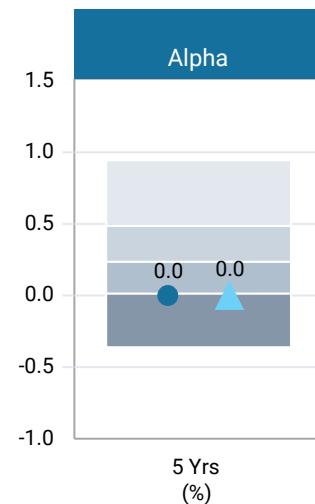
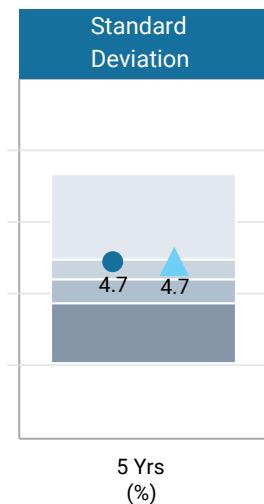
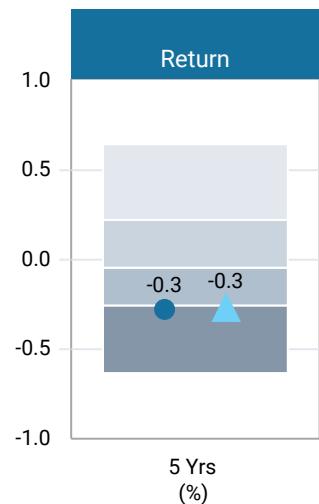


SSGA U.S. AGGREGATE BOND

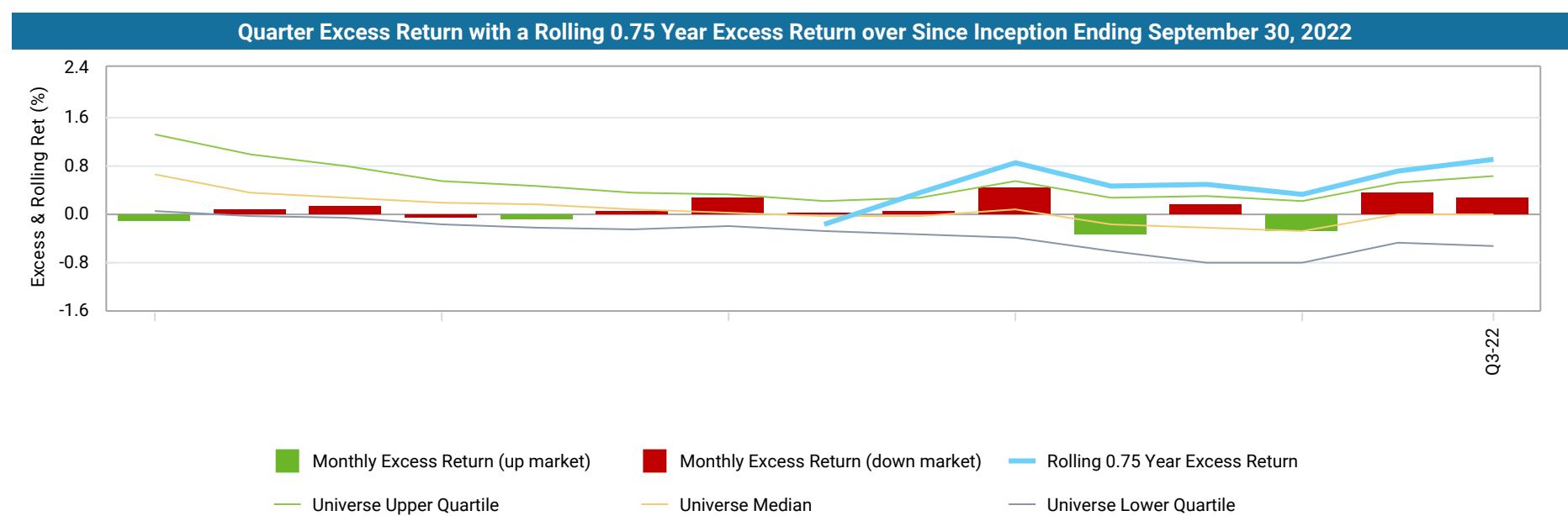
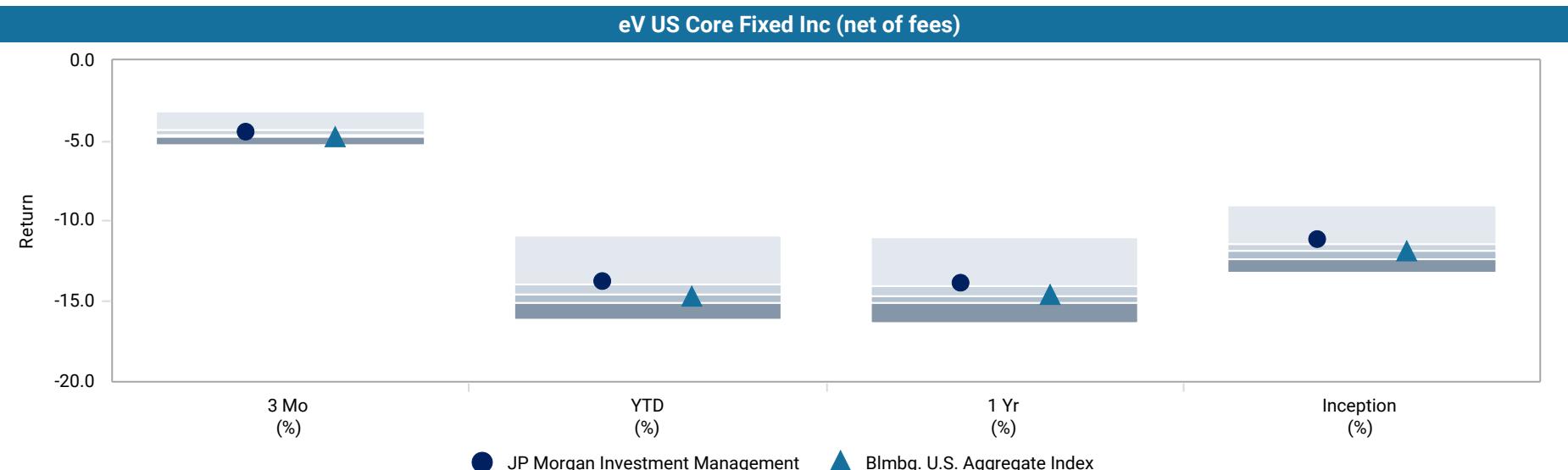


● SSgA U.S. Aggregate Bond ▲ Blmbg. U.S. Aggregate Index

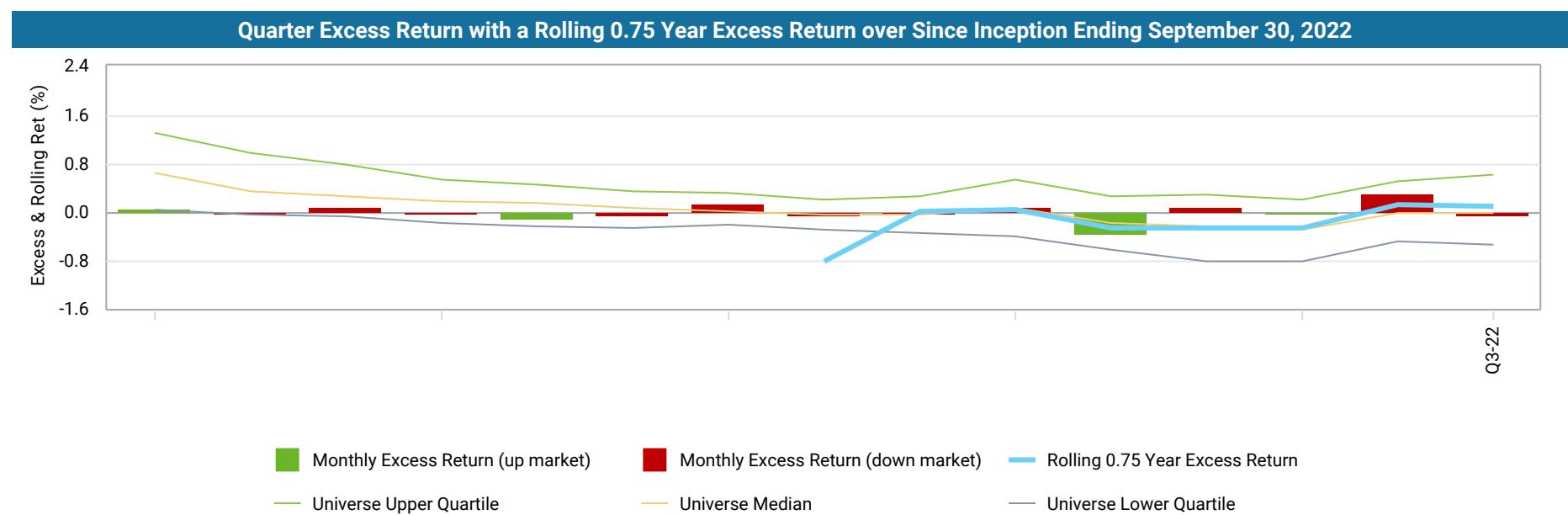
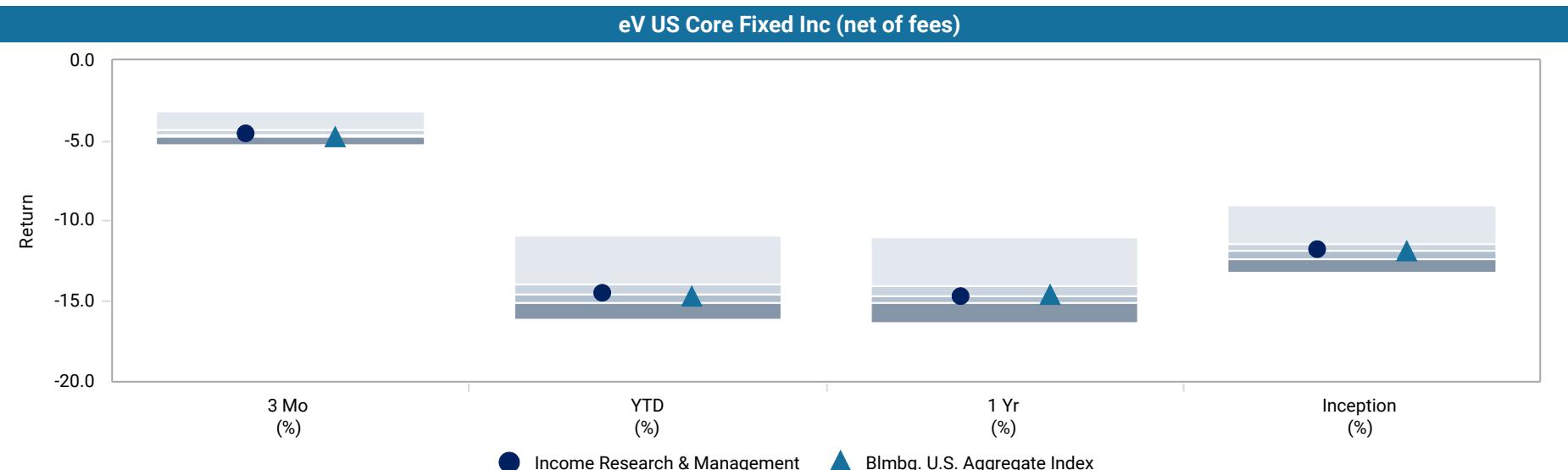
● SSgA U.S. Aggregate Bond ▲ Blmbg. U.S. Aggregate Index



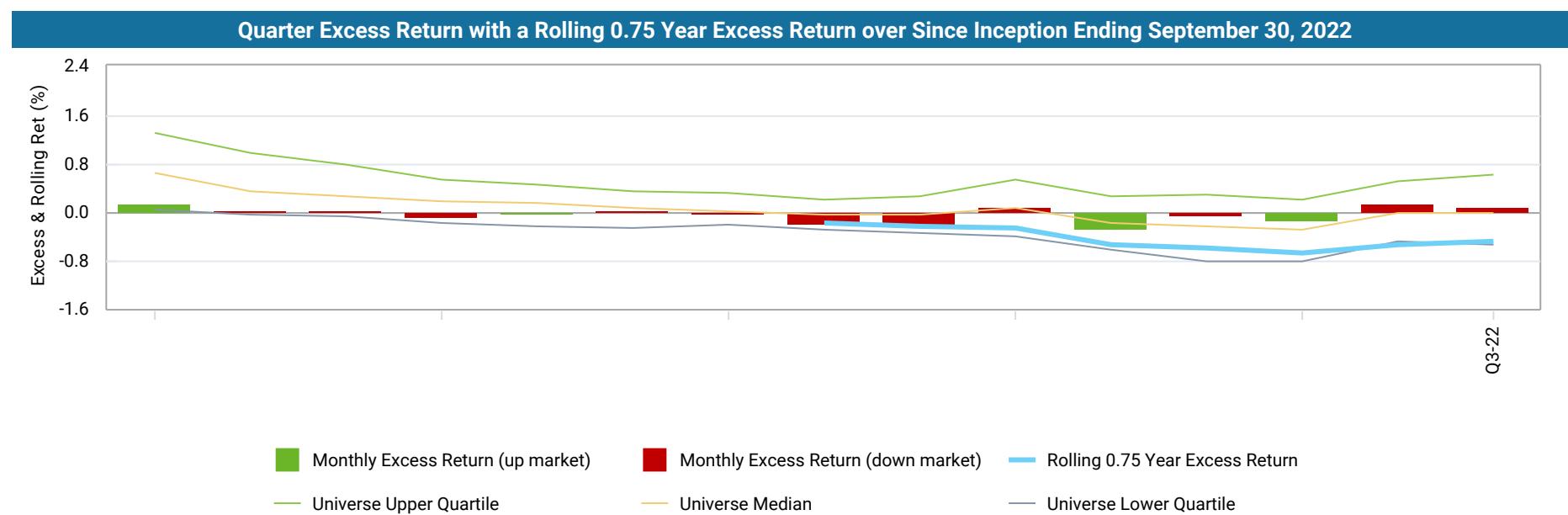
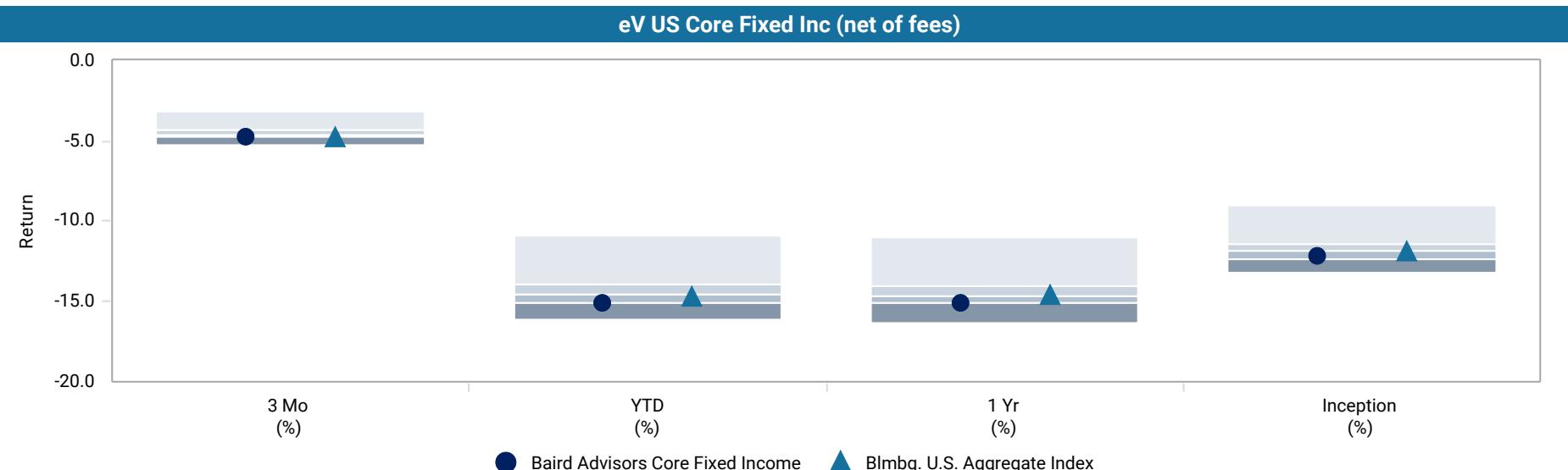
JP MORGAN INVESTMENT MGMT



INCOME RESEARCH AND MGMT

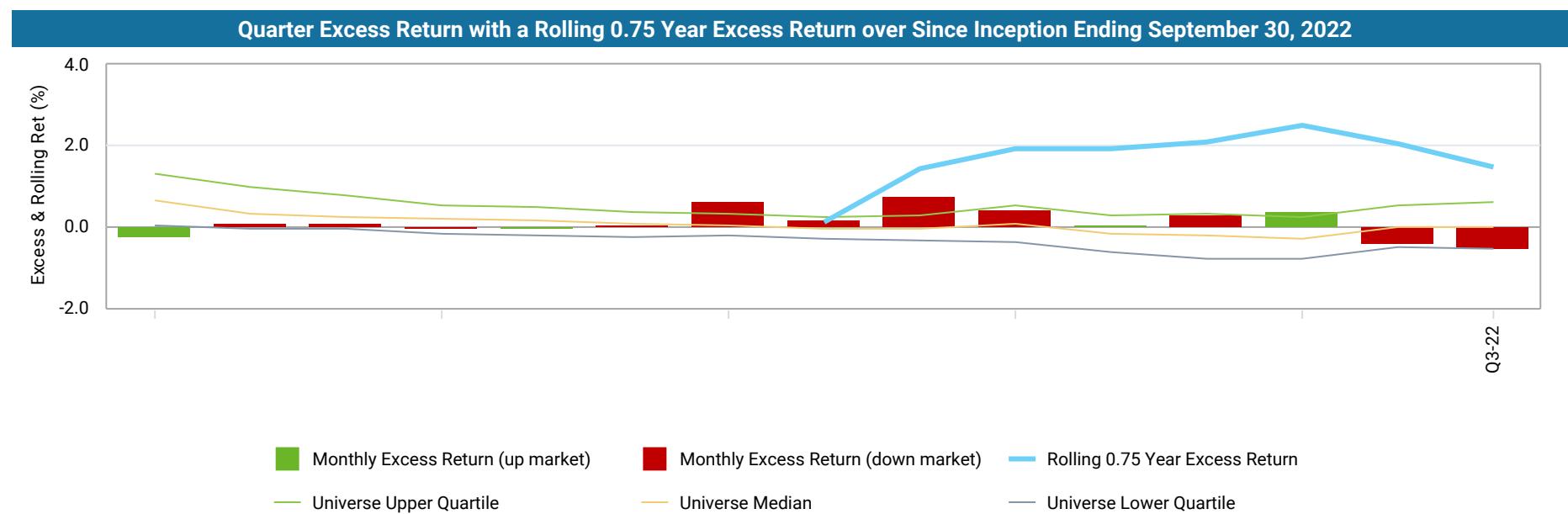
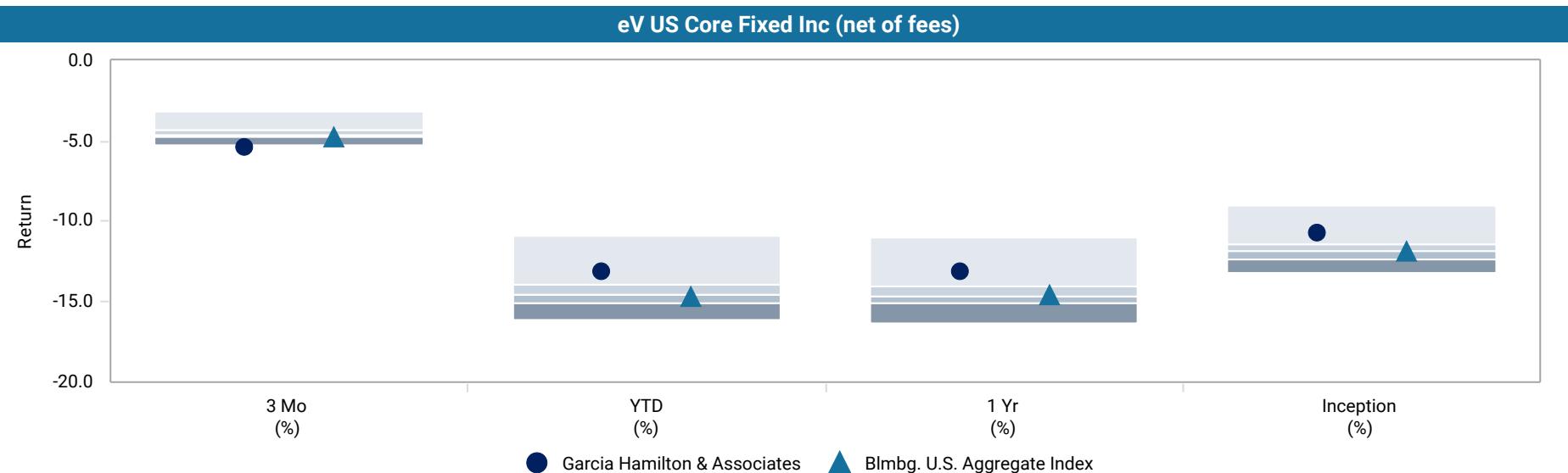


BAIRD ADVISORS CORE FIXED INCOME



Los Angeles City Employees' Retirement System-LACERS Master Trust
GARCIA HAMILTON & ASSOCIATES

September 30, 2022

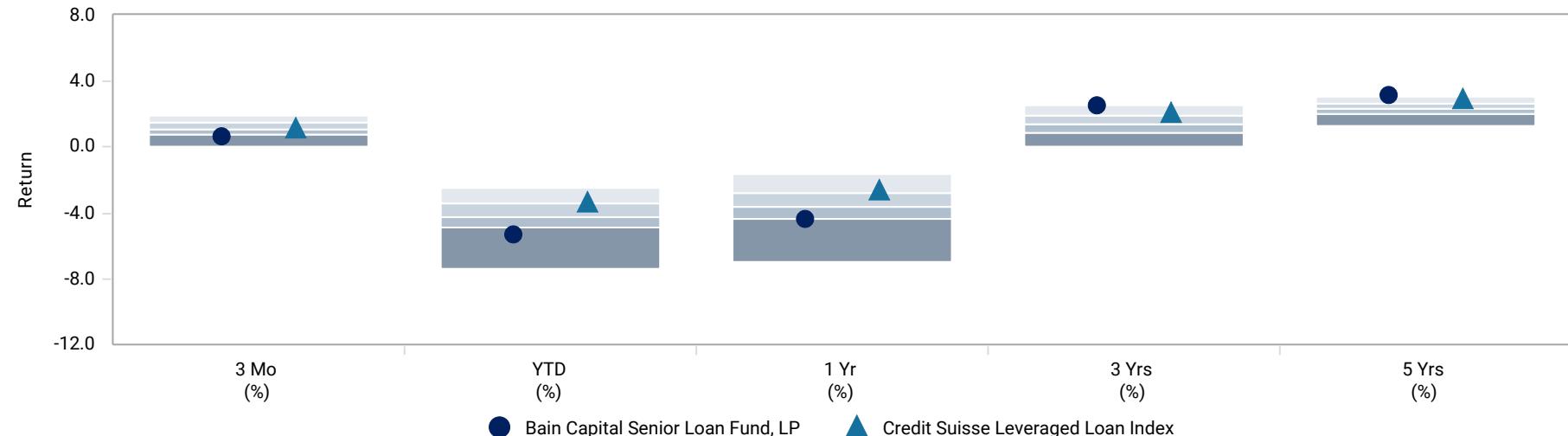




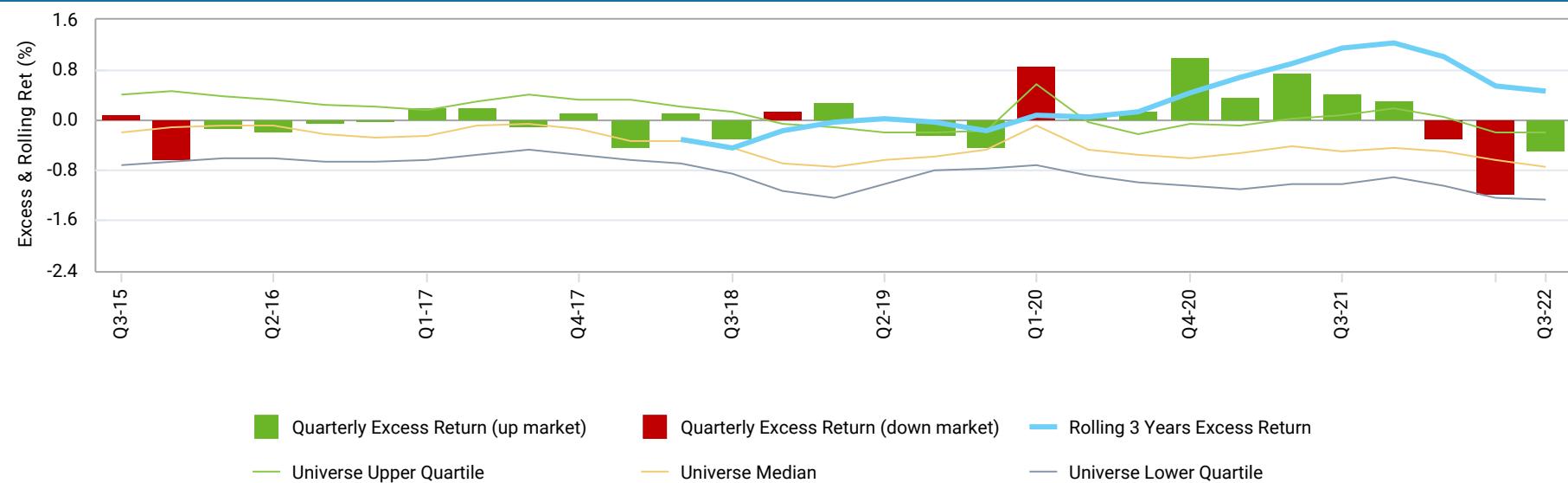
CREDIT OPPORTUNITIES MANAGER PERFORMANCE

BAIN CAPITAL SENIOR LOAN FUND, LP

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

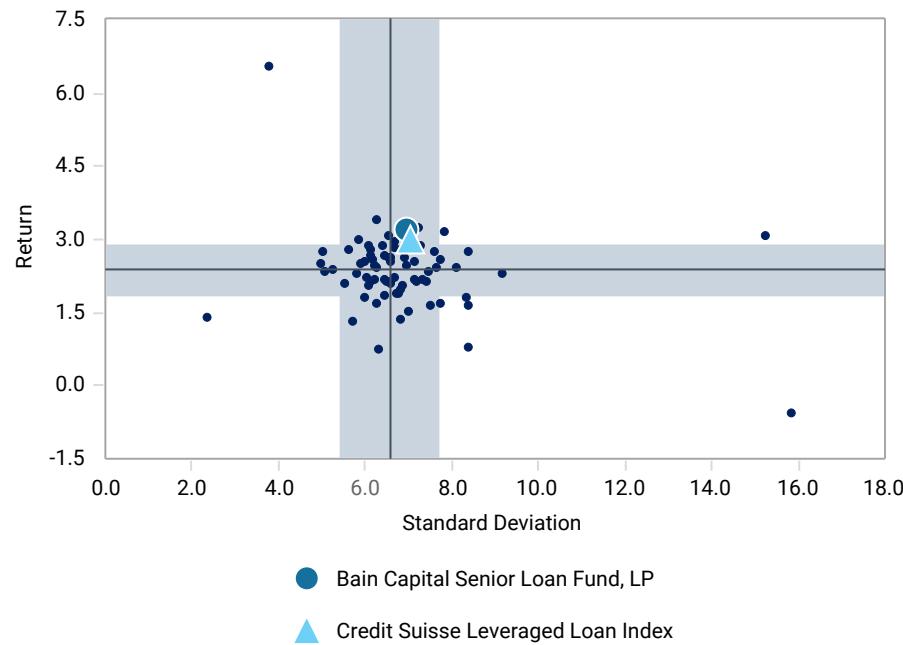


Quarter Excess Return with a Rolling 3 Years Excess Return over Since Inception Ending September 30, 2022

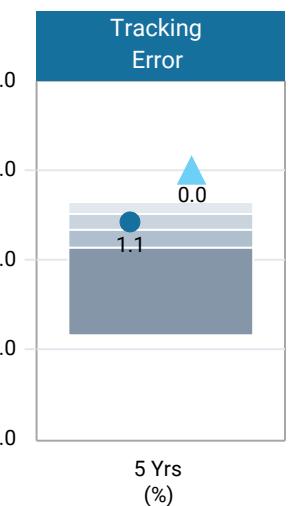
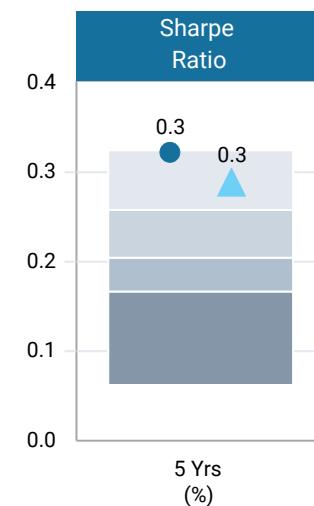
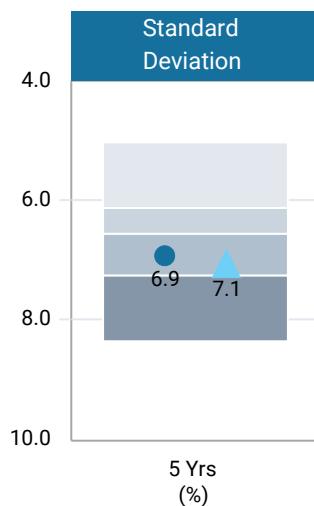
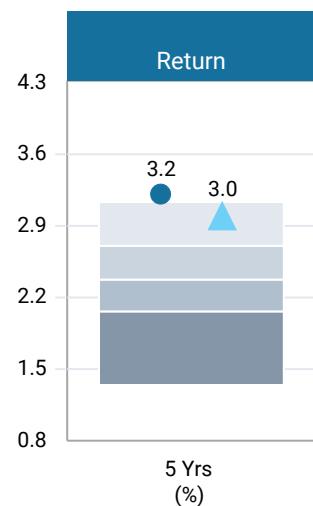
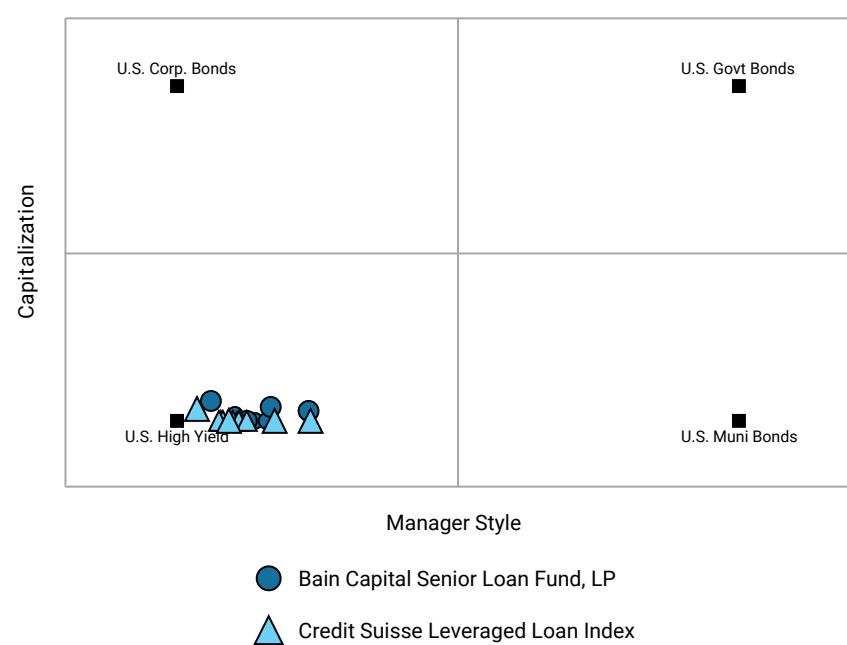


BAIN CAPITAL SENIOR LOAN FUND, LP

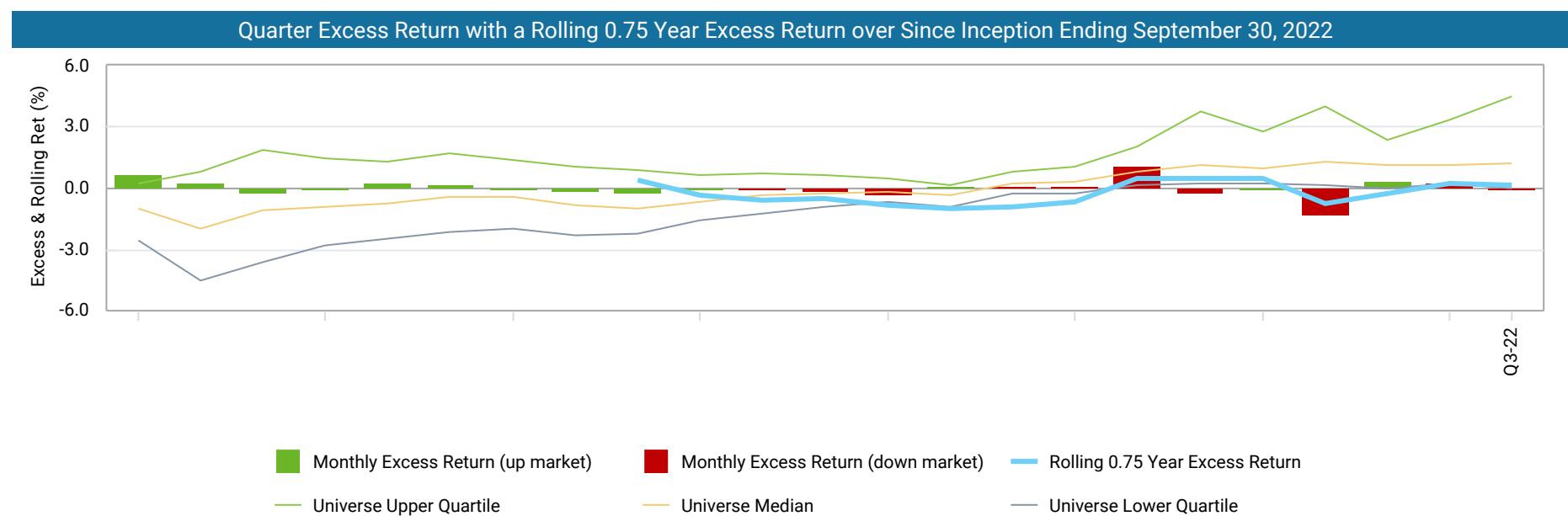
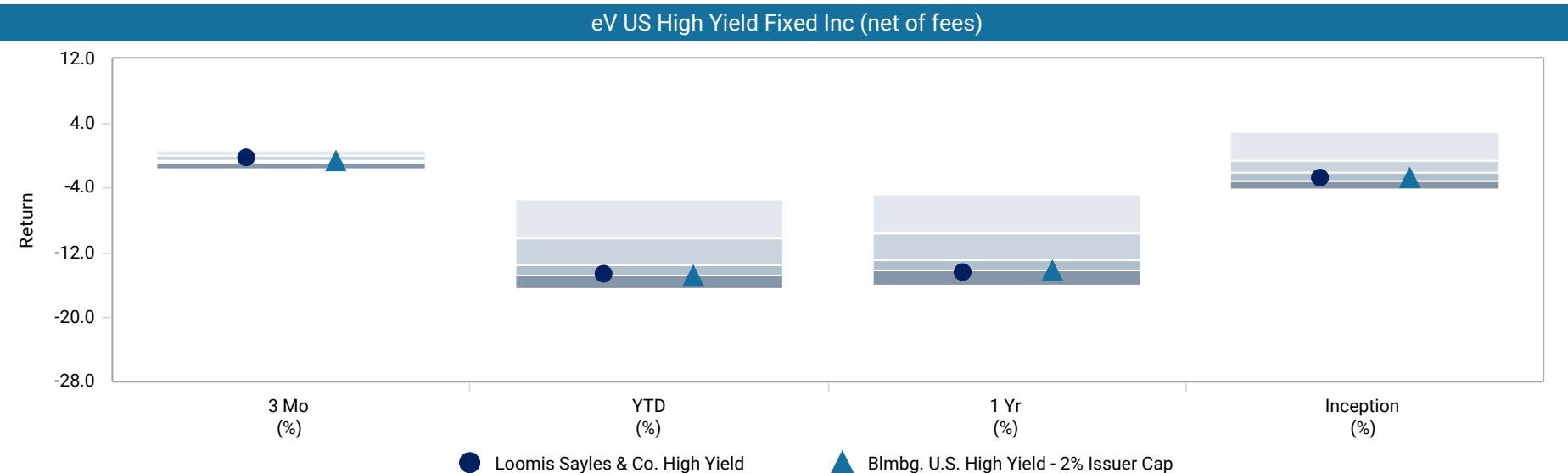
5 Years Return vs. Standard Deviation



Style Map: (3 Years)

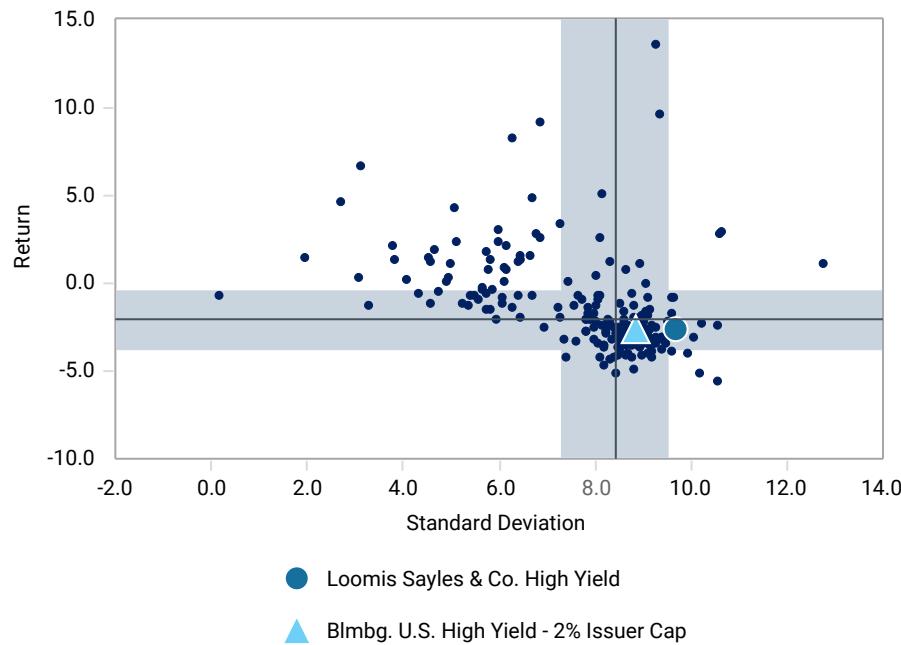


LOOMIS SAYLES & CO. HIGH YIELD

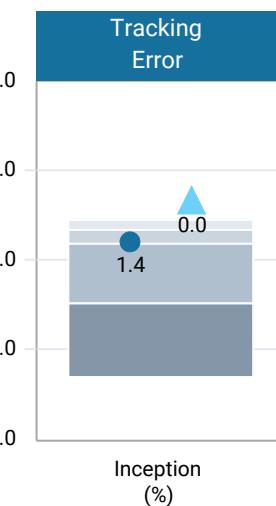
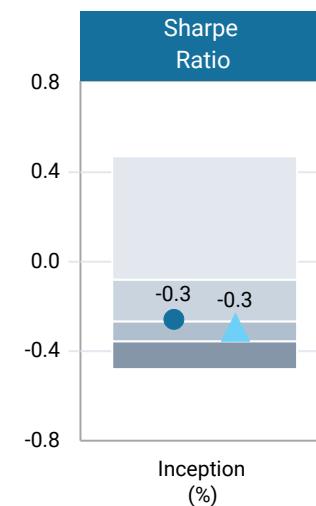
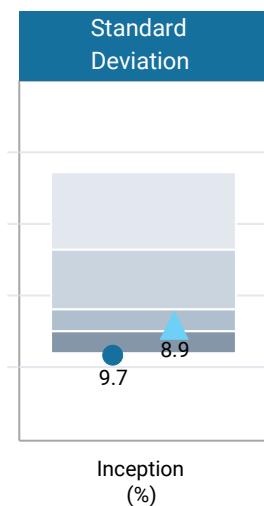


LOOMIS SAYLES & CO. HIGH YIELD

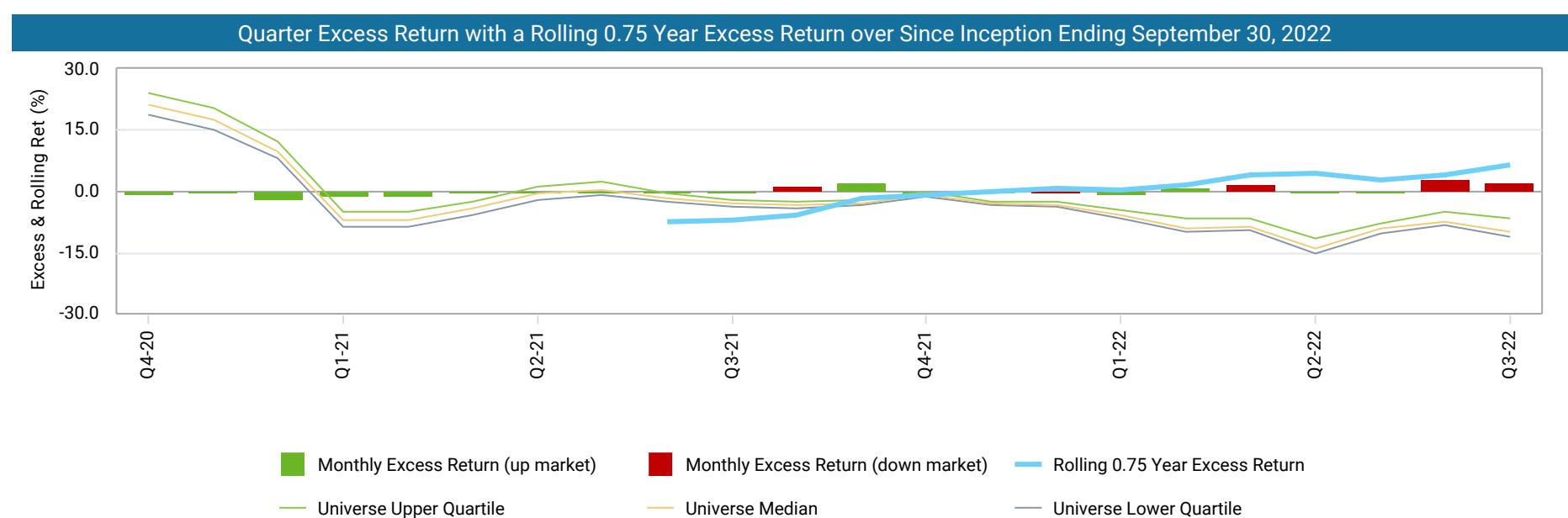
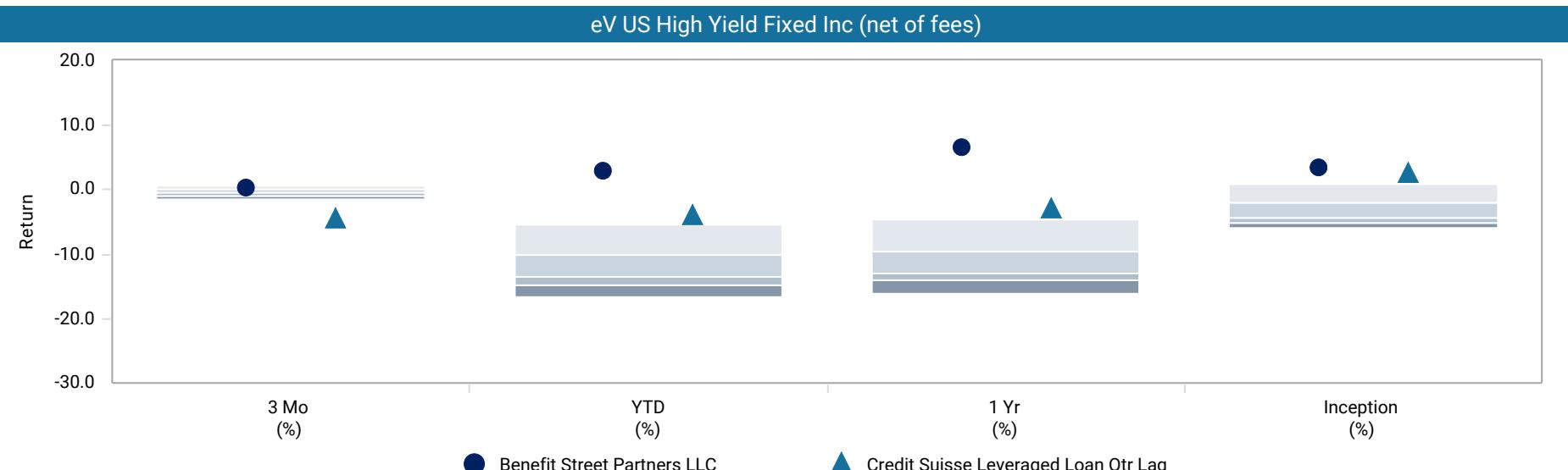
Since Inception Return vs. Standard Deviation



Style Map: (0.75 Year)

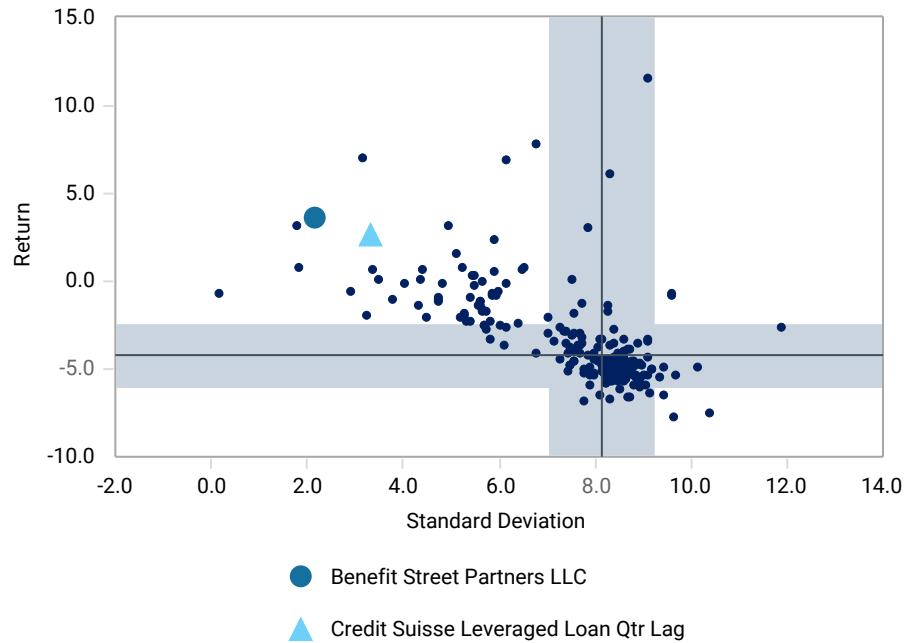


BENEFIT STREET PARTNERS LLC

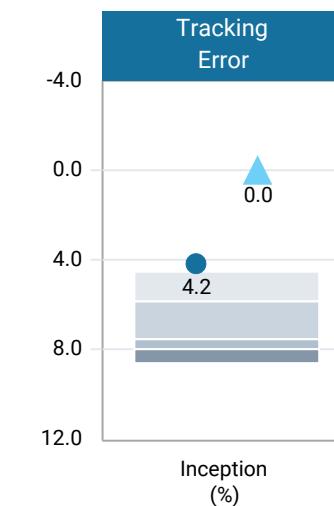
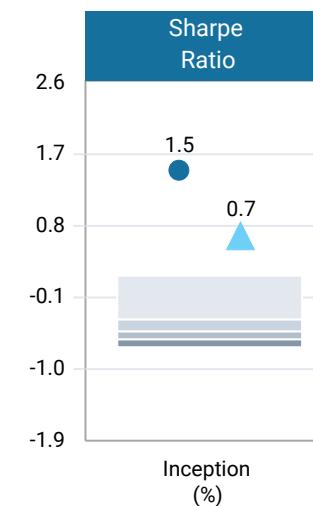
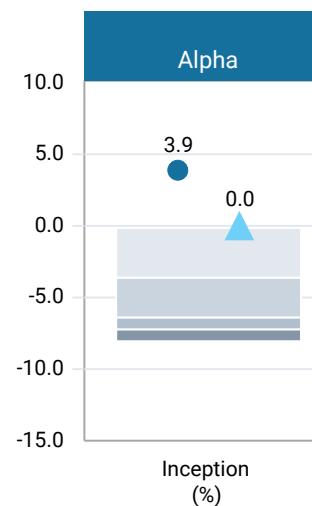
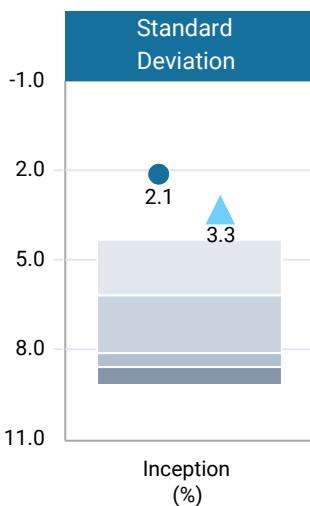


BENEFIT STREET PARTNERS LLC

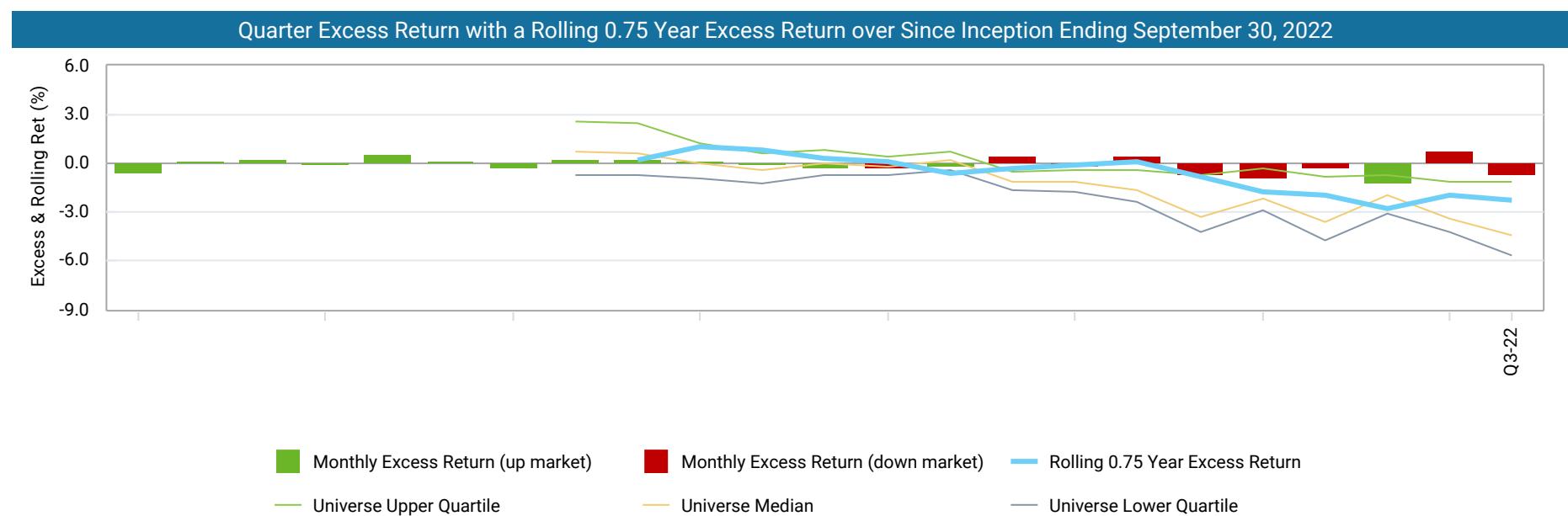
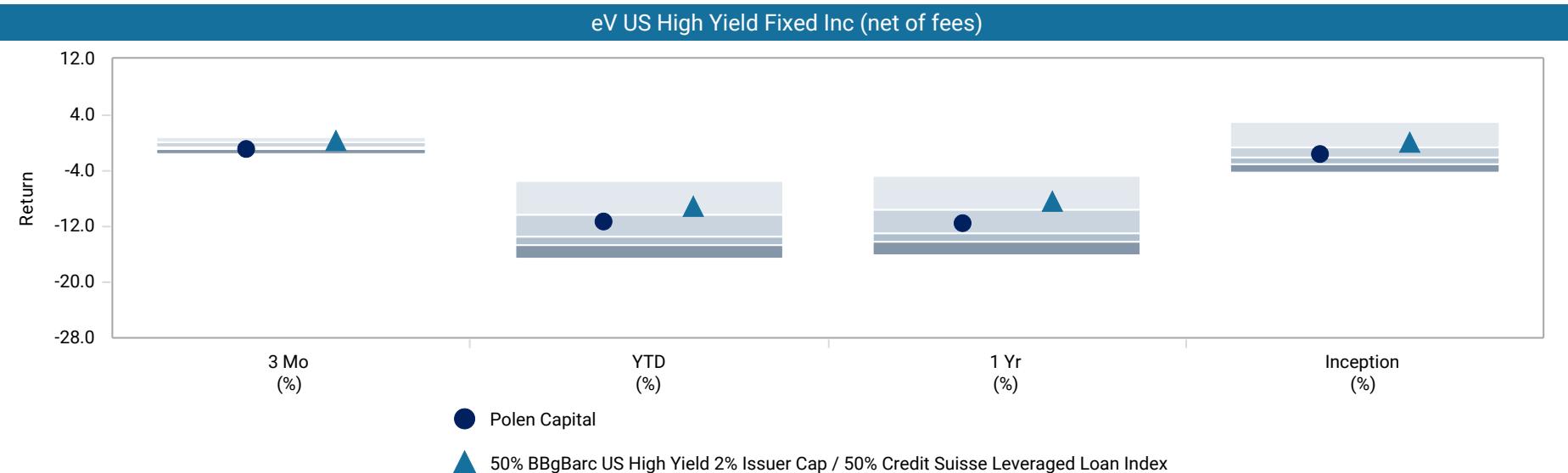
Since Inception Return vs. Standard Deviation



Style Map: (0.75 Year)

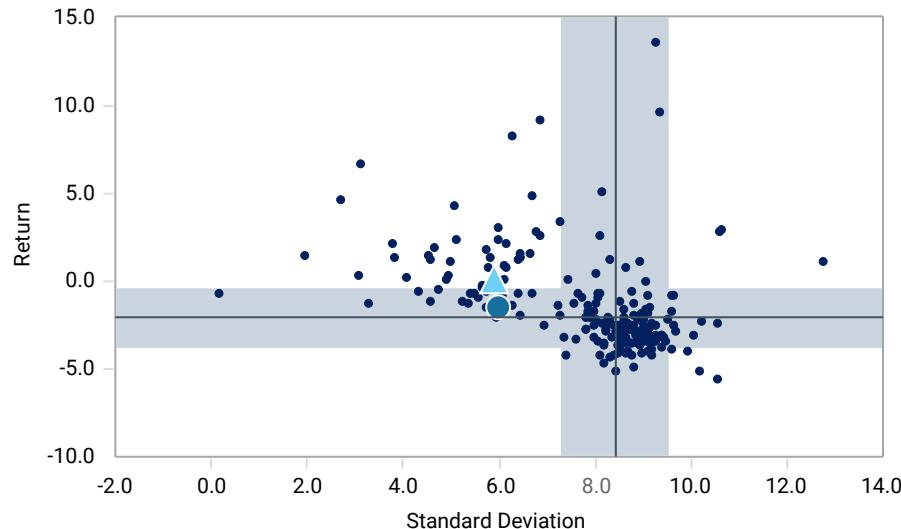


POLEN CAPITAL



POLEN CAPITAL

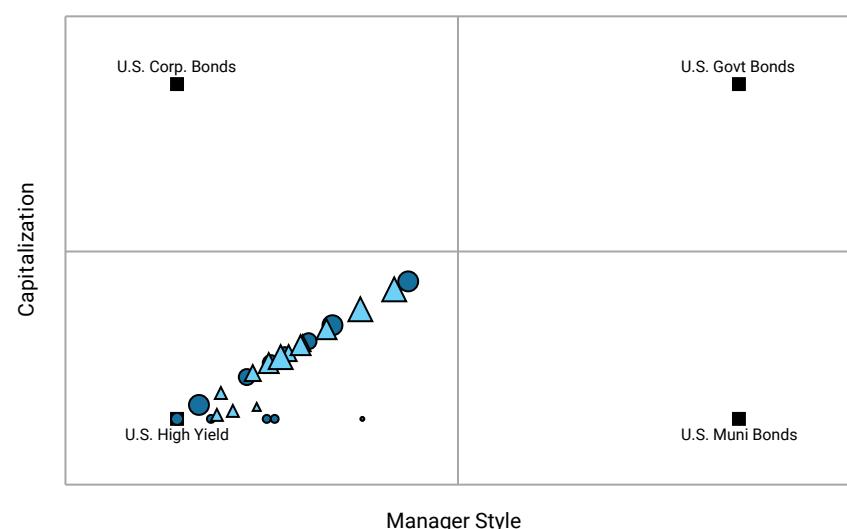
Since Inception Return vs. Standard Deviation



● Polen Capital

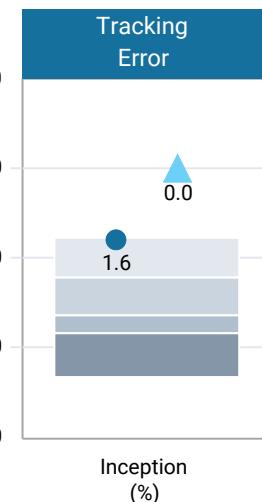
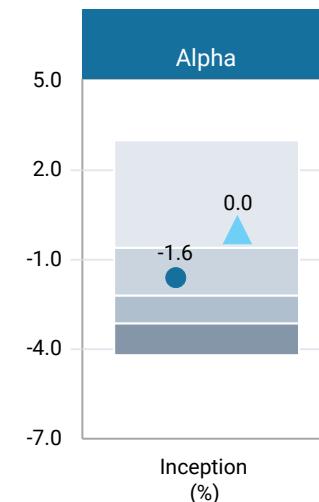
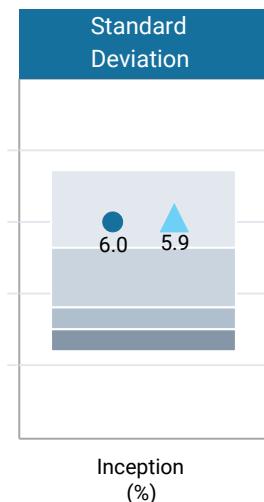
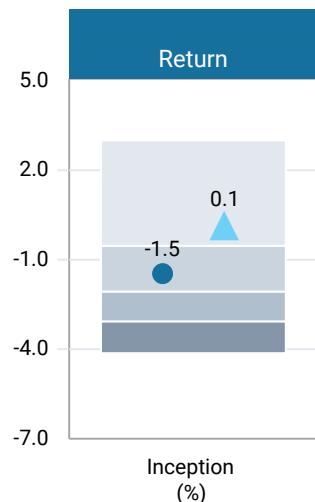
▲ 50% BBgBarc US High Yield 2% Issuer Cap / 50% Credit Suisse Leveraged Loa

Style Map: (0.75 Year)



● Polen Capital

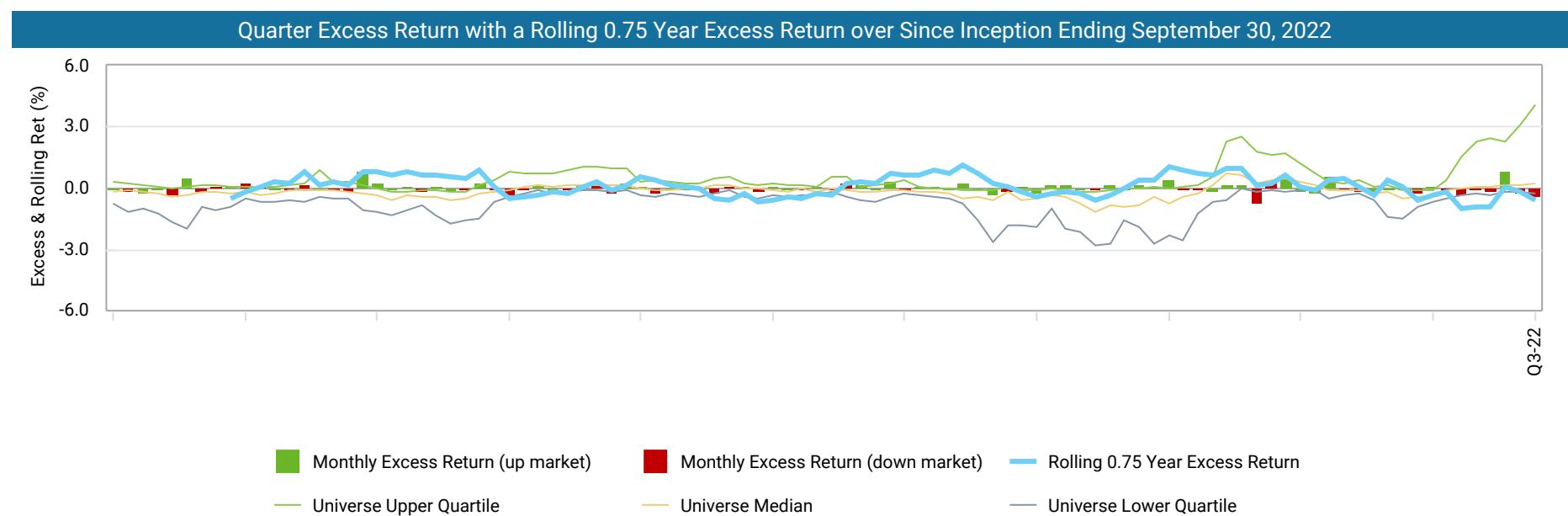
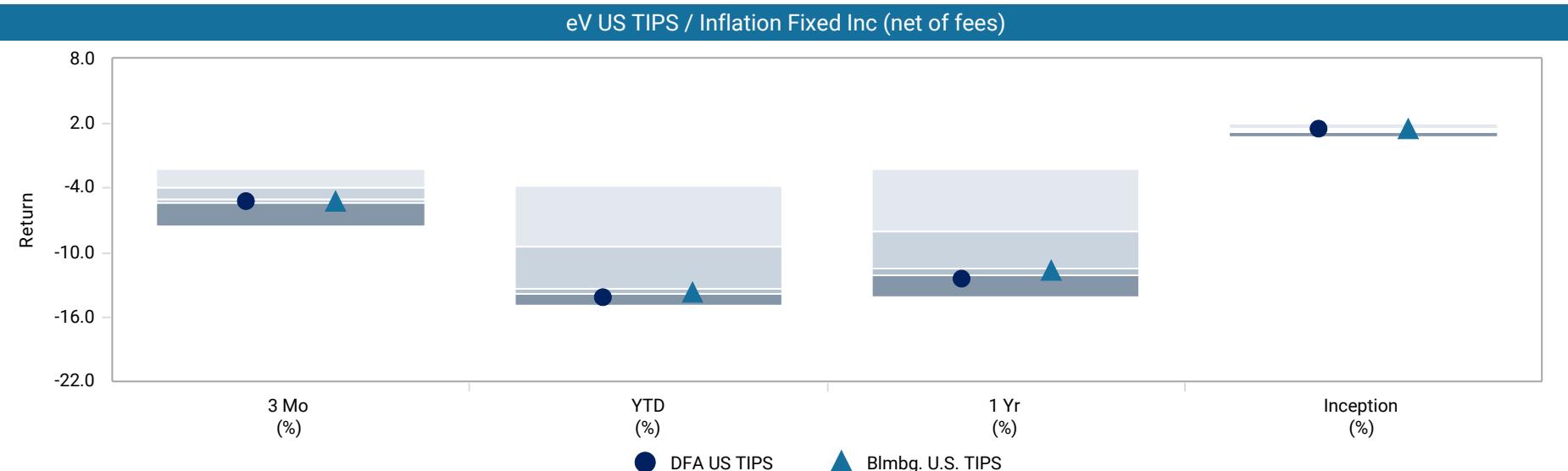
▲ 50% BBgBarc US High Yield 2% Issuer Cap / 50% Credit Suisse Leveraged Loan



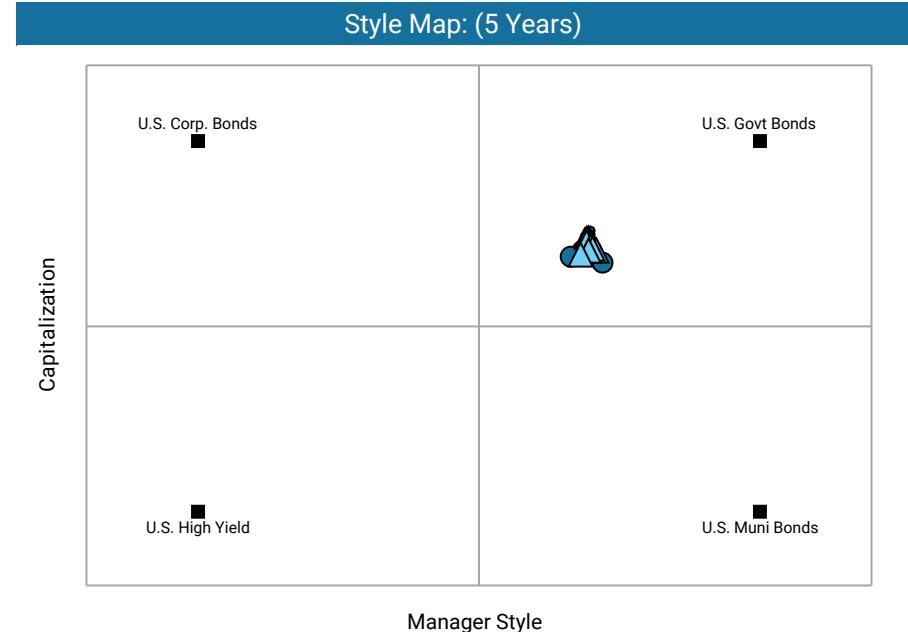
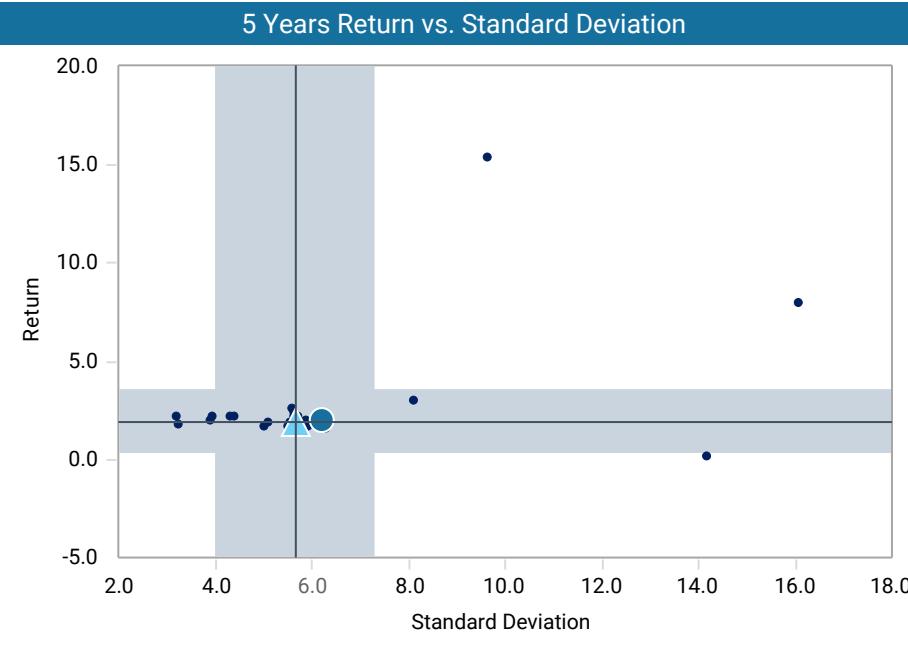


REAL ASSETS MANAGER PERFORMANCE

DFA US TIPS

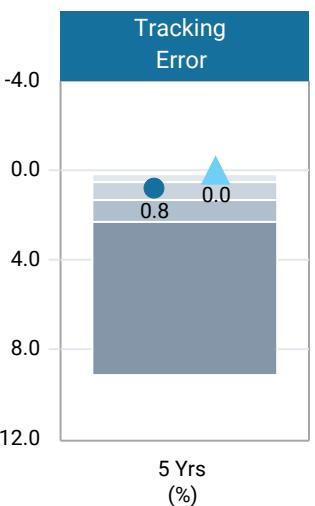
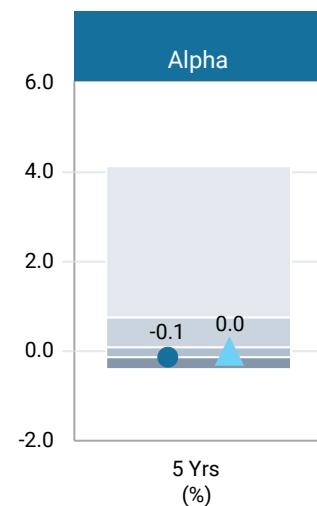
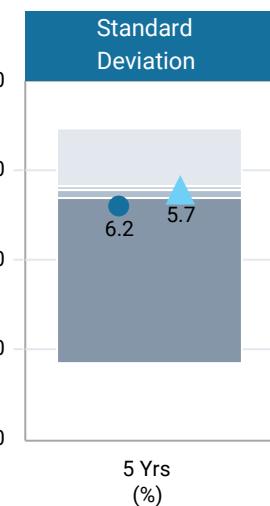
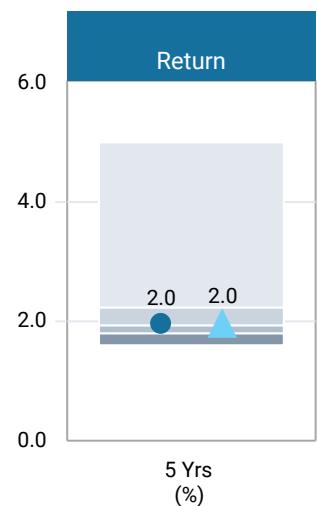


DFA US TIPS

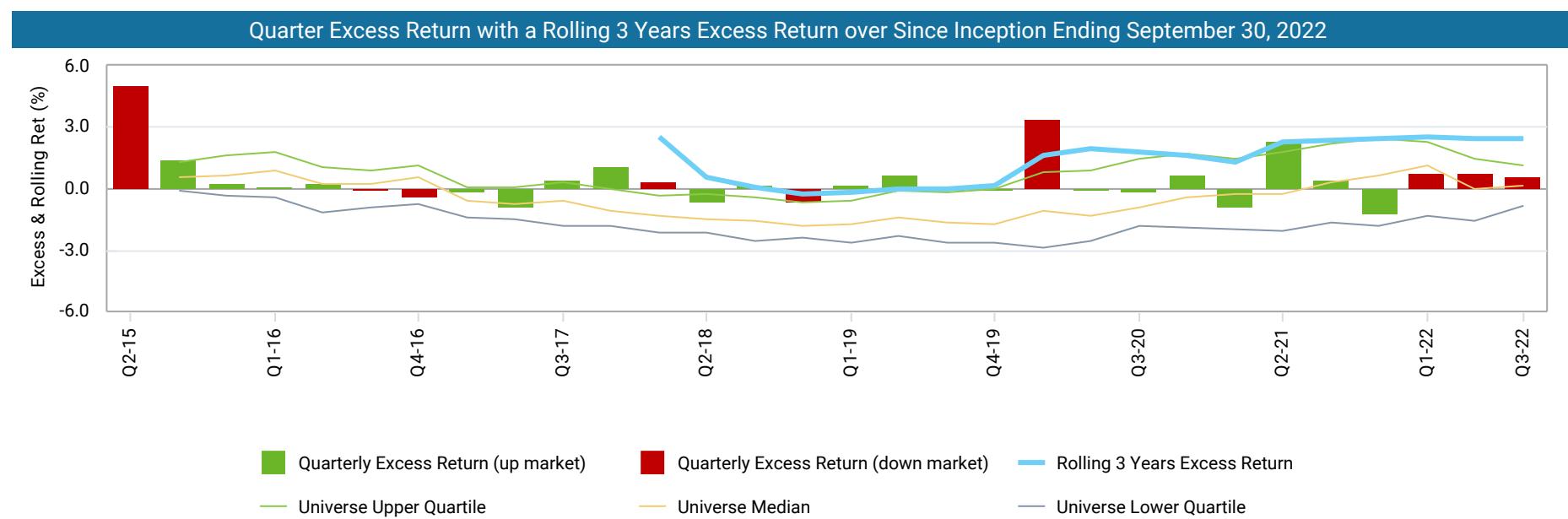
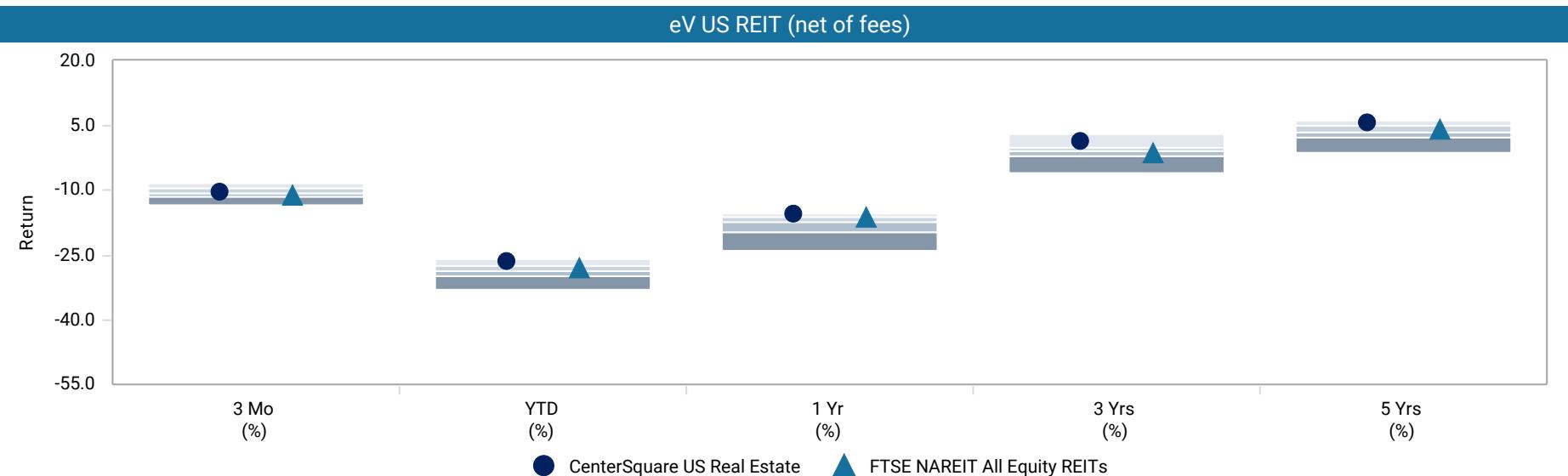


● DFA US TIPS ▲ Blmbg. U.S. TIPS

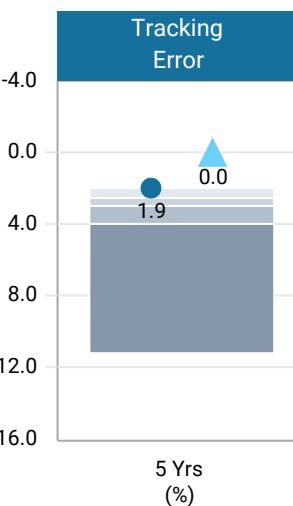
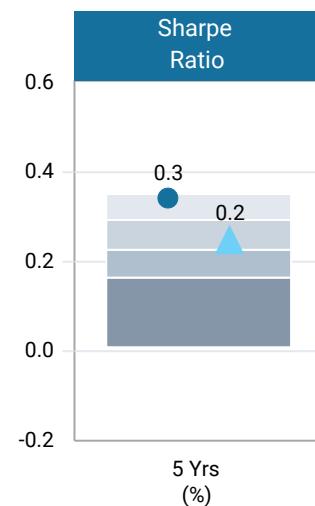
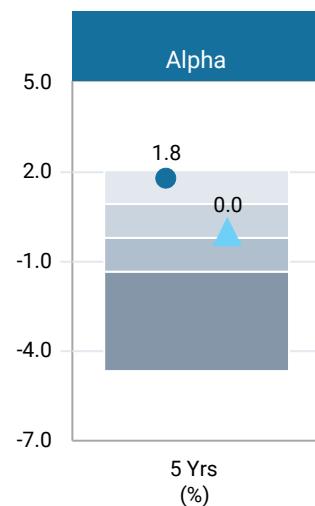
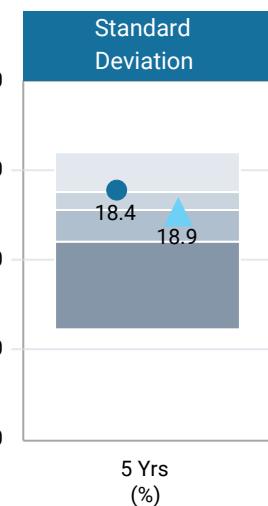
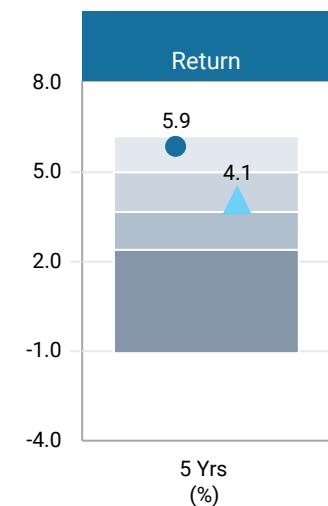
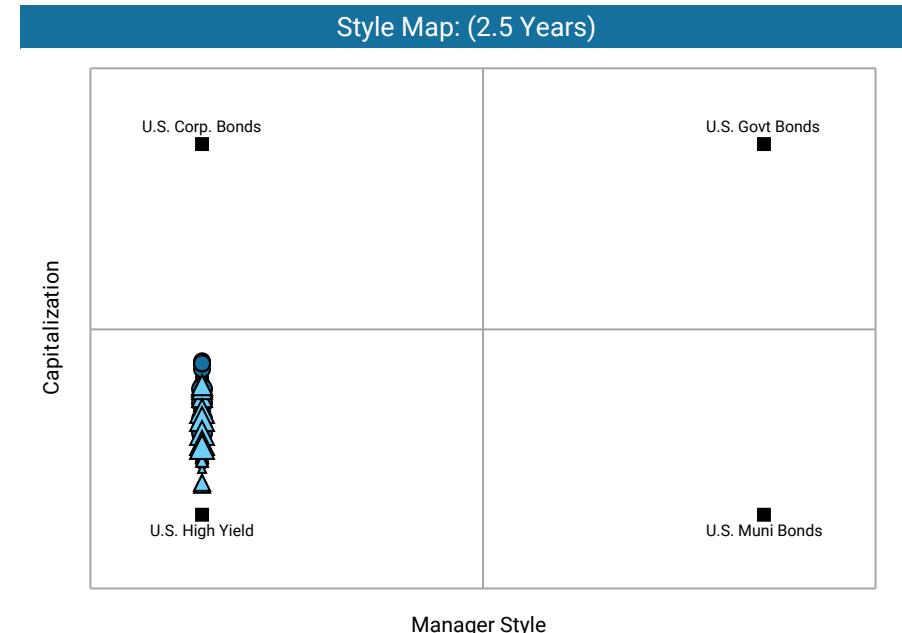
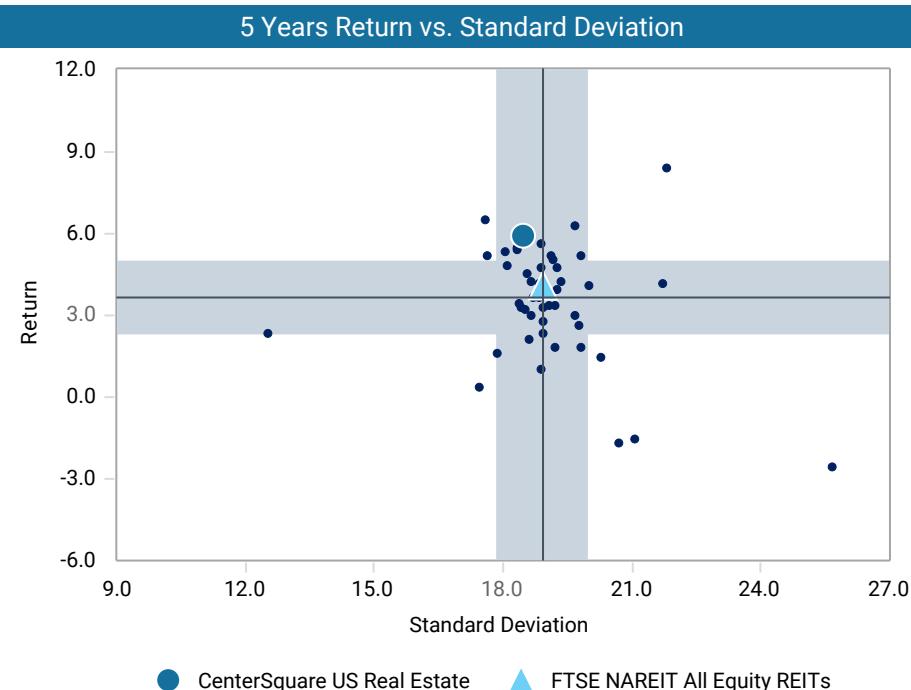
● DFA US TIPS ▲ Blmbg. U.S. TIPS



CENTERSQUARE US REAL ESTATE



CENTERSQUARE US REAL ESTATE





DEFINITIONS

POLICY INDEX DEFINITIONS

EFFECTIVE JULY 1, 2022

Policy Index: 19.5% Russell 3000 Index, 25.5% MSCI ACWI ex USA Net Index, 15% Bloomberg U.S. Aggregate Bond Index, 8% Credit Opportunities Blend, 7.5% Public Real Assets Blend, 5.5% Real Estate Blend, 18% 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: 18.75% Bloomberg US High Yield 2% Issuer Capped Index, 18.75% Credit Suisse Leveraged Loan Index, 50% Blended Emerging Markets Debt Blend, 12.5% 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: 34.62% Bloomberg US TIPS Index, 23.08% FTSE NAREIT All Equity Index, 42.3% Real Estate Blend

Public Real Assets Blend: 60% Bloomberg US TIPS Index, 40% 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.

