



LACERS
LA CITY EMPLOYEES'
RETIREMENT SYSTEM

PORTFOLIO PERFORMANCE REVIEW

LOS ANGELES CITY EMPLOYEES'
RETIREMENT SYSTEM

QUARTER ENDING JUNE 30, 2022

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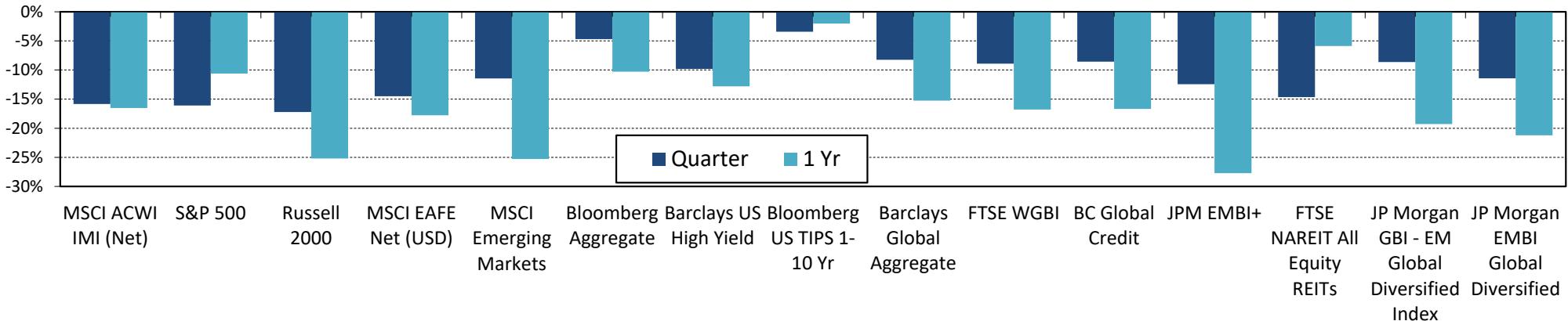
- U.S. Equity Manager Performance**
- Non-U.S. Manager Performance**
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EXECUTIVE SUMMARY

PERFORMANCE OVERVIEW

Q2 Market Summary – Risk Assets Turned In Negative Results



	Market Value (\$)	3 Mo (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	15 Yrs (%)	Inception (%)	Inception Date
LACERS Master Trust	20,600,086,387	-8.9 (59)	-12.0 (59)	-6.9 (53)	6.8 (70)	7.2 (70)	8.4 (60)	6.0 (60)	8.1 (61)	Nov-94
Policy Index		-9.6 (77)	-12.5 (64)	-8.6 (80)	6.6 (73)	7.1 (75)	8.1 (67)	5.9 (65)	8.0 (64)	
InvMetrics Public DB \$5-50B Gross Median		-7.5	-10.0	-6.6	7.2	7.4	8.5	6.2	8.1	

Note: Performance is gross of fees

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

US Equity outperformed its benchmark while Non-U.S. Equity underperformed its benchmark. Private Equity outperformed contributing positively relative to its benchmark .

Volatility reigned in fixed-income markets in the second quarter, as headline CPI surged to 9.1%, hitting a 40-year high. In response, the Federal Reserve boosted the Fed Funds rate by 75 basis points in June—its largest move since 1994—while signaling a willingness to take a tough stance on inflation even at the expense of economic growth

Core Fixed Income and Credit Opportunities underperformed
Private Real Estate and Public Real Assets outperformed





MARKET ENVIRONMENT

ECONOMIC ENVIRONMENT



The S&P 500 had its worst start since 1970



Inflation keeps accelerating



Headline labor rates indicate recovery

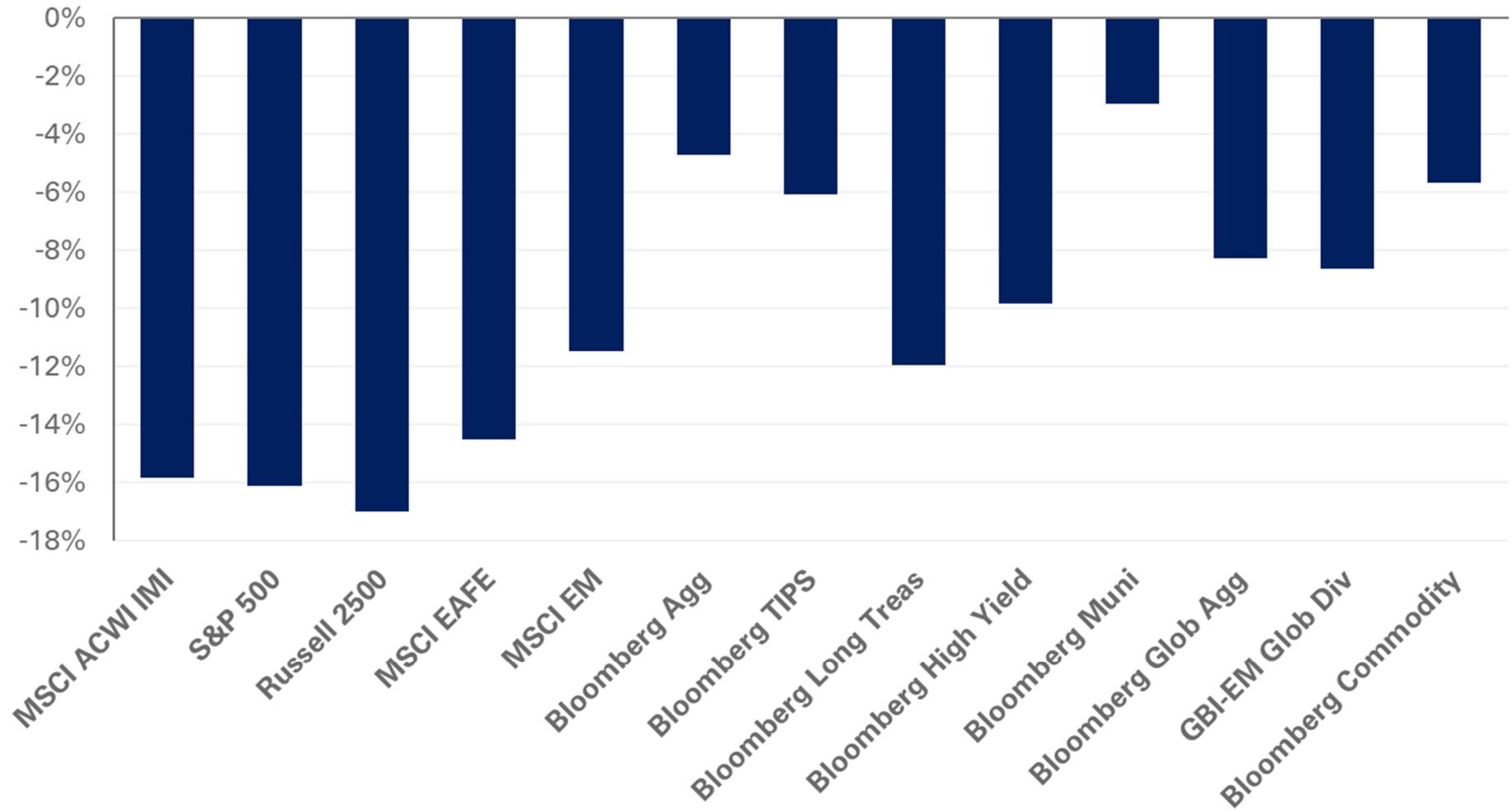
- Large-Cap stocks outperformed Small-Cap, and Value outperformed Growth.
- Global markets continued to broadly decline.

- Headline CPI jumped to 9.1% in June. Core CPI was up 6%.
- The Federal Reserve raised its benchmark interest rate by 75 basis points, the largest hike since 1994.

- However, the Labor Force Participation Rate remains below pre-pandemic levels.
- The 3-month moving average of overall wage growth continues to climb.

GLOBAL MARKETS BROADLY DECLINED

QUARTERLY TOTAL RETURNS

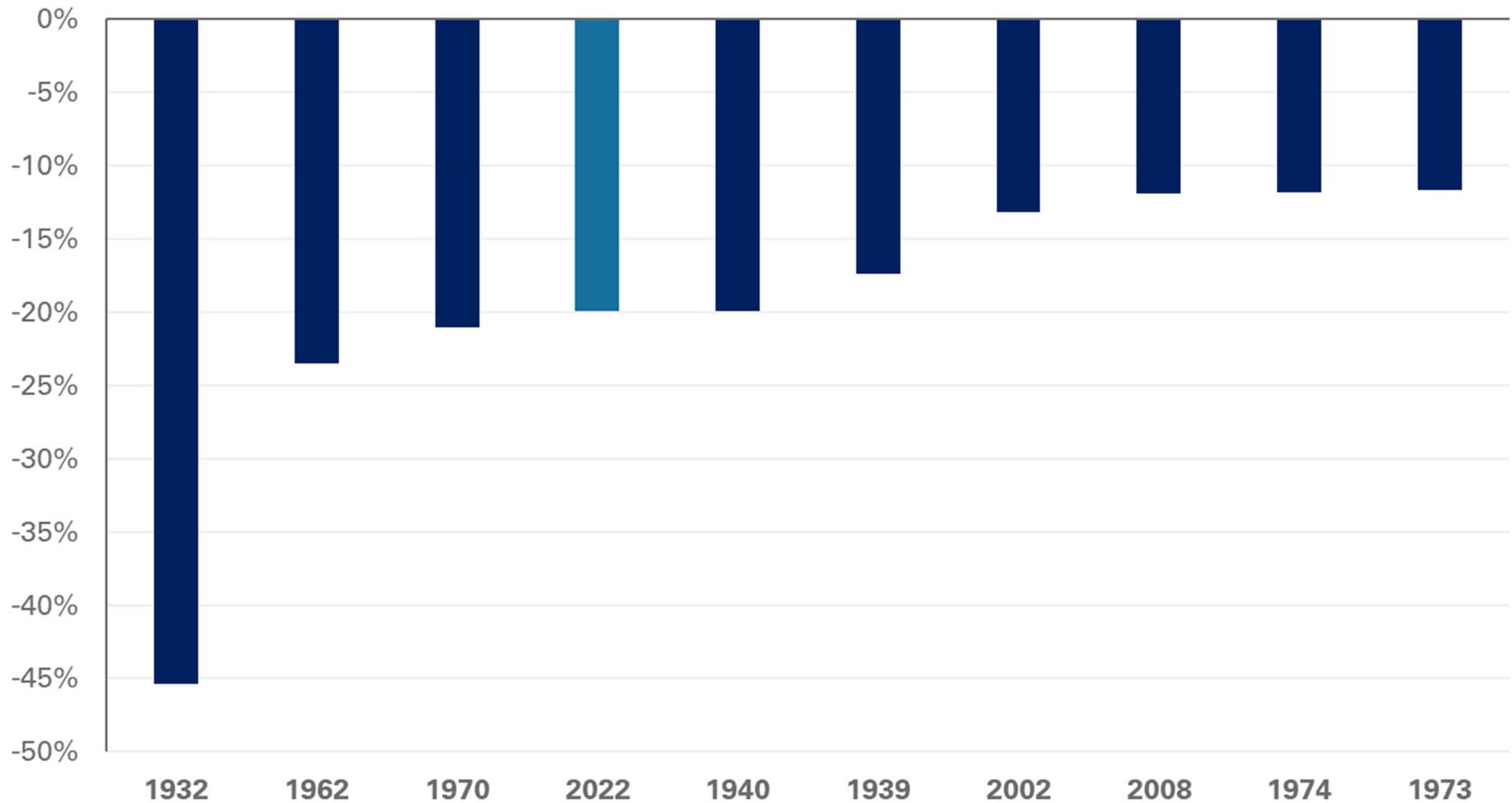


Source: MSCI, S&P, Russell, MSCI, Bloomberg, JPM, FactSet



WORST START FOR THE S&P IN OVER 50 YEARS

TOP 10 S&P 500 LOSSES IN FIRST HALF OF THE YEAR

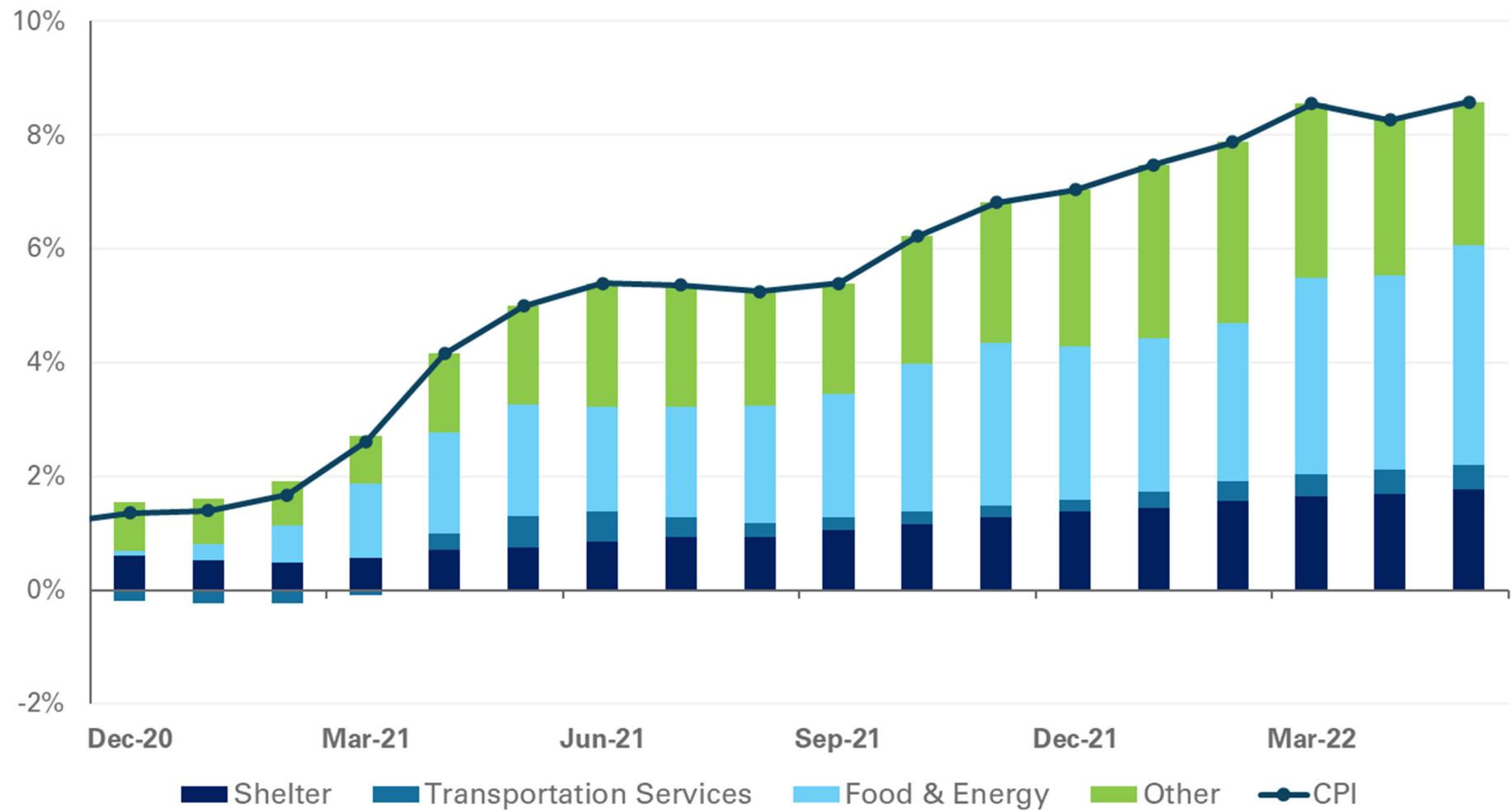


Source: S&P, FactSet



INFLATION CONTINUED TO TREND HIGHER

ANNUAL U.S. CPI-U CHANGES

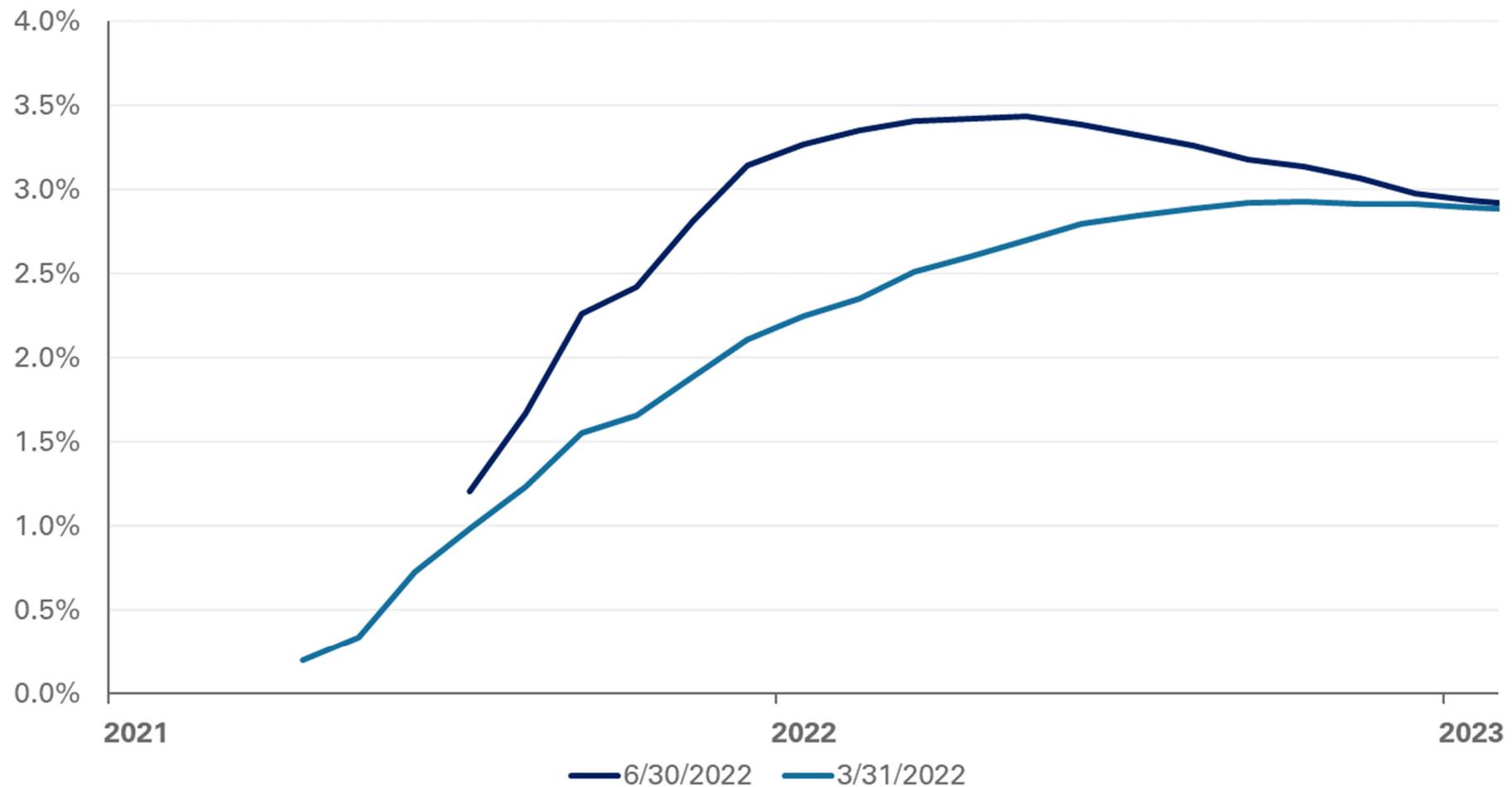


Source: FactSet



RATE HIKE EXPECTATIONS INCREASED

FEDERAL FUNDS FUTURES

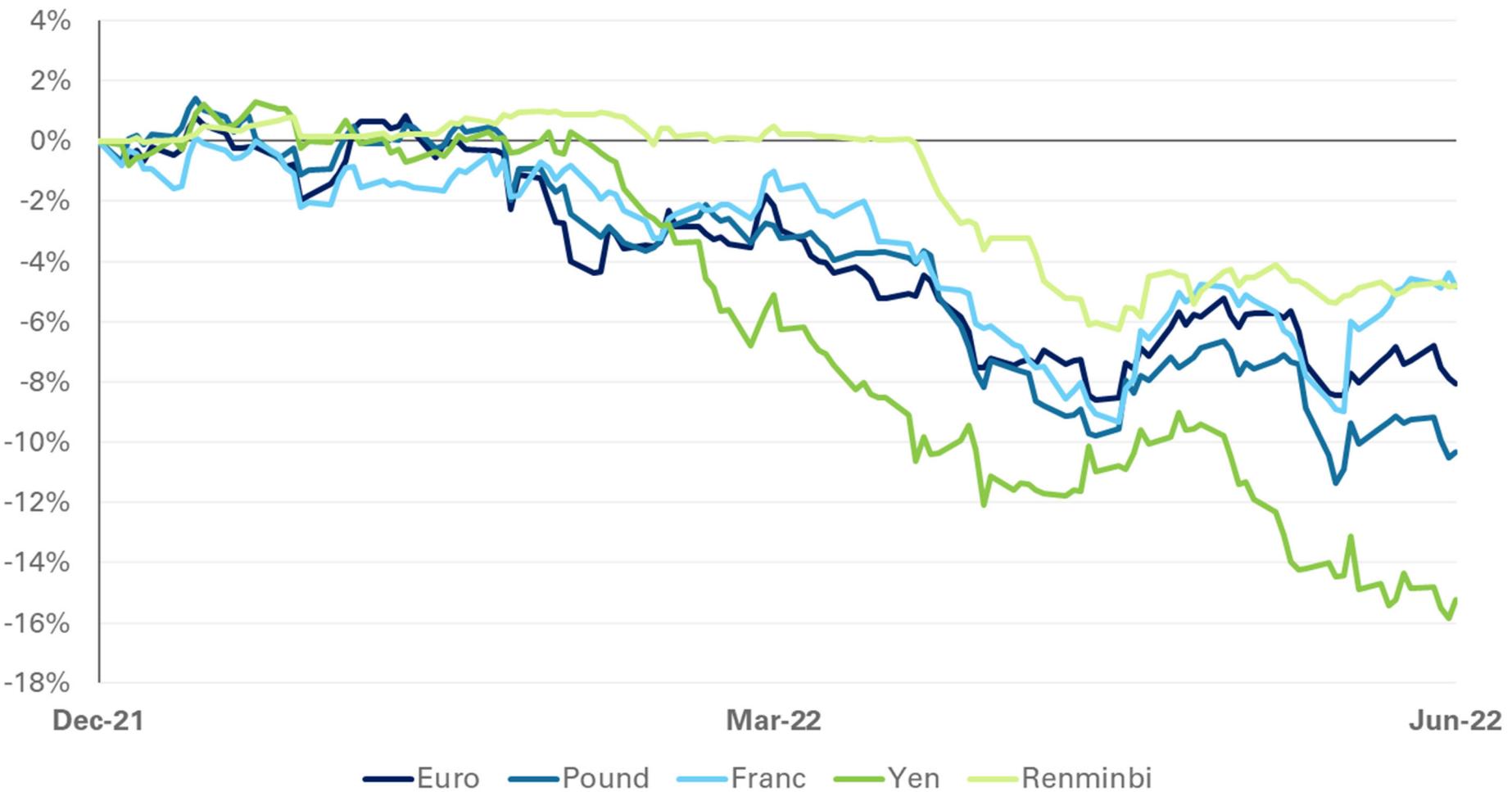


Source: FactSet



DOLLAR STRENGTH WEIGHED ON NON-US ASSETS

CUMULATIVE CURRENCY RETURN



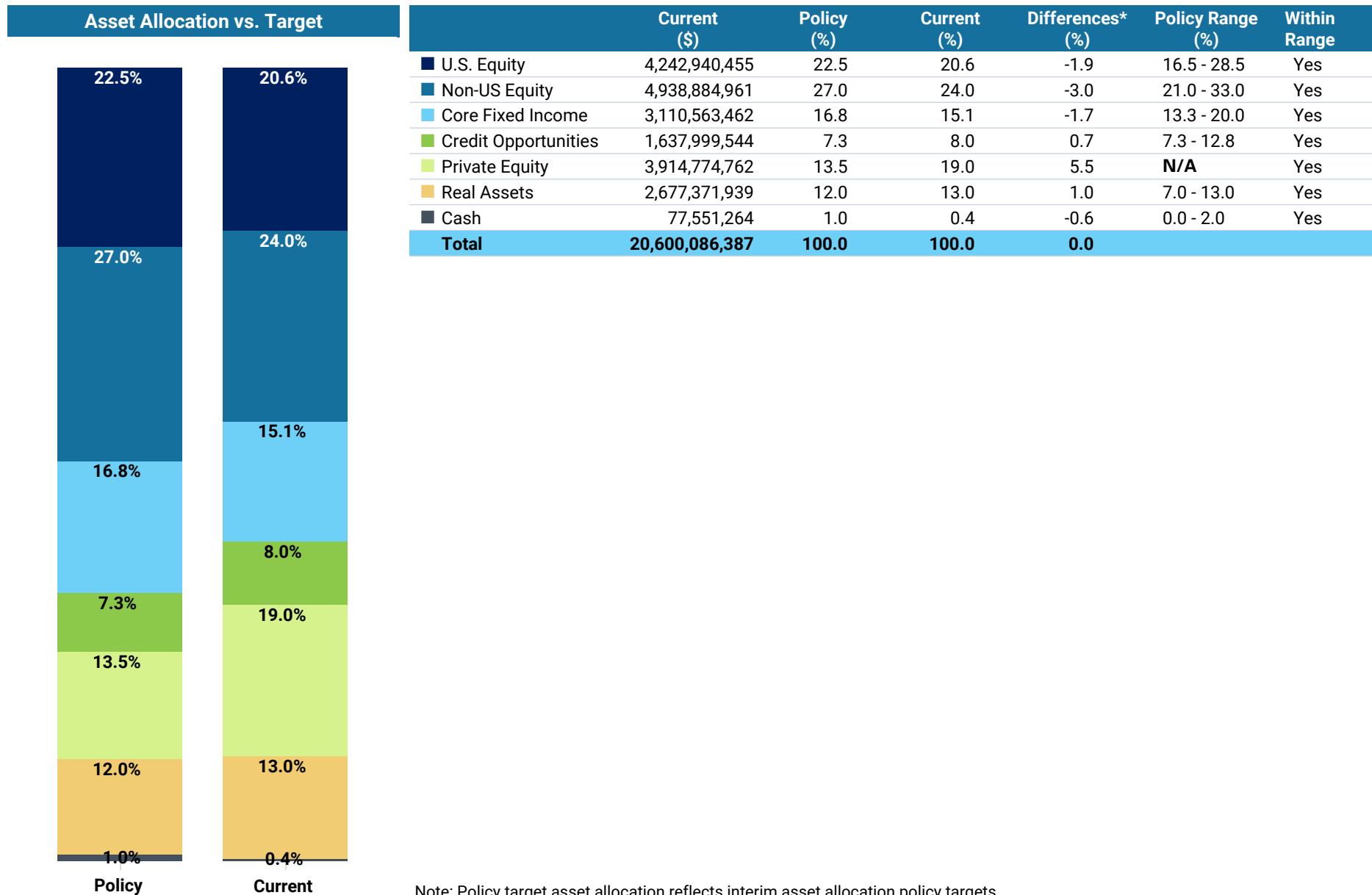
Source: FactSet





ASSET CLASS POLICY OVERVIEW

ASSET ALLOCATION VS. POLICY

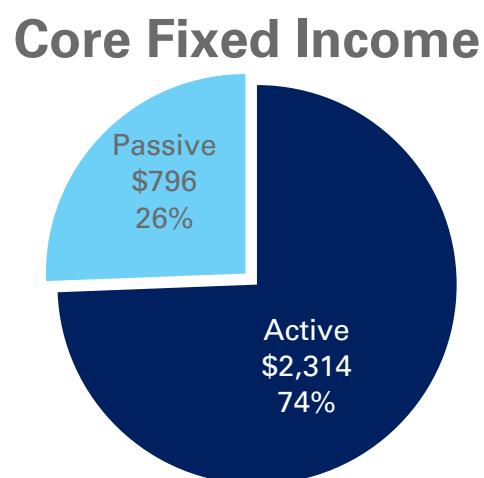
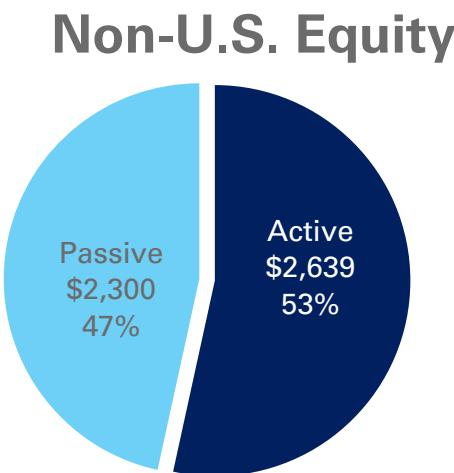
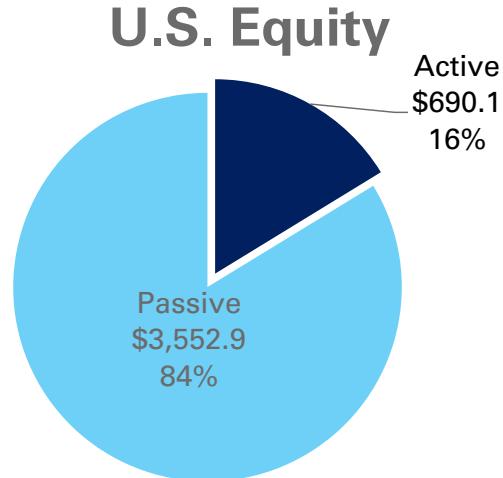
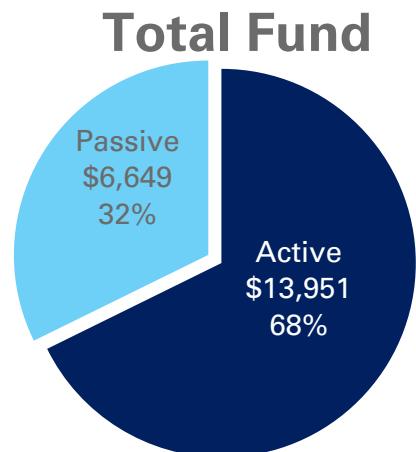


*Difference between Policy and Current Allocation

Note: Policy target asset allocation reflects interim asset allocation policy targets adopted on September 14, 2021.

ACTIVE AND PASSIVE MANAGER BREAKDOWN

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



- LACERS allocated 68% to active managers and 32% to passive managers.
- Credit Opportunities, Private Equity, and Real Assets programs are active and therefore are not shown.



PERFORMANCE OVERVIEW

TOTAL FUND PERFORMANCE SUMMARY

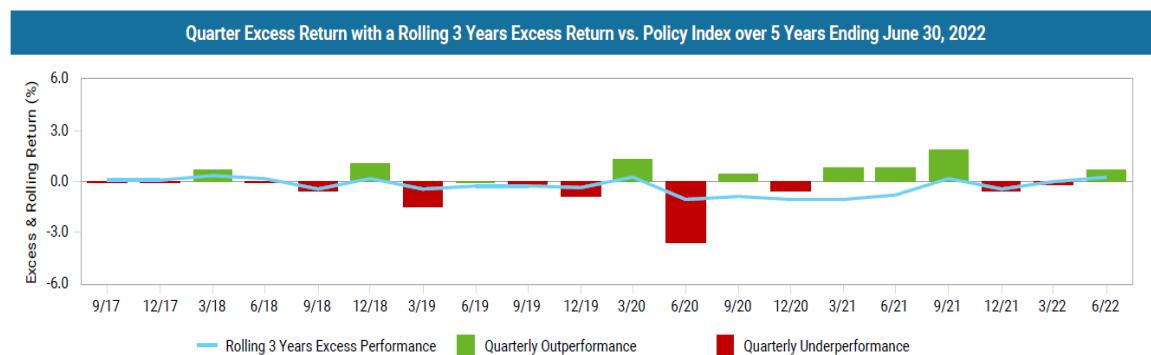
GROSS OF FEES

	Market Value (\$)	3 Mo (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	15 Yrs (%)	Inception (%)	Inception Date
LACERS Master Trust	20,600,086,387	-8.9 (59)	-12.0 (59)	-6.9 (53)	6.8 (70)	7.2 (70)	8.4 (60)	6.0 (60)	8.1 (61)	Nov-94
Policy Index		-9.6 (77)	-12.5 (64)	-8.6 (80)	6.6 (73)	7.1 (75)	8.1 (67)	5.9 (65)	8.0 (64)	
InvMetrics Public DB \$5-50B Gross Median		-7.5	-10.0	-6.6	7.2	7.4	8.5	6.2	8.1	

Over the past five years the Fund return of 7.2% outperformed the policy index by 0.1% and ranked in the 70th percentile within the Public Funds \$5 Billion- \$50 Billion universe. The Fund's volatility of 9.6% ranked in the 60th percentile over this period. The Fund's risk-adjusted performance, as measured by the Sharpe Ratio ranked in the 61st percentile and the Sortino Ratio ranked in the 61st percentile as well. Both measures outperformed the benchmark indicating that active management benefited the Plan.

Over the past three years the Fund return of 6.8% outperformed the policy index by 0.2% and ranked in the 70th percentile in its peer group. The Fund's volatility ranks in the 60th percentile and the Sharpe Ratio ranks in the 66th percentile. The Sortino Ratio of 0.9 ranks in the 61st percentile.

In the one-year ended June 30, 2022, the Fund returned -6.9% and outperformed the policy index by 1.7%. The Fund's return ranked in the 53rd percentile in its peer group.



5 Years Ending March 31, 2022				
	Return	Standard Deviation	Sharpe Ratio	Sortino Ratio
LACERS Master Trust	7.2	9.6	0.7	1.0
Policy Index	7.1	10.9	0.6	0.9
InvMetrics Public DB \$5-50B Gross Median	7.4	8.9	0.6	1.0
3 Years Ending March 31, 2022				
	Return	Standard Deviation	Sharpe Ratio	Sortino Ratio
LACERS Master Trust	6.8	10.7	0.6	0.9
Policy Index	6.6	12.1	0.5	0.8
InvMetrics Public DB \$5-50B Gross Median	7.2	10.1	0.6	0.9

EXECUTIVE SUMMARY

	Market Value (\$)	3 Mo (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	15 Yrs (%)	Inception (%)	Inception Date
LACERS Master Trust	20,600,086,387	-8.9 (54)	-12.0 (53)	-6.9 (44)	6.8 (32)	7.2 (27)	8.4 (18)	6.0 (26)	8.1 (20)	Nov-94
Policy Index		-9.6 (73)	-12.5 (59)	-8.6 (64)	6.6 (40)	7.1 (29)	8.1 (32)	5.9 (27)	8.0 (24)	
InvMetrics Public DB \$1-50B Gross Median		-8.3	-11.8	-7.6	6.3	6.7	7.6	5.5	7.6	

3 Years Ending June 30, 2022				
	Return	Standard Deviation	Sharpe Ratio	Sortino Ratio
LACERS Master Trust	6.8	10.7	0.6	0.9
Policy Index	6.6	12.1	0.5	0.8
InvMetrics Public DB \$1-50B Gross Median	6.3	11.0	0.6	0.8

5 Years Ending June 30, 2022				
	Return	Standard Deviation	Sharpe Ratio	Sortino Ratio
LACERS Master Trust	7.2	9.6	0.7	1.0
Policy Index	7.1	10.9	0.6	0.9
InvMetrics Public DB \$1-50B Gross Median	6.7	9.8	0.6	0.8

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	20,600,086,387	100.00		-8.90	-12.02	-6.86	6.83	7.17	8.40	7.64	8.07	Nov-94
Policy Index				<u>-9.76</u>	<u>-12.83</u>	<u>-8.97</u>	<u>6.45</u>	<u>6.98</u>	<u>8.10</u>	<u>7.38</u>	<u>7.98</u>	
Over/Under				0.86	0.81	2.11	0.38	0.19	0.30	0.26	0.09	
U.S. Equity	4,242,940,455	20.60		-16.26	-20.86	-13.41	9.41	10.34	12.52	9.20	10.37	Nov-94
U.S. Equity Blend				<u>-16.70</u>	<u>-21.10</u>	<u>-13.87</u>	<u>9.77</u>	<u>10.60</u>	<u>12.57</u>	<u>9.14</u>	<u>9.46</u>	
Over/Under				0.44	0.24	0.46	<u>-0.36</u>	<u>-0.26</u>	<u>-0.05</u>	0.06	0.91	
Non-U.S. Equity	4,938,884,961	23.98		-14.34	-19.78	-19.47	3.06	3.84	6.45	6.69	4.99	Nov-94
MSCI AC World ex USA (Net)				<u>-13.73</u>	<u>-18.42</u>	<u>-19.42</u>	<u>1.35</u>	<u>2.50</u>	<u>4.83</u>	<u>5.78</u>	<u>4.64</u>	
Over/Under				<u>-0.61</u>	<u>-1.36</u>	<u>-0.05</u>	1.71	1.34	1.62	0.91	0.35	
Core Fixed Income	3,110,563,462	15.10		-4.69	-10.14	-9.98	-0.18	1.40	2.30	-	2.30	Jul-12
Core Fixed Income Blend				<u>-4.69</u>	<u>-10.35</u>	<u>-10.29</u>	<u>-0.94</u>	<u>0.88</u>	<u>1.64</u>	-	<u>1.64</u>	
Over/Under				0.00	0.21	0.31	0.76	0.52	0.66	-	0.66	
Credit Opportunities	1,637,999,544	7.95		-8.44	-13.08	-13.81	-1.56	1.17	-	-	3.30	Jul-13
Credit Opportunities Blend				<u>-8.45</u>	<u>-13.53</u>	<u>-14.44</u>	<u>-1.18</u>	<u>1.29</u>	-	-	<u>3.57</u>	
Over/Under				0.01	0.45	0.63	<u>-0.38</u>	<u>-0.12</u>	-	-	<u>-0.27</u>	
Real Assets	2,677,371,939	13.00		-2.31	-2.05	5.29	5.84	5.85	7.20	5.13	6.28	Dec-94
Real Assets Policy Benchmark				<u>-4.70</u>	<u>-4.74</u>	<u>5.89</u>	<u>7.39</u>	<u>7.38</u>	<u>6.88</u>	<u>6.61</u>	<u>7.90</u>	
Over/Under				2.39	2.69	<u>-0.60</u>	<u>-1.55</u>	<u>-1.53</u>	0.32	<u>-1.48</u>	<u>-1.62</u>	
Public Real Assets	1,489,959,801	7.23		-8.64	-11.90	-5.46	4.14	4.16	-	-	2.66	Jul-14
Public Real Assets Blend				<u>-9.36</u>	<u>-12.74</u>	<u>-5.06</u>	<u>4.11</u>	<u>3.71</u>	-	-	<u>1.24</u>	
Over/Under				0.72	0.84	<u>-0.40</u>	0.03	0.45	-	-	1.42	
Private Real Estate	1,167,923,552	5.67		7.42	15.42	24.70	8.81	8.37	9.62	6.31	7.14	Nov-94
Real Estate Blend				<u>4.98</u>	<u>12.93</u>	<u>30.52</u>	<u>13.56</u>	<u>11.41</u>	<u>11.76</u>	<u>10.01</u>	<u>10.26</u>	
Over/Under				2.44	2.49	<u>-5.82</u>	<u>-4.75</u>	<u>-3.04</u>	<u>-2.14</u>	<u>-3.70</u>	<u>-3.12</u>	
Private Equity	3,914,774,762	19.00		0.32	5.19	27.64	23.82	19.64	15.51	13.66	11.96	Dec-95
Private Equity Blend				<u>-1.97</u>	<u>2.96</u>	<u>14.05</u>	<u>22.90</u>	<u>19.75</u>	<u>18.86</u>	<u>14.37</u>	<u>14.11</u>	
Over/Under				2.29	2.23	13.59	0.92	<u>-0.11</u>	<u>-3.35</u>	<u>-0.71</u>	<u>-2.15</u>	
Cash	77,551,264	0.38										

Please see appendix for the blended benchmark compositions.



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	20,600,086,387	100.00		-8.94	-12.10	-7.01	6.65	6.99	8.21	7.44	6.76	Jul-01
Policy Index				<u>-9.76</u>	<u>-12.83</u>	<u>-8.97</u>	<u>6.45</u>	<u>6.98</u>	<u>8.10</u>	<u>7.38</u>	<u>6.73</u>	
Over/Under				0.82	0.73	1.96	0.20	0.01	0.11	0.06	0.03	
U.S. Equity	4,242,940,455	20.60		-16.28	-20.90	-13.48	9.34	10.27	12.41	9.02	8.26	Sep-01
U.S. Equity Blend				<u>-16.70</u>	<u>-21.10</u>	<u>-13.87</u>	<u>9.77</u>	<u>10.60</u>	<u>12.57</u>	<u>9.14</u>	<u>8.18</u>	
Over/Under				0.42	0.20	0.39	<u>-0.43</u>	<u>-0.33</u>	<u>-0.16</u>	<u>-0.12</u>	<u>0.08</u>	
Non-U.S. Equity	4,938,884,961	23.98		-14.41	-19.93	-19.75	2.70	3.47	6.10	6.32	5.59	Jun-01
MSCI AC World ex USA (Net)				<u>-13.73</u>	<u>-18.42</u>	<u>-19.42</u>	<u>1.35</u>	<u>2.50</u>	<u>4.83</u>	<u>5.78</u>	<u>4.84</u>	
Over/Under				<u>-0.68</u>	<u>-1.51</u>	<u>-0.33</u>	<u>1.35</u>	<u>0.97</u>	<u>1.27</u>	<u>0.54</u>	<u>0.75</u>	
Core Fixed Income	3,110,563,462	15.10		-4.72	-10.18	-10.07	-0.27	1.31	2.19	-	2.19	Jul-12
Core Fixed Income Blend				<u>-4.69</u>	<u>-10.35</u>	<u>-10.29</u>	<u>-0.94</u>	<u>0.88</u>	<u>1.64</u>	-	<u>1.64</u>	
Over/Under				<u>-0.03</u>	<u>0.17</u>	<u>0.22</u>	<u>0.67</u>	<u>0.43</u>	<u>0.55</u>	-	<u>0.55</u>	
Credit Opportunities	1,637,999,544	7.95		-8.52	-13.24	-14.12	-1.85	0.86	-	-	2.98	Jul-13
Credit Opportunities Blend				<u>-8.45</u>	<u>-13.53</u>	<u>-14.44</u>	<u>-1.18</u>	<u>1.29</u>	-	-	<u>3.57</u>	
Over/Under				<u>-0.07</u>	<u>0.29</u>	<u>0.32</u>	<u>-0.67</u>	<u>-0.43</u>	-	-	<u>-0.59</u>	
Real Assets	2,677,371,939	13.00		-2.34	-2.11	5.17	5.69	5.70	7.05	4.97	5.18	Jun-01
Real Assets Policy Benchmark				<u>-4.70</u>	<u>-4.74</u>	<u>5.89</u>	<u>7.39</u>	<u>7.38</u>	<u>6.88</u>	<u>6.61</u>	<u>6.51</u>	
Over/Under				2.36	2.63	<u>-0.72</u>	<u>-1.70</u>	<u>-1.68</u>	0.17	<u>-1.64</u>	<u>-1.33</u>	
Public Real Assets	1,489,959,801	7.23		-8.67	-11.96	-5.58	3.96	3.95	-	-	2.47	Jul-14
Public Real Assets Blend				<u>-9.36</u>	<u>-12.74</u>	<u>-5.06</u>	<u>4.11</u>	<u>3.71</u>	-	-	<u>1.24</u>	
Over/Under				0.69	0.78	<u>-0.52</u>	<u>-0.15</u>	0.24	-	-	<u>1.23</u>	
Private Real Estate	1,167,923,552	5.67		7.40	15.38	24.60	8.72	8.28	9.52	6.17	6.35	Jul-01
Real Estate Blend				<u>4.98</u>	<u>12.93</u>	<u>30.52</u>	<u>13.56</u>	<u>11.41</u>	<u>11.76</u>	<u>10.01</u>	<u>9.79</u>	
Over/Under				2.42	2.45	<u>-5.92</u>	<u>-4.84</u>	<u>-3.13</u>	<u>-2.24</u>	<u>-3.84</u>	<u>-3.44</u>	
Private Equity	3,914,774,762	19.00		0.32	5.19	27.66	23.83	19.65	15.52	13.58	12.19	Sep-01
Private Equity Blend				<u>-1.97</u>	<u>2.96</u>	<u>14.05</u>	<u>22.90</u>	<u>19.75</u>	<u>18.86</u>	<u>14.37</u>	<u>13.33</u>	
Over/Under				2.29	2.23	13.61	0.93	<u>-0.10</u>	<u>-3.34</u>	<u>-0.79</u>	<u>-1.14</u>	
Cash	77,551,264	0.38										

Please see appendix for the blended benchmark compositions.



RISK STATISTICS

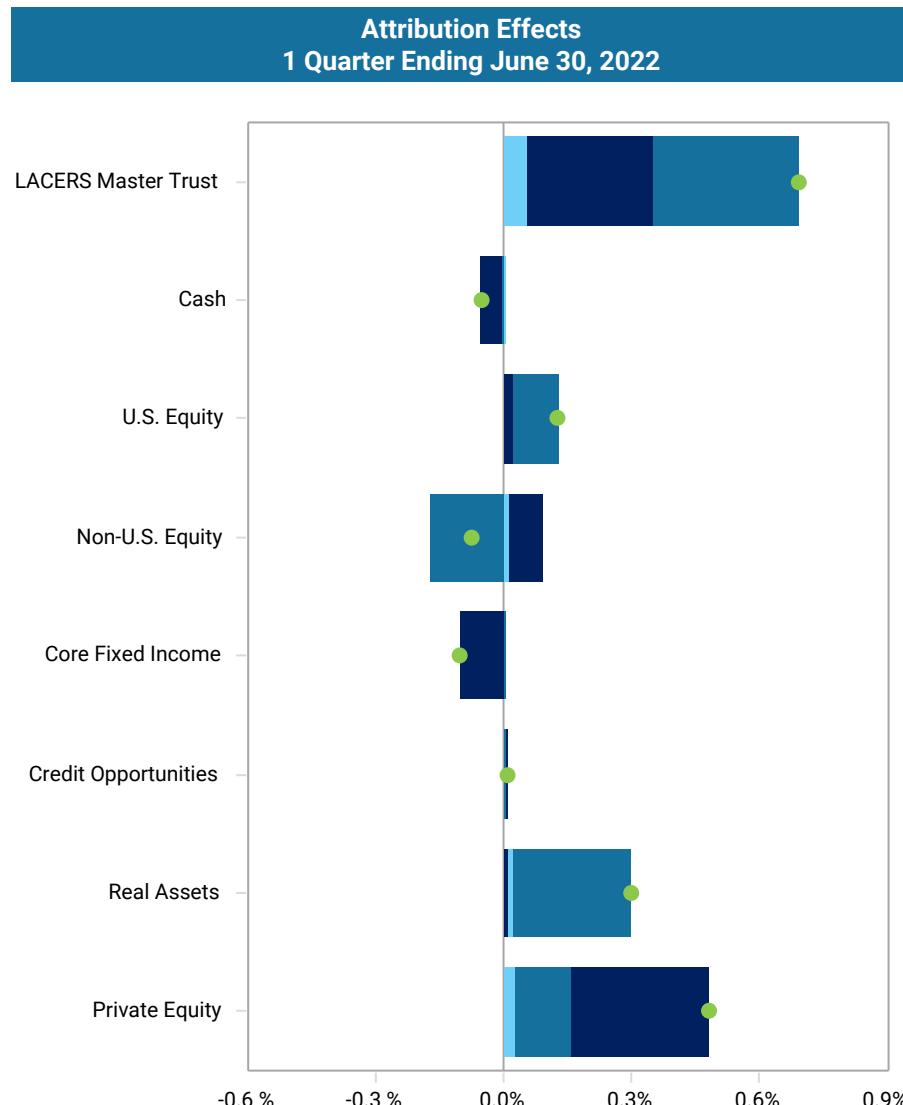
	3 Years Ending June 30, 2022					
	Return	Standard Deviation	Alpha	Information Ratio	Sortino Ratio	Tracking Error
LACERS Master Trust	6.83 (42)	10.70 (39)	0.97 (45)	0.03 (45)	0.90 (40)	2.33 (39)
InvMetrics Public DB \$1-50B Gross Median	6.42	11.05	0.77	-0.08	0.85	2.58

	5 Years Ending June 30, 2022					
	Return	Standard Deviation	Alpha	Information Ratio	Sortino Ratio	Tracking Error
LACERS Master Trust	7.17 (45)	9.58 (41)	0.93 (40)	-0.01 (48)	0.96 (39)	2.01 (41)
InvMetrics Public DB \$1-50B Gross Median	7.04	9.85	0.57	-0.03	0.89	2.24

	3 Years Ending June 30, 2022					
	Return	Standard Deviation	Alpha	Information Ratio	Sortino Ratio	Tracking Error
LACERS Master Trust	6.83 (70)	10.70 (60)	0.97 (66)	0.03 (70)	0.90 (61)	2.33 (43)
InvMetrics Public DB \$5-50B Gross Median	7.23	10.09	1.25	0.20	0.95	2.82

	5 Years Ending June 30, 2022					
	Return	Standard Deviation	Alpha	Information Ratio	Sortino Ratio	Tracking Error
LACERS Master Trust	7.17 (70)	9.58 (60)	0.93 (61)	-0.01 (74)	0.96 (61)	2.01 (39)
InvMetrics Public DB \$5-50B Gross Median	7.42	8.85	1.12	0.11	0.99	2.58

ATTRIBUTION ANALYSIS



Attribution Summary 1 Quarter Ending June 30, 2022							
	Wtd. Actual Return (%)	Wtd. Index Return (%)	Excess Return (%)	Selection Effect (%)	Allocation Effect (%)	Interaction Effects (%)	Total Effects (%)
Cash	-0.2	0.1	-0.3	0.0	-0.1	0.0	-0.1
U.S. Equity	-16.3	-16.7	0.4	0.1	0.0	0.0	0.1
Non-U.S. Equity	-14.3	-13.7	-0.6	-0.2	0.1	0.0	-0.1
Core Fixed Income	-4.7	-4.7	0.0	0.0	-0.1	0.0	-0.1
Credit Opportunities	-8.4	-8.4	0.0	0.0	0.0	0.0	0.0
Real Assets	-2.3	-4.7	2.4	0.3	0.0	0.0	0.3
Private Equity	0.3	-0.6	1.0	0.2	0.3	0.0	0.5
LACERS Master Trust	-8.9	-9.6	0.7	0.4	0.3	0.1	0.7

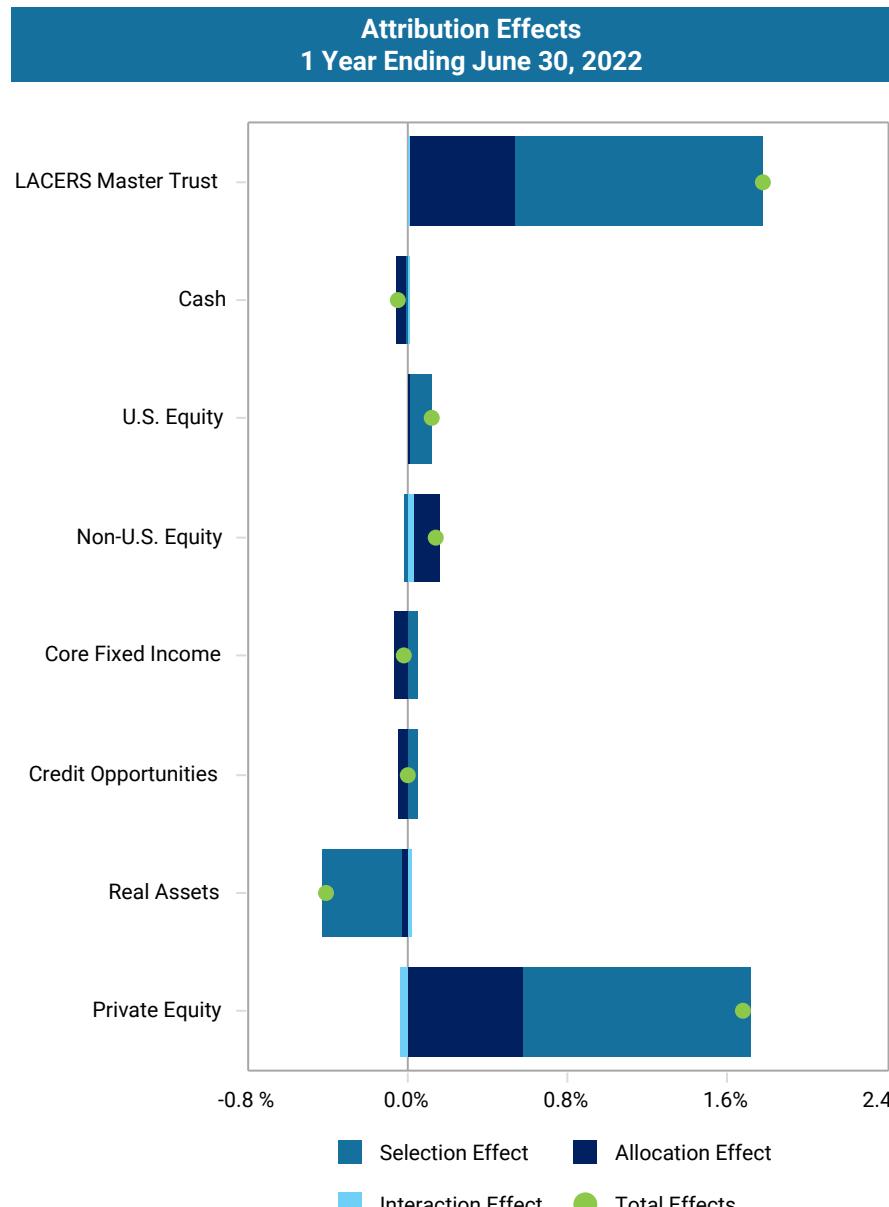
Wtd. = Weighted

- 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 September 14, 2021.

*Total Actual and Index returns are weighted average calculations.



ATTRIBUTION ANALYSIS



**Attribution Summary
1 Year Ending June 30, 2022**

	Wtd. Actual Return (%)	Wtd. Index Return (%)	Excess Return (%)	Selection Effect (%)	Allocation Effect (%)	Interaction Effects (%)	Total Effects (%)
Cash	-0.7	0.2	-0.8	0.0	0.0	0.0	-0.1
U.S. Equity	-13.4	-13.9	0.5	0.1	0.0	0.0	0.1
Non-U.S. Equity	-19.5	-19.4	-0.1	0.0	0.1	0.0	0.1
Core Fixed Income	-10.0	-10.3	0.3	0.1	-0.1	0.0	0.0
Credit Opportunities	-13.8	-14.4	0.6	0.1	-0.1	0.0	0.0
Real Assets	2.1	5.9	-3.8	-0.4	0.0	0.0	-0.4
Private Equity	27.6	17.1	10.6	1.1	0.6	0.0	1.7
LACERS Master Trust	-6.9	-8.6	1.8	0.9	0.5	0.0	1.8

Wtd. = Weighted

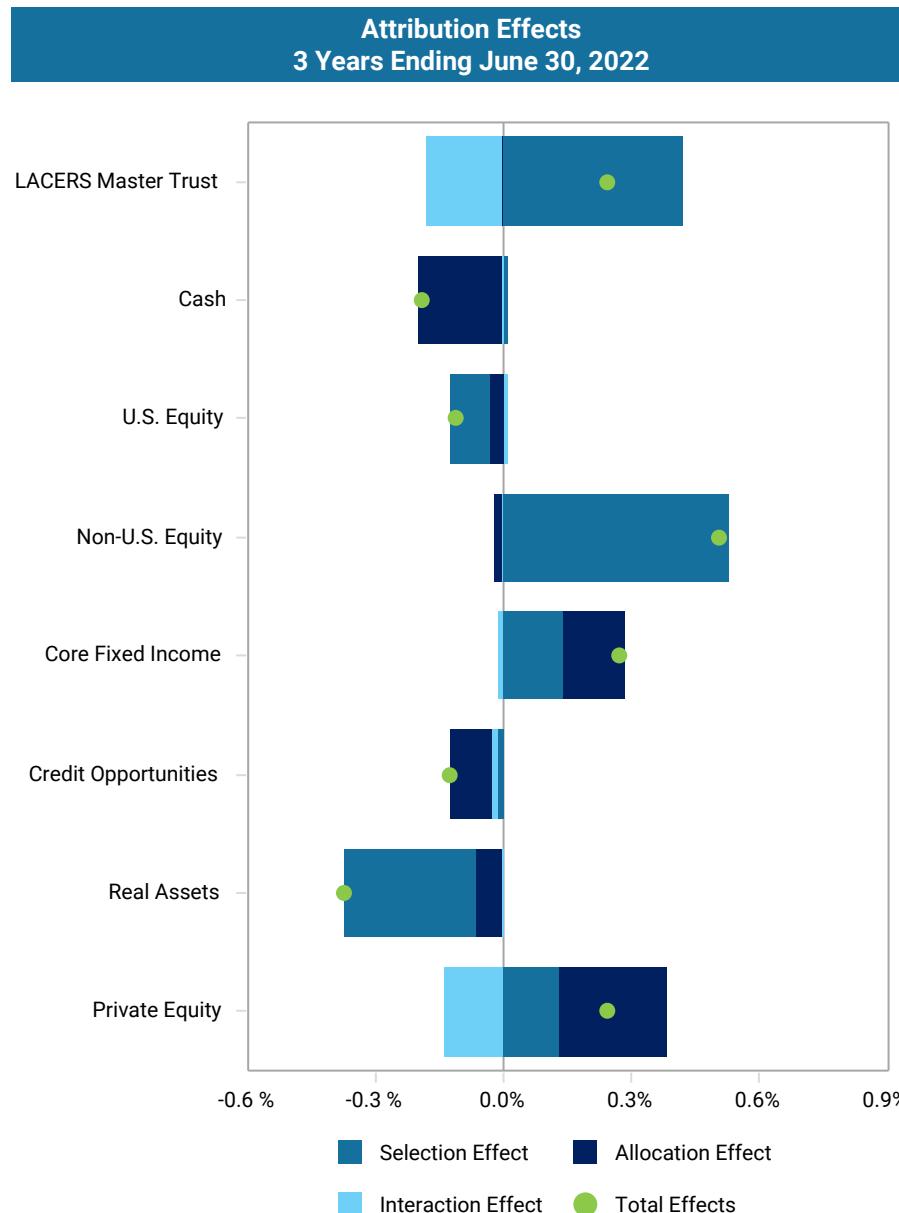
- In addition to returns on unallocated cash, the Cash composite returns include the impact of securities lending income, foreign tax reclaims, and other miscellaneous transactions.

- Policy target asset allocation reflects interim asset allocation policy targets adopted on September 14, 2021.

*Total Actual and Index returns are weighted average calculations.



ATTRIBUTION ANALYSIS



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

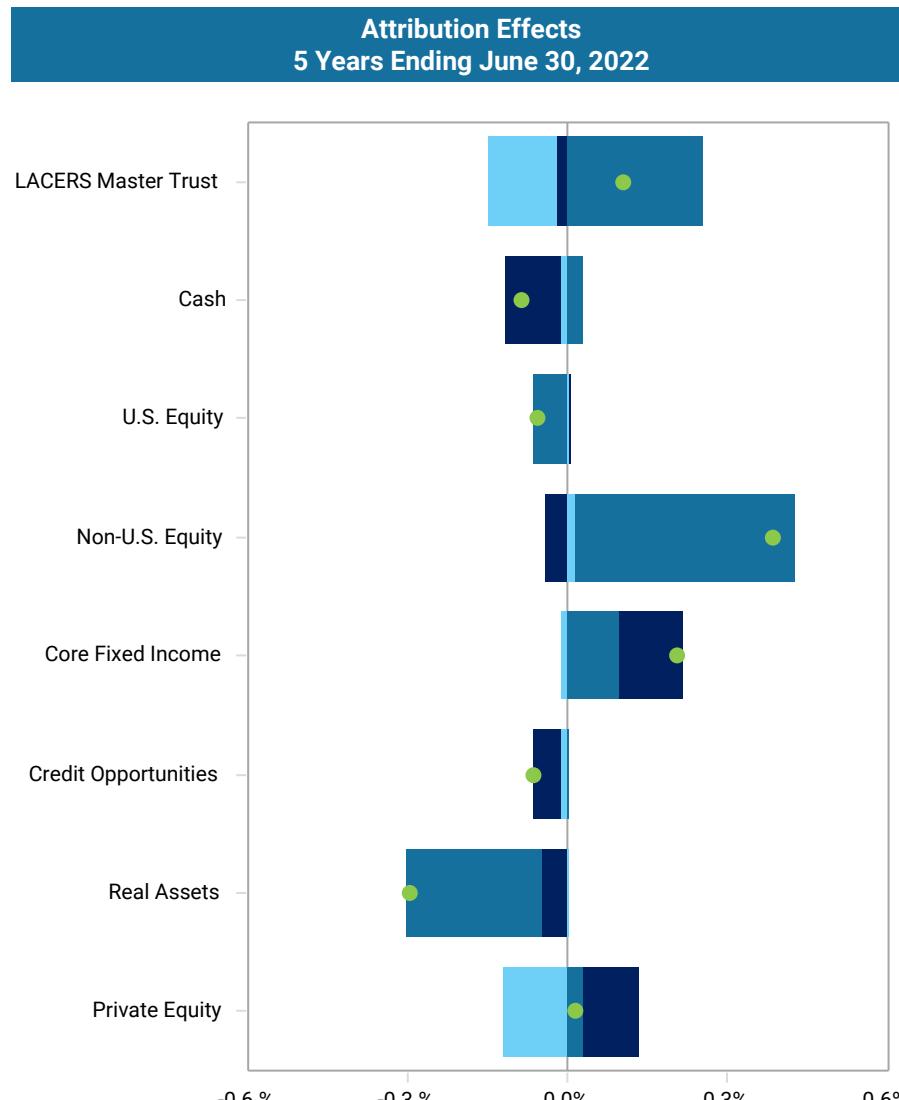
	Wtd. Actual Return (%)	Wtd. Index Return (%)	Excess Return (%)	Selection Effect (%)	Allocation Effect (%)	Interaction Effects (%)	Total Effects (%)
Cash	1.5	0.6	0.9	0.0	-0.2	0.0	-0.2
U.S. Equity	9.4	9.8	-0.4	-0.1	0.0	0.0	-0.1
Non-U.S. Equity	3.1	1.4	1.7	0.5	0.0	0.0	0.5
Core Fixed Income	-0.2	-0.9	0.8	0.1	0.1	0.0	0.3
Credit Opportunities	-1.6	-1.2	-0.4	0.0	-0.1	0.0	-0.1
Real Assets	4.8	7.4	-2.6	-0.3	-0.1	0.0	-0.4
Private Equity	23.8	24.0	-0.2	0.0	0.3	-0.1	0.2
LACERS Master Trust	6.8	6.6	0.2	0.2	0.0	-0.2	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 September 14, 2021.

*Total Actual and Index returns are weighted average calculations.

ATTRIBUTION ANALYSIS



**Attribution Summary
5 Years Ending June 30, 2022**

	Wtd. Actual Return (%)	Wtd. Index Return (%)	Excess Return (%)	Selection Effect (%)	Allocation Effect (%)	Interaction Effects (%)	Total Effects (%)
Cash	4.0	1.1	2.9	0.0	-0.1	0.0	-0.1
U.S. Equity	10.3	10.6	-0.3	-0.1	0.0	0.0	-0.1
Non-U.S. Equity	3.8	2.5	1.3	0.4	0.0	0.0	0.4
Core Fixed Income	1.4	0.9	0.5	0.1	0.1	0.0	0.2
Credit Opportunities	1.2	1.3	-0.1	0.0	-0.1	0.0	-0.1
Real Assets	5.2	7.4	-2.2	-0.2	0.0	0.0	-0.3
Private Equity	19.6	20.4	-0.8	-0.1	0.1	-0.1	0.0
LACERS Master Trust	7.2	7.1	0.1	0.1	0.0	-0.1	0.1

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 September 14, 2021.

*Total Actual and Index returns are weighted average calculations.

PRIVATE MARKETS PERFORMANCE

AS OF MARCH 31, 2022

Private Equity	10 Year IRR	Since Inception IRR	Since Inception Multiple
Aggregate Portfolio	15.6%	12.9%	1.74x
Core Portfolio	16.3%	13.4%	1.77x
Specialized Portfolio	2.2%	2.0%	1.13x
Russell 3000 + 300 bps	17.3%	12.9%	N/A

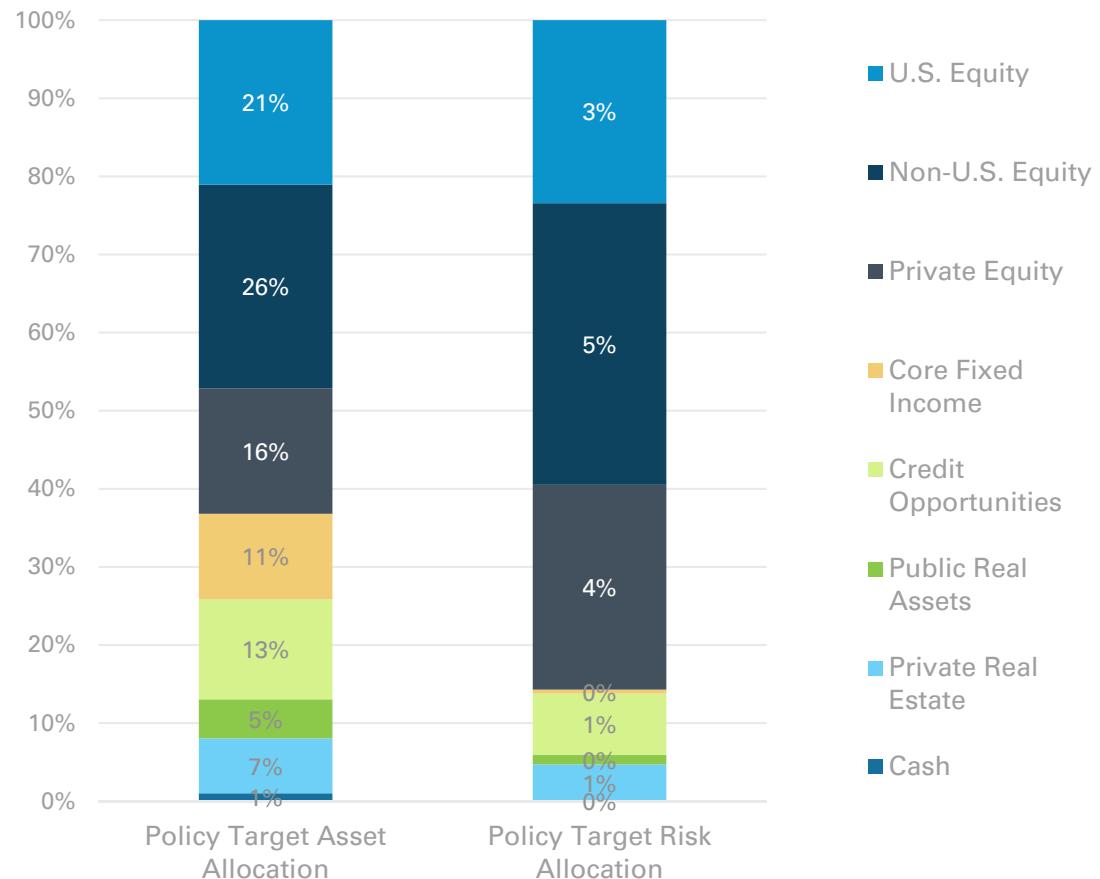
Real Estate	10 Year Return (Net)	Since Inception Return (Net)
Total Portfolio (TWR) ¹	9.52%	6.34%
NFI-ODCE + 80 basis points (TWR)	10.72%	7.44%

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 JUNE 30, 2022

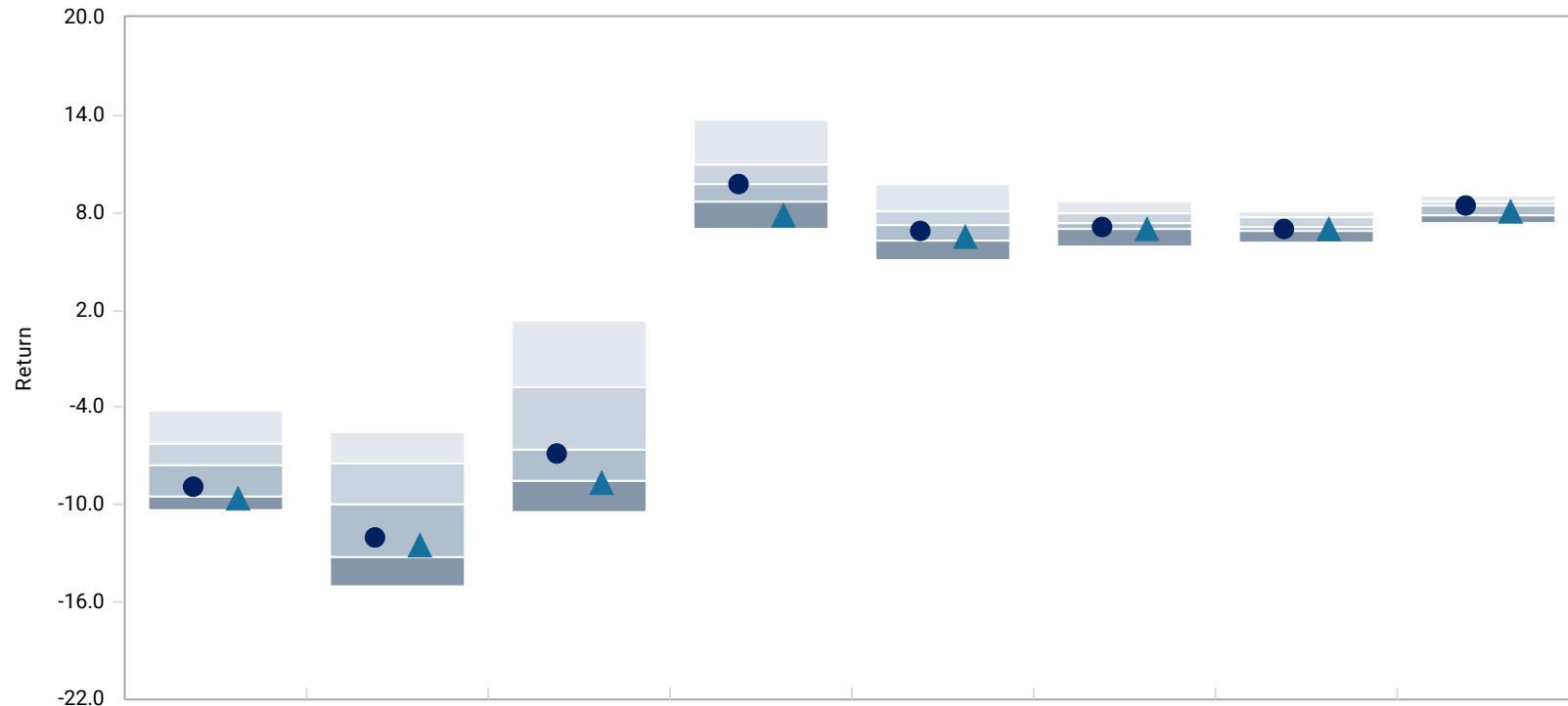
Public Markets Asset Class	Target Risk Budget	Actual 3 Yr Tracking Error
U.S. Equity	1.25%	0.97%
Non-U.S. Equity	1.75%	1.84%
Core Fixed Income	1.75%	0.56%
Credit Opportunities	3.50%	1.83%
Public Real Assets*	1.25%	4.47%

- 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

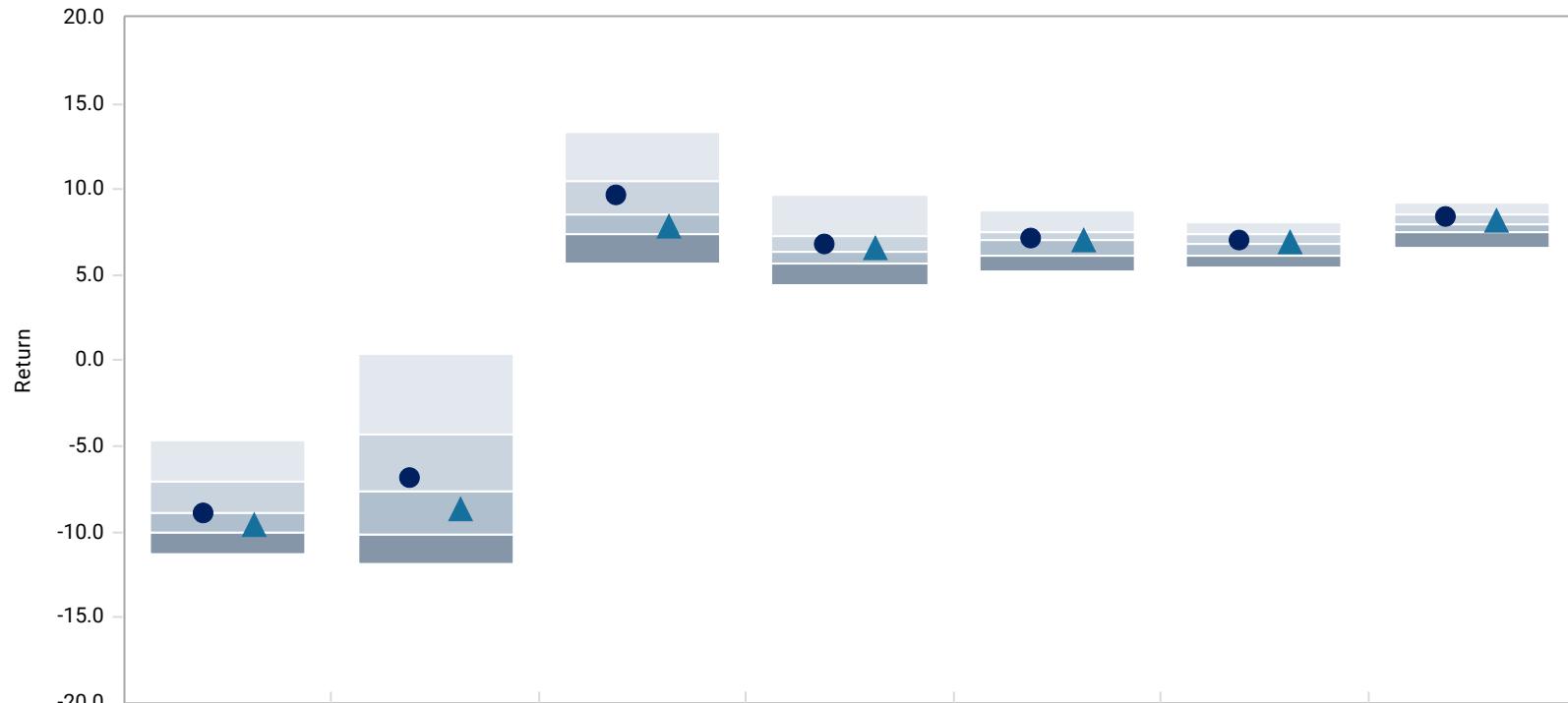
LACERS Master Trust vs. InvMetrics Public DB \$5-50B Gross



	3 Mo (%)	YTD (%)	1 Year (%)	2 Years (%)	3 Years (%)	5 Years (%)	7 Years (%)	10 Years (%)
● LACERS Master Trust	-8.9 (59)	-12.0 (59)	-6.9 (53)	9.7 (53)	6.8 (70)	7.2 (70)	7.0 (73)	8.4 (60)
▲ Policy Index	-9.6 (77)	-12.5 (64)	-8.6 (80)	7.9 (90)	6.6 (73)	7.1 (75)	7.0 (74)	8.1 (67)
5th Percentile	-4.2	-5.6	1.3	13.7	9.8	8.7	8.0	9.0
1st Quartile	-6.3	-7.4	-2.8	11.0	8.0	7.9	7.8	8.7
Median	-7.5	-10.0	-6.6	9.8	7.2	7.4	7.2	8.5
3rd Quartile	-9.5	-13.2	-8.5	8.6	6.3	7.1	6.9	7.9
95th Percentile	-10.3	-15.0	-10.4	7.0	5.1	6.0	6.1	7.4
Population	25	25	24	24	24	24	23	23

RETURN SUMMARY VS. PEER UNIVERSE

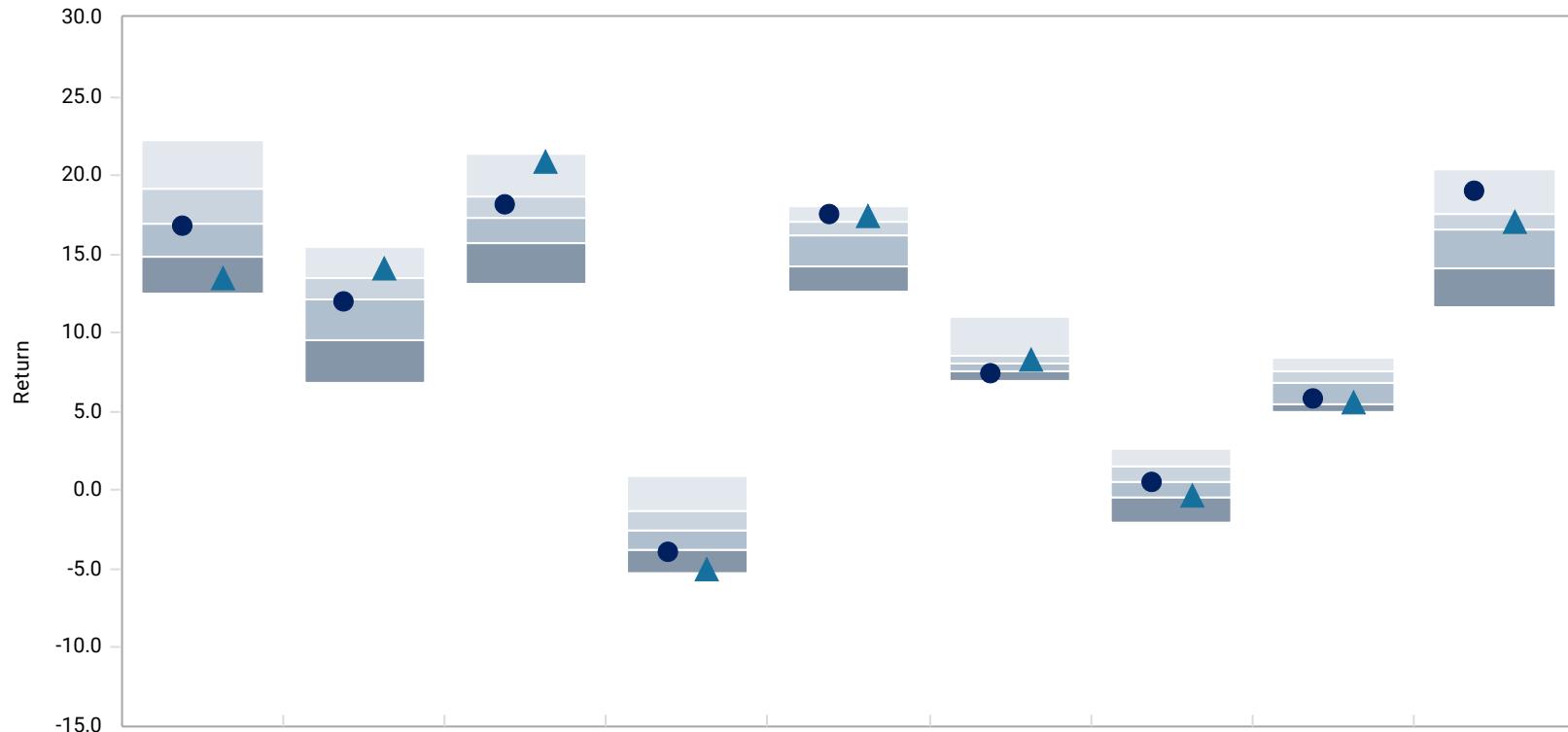
LACERS Master Trust vs. InvMetrics Public DB \$1-50B Gross



	3 Mo (%)	1 Yr (%)	2 Yrs (%)	3 Yrs (%)	5 Yrs (%)	7 Yrs (%)	10 Yrs (%)
● LACERS Master Trust	-8.9 (50)	-6.9 (40)	9.7 (37)	6.8 (42)	7.2 (45)	7.0 (49)	8.4 (38)
▲ Policy Index	-9.6 (66)	-8.6 (61)	7.9 (63)	6.6 (48)	7.1 (49)	7.0 (49)	8.1 (47)
5th Percentile	-4.6	0.4	13.4	9.7	8.7	8.1	9.2
1st Quartile	-7.0	-4.2	10.5	7.3	7.5	7.3	8.6
Median	-8.9	-7.7	8.6	6.4	7.0	6.8	8.0
3rd Quartile	-10.0	-10.2	7.4	5.6	6.1	6.2	7.5
95th Percentile	-11.2	-11.8	5.7	4.4	5.2	5.5	6.6
Population	65	64	64	64	64	63	63

RETURN SUMMARY VS. PEER UNIVERSE

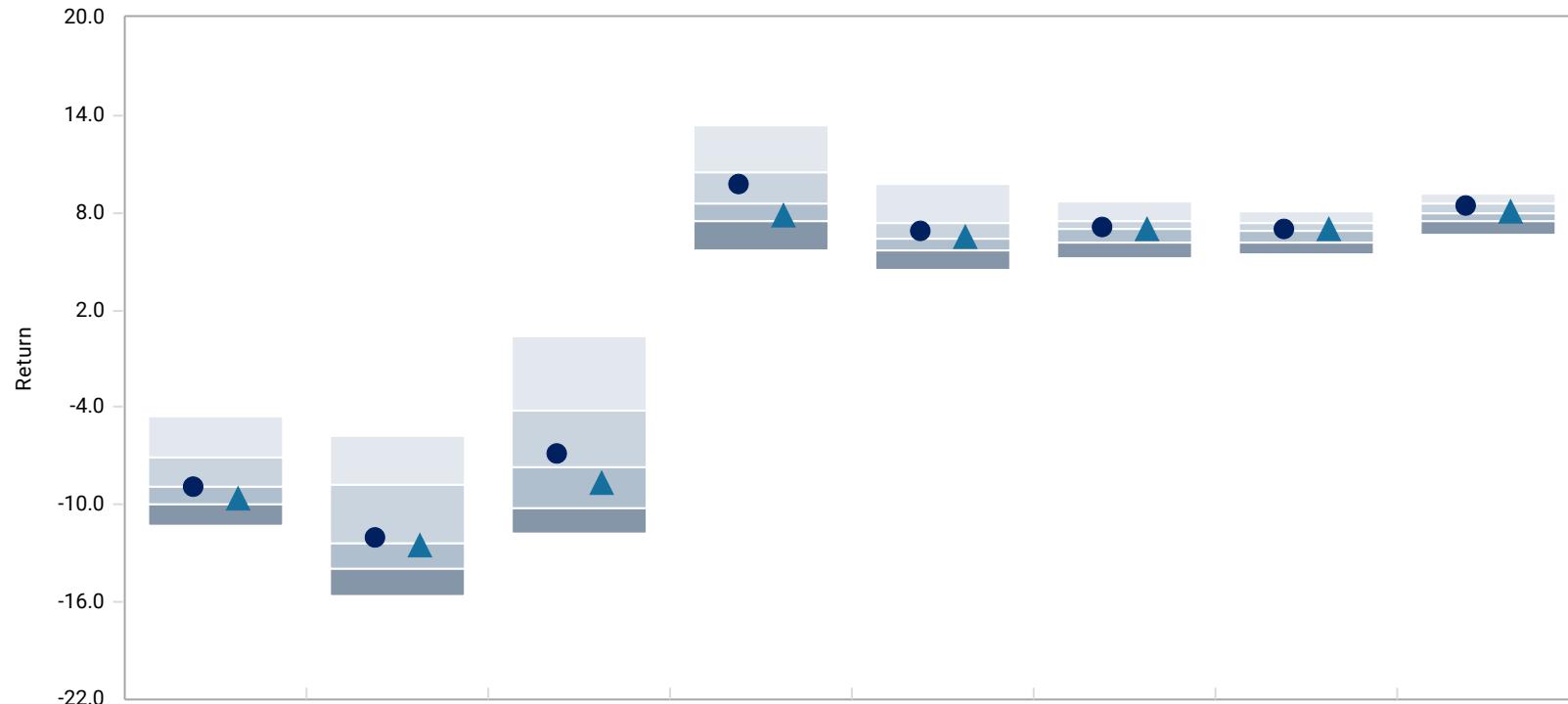
LACERS Master Trust vs. InvMetrics Public DB \$5-50B Gross



	2021	2020	2019	2018	2017	2016	2015	2014	2013
● LACERS Master Trust	16.8 (56)	12.1 (51)	18.1 (31)	-3.9 (76)	17.6 (10)	7.4 (86)	0.5 (51)	5.9 (69)	19.0 (13)
▲ Policy Index	13.5 (83)	14.1 (17)	20.9 (8)	-5.0 (95)	17.4 (11)	8.3 (33)	-0.4 (75)	5.6 (74)	17.1 (30)
5th Percentile	22.3	15.5	21.4	0.8	18.0	11.0	2.6	8.4	20.4
1st Quartile	19.1	13.5	18.7	-1.3	17.1	8.6	1.6	7.6	17.5
Median	17.0	12.1	17.3	-2.5	16.2	8.0	0.5	6.8	16.6
3rd Quartile	14.9	9.6	15.7	-3.8	14.3	7.5	-0.4	5.5	14.1
95th Percentile	12.4	6.8	13.0	-5.2	12.6	7.0	-2.0	4.9	11.6
Population	46	56	44	38	45	44	43	43	40

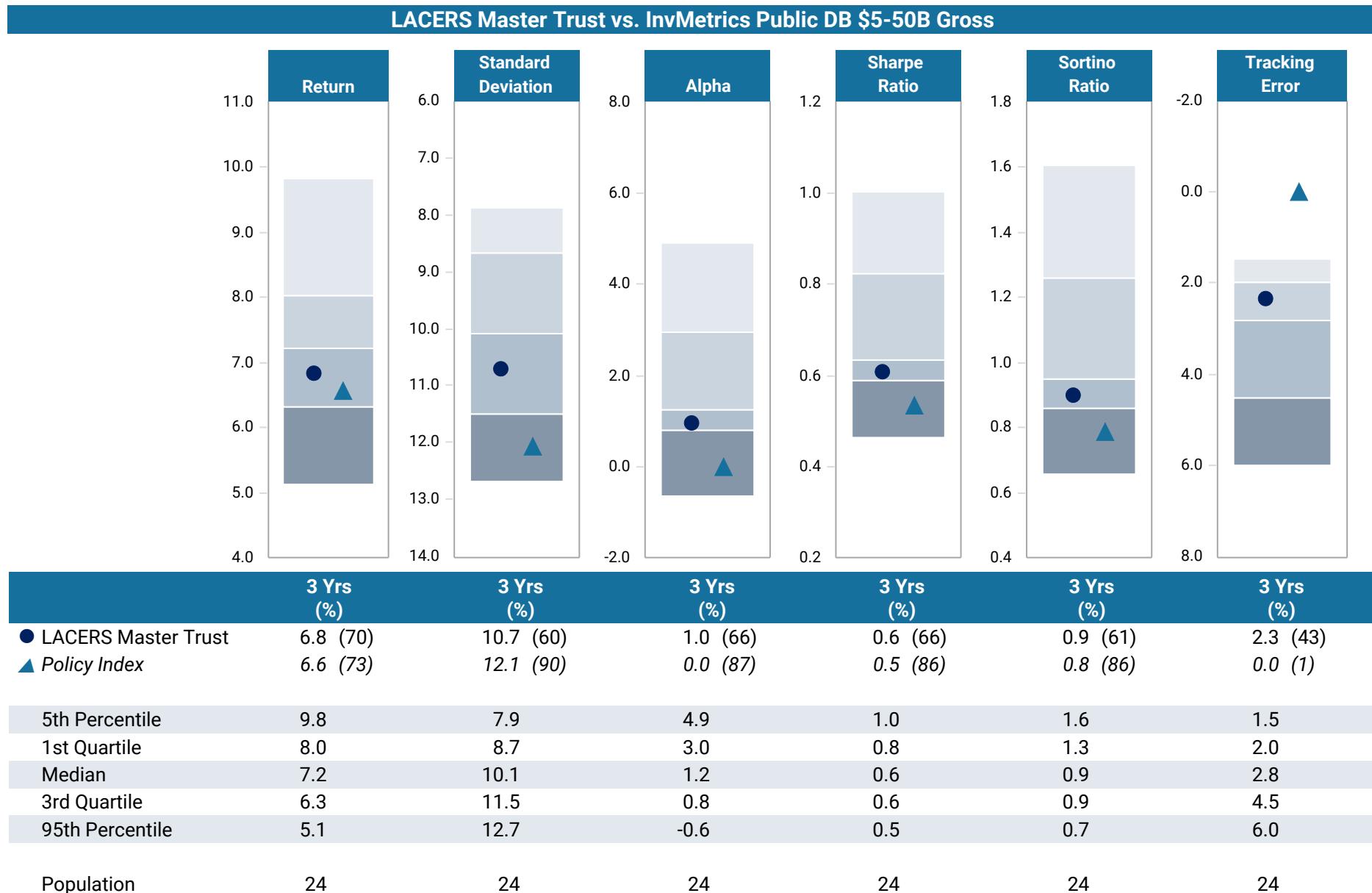
RETURN SUMMARY VS. PEER UNIVERSE

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

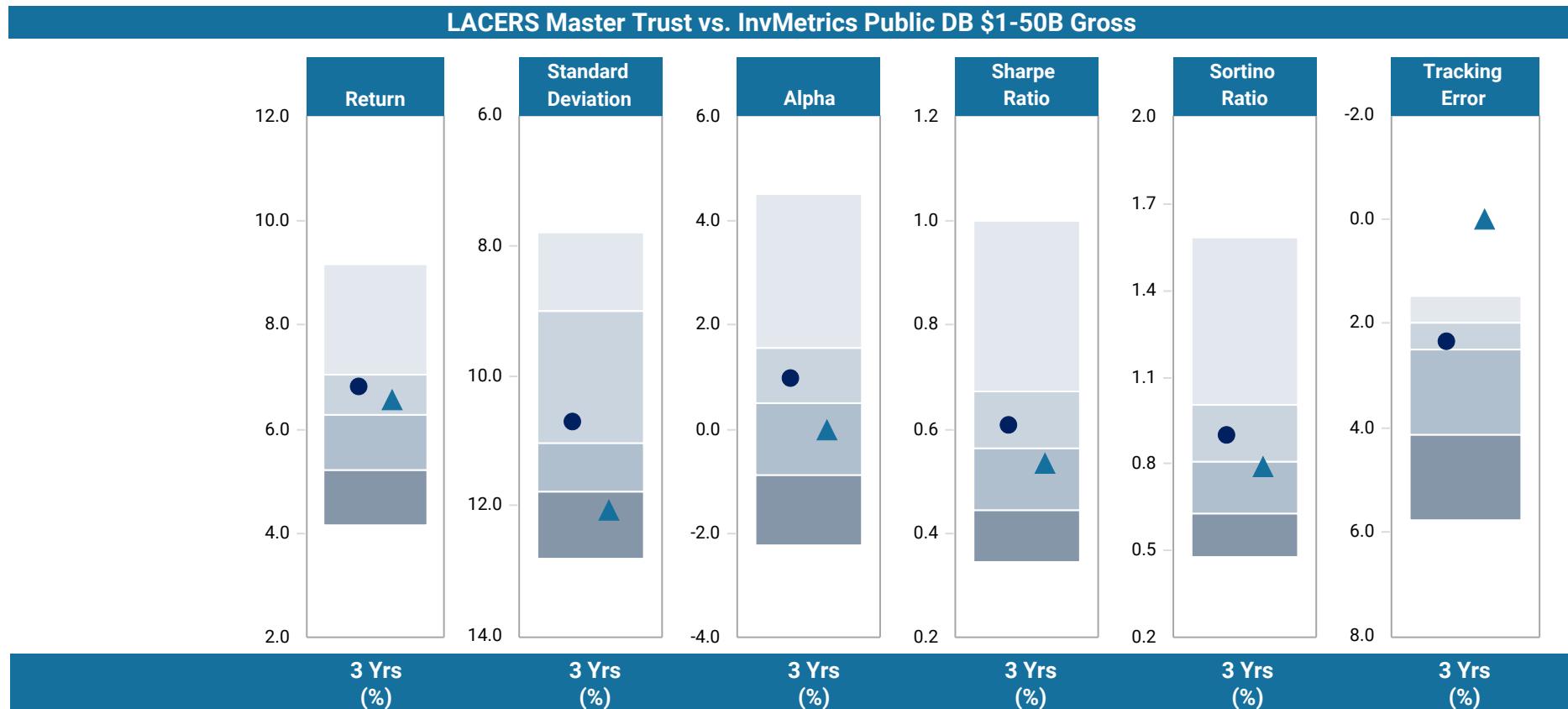


	3 Mo (%)	YTD (%)	1 Yr (%)	2 Yrs (%)	3 Yrs (%)	5 Yrs (%)	7 Yrs (%)	10 Yrs (%)
● LACERS Master Trust	-8.9 (50)	-12.0 (49)	-6.9 (40)	9.7 (37)	6.8 (42)	7.2 (45)	7.0 (49)	8.4 (38)
▲ Policy Index	-9.6 (66)	-12.5 (53)	-8.6 (61)	7.9 (63)	6.6 (48)	7.1 (49)	7.0 (49)	8.1 (47)
5th Percentile	-4.6	-5.8	0.4	13.4	9.7	8.7	8.1	9.2
1st Quartile	-7.0	-8.8	-4.2	10.5	7.3	7.5	7.3	8.6
Median	-8.9	-12.4	-7.7	8.6	6.4	7.0	6.8	8.0
3rd Quartile	-10.0	-14.0	-10.2	7.4	5.6	6.1	6.2	7.5
95th Percentile	-11.2	-15.6	-11.8	5.7	4.4	5.2	5.5	6.6
Population	65	65	64	64	64	64	63	63

RISK STATISTICS VS. PEER UNIVERSE

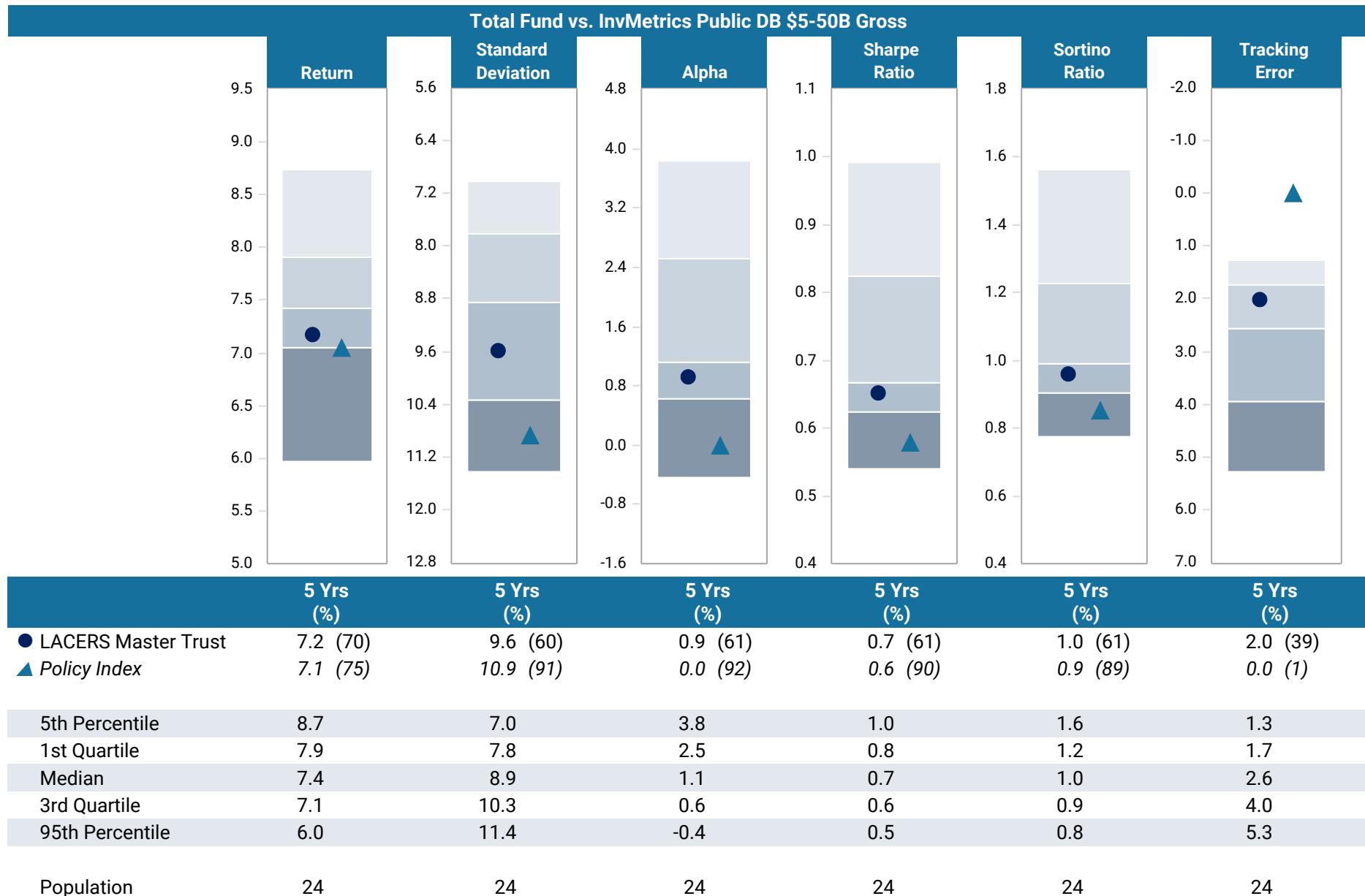


RISK STATISTICS VS. PEER UNIVERSE

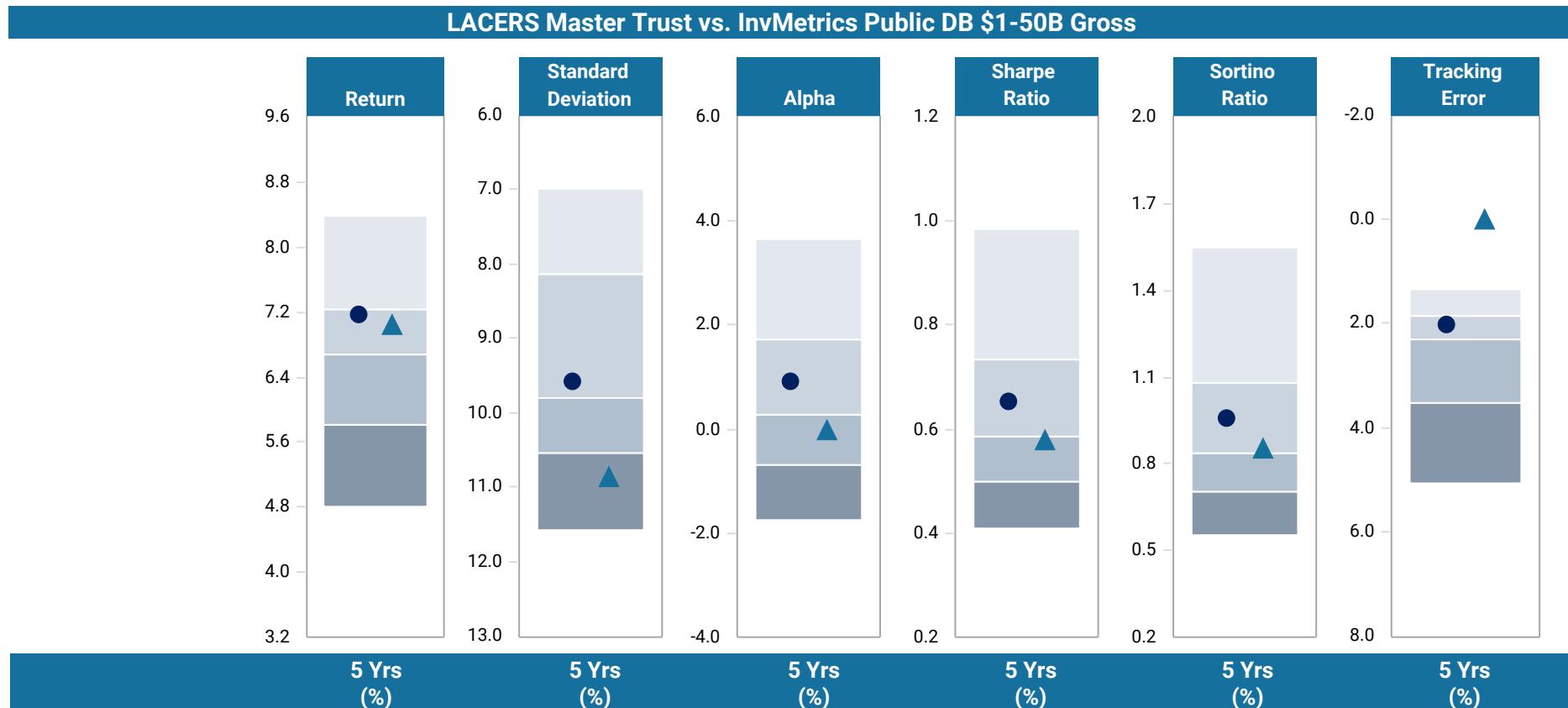


	3 Yrs (%)					
● LACERS Master Trust	6.8 (32)	10.7 (43)	1.0 (38)	0.6 (33)	0.9 (33)	2.3 (36)
▲ Policy Index	6.6 (40)	12.1 (83)	0.0 (59)	0.5 (55)	0.8 (52)	0.0 (1)
5th Percentile	9.2	7.8	4.5	1.0	1.6	1.5
1st Quartile	7.0	9.0	1.6	0.7	1.0	2.0
Median	6.3	11.0	0.5	0.6	0.8	2.5
3rd Quartile	5.2	11.8	-0.9	0.4	0.6	4.1
95th Percentile	4.2	12.8	-2.2	0.3	0.5	5.8
Population	59	59	59	59	59	59

RISK STATISTICS VS. PEER UNIVERSE

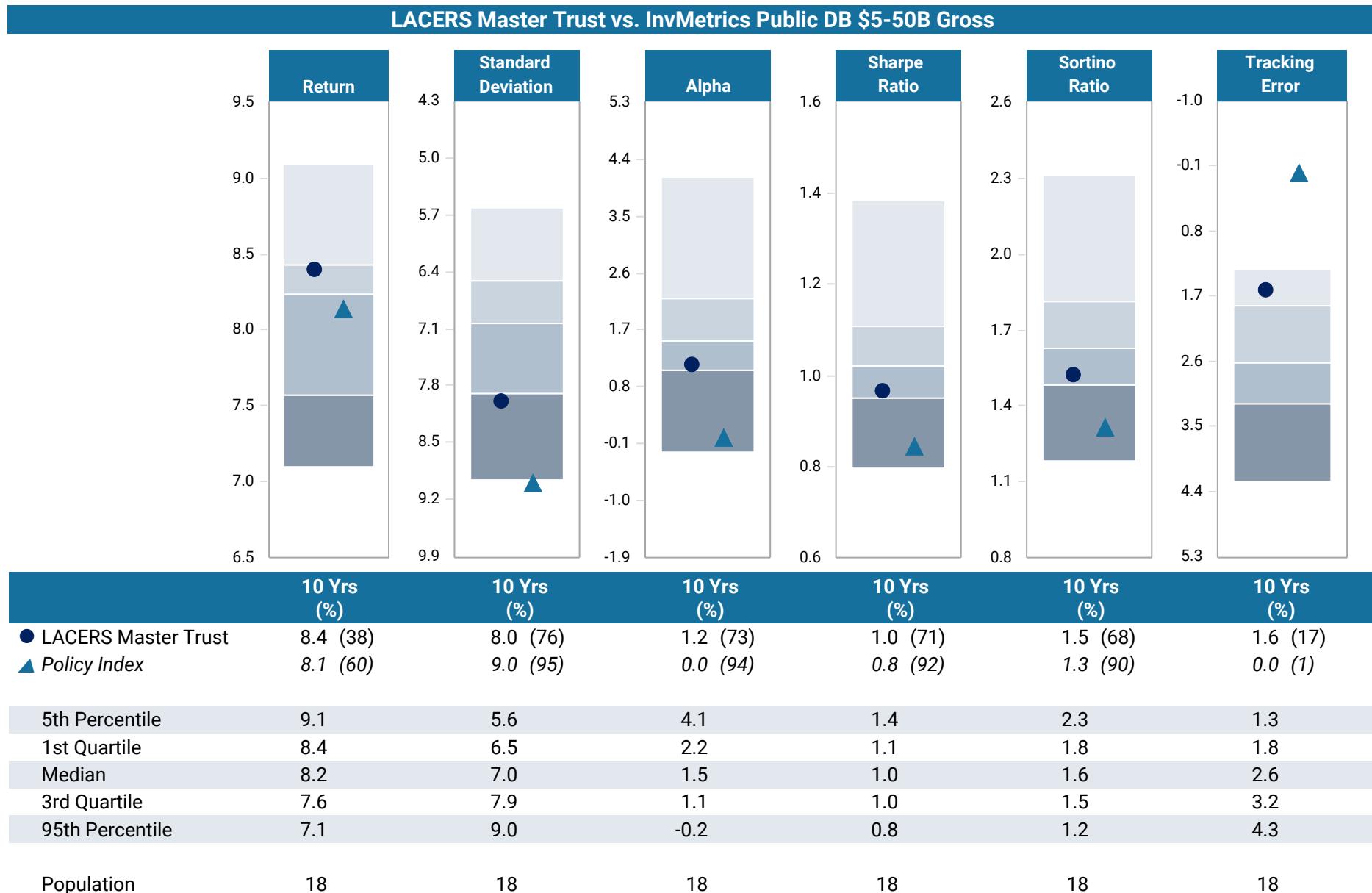


RISK STATISTICS VS. PEER UNIVERSE

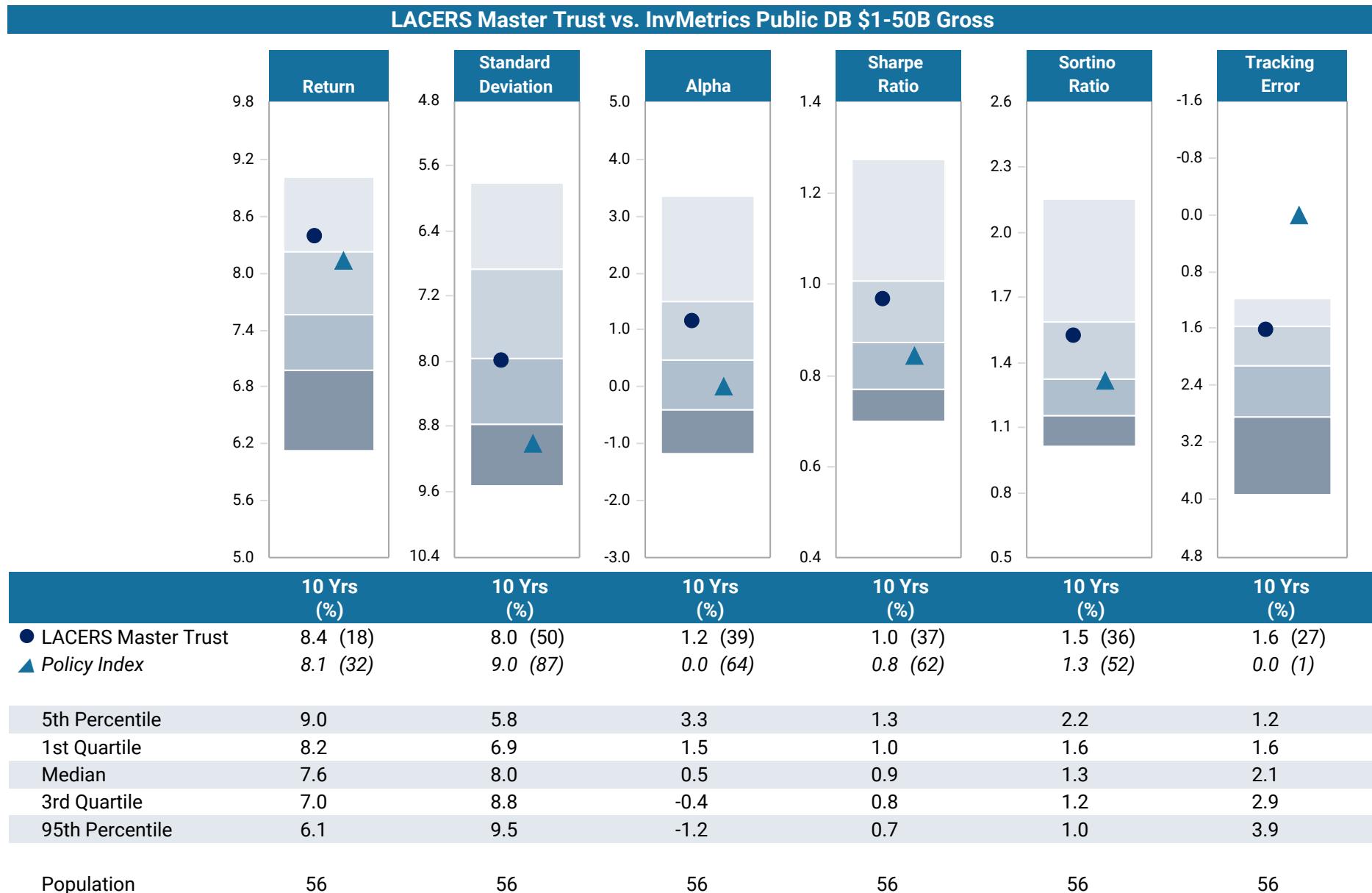


	5 Yrs (%)					
● LACERS Master Trust	7.2 (27)	9.6 (44)	0.9 (36)	0.7 (35)	1.0 (35)	2.0 (38)
▲ Policy Index	7.1 (29)	10.9 (85)	0.0 (59)	0.6 (52)	0.9 (47)	0.0 (1)
5th Percentile	8.4	7.0	3.6	1.0	1.5	1.3
1st Quartile	7.2	8.1	1.7	0.7	1.1	1.9
Median	6.7	9.8	0.3	0.6	0.8	2.3
3rd Quartile	5.8	10.5	-0.7	0.5	0.7	3.5
95th Percentile	4.8	11.6	-1.8	0.4	0.6	5.1
Population	59	59	59	59	59	59

RISK STATISTICS VS. PEER UNIVERSE

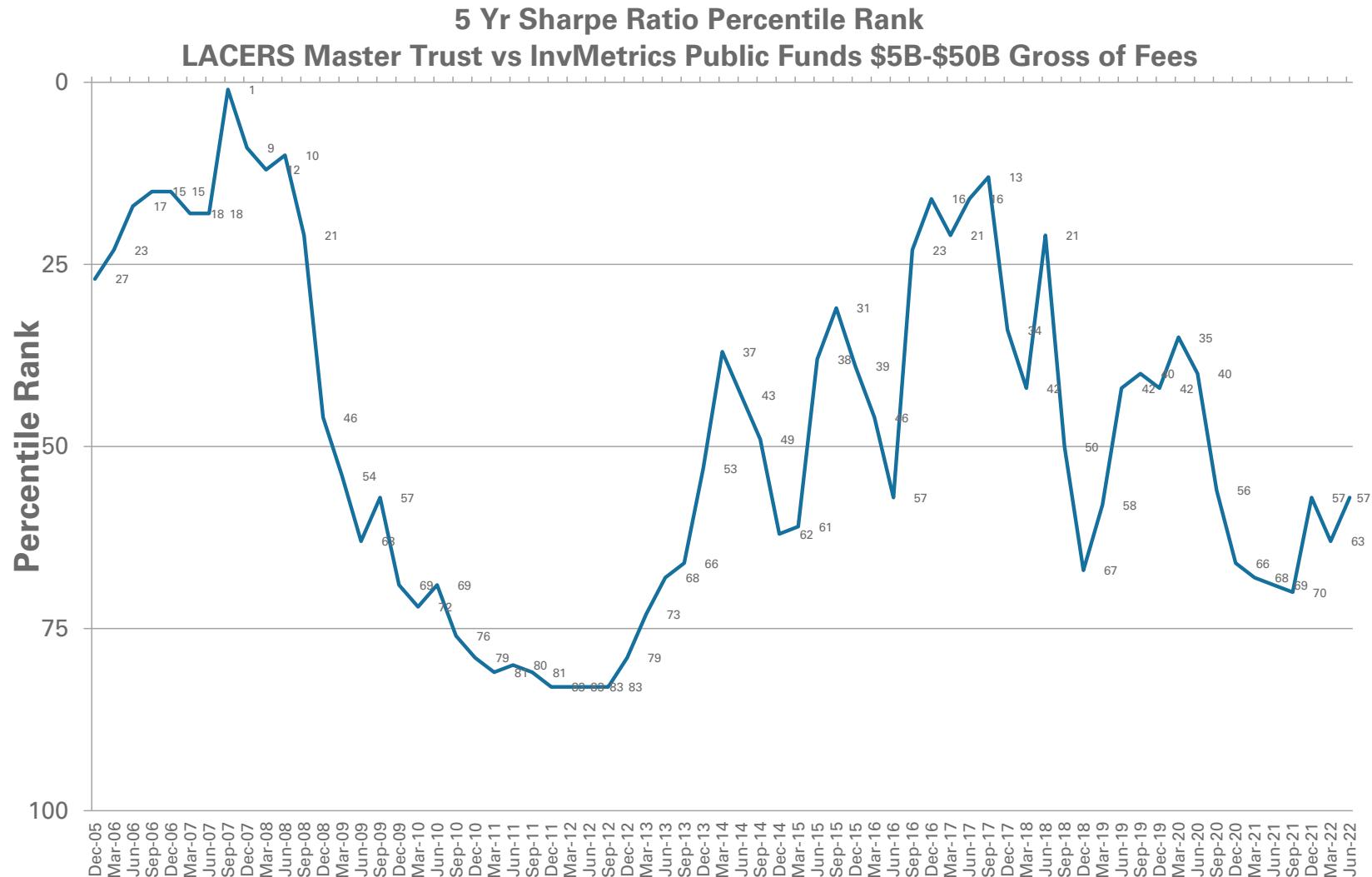


RISK STATISTICS VS. PEER UNIVERSE



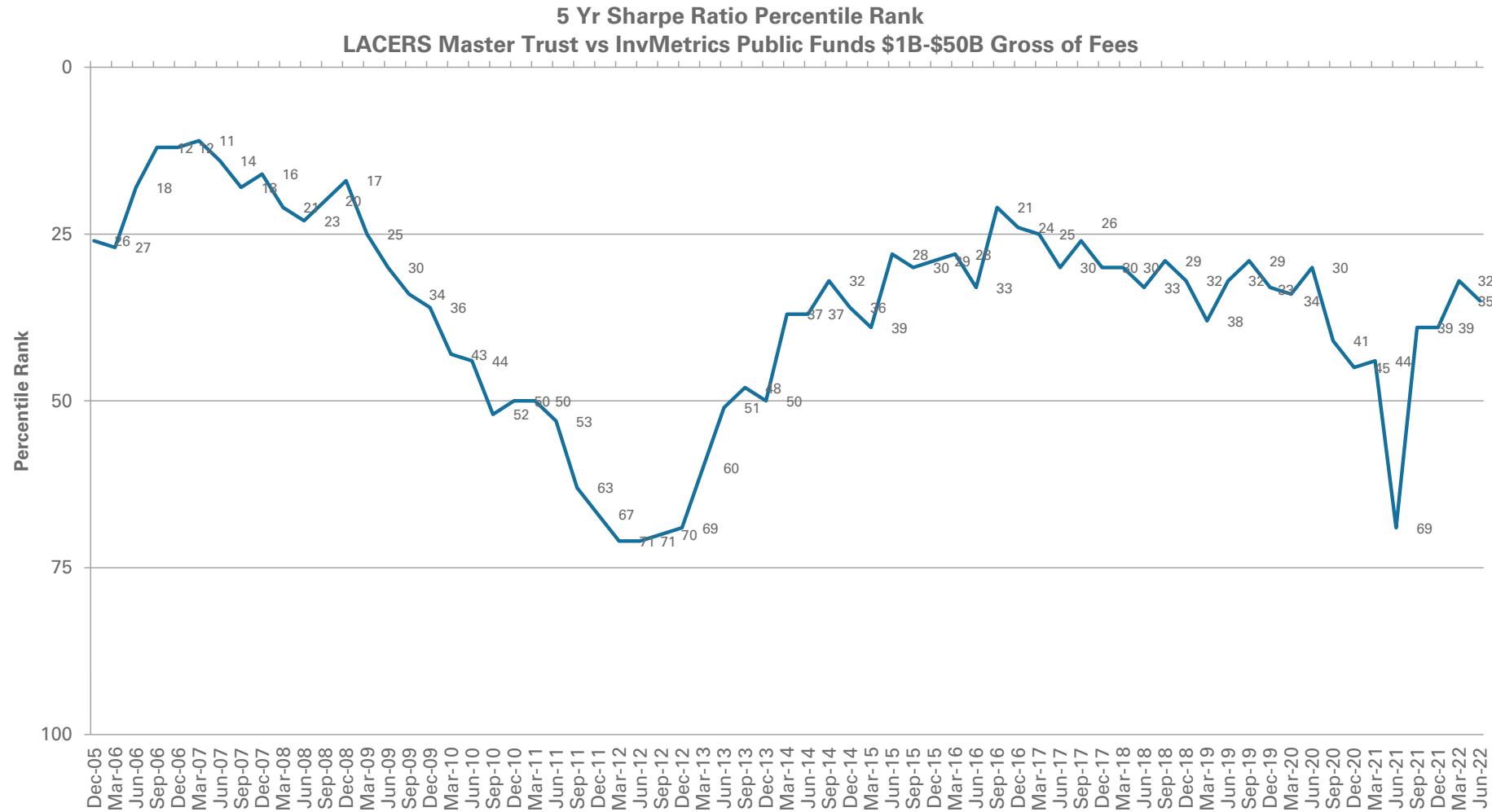
HISTORICAL RISK ADJUSTED RETURN

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	4,242,940,455	100.00		-16.26	-20.86	-13.41	9.41	10.34	12.52	8.44	Sep-01
<i>U.S. Equity Blend</i>				-16.70	-21.10	-13.87	9.77	10.60	12.57	8.18	
Over/Under				0.44	0.24	0.46	-0.36	-0.26	-0.05	0.26	
RhumbLine Advisers Russell 2000	274,874,586	6.48		-17.13	-23.33	-25.08	4.28	5.23		5.74	Apr-15
<i>Russell 2000 Index</i>				-17.20	-23.43	-25.20	4.21	5.17	9.35	5.76	
Over/Under				0.07	0.10	0.12	0.07	0.06		-0.02	
Rhumbline Advisers Russell 2000 Value	131,866,725	3.11		-15.24	-17.28	-16.22				3.97	Jan-21
<i>Russell 2000 Value Index</i>				-15.28	-17.31	-16.28	6.18	4.89	9.05	4.02	
Over/Under				0.04	0.03	0.06				-0.05	
EAM Investors	82,360,626	1.94		-22.26	-31.75	-31.38	2.78	9.62		9.24	Oct-15
<i>Russell 2000 Growth Index</i>				-19.25	-29.45	-33.43	1.40	4.80	9.30	7.35	
Over/Under				-3.01	-2.30	2.05	1.38	4.82		1.89	
Principal Global Investors	262,119,580	6.18		-16.53	-25.77	-17.00	7.25	11.50		11.77	Aug-14
<i>Russell Midcap Index</i>				-16.85	-21.57	-17.30	6.59	7.96	11.29	8.35	
Over/Under				0.32	-4.20	0.30	0.66	3.54		3.42	
RhumbLine Advisers S&P 500	3,146,092,263	74.15		-16.03	-19.90	-10.54	10.48	11.23	12.90	6.39	Sep-00
<i>S&P 500 Index</i>				-16.10	-19.96	-10.62	10.60	11.31	12.96	6.30	
Over/Under				0.07	0.06	0.08	-0.12	-0.08	-0.06	0.09	
Copeland Capital Management	212,330,268	5.00		-13.47	-17.96	-12.61				14.10	Oct-20
<i>Russell 2000 Index</i>				-17.20	-23.43	-25.20	4.21	5.17	9.35	8.59	
Over/Under				3.73	5.47	12.59				5.51	
Granahan Investment Management	55,054,474	1.30		-27.72	-39.45	-45.83				-9.82	Oct-20
<i>Russell 2000 Growth Index</i>				-19.25	-29.45	-33.43	1.40	4.80	9.30	-3.46	
Over/Under				-8.47	-10.00	-12.40				-6.36	
Segall, Bryant & Hamill	78,224,826	1.84		-14.83	-16.90	-15.19				13.84	Oct-20
<i>Russell 2000 Value Index</i>				-15.28	-17.31	-16.28	6.18	4.89	9.05	21.95	
Over/Under				0.45	0.41	1.09				-8.11	

1 Portfolio has a mid-month inception date. Since inception return is calculated from the first full month of performance.

ev = eVestment



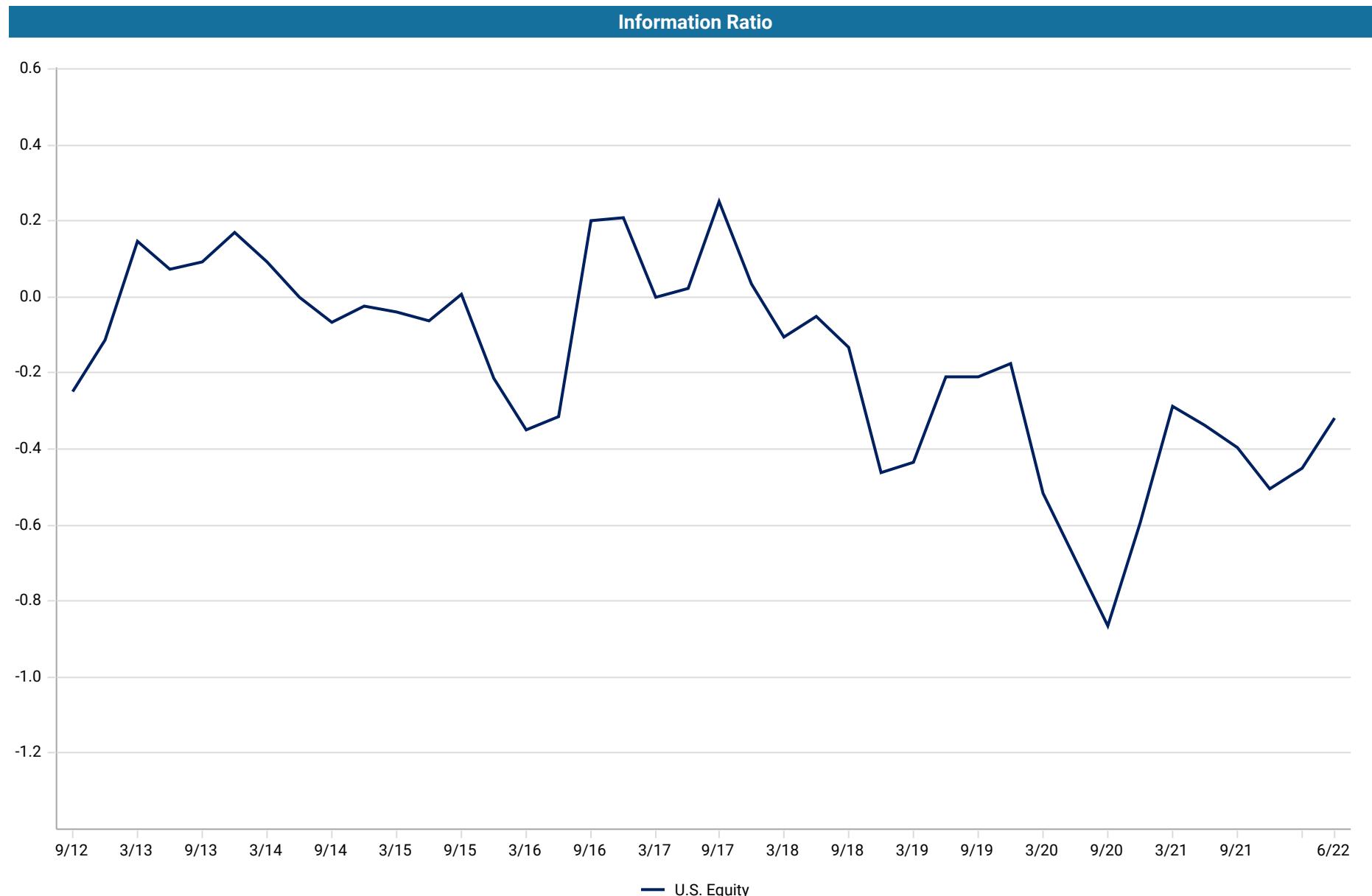
U.S. EQUITY (NET)

	Allocation			Performance (%)							
	Market Value (\$)	% of Portfolio		3 Mo (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
U.S. Equity	4,242,940,455	100.00		-16.28	-20.90	-13.48	9.34	10.27	12.41	8.26	Sep-01
U.S. Equity Blend				-16.70	-21.10	-13.87	9.77	10.60	12.57	8.18	
Over/Under				0.42	0.20	0.39	-0.43	-0.33	-0.16	0.08	
All Public Plans > \$1B-US Equity Segment Median											
RhumbLine Advisers Russell 2000	274,874,586	6.48		-17.13 (67)	-23.33 (63)	-25.08 (75)	4.27 (75)	5.22 (73)		5.73 (69)	Apr-15
Russell 2000 Index				-17.20 (68)	-23.43 (63)	-25.20 (75)	4.21 (76)	5.17 (73)	9.35 (71)	5.76 (69)	
Over/Under				0.07	0.10	0.12	0.06	0.05		-0.03	
eV US Small Cap Equity Median				-15.41	-20.56	-17.57	6.28	6.67	10.27	6.89	
Rhumbleline Advisers Russell 2000 Value	131,866,725	3.11		-15.24 (77)	-17.28 (67)	-16.23 (80)				3.97 (66)	Jan-21
Russell 2000 Value Index				-15.28 (77)	-17.31 (67)	-16.28 (80)	6.18 (66)	4.89 (74)	9.05 (79)	4.02 (66)	
Over/Under				0.04	0.03	0.05				-0.05	
eV US Small-Mid Cap Value Equity Median				-13.59	-15.80	-11.12	6.99	6.10	9.97	5.80	
EAM Investors	82,360,626	1.94		-22.42 (74)	-32.02 (65)	-31.88 (57)	2.06 (78)	8.86 (57)		8.47 (81)	Oct-15
Russell 2000 Growth Index				-19.25 (45)	-29.45 (42)	-33.43 (63)	1.40 (84)	4.80 (90)	9.30 (90)	7.35 (87)	
Over/Under				-3.17	-2.57	1.55	0.66	4.06		1.12	
eV US Small Cap Growth Equity Median				-20.22	-30.58	-31.22	4.67	9.19	11.37	10.54	
Principal Global Investors	262,119,580	6.18		-16.61 (60)	-25.93 (64)	-17.30 (56)	6.88 (46)	11.11 (8)		11.37 (6)	Aug-14
Russell Midcap Index				-16.85 (60)	-21.57 (54)	-17.30 (56)	6.59 (50)	7.96 (51)	11.29 (43)	8.35 (46)	
Over/Under				0.24	-4.36	0.00	0.29	3.15		3.02	
eV US Mid Cap Equity Median				-15.08	-20.67	-14.45	6.56	7.97	10.92	8.17	
RhumbLine Advisers S&P 500	3,146,092,263	74.15		-16.03 (65)	-19.90 (58)	-10.54 (50)	10.47 (23)	11.23 (29)	12.89 (24)	8.33 (19)	Sep-00
S&P 500 Index				-16.10 (66)	-19.96 (59)	-10.62 (50)	10.60 (21)	11.31 (28)	12.96 (23)	6.30 (69)	
Over/Under				0.07	0.06	0.08	-0.13	-0.08	-0.07	2.03	
eV US Large Cap Equity Median				-14.34	-18.40	-10.66	8.75	9.66	11.68	7.10	
Copeland Capital Management	212,330,268	5.00		-13.57 (33)	-18.16 (34)	-13.02 (32)				13.71 (50)	Oct-20
Russell 2000 Index				-17.20 (68)	-23.43 (63)	-25.20 (75)	4.21 (76)	5.17 (73)	9.35 (71)	8.59 (66)	
Over/Under				3.63	5.27	12.18				5.12	
eV US Small Cap Equity Median				-15.41	-20.56	-17.57	6.28	6.67	10.27	13.54	
Granahan Investment Management	55,054,474	1.30		-27.89 (98)	-39.73 (96)	-46.28 (95)				-10.45 (89)	Oct-20
Russell 2000 Growth Index				-19.25 (45)	-29.45 (42)	-33.43 (63)	1.40 (84)	4.80 (90)	9.30 (90)	-3.46 (61)	
Over/Under				-8.64	-10.28	-12.85				-6.99	
eV US Small Cap Growth Equity Median				-20.22	-30.58	-31.22	4.67	9.19	11.37	-1.03	
Segall, Bryant & Hamill	78,224,826	1.84		-14.98 (70)	-17.18 (63)	-15.74 (78)				13.19 (89)	Oct-20
Russell 2000 Value Index				-15.28 (74)	-17.31 (64)	-16.28 (80)	6.18 (64)	4.89 (64)	9.05 (64)	21.95 (47)	
Over/Under				0.30	0.13	0.54				-8.76	
eV US Small Cap Value Equity Median				-13.51	-15.76	-11.85	6.75	5.55	9.62	21.29	

1- Portfolio has a mid-month inception date. Since inception return is calculated from the first full month of performance. eV = eVestment Alliance

- U.S. Equity Blend = Russell 3000 from 1/1/2000 to present; 33.75% S&P 500/ 35% Russell 1000 Value/ 12.50% Russell 1000 Growth/ 12.50% Russell 2000 Value/ 6.25% Russell 2000 Growth prior to 1/1/2000.

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	✓	✗	=	✗	✓	✓	✓	✓	✓	811.7	Performance compliant with LACERS' Manager Monitoring Policy
EAM Investors	Sep-15	Small Cap Growth	✗	✗	✓	✗	✓	✗	✓	✗	✓	839.4	Performance compliant with LACERS' Manager Monitoring Policy
Copeland	Oct-20	Small Cap Core	✓	✓	✓	✓	N/A	N/A	N/A	N/A	✓	810.8	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	✗	605.3	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	✗	454.8	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	✗	7.1	Performance compliant with LACERS' Manager Monitoring Policy
RhumbLine (Passive)	Feb-93	S&P 500	✓	✗	✓	✓	✗	✓	✗	✓	✓✓	214.2	Performance compliant with LACERS' Manager Monitoring Policy
RhumbLine (Passive)	Jun-15	R2000	✓	✗	✓	✗	✓	✗	✓	✗	✗	13.2	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, 2021.
- * 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	4,938,884,961	100.00		-14.34	-19.78	-19.47	3.06	3.84	6.45	4.99	Nov-94
MSCI AC World ex USA (Net)				<u>-13.73</u>	<u>-18.42</u>	<u>-19.42</u>	<u>1.35</u>	<u>2.50</u>	<u>4.83</u>	<u>4.64</u>	
Over/Under				-0.61	-1.36	-0.05	1.71	1.34	1.62	0.35	
Developed ex-U.S.	3,705,203,406	75.02		-14.18	-19.04	-17.84	3.14	3.90	6.73	6.73	Jul-12
MSCI EAFE (Net)				<u>-14.51</u>	<u>-19.57</u>	<u>-17.77</u>	<u>1.07</u>	<u>2.20</u>	<u>5.40</u>	<u>5.39</u>	
Over/Under				0.33	0.53	-0.07	2.07	1.70	1.33	1.34	
Barrow Hanley	496,664,247	10.06		<u>-8.69</u>	<u>-3.20</u>	<u>-2.51</u>	<u>8.74</u>	<u>5.73</u>	-	<u>4.84</u>	<u>Nov-13</u>
MSCI EAFE Value Index (Net)				<u>-12.41</u>	<u>-12.12</u>	<u>-11.95</u>	<u>0.18</u>	<u>0.52</u>	-	<u>1.00</u>	
Over/Under				3.72	8.92	9.44	8.56	5.21	-	3.84	
Lazard Asset Management	499,277,869	10.11		<u>-11.86</u>	<u>-19.00</u>	<u>-19.03</u>	<u>0.87</u>	<u>3.79</u>	-	<u>3.51</u>	<u>Nov-13</u>
MSCI EAFE (Net)				<u>-14.51</u>	<u>-19.57</u>	<u>-17.77</u>	<u>1.07</u>	<u>2.20</u>	-	<u>2.56</u>	
Over/Under				2.65	0.57	-1.26	-0.20	1.59	-	0.95	
MFS Institutional Advisors	502,068,938	10.17		<u>-12.80</u>	<u>-19.55</u>	<u>-16.98</u>	<u>3.36</u>	<u>6.01</u>	-	<u>5.84</u>	<u>Oct-13</u>
MSCI World ex USA Growth NR USD				<u>-17.25</u>	<u>-26.33</u>	<u>-23.37</u>	<u>1.55</u>	<u>3.61</u>	-	<u>3.64</u>	
Over/Under				4.45	6.78	6.39	1.81	2.40	-	2.20	
Oberweis Asset Mgmt	210,257,476	4.26		<u>-23.40</u>	<u>-36.26</u>	<u>-38.21</u>	<u>4.94</u>	<u>4.99</u>	-	<u>5.82</u>	<u>Jan-14</u>
MSCI EAFE Small Cap (Net)				<u>-17.69</u>	<u>-24.71</u>	<u>-23.98</u>	<u>1.12</u>	<u>1.72</u>	-	<u>3.38</u>	
Over/Under				-5.71	-11.55	-14.23	3.82	3.27	-	2.44	
SSgA World ex US IMI	1,737,419,374	35.18		<u>-14.94</u>	<u>-19.18</u>	<u>-17.21</u>	<u>2.41</u>	<u>3.20</u>	<u>6.05</u>	<u>5.35</u>	<u>Aug-93</u>
MSCI World ex U.S. IMI Index (Net)				<u>-15.15</u>	<u>-19.54</u>	<u>-17.73</u>	<u>1.72</u>	<u>2.58</u>	<u>5.53</u>	<u>4.45</u>	
Over/Under				0.21	0.36	0.52	0.69	0.62	0.52	0.90	
State Street EAFE SC	259,515,503	5.25		<u>-17.44</u>	<u>-24.35</u>	<u>-23.63</u>	-	-	-	<u>-11.47</u>	<u>Jan-21</u>
MSCI EAFE Small Cap (Net)				<u>-17.69</u>	<u>-24.71</u>	<u>-23.98</u>	-	-	-	<u>-11.79</u>	
Over/Under				0.25	0.36	0.35	-	-	-	0.32	

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	1,233,681,555	24.98		-14.79	-21.92	-24.04	2.50	3.36	3.64	3.64	Jul-12
<i>MSCI Emerging Markets (Net)</i>				<i>-11.45</i>	<i>-17.63</i>	<i>-25.28</i>	<i>0.57</i>	<i>2.18</i>	<i>3.06</i>	<i>3.06</i>	
Over/Under				-3.34	-4.29	1.24	1.93	1.18	0.58	0.58	
Axiom Emerging Markets	298,087,996	6.04		-15.33	-24.05	-30.88	2.42	3.62	-	4.01	May-14
<i>MSCI Emerging Markets (Net)</i>				<i>-11.45</i>	<i>-17.63</i>	<i>-25.28</i>	<i>0.57</i>	<i>2.18</i>	-	<i>2.48</i>	
Over/Under				-3.88	-6.42	-5.60	1.85	1.44	-	1.53	
<i>MSCI Emerging Markets Growth (Net)</i>				<i>-12.04</i>	<i>-21.07</i>	<i>-31.18</i>	<i>1.88</i>	<i>2.92</i>	-	<i>3.79</i>	
Over/Under				-3.29	-2.98	0.30	0.54	0.70	-	0.22	
DFA Emerging Markets	409,045,539	8.28		-11.24	-10.67	-13.17	2.88	3.25	-	1.77	Aug-14
<i>MSCI Emerging Markets Value (Net)</i>				<i>-10.83</i>	<i>-13.89</i>	<i>-18.59</i>	<i>-0.97</i>	<i>1.25</i>	-	<i>-0.07</i>	
Over/Under				-0.41	3.22	5.42	3.85	2.00	-	1.84	
State Street Emerging Markets	303,025,520	6.14		-10.49	-17.54	-25.21	-	-	-	-13.57	Jan-21
<i>MSCI Emerging Markets (Net)</i>				<i>-11.45</i>	<i>-17.63</i>	<i>-25.28</i>	-	-	-	<i>-13.66</i>	
Over/Under				0.96	0.09	0.07	-	-	-	0.09	
Wasatch Global Investors	223,364,728	4.52		-24.59	-38.23	-29.43	-	-	-	-10.92	Jan-21
<i>MSCI Emerging Markets Small Cap (Net)</i>				<i>-16.41</i>	<i>-20.03</i>	<i>-20.72</i>	-	-	-	<i>-3.40</i>	
Over/Under				-8.18	-18.20	-8.71	-	-	-	-7.52	
Sanctioned Asset	157,580	0.00		-	-	-	-	-	-	0.00	Jun-22

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	4,938,884,961	100.00		-14.41 (46)	-19.93 (40)	-19.75 (39)	2.70 (39)	3.47 (37)	6.10 (46)	5.59 (48)	Jun-01
MSCI AC World ex USA (Net)				<u>-13.73</u> (38)	<u>-18.42</u> (32)	<u>-19.42</u> (37)	<u>1.35</u> (64)	<u>2.50</u> (57)	<u>4.83</u> (83)	<u>4.84</u> (74)	
Over/Under				-0.68	-1.51	-0.33	1.35	0.97	1.27	0.75	
eV All ACWI ex-US Equity Median				-14.96	-21.72	-21.73	2.01	2.68	5.96	5.50	
Developed ex-U.S.	3,705,203,406	75.02	-14.24	-19.14	-18.05	2.86	3.59	6.44	6.44		Jul-12
MSCI EAFE (Net)				<u>-14.51</u>	<u>-19.57</u>	<u>-17.77</u>	<u>1.07</u>	<u>2.20</u>	<u>5.40</u>	<u>5.39</u>	
Over/Under				0.27	0.43	-0.28	1.79	1.39	1.04	1.05	
Barrow Hanley	496,664,247	10.06	-8.80 (8)	-3.42 (3)	-2.95 (3)	8.24 (2)	5.23 (4)	-		4.34 (5)	Nov-13
MSCI EAFE Value Index (Net)				<u>-12.41</u> (63)	<u>-12.12</u> (24)	<u>-11.95</u> (25)	<u>0.18</u> (72)	<u>0.52</u> (71)	-	<u>1.00</u> (79)	
Over/Under				3.61	8.70	9.00	8.06	4.71	-	3.34	
eV EAFE Value Equity Median				<u>-11.65</u>	<u>-14.66</u>	<u>-14.48</u>	<u>1.63</u>	<u>1.40</u>	-	<u>1.99</u>	
Lazard Asset Management	499,277,869	10.11	-11.98 (23)	-19.21 (43)	-19.42 (55)	0.38 (73)	3.27 (29)	-		2.99 (51)	Nov-13
MSCI EAFE (Net)				<u>-14.51</u> (57)	<u>-19.57</u> (48)	<u>-17.77</u> (42)	<u>1.07</u> (62)	<u>2.20</u> (52)	-	<u>2.48</u> (69)	
Over/Under				2.53	0.36	-1.65	-0.69	1.07	-	0.51	
eV All EAFE Equity Median				<u>-14.20</u>	<u>-19.92</u>	<u>-18.86</u>	<u>1.50</u>	<u>2.25</u>	-	<u>2.99</u>	
MFS Institutional Advisors	502,068,938	10.17	-12.89 (4)	-19.72 (2)	-17.33 (14)	2.94 (22)	5.55 (1)	-		5.31 (1)	Oct-13
MSCI World ex USA Growth NR USD				<u>-17.25</u> (57)	<u>-26.33</u> (45)	<u>-23.37</u> (30)	<u>1.55</u> (40)	<u>3.61</u> (48)	-	<u>3.91</u> (38)	
Over/Under				4.36	6.61	6.04	1.39	1.94	-	1.40	
eV EAFE All Cap Growth Median				<u>-15.42</u>	<u>-27.05</u>	<u>-25.94</u>	<u>1.35</u>	<u>3.51</u>	-	<u>3.82</u>	
Oberweis Asset Mgmt	210,257,476	4.26	-23.58 (96)	-36.55 (97)	-38.74 (98)	4.10 (14)	4.12 (8)	-		4.93 (14)	Jan-14
MSCI EAFE Small Cap (Net)				<u>-17.69</u> (64)	<u>-24.71</u> (50)	<u>-23.98</u> (48)	<u>1.12</u> (51)	<u>1.72</u> (51)	-	<u>3.62</u> (36)	
Over/Under				-5.89	-11.84	-14.76	2.98	2.40	-	1.31	
eV EAFE Small Cap Equity Median				<u>-17.03</u>	<u>-24.72</u>	<u>-24.72</u>	<u>1.18</u>	<u>1.81</u>	-	<u>3.21</u>	

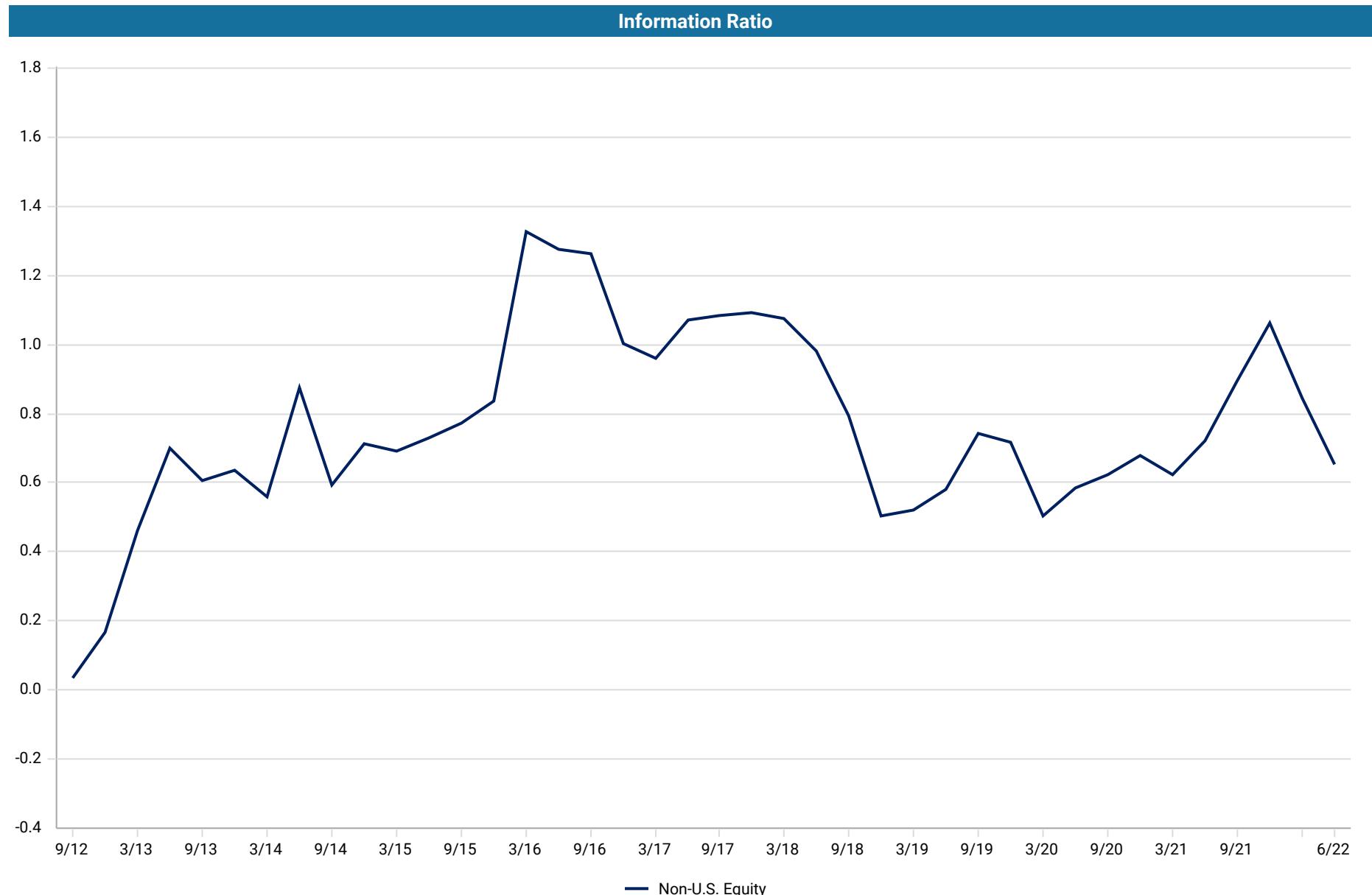
NON-U.S. EQUITY (NET)

	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	1,737,419,374	35.18	-14.94 (58)	-19.19 (35)	-17.23 (28)	2.39 (34)	3.17 (28)	6.03 (50)	5.20 (54)	Aug-98	
<i>MSCI World ex U.S. IMI Index (Net)</i>			-15.15 (60)	-19.54 (38)	-17.73 (32)	1.72 (46)	2.58 (40)	5.53 (69)	4.30 (84)		
Over/Under		0.21	0.35	0.50	0.67	0.59	0.59	0.50	0.90		
eV EAFE Core Equity Median			-14.52	-20.89	-19.44	1.45	2.24	6.02	5.34		
State Street EAFE SC	259,515,503	5.25	-17.45 (59)	-24.37 (47)	-23.66 (48)	-	-	-	-11.51 (50)	Jan-21	
<i>MSCI EAFE Small Cap (Net)</i>			-17.69 (64)	-24.71 (50)	-23.98 (48)	-	-	-	-11.79 (53)		
Over/Under		0.24	0.34	0.32	-	-	-	-	0.28		
eV EAFE Small Cap Equity Median			-17.03	-24.72	-24.72	-	-	-	-11.52		
Emerging Markets	1,233,681,555	24.98	-14.94	-22.22	-24.52	1.97	2.82	3.03	3.03	Jul-12	
<i>MSCI Emerging Markets (Net)</i>			-11.45	-17.63	-25.28	0.57	2.18	3.06	3.06		
Over/Under		-3.49	-4.59	0.76	1.40	0.64	-0.03	-0.03			
Axiom Emerging Markets	298,087,996	6.04	-15.54 (84)	-24.42 (81)	-31.44 (82)	1.70 (43)	2.90 (37)	-	3.31 (33)	May-14	
<i>MSCI Emerging Markets (Net)</i>			-11.45 (34)	-17.63 (38)	-25.28 (49)	0.57 (61)	2.18 (53)	-	2.48 (56)		
Over/Under		-4.09	-6.79	-6.16	1.13	0.72	-	0.83			
eV Emg Mkts Equity Median			-12.34	-19.25	-25.40	1.16	2.33	-	2.70		
<i>MSCI Emerging Markets Growth (Net)</i>			-12.04 (46)	-21.07 (63)	-31.18 (80)	1.88 (41)	2.92 (37)	-	3.79 (25)		
Over/Under		-3.50	-3.35	-0.26	-0.18	-0.02	-	-0.48			
DFA Emerging Markets	409,045,539	8.28	-11.33 (30)	-10.86 (7)	-13.57 (6)	2.39 (33)	2.75 (41)	-	1.28 (68)	Aug-14	
<i>MSCI Emerging Markets Value (Net)</i>			-10.83 (24)	-13.89 (11)	-18.59 (18)	-0.97 (78)	1.25 (74)	-	-0.07 (90)		
Over/Under		-0.50	3.03	5.02	3.36	1.50	-	1.35			
eV Emg Mkts Equity Median			-12.34	-19.25	-25.40	1.16	2.33	-	1.81		
State Street Emerging Markets	303,025,520	6.14	-10.50 (21)	-17.56 (37)	-25.24 (49)	-	-	-	-13.60 (53)	Jan-21	
<i>MSCI Emerging Markets (Net)</i>			-11.45 (34)	-17.63 (38)	-25.28 (49)	-	-	-	-13.66 (54)		
Over/Under		0.95	0.07	0.04	-	-	-	0.06			
eV Emg Mkts Equity Median			-12.34	-19.25	-25.40	-	-	-	-13.37		

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	223,364,728	4.52	-24.86 (100)	-38.84 (100)	-30.41 (93)	-	-	-	-	-11.86 (84)	Jan-21
<i>MSCI Emerging Markets Small Cap (Net)</i>			<i>-16.41</i> (58)	<i>-20.03</i> (47)	<i>-20.72</i> (42)	-	-	-	-	<i>-3.40</i> (36)	
Over/Under			-8.45	-18.81	-9.69	-	-	-	-	-8.46	
<i>eV Emg Mkts Small Cap Equity Median</i>			<i>-15.98</i>	<i>-20.15</i>	<i>-21.95</i>	-	-	-	-	<i>-6.00</i>	
Sanctioned Asset	157,580	0.00	-	-	-	-	-	-	-	0.00	Jun-22

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	✓	86.1	Performance compliant with LACERS' Manager Monitoring Policy
Axiom International	Mar-14	Emerging Markets	✗	✗	✗	✗	✓	✓	✓	✓	✓	2,708.7	On Watch in August 2020 due to benchmark change, Watch status extended in October 2020 due to CIO change, Watch status extended in October 2021 due to departure of President.
DFA Emerging Markets	Jul-14	Emerging Markets	✗	✓	✓	✓	✓	✓	✓	✗	✓	1,948.4	Performance compliant with LACERS' Manager Monitoring Policy
Wasatch	Dec-20	Emerging Markets Small Cap	✗	✗	✗	✗	N/A	N/A	N/A	N/A	✗	1,139.1	Newly hired manager pursuant to Section VIII.D of the Manager Monitoring Policy
Oberweis Asset Mgt.	Jan-14	Non-U.S. Developed	✗	✗	✗	✗	✓	✓	✓	✓	✓	2,856.8	Performance compliant with LACERS' Manager Monitoring Policy
Barrow, Hanley, Mewhinney & Strauss	Nov-13	Non-U.S. Developed	✓	✓	✓	✓	✓	✓	✓	✓	✓	2,351.1	On Watch in August 2020 due to organizational change, Watch status extended in August 2021 due to organizational change and AUM Strategy Concentration.
Lazard Asset Mgt.	Nov-13	Non-U.S. Developed	✓	✓	✗	✗	✗	✗	✓	✓	✓	2,946.6	On Watch since August 2021 due to performance.
MFS Institutional Advisors	Oct-13	Non-U.S. Developed	✓	✓	✓	✓	✓	✓	✓	✓	✓	2,419.3	Performance compliant with LACERS' Manager Monitoring Policy
SSgA (Passive)	Dec-20	Non-U.S. Developed Small Cap	✓	✗	✓	✓	N/A	N/A	N/A	N/A	✓	69.7	Performance compliant with LACERS' Manager Monitoring Policy
SSgA (Passive)	Aug-93	Non-U.S. Developed	✓	✗	✓	✓	✓	✓	✓	✓	✓✓	401.7	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, 2021.
- * Where net of fees performance is not available gross of fee returns are evaluated.

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





CORE FIXED INCOME MANAGER PERFORMANCE

CORE FIXED INCOME (GROSS)

	Allocation			Performance (%)							
	Market Value (\$)	% of Portfolio		3 Mo (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Core Fixed Income	3,110,563,462	100.00		-4.69	-10.14	-9.98	-0.18	1.40	2.30	2.30	Jul-12
Core Fixed Income Blend				<u>-4.69</u>	<u>-10.35</u>	<u>-10.29</u>	<u>-0.94</u>	<u>0.88</u>	<u>1.64</u>	<u>1.64</u>	
Over/Under				0.00	0.21	0.31	0.76	0.52	0.66	0.66	
Loomis Sayles & Co. Core Fixed Income	586,672,183	18.86		<u>-5.16</u>	<u>-10.49</u>	<u>-9.99</u>	0.24	1.84	2.81	8.36	Jul-80
Loomis Custom Benchmark				<u>-4.69</u>	<u>-10.35</u>	<u>-10.29</u>	<u>-0.94</u>	<u>0.88</u>	<u>1.64</u>	<u>6.92</u>	
Over/Under				<u>-0.47</u>	<u>-0.14</u>	0.30	1.18	0.96	1.17	1.44	
SSgA U.S. Aggregate Bond	796,359,814	25.60		<u>-4.72</u>	<u>-10.35</u>	<u>-10.31</u>	<u>-0.92</u>	0.90	-	1.55	Aug-14
Blmbg. U.S. Aggregate Index				<u>-4.69</u>	<u>-10.35</u>	<u>-10.29</u>	<u>-0.94</u>	<u>0.88</u>	-	<u>1.52</u>	
Over/Under				<u>-0.03</u>	0.00	<u>-0.02</u>	0.02	0.02	-	0.03	
Baird Advisors Core Fixed Income	567,964,890	18.26		<u>-4.89</u>	<u>-10.84</u>	<u>-10.63</u>	-	-	-	<u>-10.63</u>	Jul-21
Blmbg. U.S. Aggregate Index				<u>-4.69</u>	<u>-10.35</u>	<u>-10.29</u>	-	-	-	<u>-10.29</u>	
Over/Under				<u>-0.20</u>	<u>-0.49</u>	<u>-0.34</u>	-	-	-	<u>-0.34</u>	
Garcia Hamilton & Associates	388,146,373	12.48		<u>-3.96</u>	<u>-8.18</u>	<u>-8.17</u>	-	-	-	<u>-8.17</u>	Jul-21
Blmbg. U.S. Aggregate Index				<u>-4.69</u>	<u>-10.35</u>	<u>-10.29</u>	-	-	-	<u>-10.29</u>	
Over/Under				0.73	2.17	2.12	-	-	-	2.12	
JP Morgan Investment Management	383,230,329	12.32		<u>-4.39</u>	<u>-9.70</u>	<u>-9.60</u>	-	-	-	<u>-9.60</u>	Jul-21
Blmbg. U.S. Aggregate Index				<u>-4.69</u>	<u>-10.35</u>	<u>-10.29</u>	-	-	-	<u>-10.29</u>	
Over/Under				0.30	0.65	0.69	-	-	-	0.69	
Income Research & Management	388,189,818	12.48		<u>-4.81</u>	<u>-10.37</u>	<u>-10.32</u>	-	-	-	<u>-10.32</u>	Jul-21
Blmbg. U.S. Aggregate Index				<u>-4.69</u>	<u>-10.35</u>	<u>-10.29</u>	-	-	-	<u>-10.29</u>	
Over/Under				<u>-0.12</u>	<u>-0.02</u>	<u>-0.03</u>	-	-	-	<u>-0.03</u>	

Baird Advisors Core Fixed Income, Garcia Hamilton & Associates, JP Morgan Investment Management and Income Research & Management have a mid-month inception date. Since inception return is calculated from the first full month of performance.

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

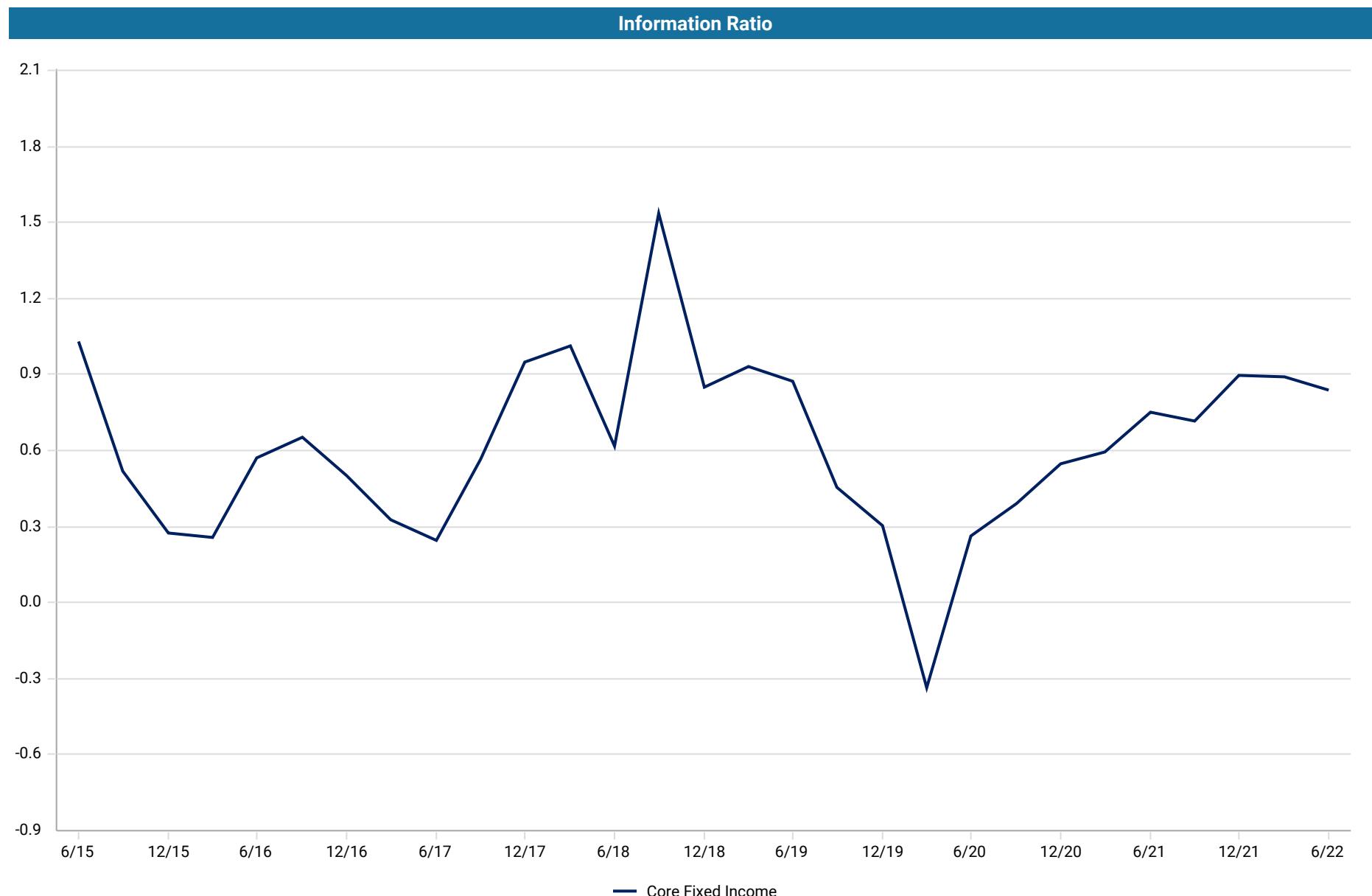
CORE FIXED INCOME (NET)

	Allocation			Performance (%)							
	Market Value (\$)	% of Portfolio		3 Mo (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Core Fixed Income	3,110,563,462	100.00		-4.72	-10.18	-10.07	-0.27	1.31	2.19	2.19	Jul-12
Core Fixed Income Blend				-4.69	-10.35	-10.29	-0.94	0.88	1.64	1.64	
Over/Under				-0.03	0.17	0.22	0.67	0.43	0.55	0.55	
Loomis Sayles & Co. Core Fixed Income	586,672,183	18.86	-5.19 (71)	-10.55 (52)	-10.12 (28)	0.11 (8)	1.71 (6)	2.68 (3)	8.29 (-)	Jul-80	
Loomis Custom Benchmark			-4.69 (34)	-10.35 (42)	-10.29 (38)	-0.94 (75)	0.88 (72)	1.64 (70)	6.92 (-)		
Over/Under			-0.50	-0.20	0.17	1.05	0.83	1.04	1.37		
eV US Core Fixed Inc Median			-4.92	-10.51	-10.51	-0.69	1.06	1.81	-	-	
SSgA U.S. Aggregate Bond	796,359,814	25.60	-4.73 (37)	-10.36 (43)	-10.33 (39)	-0.94 (76)	0.87 (74)	-	1.51 (71)	Aug-14	
Blmbg. U.S. Aggregate Index			-4.69 (34)	-10.35 (42)	-10.29 (38)	-0.94 (75)	0.88 (72)	-	1.52 (71)		
Over/Under			-0.04	-0.01	-0.04	0.00	-0.01	-	-	-0.01	
eV US Core Fixed Inc Median			-4.92	-10.51	-10.51	-0.69	1.06	-	1.69		
Baird Advisors Core Fixed Income	567,964,890	18.26	-4.91 (49)	-10.89 (72)	-10.71 (62)	-	-	-	-	-10.71 (62)	Jul-21
Blmbg. U.S. Aggregate Index			-4.69 (34)	-10.35 (42)	-10.29 (38)	-	-	-	-	-10.29 (38)	
Over/Under			-0.22	-0.54	-0.42	-	-	-	-	-0.42	
eV US Core Fixed Inc Median			-4.92	-10.51	-10.51	-	-	-	-	-10.51	
Garcia Hamilton & Associates	388,146,373	12.48	-4.00 (16)	-8.23 (9)	-8.26 (9)	-	-	-	-	-8.26 (9)	Jul-21
Blmbg. U.S. Aggregate Index			-4.69 (34)	-10.35 (42)	-10.29 (38)	-	-	-	-	-10.29 (38)	
Over/Under			0.69	2.12	2.03	-	-	-	-	2.03	
eV US Core Fixed Inc Median			-4.92	-10.51	-10.51	-	-	-	-	-10.51	
JP Morgan Investment Management	383,230,329	12.32	-4.42 (23)	-9.76 (24)	-9.69 (18)	-	-	-	-	-9.69 (18)	Jul-21
Blmbg. U.S. Aggregate Index			-4.69 (34)	-10.35 (42)	-10.29 (38)	-	-	-	-	-10.29 (38)	
Over/Under			0.27	0.59	0.60	-	-	-	-	0.60	
eV US Core Fixed Inc Median			-4.92	-10.51	-10.51	-	-	-	-	-10.51	
Income Research & Management	388,189,818	12.48	-4.85 (46)	-10.43 (47)	-10.41 (41)	-	-	-	-	-10.41 (42)	Jul-21
Blmbg. U.S. Aggregate Index			-4.69 (34)	-10.35 (42)	-10.29 (38)	-	-	-	-	-10.29 (38)	
Over/Under			-0.16	-0.08	-0.12	-	-	-	-	-0.12	
eV US Core Fixed Inc Median			-4.92	-10.51	-10.51	-	-	-	-	-10.51	

Baird Advisors Core Fixed Income, Garcia Hamilton & Associates, JP Morgan Investment Management and Income Research & Management have a mid-month inception date. Since inception return is calculated from the first full month of performance.

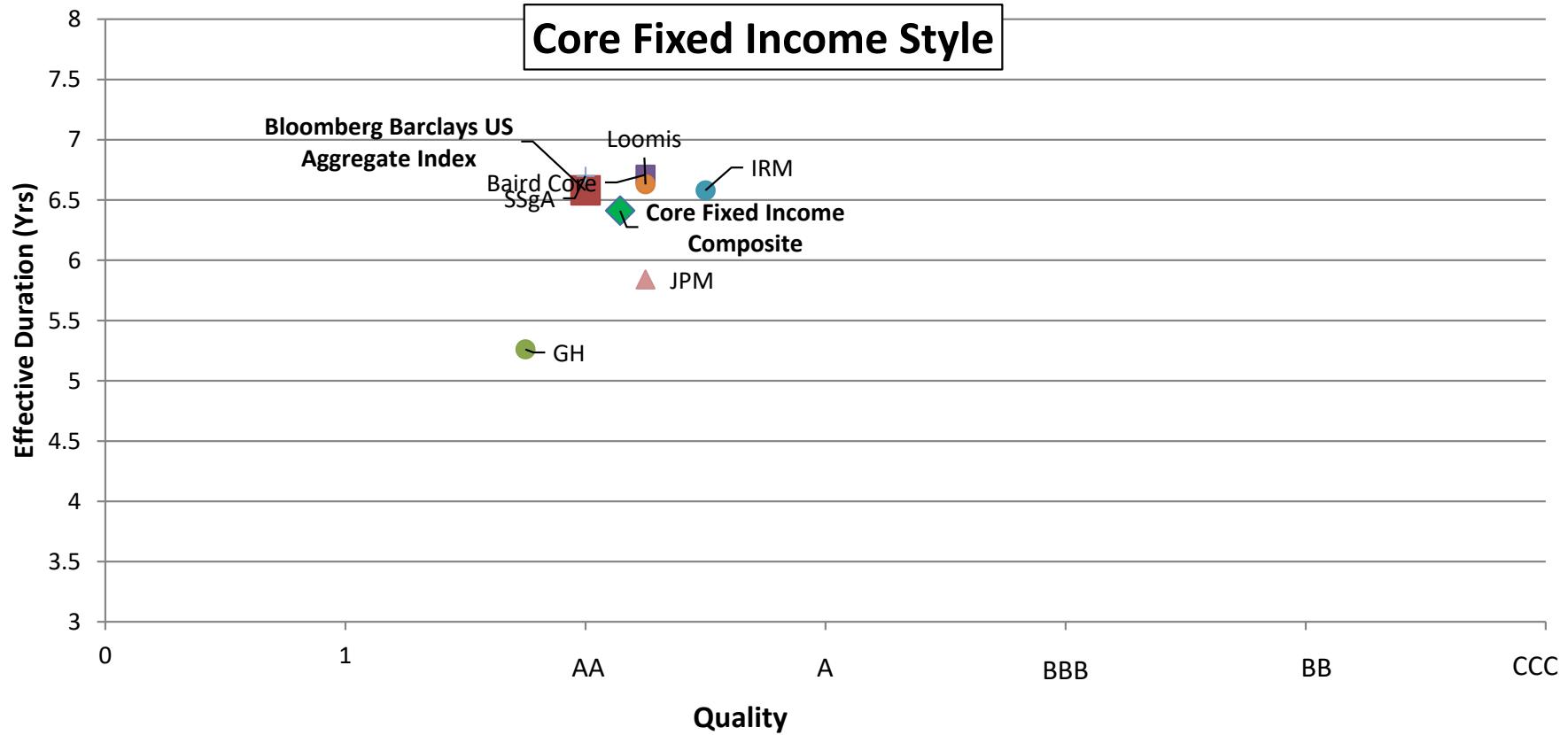
- Core Fixed Income Blend = 100% Bloomberg U.S. Aggregate Index

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	✗	✗	✓	✓	✓	✓	✓	✓	✓✓	1,062.4	Performance compliant with LACERS' Manager Monitoring Policy
Baird Advisors	Jul-21	Core	✗	✓	✗	✗	N/A	N/A	N/A	N/A	✗	23.5	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	✓	12.7	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	✗	N/A	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	✓	14.2	Newly hired manager pursuant to Section VIII.D of the Manager Monitoring Policy
SSgA (Passive)	Aug-14	Core	✗	✓	✗	✓	=	✗	✗	✗	✗	243.1	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, 2021.
- * 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	1,637,999,544	100.0		-8.44	-13.08	-13.81	-1.56	1.17		3.30	Jul-13
Credit Opportunities Blend				-8.45	-13.53	-14.44	-1.18	1.29		3.57	
Over/Under				0.01	0.45	0.63	-0.38	-0.12		-0.27	
PGIM Blended	411,639,963	25.1		-9.12	-16.41	-18.74				-14.34	Feb-21
50% JPM EMBI Global Diversified/ 50% JPM GBI-EM Global Diversified				-10.03	-17.45	-20.23	-5.47	-1.70	0.40	-15.32	
Over/Under				0.91	1.04	1.49				0.98	
Wellington	405,416,404	24.8		-9.62	-16.96	-19.59				-14.63	Feb-21
50% JPM EMBI Global Diversified/ 50% JPM GBI-EM Global Diversified				-10.03	-17.45	-20.23	-5.47	-1.70	0.40	-15.32	
Over/Under				0.41	0.49	0.64				0.69	
Bain Capital Senior Loan Fund, LP	230,643,364	14.1		-5.54	-5.93	-3.51	2.58	3.27		3.44	Jul-15
Credit Suisse Leveraged Loan Index				-4.35	-4.45	-2.68	2.03	2.97	3.90	3.31	
Over/Under				-1.19	-1.48	-0.83	0.55	0.30		0.13	
Polen Capital	269,096,748	16.4		-8.72	-10.33	-9.06				-0.74	Nov-20
50% BBgBarc US High Yield 2% Issuer Cap / 50% Credit Suisse Leveraged Loan Index				-7.08	-9.38	-7.82				-0.04	
Over/Under				-1.64	-0.95	-1.24				-0.70	
Loomis Sayles & Co. High Yield	209,783,022	12.8		-11.24	-14.34	-13.48				-2.62	Nov-20
Blmbg. U.S. High Yield - 2% Issuer Cap				-9.84	-14.19	-12.82	0.18	2.09	4.47	-2.62	
Over/Under				-1.40	-0.15	-0.66				0.00	
Benefit Street Partners LLC	63,949,804	3.9		2.40	2.40	6.12				3.88	Dec-20
Credit Suisse Leveraged Loan Qtr Lag				-0.10	0.61	3.22	4.10	4.05	4.47	6.13	
Over/Under				2.50	1.79	2.90				-2.25	
Crescent	2,437,235	0.1		-7.22	-7.22					-7.22	Dec-21
Credit Suisse Leveraged Loan Qtr Lag				-0.10	0.61	3.22	4.10	4.05	4.47	1.26	
Over/Under				-7.12	-7.83					-8.48	
Monroe	45,033,003	2.7		0.82	0.39					0.39	Dec-21
Credit Suisse Leveraged Loan Qtr Lag				-0.10	0.61	3.22	4.10	4.05	4.47	1.26	
Over/Under				0.92	-0.22					-0.87	

- Credit Opportunities Blend = 20.7% Bloomberg U.S. High Yield - 2% Issuer Cap/ 20.7% Credit Suisse Leveraged Loan Index/ 55% 50% JPM EMBI Global Diversified|50% JPM GBI-EM Global Diversified / 3.6% Credit Suisse Leveraged Loan Qtr Lag

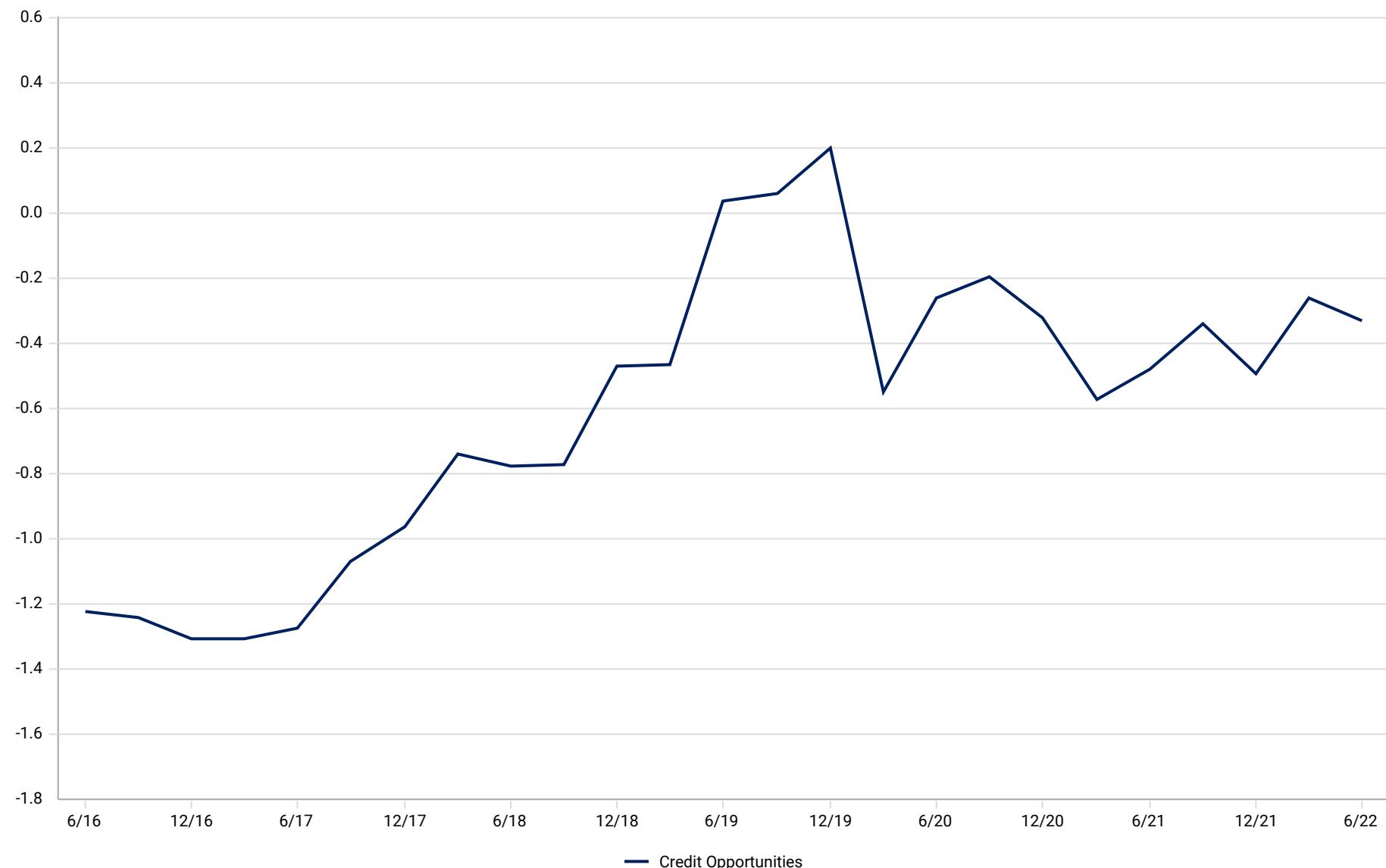
CREDIT OPPORTUNITIES (NET)

	Allocation		Performance (%)								
	Market Value (\$)	% of Portfolio	3 Mo (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date	
Credit Opportunities	1,637,999,544	100.0	-8.52	-13.24	-14.12	-1.85	0.86		2.98	Jul-13	
Credit Opportunities Blend			-8.45	-13.53	-14.44	-1.18	1.29		3.57		
Over/Under			-0.07	0.29	0.32	-0.67	-0.43		-0.59		
PGIM Blended	411,639,963	25.1	-9.20 (51)	-16.55 (55)	-19.05 (52)				-14.57 (59)	Feb-21	
50% JPM EMBI Global Diversified/ 50% JPM GBI-EM Global Diversified			-10.03 (58)	-17.45 (61)	-20.23 (66)	-5.47 (73)	-1.70 (65)	0.40 (66)	-15.32 (72)		
Over/Under			0.83	0.90	1.18				0.75		
eV All Emg Mkts Fixed Inc Median			-9.16	-15.97	-18.94	-4.51	-1.10	1.43	-14.10		
Wellington	405,416,404	24.8	-9.73 (55)	-17.17 (59)	-19.98 (63)				-14.96 (65)	Feb-21	
50% JPM EMBI Global Diversified/ 50% JPM GBI-EM Global Diversified			-10.03 (58)	-17.45 (61)	-20.23 (66)	-5.47 (73)	-1.70 (65)	0.40 (66)	-15.32 (72)		
Over/Under			0.30	0.28	0.25				0.36		
eV All Emg Mkts Fixed Inc Median			-9.16	-15.97	-18.94	-4.51	-1.10	1.43	-14.10		
Bain Capital Senior Loan Fund, LP	230,643,364	14.1	-5.54 (76)	-5.93 (73)	-3.51 (40)	2.58 (3)	3.27 (4)		3.44 (10)	Jul-15	
Credit Suisse Leveraged Loan Index			-4.35 (18)	-4.45 (17)	-2.68 (19)	2.03 (15)	2.97 (13)	3.90 (15)	3.31 (14)		
Over/Under			-1.19	-1.48	-0.83	0.55	0.30		0.13		
eV US Float-Rate Bank Loan Fixed Inc Median			-5.04	-5.25	-3.68	1.39	2.33	3.37	2.70		
Polen Capital	269,096,748	16.4	-8.84 (39)	-10.56 (25)	-9.50 (27)				-1.15 (37)	Nov-20	
50% BBgBarc US High Yield 2% Issuer Cap / 50% Credit Suisse Leveraged Loan Index			-7.08 (20)	-9.38 (22)	-7.82 (21)				-0.04 (23)		
Over/Under			-1.76	-1.18	-1.68				-1.11		
eV US High Yield Fixed Inc Median			-9.41	-13.18	-11.82	0.36	1.98	4.20	-1.97		
Loomis Sayles & Co. High Yield	209,783,022	12.8	-11.32 (96)	-14.50 (84)	-13.79 (88)				-2.92 (69)	Nov-20	
BImbg. U.S. High Yield - 2% Issuer Cap			-9.84 (65)	-14.19 (79)	-12.82 (75)	0.18 (61)	2.09 (47)	4.47 (30)	-2.62 (61)		
Over/Under			-1.48	-0.31	-0.97				-0.30		
eV US High Yield Fixed Inc Median			-9.41	-13.18	-11.82	0.36	1.98	4.20	-1.97		
Benefit Street Partners LLC	63,949,804	3.9	2.40	2.40	6.12				3.88	Dec-20	
Credit Suisse Leveraged Loan Qtr Lag			-0.10	0.61	3.22	4.10	4.05	4.47	6.13		
Over/Under			2.50	1.79	2.90				-2.25		
Crescent	2,437,235	0.1	-7.22	-7.22					-7.22	Dec-21	
Credit Suisse Leveraged Loan Qtr Lag			-0.10	0.61	3.22	4.10	4.05	4.47	1.26		
Over/Under			-7.12	-7.83					-8.48		
Monroe	45,033,003	2.7	0.82	0.39					0.39	Dec-21	
Credit Suisse Leveraged Loan Qtr Lag			-0.10	0.61	3.22	4.10	4.05	4.47	1.26		
Over/Under			0.92	-0.22					-0.87		

- Credit Opportunities Blend =20.7% Bloomberg U.S. High Yield - 2% Issuer Cap/ 20.7% Credit Suisse Leveraged Loan Index/ 55% 50% JPM EMBI Global Diversified|50% JPM GBI-EM Global Diversified / 3.6% Credit Suisse Leveraged Loan Qtr Lag

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	✓	612.8	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	✓	882.3	Newly hired manager pursuant to Section VIII.D of the Manager Monitoring Policy
Bain	Jun-15	Bank Loans	✗	✗	✗	✓	✓	✓	✓	✓	✓	876.9	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	✗	654.2	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	✗	861.6	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, 2021.
- * 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	2,677,371,939			-2.31	-2.05	5.29	5.84	5.85	7.20	6.28	Dec-94
Real Assets Policy Benchmark				-4.70	-4.74	5.89	7.39	7.38	6.88	7.90	
Over/Under				2.39	2.69	-0.60	-1.55	-1.53	0.32	-1.62	
Public Real Assets	1,489,959,801			-8.64	-11.90	-5.46	4.14	4.16	-	2.66	Jul-14
Public Real Assets Blend				-9.36	-12.74	-5.06	4.11	3.71	-	1.24	
Over/Under				0.72	0.84	-0.40	0.03	0.45	-	1.42	
TIPS	1,061,824,031			-6.50	-9.51	-5.72	2.92	3.29	-	2.28	Aug-14
Blmbg. U.S. TIPS				-6.08	-8.92	-5.14	3.04	3.21	1.73	2.25	
Over/Under				-0.42	-0.59	-0.58	-0.12	0.08	-	0.03	
DFA US TIPS	1,061,824,031			-6.50	-9.51	-5.72	2.92	3.29	-	2.37	Aug-14
Blmbg. U.S. TIPS				-6.08	-8.92	-5.14	3.04	3.21	1.73	2.25	
Over/Under				-0.42	-0.59	-0.58	-0.12	0.08	-	0.12	
REITS	428,135,770			-13.85	-17.67	-4.56	8.20	8.99	-	8.40	Apr-15
FTSE NAREIT All Equity REITs				-14.66	-19.17	-5.89	5.34	6.75	8.34	6.34	
Over/Under				0.81	1.50	1.33	2.86	2.24	-	2.06	
CenterSquare US Real Estate	428,135,770			-13.85	-17.67	-4.56	8.20	8.99	-	8.97	May-15
FTSE NAREIT All Equity REITs				-14.66	-19.17	-5.89	5.34	6.75	8.34	7.17	
Over/Under				0.81	1.50	1.33	2.86	2.24	-	1.80	
Private Real Estate	1,167,923,552			7.42	15.42	24.70	8.81	8.37	9.62	7.14	Nov-94
Real Estate Blend				4.98	12.93	30.52	13.56	11.41	11.76	10.26	
Over/Under				2.44	2.49	-5.82	-4.75	-3.04	-2.14	-3.12	
Timber	19,488,586			8.95	8.95	9.74	4.66	3.70	5.82	8.77	Oct-99

1 - Real Assets Policy Benchmark = 41.67% Bloomberg US TIPS Index + 25% FTSE NAREIT ALL Equity REIT Index + 33.33% Real Estate Blended Benchmark

2 - Public Real Assets Blend = 62.5% Bloomberg US TIPS Index + 37.5% FTSE NAREIT ALL Equity REIT Index

3 - DFA and Centersquare have a mid-month inception date. Since inception return is calculated from the first full month of performance.

4 - Real Estate Blend = NCREIF-ODCE + 80bps 7/1/2014 to present; NCREIF Property Index 1 Qtr Lag plus 100bps 7/1/2012 - 6/30/2014; NCREIF Property Index Inception - 6/30/2012

Benchmark composition as of 7/1/2021 unless otherwise noted.

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	2,677,371,939			-2.34	-2.11	5.17	5.69	5.70	7.05	5.18	Jun-01
Real Assets Policy Benchmark				-4.70	-4.74	5.89	7.39	7.38	6.88	6.51	
Over/Under				2.36	2.63	-0.72	-1.70	-1.68	0.17	-1.33	
Public Real Assets	1,489,959,801			-8.67	-11.96	-5.58	3.96	3.95	-	2.47	Jul-14
Public Real Assets Blend				-9.36	-12.74	-5.06	4.11	3.71	-	1.24	
Over/Under				0.69	0.78	-0.52	-0.15	0.24	-	1.23	
TIPS	1,061,824,031			-6.51	-9.53	-5.76	2.87	3.24	-	2.23	Aug-14
Blmbg. U.S. TIPS				-6.08	-8.92	-5.14	3.04	3.21	1.73	2.25	
Over/Under				-0.43	-0.61	-0.62	-0.17	0.03	-	-0.02	
DFA US TIPS	1,061,824,031			-6.51 (83)	-9.53 (88)	-5.76 (86)	2.87 (70)	3.24 (28)	-	2.32 (17)	Aug-14
Blmbg. U.S. TIPS				-6.08 (60)	-8.92 (68)	-5.14 (56)	3.04 (49)	3.21 (32)	1.73 (34)	2.25 (20)	
Over/Under				-0.43	-0.61	-0.62	-0.17	0.03	-	0.07	
eV US TIPS / Inflation Fixed Inc Median				-5.99	-8.63	-5.08	3.02	3.11	1.61	2.10	
REITS	428,135,770			-13.93	-17.84	-4.91	7.79	8.55	-	7.96	Apr-15
FTSE NAREIT All Equity REITs				-14.66	-19.17	-5.89	5.34	6.75	8.34	6.34	
Over/Under				0.73	1.33	0.98	2.45	1.80	-	1.62	
CenterSquare US Real Estate	428,135,770			-13.93 (18)	-17.84 (7)	-4.91 (16)	7.79 (9)	8.55 (4)	-	8.52 (6)	May-15
FTSE NAREIT All Equity REITs				-14.66 (23)	-19.17 (29)	-5.89 (37)	5.34 (51)	6.75 (41)	8.34 (33)	7.17 (27)	
Over/Under				0.73	1.33	0.98	2.45	1.80	-	1.35	
eV US REIT Median				-16.62	-20.16	-6.89	5.36	6.28	7.53	6.30	
Private Real Estate	1,167,923,552			7.40	15.38	24.60	8.72	8.28	9.52	6.35	Jul-01
Real Estate Blend				4.98	12.93	30.52	13.56	11.41	11.76	9.79	
Over/Under				2.42	2.45	-5.92	-4.84	-3.13	-2.24	-3.44	
Timber	19,488,586			8.95	8.95	9.74	4.66	3.70	5.81	7.82	Sep-01

1 - Real Assets Policy Benchmark = 41.67% Bloomberg US TIPS Index + 25% FTSE NAREIT ALL Equity REIT Index + 33.33% Real Estate Blended Benchmark

2 - Public Real Assets Blend = 62.5% Bloomberg US TIPS Index + 37.5% FTSE NAREIT ALL Equity REIT Index

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Benchmark composition as of 7/1/2021 unless otherwise noted.

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	✗	✗	✗	✗	✗	✗	✓	✓	✓	420.3	Performance compliant with LACERS' Manager Monitoring Policy
CenterSquare	Apr-15	REITS	✓	✓	✓	✓	✓	✓	✓	✓	✓	1,100.5	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, 2021.
- * Where net of fees performance is not available gross of fee returns are evaluated.

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

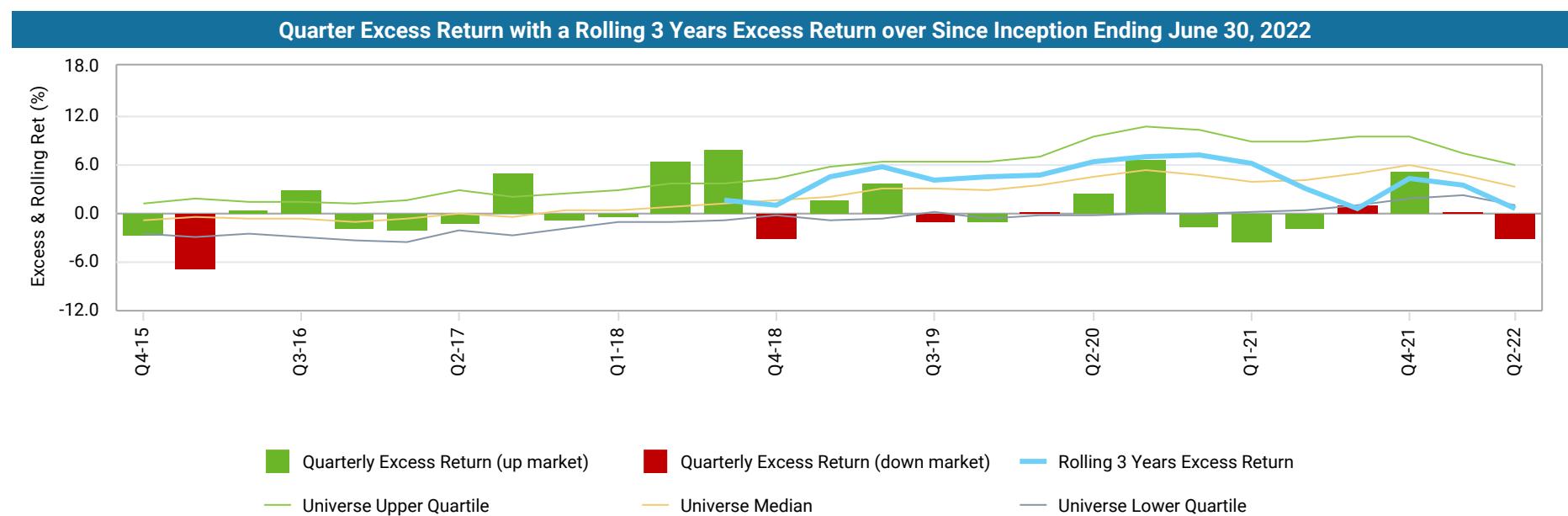
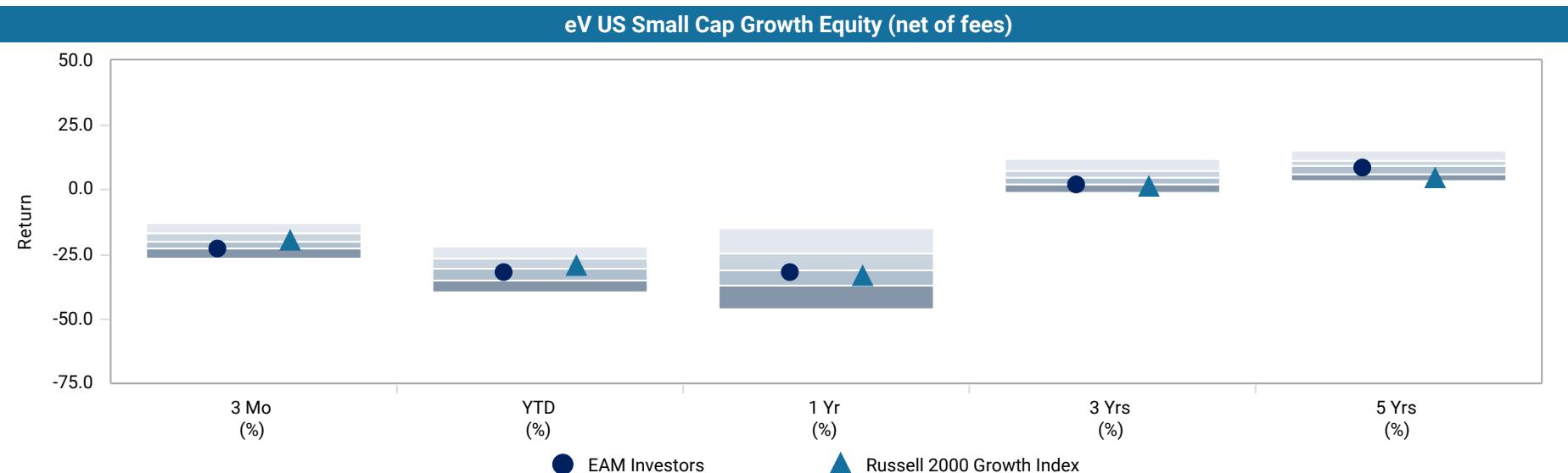


APPENDIX



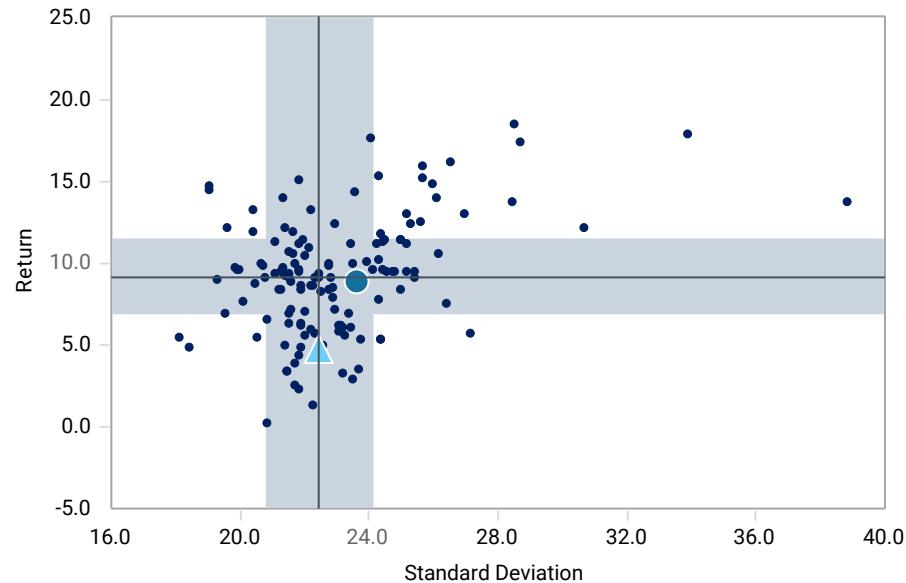
U.S. EQUITY MANAGER PERFORMANCE

EAM INVESTORS



EAM INVESTORS

5 Years Return vs. Standard Deviation



Rolling 3 Years Style Map

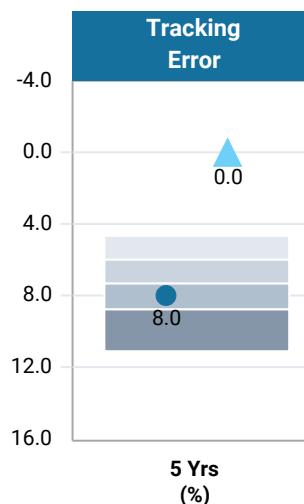
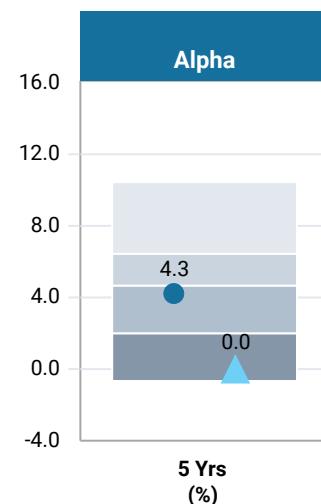
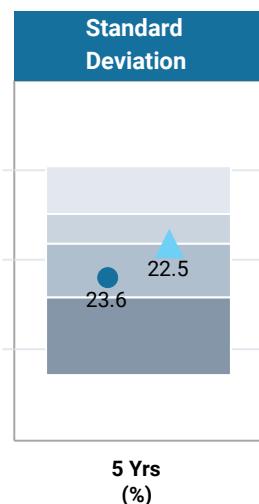
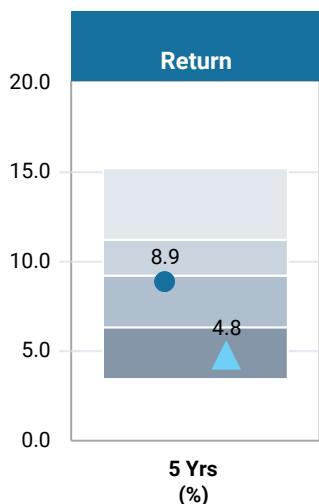


● EAM Investors

▲ Russell 2000 Growth Index

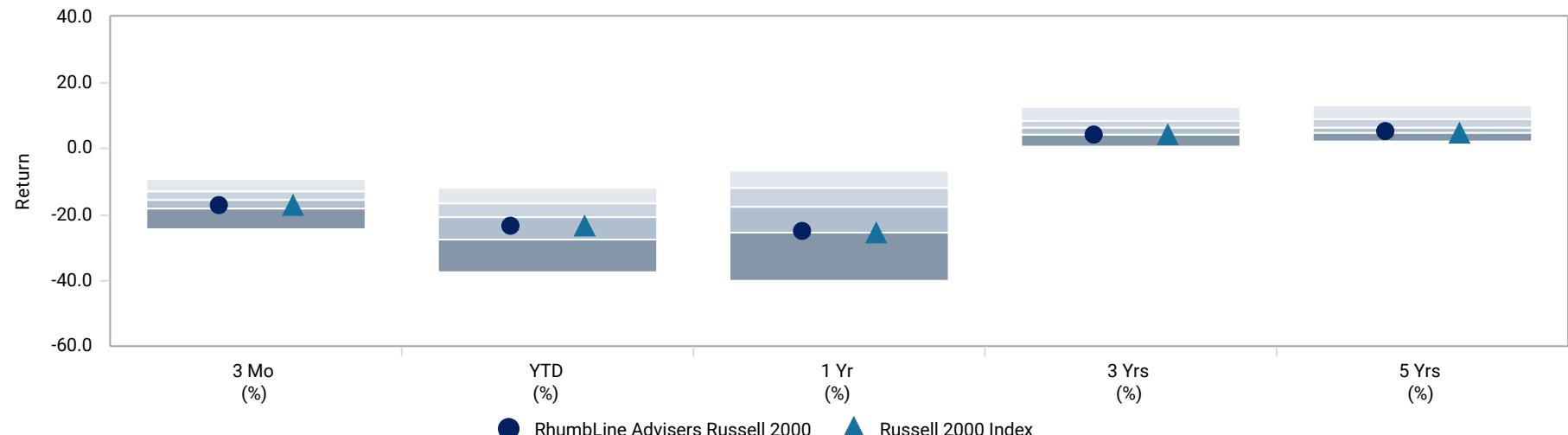
● EAM Investors

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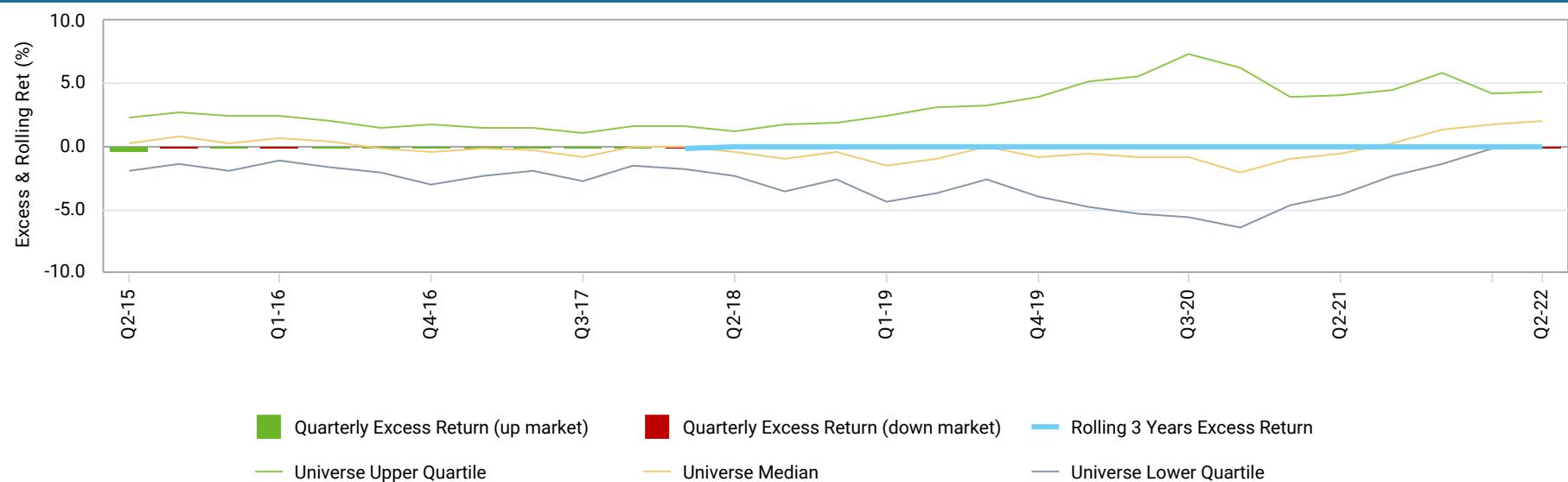


RHUMBLINE ADVISORS RUSSELL 2000

eV US Small Cap Equity (net of fees)

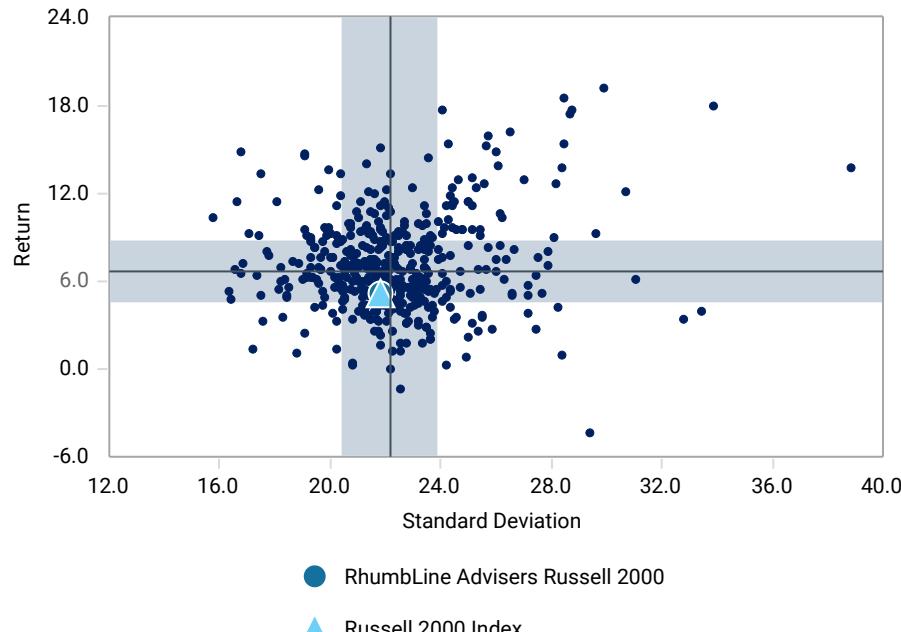


Quarter Excess Return with a Rolling 3 Years Excess Return over Since Inception Ending June 30, 2022

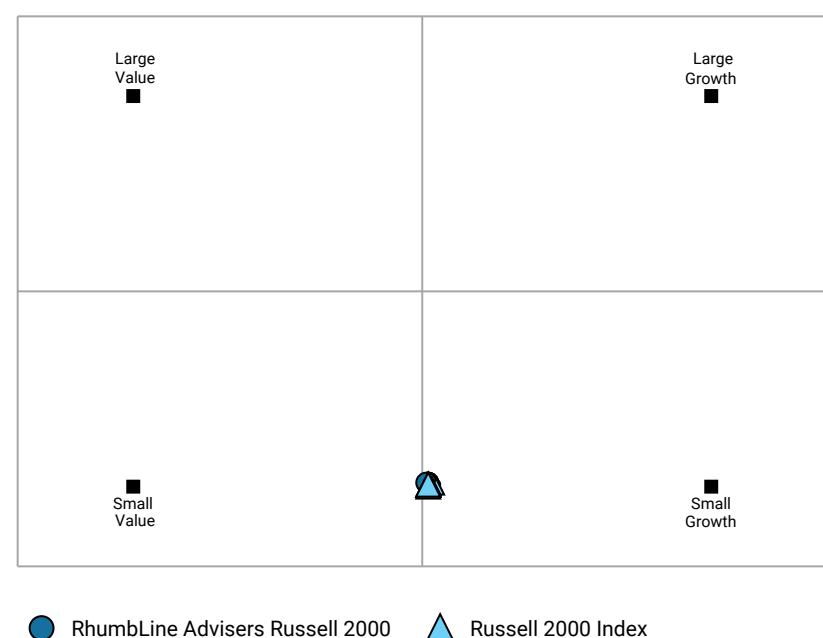


RHUMBLINE ADVISORS RUSSELL 2000

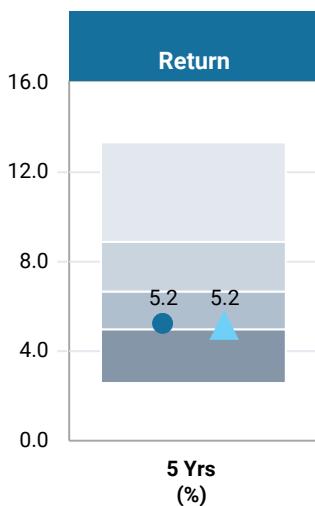
5 Years Return vs. Standard Deviation



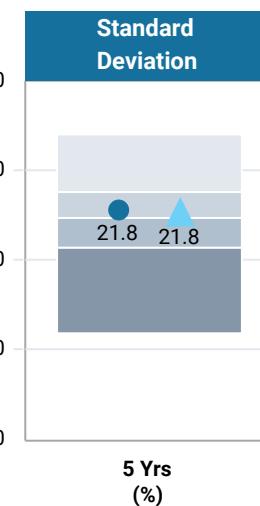
Rolling 3 Years Style Map



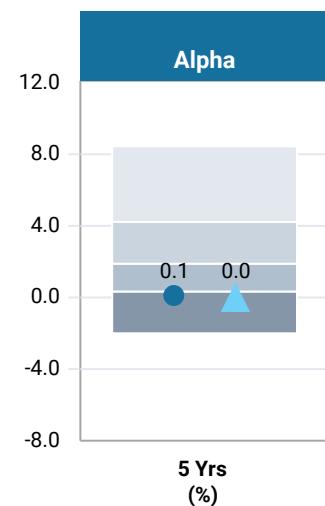
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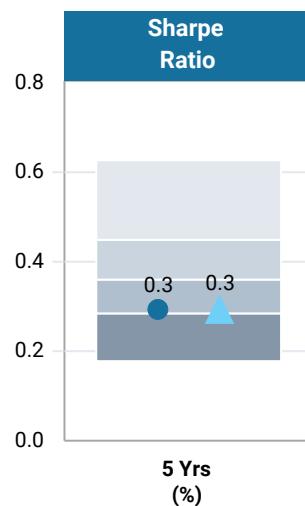
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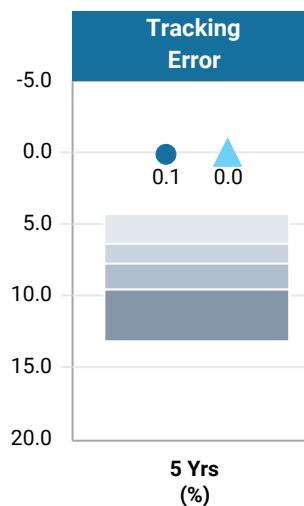
Alpha



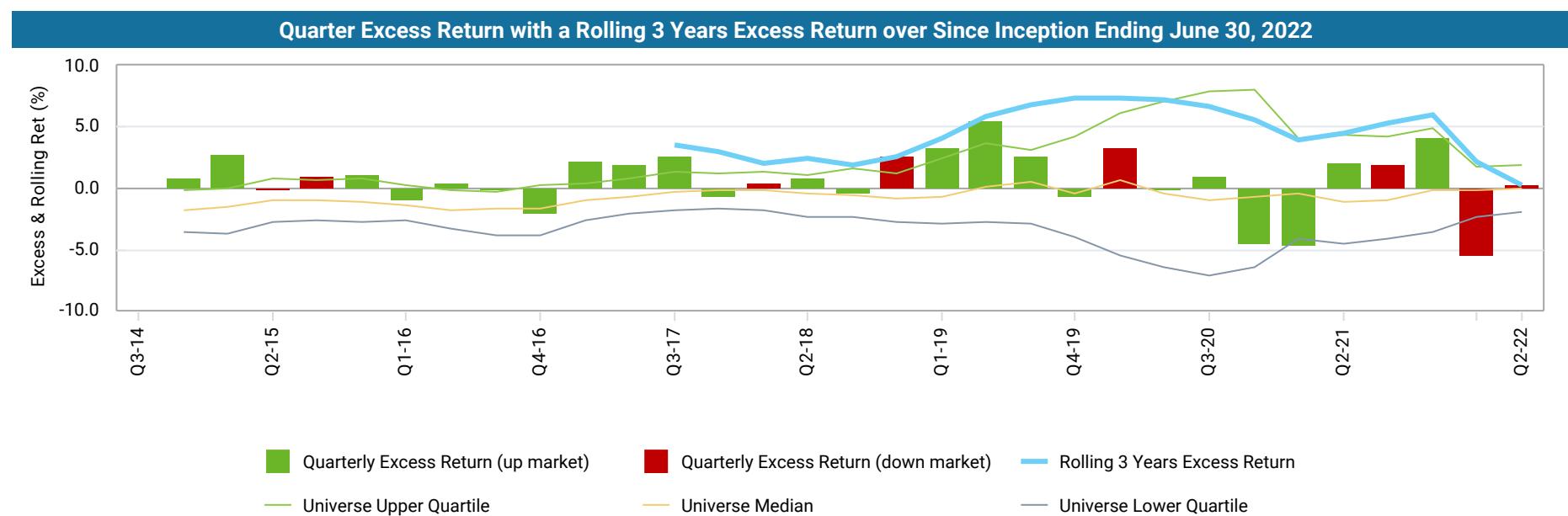
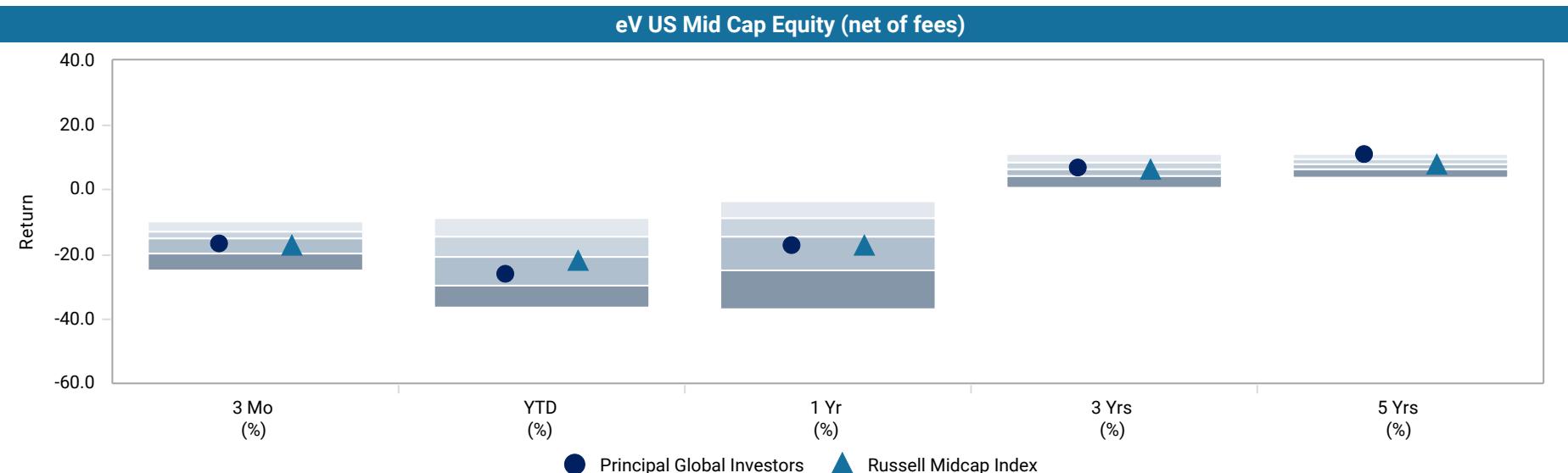
Sharpe Ratio



Tracking Error

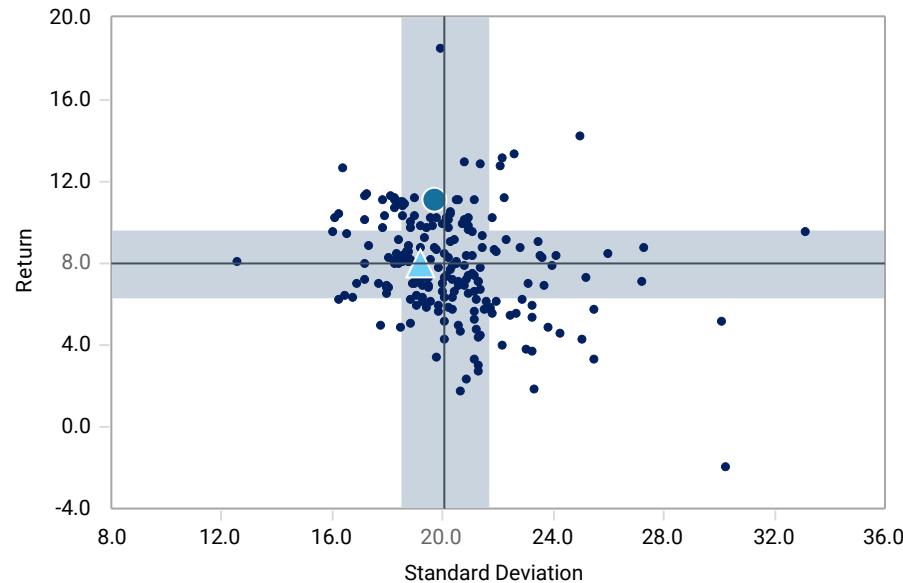


PRINCIPAL GLOBAL INVESTORS



PRINCIPAL GLOBAL INVESTORS

5 Years Return vs. Standard Deviation

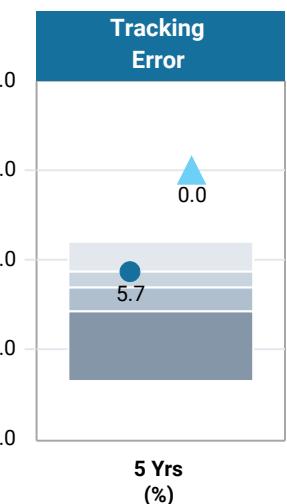
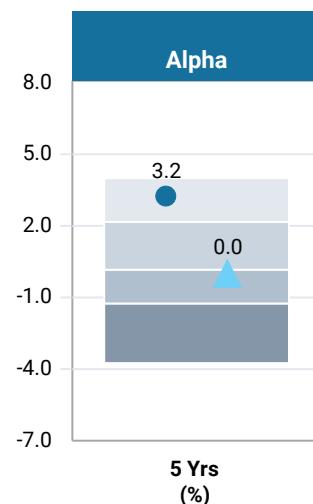
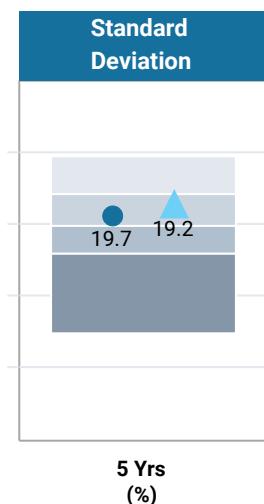
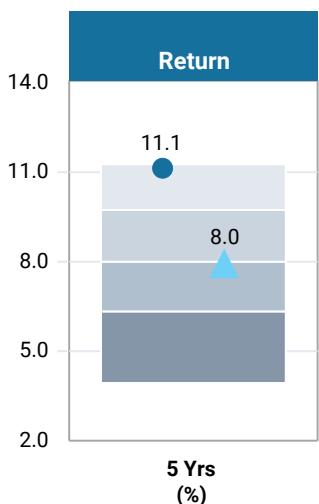


● Principal Global Investors ▲ Russell Midcap Index

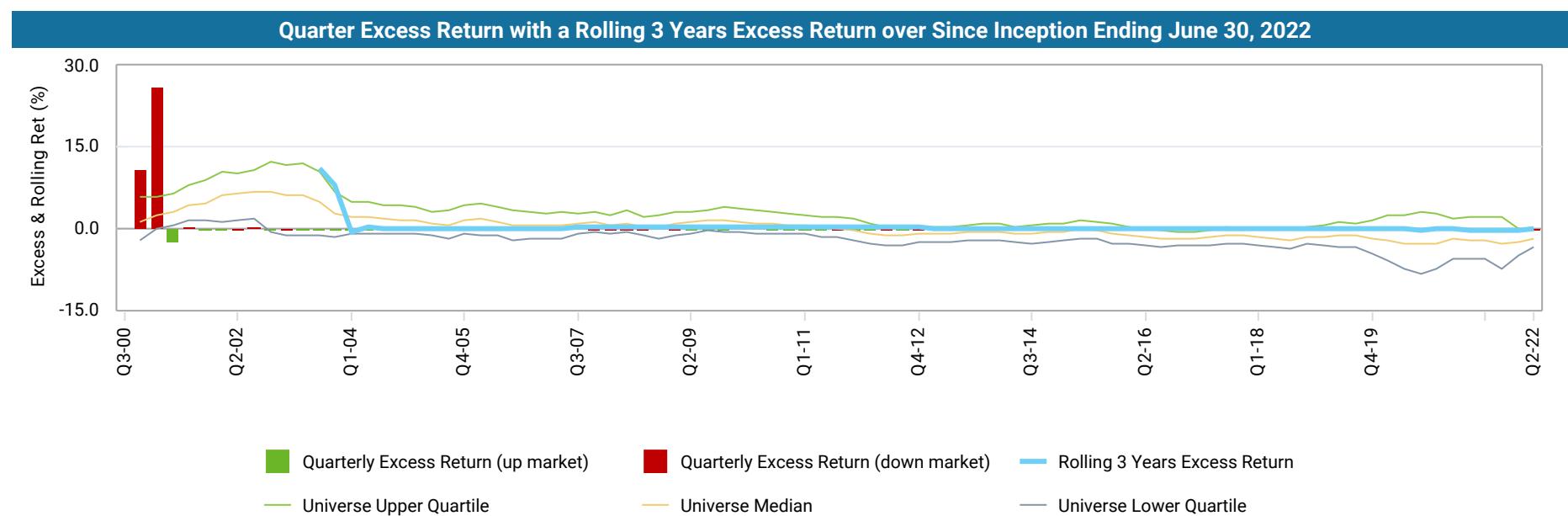
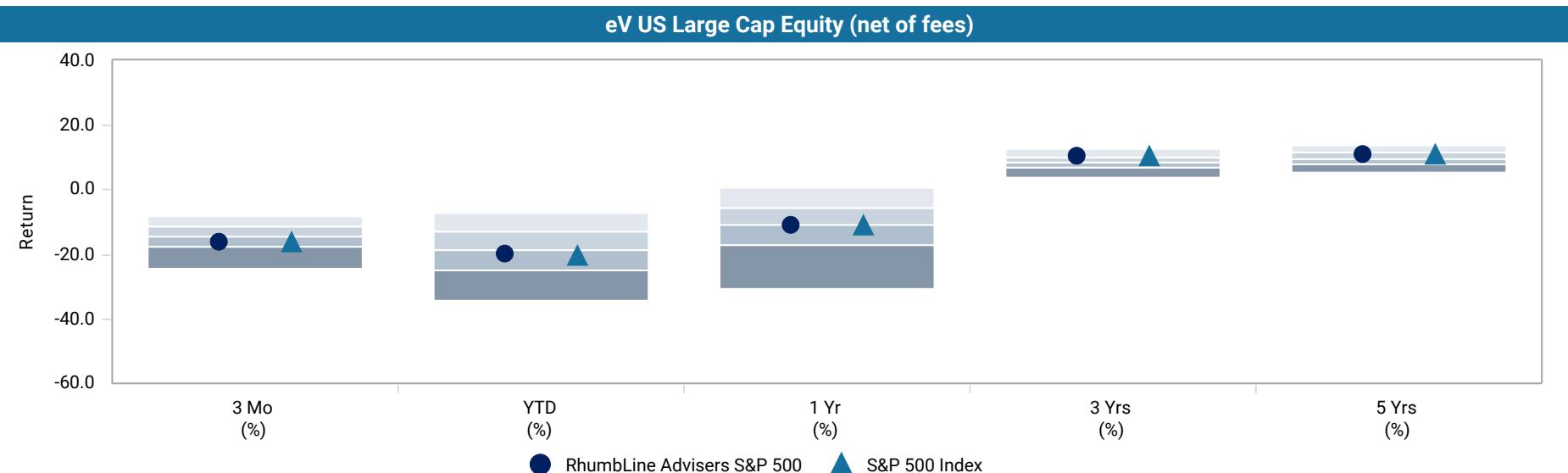
Rolling 5 Years Style Map



● Principal Global Investors ▲ Russell Midcap Index

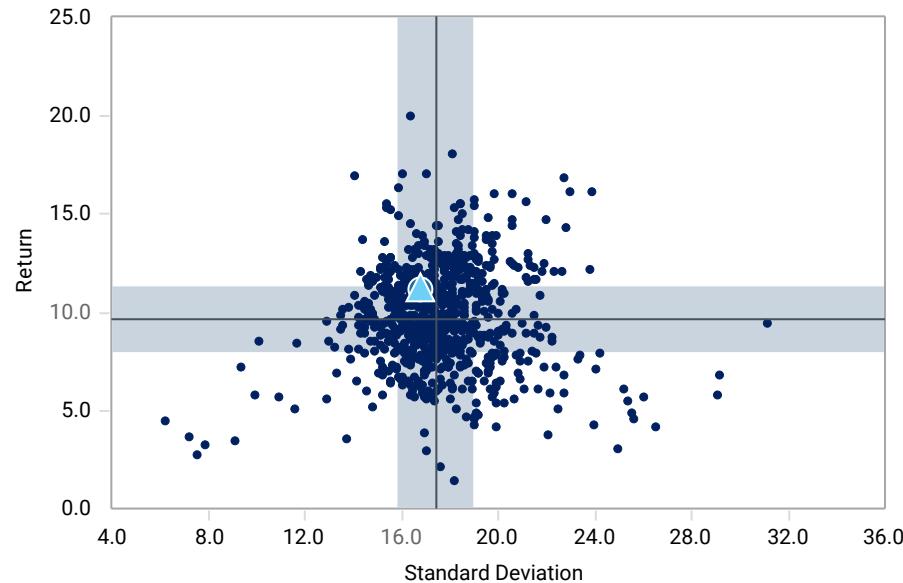


RHUMBLINE ADVISORS S&P 500



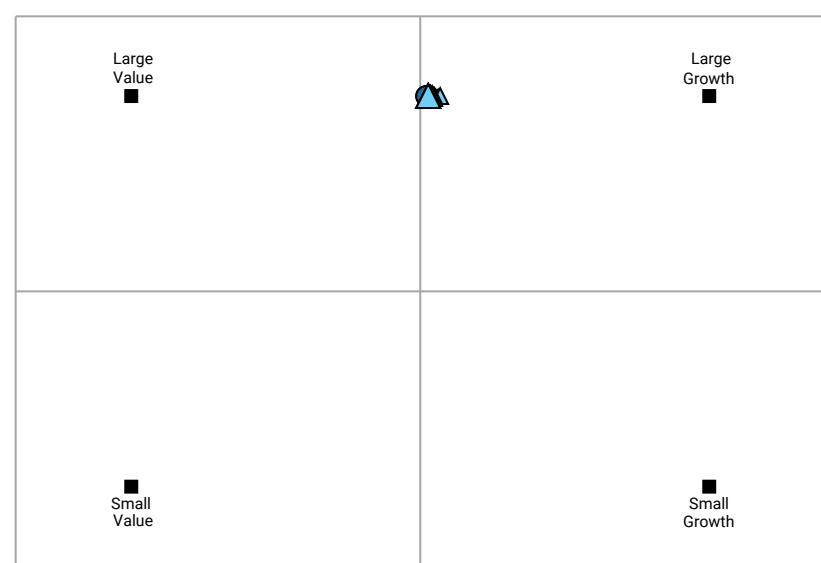
RHUMBLINE ADVISORS S&P 500

5 Years Return vs. Standard Deviation

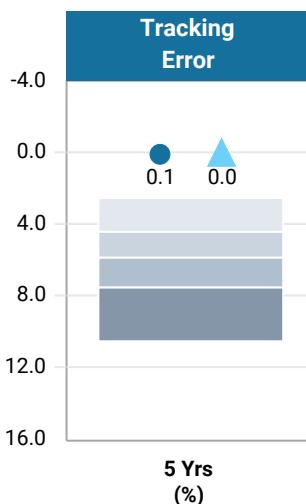
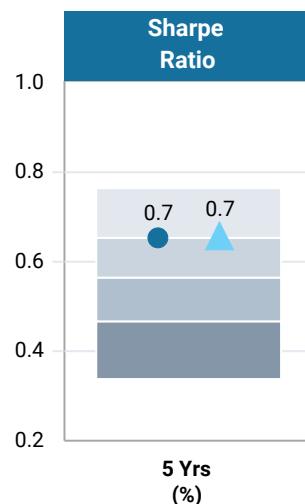
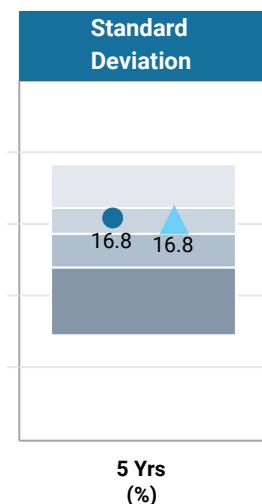
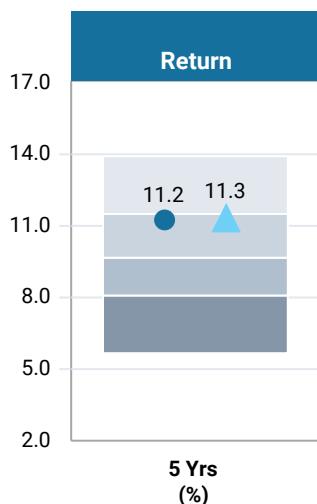


● RhumbLine Advisers S&P 500 ▲ S&P 500 Index

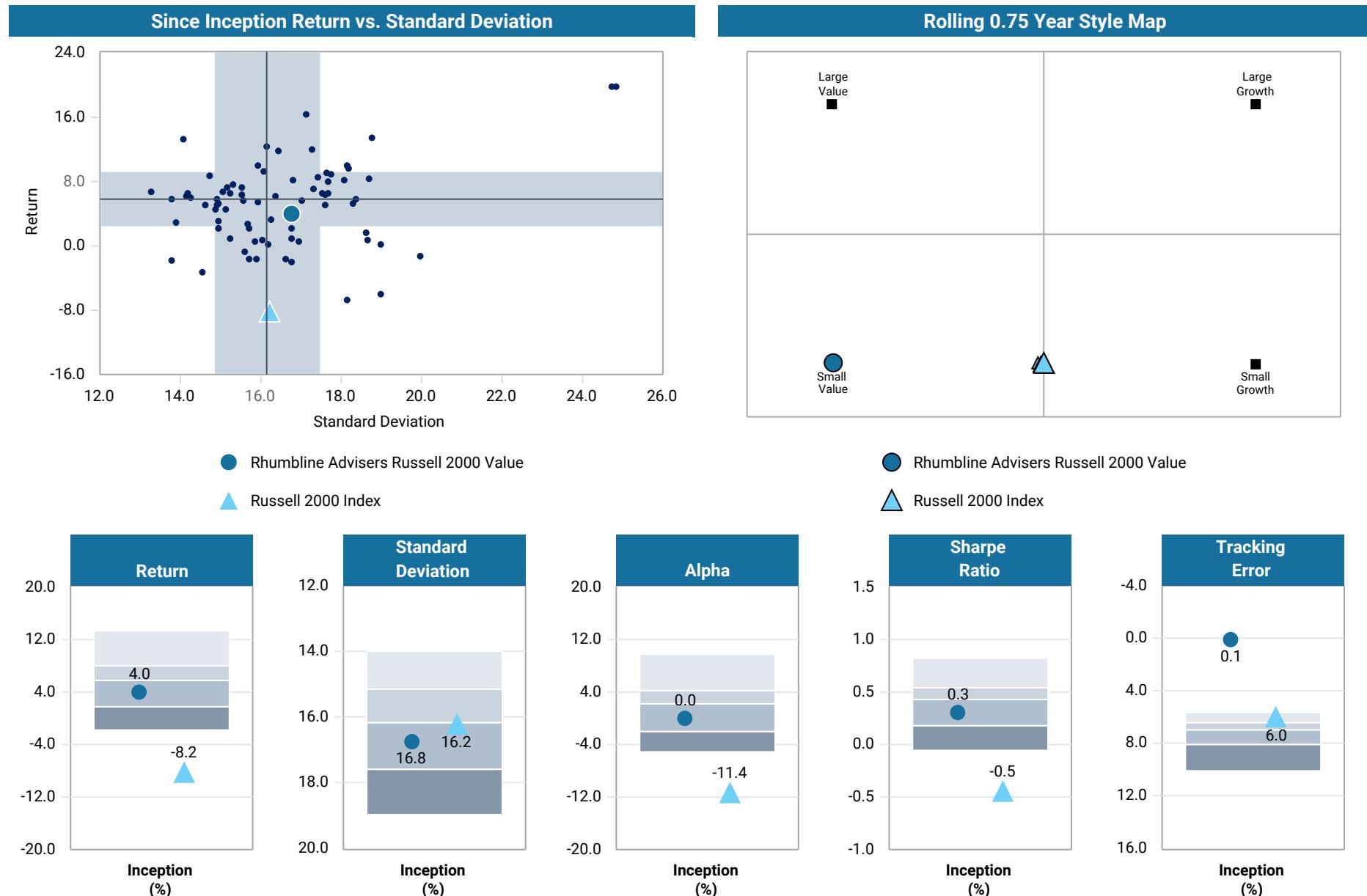
Rolling 5 Years Style Map



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

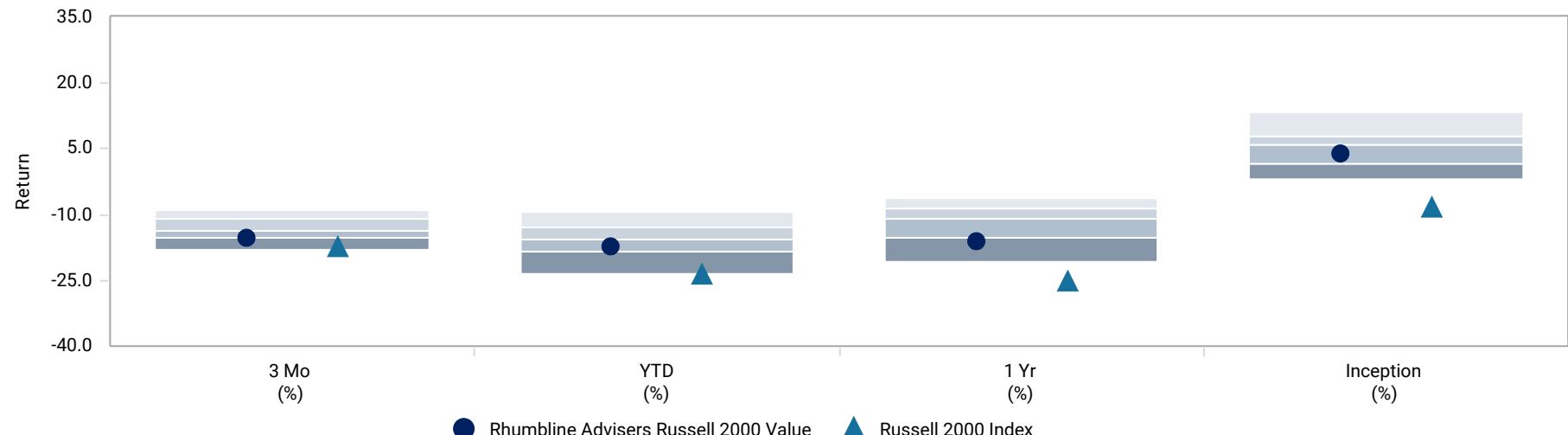


RHUMBLINE ADVISORS RUSSELL 2000 VALUE

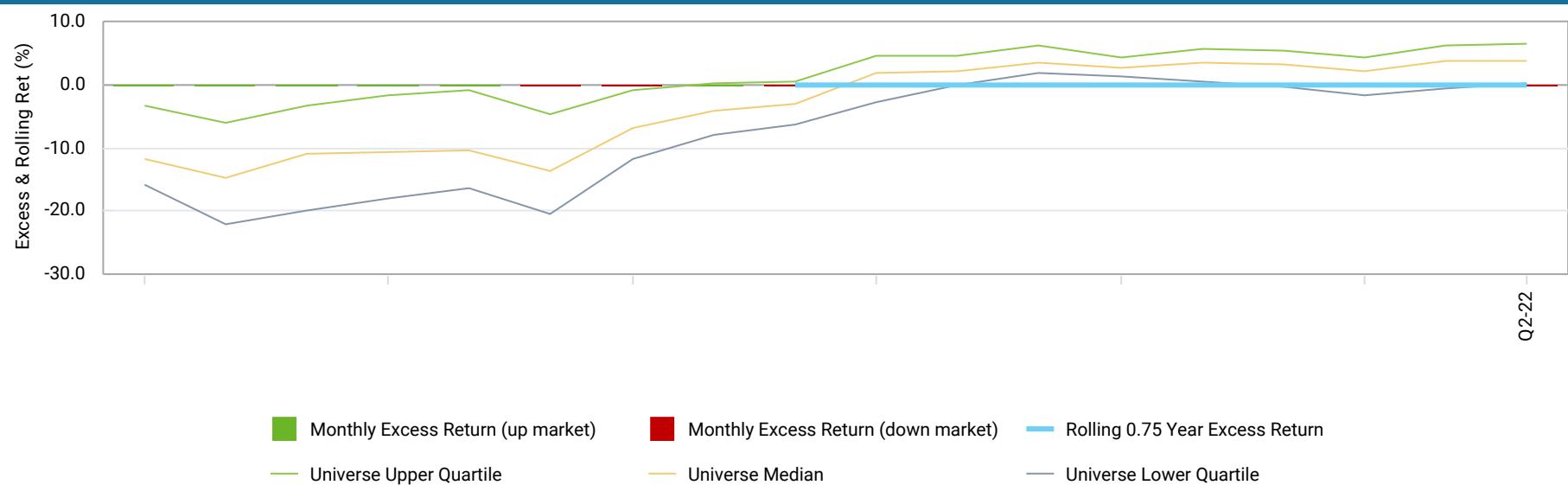


RHUMBLINE ADVISORS RUSSELL 2000 VALUE

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

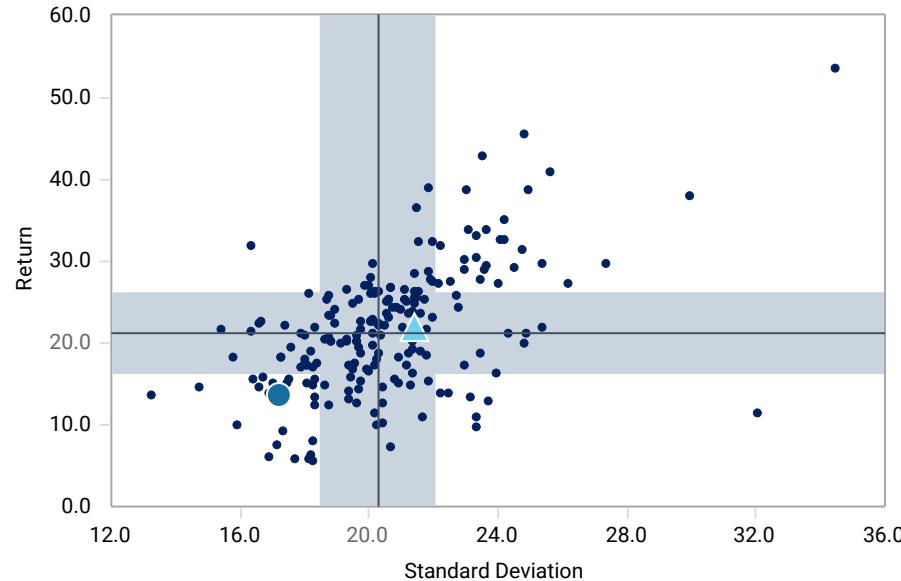


Quarter Excess Return with a Rolling 0.75 Year Excess Return over Since Inception Ending June 30, 2022



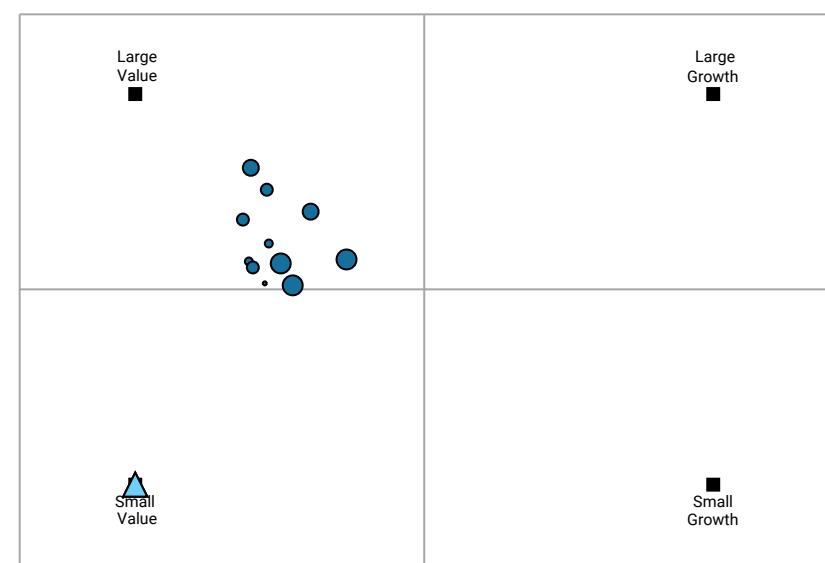
COPELAND CAPITAL MANAGEMENT

Since Inception Return vs. Standard Deviation

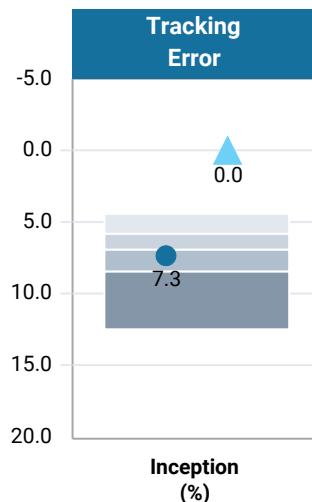
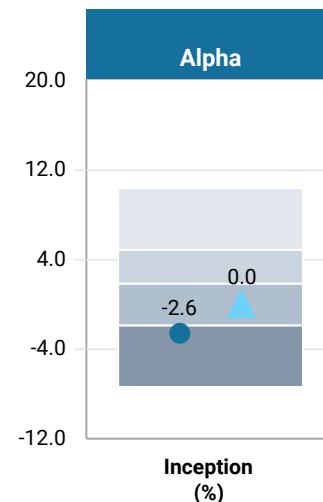
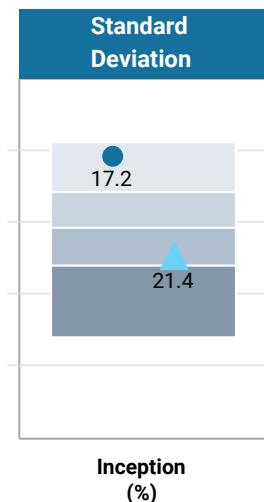


● Copeland Capital Management ▲ Russell 2000 Value Index

Rolling 0.75 Year Style Map

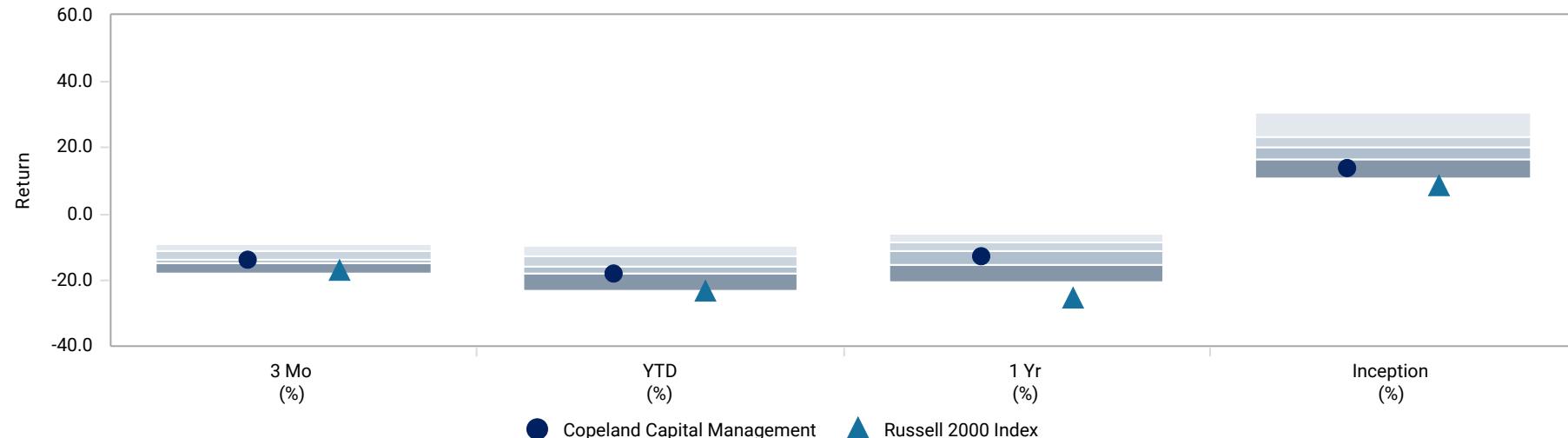


● Copeland Capital Management ▲ Russell 2000 Value Index



COPELAND CAPITAL MANAGEMENT

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

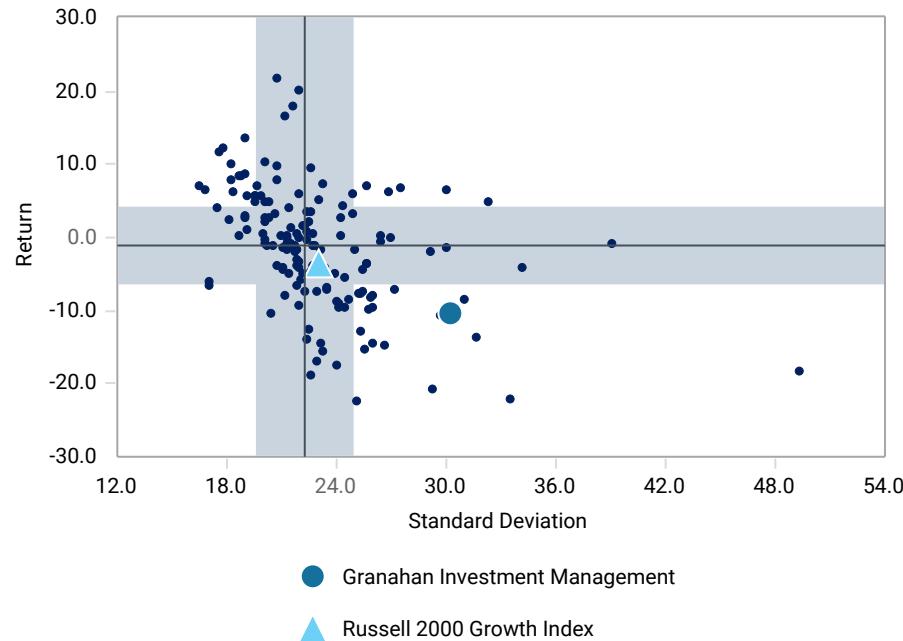


Quarter Excess Return with a Rolling 0.75 Year Excess Return over Since Inception Ending June 30, 2022

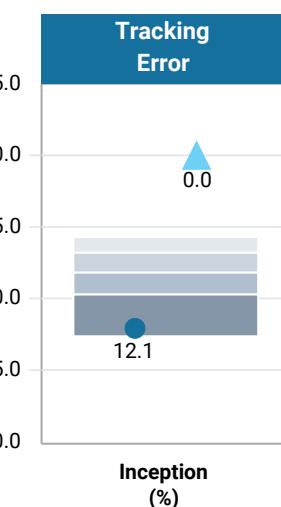
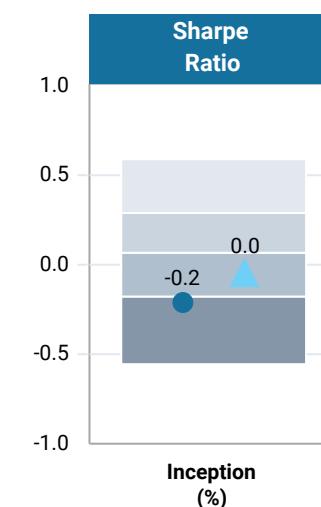
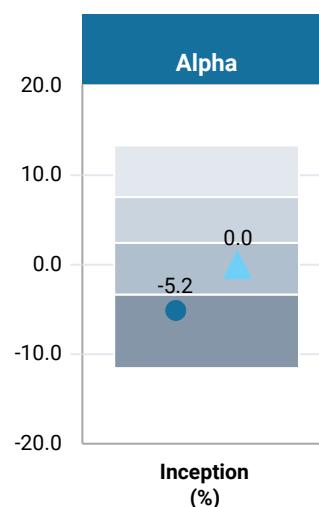
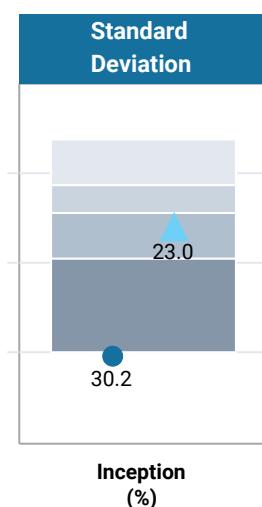
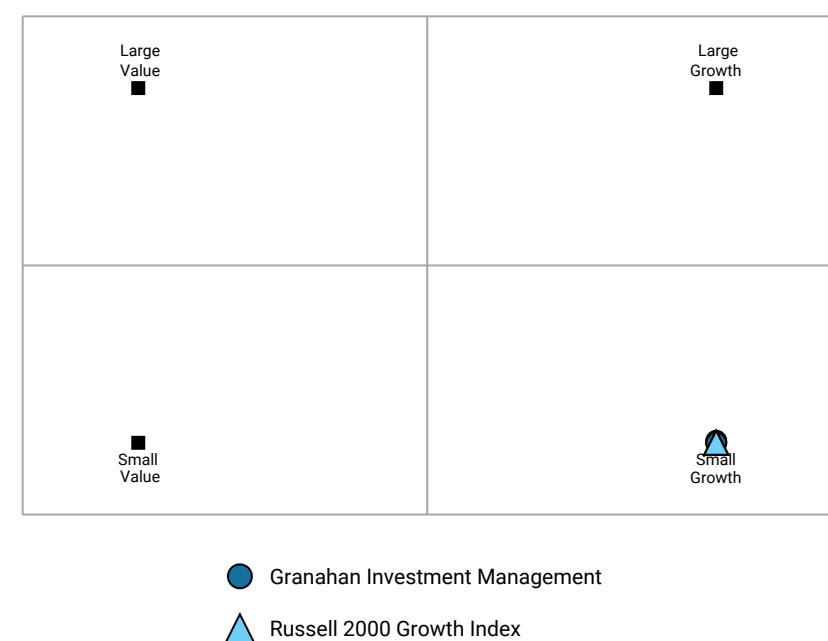


GRANAHAN INVESTMENT MANAGEMENT

Since Inception Return vs. Standard Deviation

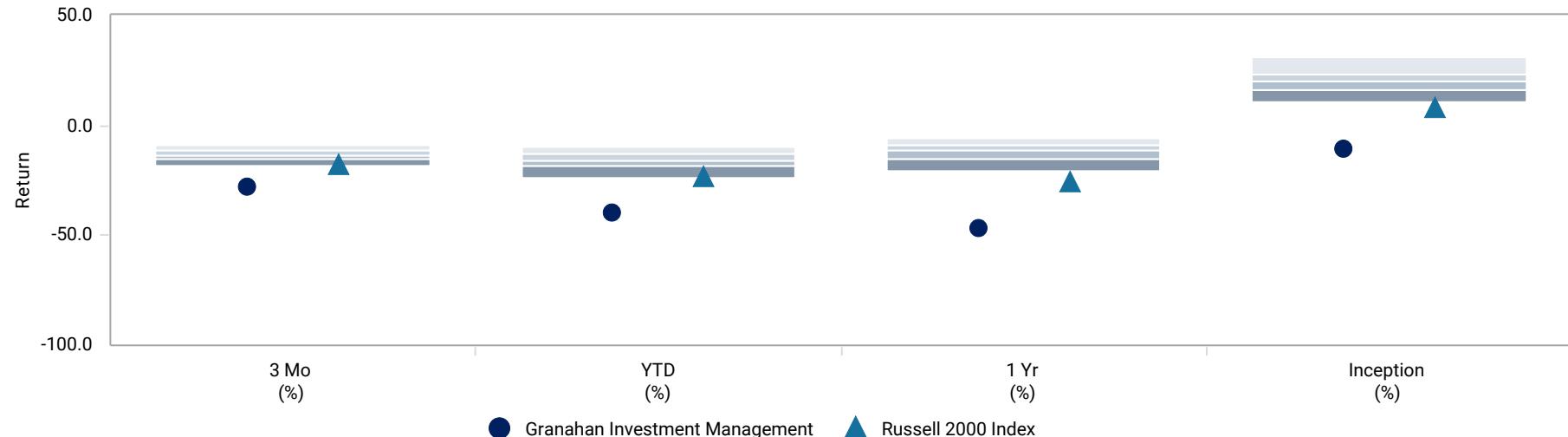


Rolling 0.75 Year Style Map

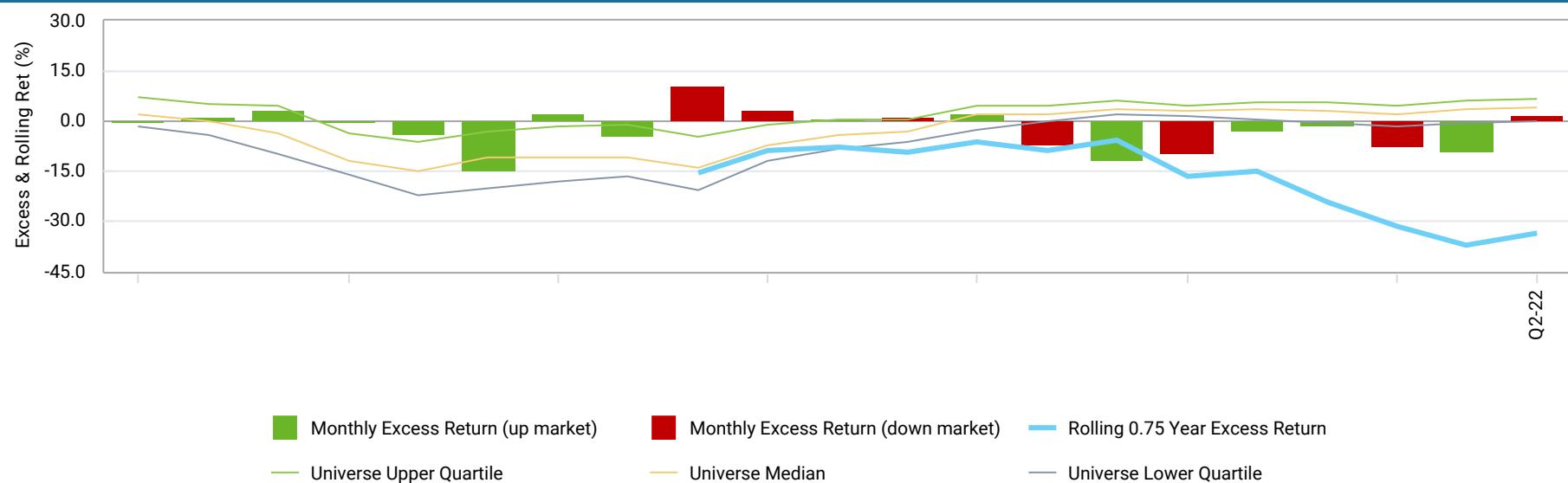


GRANAHAN INVESTMENT MANAGEMENT

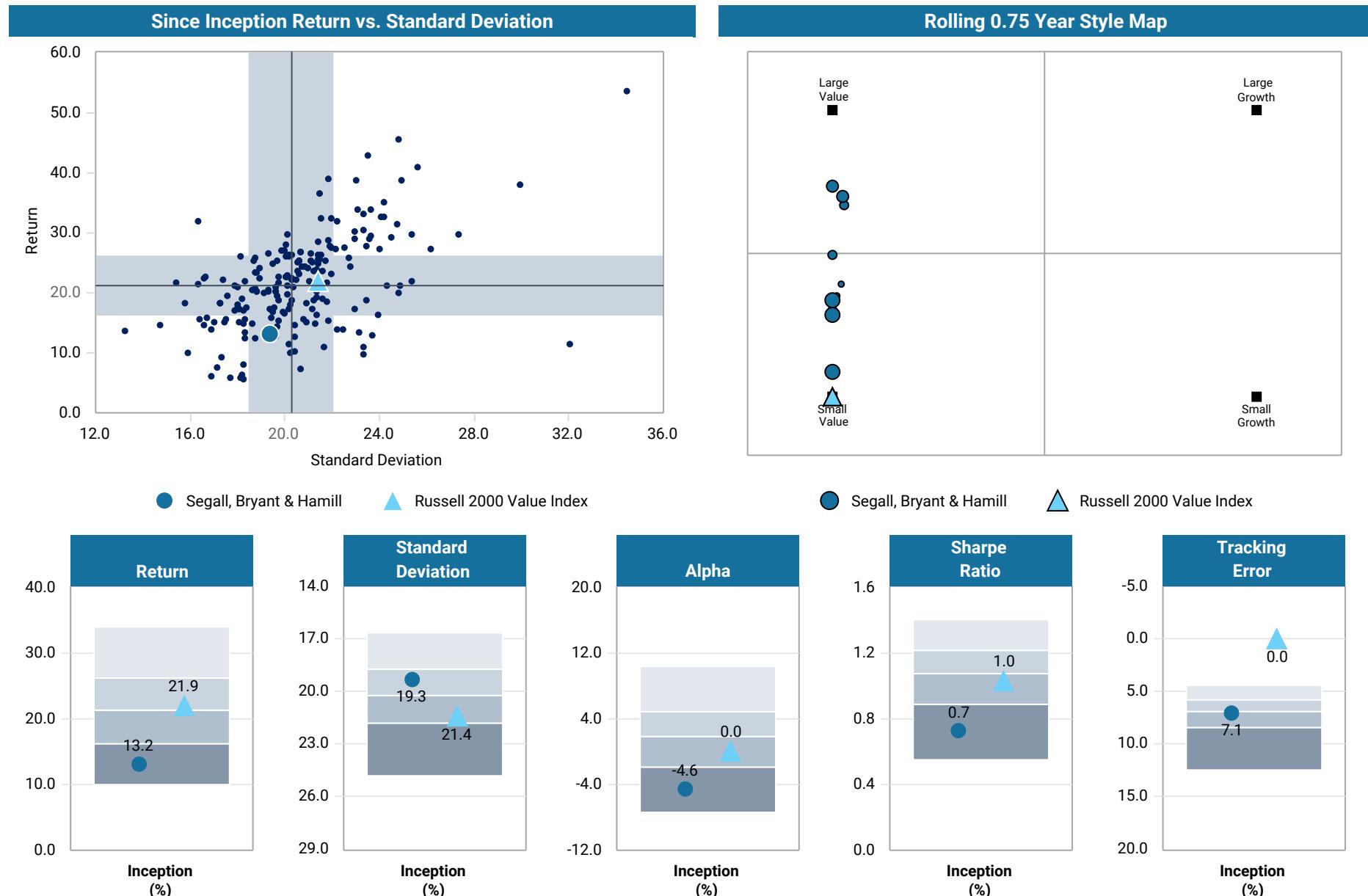
eV US Small-Mid Cap Value Equity (net of fees)



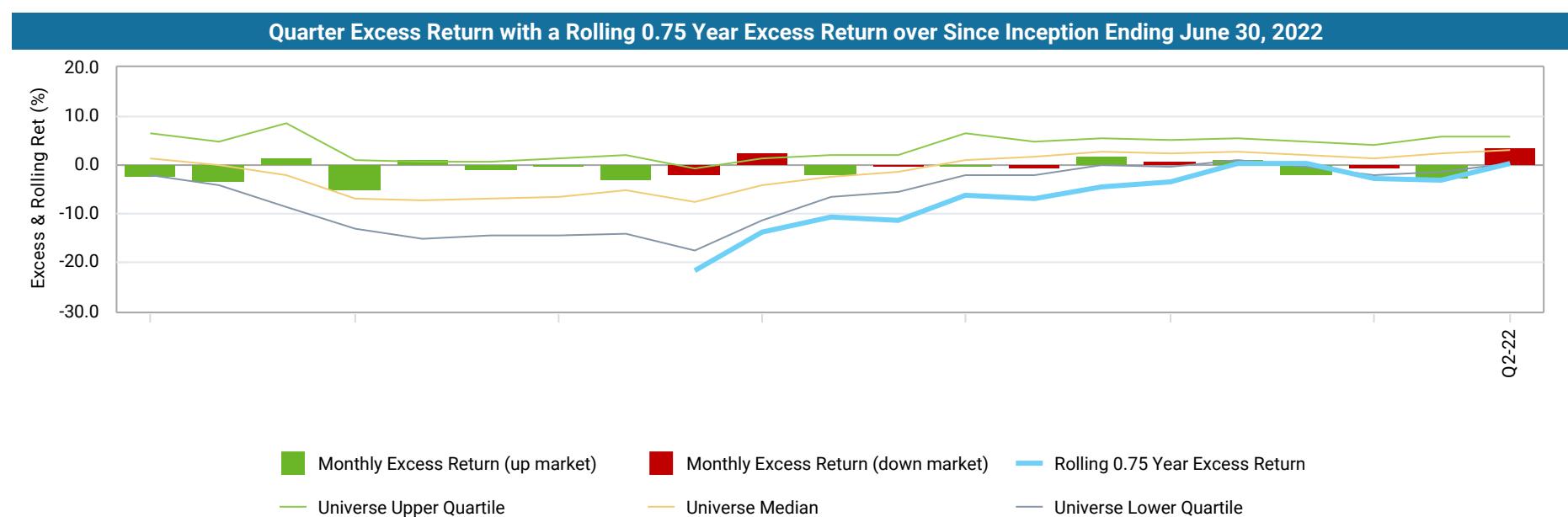
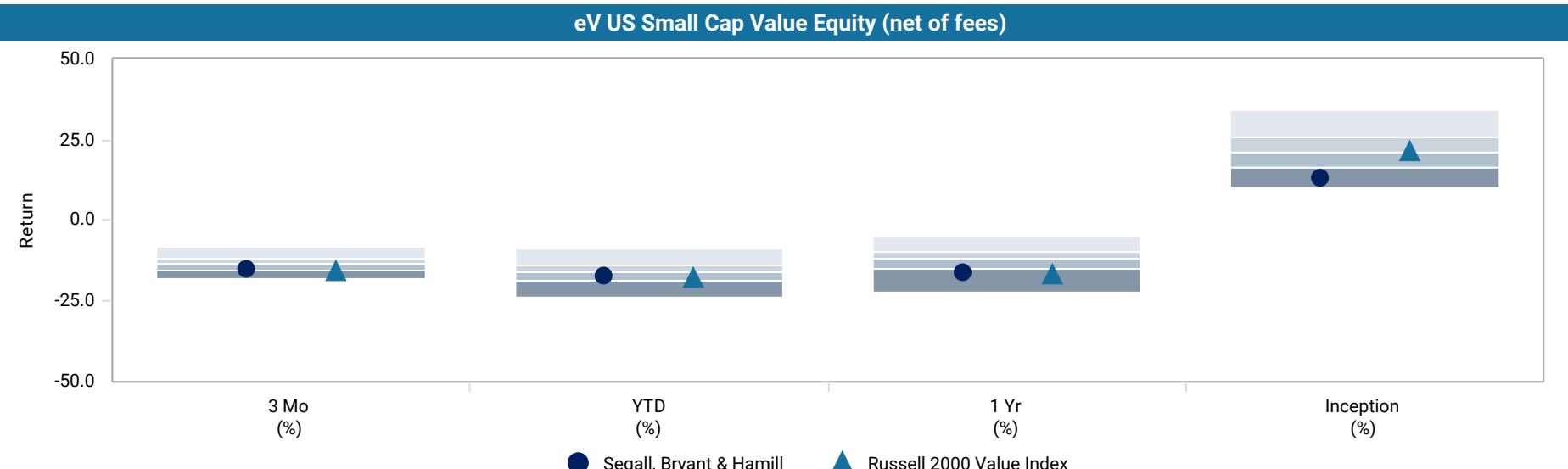
Quarter Excess Return with a Rolling 0.75 Year Excess Return over Since Inception Ending June 30, 2022



SEGALL, BRYANT & HAMILL



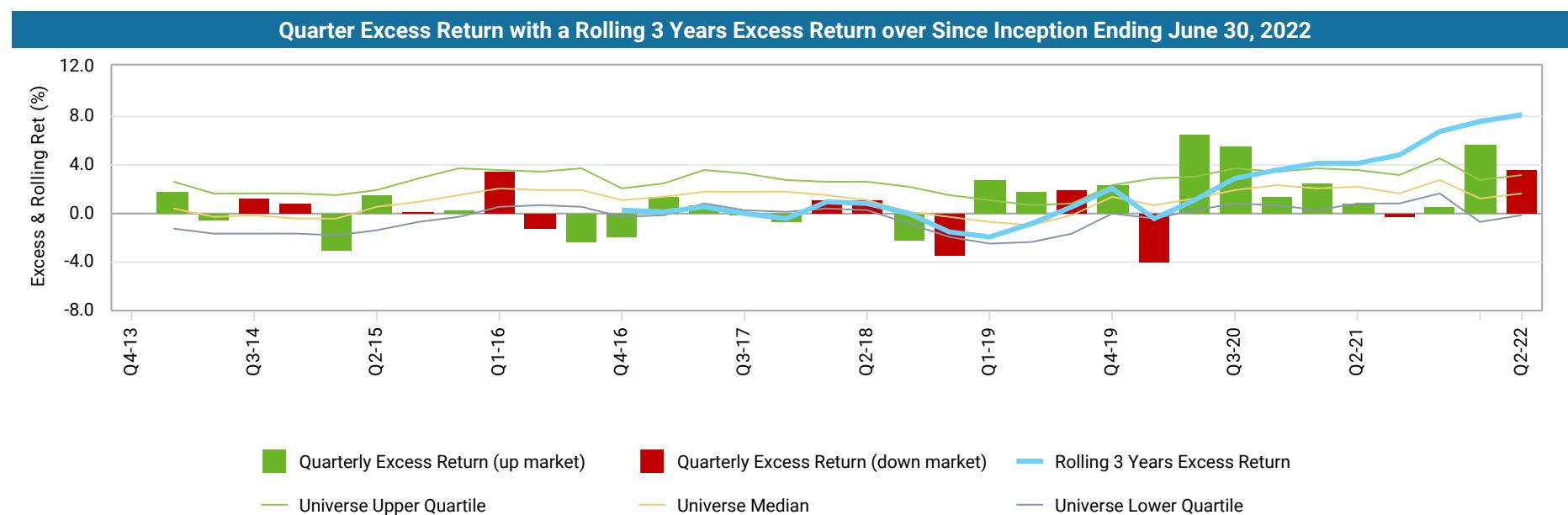
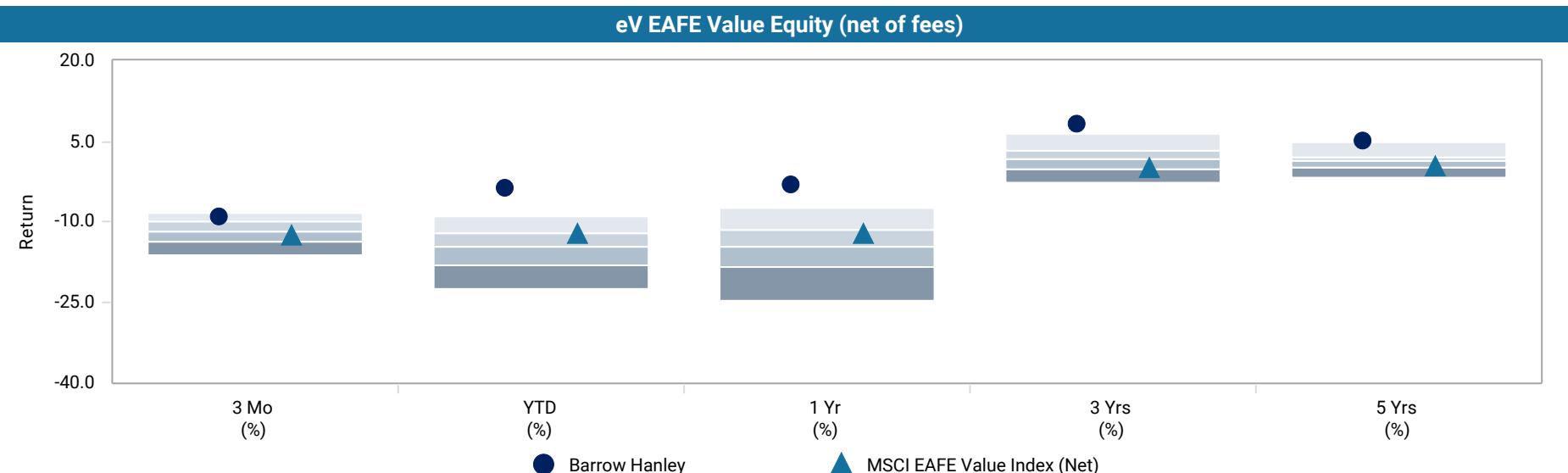
SEGALL, BRYANT & HAMILL





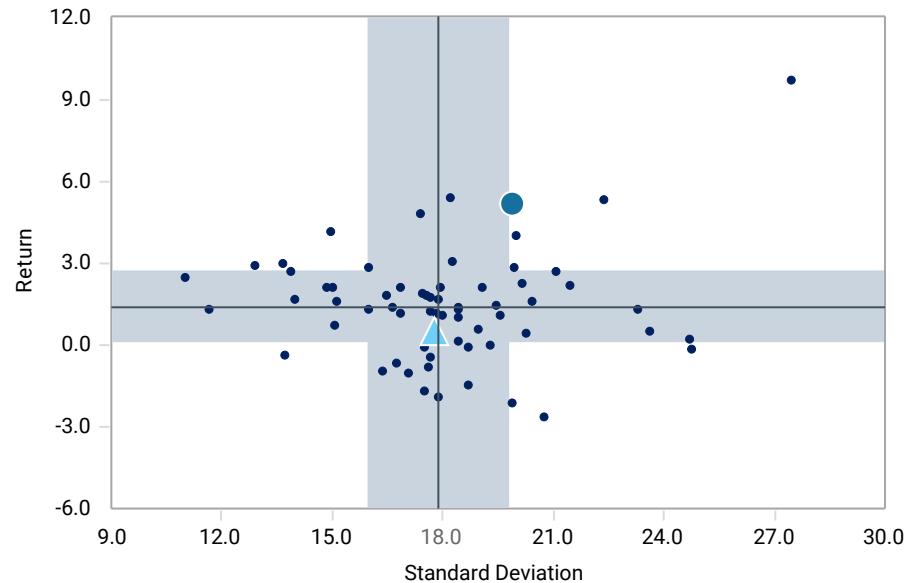
NON-U.S. EQUITY MANAGER PERFORMANCE

BARROW HANLEY

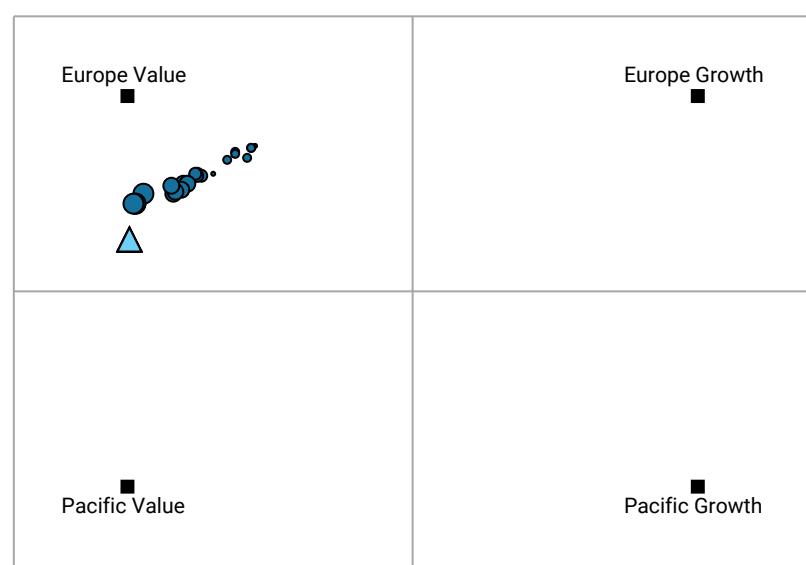


BARROW HANLEY

5 Years Return vs. Standard Deviation



Rolling 5 Years Style Map

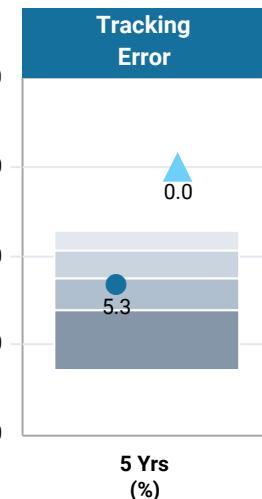
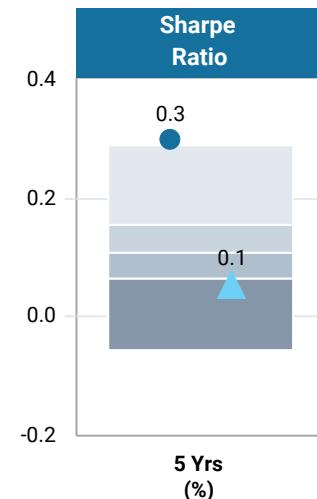
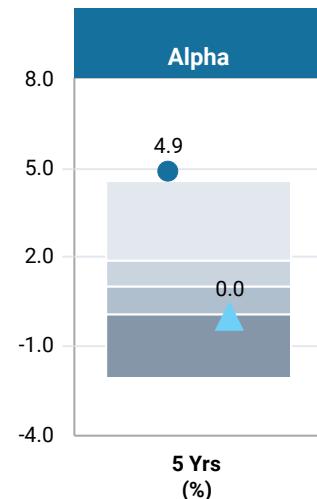
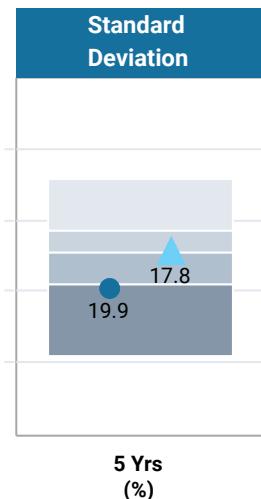
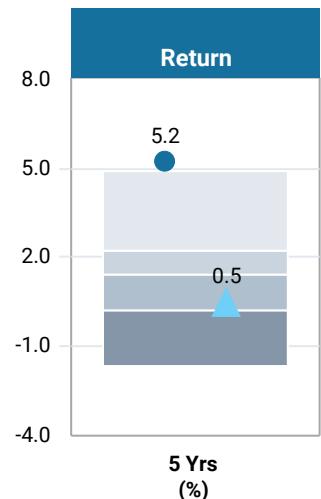


● Barrow Hanley

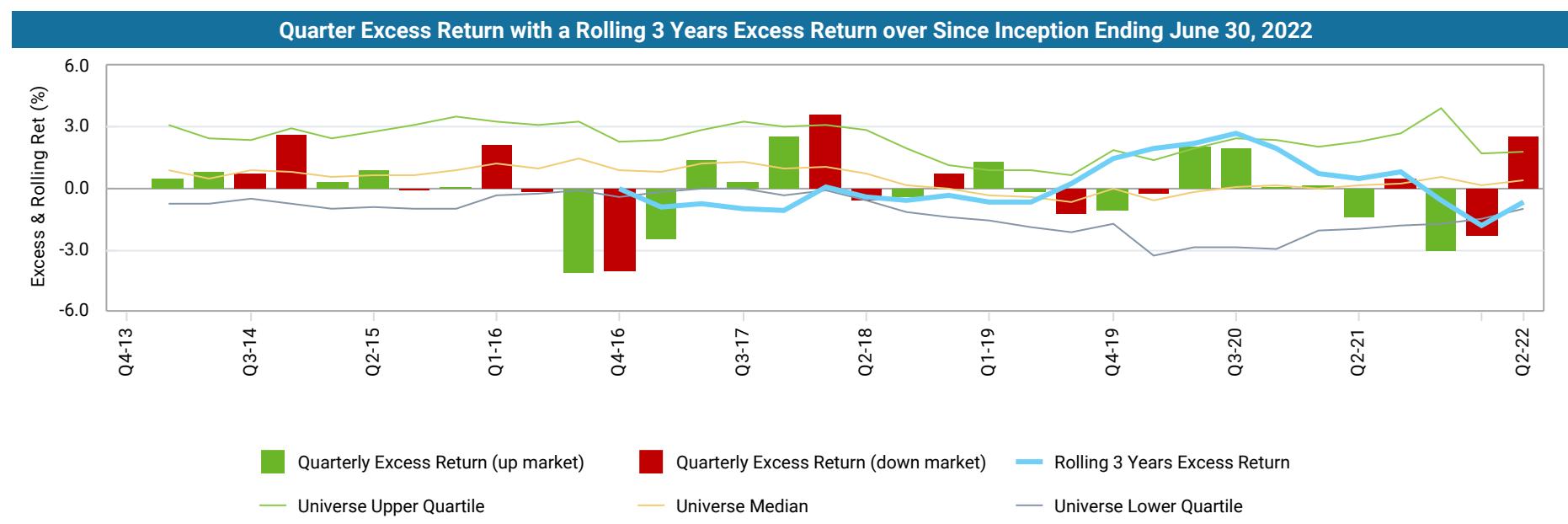
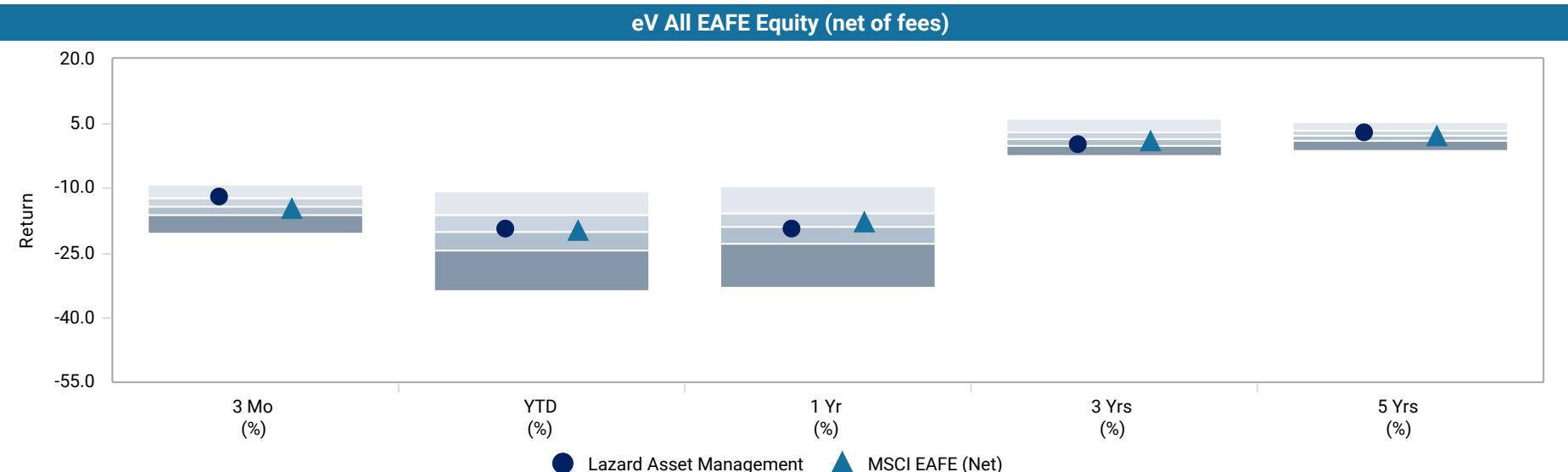
▲ MSCI EAFE Value Index (Net)

● Barrow Hanley

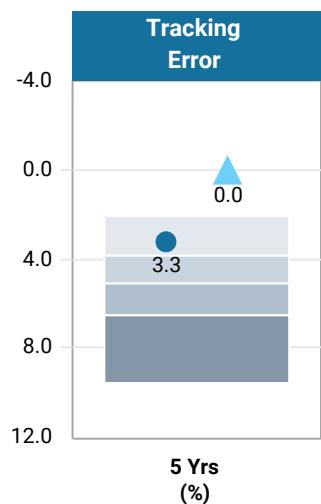
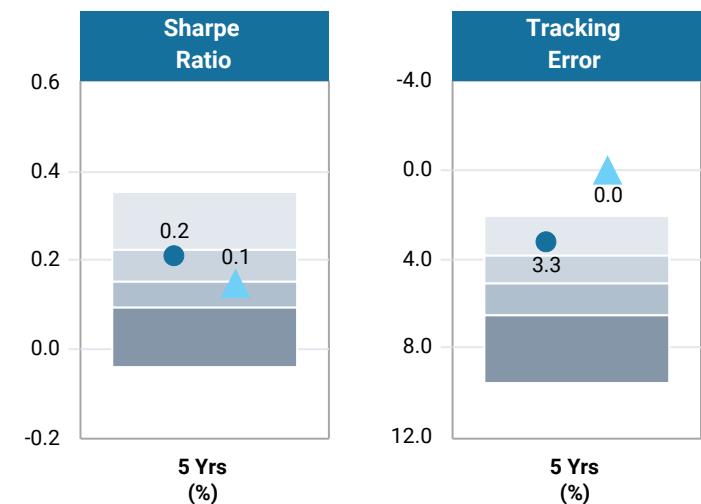
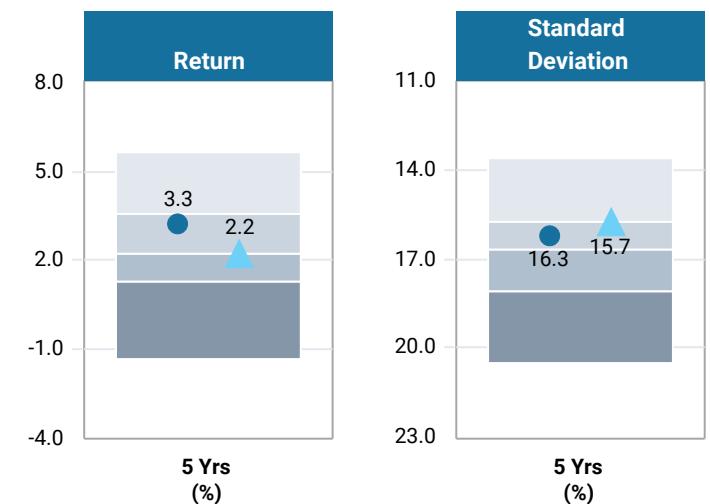
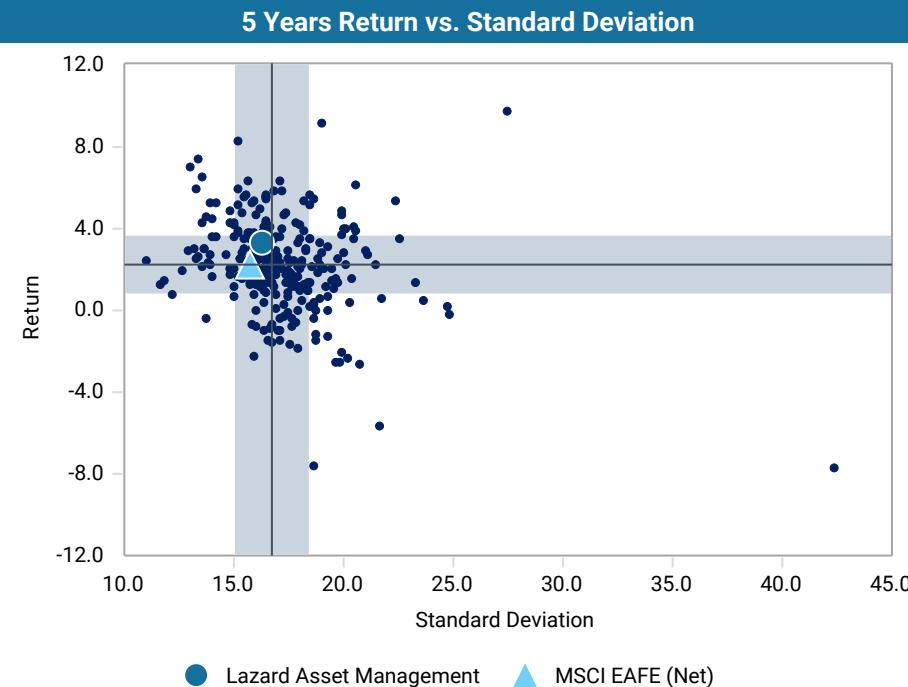
▲ MSCI EAFE Value Index (Net)



LAZARD ASSET MANAGEMENT

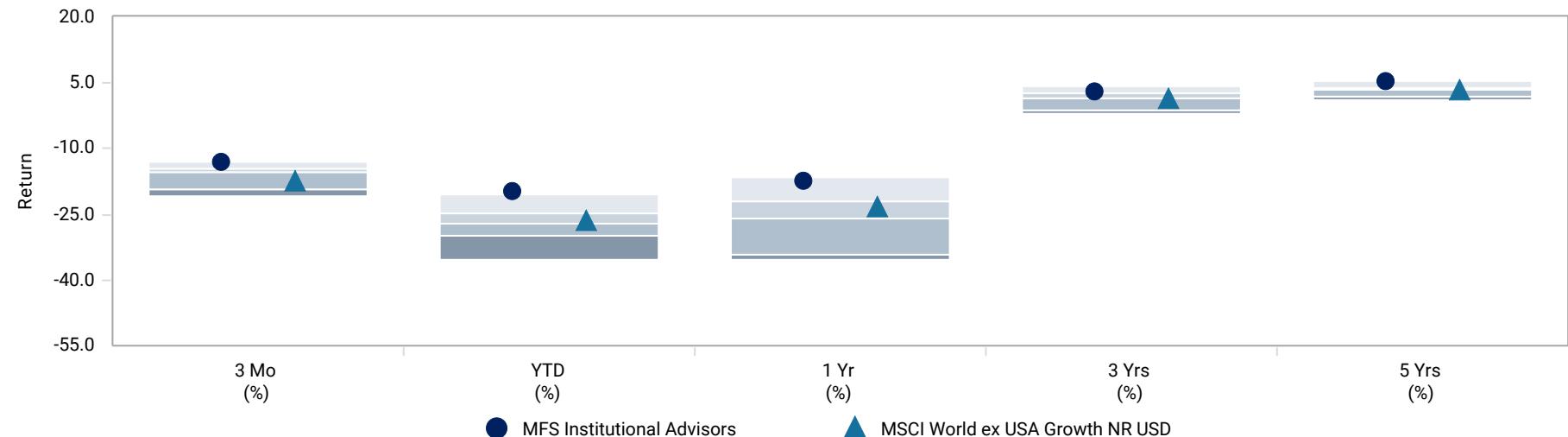


LAZARD ASSET MANAGEMENT

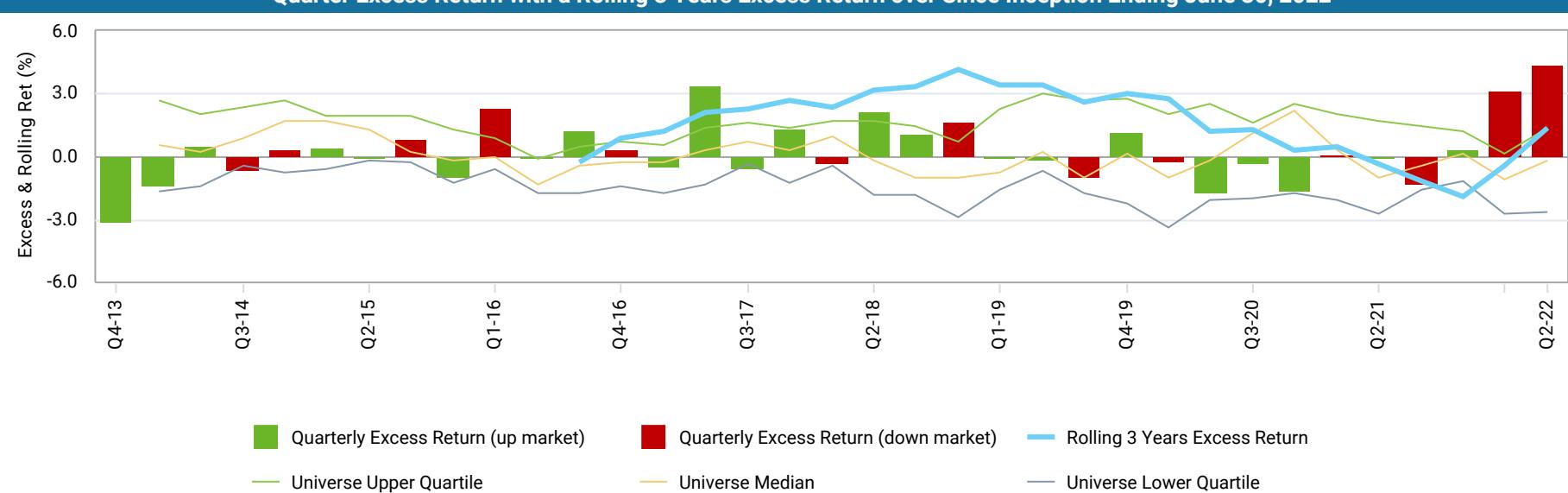


MFS INSTITUTIONAL ADVISORS

eV EAFE All Cap Growth (net of fees)

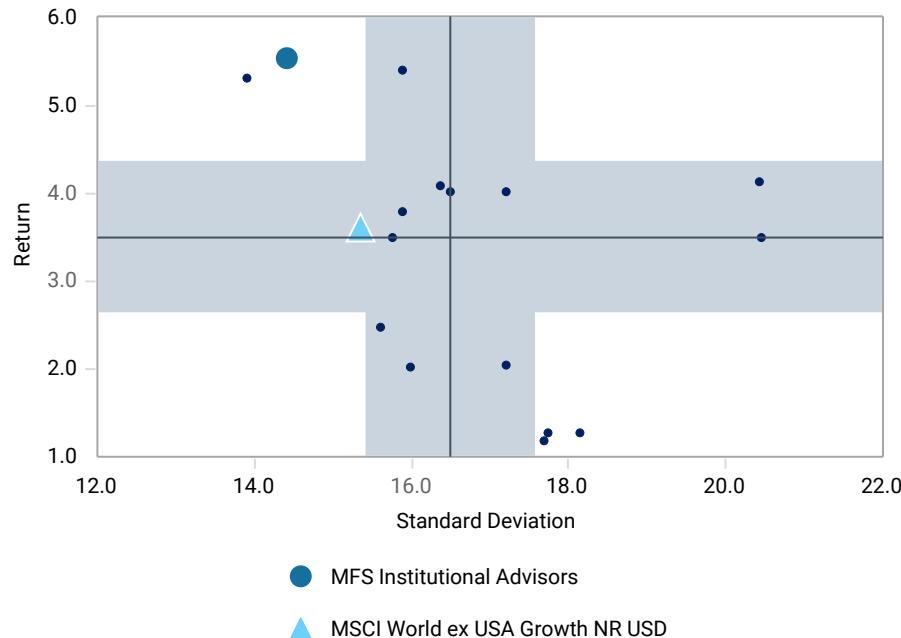


Quarter Excess Return with a Rolling 3 Years Excess Return over Since Inception Ending June 30, 2022

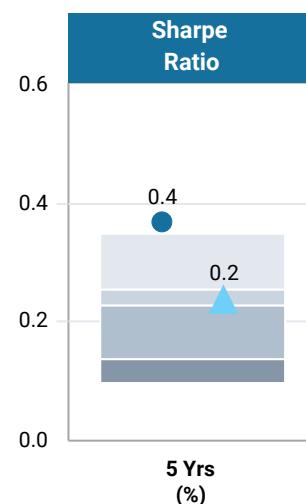
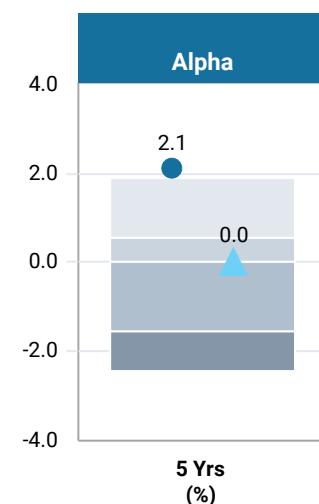
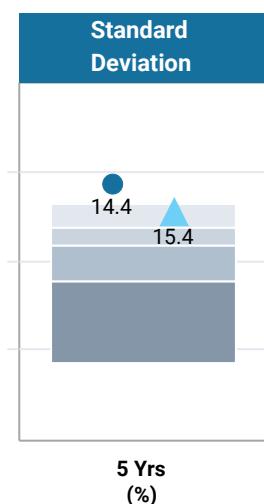
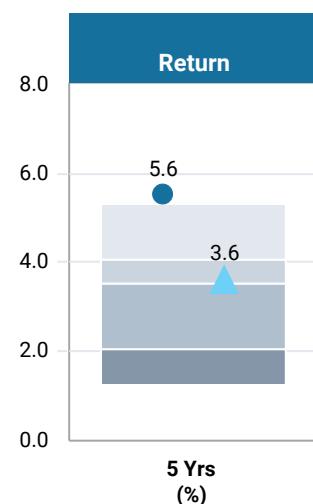
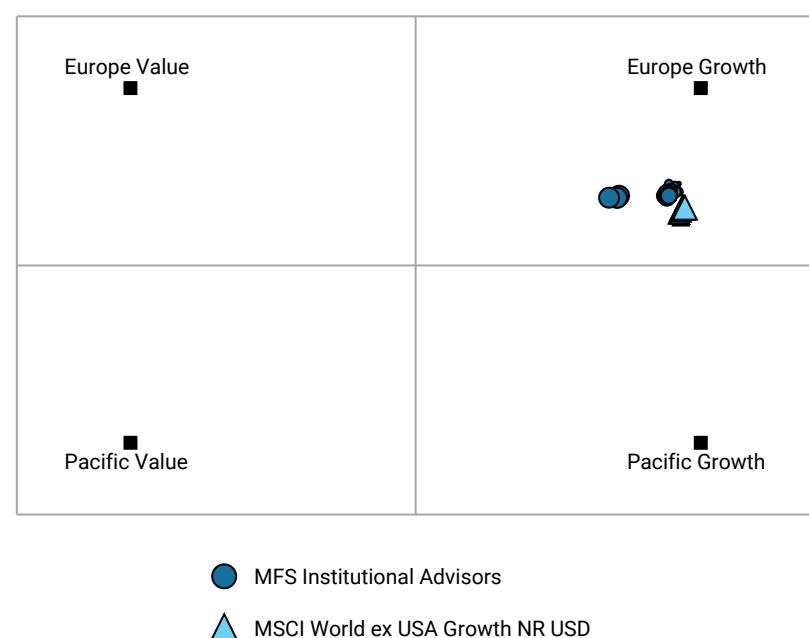


MFS INSTITUTIONAL ADVISORS

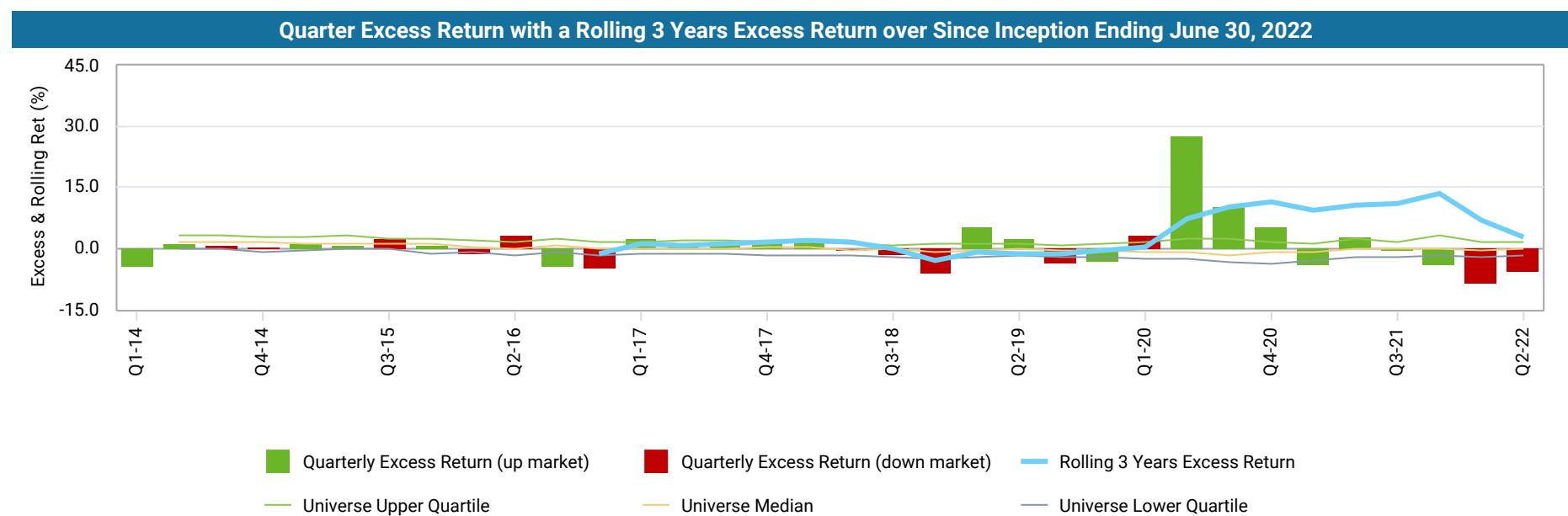
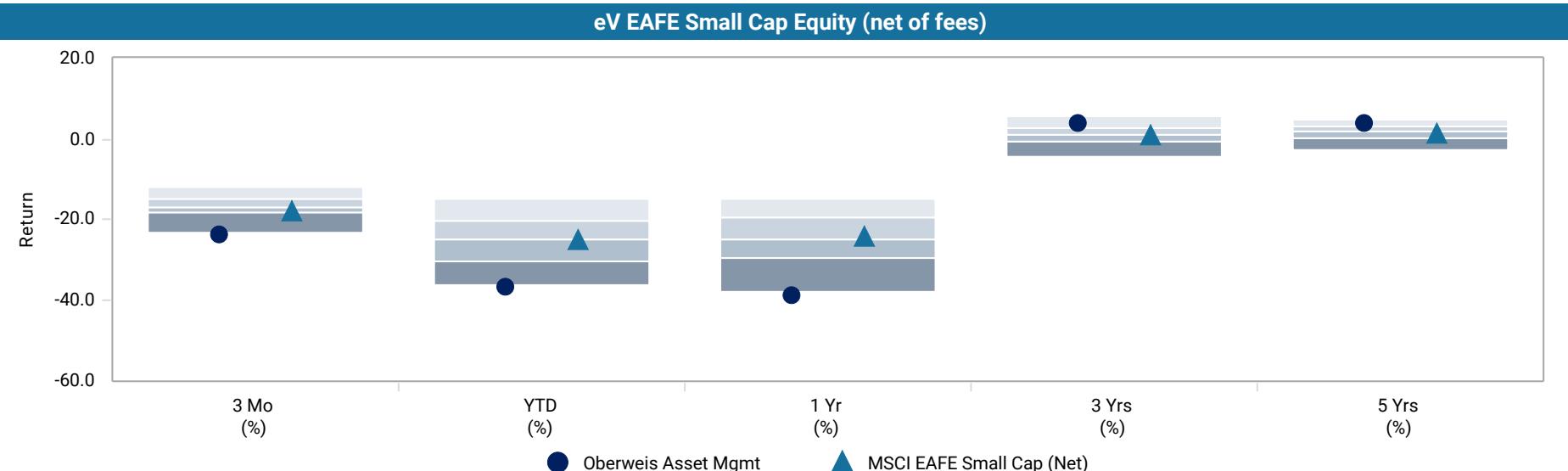
5 Years Return vs. Standard Deviation



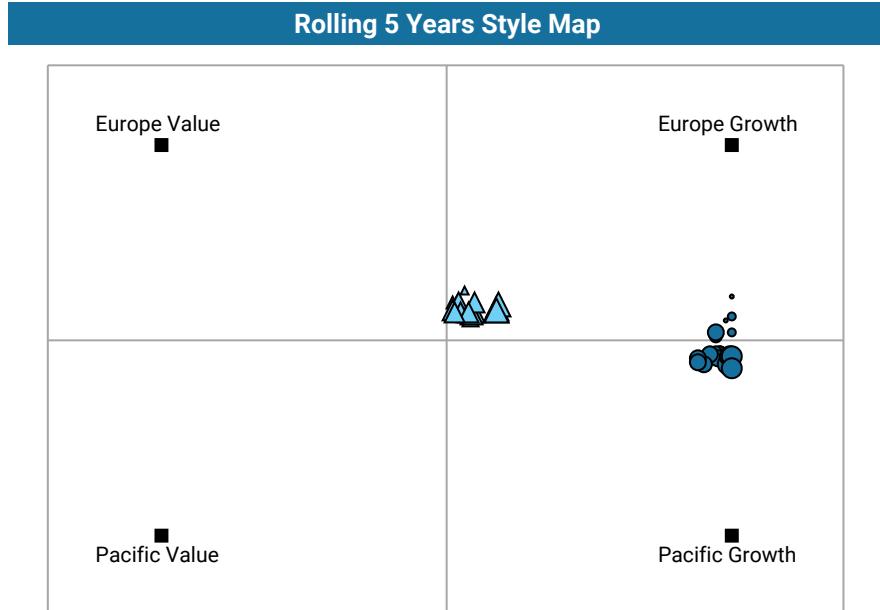
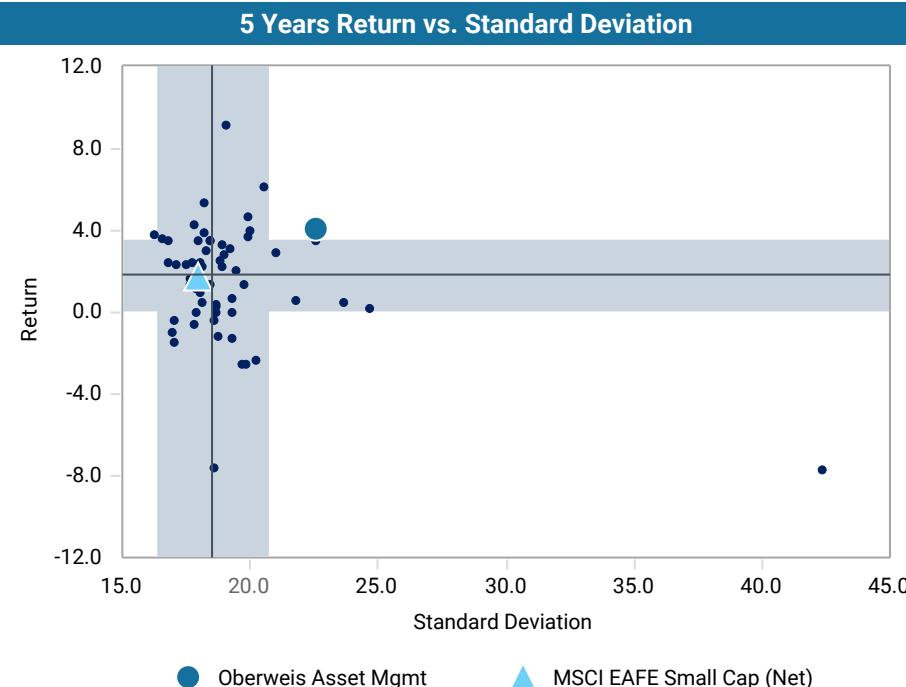
Rolling 5 Years Style Map



OBERWEIS ASSET MGMT



OBERWEIS ASSET MGMT

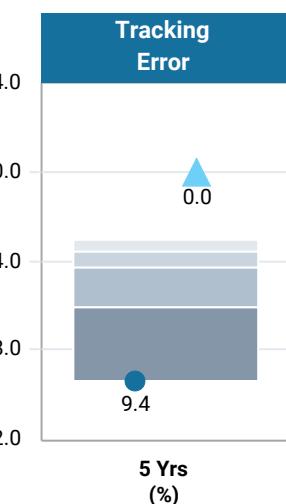
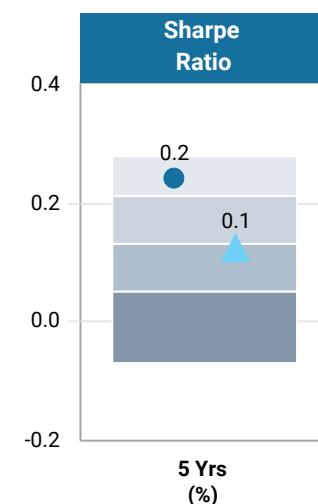
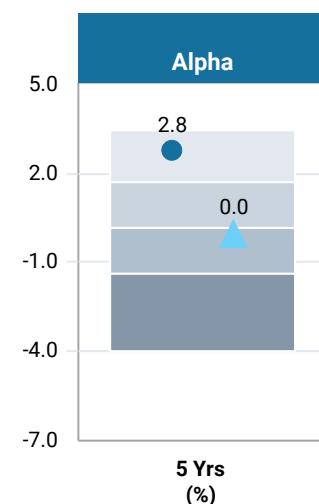
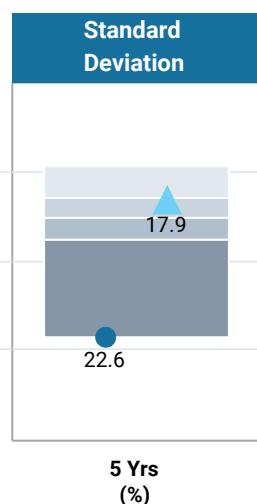
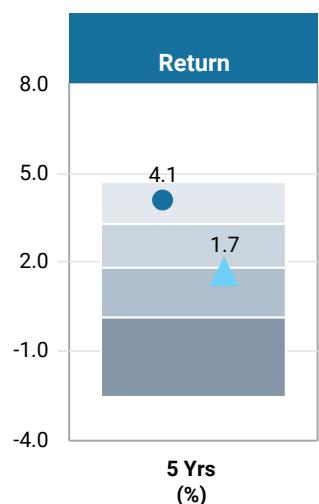


● Oberweis Asset Mgmt

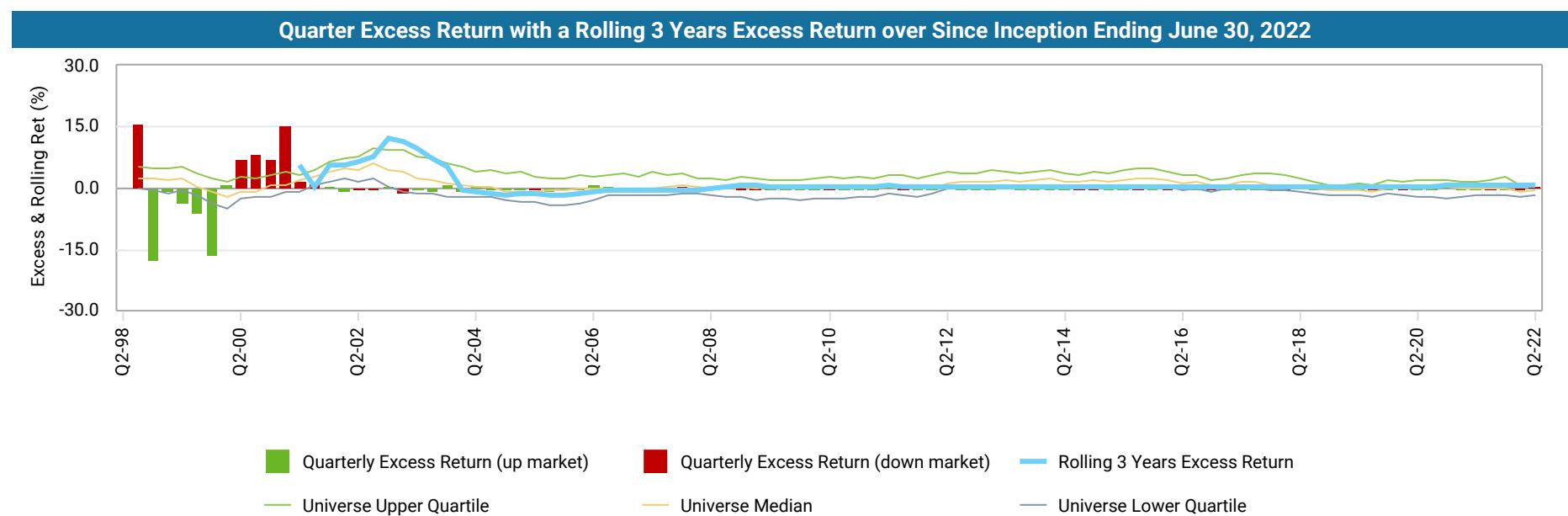
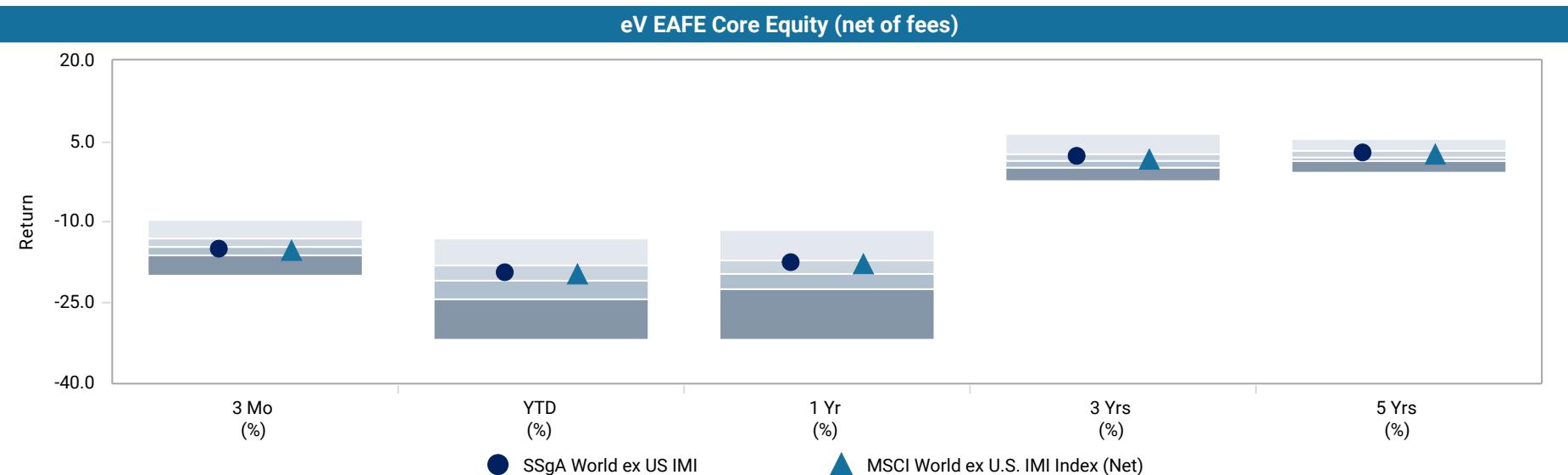
▲ MSCI EAFE Small Cap (Net)

● Oberweis Asset Mgmt

▲ MSCI EAFE Small Cap (Net)

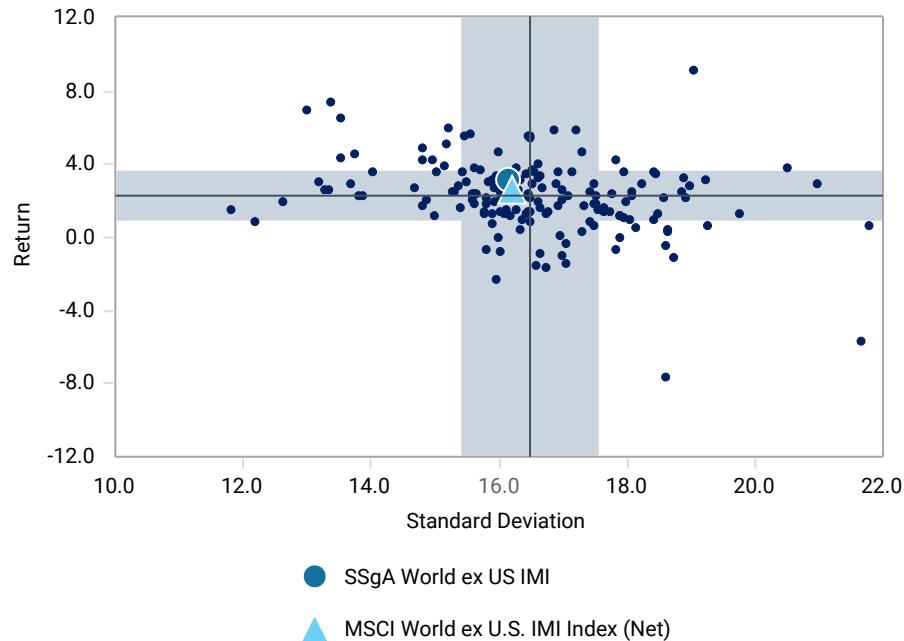


SSGA WORLD EX US IMI

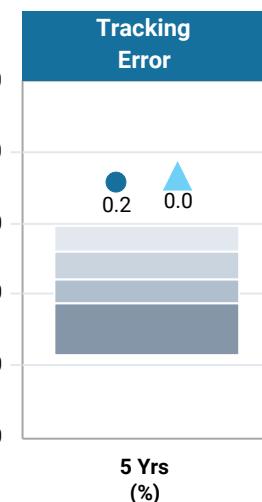
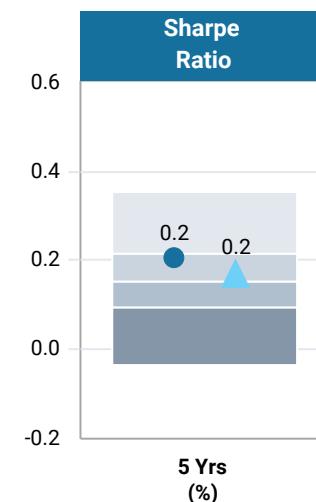
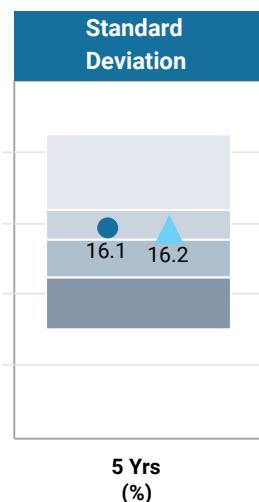
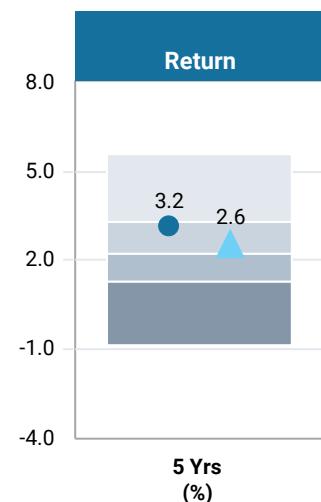
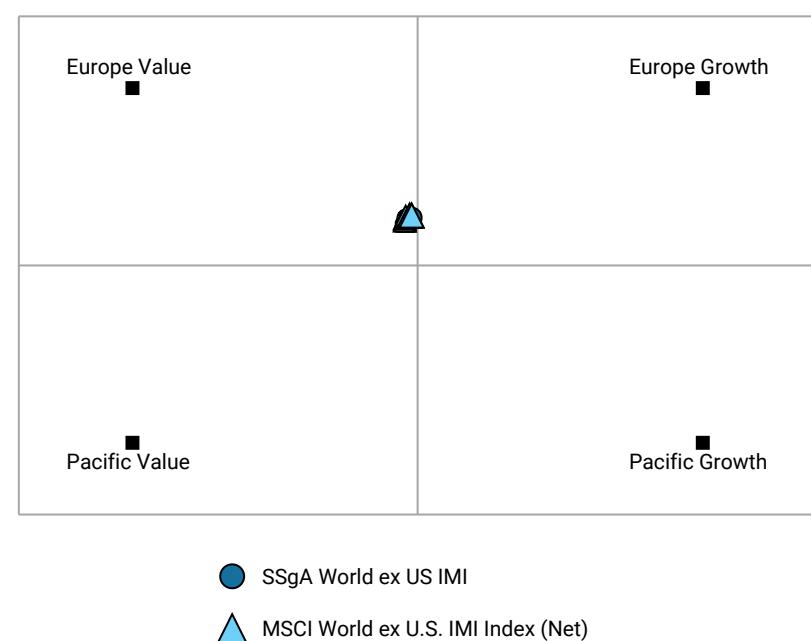


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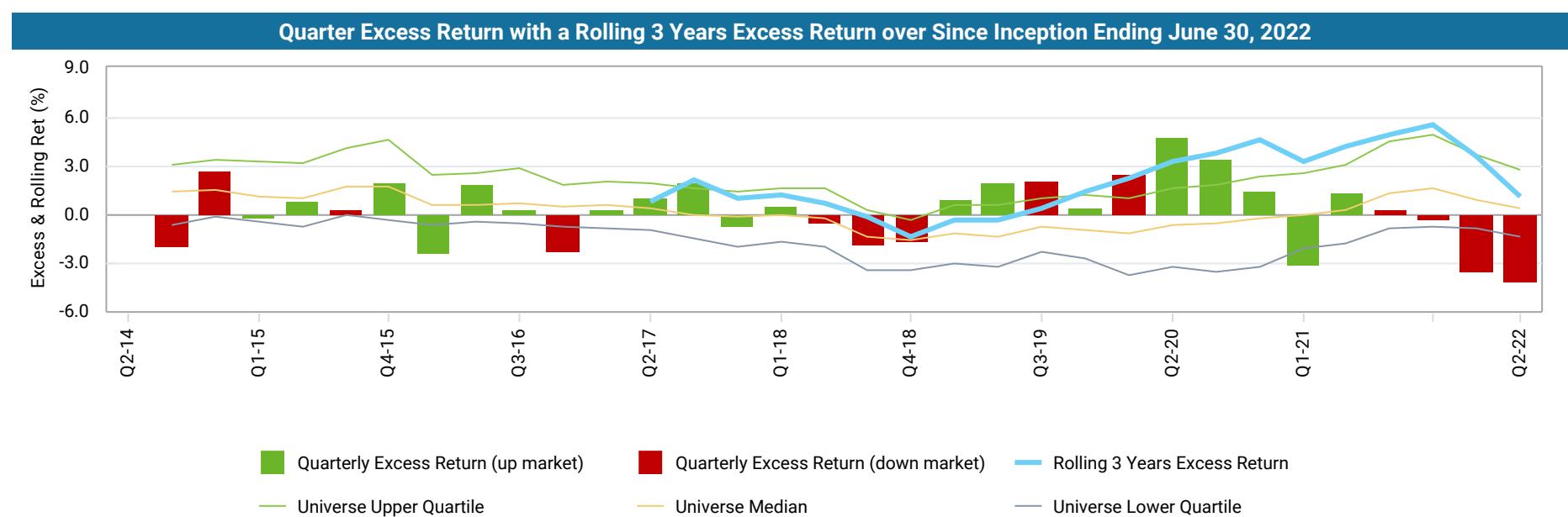
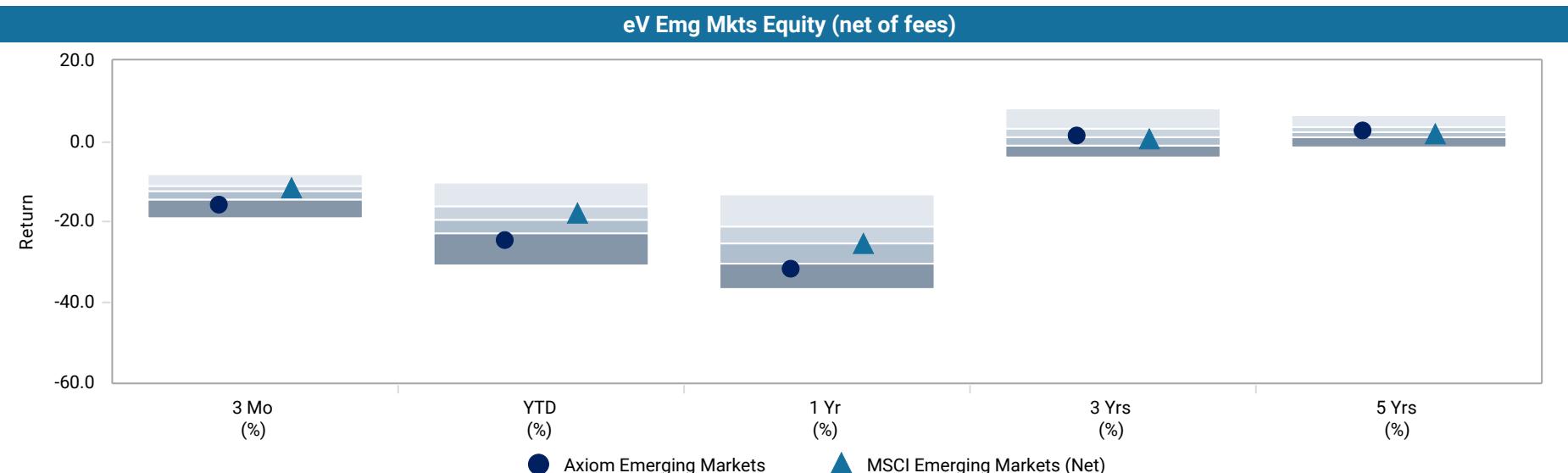
5 Years Return vs. Standard Deviation



Rolling 5 Years Style Map

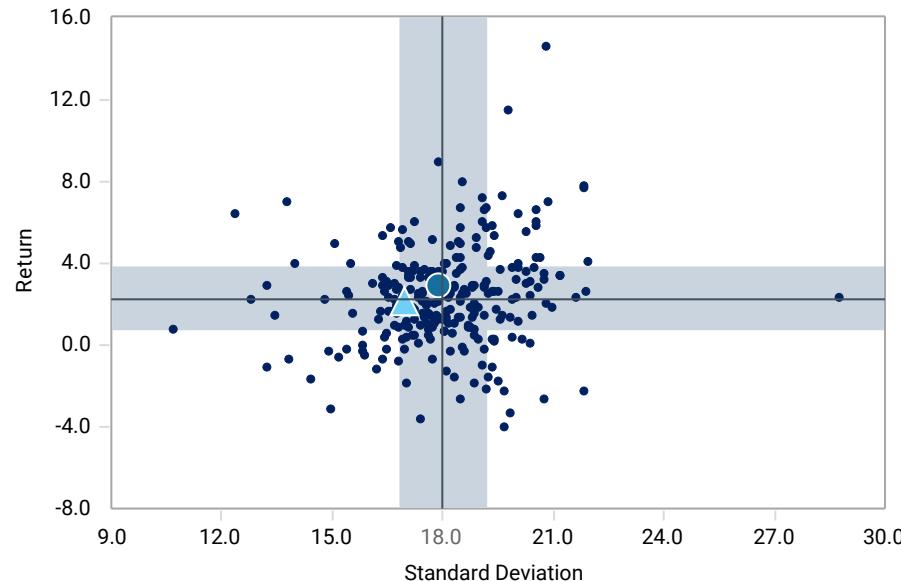


AXIOM EMERGING MARKETS



AXIOM EMERGING MARKETS

5 Years Return vs. Standard Deviation



● Axiom Emerging Markets

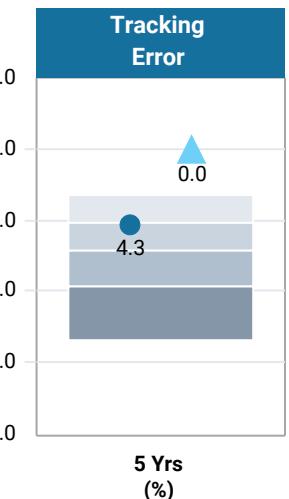
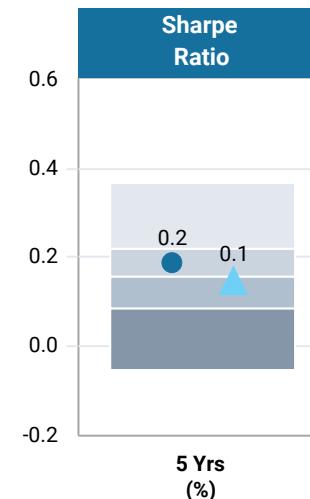
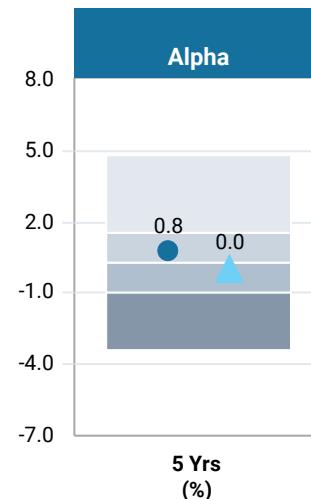
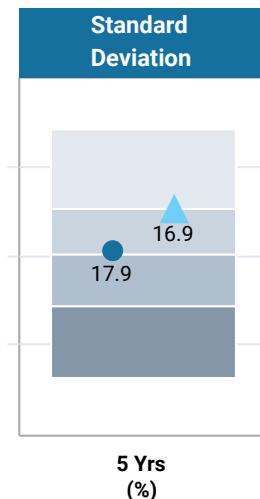
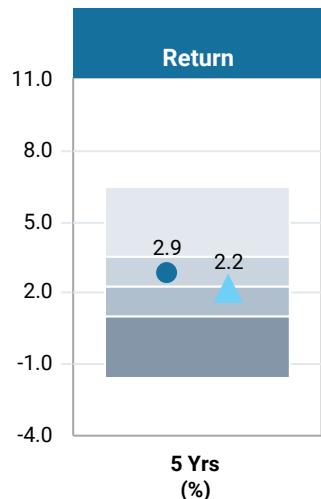
▲ MSCI Emerging Markets (Net)

Rolling 5 Years Style Map



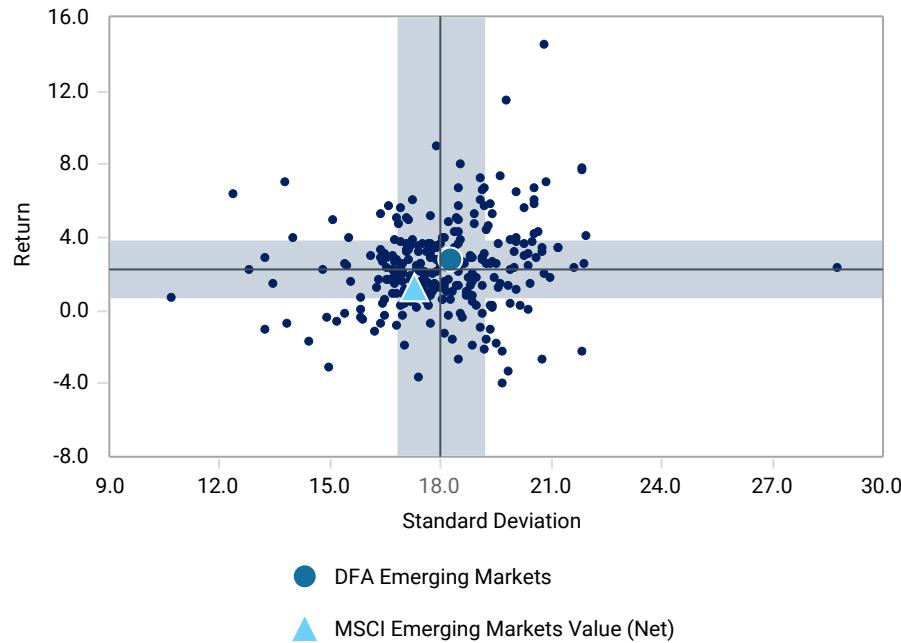
● Axiom Emerging Markets

▲ MSCI Emerging Markets (Net)

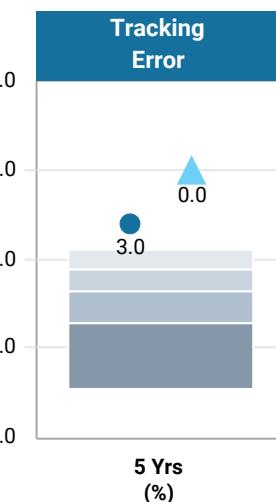
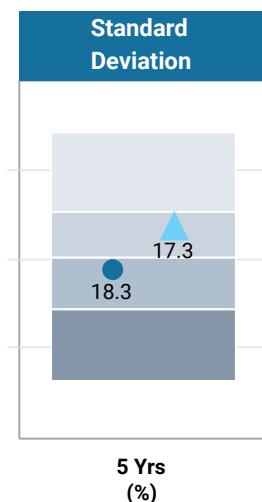
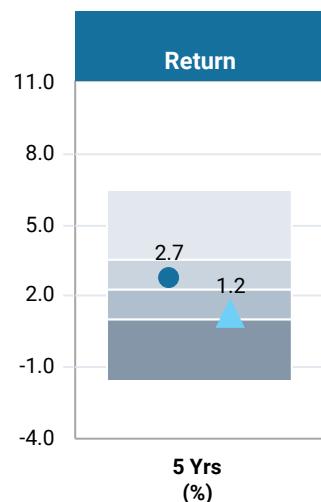
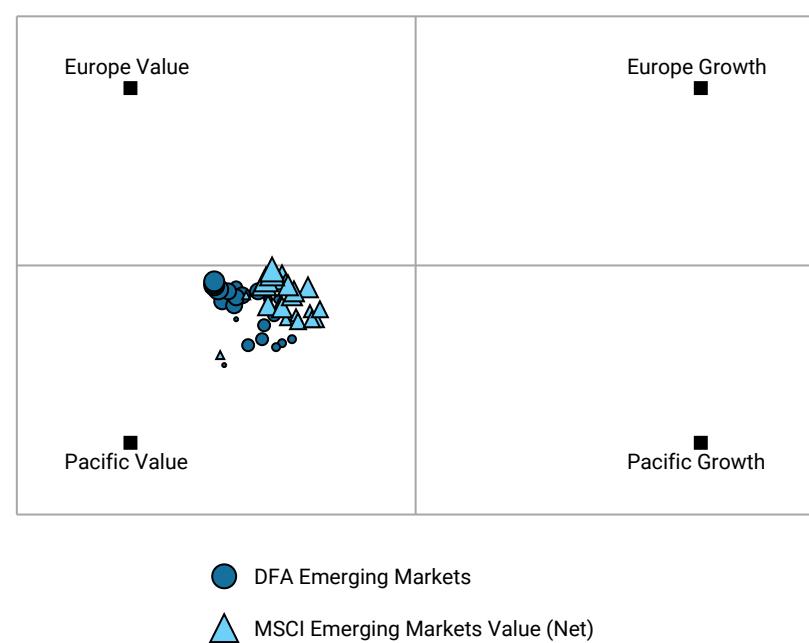


DFA EMERGING MARKETS

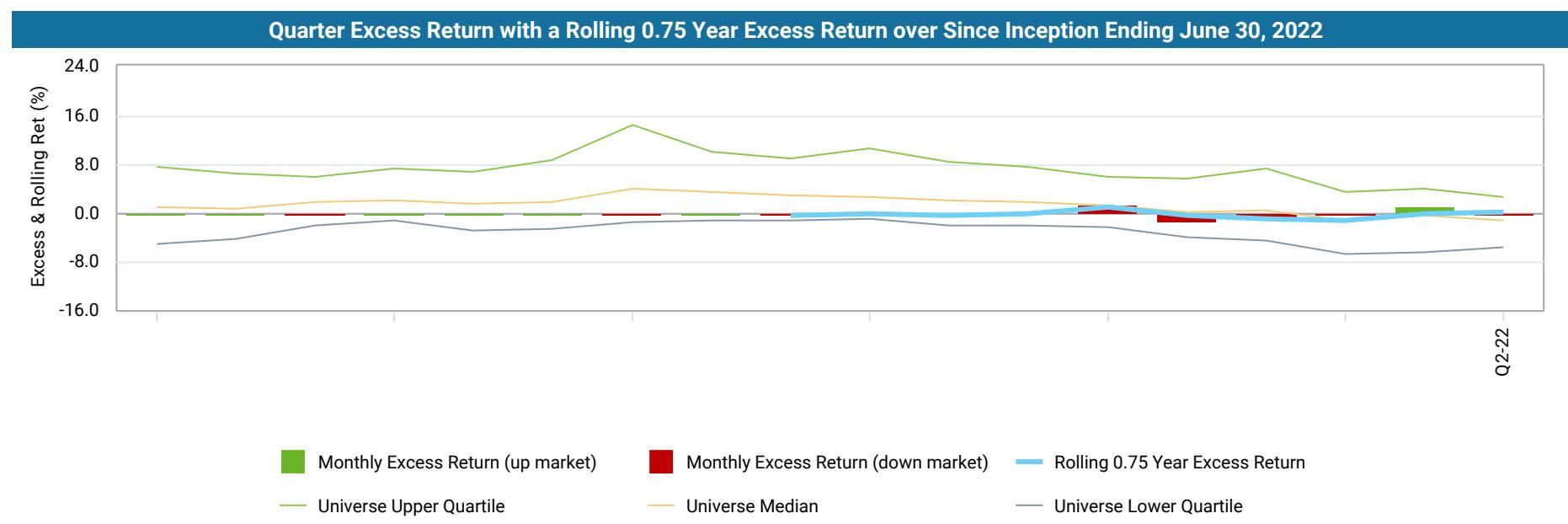
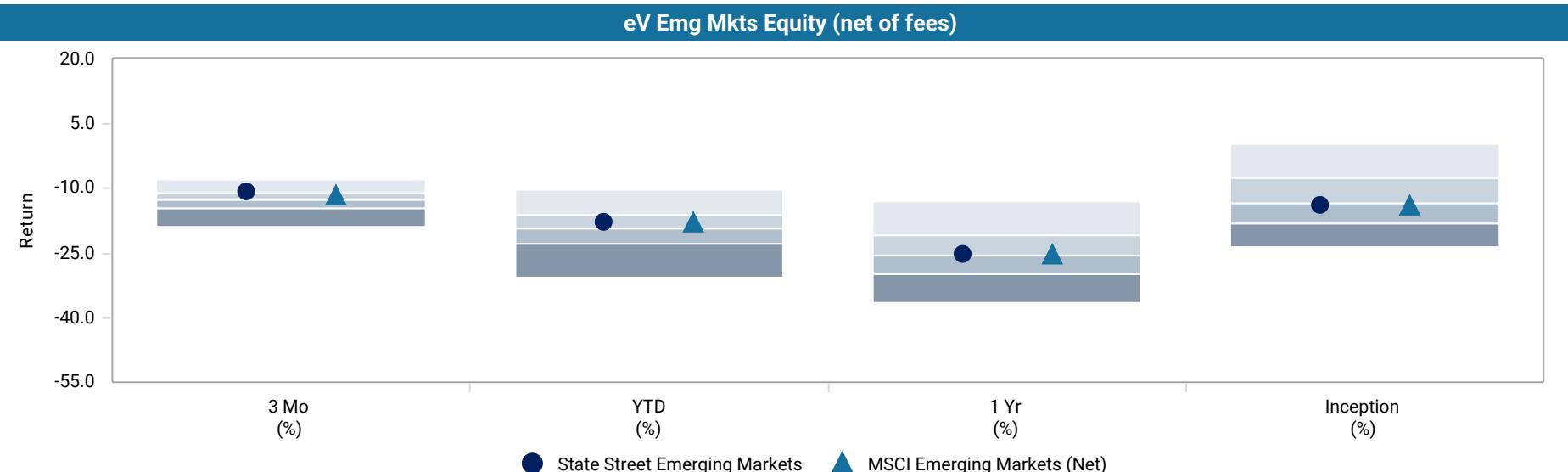
5 Years Return vs. Standard Deviation



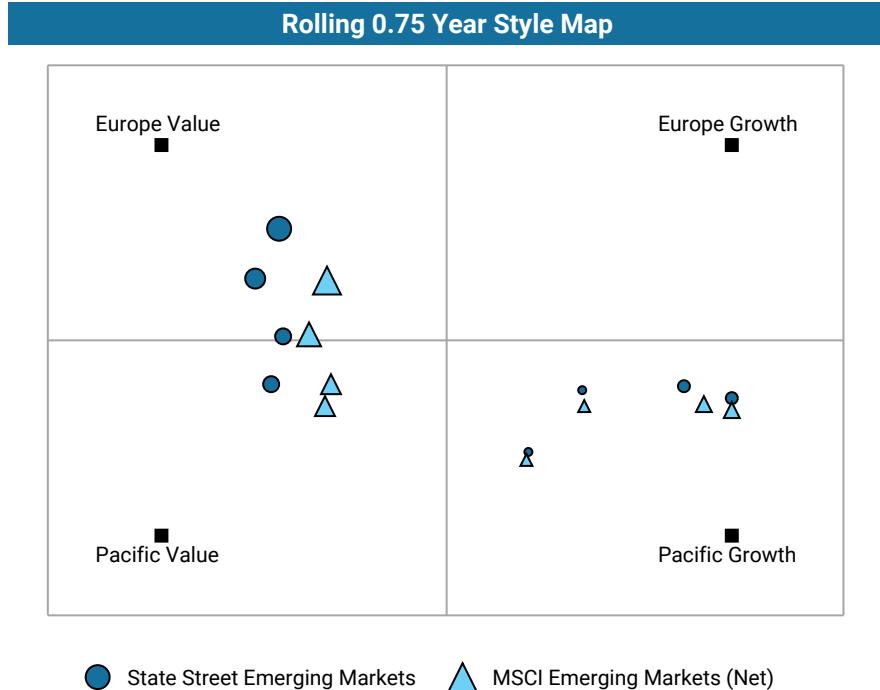
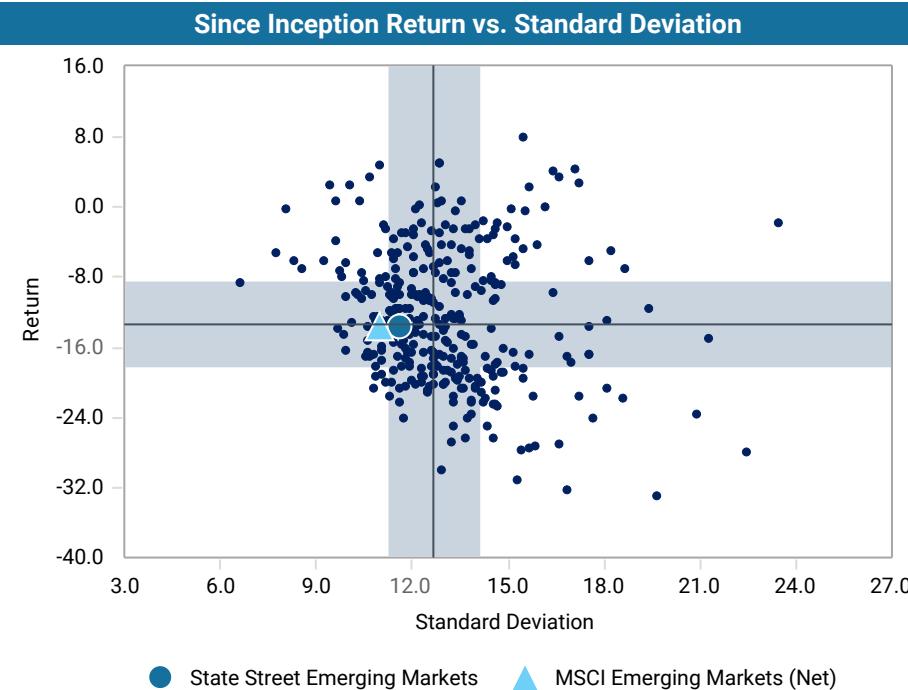
Rolling 5 Years Style Map



SSGA EMERGING MARKETS

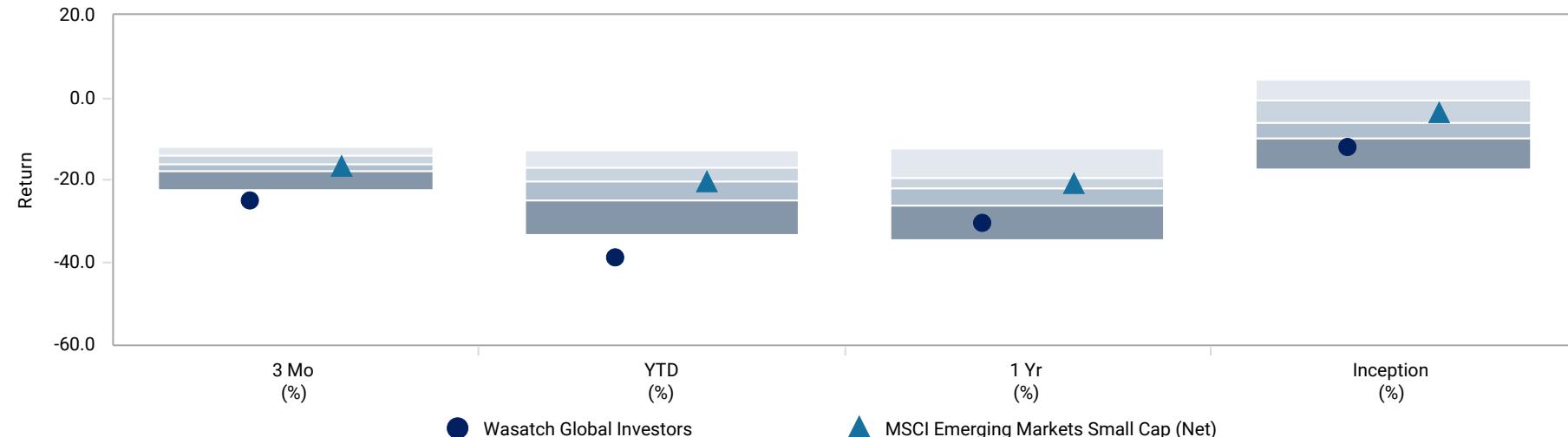


SSGA EMERGING MARKETS



WASATCH GLOBAL INVESTORS

eV Emg Mkts Small Cap Equity (net of fees)

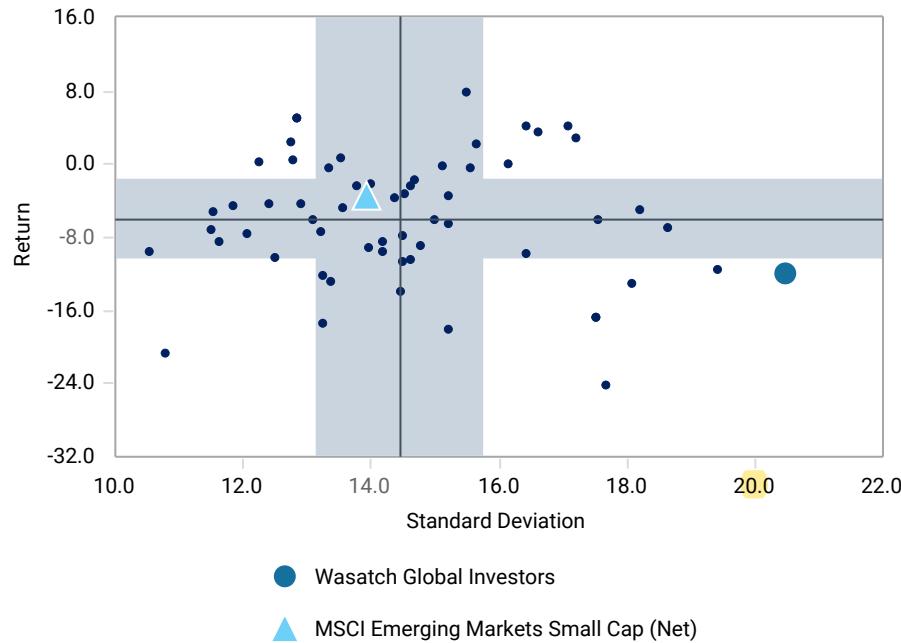


Quarter Excess Return with a Rolling 0.75 Year Excess Return over Since Inception Ending June 30, 2022

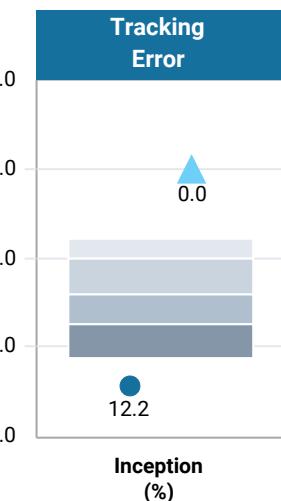
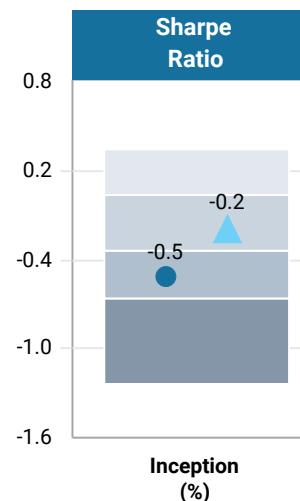
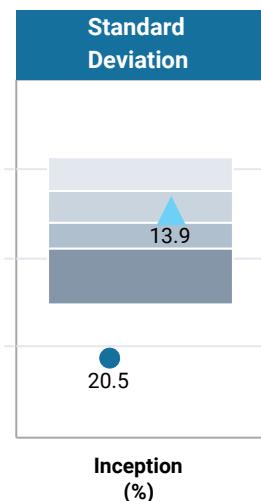
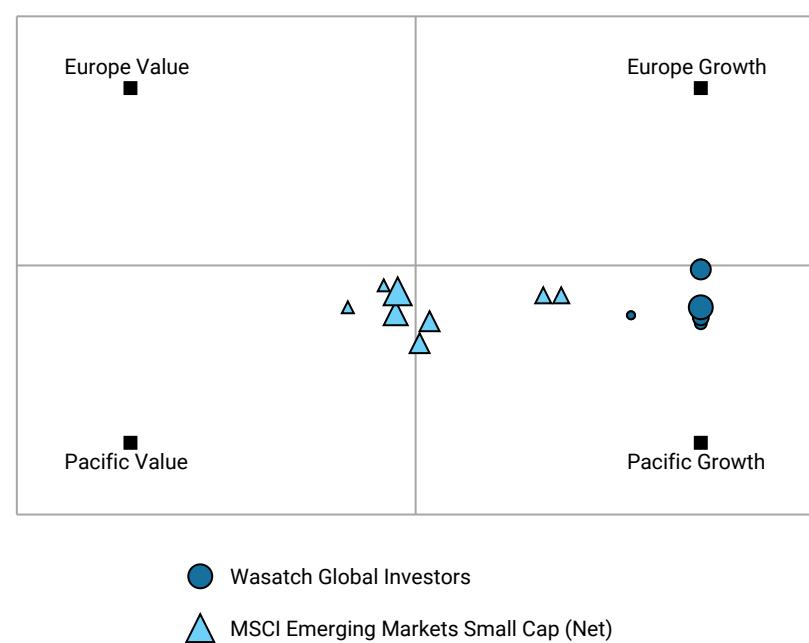


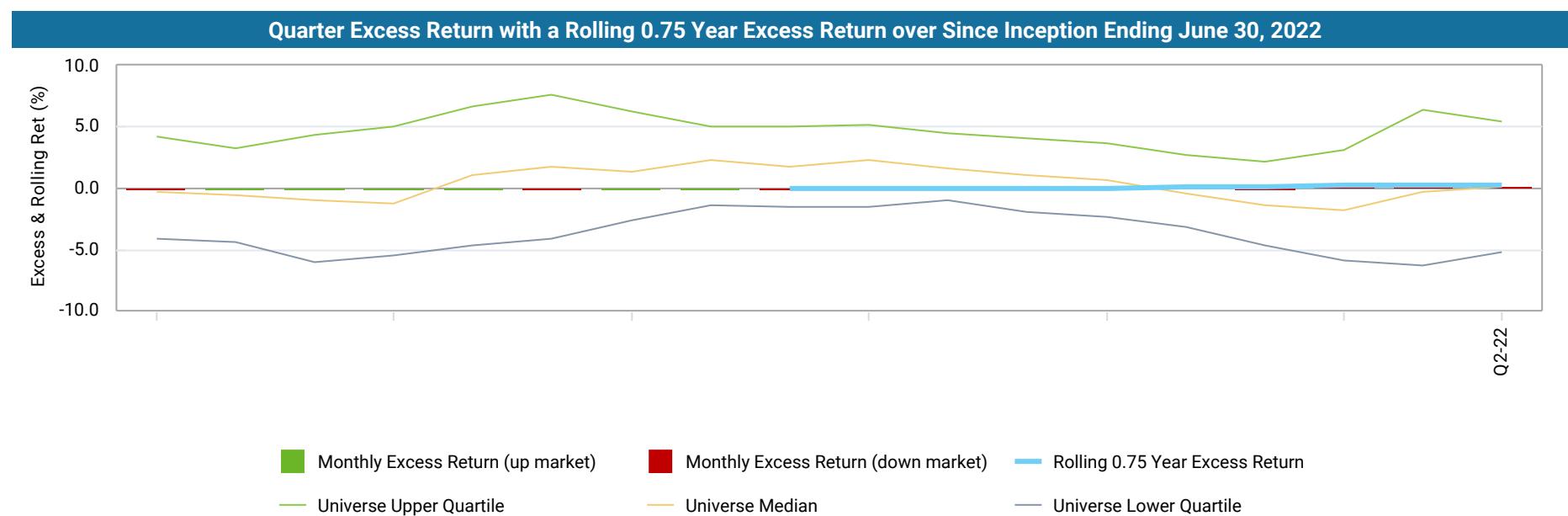
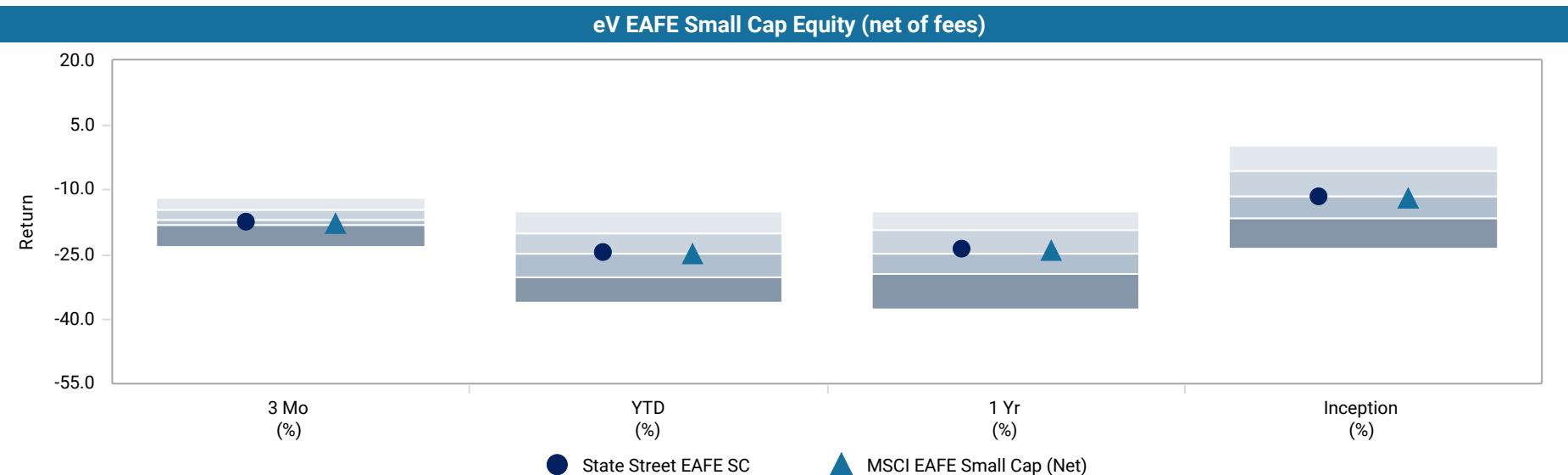
WASATCH GLOBAL INVESTORS

Since Inception Return vs. Standard Deviation



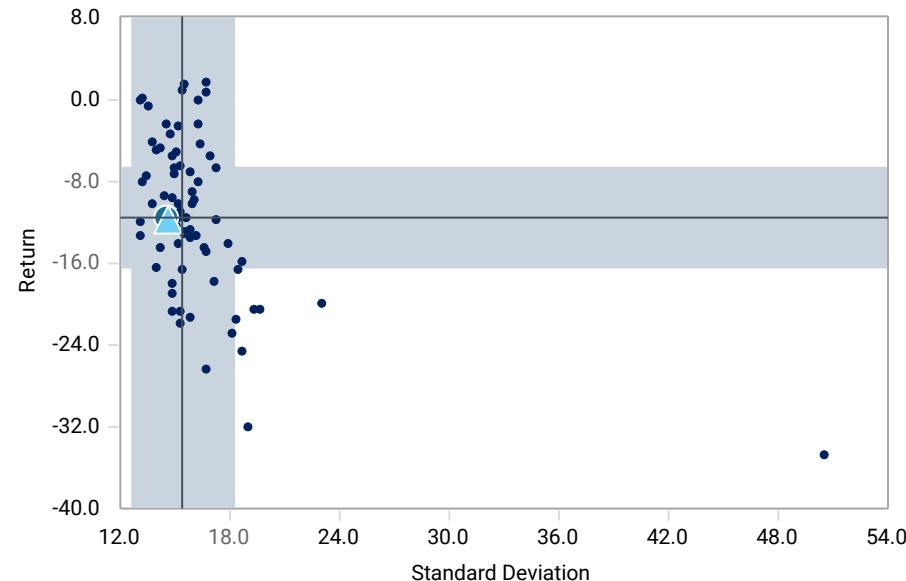
Rolling 0.75 Year Style Map



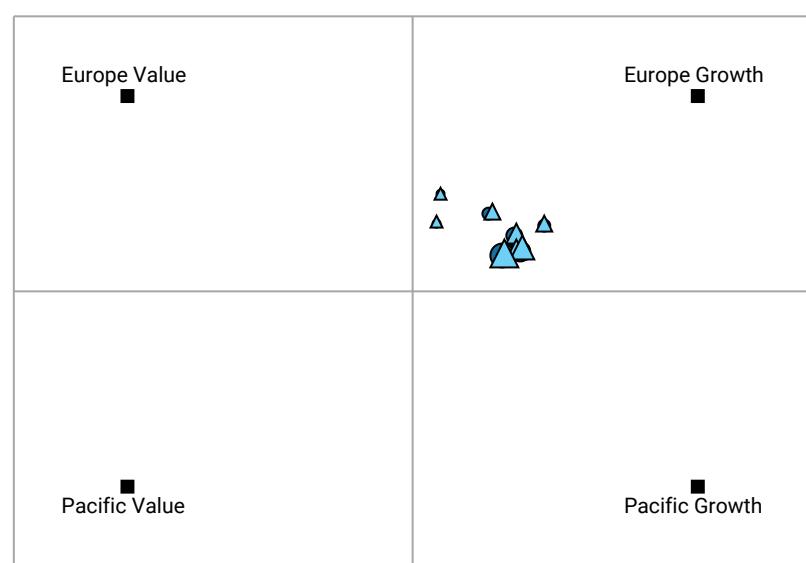
SSGA EAFE SC

SSGA EAFE SC

Since Inception Return vs. Standard Deviation



Rolling 0.75 Year Style Map

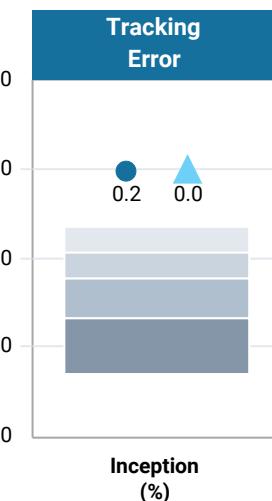
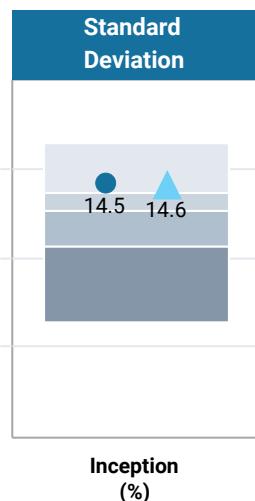
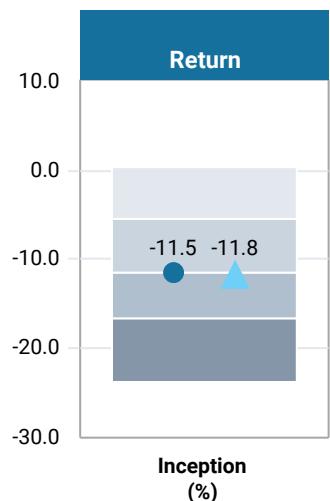


● State Street EAFE SC

▲ MSCI EAFE Small Cap (Net)

● State Street EAFE SC

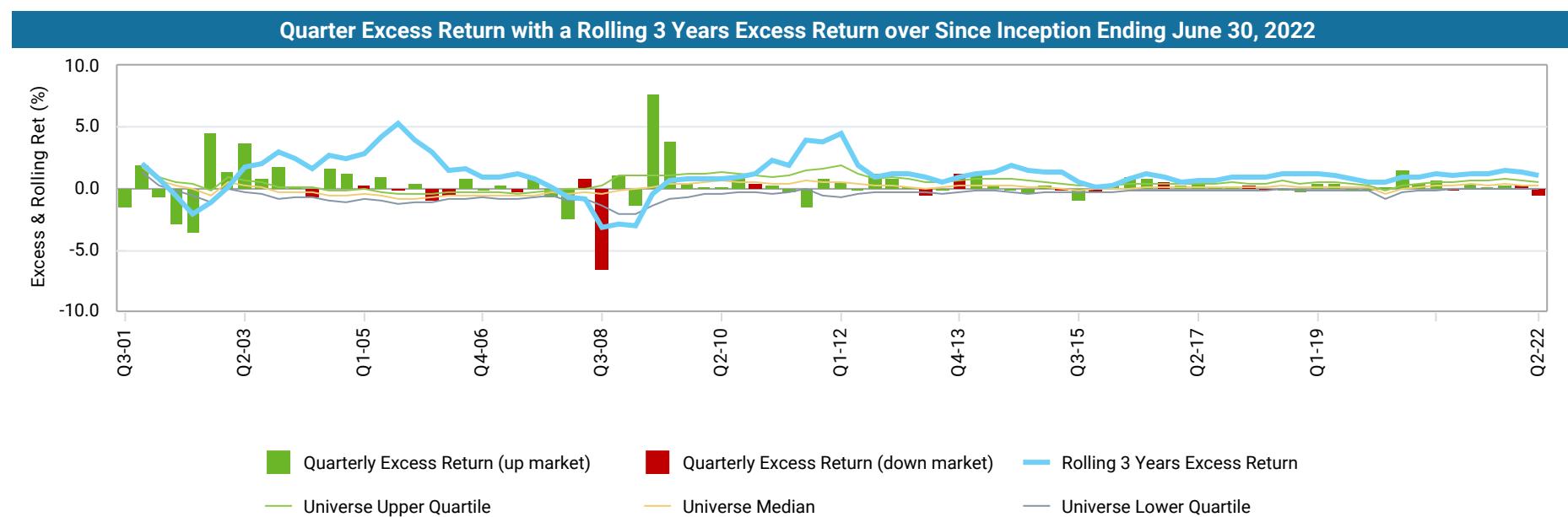
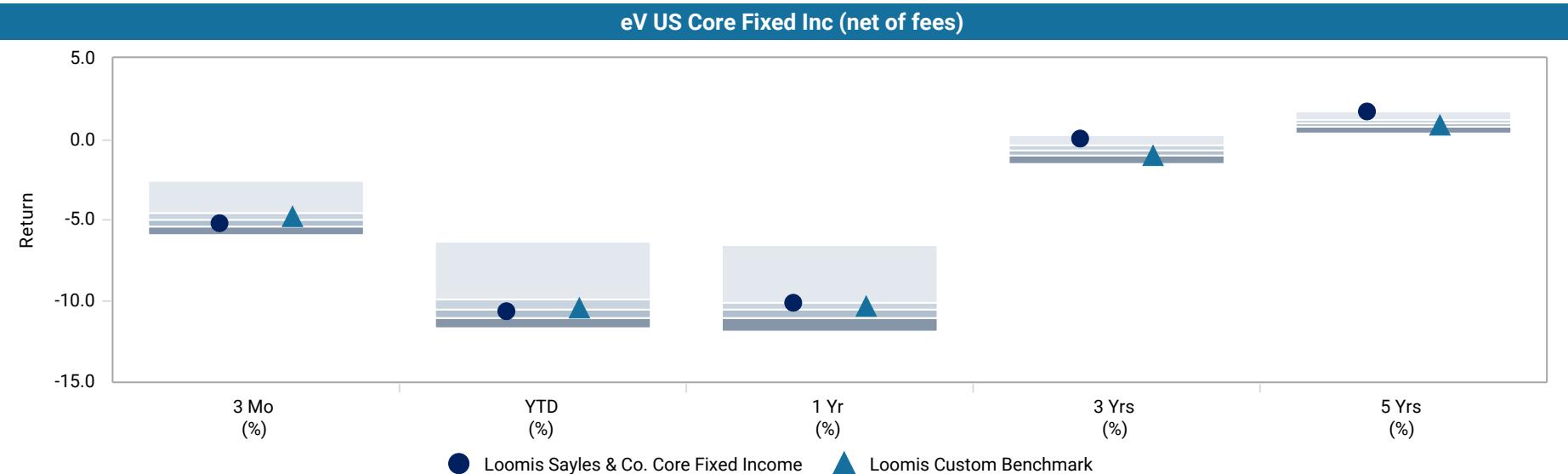
▲ MSCI EAFE Small Cap (Net)





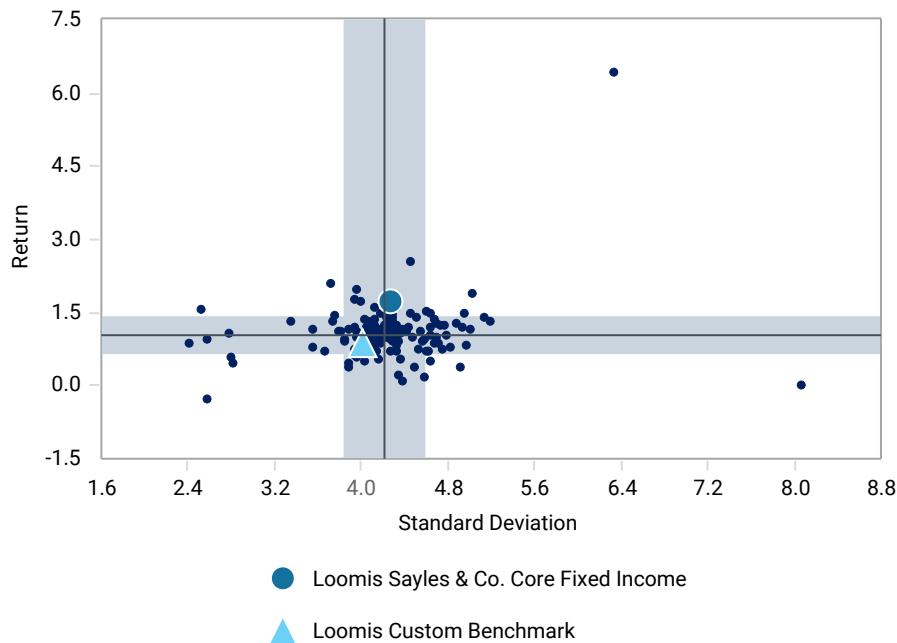
CORE FIXED INCOME MANAGER PERFORMANCE

LOOMIS SAYLES & CO. CORE FIXED INCOME



LOOMIS SAYLES & CO. CORE FIXED INCOME

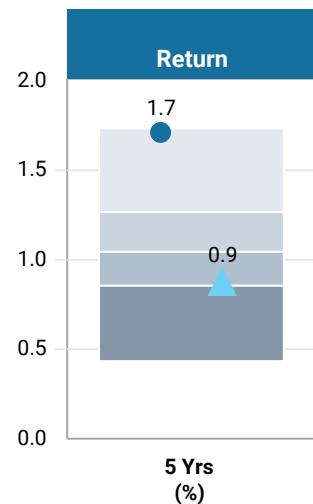
5 Years Return vs. Standard Deviation



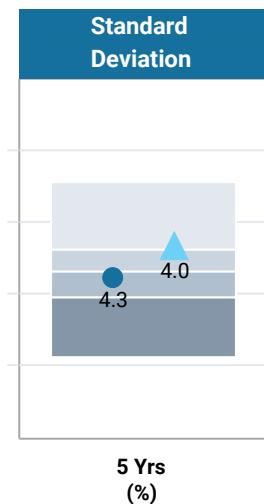
Style Map: (5 Years)



Return



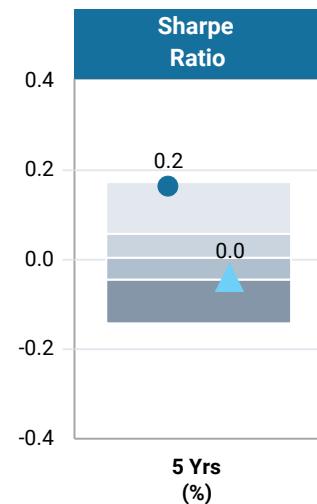
Standard Deviation



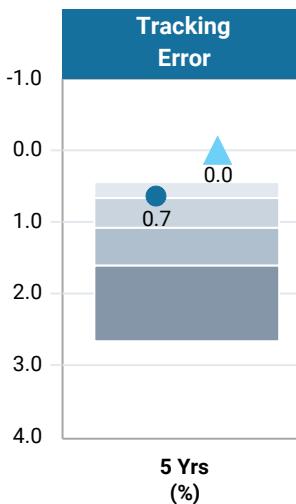
Alpha



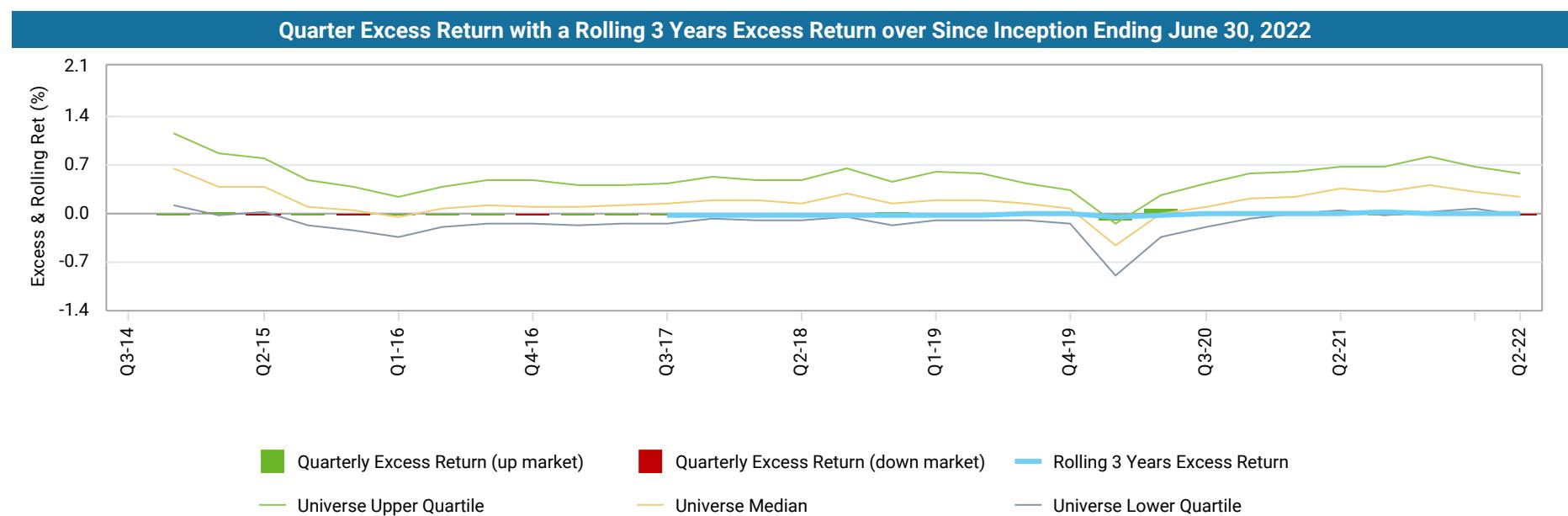
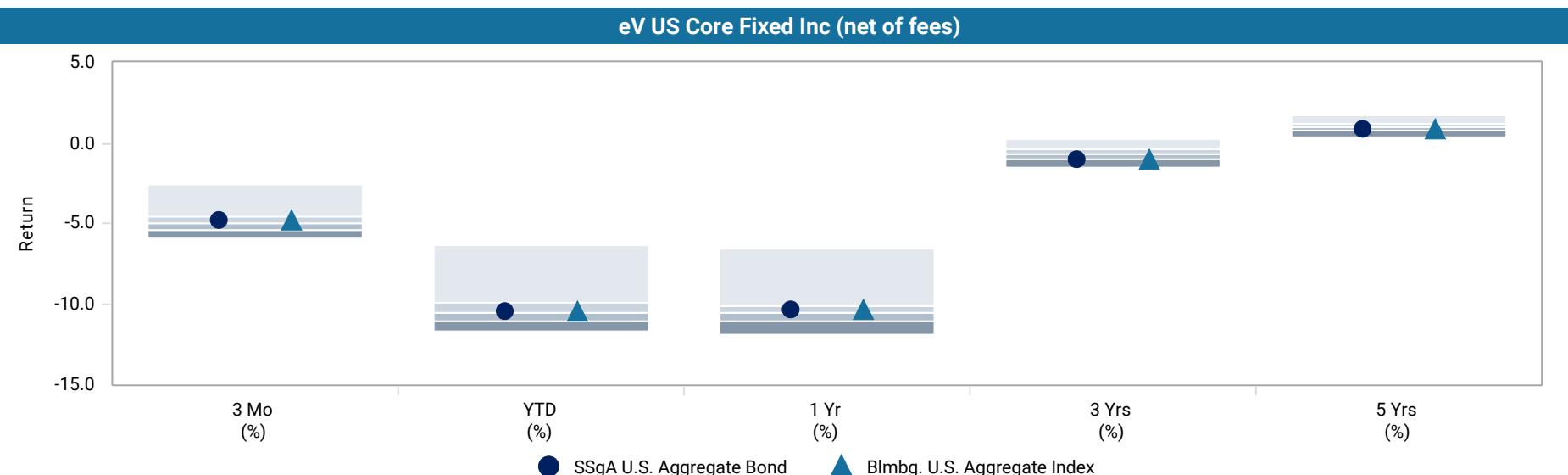
Sharpe Ratio



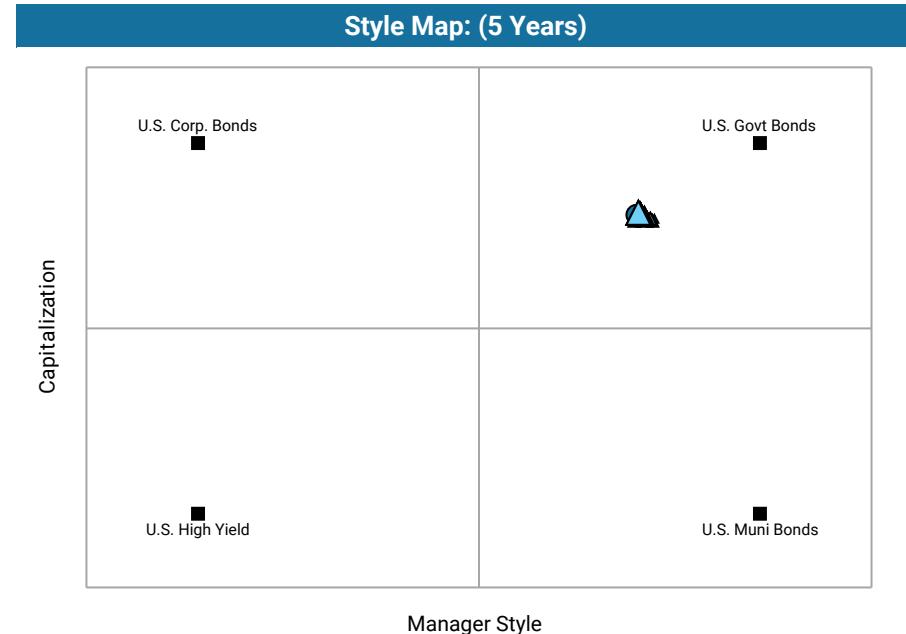
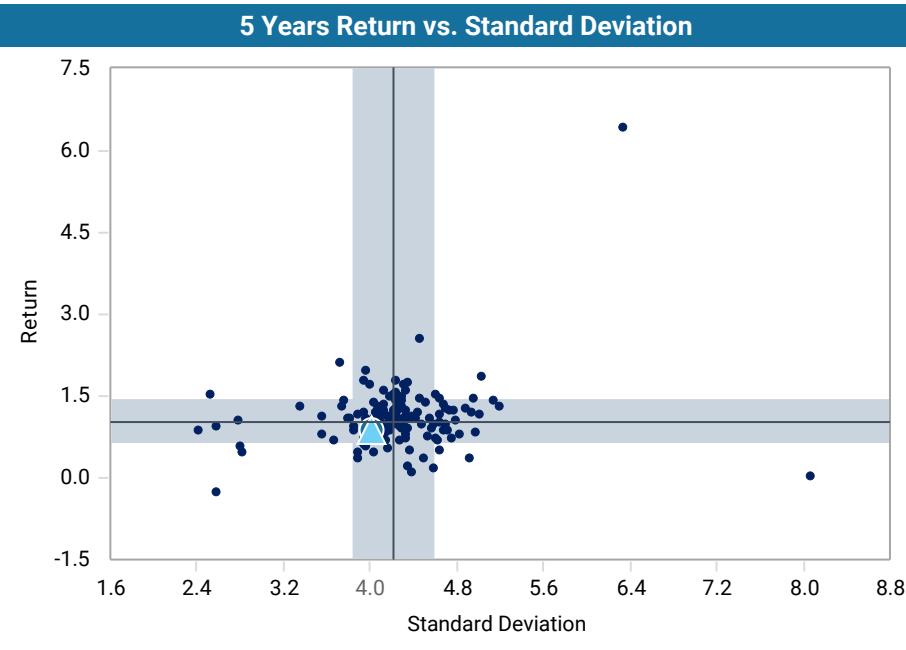
Tracking Error



SSGA U.S. AGGREGATE BOND

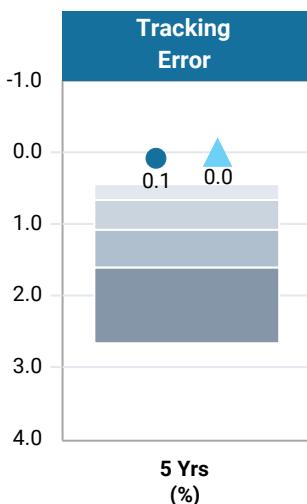
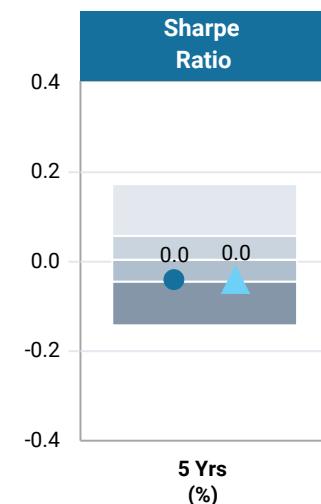
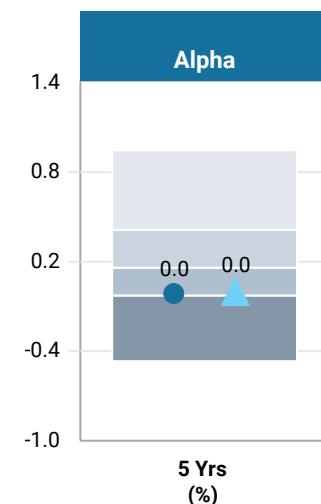
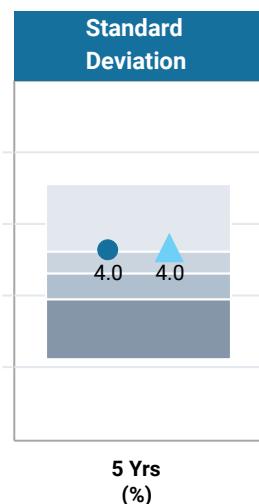
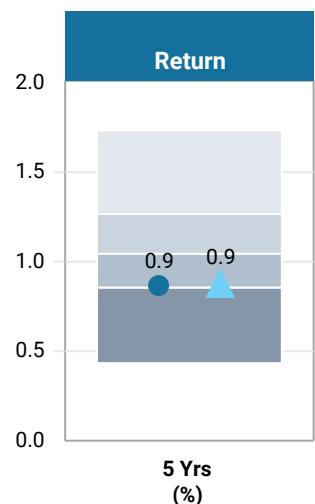


SSGA U.S. AGGREGATE BOND

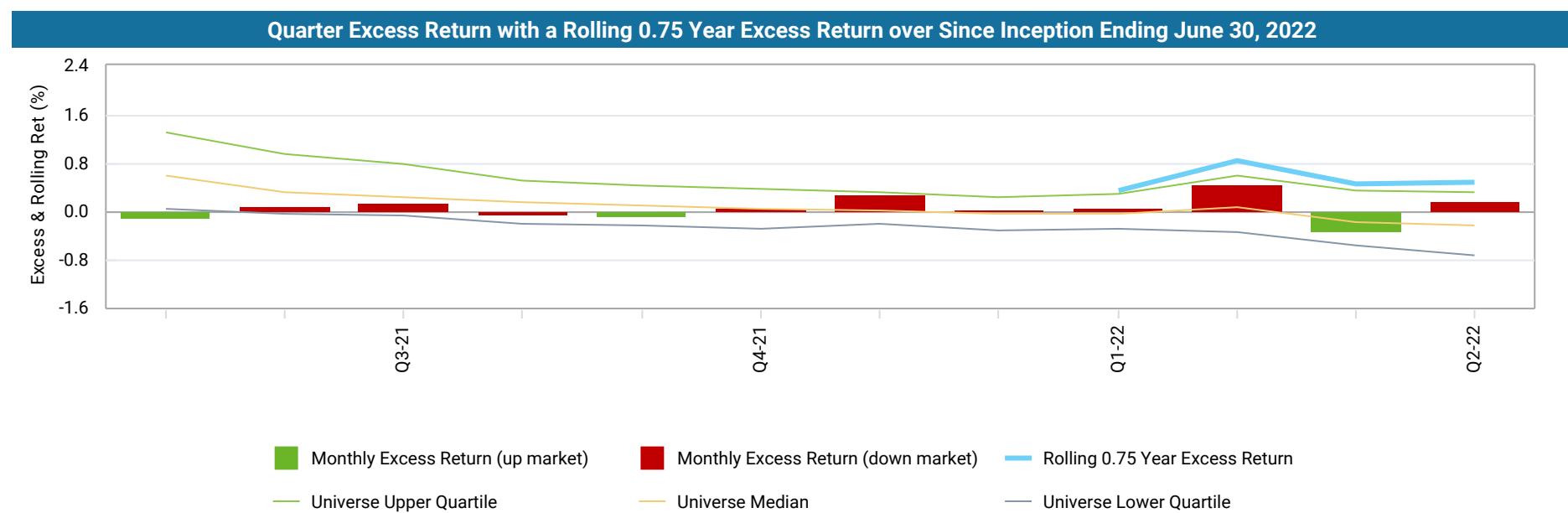
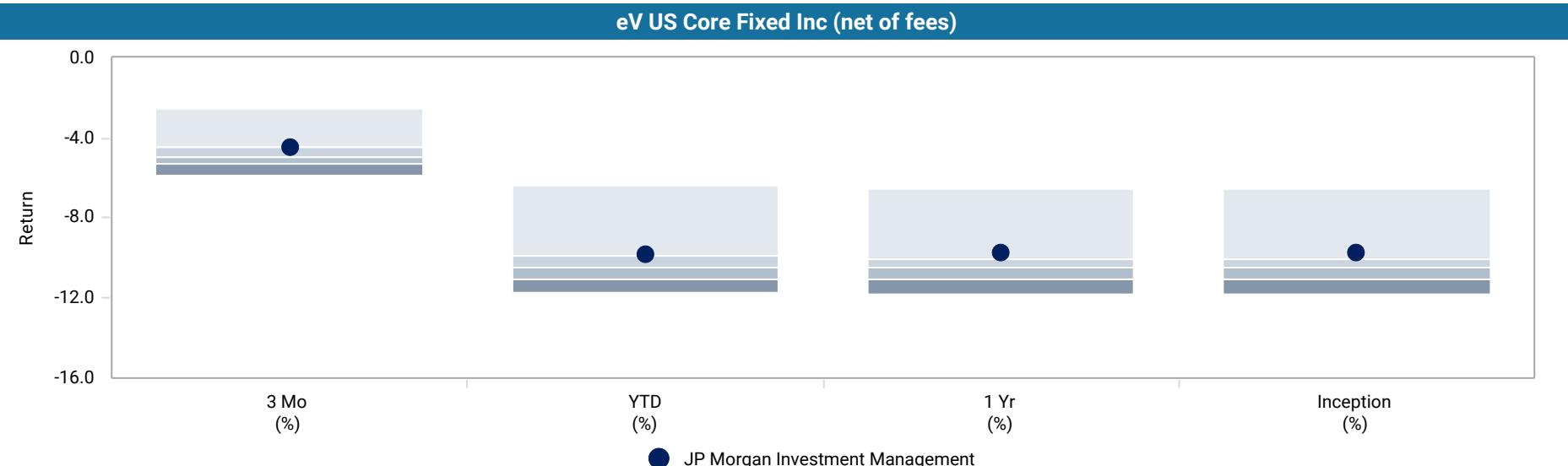


● SSgA U.S. Aggregate Bond ▲ Blmbg. U.S. Aggregate Index

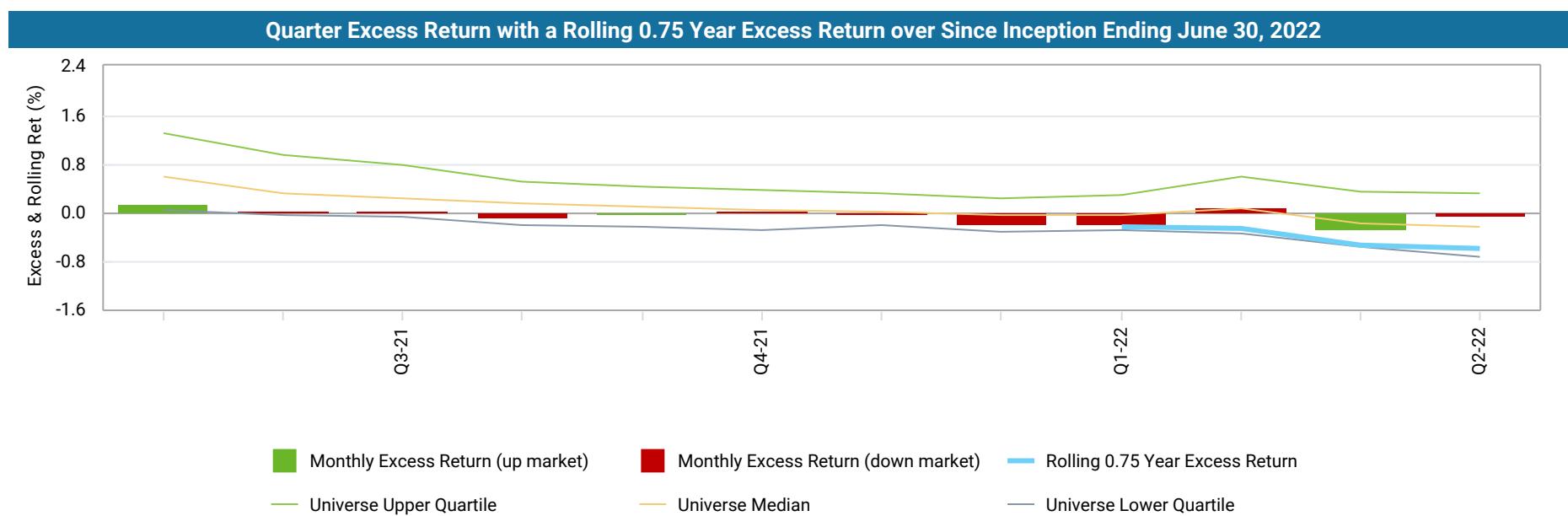
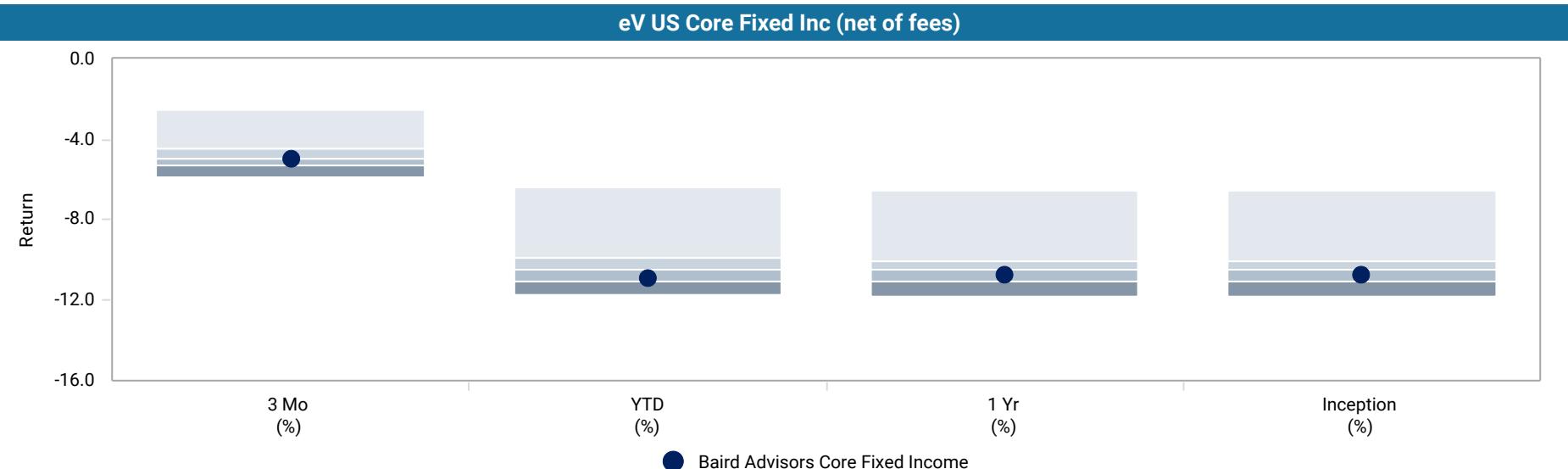
● SSgA U.S. Aggregate Bond ▲ Blmbg. U.S. Aggregate Index



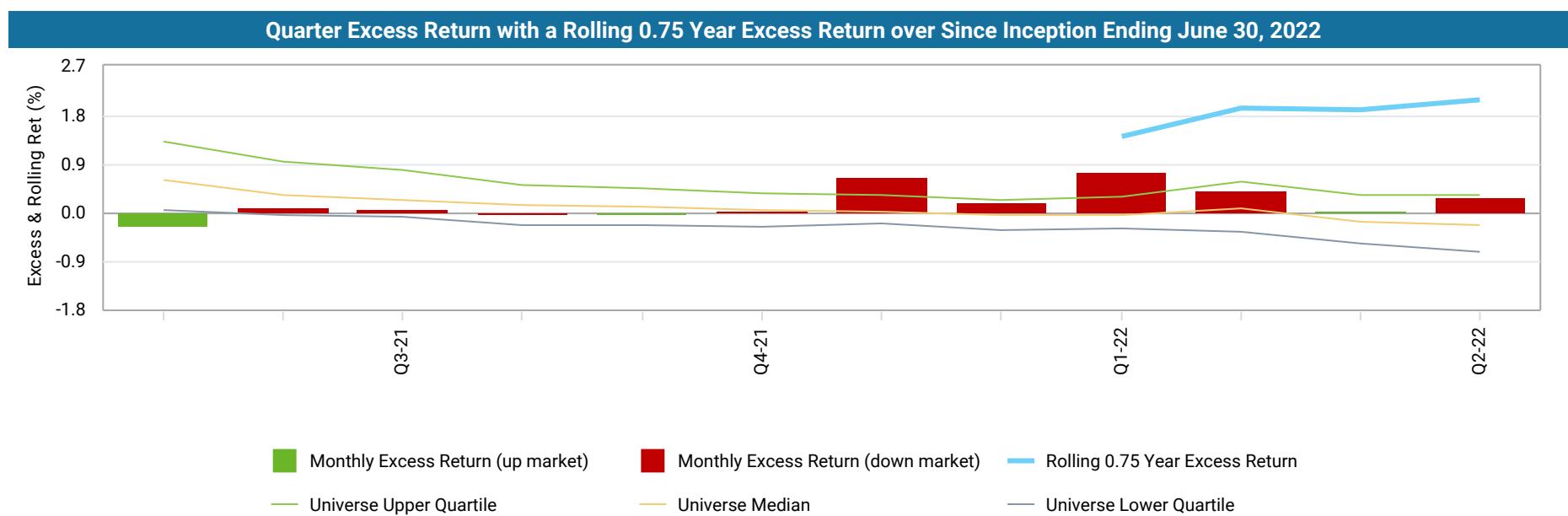
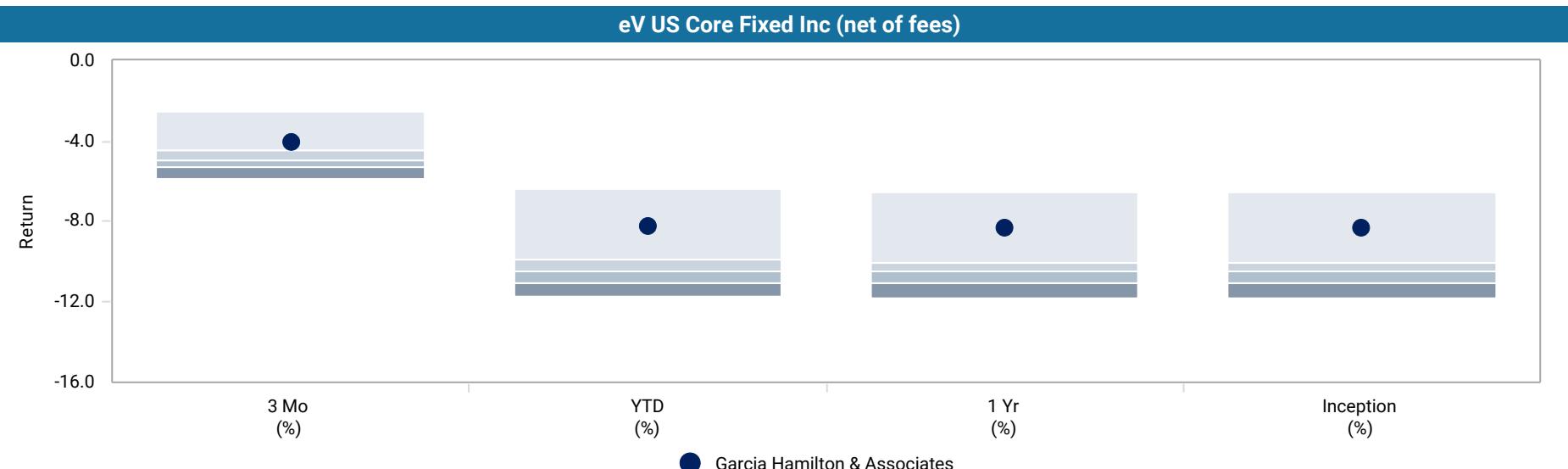
JP MORGAN INVESTMENT MANAGEMENT



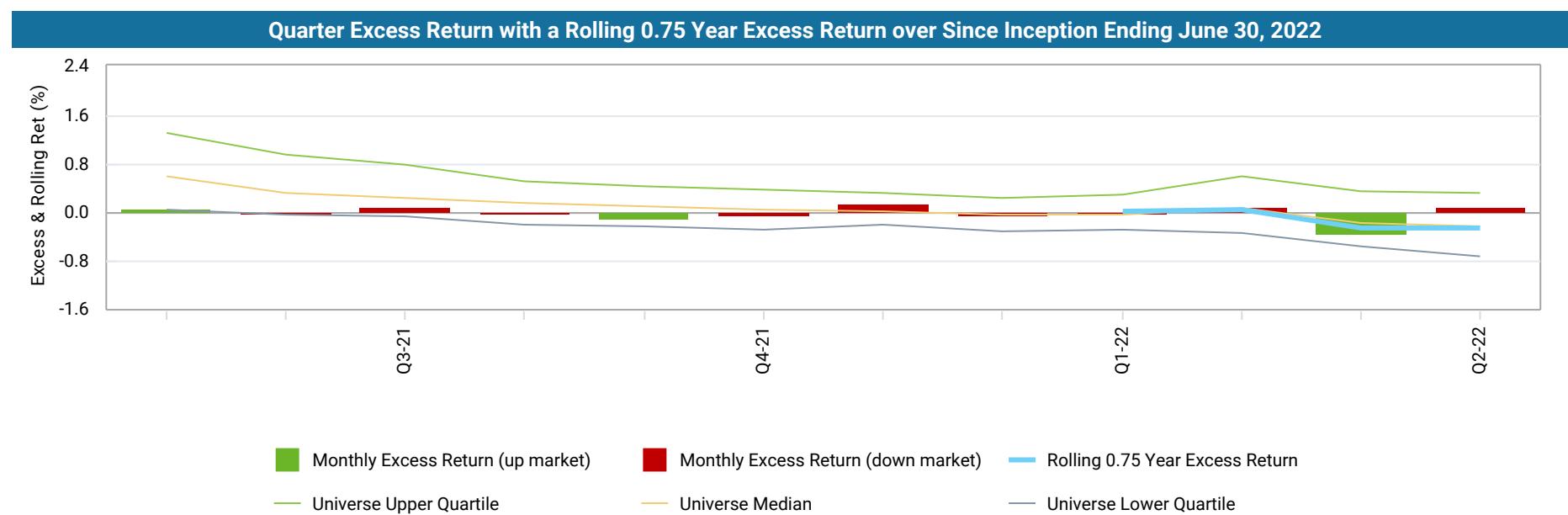
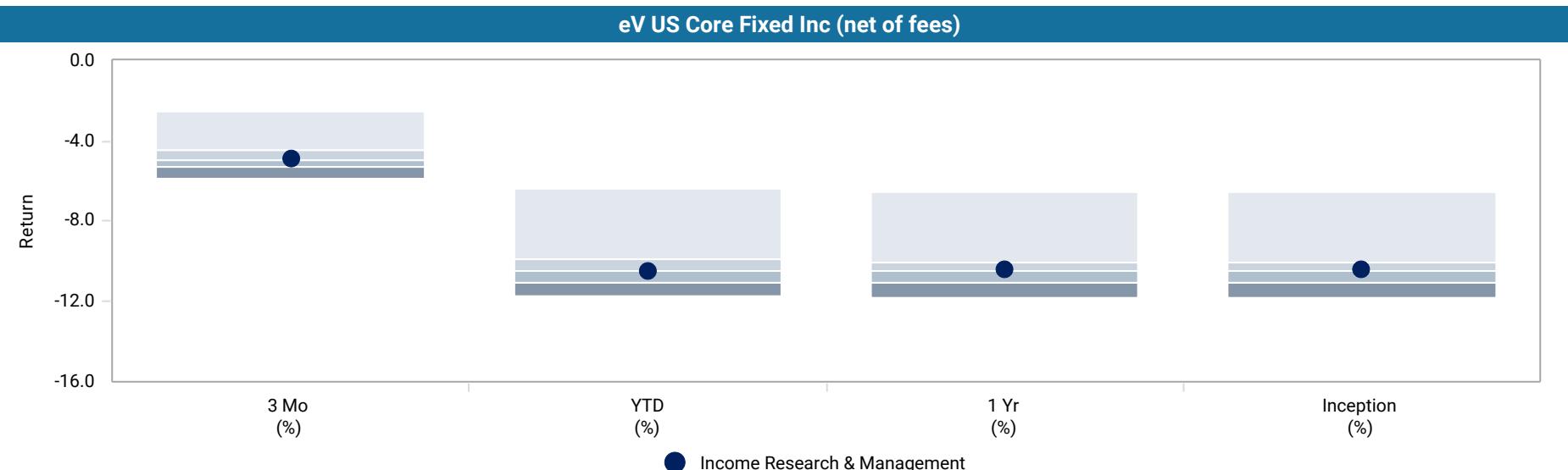
BAIRD ADVISORS CORE FIXED INCOME



GARCIA HAMILTON & ASSOCIATES



INCOME RESEARCH AND MGMT

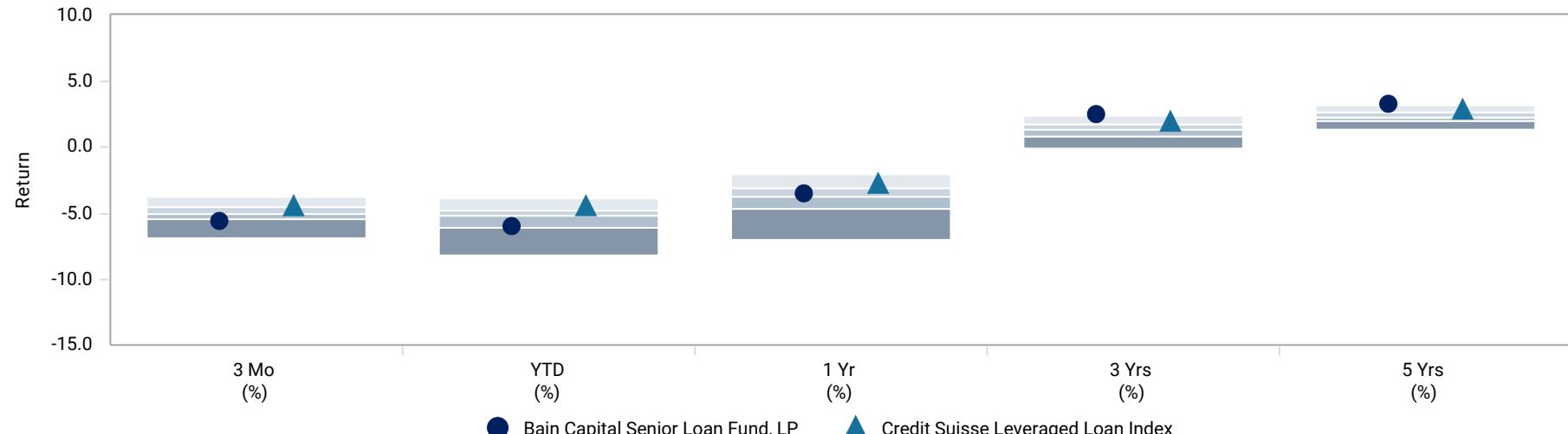




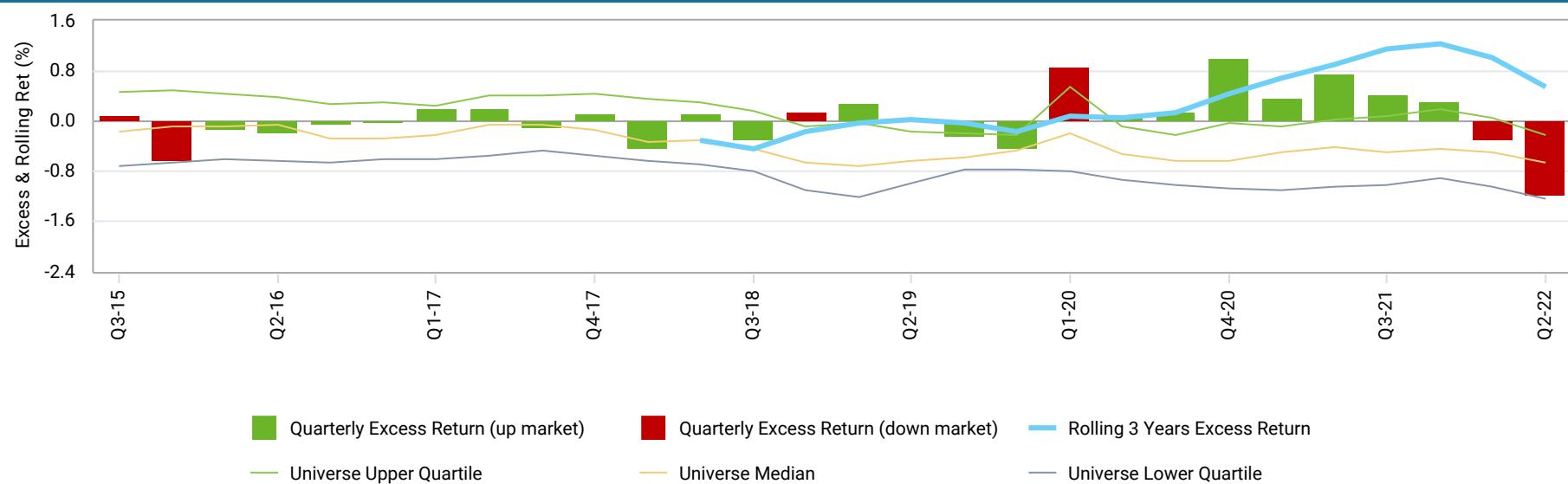
CREDIT OPPORTUNITIES MANAGER PERFORMANCE

BAIN CAPITAL SENIOR LOAN FUND, LP

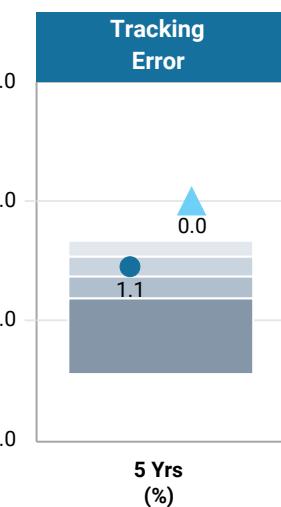
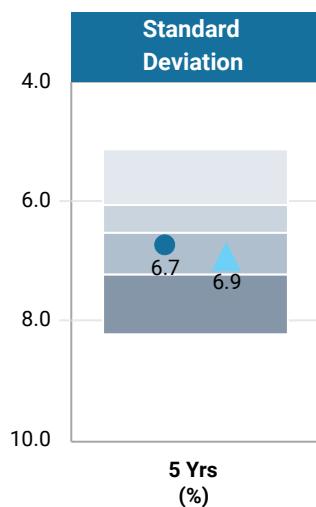
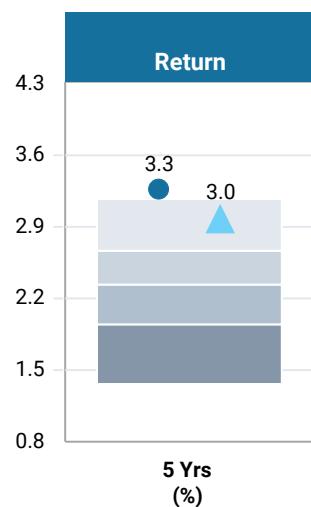
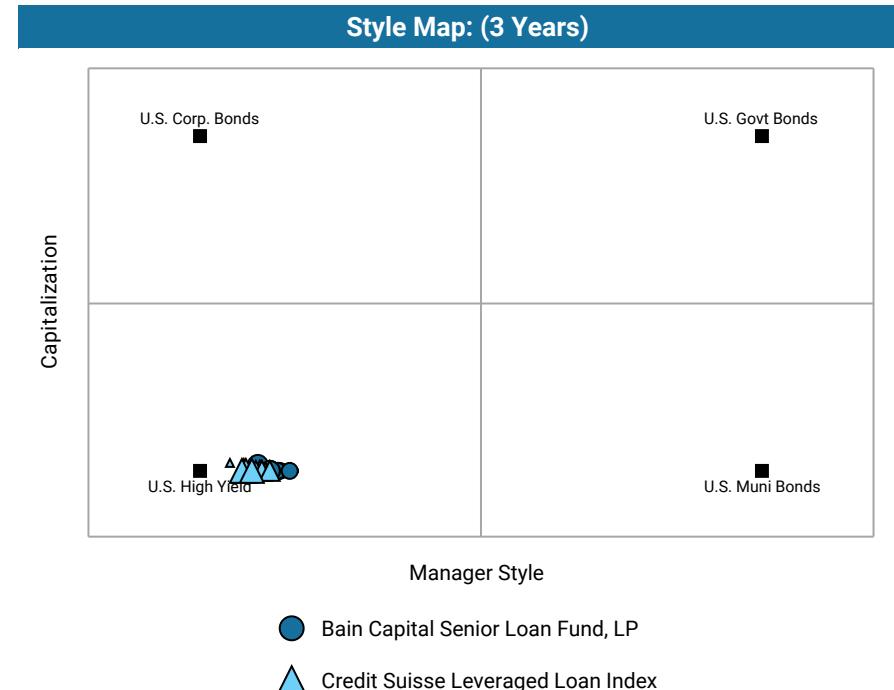
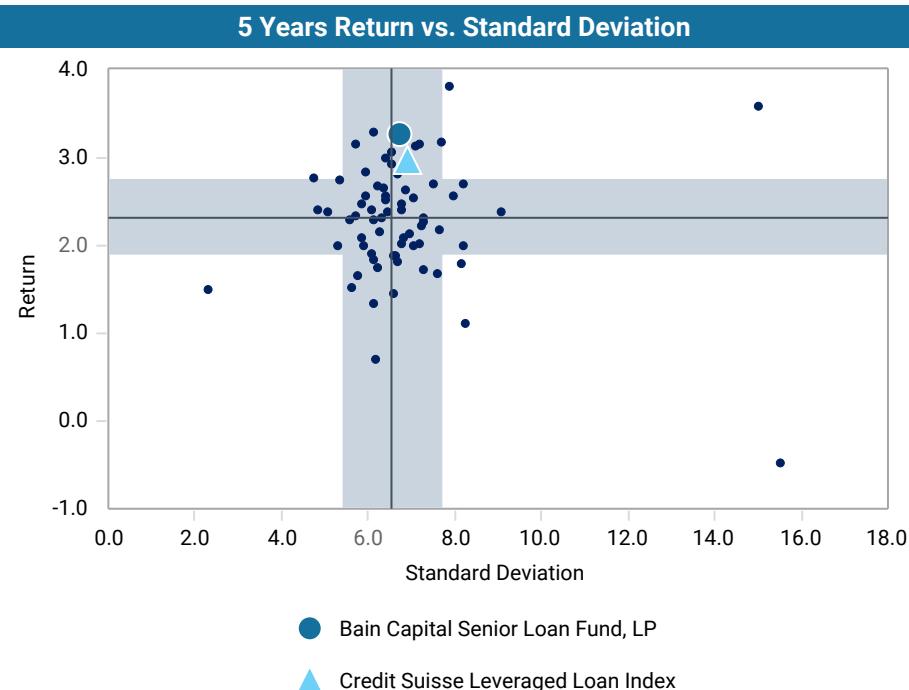
eV US Float-Rate Bank Loan Fixed Inc (net of fees)



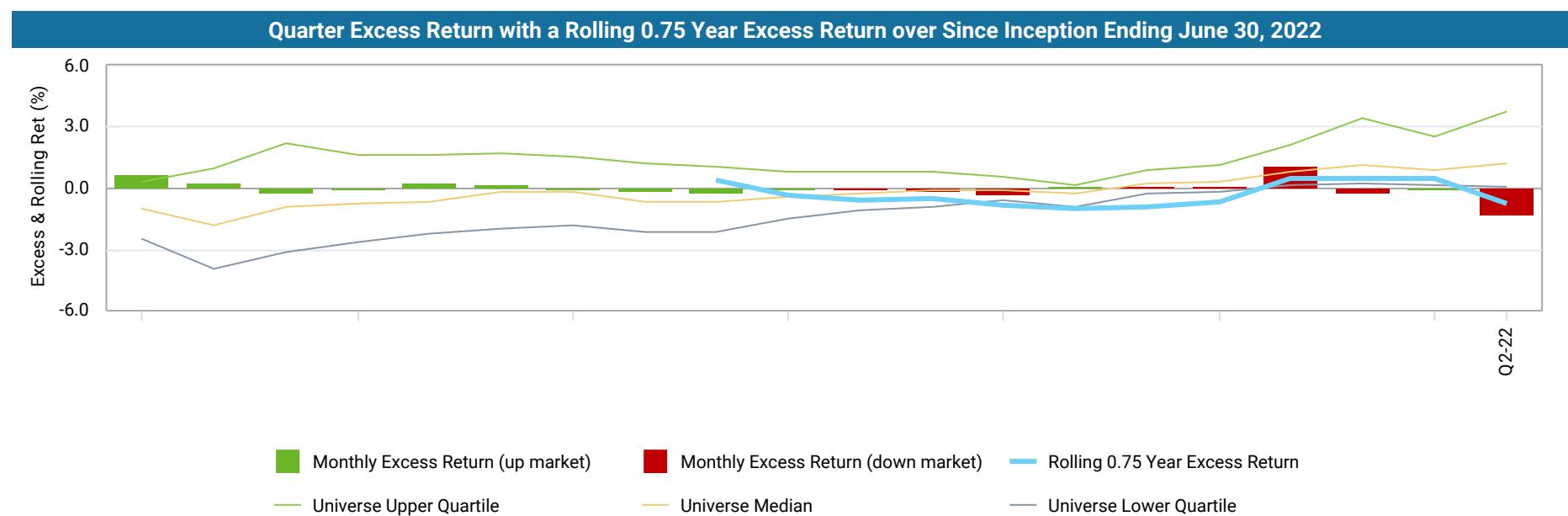
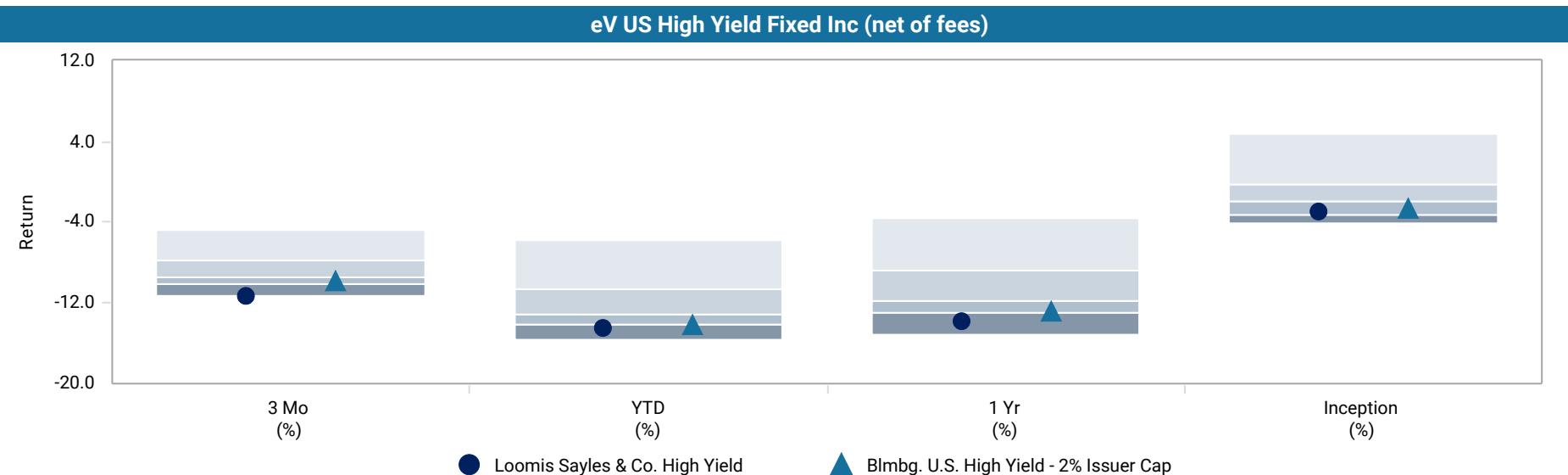
Quarter Excess Return with a Rolling 3 Years Excess Return over Since Inception Ending June 30, 2022



BAIN CAPITAL SENIOR LOAN FUND, LP

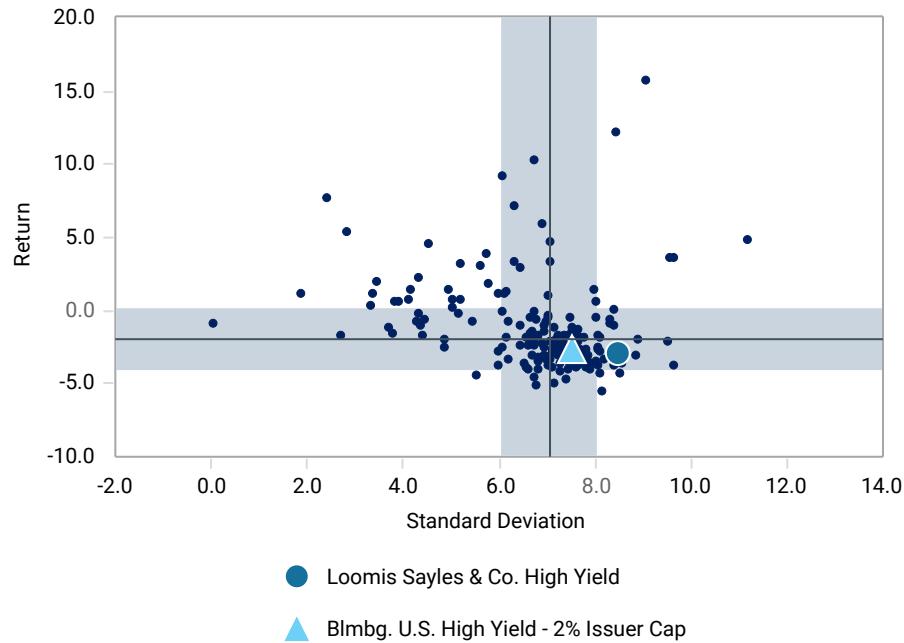


LOOMIS SAYLES & CO. HIGH YIELD

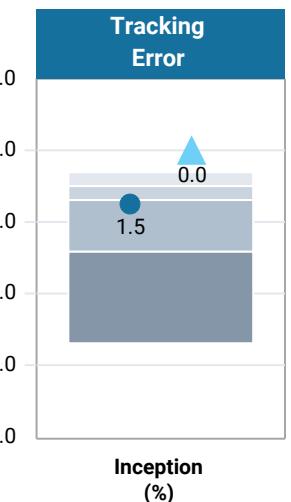
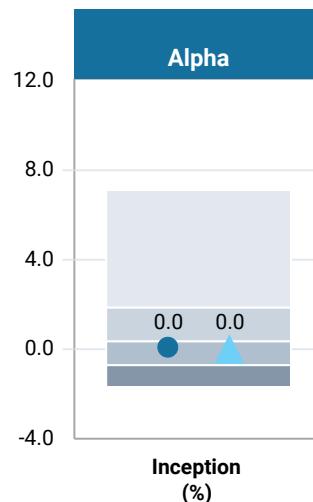


LOOMIS SAYLES & CO. HIGH YIELD

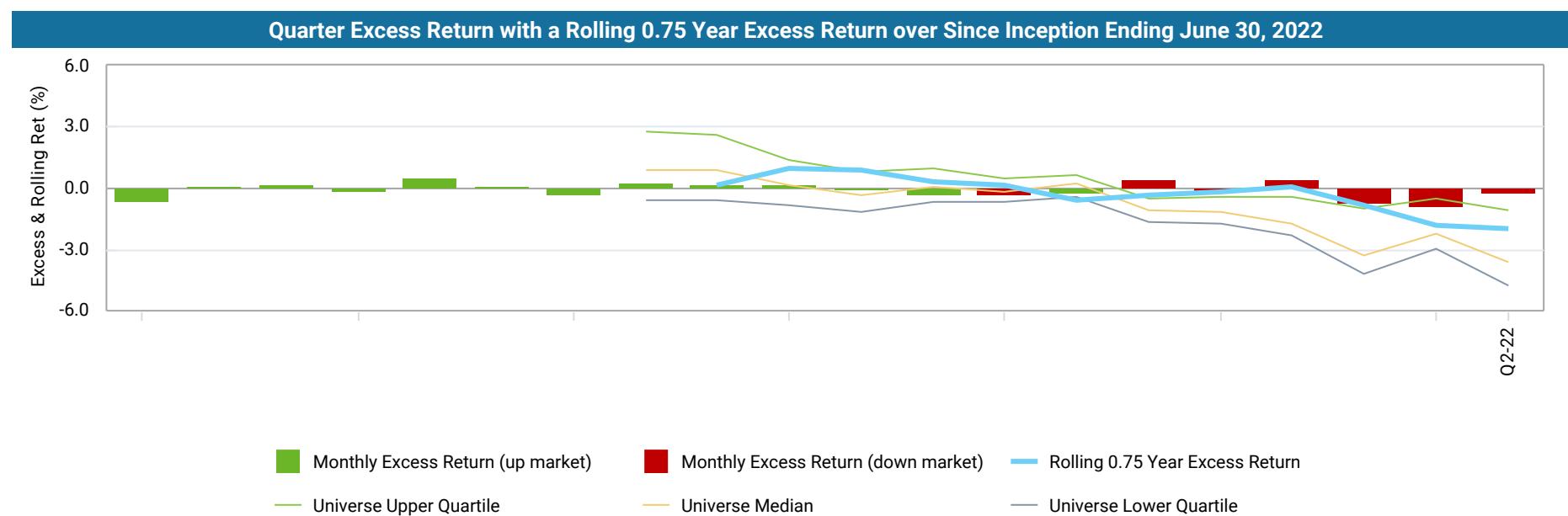
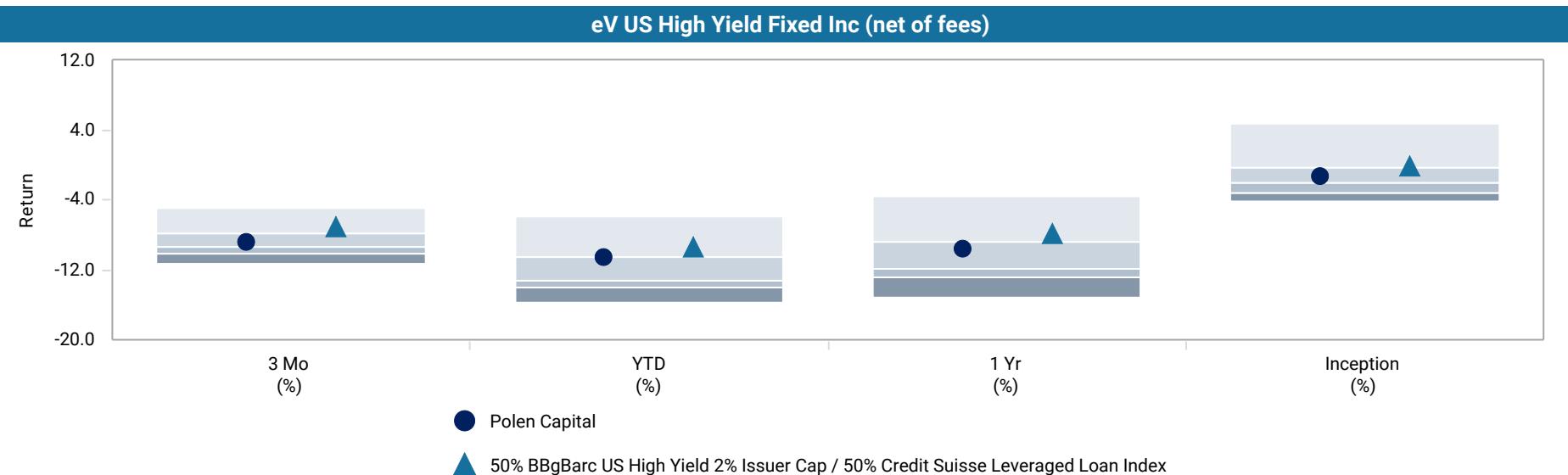
Since Inception Return vs. Standard Deviation



Style Map: (0.75 Year)

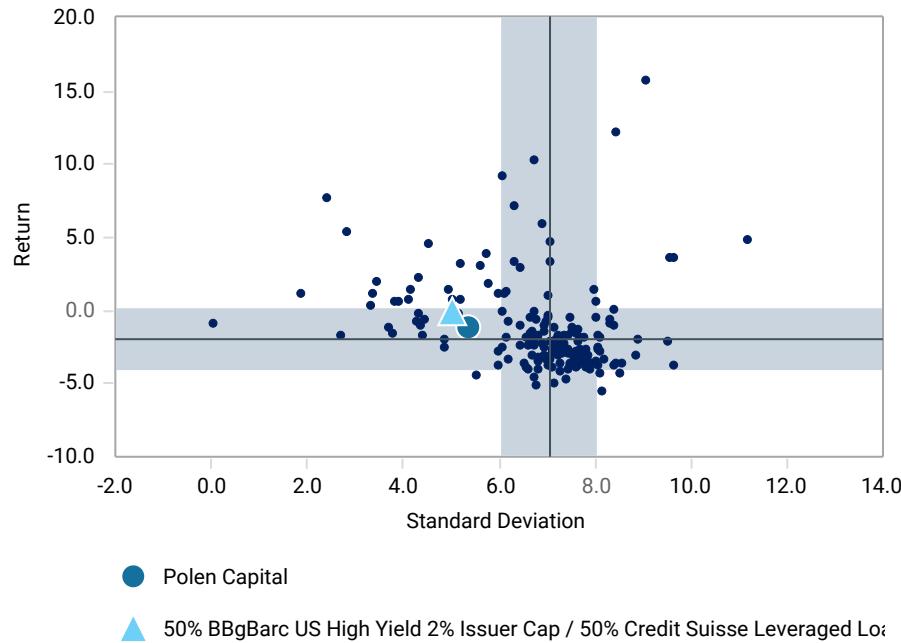


POLEN CAPITAL

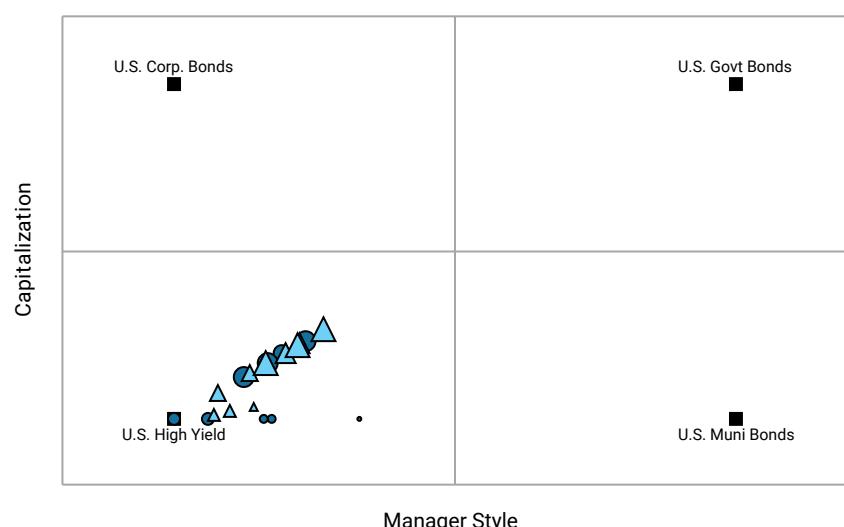


POLEN CAPITAL

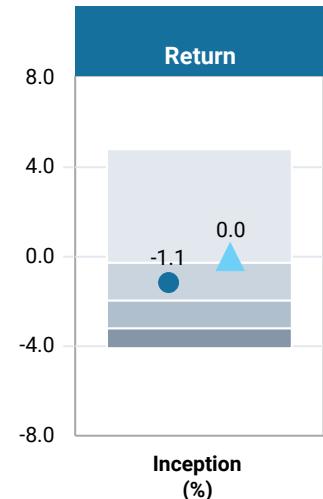
Since Inception Return vs. Standard Deviation



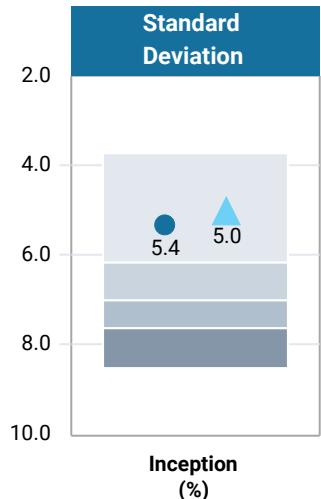
Style Map: (0.75 Year)



Return



Standard Deviation



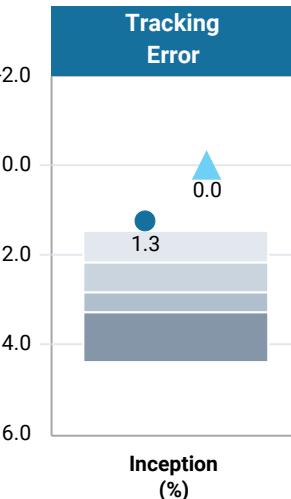
Alpha



Sharpe Ratio



Tracking Error

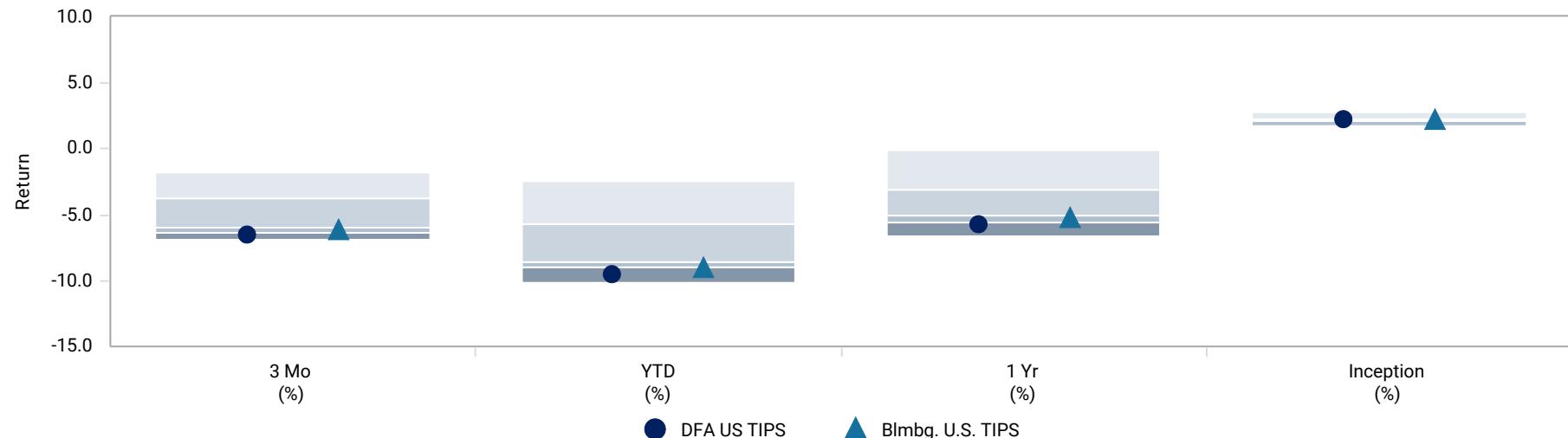




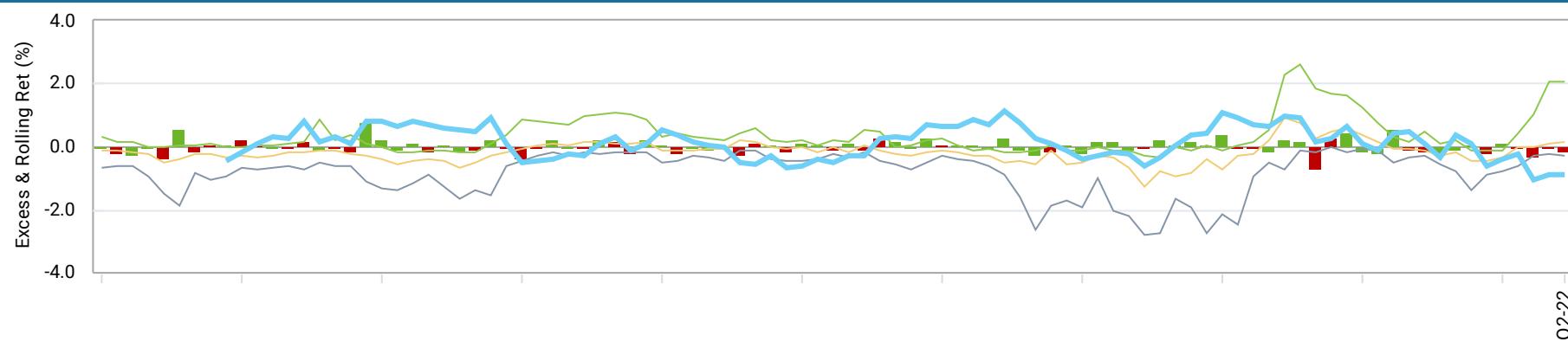
REAL ASSETS MANAGER PERFORMANCE

DFA US TIPS

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



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



Monthly Excess Return (up market)

Universe Upper Quartile

Monthly Excess Return (down market)

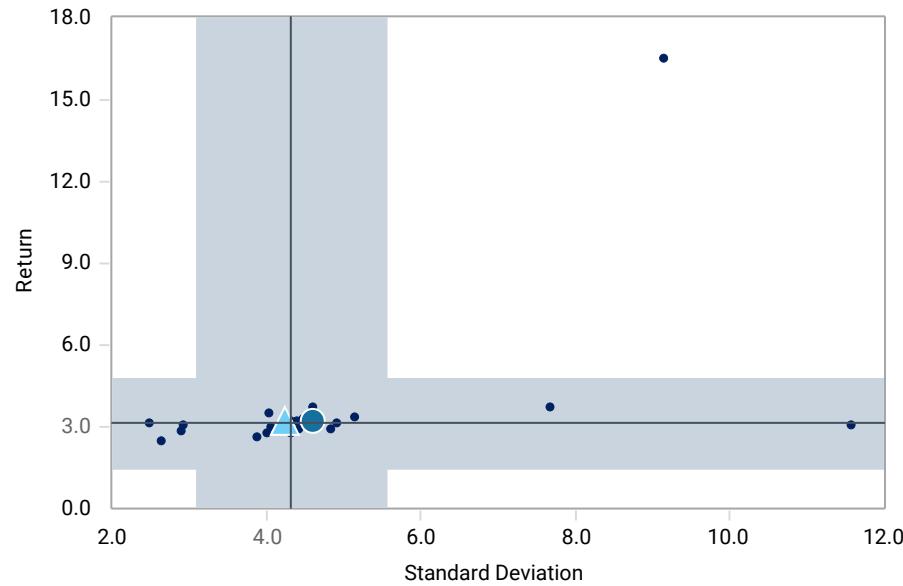
Universe Median

Rolling 0.75 Year Excess Return

Universe Lower Quartile

DFA US TIPS

5 Years Return vs. Standard Deviation



Style Map: (5 Years)

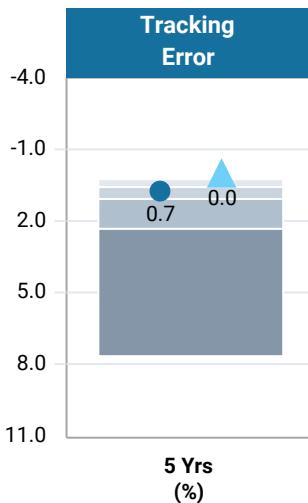
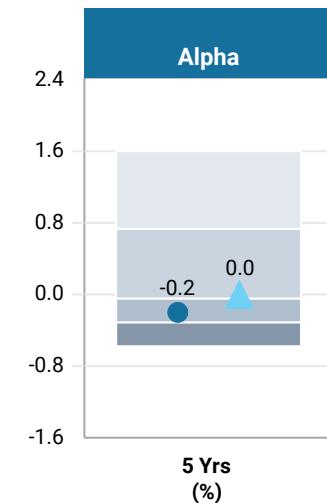
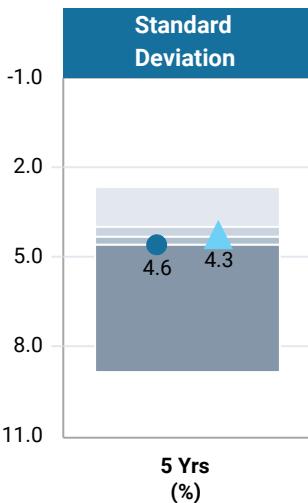
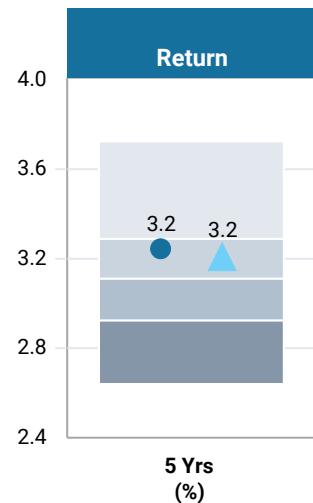


DFA US TIPS

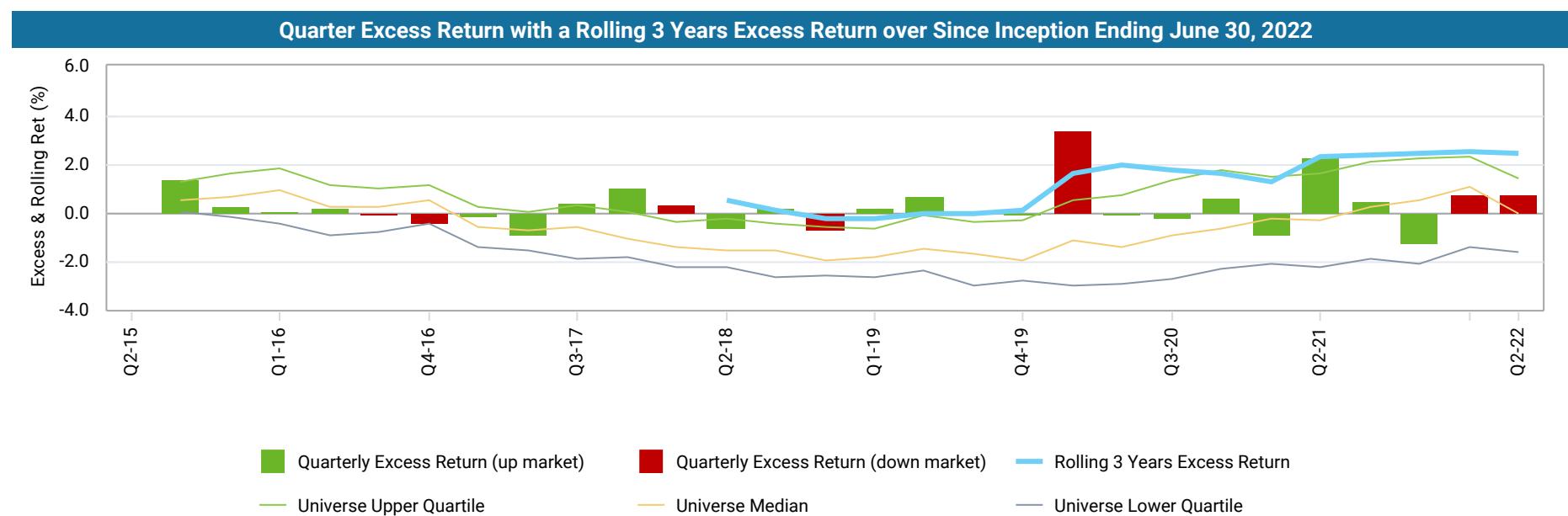
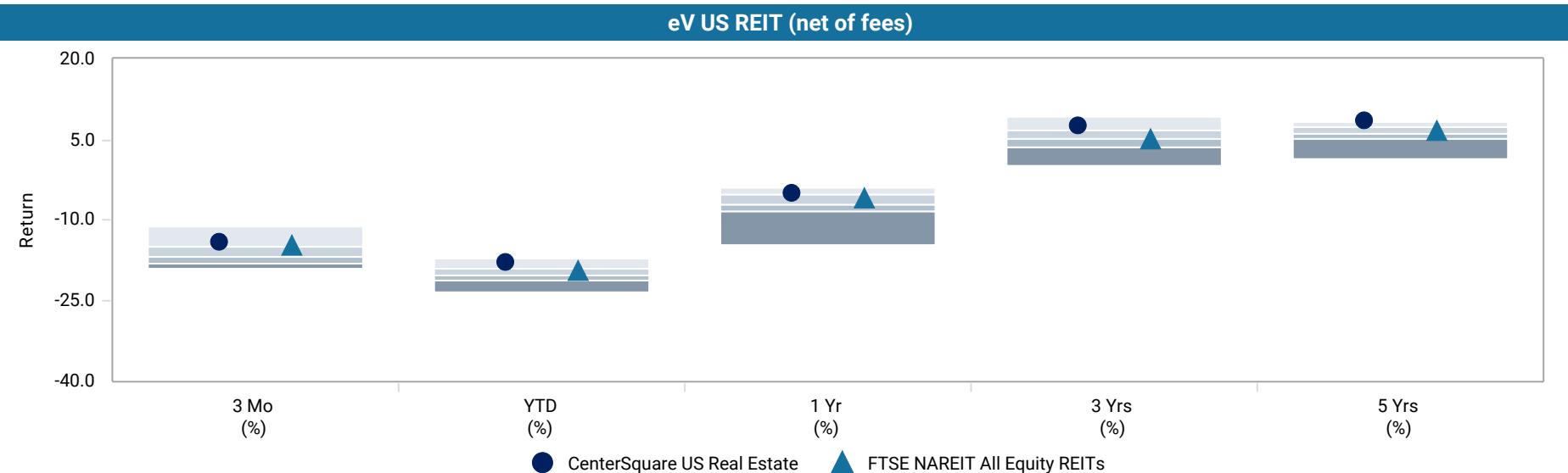
Blmbg. U.S. TIPS

DFA US TIPS

Blmbg. U.S. TIPS

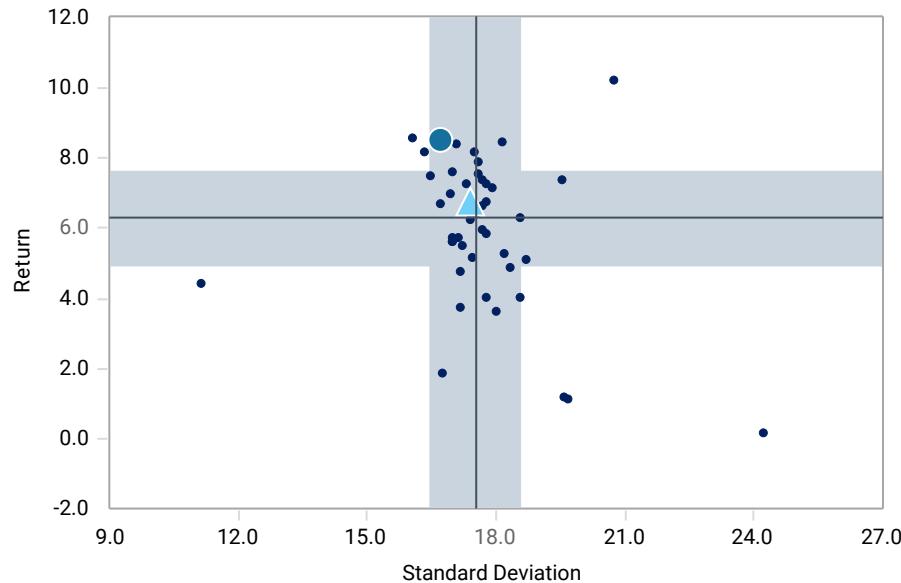


CENTERSQUARE US REAL ESTATE



CENTERSQUARE US REAL ESTATE

5 Years Return vs. Standard Deviation

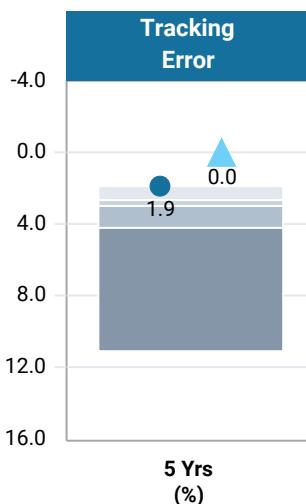
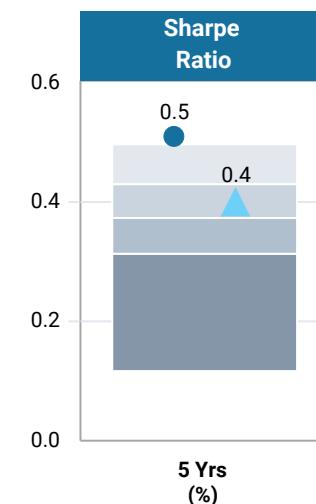
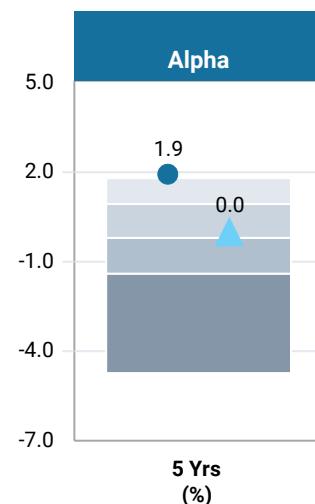
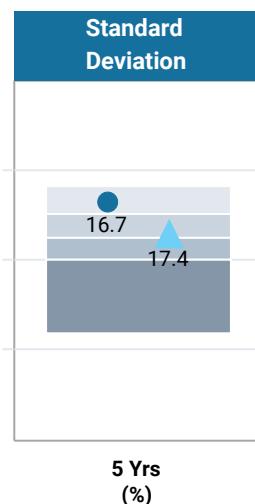
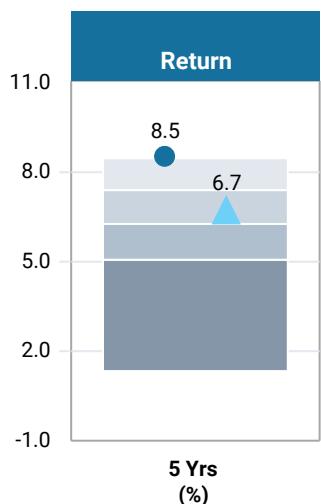


Style Map: (2.5 Years)



● CenterSquare US Real Estate ▲ FTSE NAREIT All Equity REITs

● CenterSquare US Real Estate ▲ FTSE NAREIT All Equity REITs



POLICY INDEX DEFINITIONS

Policy Index: Current (FY 2021 interim targets adopted September 14, 2021) 22.5% Russell 3000 Index, 27% MSCI ACWI ex USA Net Index, 16.75% Bloomberg U.S. Aggregate Bond Index, 7.25% Credit Opportunities Blend, 12% Real Assets Blend, 13.5% Private Equity Blend, 1% Citi 3 Month T-Bill Index

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

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

Credit Opportunities Blend: 20.7% Bloomberg US High Yield 2% Issuer Capped Index, 20.7% Credit Suisse Leveraged Loan Index, 55% Blended Emerging Markets Debt Blend, 3.6% 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 Blend: 41.67% Bloomberg US TIPS Index, 25% FTSE NAREIT All Equity Index, 33.33% Real Estate Blend

Public Real Assets Blend: 62.5% Bloomberg US TIPS Index, 37.5% 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 SEPTEMBER 14, 2021

Asset Class	Policy Target %	Interim Policy Targets				
		2021	2022	2023	2024	2025
U.S. Equity	21.00%	22.50%	22.00%	21.50%	21.40%	21.00%
Non-U.S. Equity	26.00%	27.00%	27.00%	26.50%	26.10%	26.00%
Private Equity	16.00%	13.50%	14.00%	15.00%	15.50%	16.00%
Core Fixed Income	11.25%	16.75%	16.00%	14.75%	13.25%	11.25%
Credit Opportunities	12.75%	7.25%	8.00%	9.25%	10.75%	12.75%
Public Real Assets	5.00%	8.00%	7.50%	7.00%	6.00%	5.00%
Real Estate	7.00%	4.00%	4.50%	5.00%	6.00%	7.00%
Cash	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%

