



**LACERS**

LA CITY EMPLOYEES'  
RETIREMENT SYSTEM

# PORTFOLIO PERFORMANCE REVIEW

LOS ANGELES CITY EMPLOYEES'  
RETIREMENT SYSTEM

QUARTER ENDING DECEMBER 31, 2023



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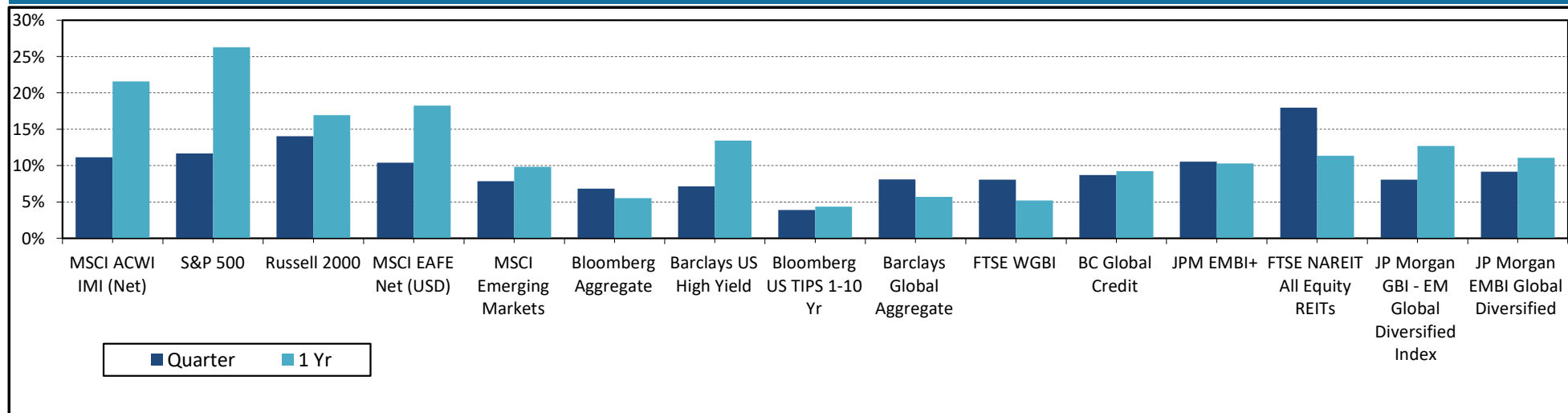


# EXECUTIVE SUMMARY



# PERFORMANCE OVERVIEW

## Market Summary – Risk Assets Surged in Q4



	Market Value (\$)	3 Mo (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	15 Yrs (%)	Inception (%)	Inception Date
<b>LACERS Master Trust</b>	<b>22,765,251,564</b>	<b>7.0 (37)</b>	<b>11.5 (38)</b>	<b>4.7 (48)</b>	<b>8.7 (51)</b>	<b>7.0 (41)</b>	<b>8.9 (25)</b>	<b>8.1</b>	<b>Nov-94</b>
<i>Policy Index</i>		6.7 (46)	11.4 (42)	3.0 (95)	8.5 (57)	6.7 (45)	8.9 (27)	7.9	
<i>InvMetrics Public DB \$5-50B Gross Median</i>		6.5	11.2	4.7	8.7	6.4	8.0		

Note: Performance is gross of fees

### Equities surged in the fourth quarter and posted strong returns for the year.

The U.S. Equity composite underperformed its benchmark in the last quarter and one-year. The Non-U.S. Equity composite outperformed its benchmark in the last quarter and equaled its benchmark in the last one-year.

### While the Fed Funds rate increased throughout 2023, yields declined sharply in Q4 driving gains in interest rate sensitive bonds.

Core Fixed Income and Credit Opportunities outperformed their respective benchmarks over the last quarter and one-year.

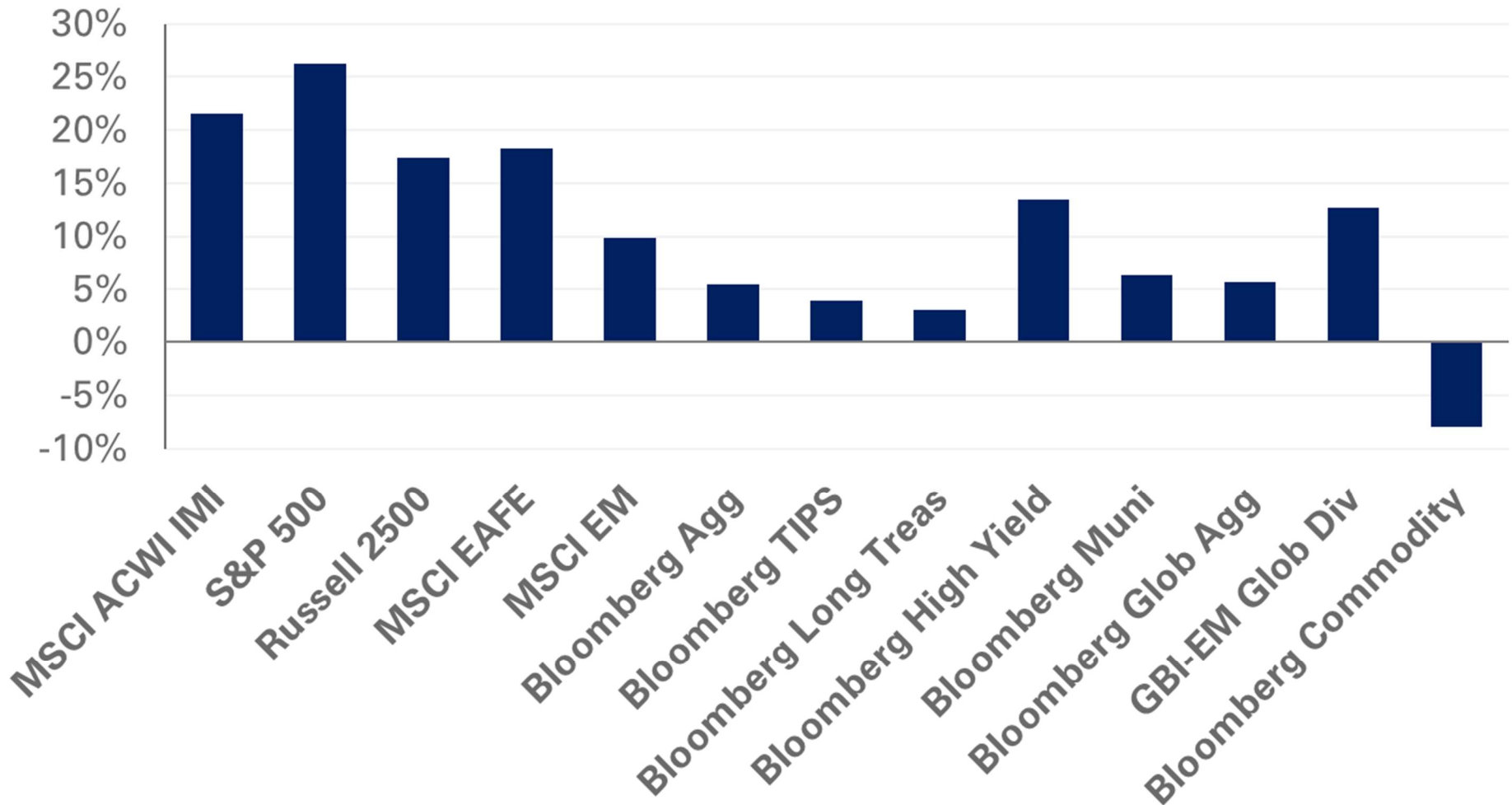




# MARKET ENVIRONMENT

# RISK ASSETS RALLIED DESPITE HIGHER RATES

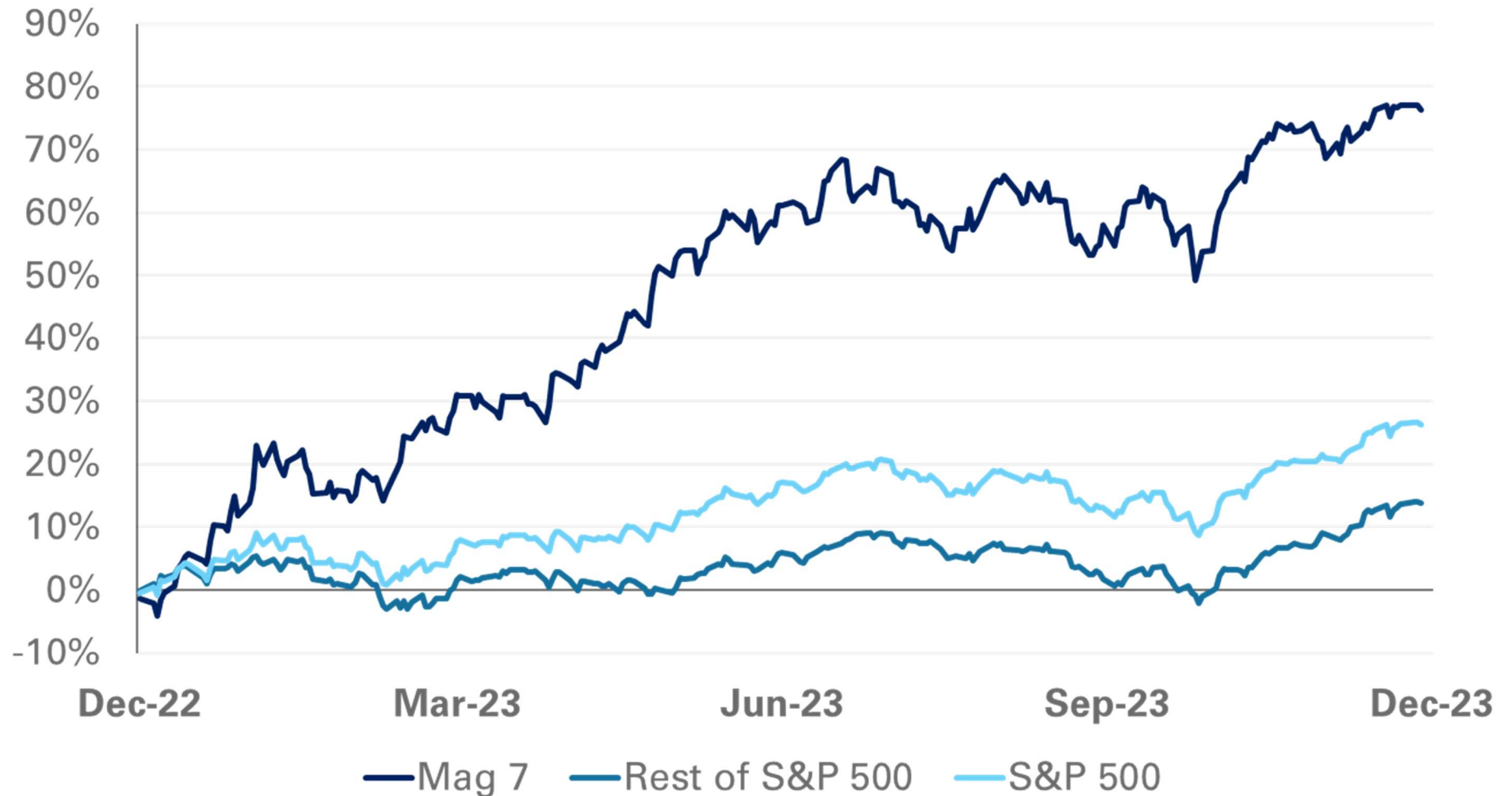
## 2023 ANNUAL ASSET CLASS RETURNS



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

# MAGNIFICENT 7 - WHAT HAVE THEY DONE IN 2023?

## 2023 MARGINAL PERFORMANCE



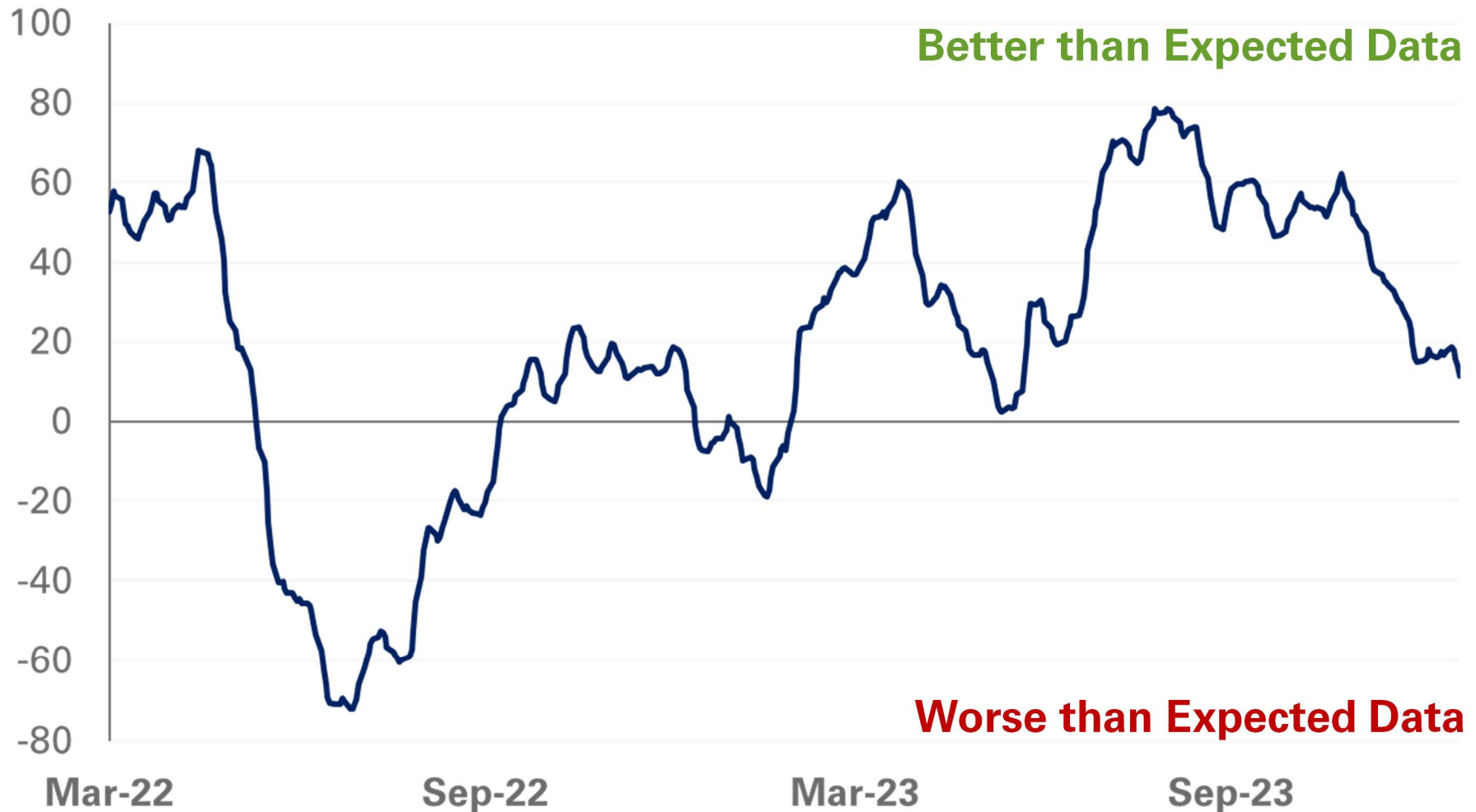
Source: FactSet, NEPC

Performance is based on marginal portfolios of each subset of the index based on daily performance and weights



# RESILIENT DATA OFFSET RECESSION CONCERNS

## CITI ECONOMIC SURPRISE INDEX



Correlations are calculated based on a rolling 3-year time horizon  
Source: S&P, Bloomberg, FactSet

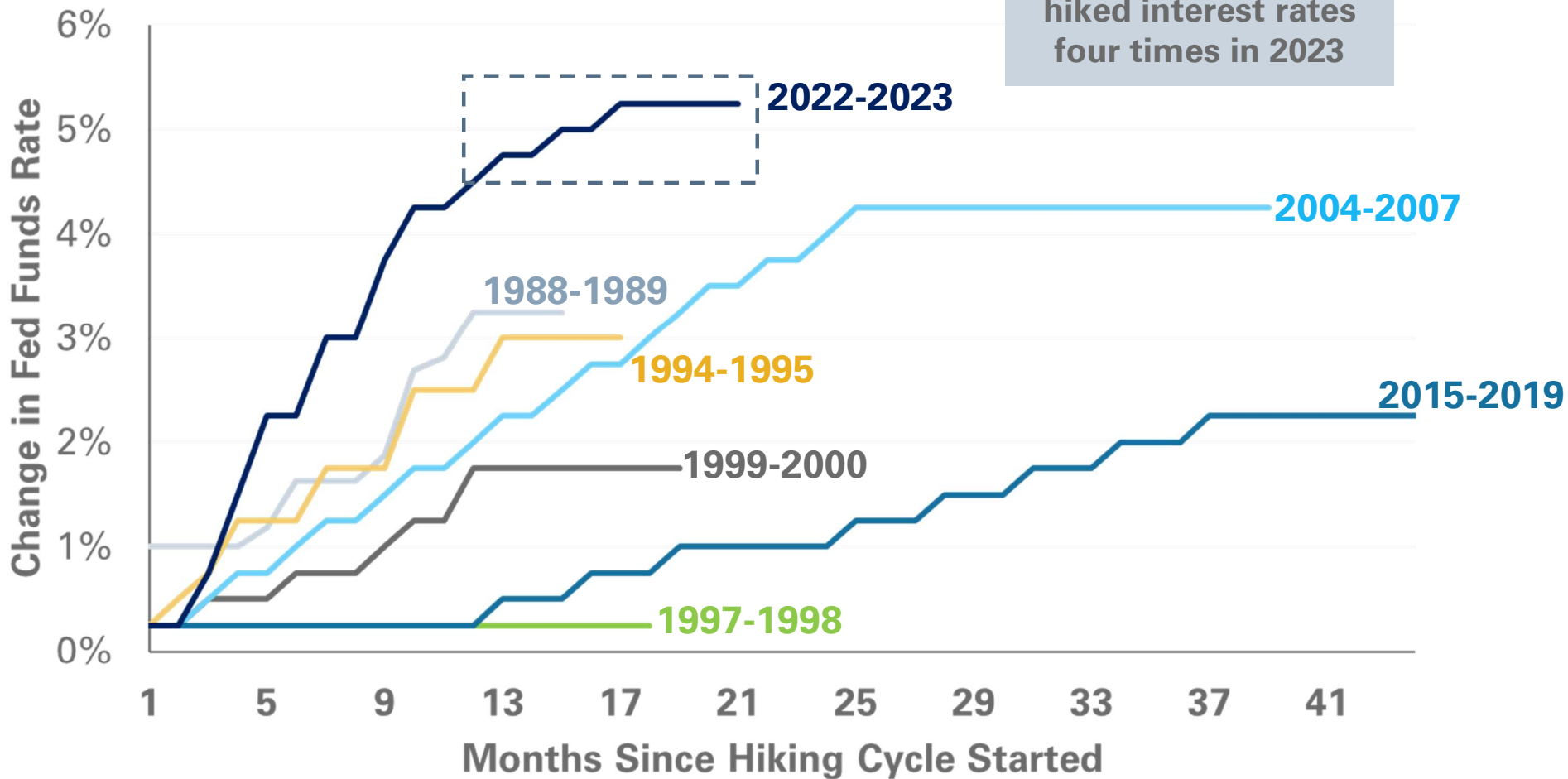




# THE FED TIGHTENED MORE THAN EXPECTED IN 2023

## HISTORICAL FED HIKING CYCLES

The Federal Reserve hiked interest rates four times in 2023



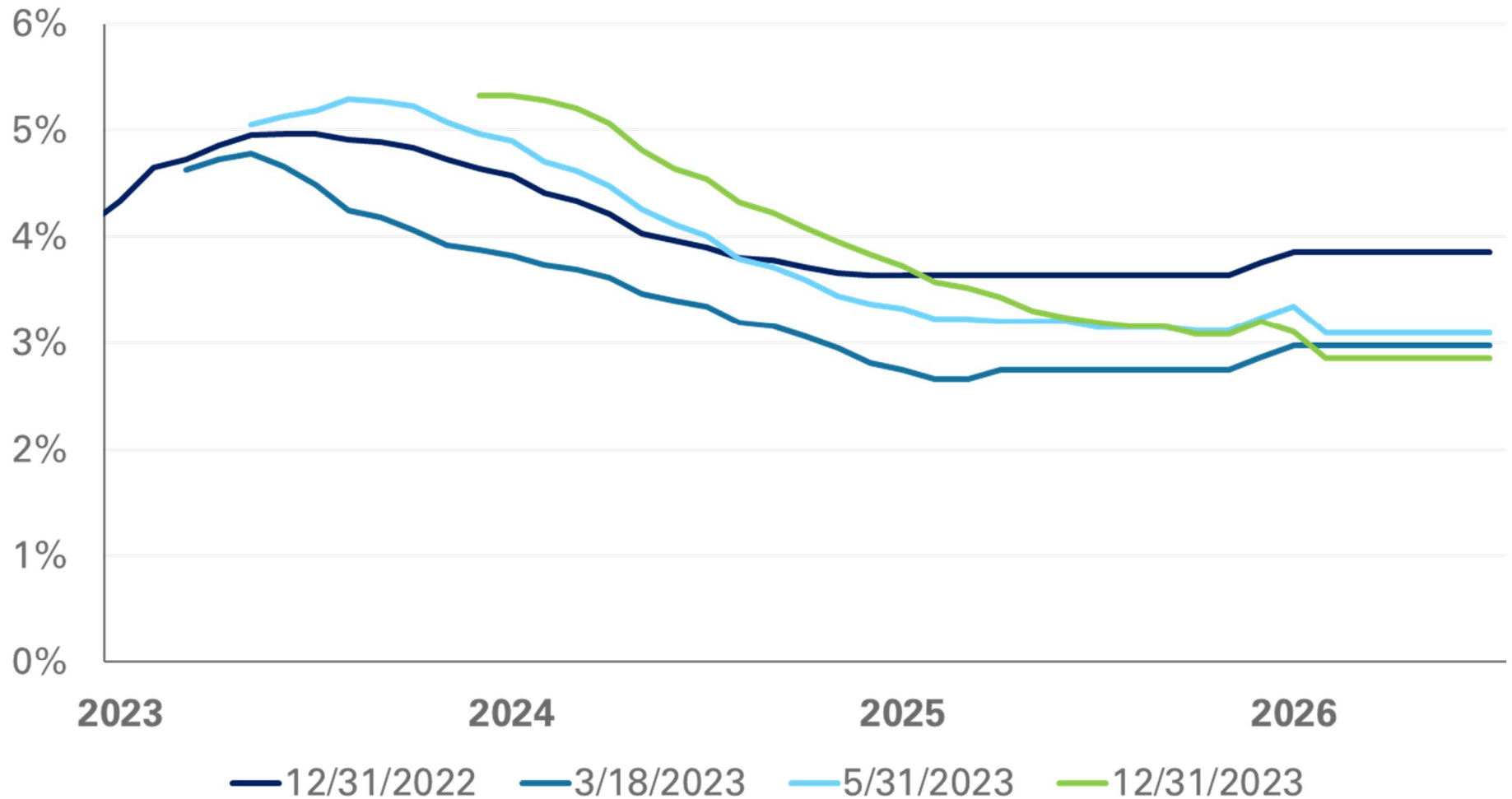
Notes: Reflects Fed rate hiking cycles since 1988

Sources: Federal Reserve, FactSet



# LONG-TERM RATE EXPECTATIONS FELL

## FED FUNDS FUTURES



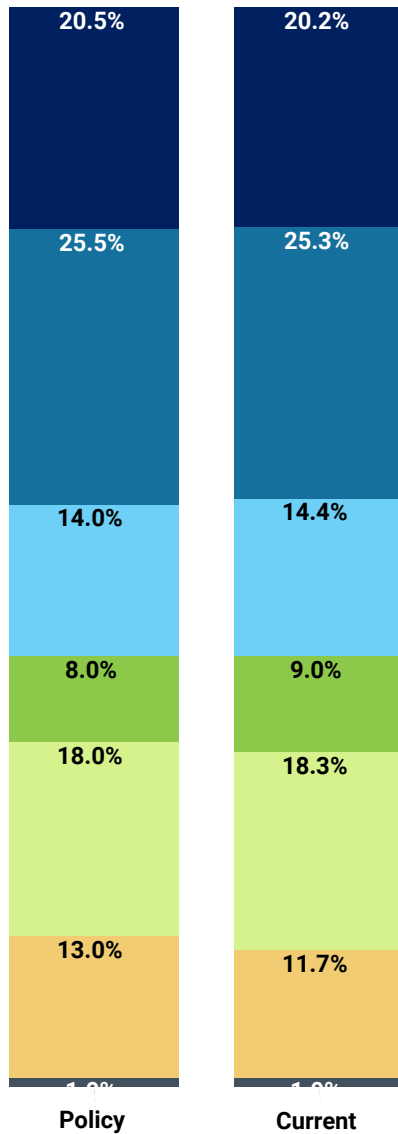
Source: FactSet

# ASSET CLASS POLICY OVERVIEW



# ASSET ALLOCATION VS. POLICY

## Asset Allocation vs. Target



	Current (\$)	Policy (%)	Current (%)	Differences* (%)	Policy Range (%)	Within Range
■ U.S. Equity	4,608,796,758	20.5	20.2	-0.3	14.0 - 25.0	Yes
■ Non-US Equity	5,760,583,684	25.5	25.3	-0.2	19.5 - 31.5	Yes
■ Core Fixed Income	3,288,980,724	14.0	14.4	0.4	11.8 - 18.3	Yes
■ Credit Opportunities	2,048,504,171	8.0	9.0	1.0	5.5 - 13.5	Yes
■ Private Equity	4,160,658,142	18.0	18.3	0.3	N/A	Yes
■ Real Assets	2,667,492,601	13.0	11.7	-1.3	5.5 - 15.5	Yes
■ Cash	230,235,483	1.0	1.0	0.0	0.0 - 2.0	Yes
<b>Total</b>	<b>22,765,251,564</b>	<b>100.0</b>	<b>100.0</b>	<b>0.0</b>		

\*Difference between Policy and Current Allocation

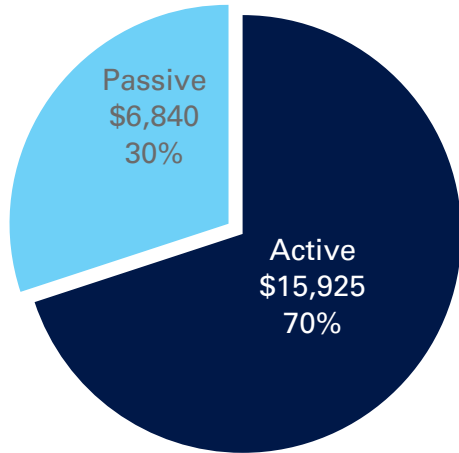
Note: Policy target asset allocation reflects interim asset allocation policy targets adopted on July 12, 2022.



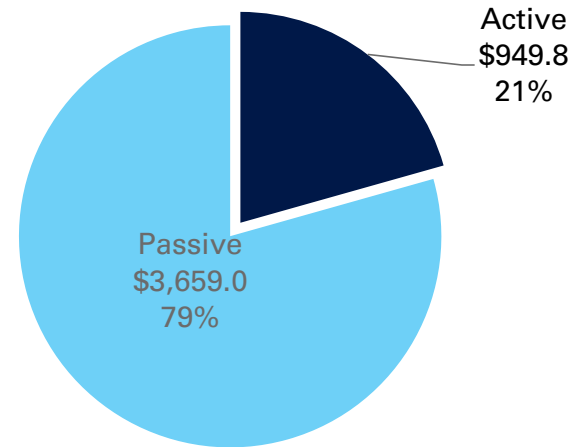
# ACTIVE AND PASSIVE MANAGER BREAKDOWN

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

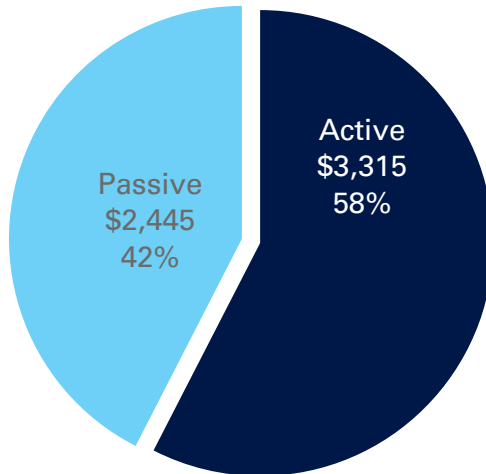
## Total Fund



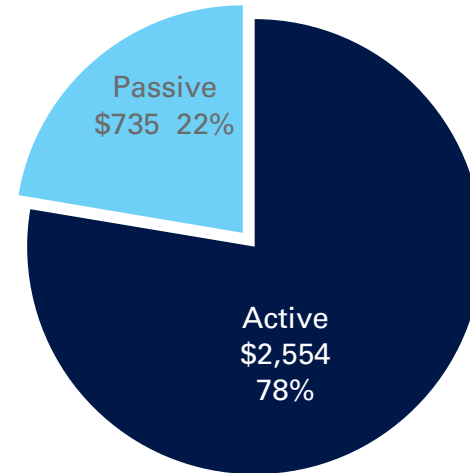
## U.S. Equity



## Non-U.S. Equity



## Core Fixed Income



- LACERS allocated 70% to active managers and 30% 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

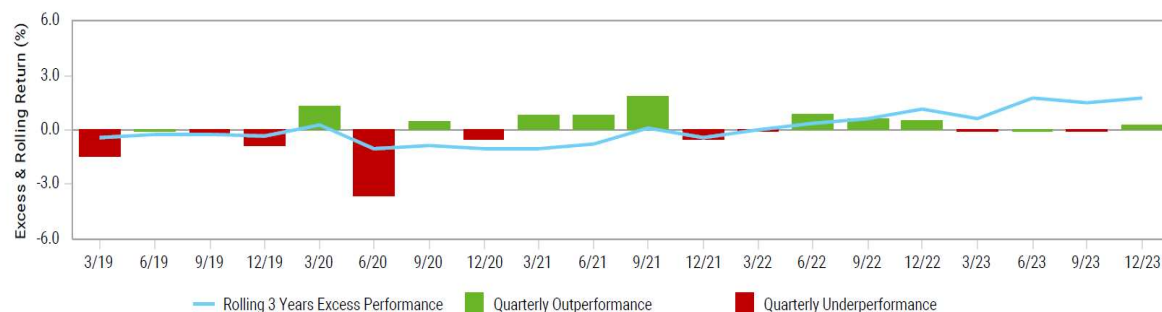
	Market Value (\$)	3 Mo (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	15 Yrs (%)	Inception (%)	Inception Date
<b>LACERS Master Trust</b>	<b>22,765,251,564</b>	<b>7.0 (37)</b>	<b>11.5 (38)</b>	<b>4.7 (48)</b>	<b>8.7 (51)</b>	<b>7.0 (41)</b>	<b>8.9 (25)</b>	<b>8.1</b>	<b>Nov-94</b>
<i>Policy Index</i>		6.7 (46)	11.4 (42)	3.0 (95)	8.5 (57)	6.7 (45)	8.9 (27)	7.9	
<i>InvMetrics Public DB \$5-50B Gross Median</i>		6.5	11.2	4.7	8.7	6.4	8.0		

Over the past five years the Fund return of 8.7% outperformed the policy index by 0.2% and ranked in the 51<sup>st</sup> percentile within the Public Funds \$5 Billion- \$50 Billion universe. The Fund's volatility of 10.8% ranked in the 66<sup>th</sup> percentile over this period. The Fund's risk-adjusted performance, as measured by the Sharpe Ratio ranked in the 51<sup>st</sup> percentile and the Sortino Ratio ranked in the 51<sup>st</sup> percentile.

Over the past three years the Fund return of 4.7% outperformed the policy index by 1.7% and ranked in the 48<sup>th</sup> percentile in its peer group. The Fund's volatility ranked in the 68<sup>th</sup> percentile and the Sharpe Ratio ranked in the 53<sup>rd</sup> percentile. The Sortino Ratio of 0.4 ranked in the 58<sup>th</sup> percentile.

In the one-year ended December 31, 2023, the Fund returned 11.5% and outperformed the policy index by 0.1%. The Fund's return ranked in the 38<sup>th</sup> percentile in its peer group.

Quarter Excess Return with a Rolling 3 Years Excess Return vs. Policy Index over 5 Years Ending December 31, 2023



5 Years Ending December 31, 2023				
	Return	Standard Deviation	Sharpe Ratio	Sortino Ratio
<b>LACERS Master Trust</b>	<b>8.7 (51)</b>	<b>10.8 (66)</b>	<b>0.7 (51)</b>	<b>1.0 (51)</b>
<i>Policy Index</i>	8.5 (57)	11.9 (91)	0.6 (75)	0.9 (76)
InvMetrics Public DB \$5-50B Gross Median	8.7	10.4	0.7	1.0

3 Years Ending December 31, 2023				
	Return	Standard Deviation	Sharpe Ratio	Sortino Ratio
<b>LACERS Master Trust</b>	<b>4.7 (48)</b>	<b>9.9 (68)</b>	<b>0.3 (53)</b>	<b>0.4 (58)</b>
<i>Policy Index</i>	3.0 (95)	10.4 (81)	0.1 (95)	0.2 (95)
InvMetrics Public DB \$5-50B Gross Median	4.7	9.4	0.3	0.4



# EXECUTIVE SUMMARY

	Market Value (\$)	3 Mo (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	7 Yrs (%)	10 Yrs (%)	15 Yrs (%)	Inception (%)	Inception Date
<b>LACERS Master Trust</b>	<b>22,765,251,564</b>	<b>7.0 (41)</b>	<b>11.5 (49)</b>	<b>4.7 (41)</b>	<b>8.7 (32)</b>	<b>8.0 (23)</b>	<b>7.0 (23)</b>	<b>8.9 (19)</b>	<b>8.1 (22)</b>	<b>Nov-94</b>
<i>Policy Index</i>		6.7 (49)	11.4 (50)	3.0 (92)	8.5 (43)	7.7 (39)	6.7 (35)	8.9 (19)	7.9 (30)	
<i>InvMetrics Public DB \$1-50B Gross Median</i>		6.6	11.4	4.5	8.2	7.3	6.3	8.4	7.6	

3 Years Ending December 31, 2023				
	Return	Standard Deviation	Sharpe Ratio	Sortino Ratio
<b>LACERS Master Trust</b>	<b>4.7</b>	<b>9.9</b>	<b>0.3</b>	<b>0.4</b>
<i>Policy Index</i>	3.0	10.4	0.1	0.2
<i>InvMetrics Public DB \$1-50B Gross Median</i>	4.5	9.7	0.3	0.4

5 Years Ending December 31, 2023				
	Return	Standard Deviation	Sharpe Ratio	Sortino Ratio
<b>LACERS Master Trust</b>	<b>8.7</b>	<b>10.8</b>	<b>0.7</b>	<b>1.0</b>
<i>Policy Index</i>	8.5	11.9	0.6	0.9
<i>InvMetrics Public DB \$1-50B Gross Median</i>	8.2	11.0	0.6	0.9



**COMPOSITE PERFORMANCE DETAIL GROSS**

	Allocation		Performance (%)								Inception Date
	Market Value (\$)	% of Portfolio	3 Mo (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	20 Yrs (%)	Inception (%)		
<b>LACERS Master Trust</b>	<b>22,765,251,564</b>	<b>100.00</b>	<b>6.96</b>	<b>11.49</b>	<b>4.74</b>	<b>8.74</b>	<b>6.97</b>	<b>7.27</b>	<b>8.05</b>	<b>Nov-94</b>	
<i>Policy Index</i>			<u>6.71</u>	<u>11.43</u>	<u>3.00</u>	<u>8.55</u>	<u>6.71</u>	<u>7.04</u>	<u>7.92</u>		
Over/Under			0.25	0.06	1.74	0.19	0.26	0.23	0.13		
<b>U.S. Equity</b>	<b>4,608,796,758</b>	<b>20.24</b>	<b>11.97</b>	<b>23.75</b>	<b>8.54</b>	<b>14.76</b>	<b>11.17</b>	<b>9.55</b>	<b>10.74</b>	<b>Nov-94</b>	
<i>U.S. Equity Blend</i>			<u>12.07</u>	<u>25.96</u>	<u>8.54</u>	<u>15.16</u>	<u>11.48</u>	<u>9.67</u>	<u>9.90</u>		
Over/Under			-0.10	-2.21	0.00	-0.40	-0.31	-0.12	0.84		
<b>Non-U.S. Equity</b>	<b>5,760,583,684</b>	<b>25.30</b>	<b>9.95</b>	<b>15.98</b>	<b>1.87</b>	<b>8.29</b>	<b>4.94</b>	<b>6.59</b>	<b>5.36</b>	<b>Nov-94</b>	
<i>MSCI AC World ex USA (Net)</i>			<u>9.75</u>	<u>15.62</u>	<u>1.55</u>	<u>7.08</u>	<u>3.83</u>	<u>5.68</u>	<u>5.02</u>		
Over/Under			0.20	0.36	0.32	1.21	1.11	0.91	0.34		
<b>Core Fixed Income</b>	<b>3,288,980,724</b>	<b>14.45</b>	<b>6.99</b>	<b>5.96</b>	<b>-2.88</b>	<b>1.74</b>	<b>2.27</b>	<b>-</b>	<b>2.26</b>	<b>Jul-12</b>	
<i>Core Fixed Income Blend</i>			<u>6.82</u>	<u>5.53</u>	<u>-3.31</u>	<u>1.10</u>	<u>1.81</u>	<u>-</u>	<u>1.63</u>		
Over/Under			0.17	0.43	0.43	0.64	0.46	-	0.63		
<b>Credit Opportunities</b>	<b>2,048,504,171</b>	<b>9.00</b>	<b>6.42</b>	<b>13.00</b>	<b>0.69</b>	<b>4.19</b>	<b>3.99</b>	<b>-</b>	<b>4.37</b>	<b>Jul-13</b>	
<i>Credit Opportunities Blend</i>			<u>6.17</u>	<u>12.64</u>	<u>0.33</u>	<u>4.26</u>	<u>4.12</u>	<u>-</u>	<u>4.49</u>		
Over/Under			0.25	0.36	0.36	-0.07	-0.13	-	-0.12		
<b>Real Assets</b>	<b>2,667,492,601</b>	<b>11.72</b>	<b>3.74</b>	<b>-1.00</b>	<b>3.01</b>	<b>4.09</b>	<b>5.40</b>	<b>4.48</b>	<b>5.85</b>	<b>Dec-94</b>	
<i>Real Assets Policy Benchmark</i>			<u>2.47</u>	<u>-1.64</u>	<u>2.16</u>	<u>4.04</u>	<u>5.31</u>	<u>5.63</u>	<u>7.26</u>		
Over/Under			1.27	0.64	0.85	0.05	0.09	-1.15	-1.41		
<b>Public Real Assets</b>	<b>1,336,613,885</b>	<b>5.87</b>	<b>9.19</b>	<b>6.95</b>	<b>1.61</b>	<b>4.61</b>	<b>-</b>	<b>-</b>	<b>2.49</b>	<b>Jul-14</b>	
<i>Public Real Assets Blend</i>			<u>9.45</u>	<u>6.94</u>	<u>2.58</u>	<u>4.50</u>	<u>-</u>	<u>-</u>	<u>1.24</u>		
Over/Under			-0.26	0.01	-0.97	0.11	-	-	1.25		
<b>Private Real Estate</b>	<b>1,311,118,134</b>	<b>5.76</b>	<b>-1.86</b>	<b>-9.15</b>	<b>6.35</b>	<b>4.15</b>	<b>7.20</b>	<b>5.37</b>	<b>6.46</b>	<b>Nov-94</b>	
<i>Real Estate Blend</i>			<u>-4.63</u>	<u>-11.31</u>	<u>5.76</u>	<u>5.08</u>	<u>8.13</u>	<u>8.47</u>	<u>9.11</u>		
Over/Under			2.77	2.16	0.59	-0.93	-0.93	-3.10	-2.65		
<b>Private Equity</b>	<b>4,160,658,142</b>	<b>18.28</b>	<b>0.71</b>	<b>5.95</b>	<b>18.47</b>	<b>14.98</b>	<b>13.55</b>	<b>13.55</b>	<b>11.36</b>	<b>Dec-95</b>	
<i>Private Equity Blend</i>			<u>-0.60</u>	<u>3.66</u>	<u>8.29</u>	<u>16.37</u>	<u>13.73</u>	<u>12.88</u>	<u>13.13</u>		
Over/Under			1.31	2.29	10.18	-1.39	-0.18	0.67	-1.77		
<b>Cash</b>	<b>230,235,483</b>	<b>1.01</b>									

Refer to appendix for blended benchmark definitions.

**COMPOSITE PERFORMANCE DETAIL NET**

	Allocation		Performance (%)								Inception Date
	Market Value (\$)	% of Portfolio	3 Mo (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	20 Yrs (%)	Inception (%)		
<b>LACERS Master Trust</b>	<b>22,765,251,564</b>	<b>100.00</b>	<b>6.92</b>	<b>11.32</b>	<b>4.58</b>	<b>8.57</b>	<b>6.79</b>	<b>7.07</b>	<b>6.82</b>	<b>Jul-01</b>	
<i>Policy Index</i>			<u>6.71</u>	<u>11.43</u>	<u>3.00</u>	<u>8.55</u>	<u>6.71</u>	<u>7.04</u>	<u>6.74</u>		
Over/Under			0.21	-0.11	1.58	0.02	0.08	0.03	0.08		
<b>U.S. Equity</b>	<b>4,608,796,758</b>	<b>20.24</b>	<b>11.94</b>	<b>23.62</b>	<b>8.43</b>	<b>14.67</b>	<b>11.07</b>	<b>9.39</b>	<b>8.87</b>	<b>Sep-01</b>	
<i>U.S. Equity Blend</i>			<u>12.07</u>	<u>25.96</u>	<u>8.54</u>	<u>15.16</u>	<u>11.48</u>	<u>9.67</u>	<u>8.84</u>		
Over/Under			-0.13	-2.34	-0.11	-0.49	-0.41	-0.28	0.03		
<b>Non-U.S. Equity</b>	<b>5,760,583,684</b>	<b>25.30</b>	<b>9.86</b>	<b>15.62</b>	<b>1.54</b>	<b>7.93</b>	<b>4.59</b>	<b>6.23</b>	<b>6.01</b>	<b>Jun-01</b>	
<i>MSCI AC World ex USA (Net)</i>			<u>9.75</u>	<u>15.62</u>	<u>1.55</u>	<u>7.08</u>	<u>3.83</u>	<u>5.68</u>	<u>5.32</u>		
Over/Under			0.11	0.00	-0.01	0.85	0.76	0.55	0.69		
<b>Core Fixed Income</b>	<b>3,288,980,724</b>	<b>14.45</b>	<b>6.96</b>	<b>5.85</b>	<b>-2.97</b>	<b>1.65</b>	<b>2.16</b>	<b>-</b>	<b>2.15</b>	<b>Jul-12</b>	
<i>Core Fixed Income Blend</i>			<u>6.82</u>	<u>5.53</u>	<u>-3.31</u>	<u>1.10</u>	<u>1.81</u>	<u>-</u>	<u>1.63</u>		
Over/Under			0.14	0.32	0.34	0.55	0.35	-	0.52		
<b>Credit Opportunities</b>	<b>2,048,504,171</b>	<b>9.00</b>	<b>6.34</b>	<b>12.66</b>	<b>0.38</b>	<b>3.87</b>	<b>3.65</b>	<b>-</b>	<b>4.04</b>	<b>Jul-13</b>	
<i>Credit Opportunities Blend</i>			<u>6.17</u>	<u>12.64</u>	<u>0.33</u>	<u>4.26</u>	<u>4.12</u>	<u>-</u>	<u>4.49</u>		
Over/Under			0.17	0.02	0.05	-0.39	-0.47	-	-0.45		
<b>Real Assets</b>	<b>2,667,492,601</b>	<b>11.72</b>	<b>3.71</b>	<b>-1.11</b>	<b>2.88</b>	<b>3.95</b>	<b>5.25</b>	<b>4.32</b>	<b>4.69</b>	<b>Jun-01</b>	
<i>Real Assets Policy Benchmark</i>			<u>2.47</u>	<u>-1.64</u>	<u>2.16</u>	<u>4.04</u>	<u>5.31</u>	<u>5.63</u>	<u>5.78</u>		
Over/Under			1.24	0.53	0.72	-0.09	-0.06	-1.31	-1.09		
<b>Public Real Assets</b>	<b>1,336,613,885</b>	<b>5.87</b>	<b>9.14</b>	<b>6.78</b>	<b>1.45</b>	<b>4.43</b>	<b>-</b>	<b>-</b>	<b>2.30</b>	<b>Jul-14</b>	
<i>Public Real Assets Blend</i>			<u>9.45</u>	<u>6.94</u>	<u>2.58</u>	<u>4.50</u>	<u>-</u>	<u>-</u>	<u>1.24</u>		
Over/Under			-0.31	-0.16	-1.13	-0.07	-	-	1.06		
<b>Private Real Estate</b>	<b>1,311,118,134</b>	<b>5.76</b>	<b>-1.87</b>	<b>-9.21</b>	<b>6.27</b>	<b>4.06</b>	<b>7.11</b>	<b>5.23</b>	<b>5.52</b>	<b>Jul-01</b>	
<i>Real Estate Blend</i>			<u>-4.63</u>	<u>-11.31</u>	<u>5.76</u>	<u>5.08</u>	<u>8.13</u>	<u>8.47</u>	<u>8.33</u>		
Over/Under			2.76	2.10	0.51	-1.02	-1.02	-3.24	-2.81		
<b>Private Equity</b>	<b>4,160,658,142</b>	<b>18.28</b>	<b>0.72</b>	<b>5.97</b>	<b>18.49</b>	<b>14.99</b>	<b>13.56</b>	<b>13.49</b>	<b>11.43</b>	<b>Sep-01</b>	
<i>Private Equity Blend</i>			<u>-0.60</u>	<u>3.66</u>	<u>8.29</u>	<u>16.37</u>	<u>13.73</u>	<u>12.88</u>	<u>12.15</u>		
Over/Under			1.32	2.31	10.20	-1.38	-0.17	0.61	-0.72		
<b>Cash</b>	<b>230,235,483</b>	<b>1.01</b>									

Refer to appendix for blended benchmark definitions.

# RISK STATISTICS

3 Years Ending December 31, 2023						
	Return	Standard Deviation	Alpha	Information Ratio	Sortino Ratio	Tracking Error
<b>LACERS Master Trust</b>	<b>4.74 (46)</b>	<b>9.95 (54)</b>	<b>1.85 (50)</b>	<b>0.94 (20)</b>	<b>0.43 (51)</b>	<b>1.73 (7)</b>
InvMetrics Public DB \$1-50B Gross Median	4.53	9.63	1.83	0.69	0.43	2.52

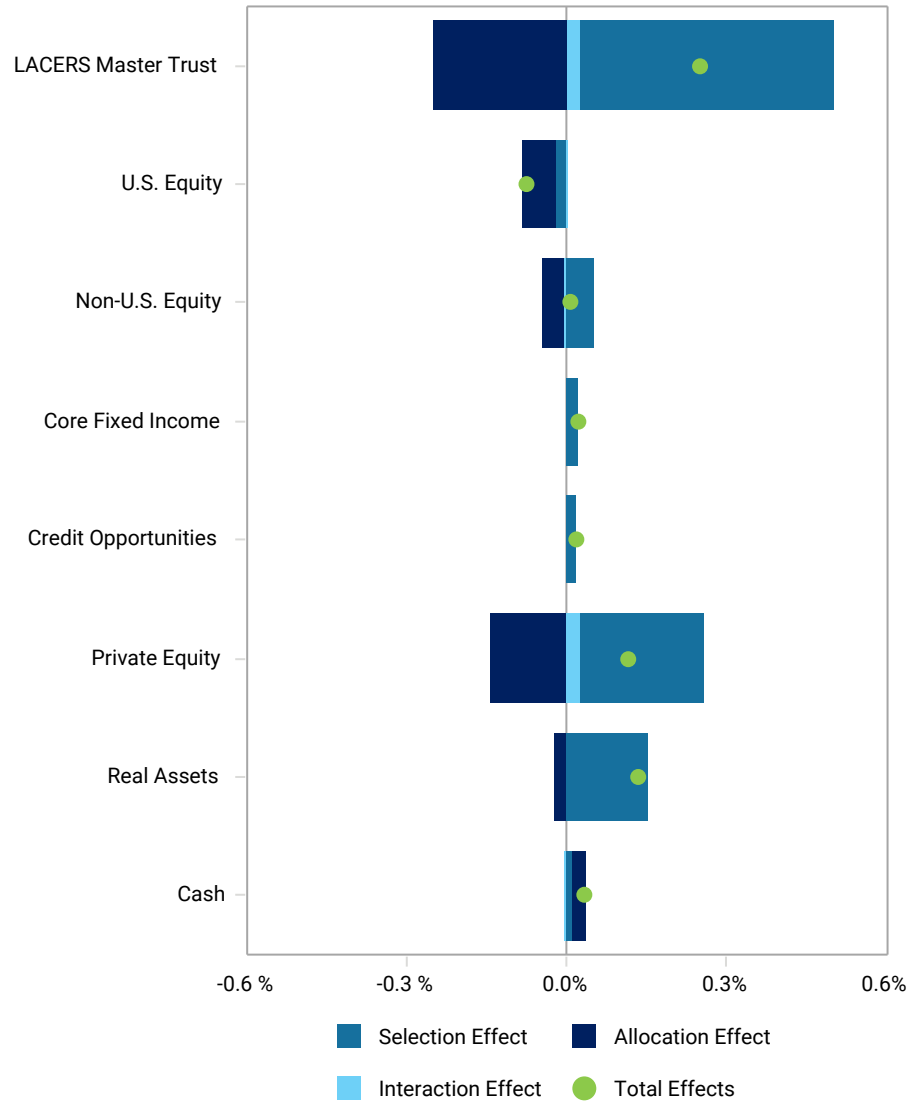
5 Years Ending December 31, 2023						
	Return	Standard Deviation	Alpha	Information Ratio	Sortino Ratio	Tracking Error
<b>LACERS Master Trust</b>	<b>8.74 (40)</b>	<b>10.77 (44)</b>	<b>1.01 (36)</b>	<b>0.02 (37)</b>	<b>1.00 (32)</b>	<b>2.06 (16)</b>
InvMetrics Public DB \$1-50B Gross Median	8.39	10.93	0.56	-0.10	0.91	2.66

3 Years Ending December 31, 2023						
	Return	Standard Deviation	Alpha	Information Ratio	Sortino Ratio	Tracking Error
<b>LACERS Master Trust</b>	<b>4.74 (48)</b>	<b>9.95 (68)</b>	<b>1.85 (53)</b>	<b>0.94 (27)</b>	<b>0.43 (58)</b>	<b>1.73 (10)</b>
InvMetrics Public DB \$5-50B Gross Median	4.67	9.45	1.89	0.80	0.44	2.57

5 Years Ending December 31, 2023						
	Return	Standard Deviation	Alpha	Information Ratio	Sortino Ratio	Tracking Error
<b>LACERS Master Trust</b>	<b>8.74 (51)</b>	<b>10.77 (66)</b>	<b>1.01 (51)</b>	<b>0.02 (39)</b>	<b>1.00 (51)</b>	<b>2.06 (16)</b>
InvMetrics Public DB \$5-50B Gross Median	8.74	10.36	1.01	-0.01	1.00	2.87

# ATTRIBUTION ANALYSIS

## Attribution Effects 1 Quarter Ending December 31, 2023



## Attribution Summary 1 Quarter Ending December 31, 2023

	Wtd. Actual Return (%)	Wtd. Index Return (%)	Excess Return (%)	Selection Effect (%)	Allocation Effect (%)	Interaction Effects (%)	Total Effects (%)
U.S. Equity	12.0	12.1	-0.1	0.0	-0.1	0.0	-0.1
Non-U.S. Equity	9.9	9.8	0.2	0.1	0.0	0.0	0.0
Core Fixed Income	7.0	6.8	0.2	0.0	0.0	0.0	0.0
Credit Opportunities	6.4	6.2	0.2	0.0	0.0	0.0	0.0
Private Equity	0.7	-0.6	1.3	0.2	-0.1	0.0	0.1
Real Assets	3.7	2.5	1.3	0.2	0.0	0.0	0.1
Cash	2.6	1.4	1.2	0.0	0.0	0.0	0.0
<b>LACERS Master Trust</b>	<b>7.0</b>	<b>6.7</b>	<b>0.3</b>	<b>0.5</b>	<b>-0.3</b>	<b>0.0</b>	<b>0.3</b>

Wtd. = Weighted

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

\*Total Actual and Index returns are weighted average calculations.

# ATTRIBUTION ANALYSIS

## Attribution Effects 1 Year Ending December 31, 2023



## Attribution Summary 1 Year Ending December 31, 2023

	Wtd. Actual Return (%)	Wtd. Index Return (%)	Excess Return (%)	Selection Effect (%)	Allocation Effect (%)	Interaction Effects (%)	Total Effects (%)
U.S. Equity	23.8	26.0	-2.2	-0.4	-0.1	0.0	-0.5
Non-U.S. Equity	16.0	15.6	0.4	0.1	0.0	0.0	0.1
Core Fixed Income	6.0	5.5	0.4	0.1	0.0	0.0	0.1
Credit Opportunities	13.0	12.6	0.4	0.0	0.0	0.0	0.0
Private Equity	5.9	3.7	2.3	0.4	-0.2	0.0	0.3
Real Assets	-1.0	-1.6	0.6	0.1	-0.1	0.0	0.0
Cash	7.7	5.0	2.7	0.0	0.1	0.0	0.1
<b>LACERS Master Trust</b>	<b>11.5</b>	<b>11.5</b>	<b>0.0</b>	<b>0.3</b>	<b>-0.3</b>	<b>0.0</b>	<b>0.0</b>

Wtd. = Weighted

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

\*Total Actual and Index returns are weighted average calculations.

# ATTRIBUTION ANALYSIS

**Attribution Effects**  
3 Years Ending December 31, 2023



**Attribution Summary**  
3 Years Ending December 31, 2023

	Wtd. Actual Return (%)	Wtd. Index Return (%)	Excess Return (%)	Selection Effect (%)	Allocation Effect (%)	Interaction Effects (%)	Total Effects (%)
U.S. Equity	8.5	8.5	0.0	0.0	0.0	0.0	0.0
Non-U.S. Equity	1.9	1.5	0.3	0.1	0.0	0.0	0.1
Core Fixed Income	-2.9	-3.3	0.4	0.1	0.1	0.0	0.1
Credit Opportunities	0.7	0.3	0.4	0.0	-0.1	0.0	0.0
Private Equity	18.5	8.3	10.2	1.4	0.1	0.0	1.5
Real Assets	3.0	2.2	0.8	0.1	0.0	0.0	0.1
Cash	2.4	2.2	0.2	0.0	0.0	0.0	0.0
<b>LACERS Master Trust</b>	<b>4.7</b>	<b>3.0</b>	<b>1.7</b>	<b>1.6</b>	<b>0.1</b>	<b>0.0</b>	<b>1.7</b>

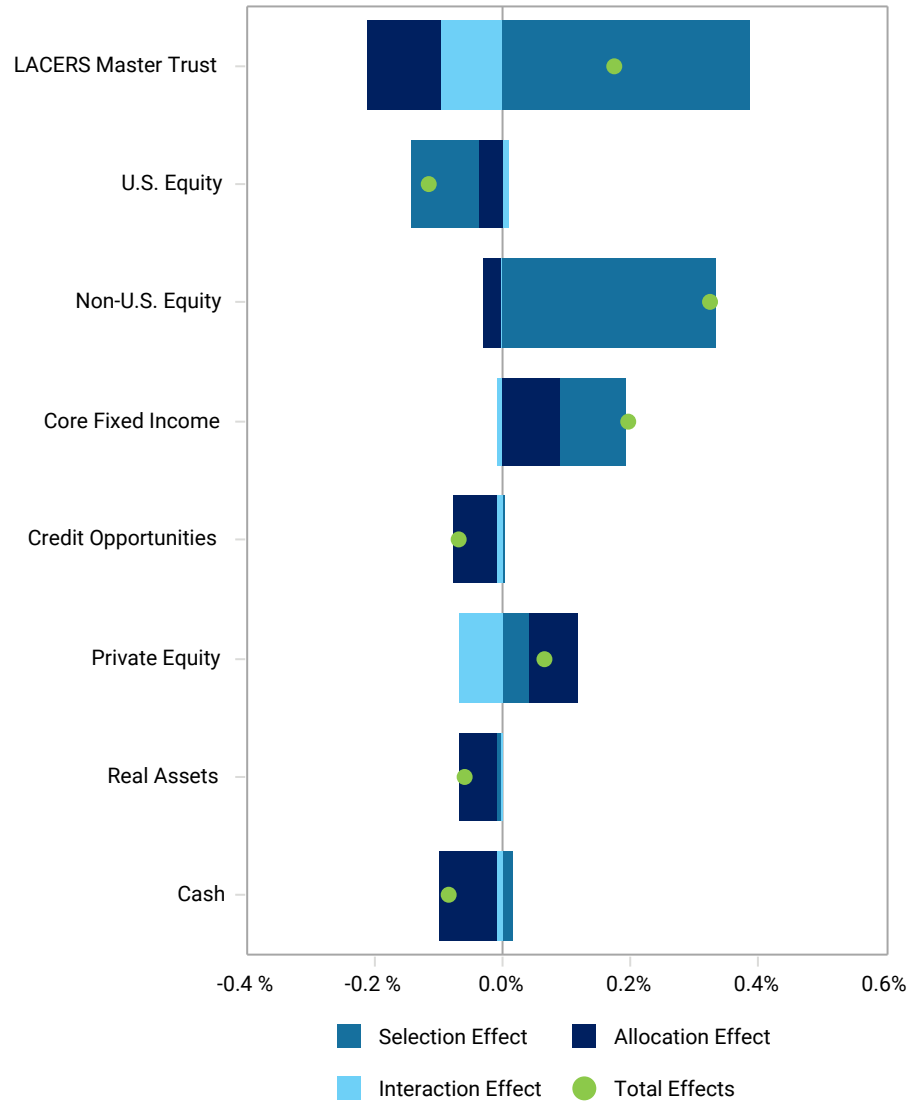
Wtd. = Weighted

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

\*Total Actual and Index returns are weighted average calculations.

# ATTRIBUTION ANALYSIS

**Attribution Effects  
5 Years Ending December 31, 2023**



**Attribution Summary  
5 Years Ending December 31, 2023**

	Wtd. Actual Return (%)	Wtd. Index Return (%)	Excess Return (%)	Selection Effect (%)	Allocation Effect (%)	Interaction Effects (%)	Total Effects (%)
U.S. Equity	14.8	15.2	-0.4	-0.1	0.0	0.0	-0.1
Non-U.S. Equity	8.3	7.1	1.2	0.3	0.0	0.0	0.3
Core Fixed Income	1.7	1.1	0.6	0.1	0.1	0.0	0.2
Credit Opportunities	4.2	4.3	-0.1	0.0	-0.1	0.0	-0.1
Private Equity	15.0	16.4	-1.4	0.0	0.1	-0.1	0.1
Real Assets	4.1	4.0	0.1	0.0	-0.1	0.0	-0.1
Cash	3.4	1.9	1.6	0.0	-0.1	0.0	-0.1
<b>LACERS Master Trust</b>	<b>8.7</b>	<b>8.6</b>	<b>0.2</b>	<b>0.4</b>	<b>-0.1</b>	<b>-0.1</b>	<b>0.2</b>

Wtd. = Weighted

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

\*Total Actual and Index returns are weighted average calculations.



# PRIVATE MARKETS PERFORMANCE

AS OF SEPTEMBER 30, 2023

Private Equity	10 Year IRR	Since Inception IRR	Since Inception Multiple
Aggregate Portfolio	13.7%	12.1%	1.64x
Core Portfolio	14.3%	12.6%	1.65x
Specialized Portfolio	0.7%	1.8%	1.12x
PE Blended Benchmark	14.3%	12.9%	N/A

Source: Aksia

Real Estate	10 Year Return (Net)	Since Inception Return (Net)
Total Portfolio (TWR) <sup>1</sup>	7.2%	5.9%
NFI-ODCE + 80 basis points (TWR)	8.0%	6.9%

Source: The Townsend Group, an AON Company

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.

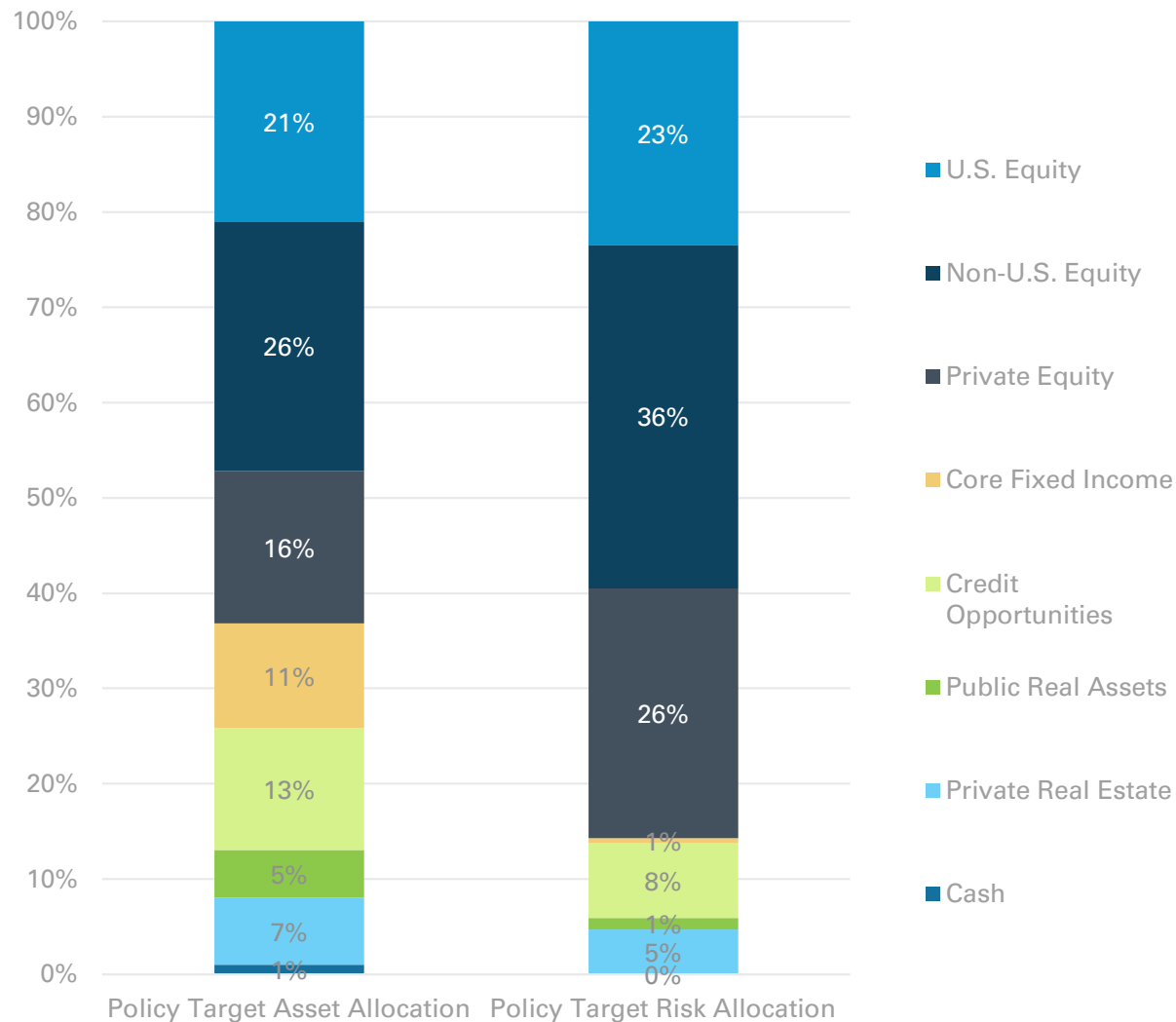
1 - IRR is not available for the Real Estate portfolio and therefore only time weighted returns (TWR) are reported.





# 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 DECEMBER 31, 2023

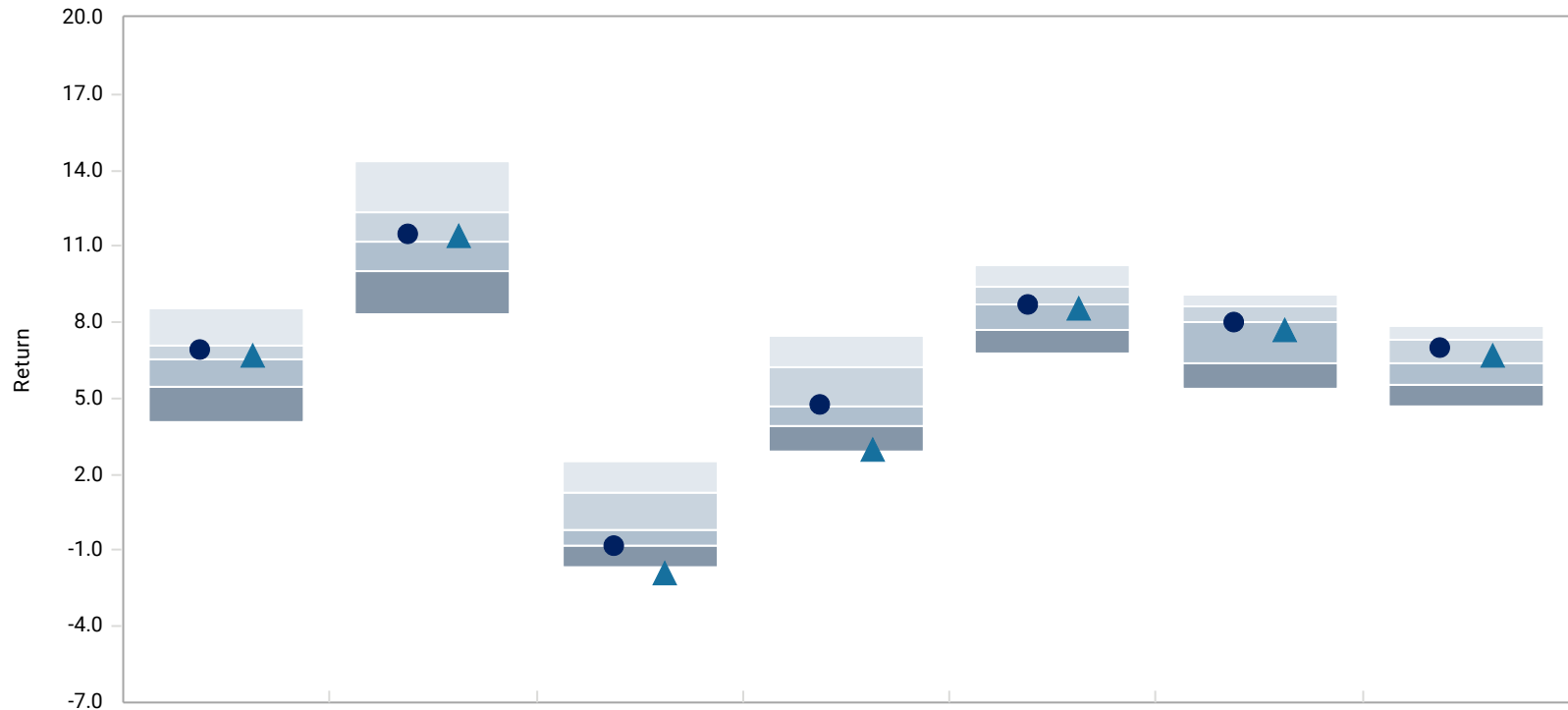
Public Markets Asset Class	Target Risk Budget	Actual 3 Yr Tracking Error
U.S. Equity	1.25%	1.09%
Non-U.S. Equity	1.75%	1.71%
Core Fixed Income	1.75%	0.35%
Credit Opportunities	3.50%	1.47%
Public Real Assets*	1.25%	1.77%

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

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

# RETURN SUMMARY VS. PEER UNIVERSE

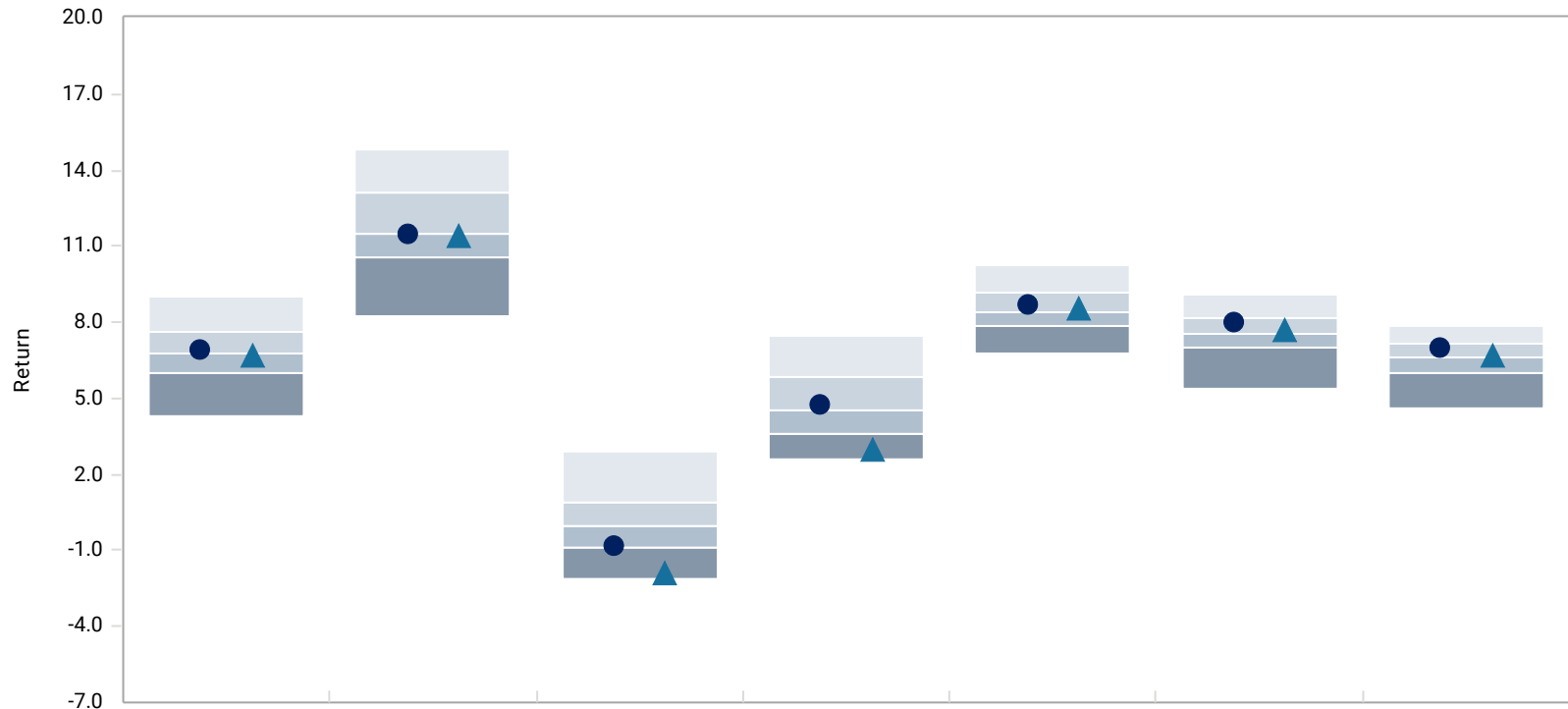
LACERS Master Trust vs. InvMetrics Public DB \$5-50B Gross



	3 Mo (%)	1 Year (%)	2 Years (%)	3 Years (%)	5 Years (%)	7 Years (%)	10 Years (%)
● LACERS Master Trust	7.0 (37)	11.5 (38)	-0.8 (76)	4.7 (48)	8.7 (51)	8.0 (45)	7.0 (41)
▲ Policy Index	6.7 (46)	11.4 (42)	-1.9 (96)	3.0 (95)	8.5 (57)	7.7 (58)	6.7 (45)
5th Percentile	8.5	14.4	2.5	7.5	10.2	9.1	7.8
1st Quartile	7.1	12.4	1.2	6.3	9.4	8.7	7.3
Median	6.5	11.2	-0.2	4.7	8.7	8.0	6.4
3rd Quartile	5.4	10.0	-0.8	3.9	7.7	6.4	5.5
95th Percentile	4.0	8.3	-1.7	2.9	6.8	5.4	4.6
Population	31	28	21	20	19	19	16

# RETURN SUMMARY VS. PEER UNIVERSE

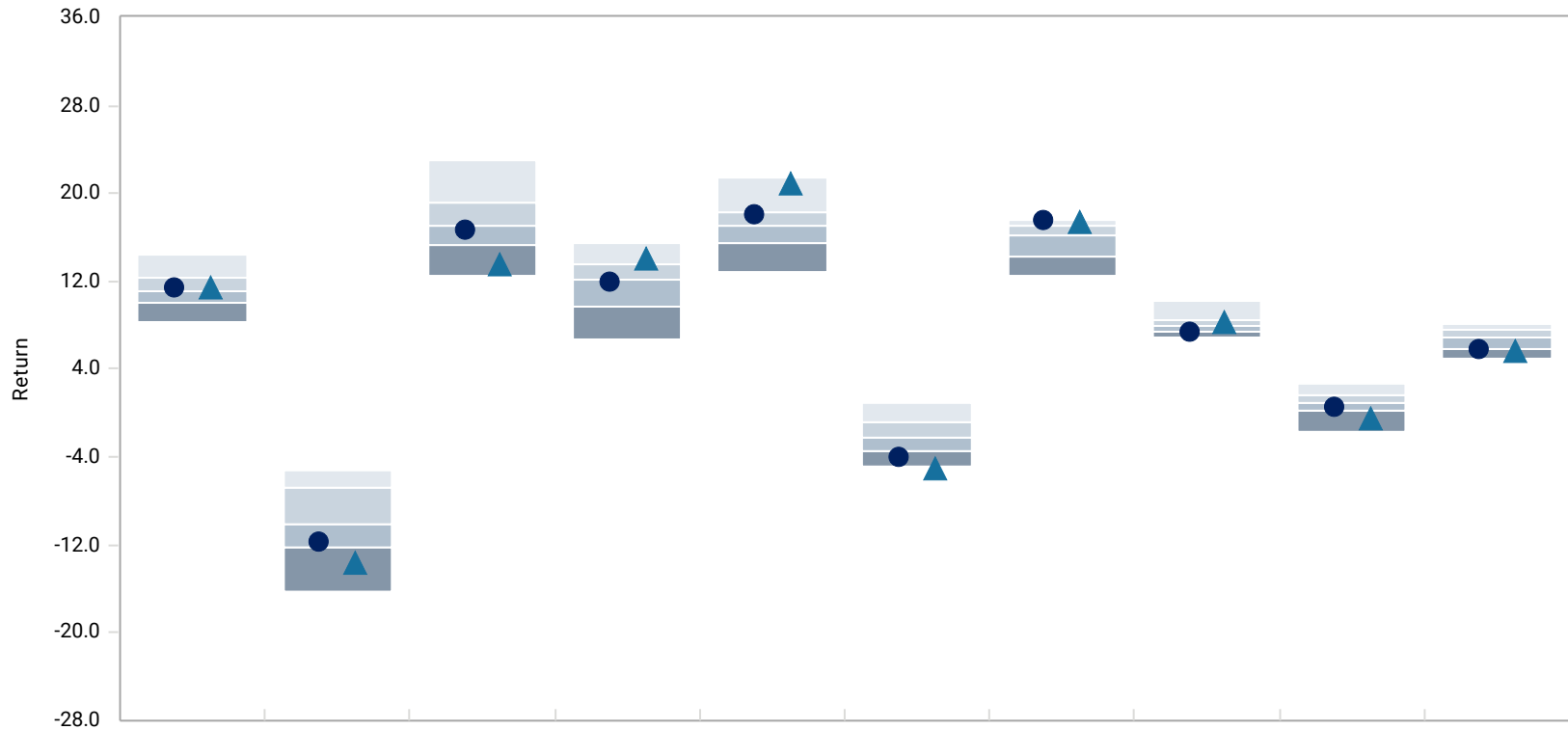
LACERS Master Trust vs. InvMetrics Public DB \$1-50B Gross



	3 Mo (%)	1 Yr (%)	2 Yrs (%)	3 Yrs (%)	5 Yrs (%)	7 Yrs (%)	10 Yrs (%)
● LACERS Master Trust	7.0 (49)	11.5 (51)	-0.8 (74)	4.7 (46)	8.7 (40)	8.0 (29)	7.0 (34)
▲ Policy Index	6.7 (53)	11.4 (53)	-1.9 (93)	3.0 (90)	8.5 (44)	7.7 (48)	6.7 (46)
5th Percentile	9.0	14.8	2.9	7.5	10.2	9.1	7.8
1st Quartile	7.6	13.1	0.9	5.8	9.1	8.2	7.2
Median	6.8	11.5	0.0	4.5	8.4	7.6	6.6
3rd Quartile	6.0	10.5	-0.9	3.6	7.8	7.0	6.0
95th Percentile	4.3	8.2	-2.1	2.6	6.8	5.4	4.6
Population	96	88	79	78	75	75	70

# RETURN SUMMARY VS. PEER UNIVERSE

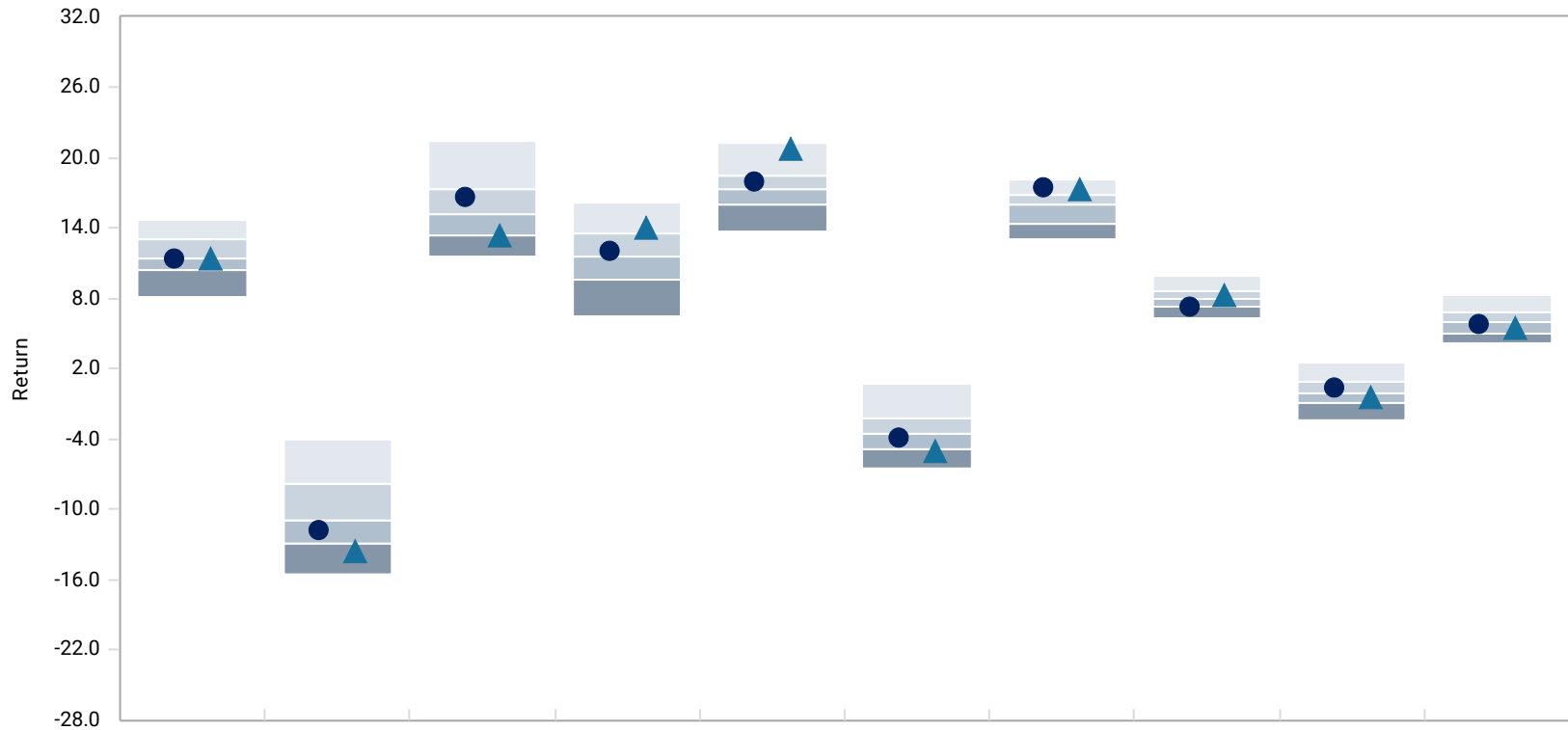
LACERS Master Trust vs. InvMetrics Public DB \$5-50B Gross



	2023	2022	2021	2020	2019	2018	2017	2016	2015	2014
● LACERS Master Trust	11.5 (38)	-11.8 (72)	16.8 (57)	12.1 (51)	18.1 (26)	-3.9 (82)	17.6 (6)	7.4 (80)	0.5 (65)	5.9 (73)
▲ Policy Index	11.4 (42)	-13.6 (88)	13.5 (86)	14.1 (19)	20.9 (6)	-5.0 (98)	17.4 (8)	8.3 (31)	-0.4 (84)	5.6 (81)
5th Percentile	14.4	-5.3	23.0	15.5	21.4	0.9	17.6	10.3	2.7	8.2
1st Quartile	12.4	-6.8	19.1	13.6	18.2	-0.8	17.0	8.5	1.7	7.5
Median	11.2	-10.0	17.1	12.1	17.1	-2.2	16.2	8.0	0.8	6.8
3rd Quartile	10.0	-12.3	15.3	9.6	15.6	-3.4	14.3	7.5	0.3	5.9
95th Percentile	8.3	-16.2	12.4	6.8	12.9	-4.9	12.5	6.9	-1.6	5.0
Population	28	43	49	54	40	34	40	40	40	38

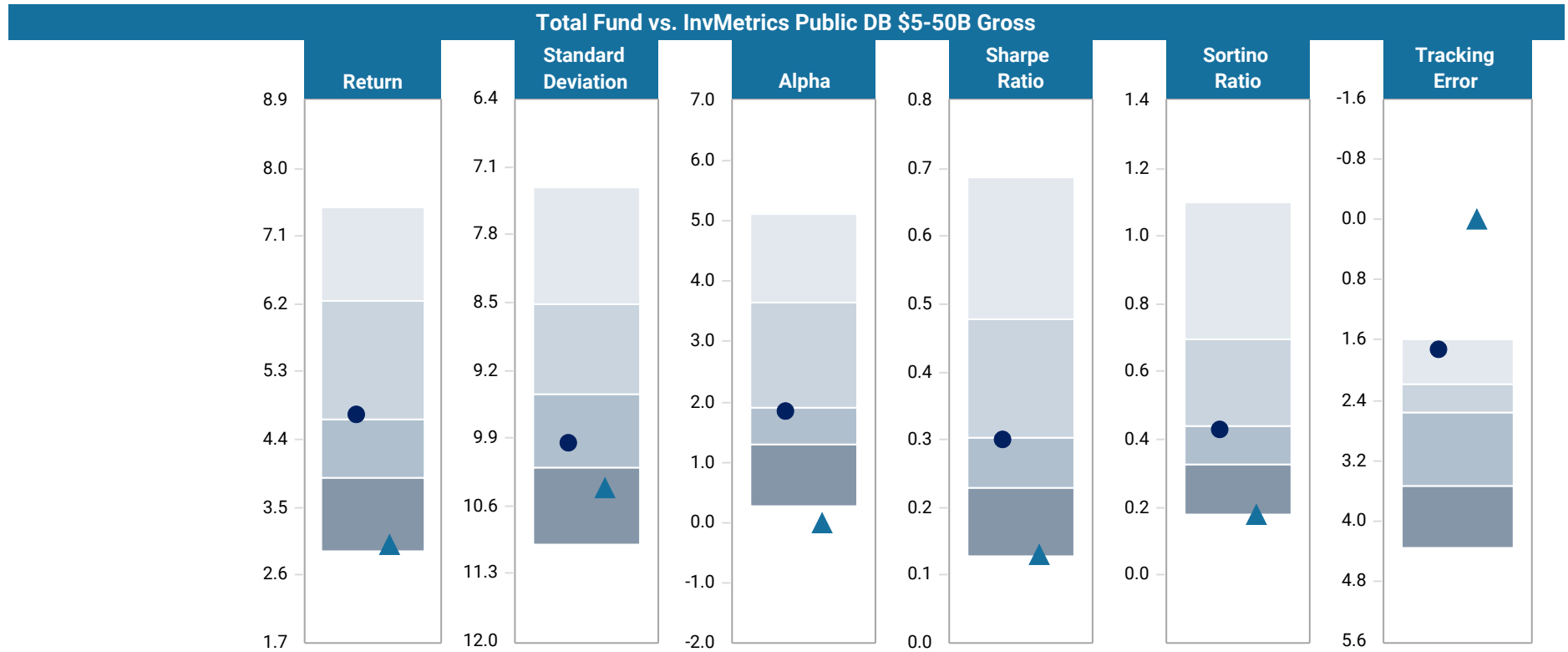
# RETURN SUMMARY VS. PEER UNIVERSE

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



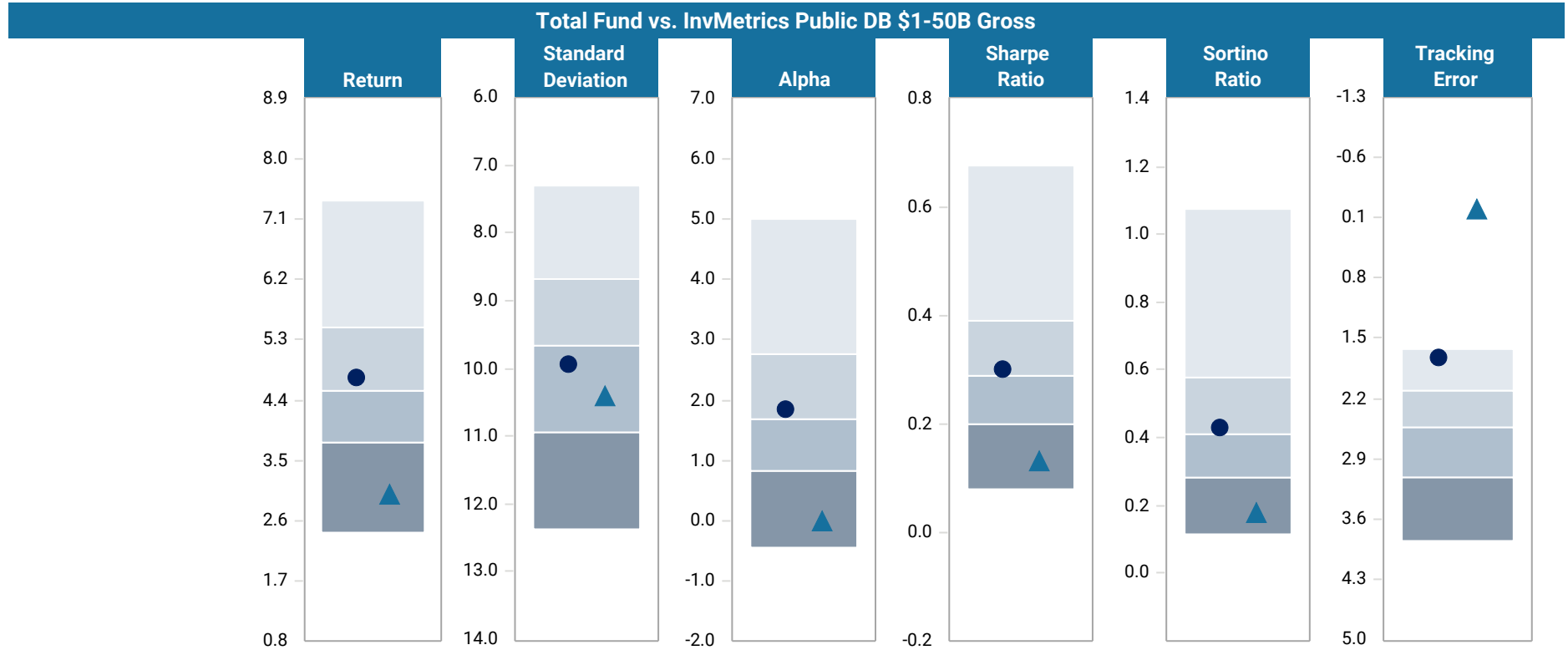
	2023	2022	2021	2020	2019	2018	2017	2016	2015	2014
● LACERS Master Trust	11.5 (51)	-11.8 (64)	16.8 (37)	12.1 (47)	18.1 (31)	-3.9 (59)	17.6 (12)	7.4 (75)	0.5 (36)	5.9 (52)
▲ Policy Index	11.4 (53)	-13.6 (83)	13.5 (74)	14.1 (20)	20.9 (8)	-5.0 (77)	17.4 (13)	8.3 (34)	-0.4 (60)	5.6 (58)
5th Percentile	14.8	-3.9	21.4	16.2	21.4	0.8	18.1	10.0	2.5	8.3
1st Quartile	13.1	-7.8	17.3	13.7	18.5	-2.2	16.8	8.6	1.0	6.9
Median	11.5	-10.9	15.3	11.6	17.3	-3.5	16.0	8.1	0.0	6.0
3rd Quartile	10.5	-12.8	13.4	9.7	16.0	-4.8	14.4	7.4	-0.9	5.1
95th Percentile	8.2	-15.6	11.5	6.5	13.8	-6.5	13.0	6.3	-2.4	4.1
Population	88	110	141	155	121	105	112	120	117	113

# RISK STATISTICS VS. PEER UNIVERSE



	3 Yrs (%)	3 Yrs (%)	3 Yrs (%)	3 Yrs (%)	3 Yrs (%)	3 Yrs (%)
● LACERS Master Trust	4.7 (48)	9.9 (68)	1.8 (53)	0.3 (53)	0.4 (58)	1.7 (10)
▲ Policy Index	3.0 (95)	10.4 (81)	0.0 (97)	0.1 (95)	0.2 (95)	0.0 (1)
5th Percentile	7.5	7.3	5.1	0.7	1.1	1.6
1st Quartile	6.3	8.5	3.7	0.5	0.7	2.2
Median	4.7	9.4	1.9	0.3	0.4	2.6
3rd Quartile	3.9	10.2	1.3	0.2	0.3	3.5
95th Percentile	2.9	11.0	0.3	0.1	0.2	4.4
Population	20	20	20	20	20	20

# RISK STATISTICS VS. PEER UNIVERSE



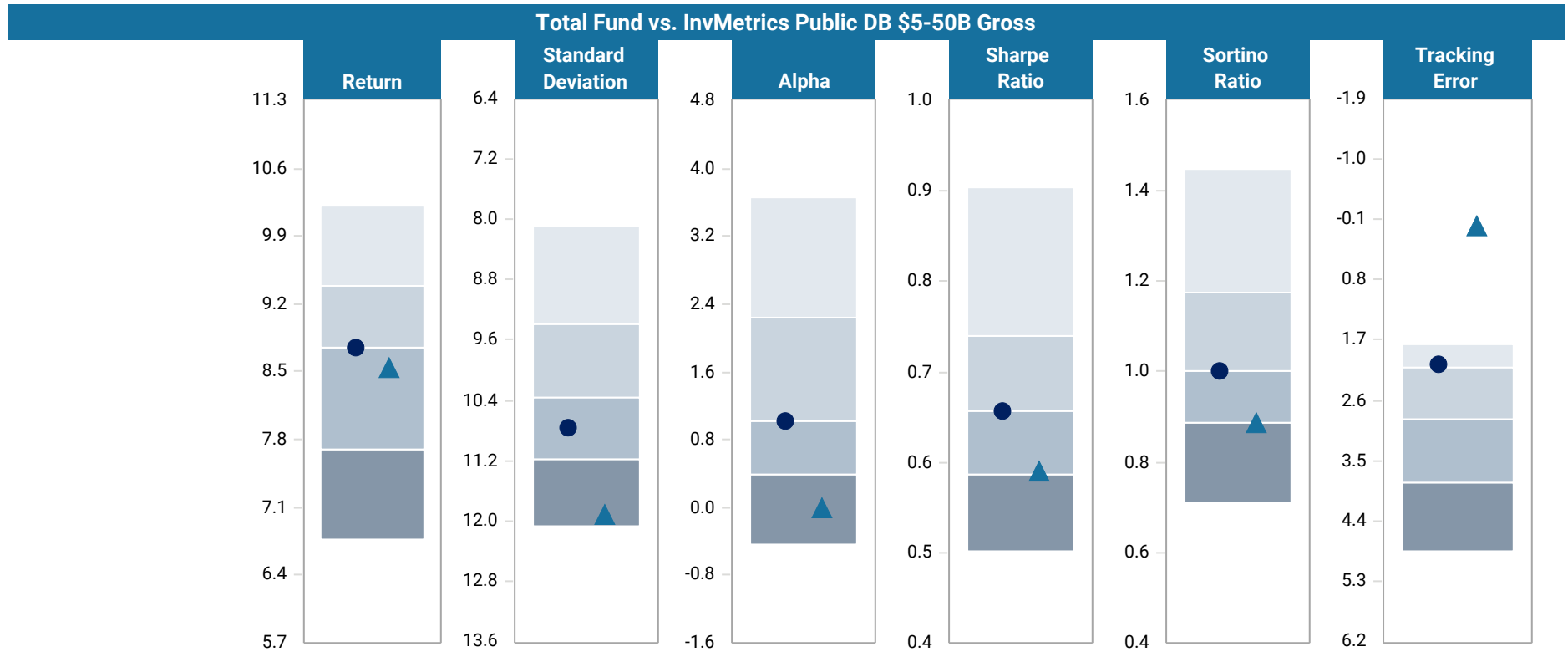
	3 Yrs (%)	3 Yrs (%)	3 Yrs (%)	3 Yrs (%)	3 Yrs (%)	3 Yrs (%)
● LACERS Master Trust	4.7 (41)	9.9 (54)	1.8 (45)	0.3 (44)	0.4 (44)	1.7 (9)
▲ Policy Index	3.0 (92)	10.4 (59)	0.0 (90)	0.1 (92)	0.2 (92)	0.0 (1)
5th Percentile	7.4	7.3	5.0	0.7	1.1	1.6
1st Quartile	5.5	8.7	2.8	0.4	0.6	2.1
Median	4.5	9.7	1.7	0.3	0.4	2.5
3rd Quartile	3.8	11.0	0.8	0.2	0.3	3.1
95th Percentile	2.4	12.4	-0.4	0.1	0.1	3.9

Population	71	71	71	71	71	71
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# RISK STATISTICS VS. PEER UNIVERSE

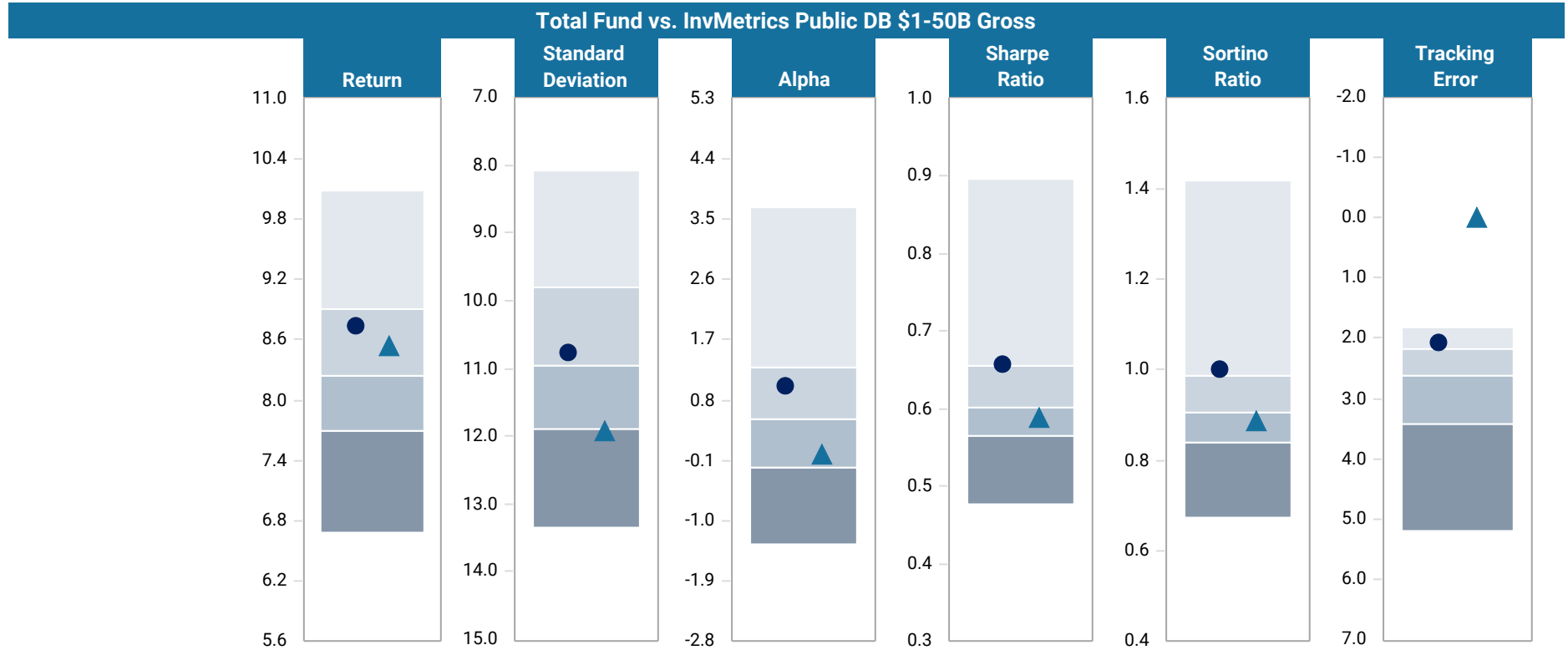


	5 Yrs (%)	5 Yrs (%)	5 Yrs (%)	5 Yrs (%)	5 Yrs (%)	5 Yrs (%)
● LACERS Master Trust	8.7 (51)	10.8 (66)	1.0 (51)	0.7 (51)	1.0 (51)	2.1 (16)
▲ Policy Index	8.5 (57)	11.9 (91)	0.0 (91)	0.6 (75)	0.9 (76)	0.0 (1)
5th Percentile	10.2	8.1	3.7	0.9	1.4	1.8
1st Quartile	9.4	9.4	2.2	0.7	1.2	2.1
Median	8.7	10.4	1.0	0.7	1.0	2.9
3rd Quartile	7.7	11.2	0.4	0.6	0.9	3.8
95th Percentile	6.8	12.1	-0.4	0.5	0.7	4.8

Population                      19                      19                      19                      19                      19                      19



# RISK STATISTICS VS. PEER UNIVERSE

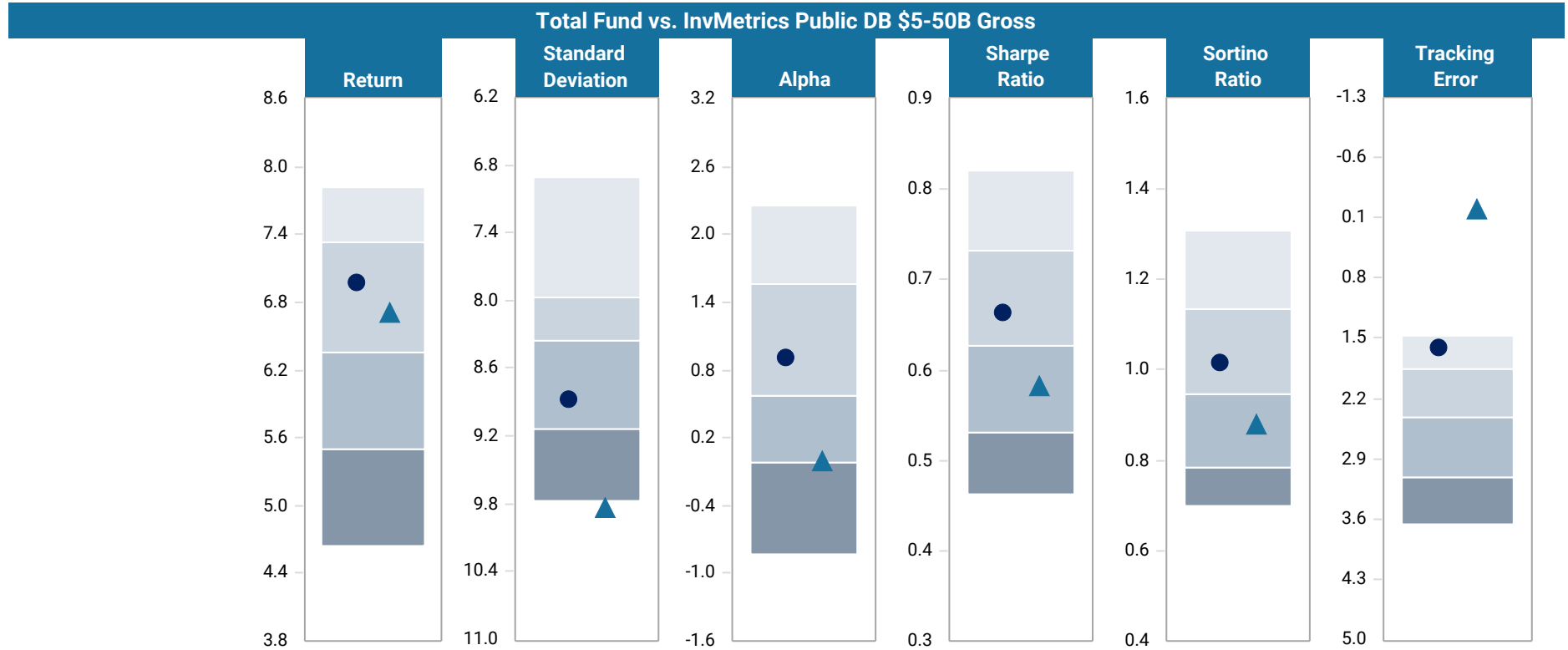


	5 Yrs (%)	5 Yrs (%)	5 Yrs (%)	5 Yrs (%)	5 Yrs (%)	5 Yrs (%)
● LACERS Master Trust	8.7 (32)	10.8 (41)	1.0 (31)	0.7 (24)	1.0 (23)	2.1 (18)
▲ Policy Index	8.5 (43)	11.9 (75)	0.0 (69)	0.6 (58)	0.9 (54)	0.0 (1)
5th Percentile	10.1	8.1	3.7	0.9	1.4	1.8
1st Quartile	8.9	9.8	1.3	0.7	1.0	2.2
Median	8.2	11.0	0.5	0.6	0.9	2.6
3rd Quartile	7.7	11.9	-0.2	0.6	0.8	3.4
95th Percentile	6.7	13.3	-1.4	0.5	0.7	5.2

Population                      68                      68                      68                      68                      68                      68



# RISK STATISTICS VS. PEER UNIVERSE

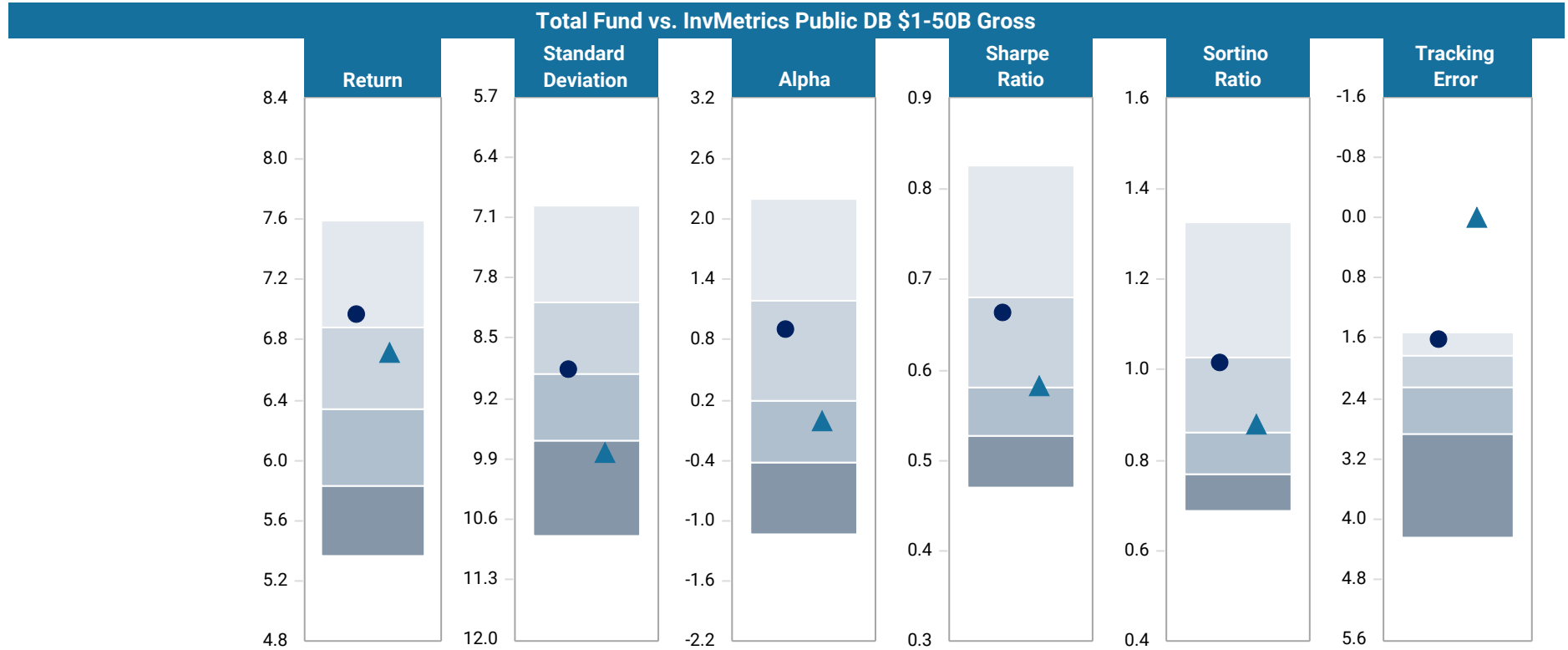


	10 Yrs (%)	10 Yrs (%)	10 Yrs (%)	10 Yrs (%)	10 Yrs (%)	10 Yrs (%)
● LACERS Master Trust	7.0 (41)	8.9 (66)	0.9 (47)	0.7 (47)	1.0 (47)	1.6 (13)
▲ Policy Index	6.7 (45)	9.8 (95)	0.0 (69)	0.6 (56)	0.9 (54)	0.0 (1)
5th Percentile	7.8	6.9	2.3	0.8	1.3	1.5
1st Quartile	7.3	8.0	1.6	0.7	1.1	1.9
Median	6.4	8.4	0.6	0.6	0.9	2.4
3rd Quartile	5.5	9.1	0.0	0.5	0.8	3.1
95th Percentile	4.6	9.8	-0.8	0.5	0.7	3.7

Population 16 16 16 16 16 16



# RISK STATISTICS VS. PEER UNIVERSE



	10 Yrs (%)	10 Yrs (%)	10 Yrs (%)	10 Yrs (%)	10 Yrs (%)	10 Yrs (%)
● LACERS Master Trust	7.0 (23)	8.9 (45)	0.9 (30)	0.7 (29)	1.0 (28)	1.6 (13)
▲ Policy Index	6.7 (35)	9.8 (80)	0.0 (60)	0.6 (50)	0.9 (45)	0.0 (1)
5th Percentile	7.6	7.0	2.2	0.8	1.3	1.5
1st Quartile	6.9	8.1	1.2	0.7	1.0	1.8
Median	6.3	8.9	0.2	0.6	0.9	2.3
3rd Quartile	5.8	9.7	-0.4	0.5	0.8	2.9
95th Percentile	5.4	10.8	-1.1	0.5	0.7	4.3

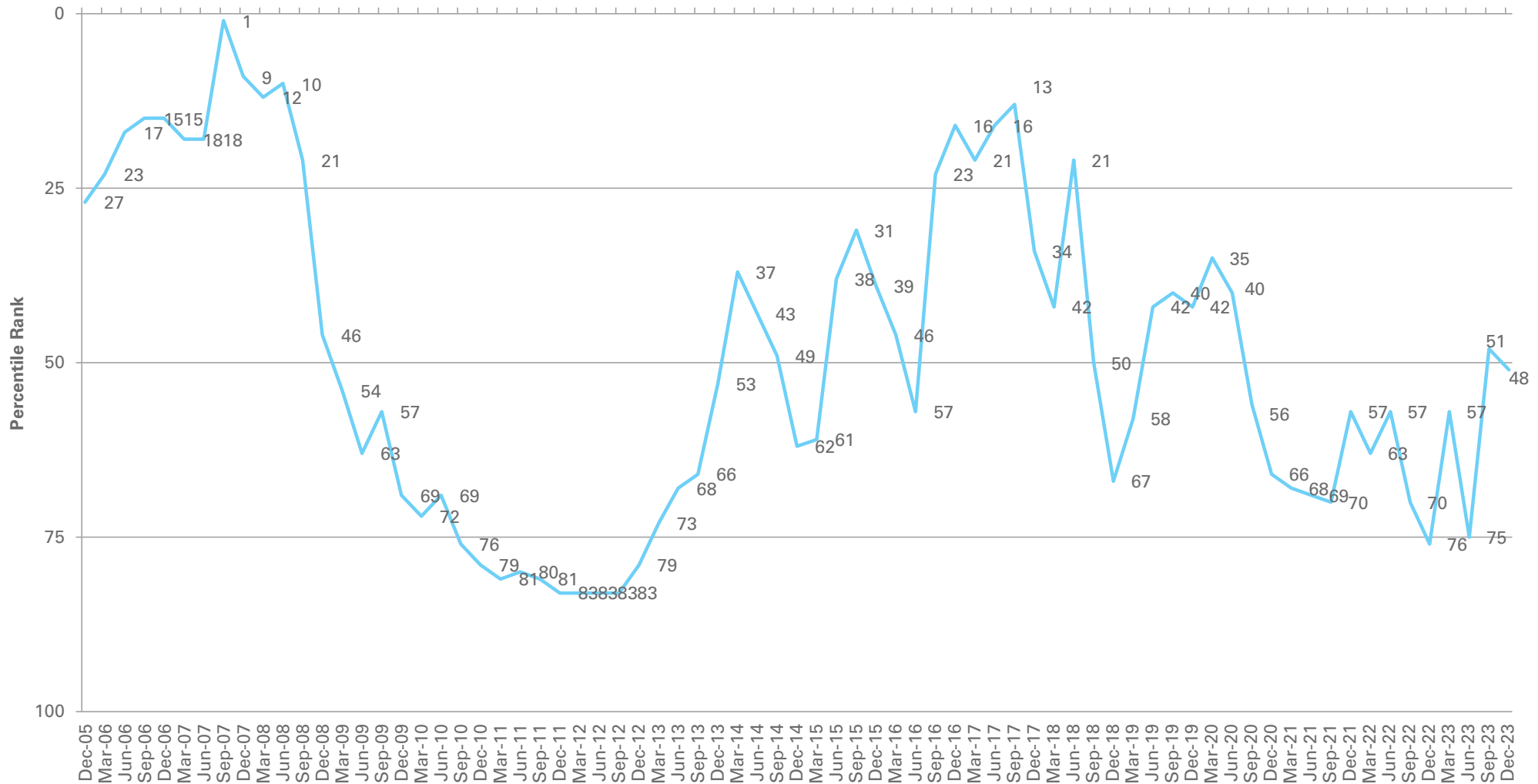
Population	62	62	62	62	62	62
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# HISTORICAL RISK ADJUSTED RETURN

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

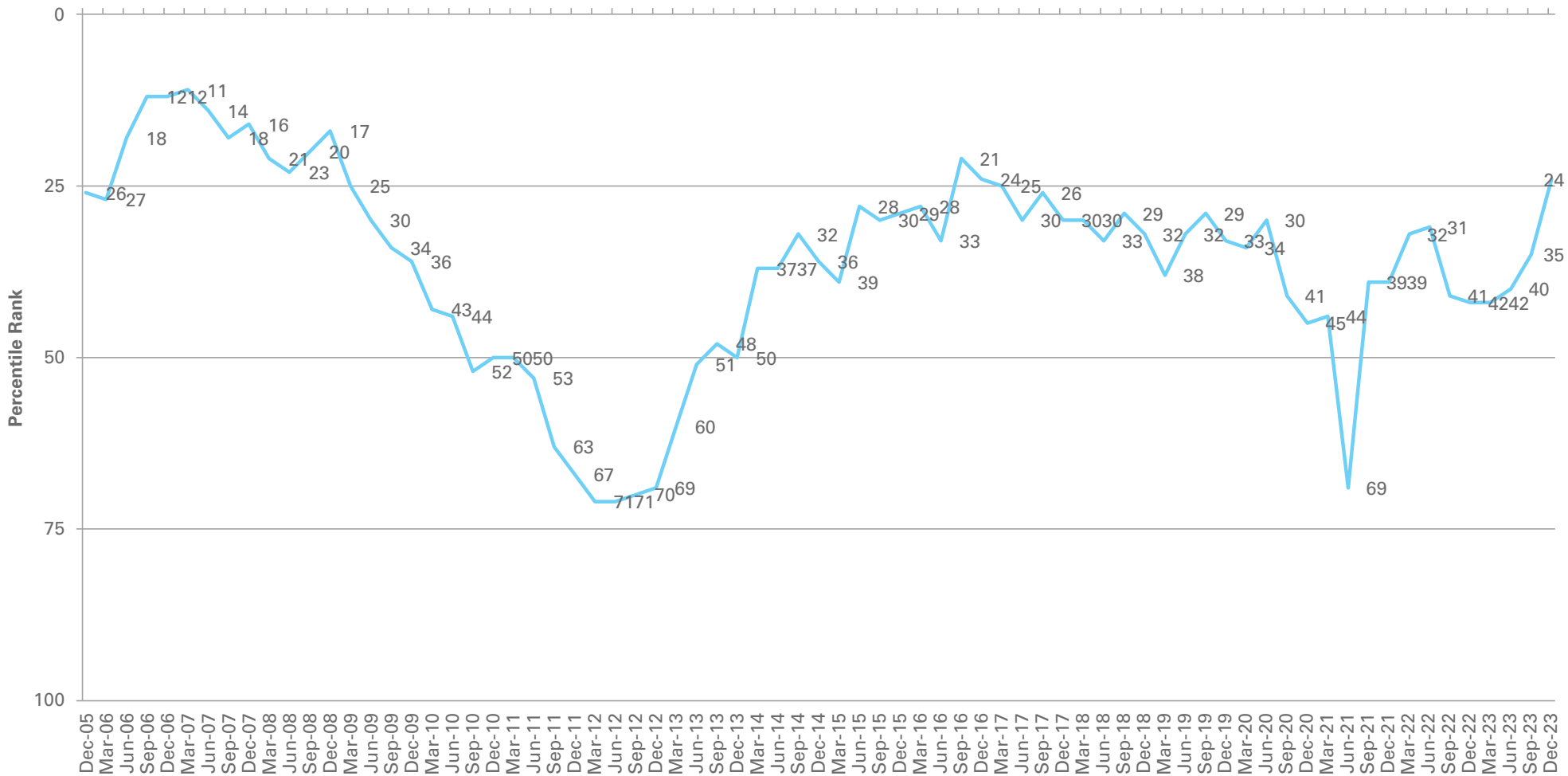
5 Yr Sharpe Ratio Percentile Rank  
LACERS Master Trust vs InvMetrics Public Funds \$5B-\$50B Gross of Fees



# HISTORICAL RISK ADJUSTED RETURN

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

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





# U.S. EQUITY MANAGER PERFORMANCE

**U.S EQUITY (GROSS)**

	Allocation		Performance (%)						
	Market Value (\$)	% of Portfolio	3 Mo (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
<b>U.S. Equity</b>	<b>4,608,796,758</b>	<b>100.00</b>	<b>11.97</b>	<b>23.75</b>	<b>8.54</b>	<b>14.76</b>	<b>11.17</b>	<b>9.05</b>	<b>Sep-01</b>
U.S. Equity Blend			12.07	25.96	8.54	15.16	11.48	8.84	
Over/Under			-0.10	-2.21	0.00	-0.40	-0.31	0.21	
RhumbLine Advisers Russell 2000	304,163,054	6.60	14.00	16.90	2.28	10.02		7.09	Apr-15
Russell 2000 Index			14.03	16.93	2.22	9.97		7.11	
Over/Under			-0.03	-0.03	0.06	0.05		-0.02	
Rhumblin Advisers Russell 2000 Value	124,387,596	2.70	15.23	14.59	8.02			8.02	Jan-21
Russell 2000 Value Index			15.26	14.65	7.94			7.94	
Over/Under			-0.03	-0.06	0.08			0.08	
EAM Investors	88,562,043	1.92	7.26	7.96	-7.84	8.64		8.72	Oct-15
Russell 2000 Growth Index			12.75	18.66	-3.50	9.22		8.76	
Over/Under			-5.49	-10.70	-4.34	-0.58		-0.04	
Principal Global Investors	346,647,677	7.52	14.51	26.59	7.84	16.62		13.18	Aug-14
Russell Midcap Index			12.82	17.23	5.92	12.68		9.41	
Over/Under			1.69	9.36	1.92	3.94		3.77	
RhumbLine Advisers S&P 500	3,230,338,818	70.09	11.68	26.20	10.06	15.63	11.99	7.14	Sep-00
S&P 500 Index			11.69	26.29	10.00	15.69	12.03	7.06	
Over/Under			-0.01	-0.09	0.06	-0.06	-0.04	0.08	
Copeland Capital Management	269,947,809	5.86	10.91	20.23	10.00			15.83	Oct-20
Russell 2000 Index			14.03	16.93	2.22			10.99	
Over/Under			-3.12	3.30	7.78			4.84	
Granahan Investment Management	125,116,715	2.71	12.48	11.48	-8.22			1.86	Oct-20
Russell 2000 Growth Index			12.75	18.66	-3.50			4.80	
Over/Under			-0.27	-7.18	-4.72			-2.94	
Segall, Bryant & Hamill	119,572,306	2.59	9.97	12.87	4.49			12.41	Oct-20
Russell 2000 Value Index			15.26	14.65	7.94			17.25	
Over/Under			-5.29	-1.78	-3.45			-4.84	

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

Refer to appendix for blended benchmark definitions.



# U.S. EQUITY (NET)

	Allocation		Performance (%)							Inception (%)	Inception Date
	Market Value (\$)	% of Portfolio	3 Mo (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)				
<b>U.S. Equity</b>	<b>4,608,796,758</b>	<b>100.00</b>	<b>11.94</b>	<b>23.62</b>	<b>8.43</b>	<b>14.67</b>	<b>11.07</b>	<b>8.87</b>	<b>8.87</b>	<b>Sep-01</b>	
<i>U.S. Equity Blend</i>			12.07	25.96	8.54	15.16	11.48	8.84			
Over/Under			-0.13	-2.34	-0.11	-0.49	-0.41	0.03			
<i>All Public Plans &gt; \$1B-US Equity Segment Median</i>											
RhumbLine Advisers Russell 2000	304,163,054	6.60	14.00 (20)	16.89 (47)	2.27 (71)	10.01 (77)	7.09 (72)	Apr-15			
<i>Russell 2000 Index</i>			14.03 (20)	16.93 (46)	2.22 (71)	9.97 (77)	7.11 (72)				
Over/Under			-0.03	-0.04	0.05	0.04	-0.02				
<i>eV US Small Cap Equity Median</i>			12.04	16.50	6.70	11.59	8.03				
Rhumbline Advisers Russell 2000 Value	124,387,596	2.70	15.23 (7)	14.58 (58)	8.02 (70)	8.02 (69)	Jan-21				
<i>Russell 2000 Value Index</i>			15.26 (7)	14.65 (58)	7.94 (72)	7.94 (70)					
Over/Under			-0.03	-0.07	0.08	0.08					
<i>eV US Small-Mid Cap Value Equity Median</i>			11.54	15.51	9.31	9.29					
EAM Investors	88,562,043	1.92	7.05 (96)	7.17 (94)	-8.50 (86)	7.89 (92)	7.95 (93)	Oct-15			
<i>Russell 2000 Growth Index</i>			12.75 (21)	18.66 (34)	-3.50 (58)	9.22 (82)	8.76 (84)				
Over/Under			-5.70	-11.49	-5.00	-1.33	-0.81				
<i>eV US Small Cap Growth Equity Median</i>			10.97	16.45	-2.47	11.27	10.81				
Principal Global Investors	346,647,677	7.52	14.41 (13)	26.14 (13)	7.46 (47)	16.22 (6)	12.77 (4)	Aug-14			
<i>Russell Midcap Index</i>			12.82 (35)	17.23 (58)	5.92 (58)	12.68 (55)	9.41 (48)				
Over/Under			1.59	8.91	1.54	3.54	3.36				
<i>eV US Mid Cap Equity Median</i>			11.82	18.46	7.08	12.91	9.27				
RhumbLine Advisers S&P 500	3,230,338,818	70.09	11.67 (45)	26.19 (34)	10.05 (32)	15.62 (30)	11.98 (25)				
<i>S&amp;P 500 Index</i>			11.69 (45)	26.29 (34)	10.00 (33)	15.69 (29)	12.03 (24)				
Over/Under			-0.02	-0.10	0.05	-0.07	-0.05				
<i>eV US Large Cap Equity Median</i>			11.37	20.12	8.84	13.95	10.52				

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

Refer to appendix for blended benchmark definitions.



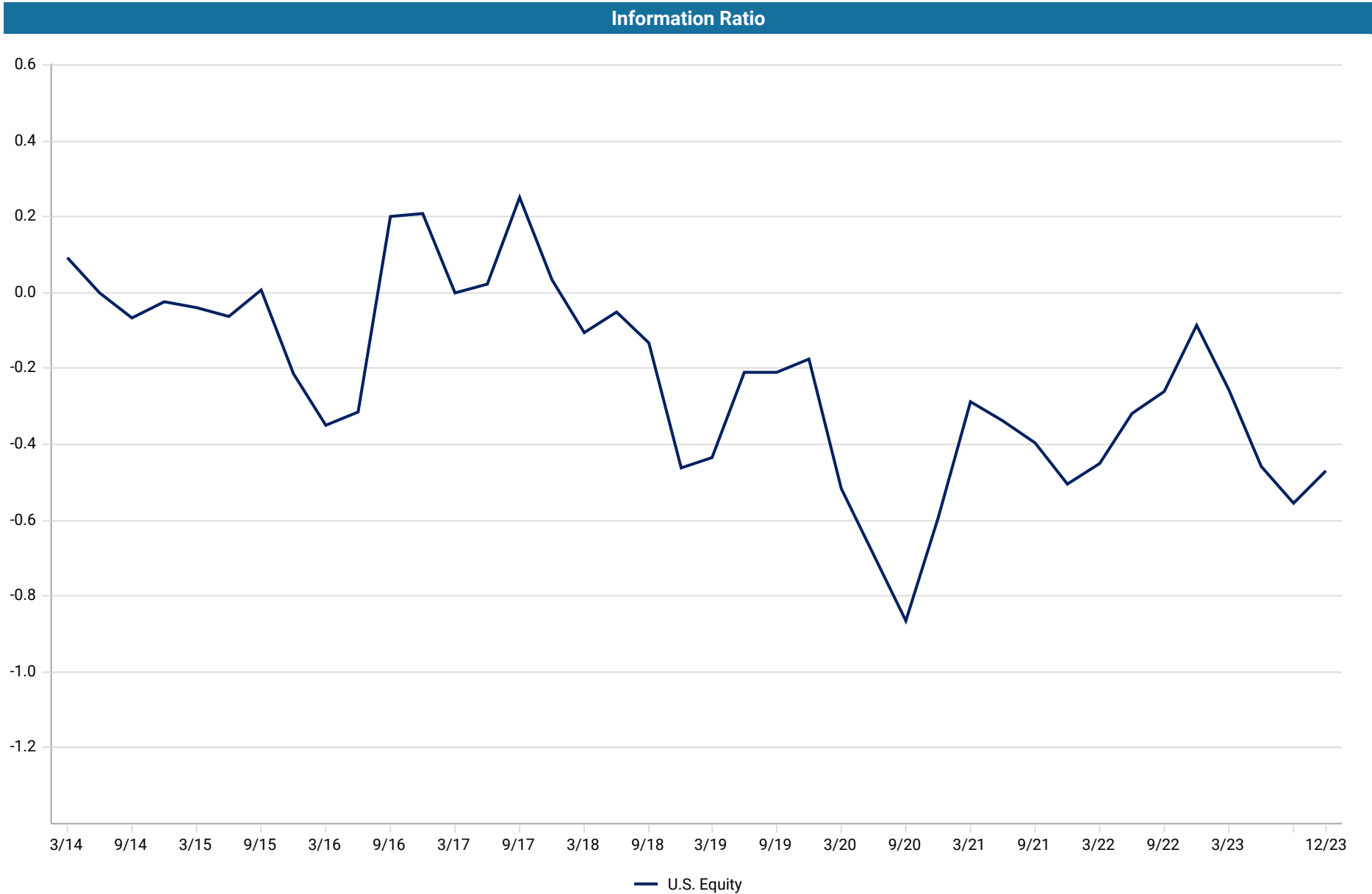
# U.S. EQUITY (NET)

	Allocation		Performance (%)						
	Market Value (\$)	% of Portfolio	3 Mo (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Copeland Capital Management	269,947,809	5.86	10.78 (71)	19.69 (28)	9.54 (29)			15.38 (44)	Oct-20
<i>Russell 2000 Index</i>			14.03 (20)	16.93 (46)	2.22 (71)			10.99 (67)	
Over/Under			-3.25	2.76	7.32			4.39	
<i>eV US Small Cap Equity Median</i>			12.04	16.50	6.70			14.21	
Granahan Investment Management	125,116,715	2.71	12.28 (30)	10.68 (81)	-8.89 (87)			1.18 (77)	Oct-20
<i>Russell 2000 Growth Index</i>			12.75 (21)	18.66 (34)	-3.50 (58)			4.80 (54)	
Over/Under			-0.47	-7.98	-5.39			-3.62	
<i>eV US Small Cap Growth Equity Median</i>			10.97	16.45	-2.47			5.41	
Segall, Bryant & Hamill	119,572,306	2.59	9.80 (86)	12.18 (80)	3.85 (97)			11.77 (96)	Oct-20
<i>Russell 2000 Value Index</i>			15.26 (14)	14.65 (63)	7.94 (72)			17.25 (59)	
Over/Under			-5.46	-2.47	-4.09			-5.48	
<i>eV US Small Cap Value Equity Median</i>			12.62	16.25	9.71			18.11	

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

Refer to appendix for blended benchmark definitions.

# U.S. EQUITY ROLLING 5 YEAR INFORMATION RATIO



# INVESTMENT MANAGER REPORT CARD

## U.S. EQUITY

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

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

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

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





# NON-U.S. EQUITY MANAGER PERFORMANCE

**NON-U.S. EQUITY (GROSS)**

	Allocation		Performance (%)						
	Market Value (\$)	% of Portfolio	3 Mo (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
<b>Non-U.S. Equity</b>	<b>5,760,583,684</b>	<b>100.00</b>	<b>9.95</b>	<b>15.98</b>	<b>1.87</b>	<b>8.29</b>	<b>4.94</b>	<b>5.36</b>	<b>Nov-94</b>
<i>MSCI AC World ex USA (Net)</i>			<u>9.75</u>	<u>15.62</u>	<u>1.55</u>	<u>7.08</u>	<u>3.83</u>	<u>5.02</u>	
Over/Under			0.20	0.36	0.32	1.21	1.11	0.34	
<b>Developed ex-U.S.</b>	<b>4,053,769,996</b>	<b>70.37</b>	<b>10.43</b>	<b>16.74</b>	<b>3.26</b>	<b>9.09</b>	<b>5.19</b>	<b>7.68</b>	<b>Jul-12</b>
<i>MSCI EAFE (Net)</i>			<u>10.42</u>	<u>18.24</u>	<u>4.02</u>	<u>8.16</u>	<u>4.28</u>	<u>6.78</u>	
Over/Under			0.01	-1.50	-0.76	0.93	0.91	0.90	
Barrow Hanley	606,070,242	10.52	8.52	19.48	11.07	12.60	5.86	6.05	Dec-13
<i>MSCI EAFE Value Index (Net)</i>			<u>8.22</u>	<u>18.95</u>	<u>7.59</u>	<u>7.08</u>	<u>3.16</u>	<u>3.27</u>	
Over/Under			0.30	0.53	3.48	5.52	2.70	2.78	
Lazard Asset Management	602,407,750	10.46	11.58	17.26	1.99	7.57	4.81	5.02	Dec-13
<i>MSCI EAFE (Net)</i>			<u>10.42</u>	<u>18.24</u>	<u>4.02</u>	<u>8.16</u>	<u>4.28</u>	<u>4.40</u>	
Over/Under			1.16	-0.98	-2.03	-0.59	0.53	0.62	
MFS Institutional Advisors	624,598,516	10.84	11.75	17.10	3.74	10.40	7.21	7.29	Nov-13
<i>MSCI World ex USA Growth NR USD</i>			<u>12.52</u>	<u>17.45</u>	<u>0.44</u>	<u>8.94</u>	<u>5.08</u>	<u>5.24</u>	
Over/Under			-0.77	-0.35	3.30	1.46	2.13	2.05	
Oberweis Asset Mgmt	324,623,267	5.64	8.32	7.03	-10.83	8.28	-	6.10	Feb-14
<i>MSCI EAFE Small Cap (Net)</i>			<u>11.14</u>	<u>13.16</u>	<u>-0.69</u>	<u>6.58</u>	-	<u>5.01</u>	
Over/Under			-2.82	-6.13	-10.14	1.70	-	1.09	
SSgA World ex US IMI	1,552,894,952	26.96	10.54	17.56	4.18	8.84	4.85	4.91	Jul-98
<i>MSCI World ex U.S. IMI Index (Net)</i>			<u>10.52</u>	<u>17.18</u>	<u>3.73</u>	<u>8.24</u>	<u>4.35</u>	<u>4.93</u>	
Over/Under			0.02	0.38	0.45	0.60	0.50	-0.02	
State Street EAFE SC	343,175,270	5.96	11.07	13.48	-0.39	-	-	-0.39	Jan-21
<i>MSCI EAFE Small Cap (Net)</i>			<u>11.14</u>	<u>13.16</u>	<u>-0.69</u>	-	-	<u>-0.69</u>	
Over/Under			-0.07	0.32	0.30	-	-	0.30	

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

eA = eVestment

Refer to appendix for blended benchmark definitions.

Axiom Custom Blended BM consists of MSCI Emerging Markets Growth(Net) through August 2020. MSCI Emerging Markets(Net) from September 2020 to present.



**NON-U.S. EQUITY (GROSS)**

	Allocation		Performance (%)						
	Market Value (\$)	% of Portfolio	3 Mo (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
<b>Emerging Markets</b>	<b>1,706,813,688</b>	<b>29.63</b>	<b>8.81</b>	<b>14.13</b>	<b>-1.83</b>	<b>5.92</b>	<b>3.70</b>	<b>4.15</b>	<b>Jul-12</b>
<i>MSCI Emerging Markets (Net)</i>			<u>7.86</u>	<u>9.83</u>	<u>-5.08</u>	<u>3.68</u>	<u>2.66</u>	<u>3.23</u>	
Over/Under			0.95	4.30	3.25	2.24	1.04	0.92	
Axiom Emerging Markets	286,830,006	4.98	7.08	6.51	-10.67	3.58	-	3.09	May-14
<i>MSCI Emerging Markets (Net)</i>			<u>7.86</u>	<u>9.83</u>	<u>-5.08</u>	<u>3.68</u>	-	<u>2.77</u>	
Over/Under			-0.78	-3.32	-5.59	-0.10	-	0.32	
<i>MSCI Emerging Markets Growth (Net)</i>			<u>7.72</u>	<u>5.83</u>	<u>-9.67</u>	<u>3.90</u>	-	<u>3.40</u>	
Over/Under			-0.64	0.68	-1.00	-0.32	-	-0.31	
<i>Axiom Custom Blended BM</i>			<u>7.86</u>	<u>9.83</u>	<u>-5.08</u>	<u>7.15</u>	-	<u>5.06</u>	
Over/Under			-0.78	-3.32	-5.59	-3.57	-	-1.97	
DFA Emerging Markets	543,983,636	9.44	7.82	17.22	5.73	6.55	-	3.24	Aug-14
<i>MSCI Emerging Markets Value (Net)</i>			<u>8.05</u>	<u>14.21</u>	<u>-0.01</u>	<u>3.38</u>	-	<u>1.11</u>	
Over/Under			-0.23	3.01	5.74	3.17	-	2.13	
State Street Emerging Markets	549,413,688	9.54	7.80	9.38	-5.22	-	-	-5.22	Jan-21
<i>MSCI Emerging Markets (Net)</i>			<u>7.86</u>	<u>9.83</u>	<u>-5.08</u>	-	-	<u>-5.08</u>	
Over/Under			-0.06	-0.45	-0.14	-	-	-0.14	
Wasatch Global Investors	326,428,778	5.67	13.97	25.84	1.83	-	-	1.83	Jan-21
<i>MSCI Emerging Markets Small Cap (Net)</i>			<u>8.95</u>	<u>23.92</u>	<u>6.45</u>	-	-	<u>6.45</u>	
Over/Under			5.02	1.92	-4.62	-	-	-4.62	
Sanctioned Asset	157,580	0.00	0.00	0.00	-	-	-	0.00	Jun-22

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

eA = eVestment

Refer to appendix for blended benchmark definitions.

Axiom Custom Blended BM consists of MSCI Emerging Markets Growth(Net) through August 2020. MSCI Emerging Markets(Net) from September 2020 to present.

**NON-U.S. EQUITY (NET)**

	Allocation		Performance (%)						
	Market Value (\$)	% of Portfolio	3 Mo (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
<b>Non-U.S. Equity</b>	<b>5,760,583,684</b>	<b>100.00</b>	<b>9.86 (60)</b>	<b>15.62 (60)</b>	<b>1.54 (50)</b>	<b>7.93 (53)</b>	<b>4.59 (48)</b>	<b>6.01 (55)</b>	<b>Jun-01</b>
MSCI AC World ex USA (Net)			<u>9.75</u> (62)	<u>15.62</u> (60)	<u>1.55</u> (50)	<u>7.08</u> (73)	<u>3.83</u> (79)	<u>5.32</u> (81)	
Over/Under			0.11	0.00	-0.01	0.85	0.76	0.69	
eV All ACWI ex-US Equity Median			10.34	16.42	1.45	8.06	4.54	6.15	
<b>Developed ex-U.S.</b>	<b>4,053,769,996</b>	<b>70.37</b>	<b>10.36</b>	<b>16.43</b>	<b>3.00</b>	<b>8.79</b>	<b>4.89</b>	<b>7.39</b>	<b>Jul-12</b>
MSCI EAFE (Net)			<u>10.42</u>	<u>18.24</u>	<u>4.02</u>	<u>8.16</u>	<u>4.28</u>	<u>6.78</u>	
Over/Under			-0.06	-1.81	-1.02	0.63	0.61	0.61	
Barrow Hanley	606,070,242	10.52	8.40 (54)	18.96 (44)	10.58 (8)	12.09 (4)	5.36 (12)	5.54 (11)	Dec-13
MSCI EAFE Value Index (Net)			<u>8.22</u> (62)	<u>18.95</u> (44)	<u>7.59</u> (30)	<u>7.08</u> (59)	<u>3.16</u> (73)	<u>3.27</u> (73)	
Over/Under			0.18	0.01	2.99	5.01	2.20	2.27	
eV EAFE Value Equity Median			8.50	18.48	6.20	7.67	3.82	4.01	
Lazard Asset Management	602,407,750	10.46	11.45 (22)	16.72 (55)	1.51 (68)	7.05 (69)	4.28 (61)	4.49 (58)	Dec-13
MSCI EAFE (Net)			<u>10.42</u> (44)	<u>18.24</u> (36)	<u>4.02</u> (40)	<u>8.16</u> (49)	<u>4.28</u> (61)	<u>4.40</u> (61)	
Over/Under			1.03	-1.52	-2.51	-1.11	0.00	0.09	
eV All EAFE Equity Median			10.17	17.13	3.16	8.09	4.52	4.67	
MFS Institutional Advisors	624,598,516	10.84	11.65 (63)	16.67 (50)	3.33 (1)	9.96 (16)	6.73 (1)	6.82 (1)	Nov-13
MSCI World ex USA Growth NR USD			<u>12.52</u> (45)	<u>17.45</u> (48)	<u>0.44</u> (26)	<u>8.94</u> (39)	<u>5.08</u> (41)	<u>5.24</u> (46)	
Over/Under			-0.87	-0.78	2.89	1.02	1.65	1.58	
eV EAFE All Cap Growth Median			12.38	16.57	-0.34	7.93	4.58	4.92	
Oberweis Asset Mgmt	324,623,267	5.64	8.11 (91)	6.18 (86)	-11.55 (96)	7.42 (46)	-	5.23 (47)	Feb-14
MSCI EAFE Small Cap (Net)			<u>11.14</u> (31)	<u>13.16</u> (58)	<u>-0.69</u> (59)	<u>6.58</u> (60)	-	<u>5.01</u> (51)	
Over/Under			-3.03	-6.98	-10.86	0.84	-	0.22	
eV EAFE Small Cap Equity Median			10.50	13.78	0.30	7.02	-	5.05	

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

eA = eVestment

Refer to appendix for blended benchmark definitions.

Axiom Custom Blended BM consists of MSCI Emerging Markets Growth(Net) through August 2020. MSCI Emerging Markets(Net) from September 2020 to present.





# NON-U.S. EQUITY (NET)

	Allocation		Performance (%)							Inception Date
	Market Value (\$)	% of Portfolio	3 Mo (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)		
SSgA World ex US IMI	1,552,894,952	26.96	10.54 (42)	17.53 (44)	4.16 (31)	8.81 (35)	4.83 (38)		Jul-98	
<i>MSCI World ex U.S. IMI Index (Net)</i>			<u>10.52</u> (42)	<u>17.18</u> (49)	<u>3.73</u> (39)	<u>8.24</u> (48)	<u>4.35</u> (62)			
Over/Under			0.02	0.35	0.43	0.57	0.48			
<i>eV EAFE Core Equity Median</i>			10.24	17.13	2.99	8.13	4.56			
State Street EAFE SC	343,175,270	5.96	11.06 (33)	13.44 (53)	-0.43 (59)	-	-	-0.43 (59)	Jan-21	
<i>MSCI EAFE Small Cap (Net)</i>			<u>11.14</u> (31)	<u>13.16</u> (58)	<u>-0.69</u> (59)	-	-	<u>-0.69</u> (59)		
Over/Under			-0.08	0.28	0.26	-	-	0.26		
<i>eV EAFE Small Cap Equity Median</i>			10.50	13.78	0.30	-	-	0.30		
<b>Emerging Markets</b>	<b>1,706,813,688</b>	<b>29.63</b>	<b>8.70</b>	<b>13.64</b>	<b>-2.32</b>	<b>5.40</b>	<b>3.14</b>	<b>3.57</b>	<b>Jul-12</b>	
<i>MSCI Emerging Markets (Net)</i>			<u>7.86</u>	<u>9.83</u>	<u>-5.08</u>	<u>3.68</u>	<u>2.66</u>	<u>3.23</u>		
Over/Under			0.84	3.81	2.76	1.72	0.48	0.34		
Axiom Emerging Markets	286,830,006	4.98	6.89 (74)	5.67 (91)	-11.37 (97)	2.83 (87)	-	2.38 (82)	May-14	
<i>MSCI Emerging Markets (Net)</i>			<u>7.86</u> (51)	<u>9.83</u> (63)	<u>-5.08</u> (61)	<u>3.68</u> (76)	-	<u>2.77</u> (72)		
Over/Under			-0.97	-4.16	-6.29	-0.85	-	-0.39		
<i>eV Emg Mkts Equity Median</i>			7.90	12.04	-3.26	5.07	-	3.51		
<i>MSCI Emerging Markets Growth (Net)</i>			<u>7.72</u> (55)	<u>5.83</u> (90)	<u>-9.67</u> (93)	<u>3.90</u> (72)	-	<u>3.40</u> (54)		
Over/Under			-0.83	-0.16	-1.70	-1.07	-	-1.02		
<i>Axiom Custom Blended BM</i>			<u>7.86</u> (51)	<u>9.83</u> (63)	<u>-5.08</u> (61)	<u>7.15</u> (28)	-	<u>5.06</u> (18)		
Over/Under			-0.97	-4.16	-6.29	-4.32	-	-2.68		
DFA Emerging Markets	543,983,636	9.44	7.71 (55)	16.75 (28)	5.27 (15)	6.07 (36)	-	2.76 (51)	Aug-14	
<i>MSCI Emerging Markets Value (Net)</i>			<u>8.05</u> (48)	<u>14.21</u> (39)	<u>-0.01</u> (33)	<u>3.38</u> (81)	-	<u>1.11</u> (92)		
Over/Under			-0.34	2.54	5.28	2.69	-	1.65		
<i>eV Emg Mkts Equity Median</i>			7.90	12.04	-3.26	5.07	-	2.77		
State Street Emerging Markets	549,413,688	9.54	7.79 (53)	9.34 (66)	-5.26 (62)	-	-	-5.26 (62)	Jan-21	
<i>MSCI Emerging Markets (Net)</i>			<u>7.86</u> (51)	<u>9.83</u> (63)	<u>-5.08</u> (61)	-	-	<u>-5.08</u> (60)		
Over/Under			-0.07	-0.49	-0.18	-	-	-0.18		
<i>eV Emg Mkts Equity Median</i>			7.90	12.04	-3.26	-	-	-3.39		

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

eA = eVestment

Refer to appendix for blended benchmark definitions.

Axiom Custom Blended BM consists of MSCI Emerging Markets Growth(Net) through August 2020. MSCI Emerging Markets(Net) from September 2020 to present.



**NON-U.S. EQUITY (NET)**

	Allocation		Performance (%)						
	Market Value (\$)	% of Portfolio	3 Mo (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Wasatch Global Investors	326,428,778	5.67	13.76 (4)	24.75 (45)	0.86 (84)	-	-	0.86 (84)	Jan-21
<i>MSCI Emerging Markets Small Cap (Net)</i>			<u>8.95</u> (55)	<u>23.92</u> (53)	<u>6.45</u> (52)	-	-	<u>6.45</u> (52)	
Over/Under			4.81	0.83	-5.59	-	-	-5.59	
<i>eV Emg Mkts Small Cap Equity Median</i>			9.50	24.40	6.48	-	-	6.48	
Sanctioned Asset	157,580	0.00	0.00	0.00	-	-	-	0.00	Jun-22

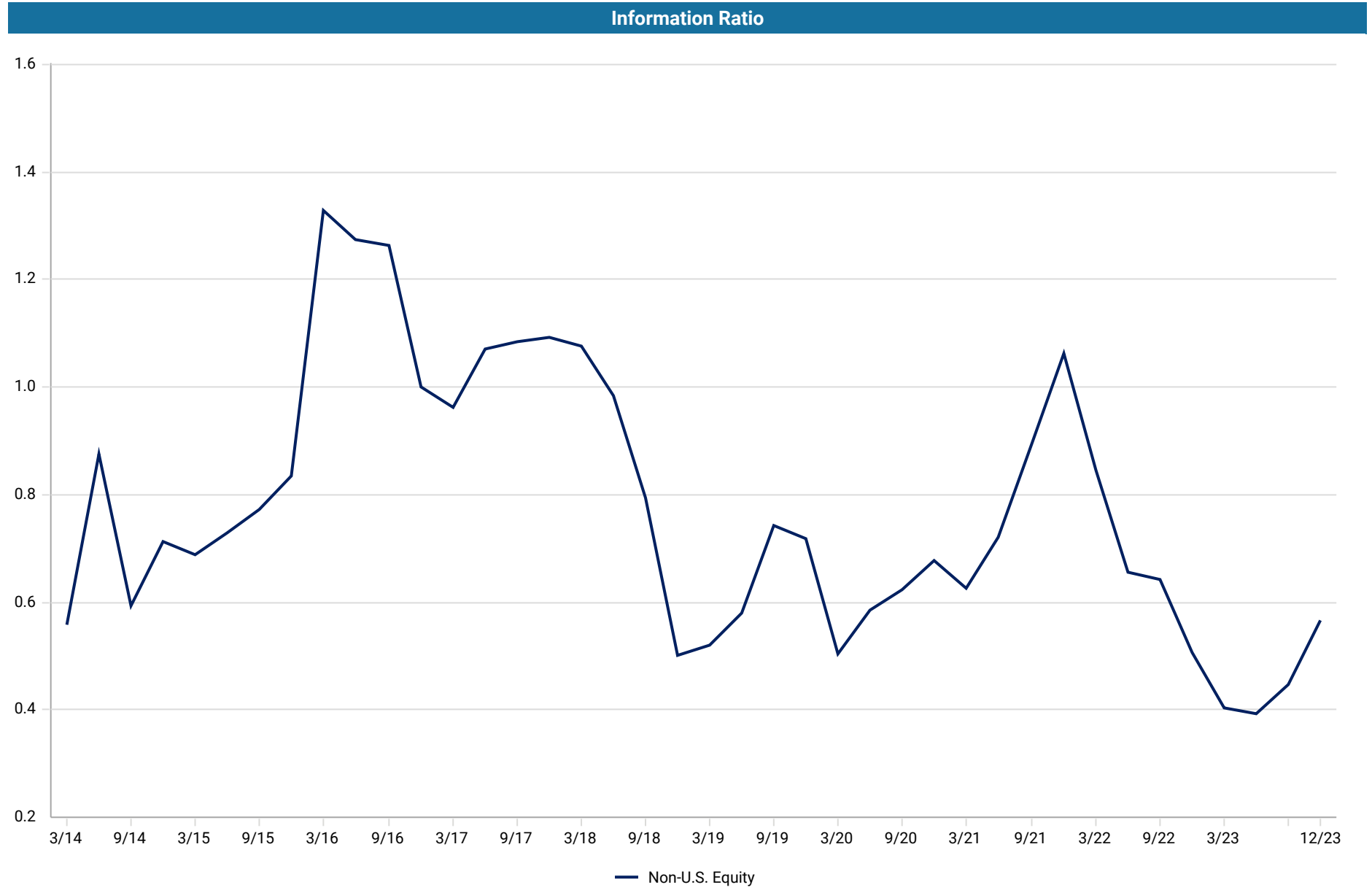
Note: The Barrow Hanley, Lazard, MFS, Oberweis, MSCI EAFE SC, Axiom Emerging Markets, DFA Emerging Markets, State Street Emerging Markets, Wasatch, portfolios have mid-month inception dates. Since inception return is calculated from the first full month of performance.

eA = eVestment

Refer to appendix for blended benchmark definitions.

Axiom Custom Blended BM consists of MSCI Emerging Markets Growth(Net) through August 2020. MSCI Emerging Markets(Net) from September 2020 to present.

# 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	*	215.3	Performance compliant with LACERS' Manager Monitoring Policy
Axiom International	Mar-14	Emerging Markets	*	*	*	*	*	*	*	*	*	1,631.8	Placed on Watch as of 4/4/23 due to performance.
DFA Emerging Markets	Jul-14	Emerging Markets	*	*	✓	✓	✓	✓	✓	✓	✓	1,758.5	Performance compliant with LACERS' Manager Monitoring Policy
Wasatch	Dec-20	Emerging Markets Small Cap	✓	✓	✓	✓	*	*	N/A	N/A	*	2,034.5	Performance compliant with LACERS' Manager Monitoring Policy
Oberweis Asset Mgt.	Jan-14	Non-U.S. Developed	*	*	*	*	*	*	*	✓	✓	2,437.1	Performance compliant with LACERS' Manager Monitoring Policy
Barrow, Hanley, Mewhinney & Strauss	Nov-13	Non-U.S. Developed	✓	✓	✓	✓	✓	✓	✓	✓	✓	2,348.3	Watch extended to 5/15/24 due to PM departure.
Lazard Asset Mgt.	Nov-13	Non-U.S. Developed	✓	✓	*	*	*	*	*	*	✓	2,479.9	Performance compliant with LACERS' Manager Monitoring Policy
MFS Institutional Advisors	Oct-13	Non-U.S. Developed	*	*	*	=	✓	✓	✓	✓	✓	2,091.3	Performance compliant with LACERS' Manager Monitoring Policy
SsgA (Passive)	Dec-20	Non-U.S. Developed Small Cap	*	✓	✓	*	✓	*	N/A	N/A	✓	121.8	Performance compliant with LACERS' Manager Monitoring Policy
SsgA (Passive)	Aug-93	Non-U.S. Developed	✓	✓	✓	✓	✓	✓	✓	✓	*	271.4	Performance compliant with LACERS' Manager Monitoring Policy

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

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

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





# CORE FIXED INCOME MANAGER PERFORMANCE

**CORE FIXED INCOME (GROSS)**

	Allocation		Performance (%)						
	Market Value (\$)	% of Portfolio	3 Mo (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
<b>Core Fixed Income</b>	<b>3,288,980,724</b>	<b>100.00</b>	<b>6.99</b>	<b>5.96</b>	<b>-2.88</b>	<b>1.74</b>	<b>2.27</b>	<b>2.26</b>	<b>Jul-12</b>
Core Fixed Income Blend			6.82	5.53	-3.31	1.10	1.81	1.63	
Over/Under			0.17	0.43	0.43	0.64	0.46	0.63	
Loomis Sayles & Co. Core Fixed Income	644,882,409	19.61	6.79	5.89	-2.87	2.12	2.75	8.13	Jul-80
Loomis Custom Benchmark			6.82	5.53	-3.31	1.10	1.81	6.73	
Over/Under			-0.03	0.36	0.44	1.02	0.94	1.40	
SSgA U.S. Aggregate Bond	735,330,614	22.36	6.73	5.67	-3.32	1.11	-	1.55	Aug-14
Blmbg. U.S. Aggregate Index			6.82	5.53	-3.31	1.10	-	1.53	
Over/Under			-0.09	0.14	-0.01	0.01	-	0.02	
Baird Advisors Core Fixed Income	642,063,400	19.52	7.13	6.63	-	-	-	-2.95	Jul-21
Blmbg. U.S. Aggregate Index			6.82	5.53	-	-	-	-3.34	
Over/Under			0.31	1.10	-	-	-	0.39	
Garcia Hamilton & Associates	375,684,692	11.42	8.02	5.35	-	-	-	-2.62	Jul-21
Blmbg. U.S. Aggregate Index			6.82	5.53	-	-	-	-3.34	
Over/Under			1.20	-0.18	-	-	-	0.72	
JP Morgan Investment Management	438,882,202	13.34	6.66	5.97	-	-	-	-2.74	Jul-21
Blmbg. U.S. Aggregate Index			6.82	5.53	-	-	-	-3.34	
Over/Under			-0.16	0.44	-	-	-	0.60	
Income Research & Management	452,121,536	13.75	6.96	6.29	-	-	-	-2.99	Jul-21
Blmbg. U.S. Aggregate Index			6.82	5.53	-	-	-	-3.34	
Over/Under			0.14	0.76	-	-	-	0.35	

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

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

Refer to appendix for blended benchmark definitions.

# CORE FIXED INCOME (NET)

	Allocation		Performance (%)						
	Market Value (\$)	% of Portfolio	3 Mo (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
<b>Core Fixed Income</b>	<b>3,288,980,724</b>	<b>100.00</b>	<b>6.96</b>	<b>5.85</b>	<b>-2.97</b>	<b>1.65</b>	<b>2.16</b>	<b>2.15</b>	<b>Jul-12</b>
Core Fixed Income Blend			<u>6.82</u>	<u>5.53</u>	<u>-3.31</u>	<u>1.10</u>	<u>1.81</u>	<u>1.63</u>	
Over/Under			0.14	0.32	0.34	0.55	0.35	0.52	
Loomis Sayles & Co. Core Fixed Income	644,882,409	19.61	6.75 (58)	5.75 (62)	-3.00 (36)	1.99 (8)	2.62 (5)	8.06 (-)	Jul-80
Loomis Custom Benchmark			<u>6.82</u> (52)	<u>5.53</u> (72)	<u>-3.31</u> (69)	<u>1.10</u> (84)	<u>1.81</u> (76)	<u>6.73</u> (-)	
Over/Under			-0.07	0.22	0.31	0.89	0.81	1.33	
eV US Core Fixed Inc Median			6.83	5.89	-3.13	1.43	2.01	-	
SSgA U.S. Aggregate Bond	735,330,614	22.36	6.73 (61)	5.65 (66)	-3.35 (71)	1.08 (84)	-	1.52 (78)	Aug-14
Blmbg. U.S. Aggregate Index			<u>6.82</u> (52)	<u>5.53</u> (72)	<u>-3.31</u> (69)	<u>1.10</u> (84)	-	<u>1.53</u> (77)	
Over/Under			-0.09	0.12	-0.04	-0.02	-	-0.01	
eV US Core Fixed Inc Median			6.83	5.89	-3.13	1.43	-	1.72	
Baird Advisors Core Fixed Income	642,063,400	19.52	7.10 (21)	6.52 (16)	-	-	-	-3.05 (28)	Jul-21
Blmbg. U.S. Aggregate Index			<u>6.82</u> (52)	<u>5.53</u> (72)	-	-	-	<u>-3.34</u> (59)	
Over/Under			0.28	0.99	-	-	-	0.29	
eV US Core Fixed Inc Median			6.83	5.89	-	-	-	-3.25	
Garcia Hamilton & Associates	375,684,692	11.42	7.98 (3)	5.21 (85)	-	-	-	-2.74 (15)	Jul-21
Blmbg. U.S. Aggregate Index			<u>6.82</u> (52)	<u>5.53</u> (72)	-	-	-	<u>-3.34</u> (59)	
Over/Under			1.16	-0.32	-	-	-	0.60	
eV US Core Fixed Inc Median			6.83	5.89	-	-	-	-3.25	
JP Morgan Investment Management	438,882,202	13.34	6.63 (70)	5.81 (57)	-	-	-	-2.85 (17)	Jul-21
Blmbg. U.S. Aggregate Index			<u>6.82</u> (52)	<u>5.53</u> (72)	-	-	-	<u>-3.34</u> (59)	
Over/Under			-0.19	0.28	-	-	-	0.49	
eV US Core Fixed Inc Median			6.83	5.89	-	-	-	-3.25	
Income Research & Management	452,121,536	13.75	6.93 (38)	6.16 (29)	-	-	-	-3.10 (33)	Jul-21
Blmbg. U.S. Aggregate Index			<u>6.82</u> (52)	<u>5.53</u> (72)	-	-	-	<u>-3.34</u> (59)	
Over/Under			0.11	0.63	-	-	-	0.24	
eV US Core Fixed Inc Median			6.83	5.89	-	-	-	-3.25	

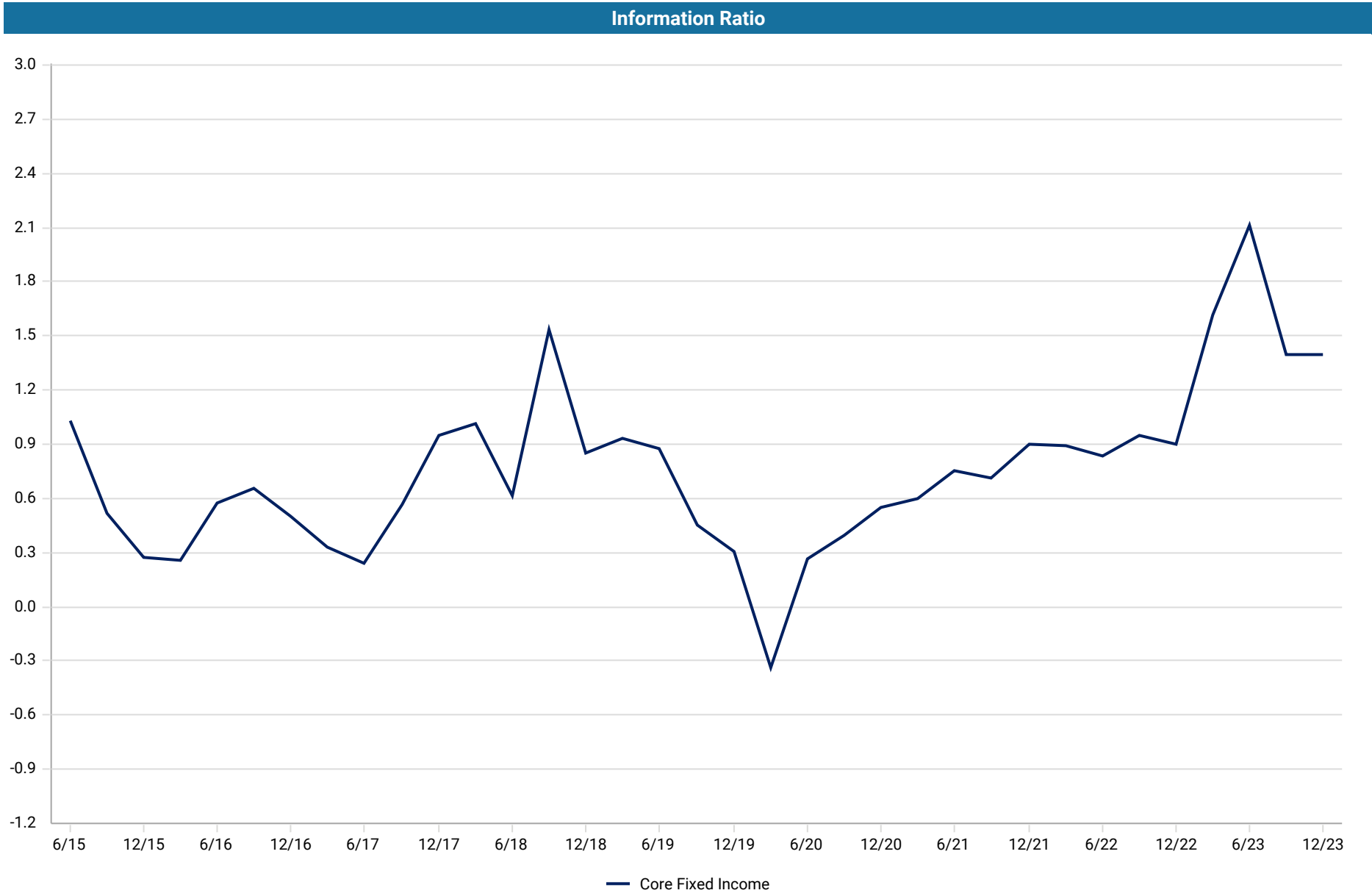
Note: All portfolios in Core Fixed Income have mid-month inception dates. Since inception return is calculated from the first full month of performance.

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

Refer to appendix for blended benchmark definitions.



# CORE FIXED INCOME 3 YEAR INFORMATION RATIO





# 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	Index		
			Loomis Sayles	Jul-80	Core	*	*	✓	*	✓	✓		
Baird Advisors	Jul-21	Core	✓	✓	✓	✓	N/A	N/A	N/A	N/A	✓	602.6	Newly hired manager pursuant to Section VIII.D of the Manager Monitoring Policy
Garcia Hamilton	Jul-21	Core	✓	✓	*	*	N/A	N/A	N/A	N/A	✓	480.4	Removed from Watch status.
IR&M	Jul-21	Core	✓	✓	✓	✓	N/A	N/A	N/A	N/A	✓	485.3	Newly hired manager pursuant to Section VIII.D of the Manager Monitoring Policy
J.P. Morgan	Jul-21	Core	*	*	✓	*	N/A	N/A	N/A	N/A	✓	470.3	Newly hired manager pursuant to Section VIII.D of the Manager Monitoring Policy
SSgA (Passive)	Aug-14	Core	*	*	✓	*	*	*	*	*	*	193.3	Performance compliant with LACERS' Manager Monitoring Policy

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

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

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





# CREDIT OPPORTUNITIES MANAGER PERFORMANCE

# Los Angeles City Employees' Retirement System-LACERS Master Trust

## CREDIT OPPORTUNITIES (GROSS)

December 31, 2023

	Allocation		Performance (%)						
	Market Value (\$)	% of Portfolio	3 Mo (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
<b>Credit Opportunities</b>	<b>2,048,504,171</b>	<b>100.0</b>	<b>6.42</b>	<b>13.00</b>	<b>0.69</b>	<b>4.19</b>	<b>3.99</b>	<b>4.37</b>	<b>Jul-13</b>
<i>Credit Opportunities Blend</i>			6.17	12.64	0.33	4.26	4.12	4.49	
Over/Under			0.25	0.36	0.36	-0.07	-0.13	-0.12	
PGIM Blended	485,004,300	23.7	8.51	12.92				-1.70	Feb-21
<i>50% JPM EMBI Global Diversified/ 50% JPM GBI-EM Global Diversified</i>			8.62	11.92				-3.06	
Over/Under			-0.11	1.00				1.36	
Wellington	478,379,273	23.4	9.57	13.56				-1.71	Feb-21
<i>50% JPM EMBI Global Diversified/ 50% JPM GBI-EM Global Diversified</i>			8.62	11.92				-3.06	
Over/Under			0.95	1.64				1.35	
Bain Capital Senior Loan Fund, LP	269,292,719	13.1	2.72	14.07	5.62	5.91		4.71	Jul-15
<i>Credit Suisse Leveraged Loan Index</i>			2.85	13.04	5.64	5.56		4.64	
Over/Under			-0.13	1.03	-0.02	0.35		0.07	
Polen Capital	252,720,542	12.3	4.16	15.55	3.31			4.46	Nov-20
<i>50% BBgBarc US High Yield 2% Issuer Cap / 50% Credit Suisse Leveraged Loan Index</i>			5.00	13.28	3.85			5.15	
Over/Under			-0.84	2.27	-0.54			-0.69	
Loomis Sayles & Co. High Yield	347,634,334	17.0	6.40	11.35	1.23			3.29	Nov-20
<i>Blmbg. U.S. High Yield - 2% Issuer Cap</i>			7.15	13.44	1.98			3.74	
Over/Under			-0.75	-2.09	-0.75			-0.45	
<b>Private Credit</b>	<b>215,168,031</b>	<b>10.5</b>	<b>2.67</b>	<b>9.02</b>	<b>5.22</b>			<b>5.08</b>	<b>Dec-20</b>
<i>Credit Suisse Leveraged Loan Qtr Lag</i>			3.37	12.47	5.91			5.98	
Over/Under			-0.70	-3.45	-0.69			-0.90	

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

Refer to appendix for blended benchmark definitions.



Los Angeles City Employees' Retirement System-LACERS Master Trust  
**CREDIT OPPORTUNITIES (NET)**

December 31, 2023

	Allocation		Performance (%)						
	Market Value (\$)	% of Portfolio	3 Mo (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
<b>Credit Opportunities</b>	<b>2,048,504,171</b>	<b>100.0</b>	<b>6.34</b>	<b>12.66</b>	<b>0.38</b>	<b>3.87</b>	<b>3.65</b>	<b>4.04</b>	<b>Jul-13</b>
<i>Credit Opportunities Blend</i>			6.17	12.64	0.33	4.26	4.12	4.49	
Over/Under			0.17	0.02	0.05	-0.39	-0.47	-0.45	
<b>PGIM Blended</b>	<b>485,004,300</b>	<b>23.7</b>	<b>8.43 (52)</b>	<b>12.55 (37)</b>				<b>-2.00 (51)</b>	<b>Feb-21</b>
<i>50% JPM EMBI Global Diversified/ 50% JPM GBI-EM Global Diversified</i>			8.62 (49)	11.92 (45)				-3.06 (76)	
Over/Under			-0.19	0.63				1.06	
<i>eV All Emg Mkts Fixed Inc Median</i>			8.52	11.46				-1.97	
<b>Wellington</b>	<b>478,379,273</b>	<b>23.4</b>	<b>9.44 (30)</b>	<b>13.01 (32)</b>				<b>-2.14 (52)</b>	<b>Feb-21</b>
<i>50% JPM EMBI Global Diversified/ 50% JPM GBI-EM Global Diversified</i>			8.62 (49)	11.92 (45)				-3.06 (76)	
Over/Under			0.82	1.09				0.92	
<i>eV All Emg Mkts Fixed Inc Median</i>			8.52	11.46				-1.97	
<b>Bain Capital Senior Loan Fund, LP</b>	<b>269,292,719</b>	<b>13.1</b>	<b>2.72 (62)</b>	<b>14.07 (12)</b>	<b>5.62 (16)</b>	<b>5.91 (8)</b>		<b>4.71 (12)</b>	<b>Jul-15</b>
<i>Credit Suisse Leveraged Loan Index</i>			2.85 (50)	13.04 (32)	5.64 (15)	5.56 (19)		4.64 (14)	
Over/Under			-0.13	1.03	-0.02	0.35		0.07	
<i>eV US Float-Rate Bank Loan Fixed Inc Median</i>			2.85	12.21	4.99	5.03		4.10	
<b>Polen Capital</b>	<b>252,720,542</b>	<b>12.3</b>	<b>4.03 (93)</b>	<b>14.98 (5)</b>	<b>2.80 (31)</b>			<b>3.98 (38)</b>	<b>Nov-20</b>
<i>50% BBgBarc US High Yield 2% Issuer Cap / 50% Credit Suisse Leveraged Loan Index</i>			5.00 (83)	13.28 (21)	3.85 (10)			5.15 (17)	
Over/Under			-0.97	1.70	-1.05			-1.17	
<i>eV US High Yield Fixed Inc Median</i>			6.48	12.22	2.08			3.69	
<b>Loomis Sayles &amp; Co. High Yield</b>	<b>347,634,334</b>	<b>17.0</b>	<b>6.31 (60)</b>	<b>10.98 (80)</b>	<b>0.89 (92)</b>			<b>2.96 (80)</b>	<b>Nov-20</b>
<i>Blmbg. U.S. High Yield - 2% Issuer Cap</i>			7.15 (15)	13.44 (19)	1.98 (56)			3.74 (47)	
Over/Under			-0.84	-2.46	-1.09			-0.78	
<i>eV US High Yield Fixed Inc Median</i>			6.48	12.22	2.08			3.69	
<b>Private Credit</b>	<b>215,168,031</b>	<b>10.5</b>	<b>2.67</b>	<b>9.02</b>	<b>5.22</b>			<b>5.08</b>	<b>Dec-20</b>
<i>Credit Suisse Leveraged Loan Qtr Lag</i>			3.37	12.47	5.91			5.98	
Over/Under			-0.70	-3.45	-0.69			-0.90	

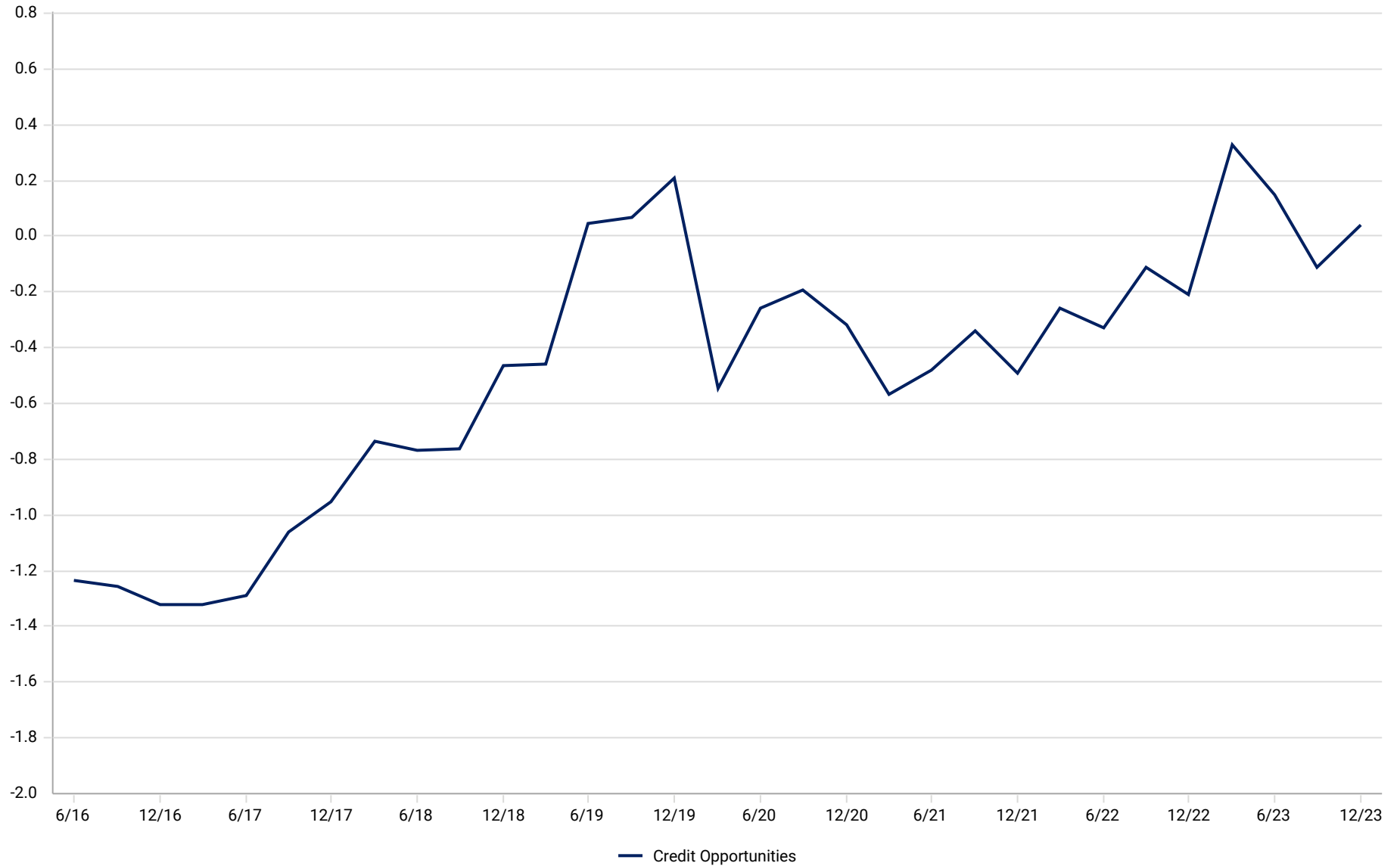
Note: All portfolios within Credit Opportunities have mid-month inception dates. Since inception return is calculated from the first full month of performance.  
 eA = eVestment

Refer to appendix for blended benchmark definitions.



# CREDIT OPPORTUNITIES ROLLING 3 YEAR

## Information Ratio



# INVESTMENT MANAGER REPORT CARD

## CREDIT OPPORTUNITIES

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

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

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

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





# REAL ASSETS MANAGER PERFORMANCE

# REAL ASSETS (GROSS)

	Allocation		Performance (%)						
	Market Value (\$)	% of Portfolio	3 Mo (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
<b>Real Assets</b>	<b>2,667,492,601</b>	<b>100.00</b>	<b>3.74</b>	<b>-1.00</b>	<b>3.01</b>	<b>4.09</b>	<b>5.40</b>	<b>5.85</b>	<b>Dec-94</b>
<i>Real Assets Policy Benchmark</i>			<u>2.47</u>	<u>-1.64</u>	<u>2.16</u>	<u>4.04</u>	<u>5.31</u>	<u>7.26</u>	
Over/Under			1.27	0.64	0.85	0.05	0.09	-1.41	
<b>Public Real Assets</b>	<b>1,336,613,885</b>	<b>50.11</b>	<b>9.19</b>	<b>6.95</b>	<b>1.61</b>	<b>4.61</b>	<b>-</b>	<b>2.49</b>	<b>Jul-14</b>
<i>Public Real Assets Blend</i>			<u>9.45</u>	<u>6.94</u>	<u>2.58</u>	<u>4.50</u>	<u>-</u>	<u>1.24</u>	
Over/Under			-0.26	0.01	-0.97	0.11	-	1.25	
<b>TIPS</b>	<b>803,641,127</b>	<b>30.13</b>	<b>4.40</b>	<b>3.60</b>	<b>-1.25</b>	<b>3.22</b>	<b>-</b>	<b>1.97</b>	<b>Aug-14</b>
<i>Blmbg. U.S. TIPS</i>			<u>4.71</u>	<u>3.90</u>	<u>-1.00</u>	<u>3.15</u>	<u>-</u>	<u>1.95</u>	
Over/Under			-0.31	-0.30	-0.25	0.07	-	0.02	
DFA US TIPS	803,641,127	30.13	4.40	3.60	-1.25	3.22	-	2.05	Aug-14
<i>Blmbg. U.S. TIPS</i>			<u>4.71</u>	<u>3.90</u>	<u>-1.00</u>	<u>3.15</u>	<u>-</u>	<u>1.95</u>	
Over/Under			-0.31	-0.30	-0.25	0.07	-	0.10	
<b>REITS</b>	<b>532,972,758</b>	<b>19.98</b>	<b>18.47</b>	<b>12.95</b>	<b>7.35</b>	<b>9.97</b>	<b>-</b>	<b>7.55</b>	<b>Apr-15</b>
<i>FTSE NAREIT All Equity REITs</i>			<u>17.98</u>	<u>11.36</u>	<u>5.70</u>	<u>7.59</u>	<u>-</u>	<u>5.63</u>	
Over/Under			0.49	1.59	1.65	2.38	-	1.92	
CenterSquare US Real Estate	532,972,758	19.98	18.47	12.95	7.35	9.97	-	8.01	May-15
<i>FTSE NAREIT All Equity REITs</i>			<u>17.98</u>	<u>11.36</u>	<u>5.70</u>	<u>7.59</u>	<u>-</u>	<u>6.31</u>	
Over/Under			0.49	1.59	1.65	2.38	-	1.70	
<b>Private Real Estate</b>	<b>1,311,118,134</b>	<b>49.15</b>	<b>-1.86</b>	<b>-9.15</b>	<b>6.35</b>	<b>4.15</b>	<b>7.20</b>	<b>6.46</b>	<b>Nov-94</b>
<i>Real Estate Blend</i>			<u>-4.63</u>	<u>-11.31</u>	<u>5.76</u>	<u>5.08</u>	<u>8.13</u>	<u>9.11</u>	
Over/Under			2.77	2.16	0.59	-0.93	-0.93	-2.65	
<b>Timber</b>	<b>19,760,582</b>	<b>0.74</b>	<b>-0.08</b>	<b>6.30</b>	<b>6.14</b>	<b>4.73</b>	<b>5.55</b>	<b>8.49</b>	<b>Oct-99</b>

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

Refer to appendix for blended benchmark definitions.



**REAL ASSETS (NET)**

	Allocation		Performance (%)							Inception Date
	Market Value (\$)	% of Portfolio	3 Mo (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)		
<b>Real Assets</b>	<b>2,667,492,601</b>	<b>100.00</b>	<b>3.71</b>	<b>-1.11</b>	<b>2.88</b>	<b>3.95</b>	<b>5.25</b>	<b>4.69</b>	<b>Jun-01</b>	
Real Assets Policy Benchmark			<u>2.47</u>	<u>-1.64</u>	<u>2.16</u>	<u>4.04</u>	<u>5.31</u>	<u>5.78</u>		
Over/Under			1.24	0.53	0.72	-0.09	-0.06	-1.09		
<b>Public Real Assets</b>	<b>1,336,613,885</b>	<b>50.11</b>	<b>9.14</b>	<b>6.78</b>	<b>1.45</b>	<b>4.43</b>	<b>-</b>	<b>2.30</b>	<b>Jul-14</b>	
Public Real Assets Blend			<u>9.45</u>	<u>6.94</u>	<u>2.58</u>	<u>4.50</u>	<u>-</u>	<u>1.24</u>		
Over/Under			-0.31	-0.16	-1.13	-0.07	-	1.06		
<b>TIPS</b>	<b>803,641,127</b>	<b>30.13</b>	<b>4.39</b>	<b>3.55</b>	<b>-1.30</b>	<b>3.17</b>	<b>-</b>	<b>1.92</b>	<b>Aug-14</b>	
Blmbg. U.S. TIPS			<u>4.71</u>	<u>3.90</u>	<u>-1.00</u>	<u>3.15</u>	<u>-</u>	<u>1.95</u>		
Over/Under			-0.32	-0.35	-0.30	0.02	-	-0.03		
DFA US TIPS	803,641,127	30.13	4.39 (61)	3.55 (70)	-1.30 (80)	3.17 (49)	-	2.00 (23)	Aug-14	
Blmbg. U.S. TIPS			<u>4.71</u> (27)	<u>3.90</u> (49)	<u>-1.00</u> (49)	<u>3.15</u> (51)	<u>-</u>	<u>1.95</u> (32)		
Over/Under			-0.32	-0.35	-0.30	0.02	-	0.05		
eV US TIPS / Inflation Fixed Inc Median			4.49	3.89	-1.00	3.16	-	1.88		
<b>REITS</b>	<b>532,972,758</b>	<b>19.98</b>	<b>18.36</b>	<b>12.53</b>	<b>6.95</b>	<b>9.55</b>	<b>-</b>	<b>7.12</b>	<b>Apr-15</b>	
FTSE NAREIT All Equity REITs			<u>17.98</u>	<u>11.36</u>	<u>5.70</u>	<u>7.59</u>	<u>-</u>	<u>5.63</u>		
Over/Under			0.38	1.17	1.25	1.96	-	1.49		
CenterSquare US Real Estate	532,972,758	19.98	18.36 (10)	12.53 (52)	6.95 (21)	9.55 (12)	-	7.57 (8)	May-15	
FTSE NAREIT All Equity REITs			<u>17.98</u> (14)	<u>11.36</u> (77)	<u>5.70</u> (65)	<u>7.59</u> (58)	<u>-</u>	<u>6.31</u> (34)		
Over/Under			0.38	1.17	1.25	1.96	-	1.26		
eV US REIT Median			16.44	12.68	5.98	8.00	-	5.80		
<b>Private Real Estate</b>	<b>1,311,118,134</b>	<b>49.15</b>	<b>-1.87</b>	<b>-9.21</b>	<b>6.27</b>	<b>4.06</b>	<b>7.11</b>	<b>5.52</b>	<b>Jul-01</b>	
Real Estate Blend			<u>-4.63</u>	<u>-11.31</u>	<u>5.76</u>	<u>5.08</u>	<u>8.13</u>	<u>8.33</u>		
Over/Under			2.76	2.10	0.51	-1.02	-1.02	-2.81		
<b>Timber</b>	<b>19,760,582</b>	<b>0.74</b>	<b>-0.08</b>	<b>6.30</b>	<b>6.14</b>	<b>4.73</b>	<b>4.47</b>	<b>7.57</b>	<b>Sep-01</b>	

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

Refer to appendix for blended benchmark definitions.

# INVESTMENT MANAGER REPORT CARD

## REAL ASSETS

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

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

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

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





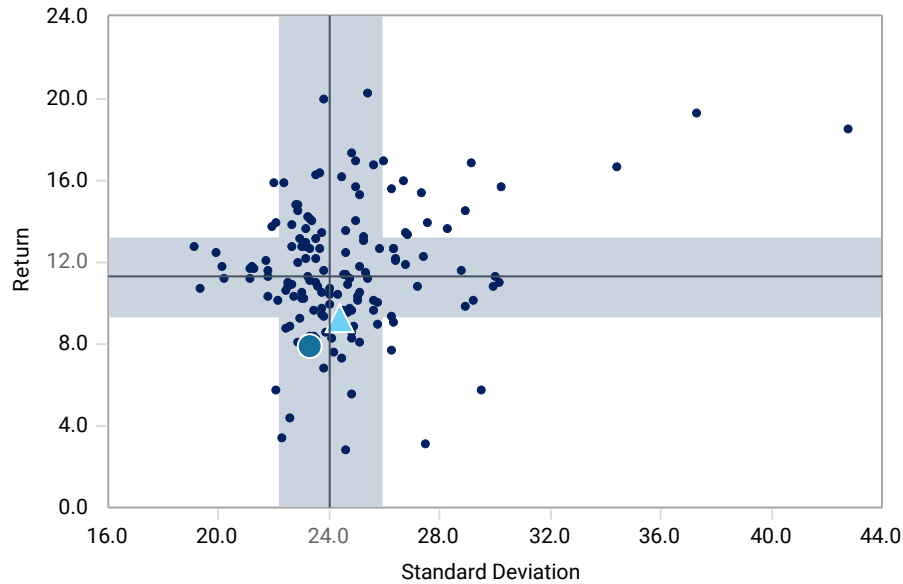
# APPENDIX



# U.S. EQUITY MANAGER PERFORMANCE

# EAM INVESTORS

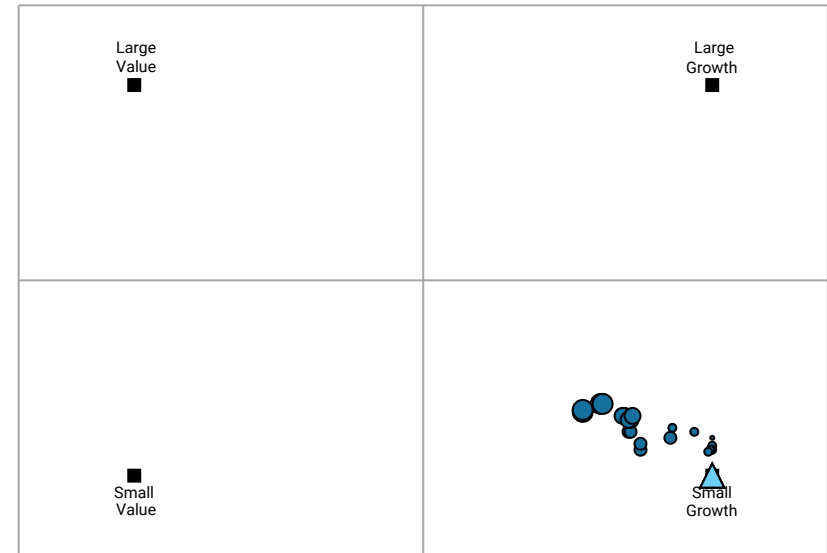
5 Years Return vs. Standard Deviation



● EAM Investors

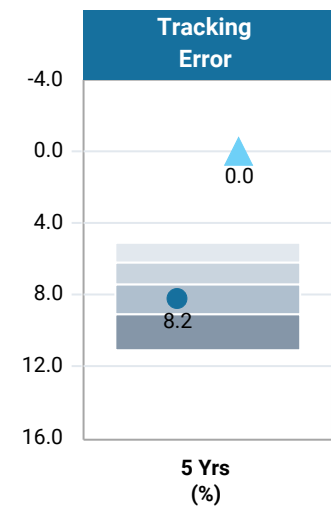
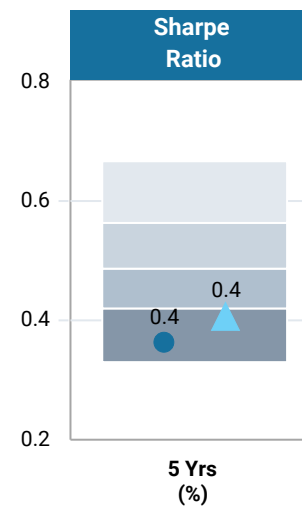
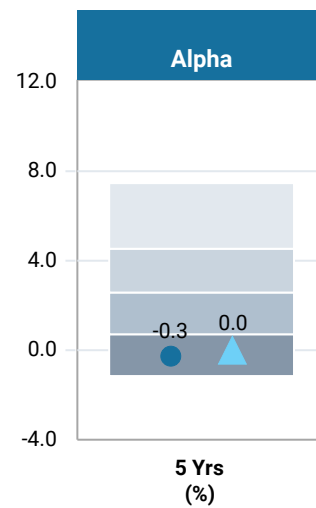
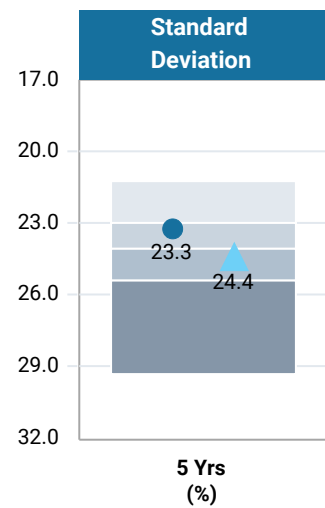
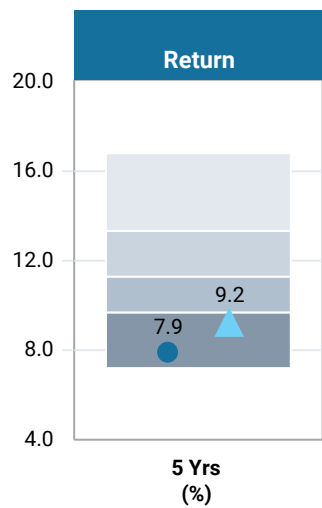
▲ Russell 2000 Growth Index

Rolling 3 Years Style Map



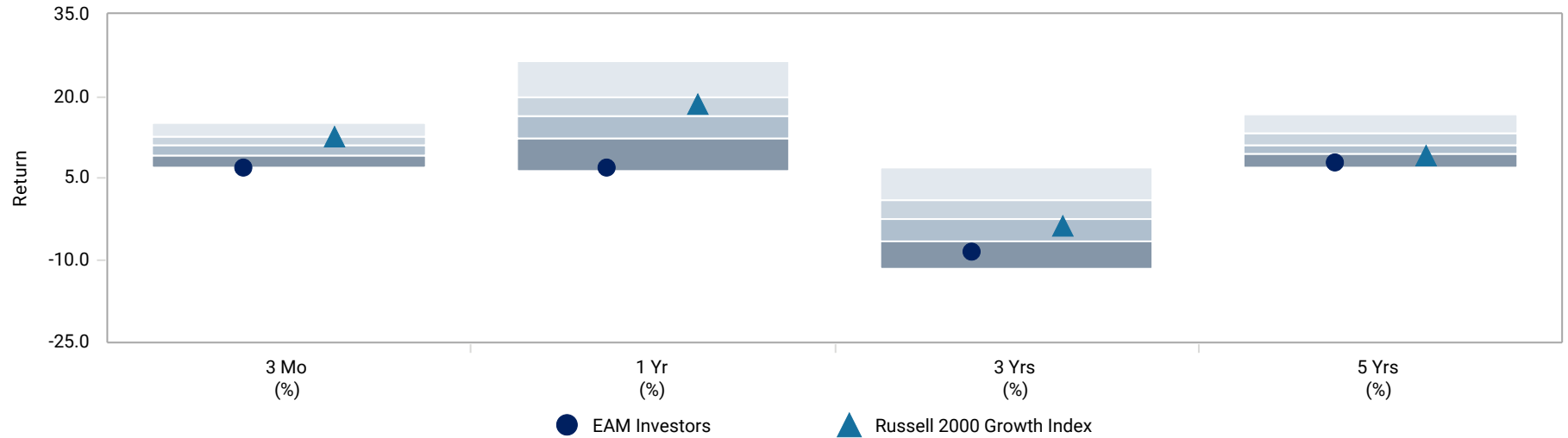
● EAM Investors

▲ Russell 2000 Growth Index

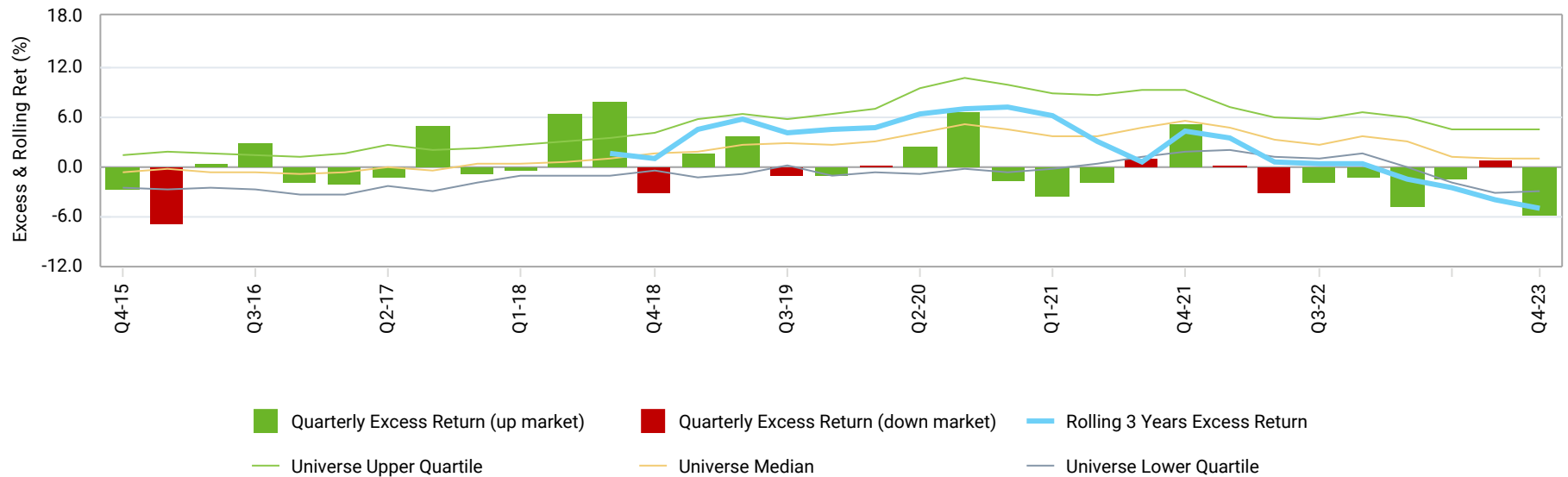


# EAM INVESTORS

## eV US Small Cap Growth Equity (net of fees)



## Quarter Excess Return with a Rolling 3 Years Excess Return over Since Inception Ending December 31, 2023

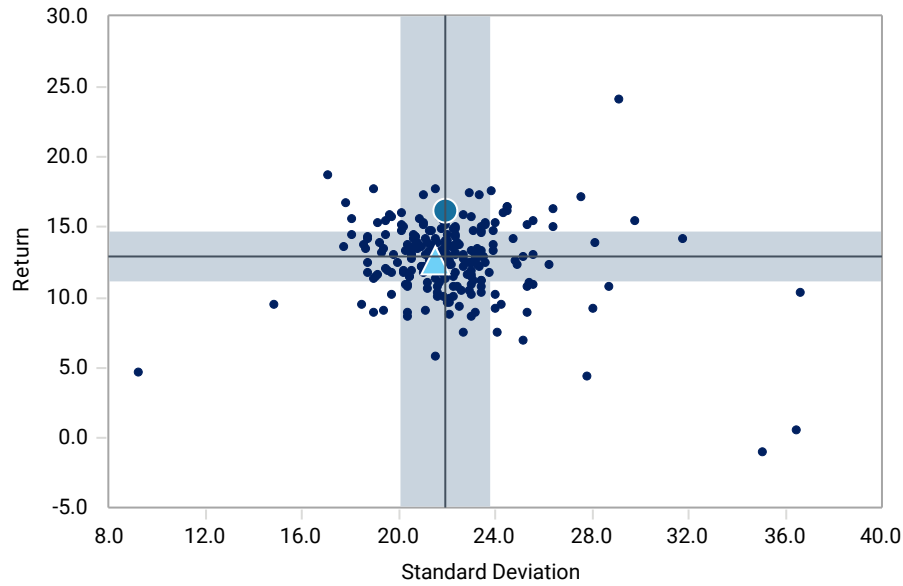


# Los Angeles City Employees' Retirement System-LACERS Master Trust

## PRINCIPAL GLOBAL INVESTORS

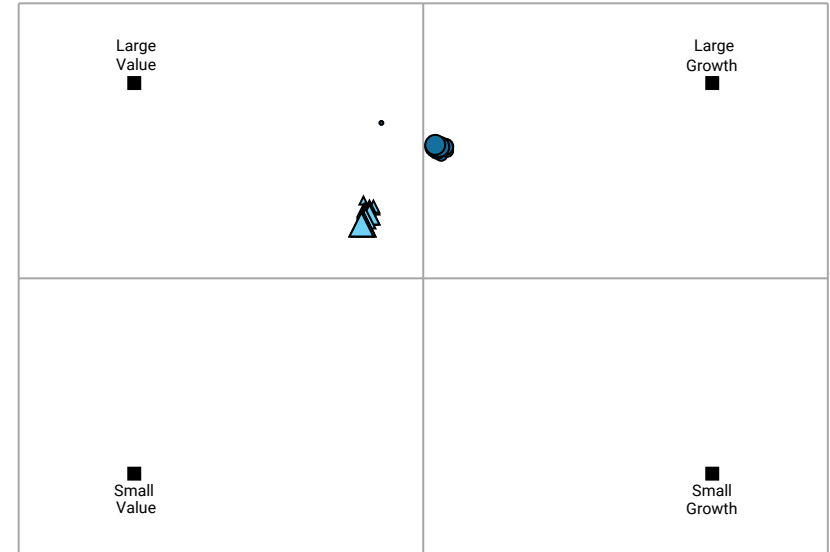
December 31, 2023

5 Years Return vs. Standard Deviation

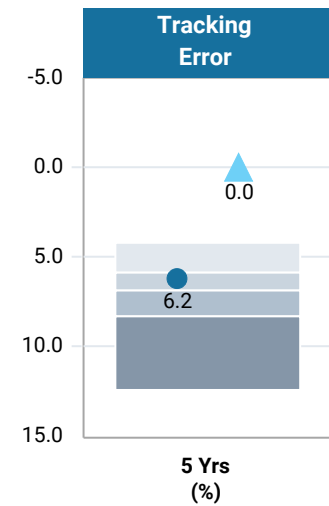
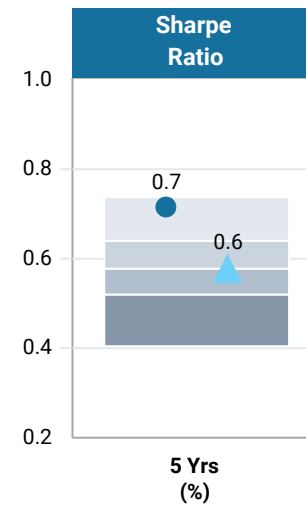
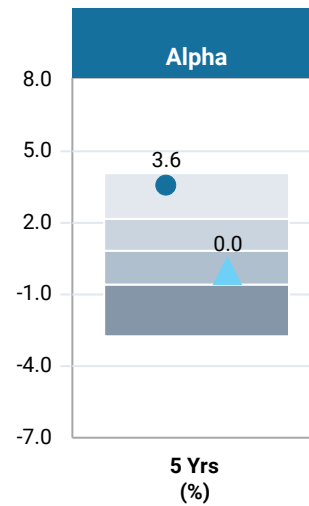
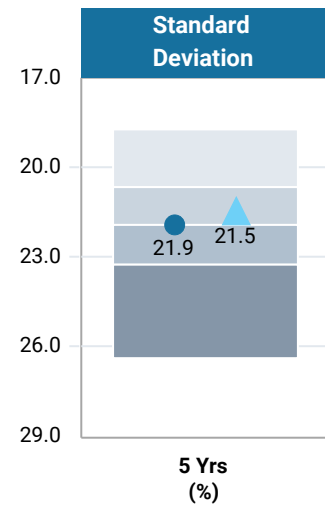
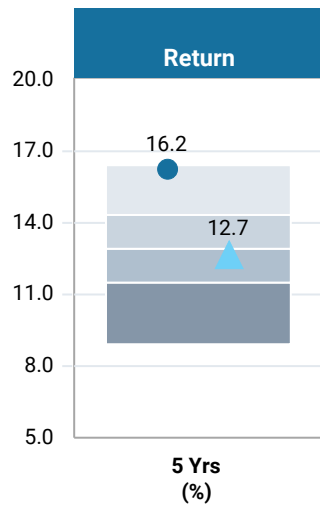


● Principal Global Investors ▲ Russell Midcap Index

Rolling 5 Years Style Map

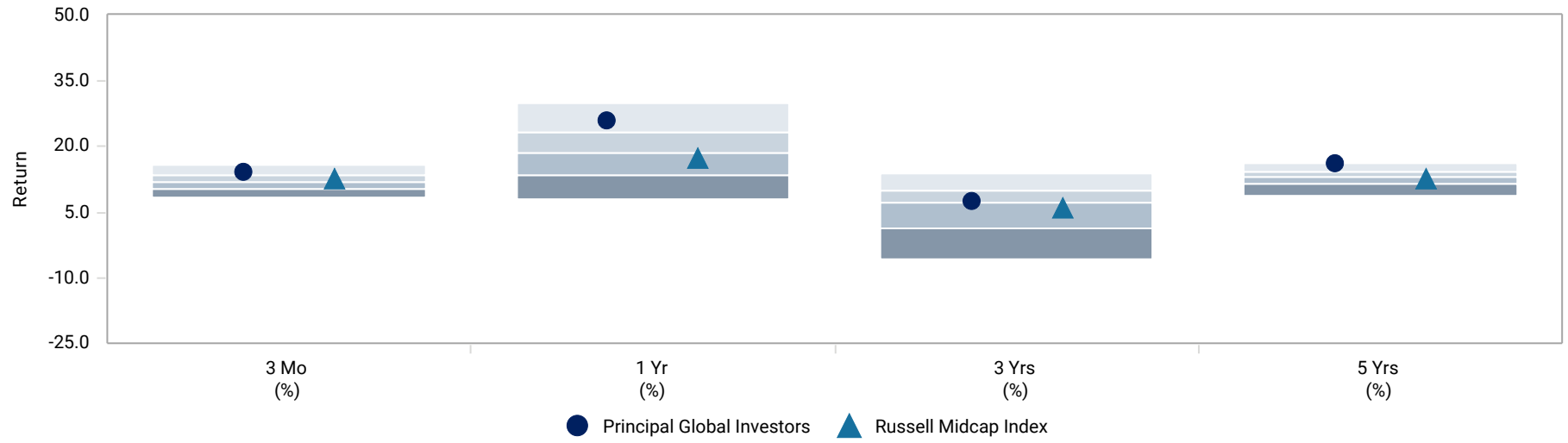


● Principal Global Investors ▲ Russell Midcap Index

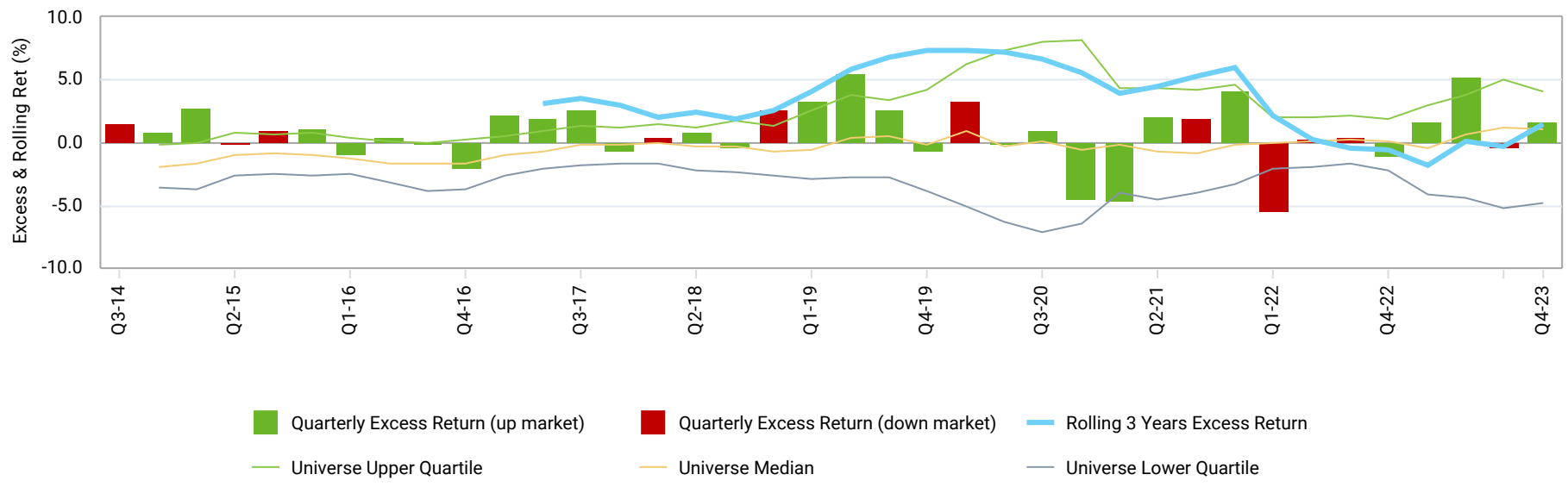


# PRINCIPAL GLOBAL INVESTORS

## eV US Mid Cap Equity (net of fees)

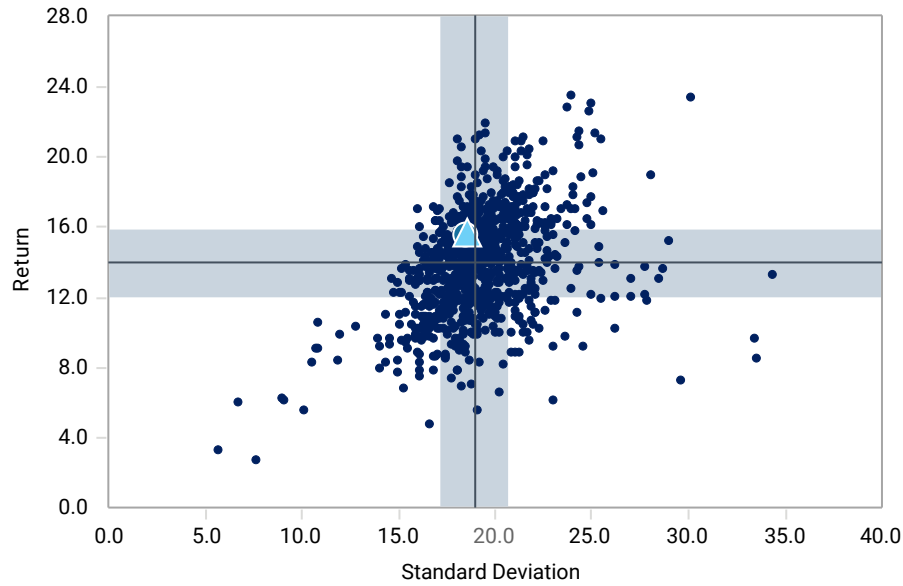


## Quarter Excess Return with a Rolling 3 Years Excess Return over Since Inception Ending December 31, 2023



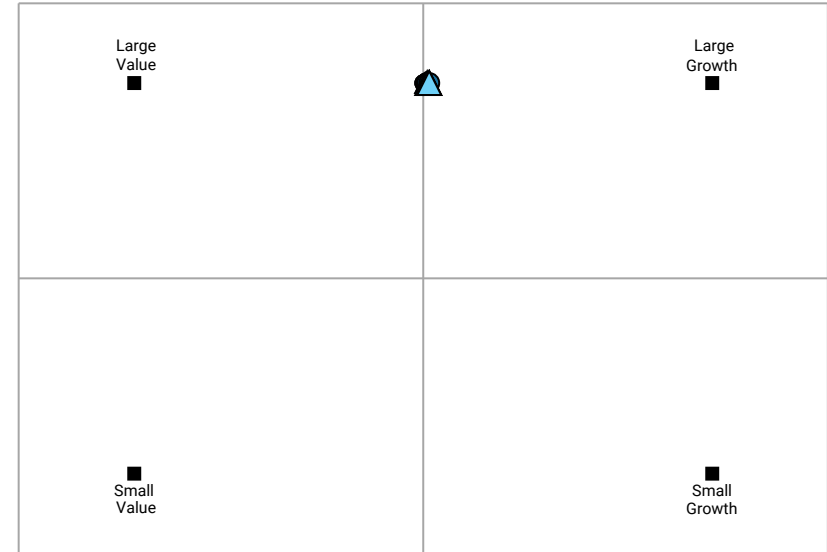


5 Years Return vs. Standard Deviation

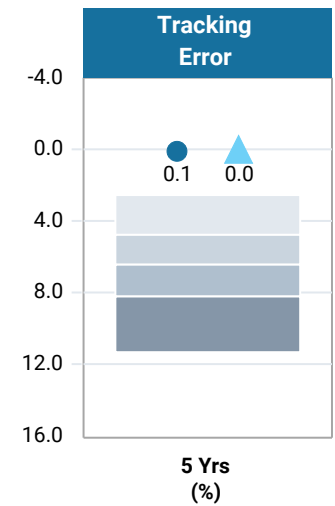
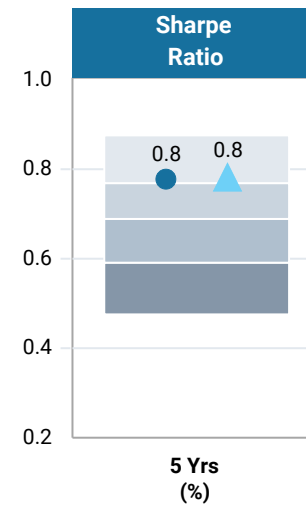
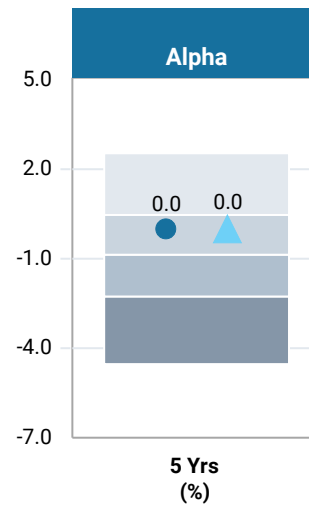
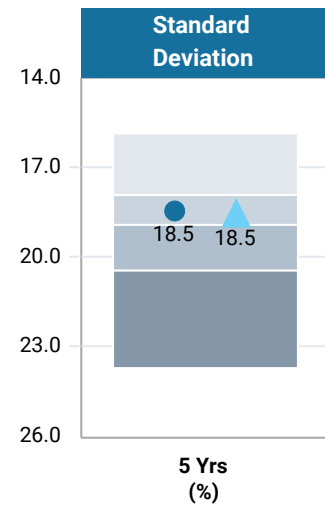
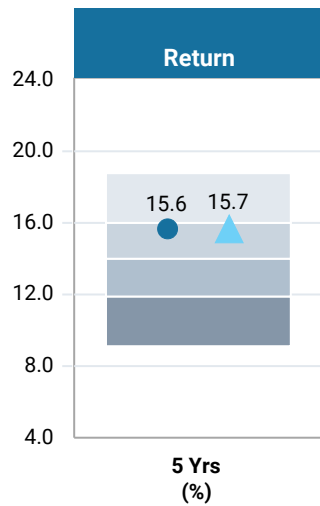


● RhumbLine Advisers S&P 500 ▲ S&P 500 Index

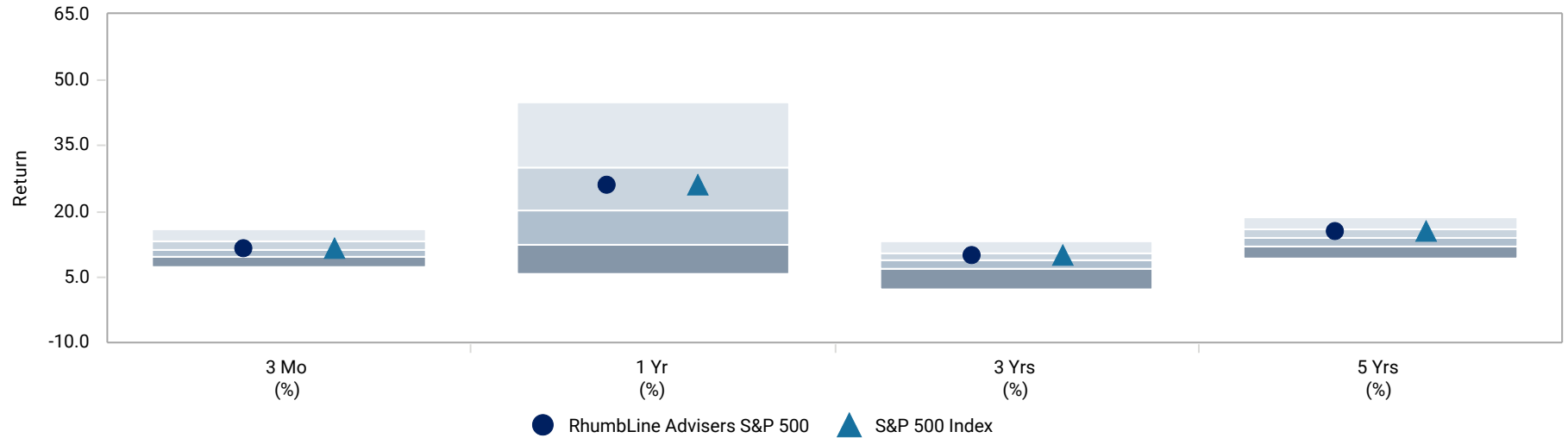
Rolling 5 Years Style Map



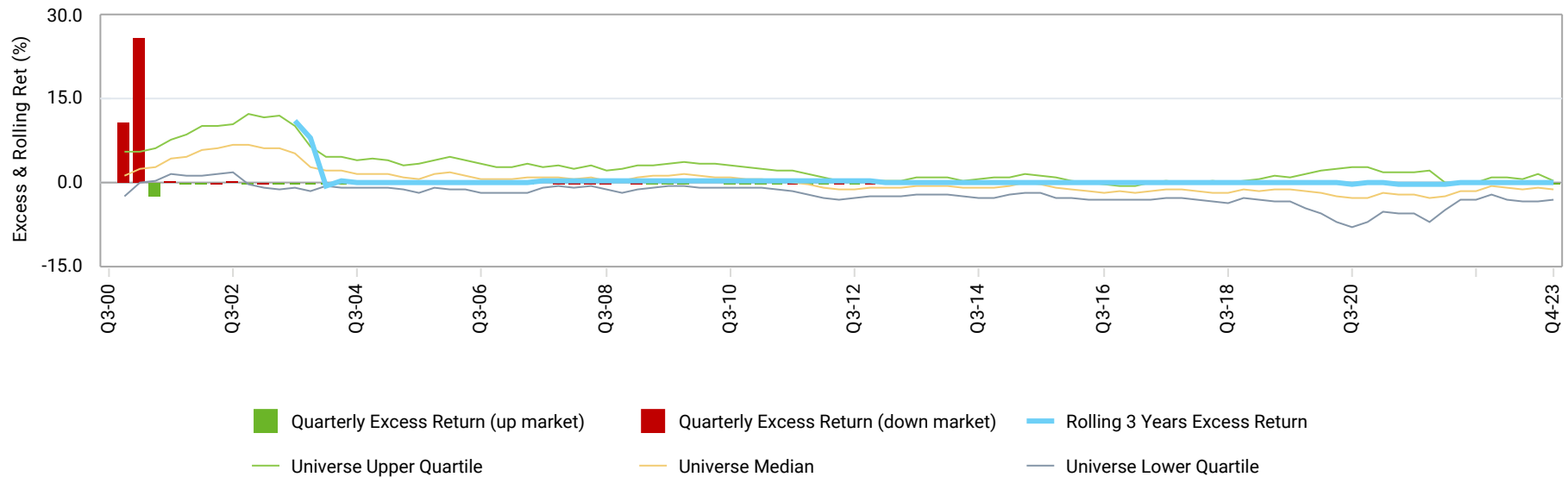
● RhumbLine Advisers S&P 500 ▲ S&P 500 Index



**eV US Large Cap Equity (net of fees)**

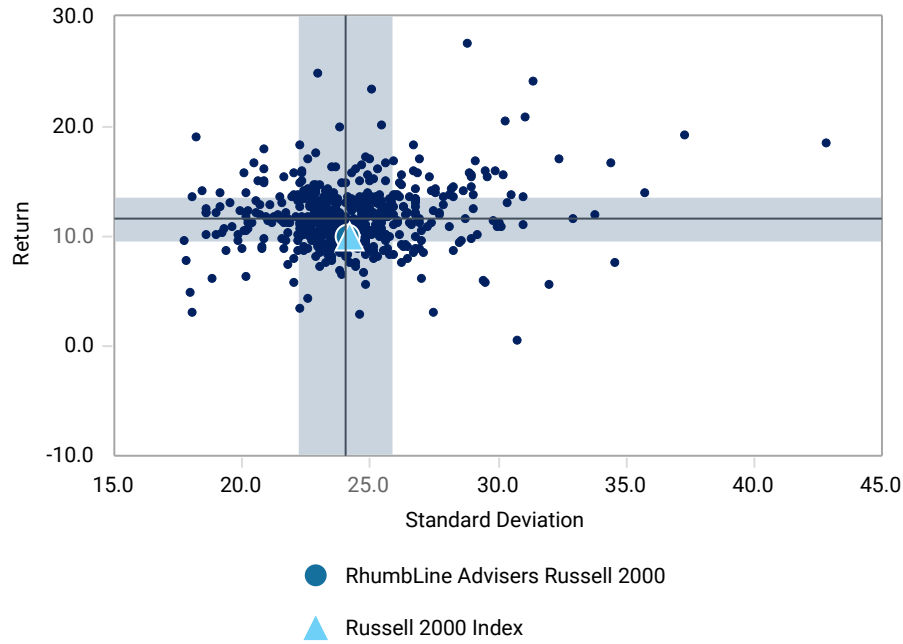


**Quarter Excess Return with a Rolling 3 Years Excess Return over Since Inception Ending December 31, 2023**

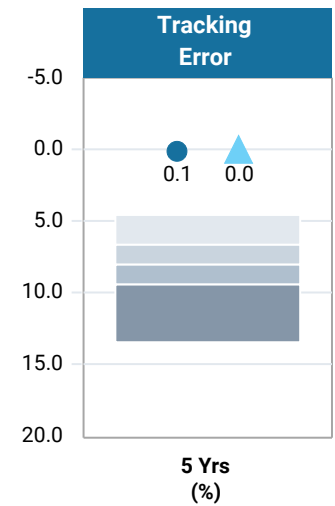
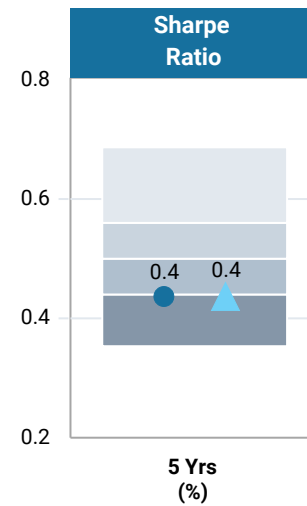
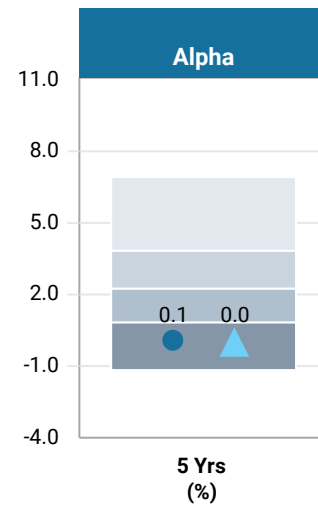
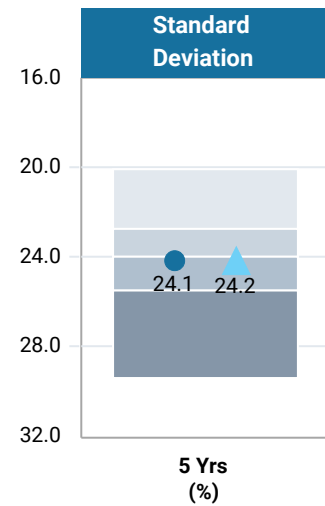
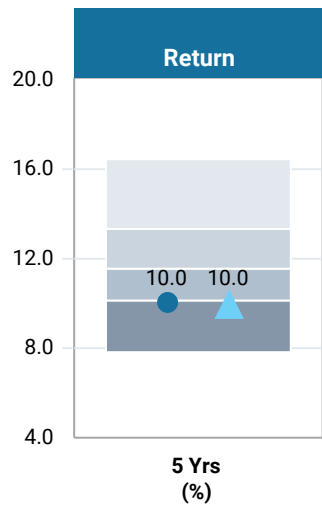
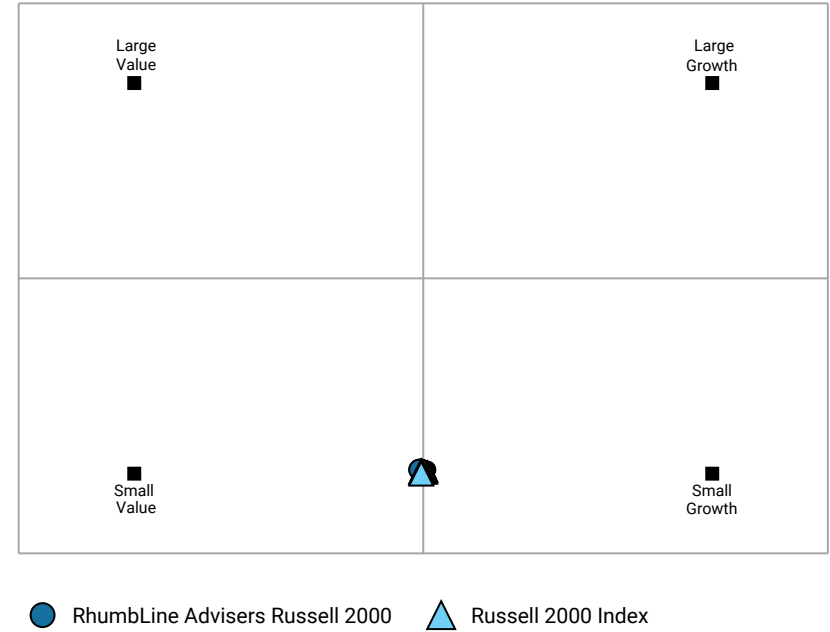


# RHUMBLINE ADVISORS RUSSELL 2000

5 Years Return vs. Standard Deviation

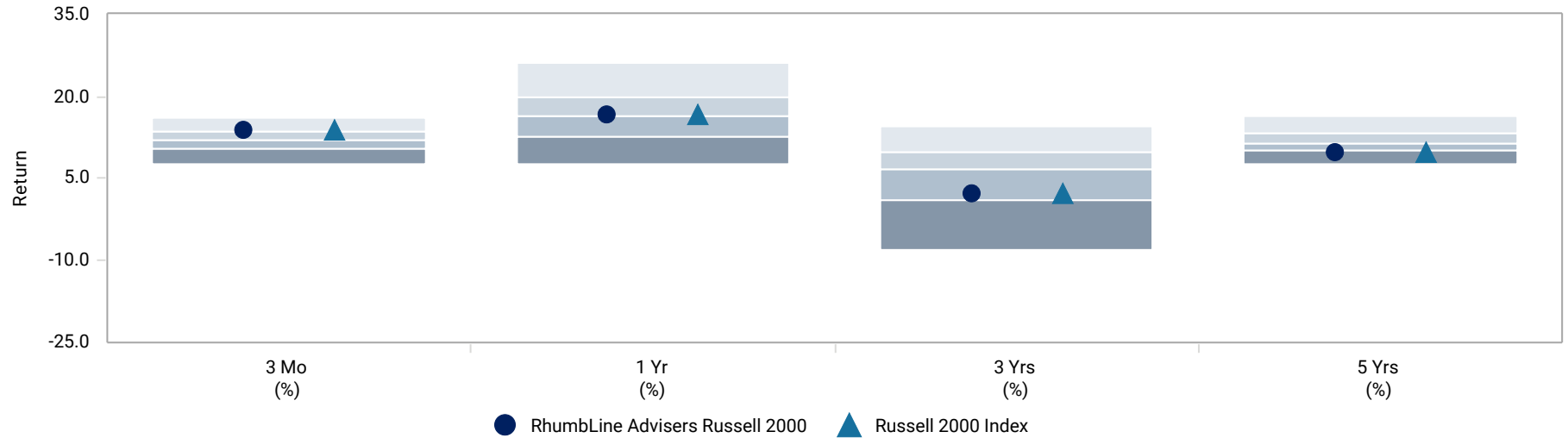


Rolling 3 Years Style Map

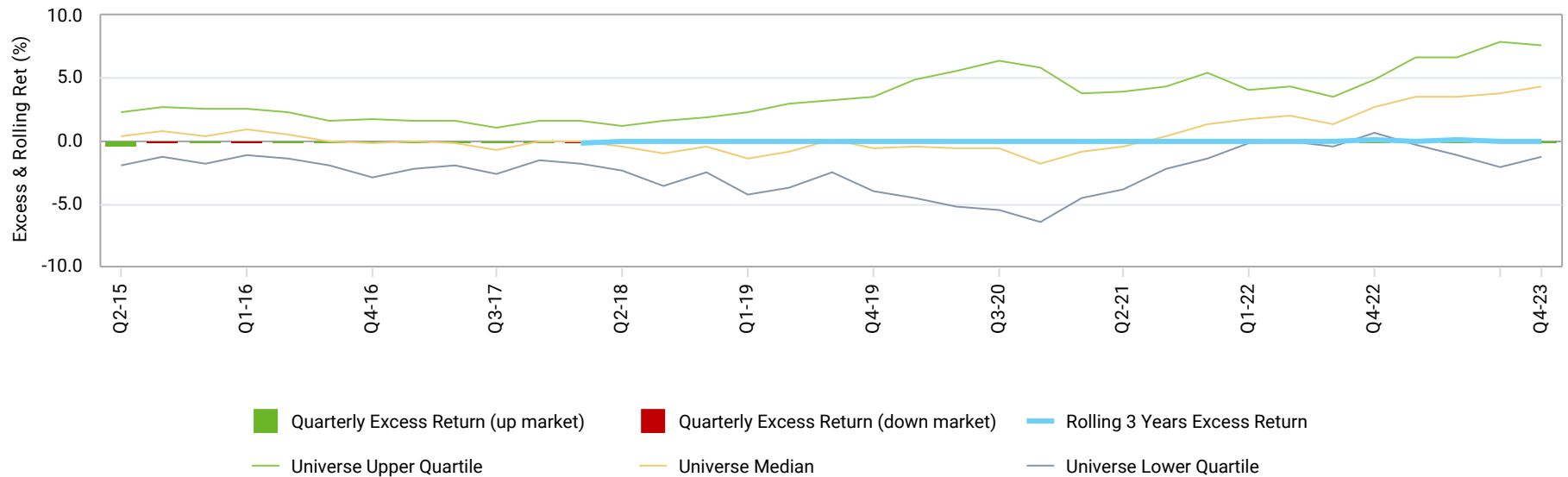


# RHUMBLINE ADVISORS RUSSELL 2000

## eV US Small Cap Equity (net of fees)

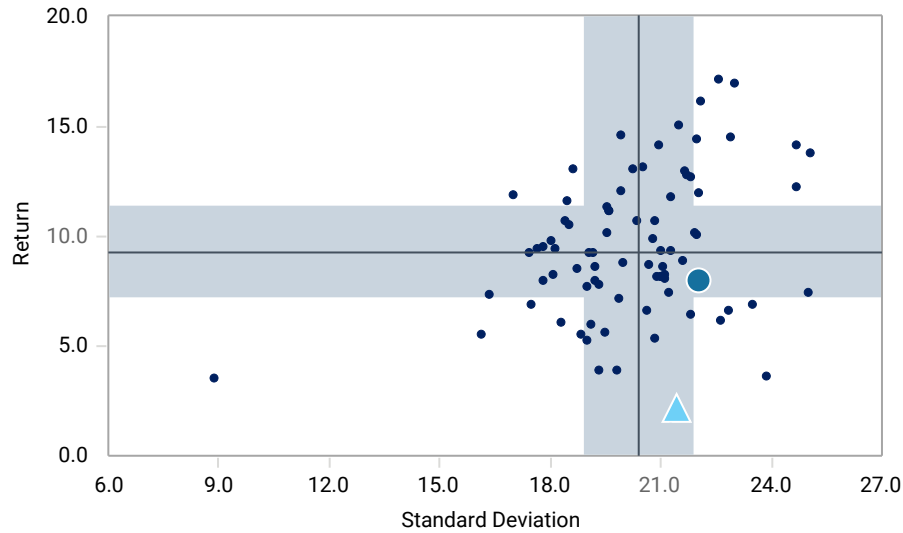


## Quarter Excess Return with a Rolling 3 Years Excess Return over Since Inception Ending December 31, 2023



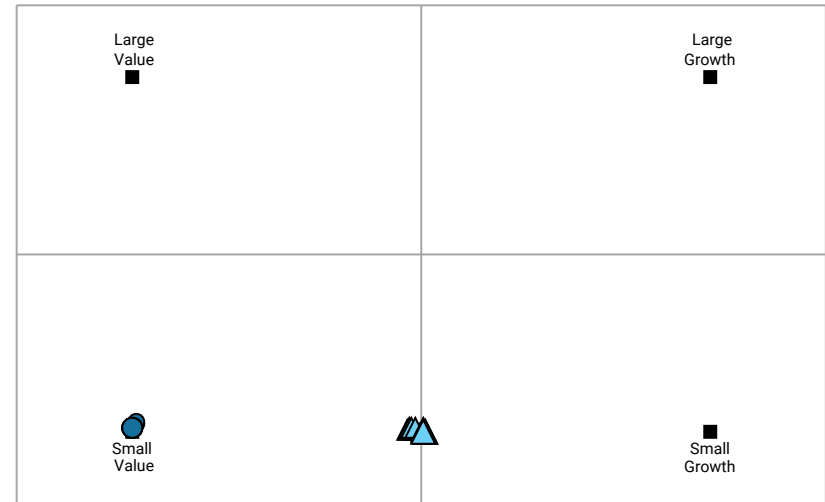
# RHUMBLINE ADVISORS RUSSELL 2000 VALUE

Since Inception Return vs. Standard Deviation

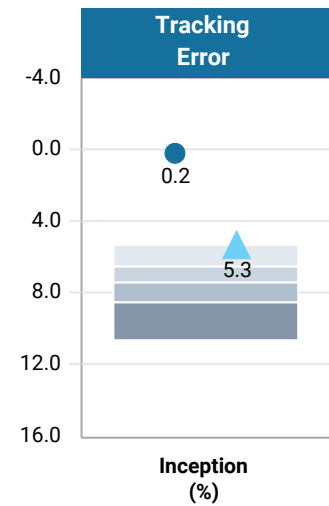
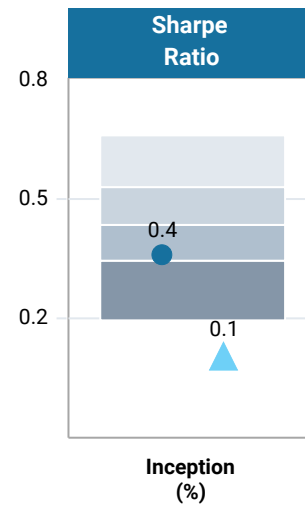
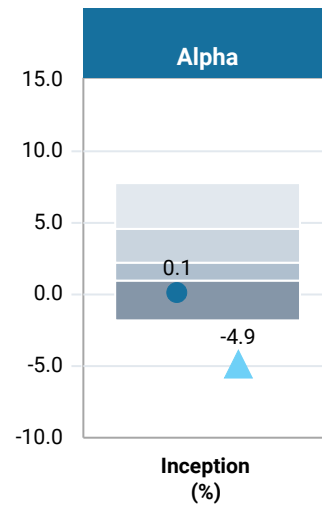
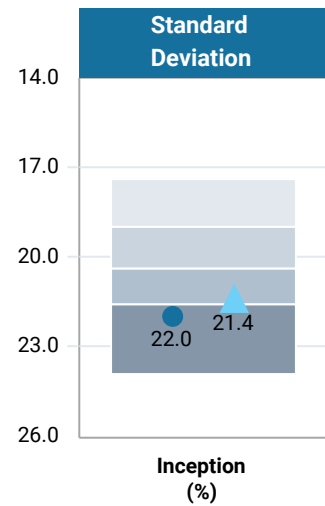
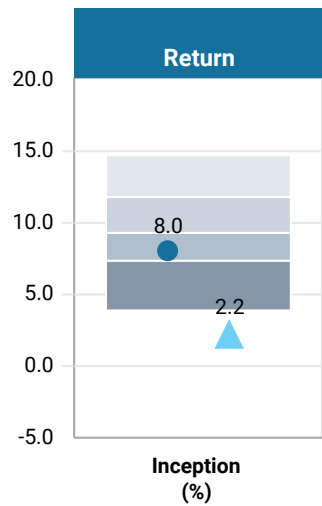


● Rhumbline Advisers Russell 2000 Value  
▲ Russell 2000 Index

Rolling 1 Year Style Map

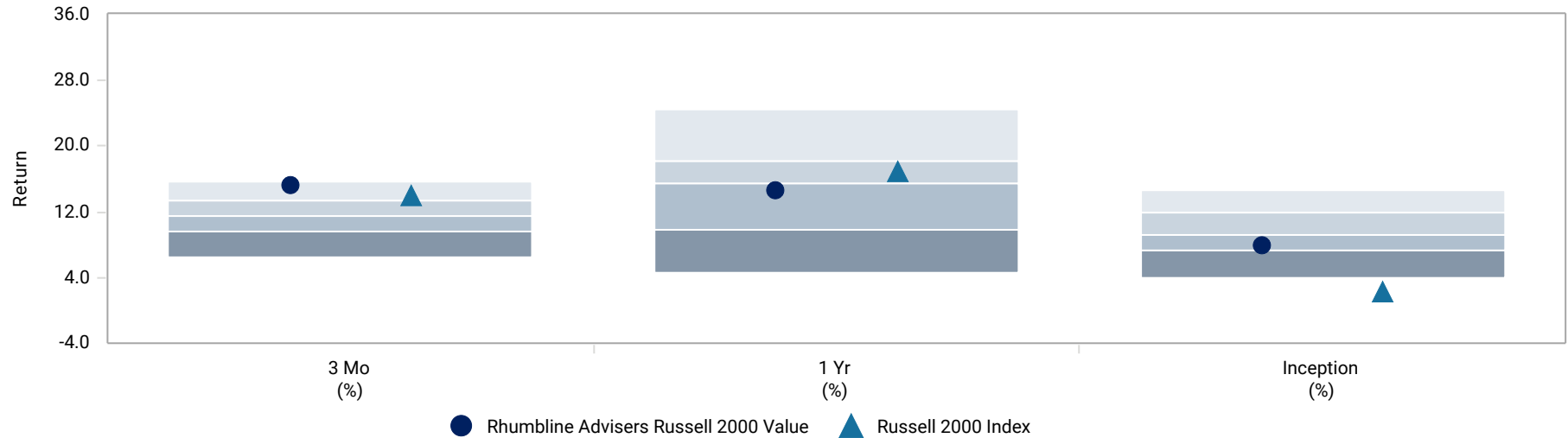


● Rhumbline Advisers Russell 2000 Value  
▲ Russell 2000 Index

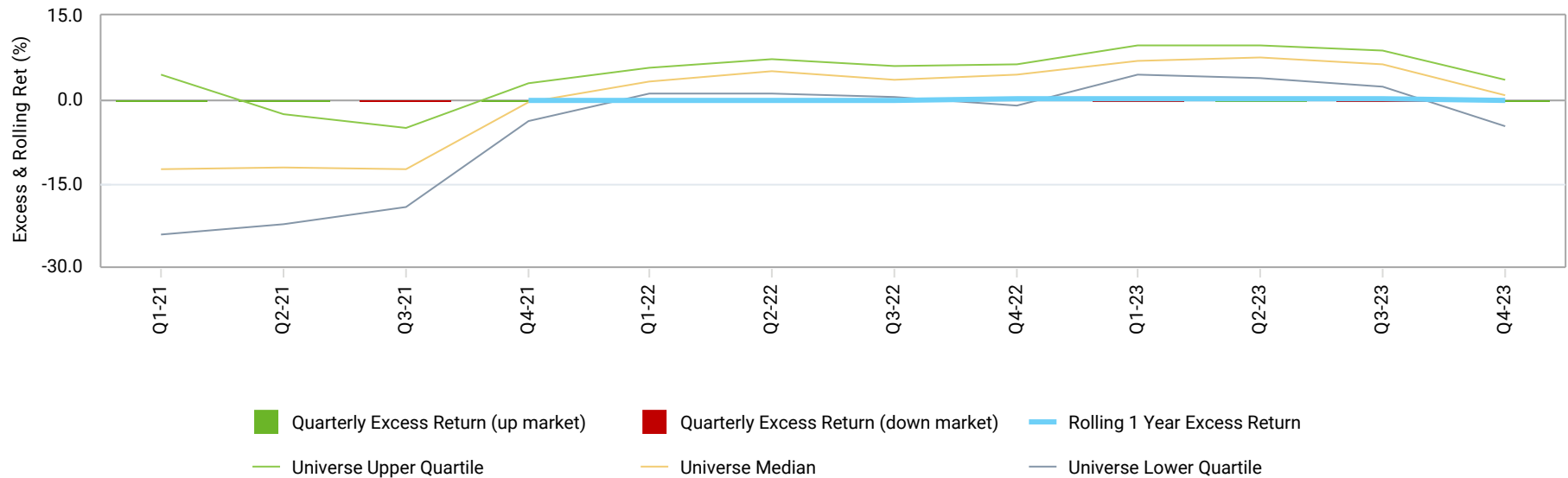


# RHUMBLINE ADVISORS RUSSELL 2000 VALUE

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



Quarter Excess Return with a Rolling 1 Year Excess Return over Since Inception Ending December 31, 2023

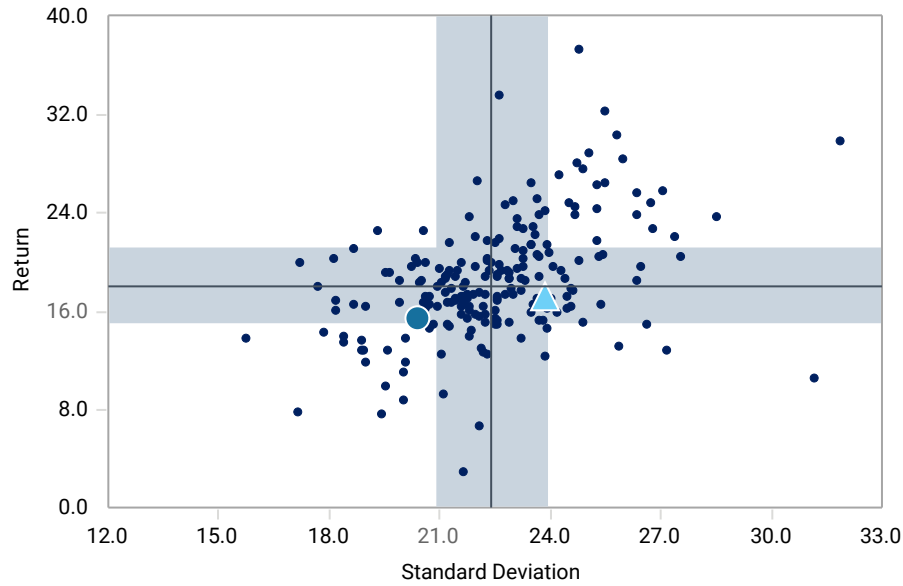


# Los Angeles City Employees' Retirement System-LACERS Master Trust

## COPELAND CAPITAL MANAGEMENT

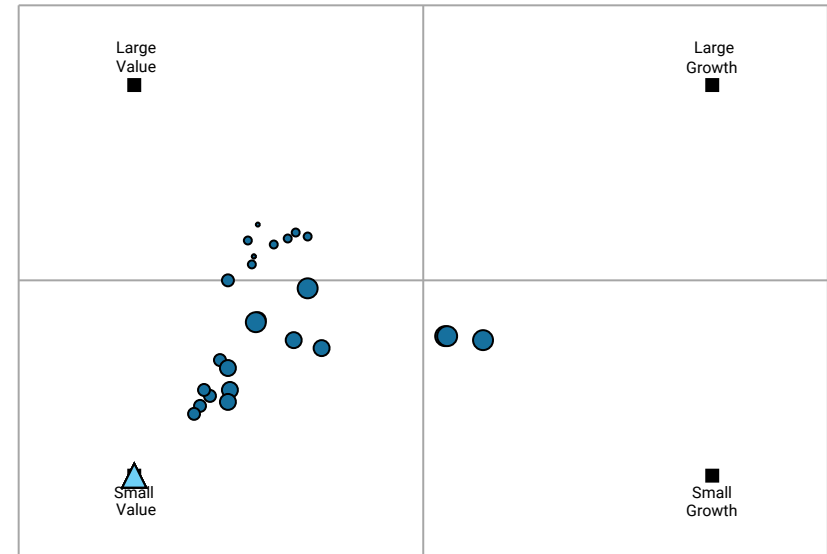
December 31, 2023

Since Inception Return vs. Standard Deviation

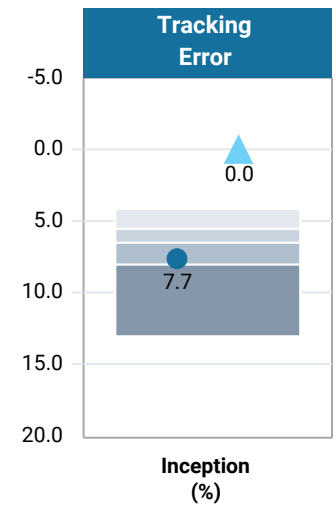
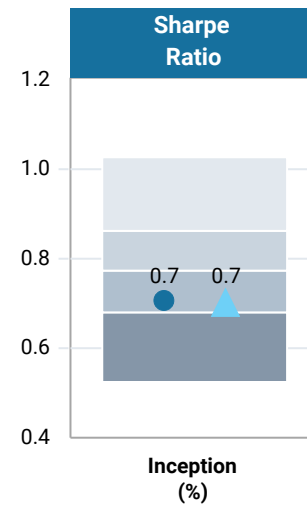
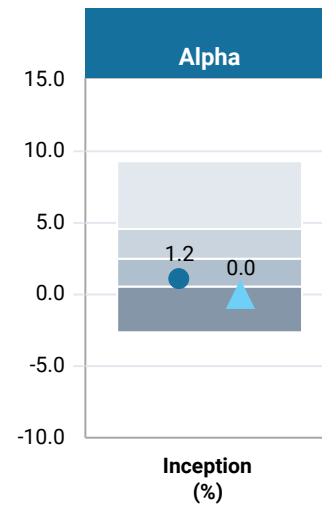
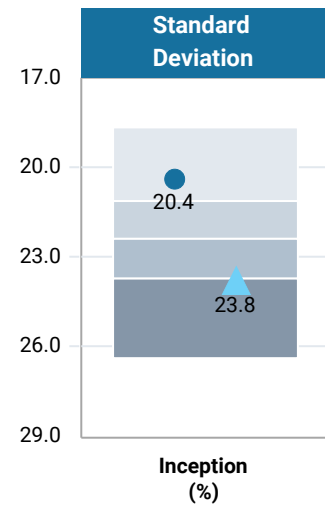
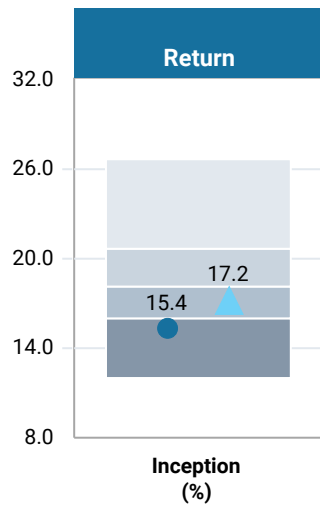


● Copeland Capital Management ▲ Russell 2000 Value Index

Rolling 1 Year Style Map



● Copeland Capital Management ▲ Russell 2000 Value Index

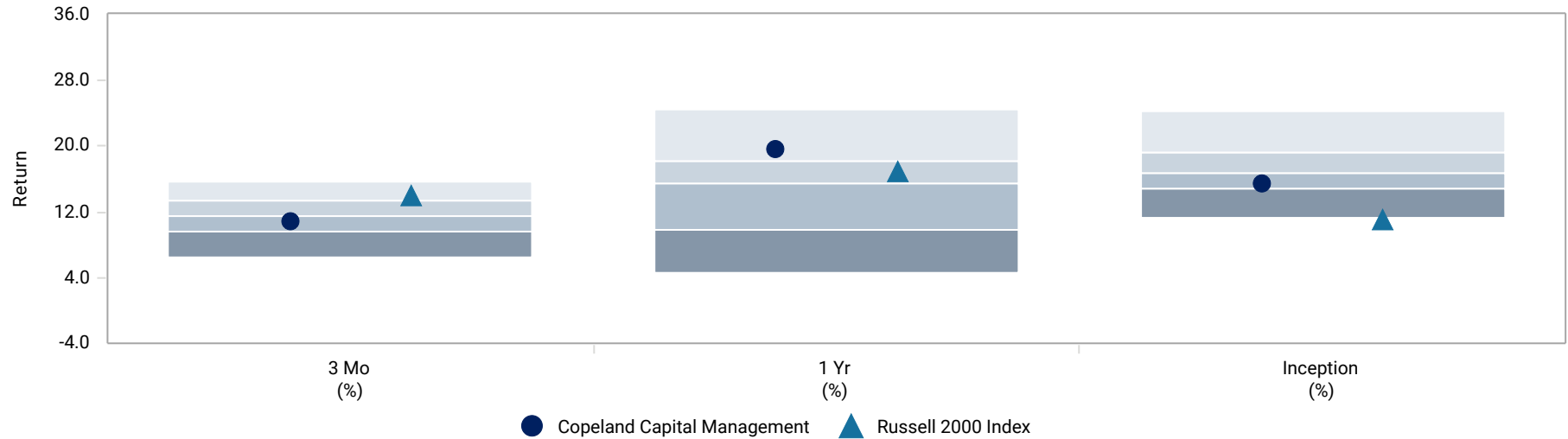


# Los Angeles City Employees' Retirement System-LACERS Master Trust

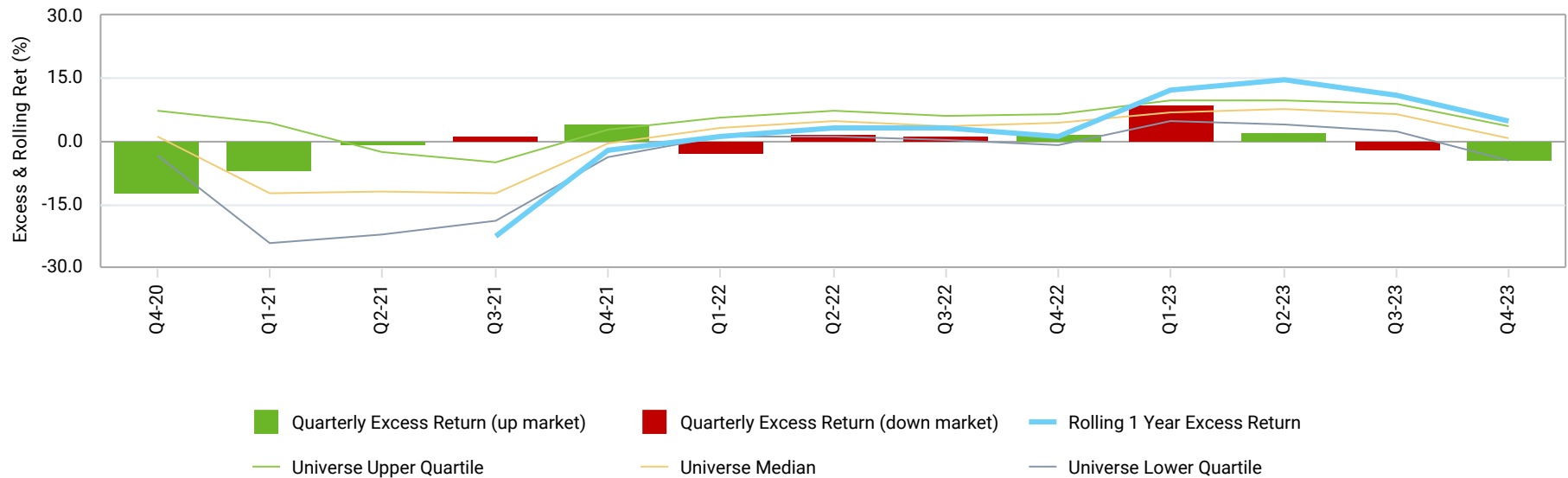
## COPELAND CAPITAL MANAGEMENT

December 31, 2023

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



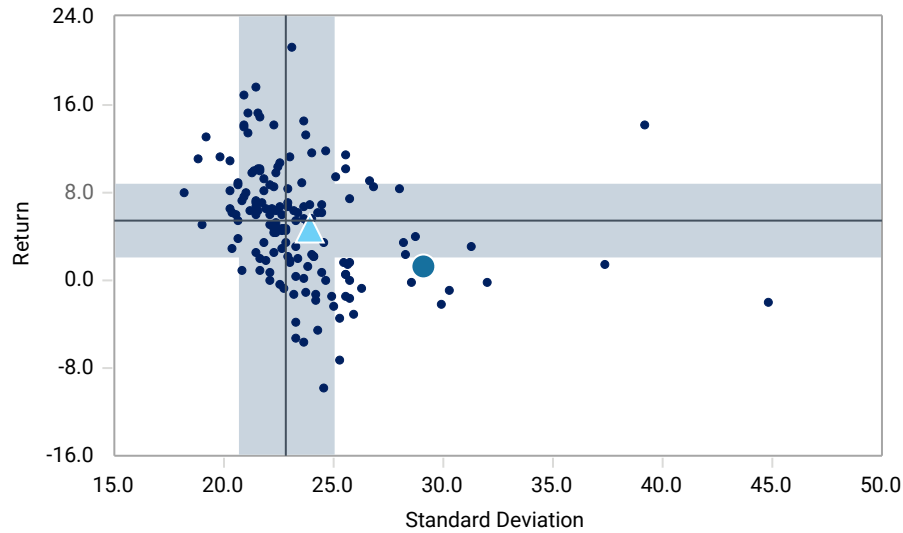
### Quarter Excess Return with a Rolling 1 Year Excess Return over Since Inception Ending December 31, 2023





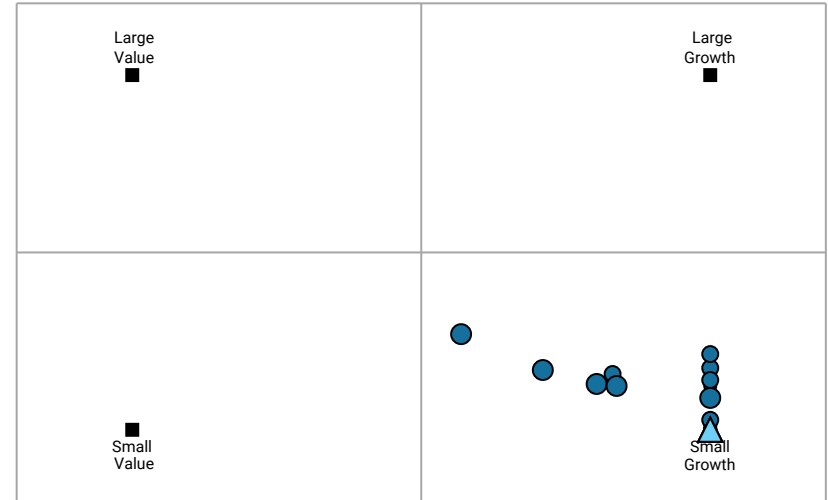
# GRANAHAN INVESTMENT MANAGEMENT

Since Inception Return vs. Standard Deviation

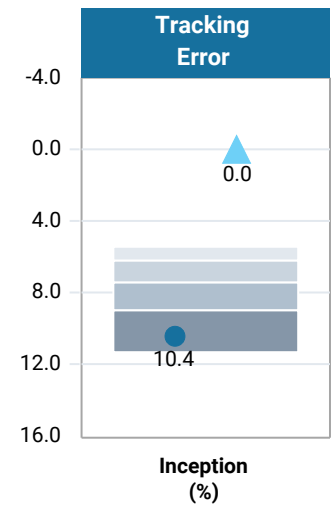
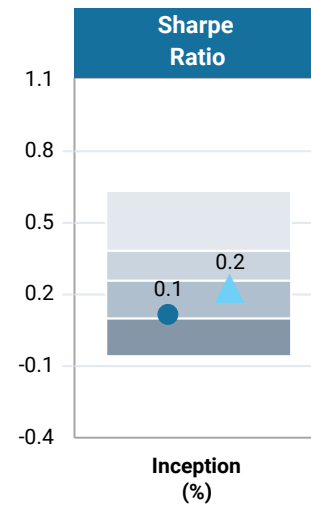
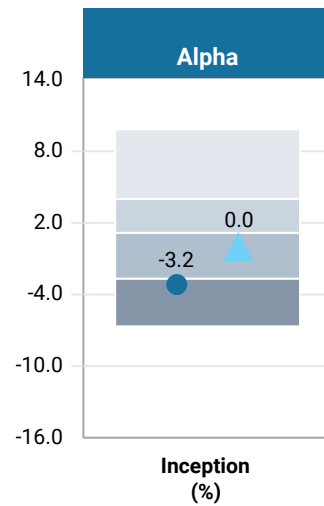
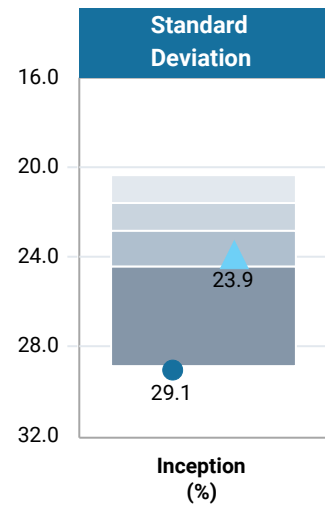
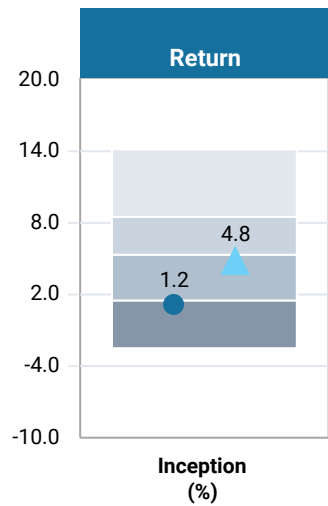


● Granahan Investment Management  
▲ Russell 2000 Growth Index

Rolling 1 Year Style Map

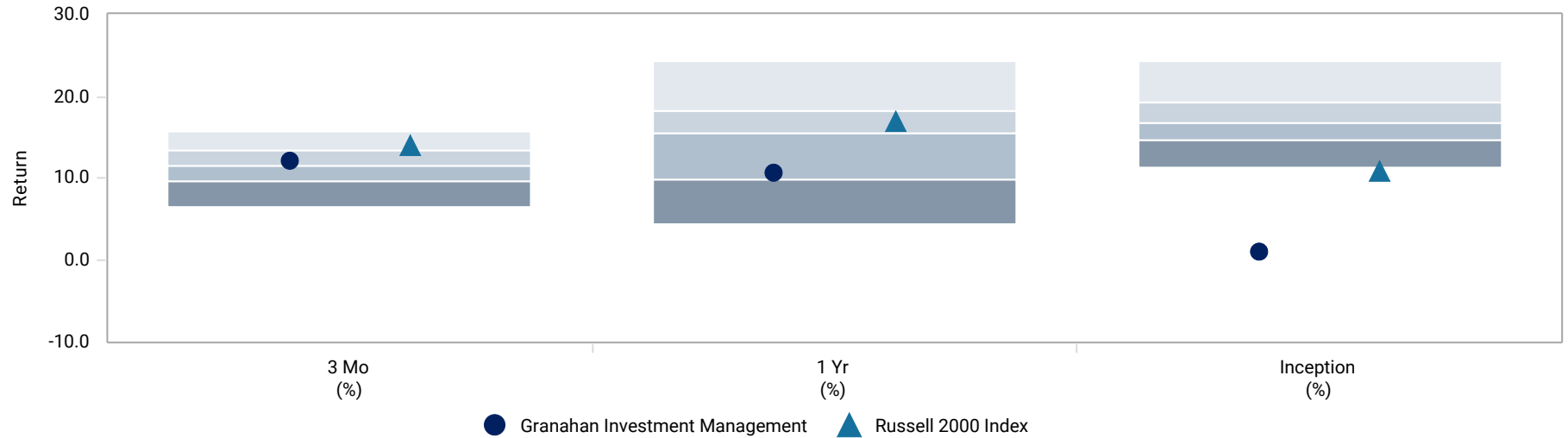


● Granahan Investment Management  
▲ Russell 2000 Growth Index

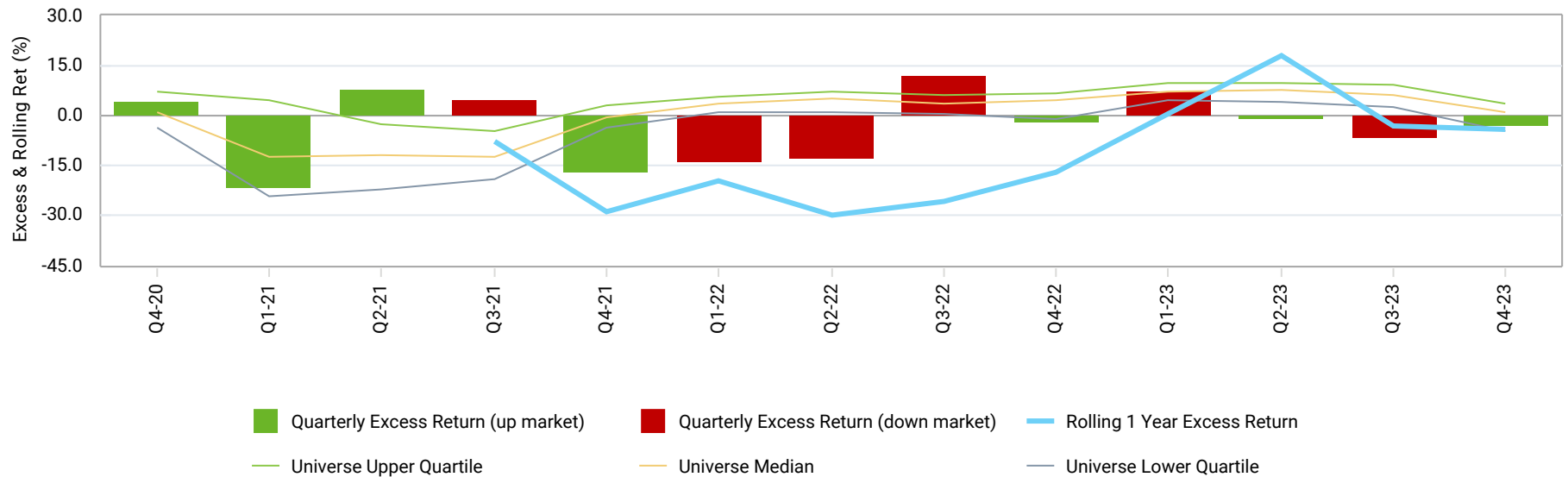


# GRANAHAAN INVESTMENT MANAGEMENT

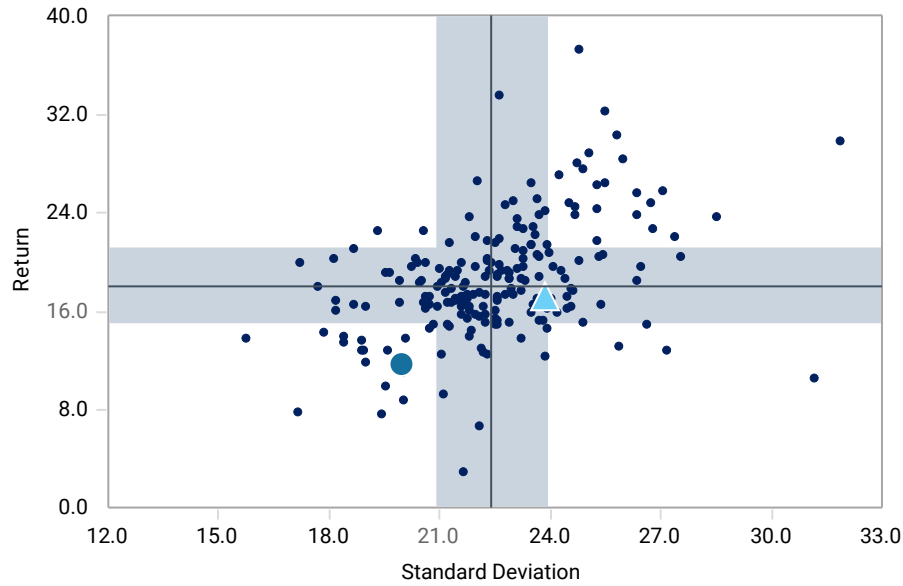
## eV US Small-Mid Cap Value Equity (net of fees)



## Quarter Excess Return with a Rolling 1 Year Excess Return over Since Inception Ending December 31, 2023

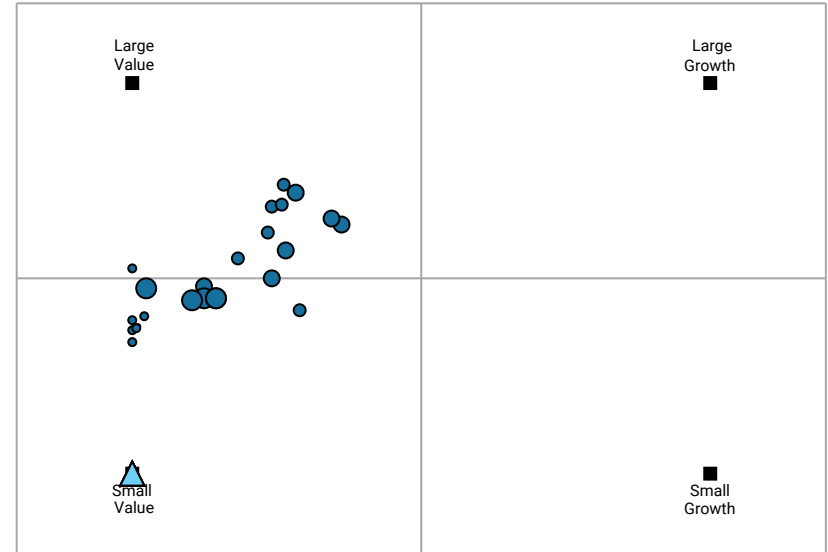


Since Inception Return vs. Standard Deviation

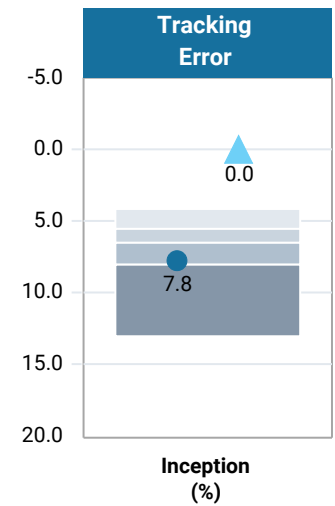
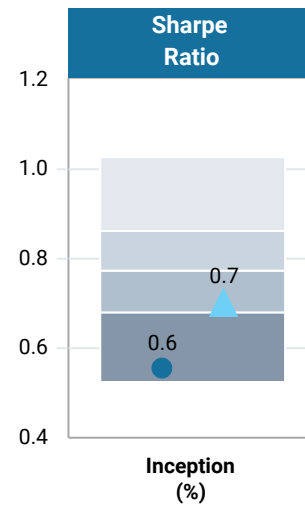
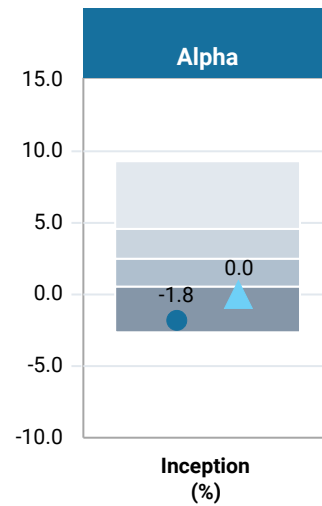
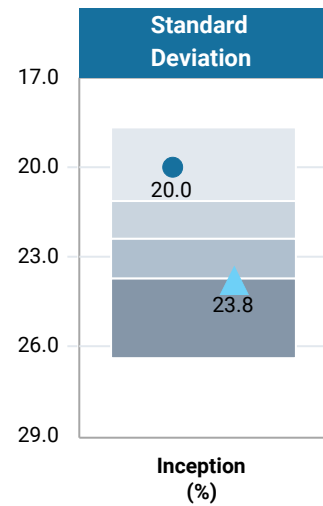
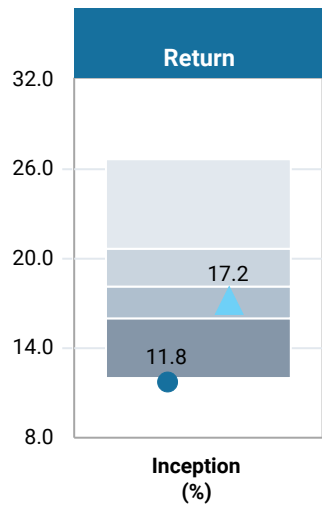


● Segall, Bryant & Hamill    ▲ Russell 2000 Value Index

Rolling 1 Year Style Map

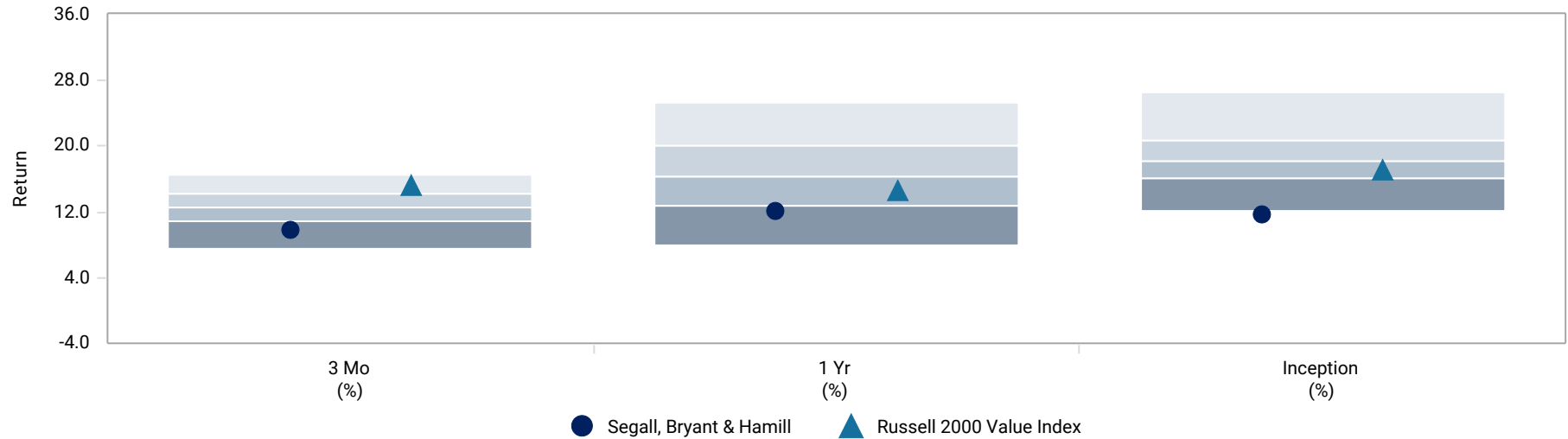


● Segall, Bryant & Hamill    ▲ Russell 2000 Value Index

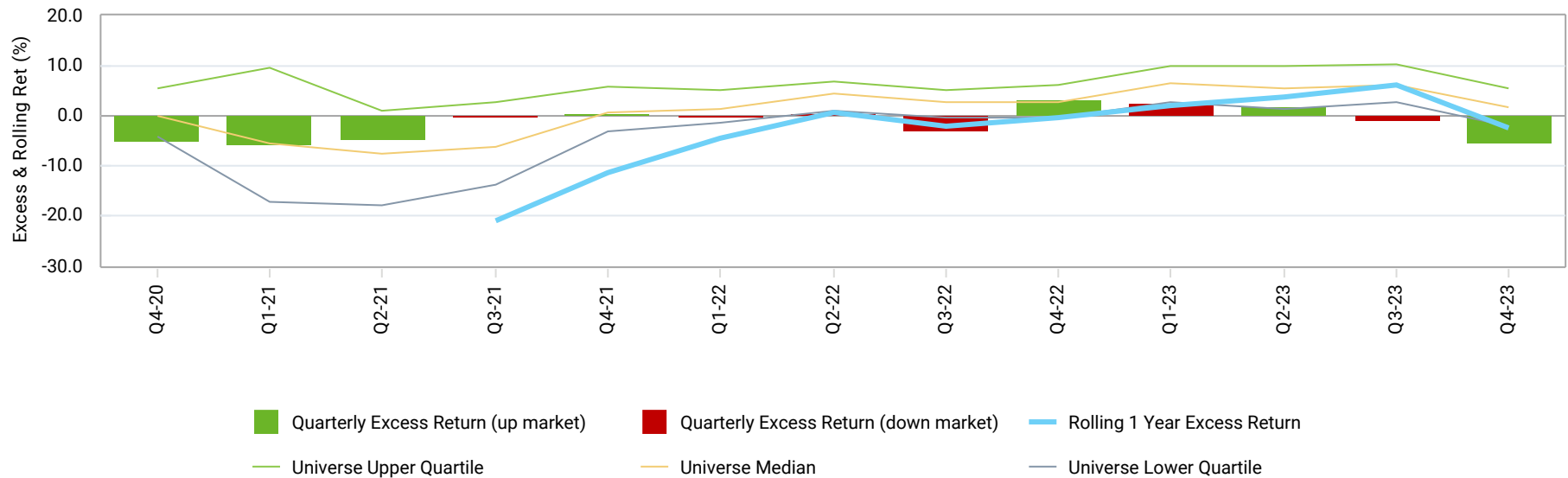


# SEGALL, BRYANT & HAMILL

## eV US Small Cap Value Equity (net of fees)



## Quarter Excess Return with a Rolling 1 Year Excess Return over Since Inception Ending December 31, 2023

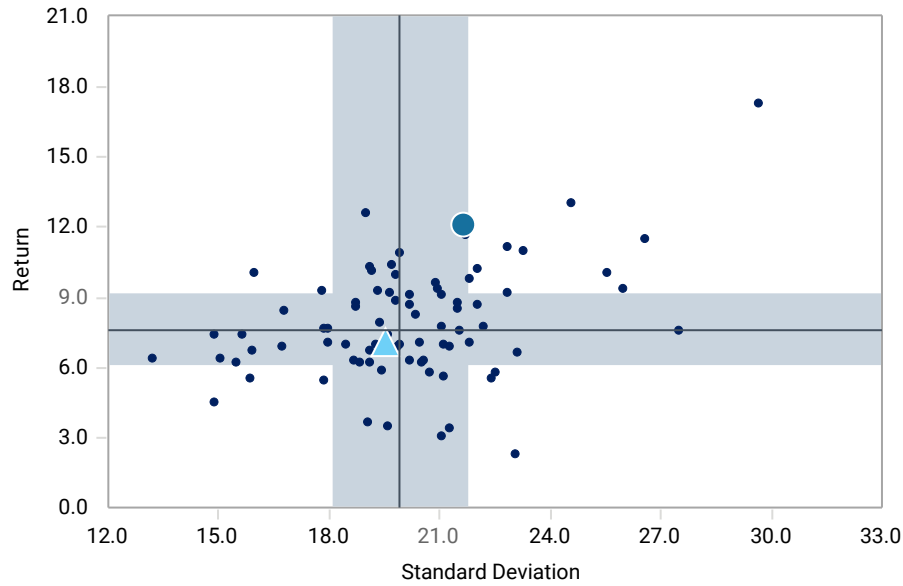




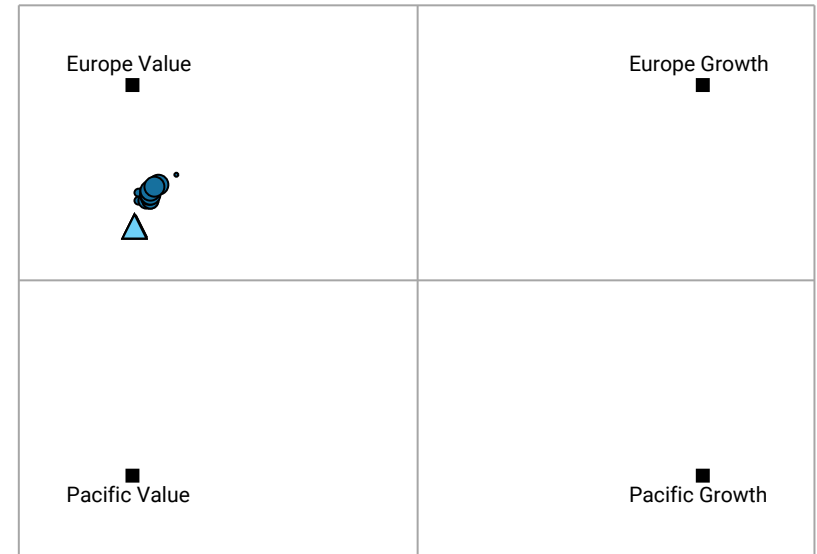
# NON-U.S. EQUITY MANAGER PERFORMANCE

# BARROW HANLEY

5 Years Return vs. Standard Deviation



Rolling 5 Years Style Map

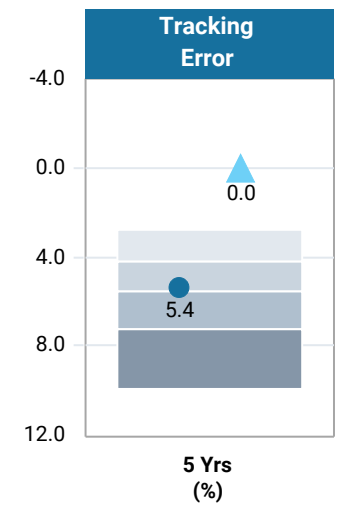
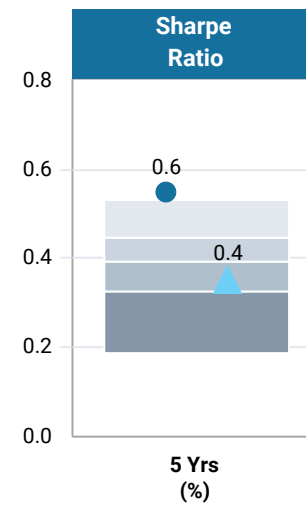
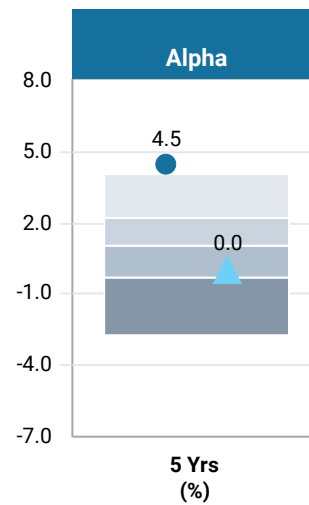
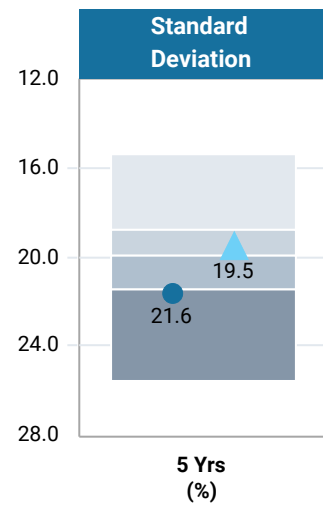
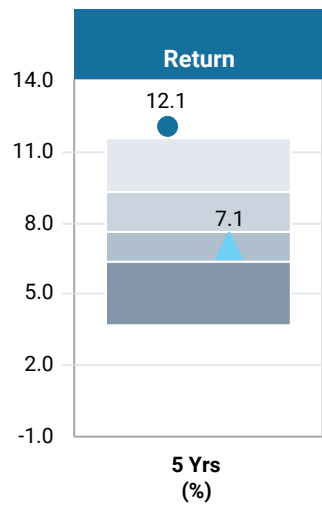


● Barrow Hanley

▲ MSCI EAFE Value Index (Net)

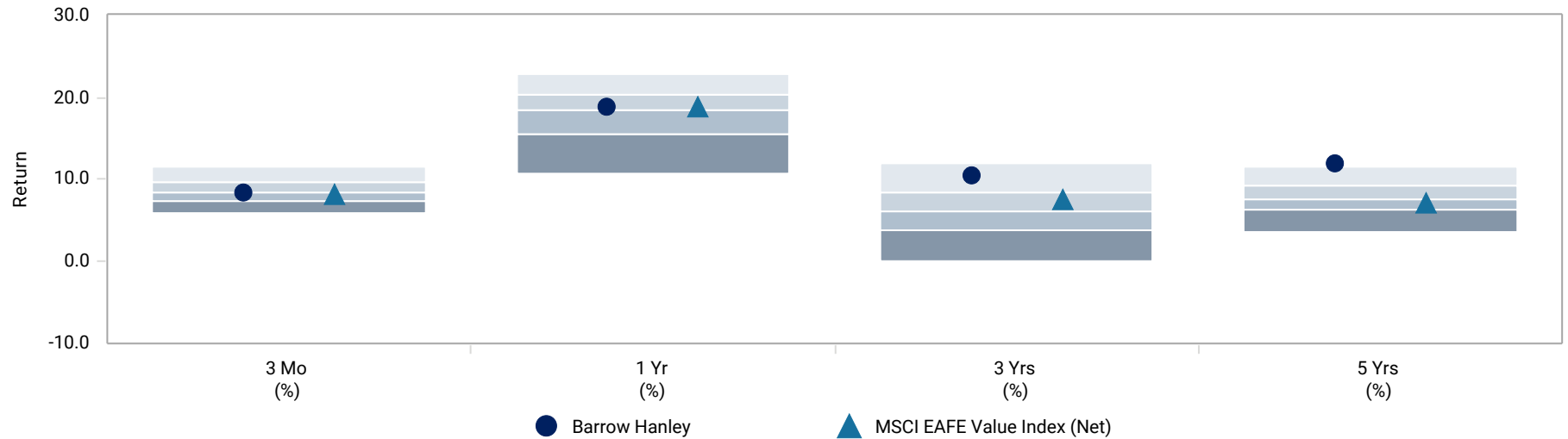
● Barrow Hanley

▲ MSCI EAFE Value Index (Net)

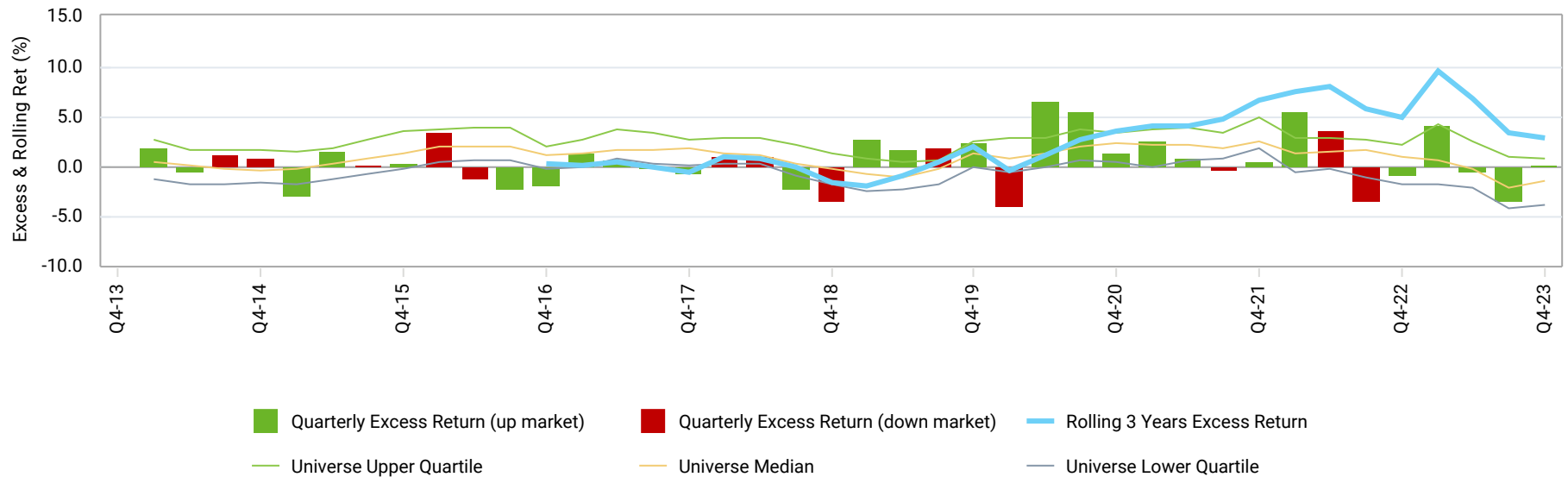


# BARROW HANLEY

## eV EAFE Value Equity (net of fees)

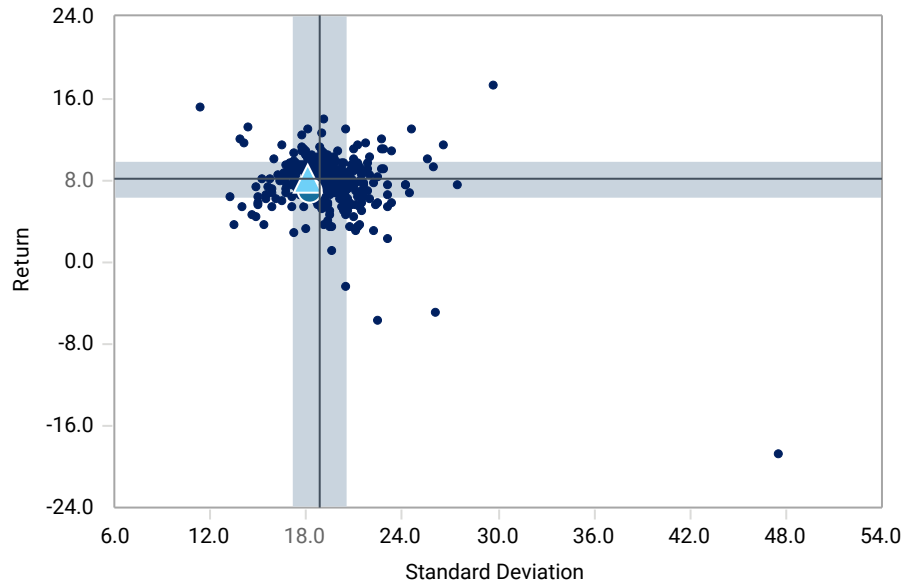


## Quarter Excess Return with a Rolling 3 Years Excess Return over Since Inception Ending December 31, 2023



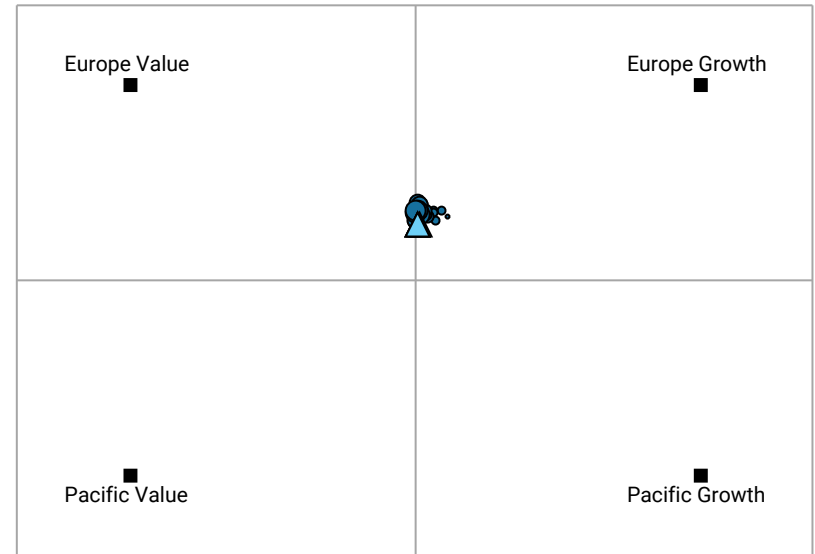
# LAZARD ASSET MANAGEMENT

5 Years Return vs. Standard Deviation

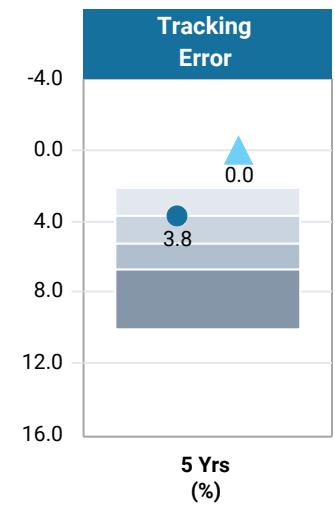
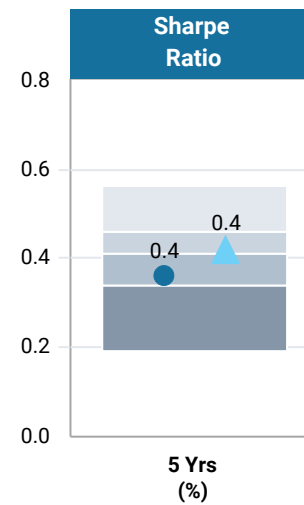
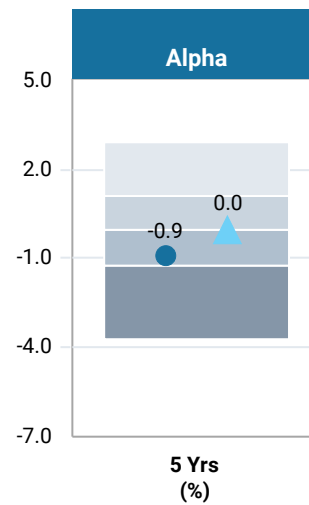
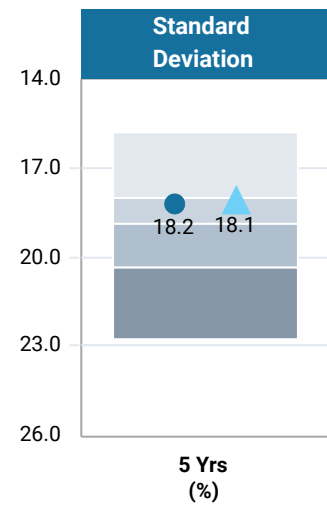
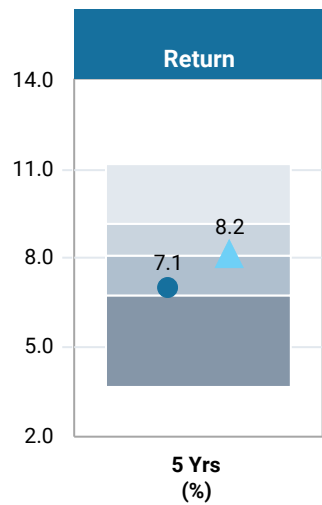


● Lazard Asset Management ▲ MSCI EAFE (Net)

Rolling 5 Years Style Map



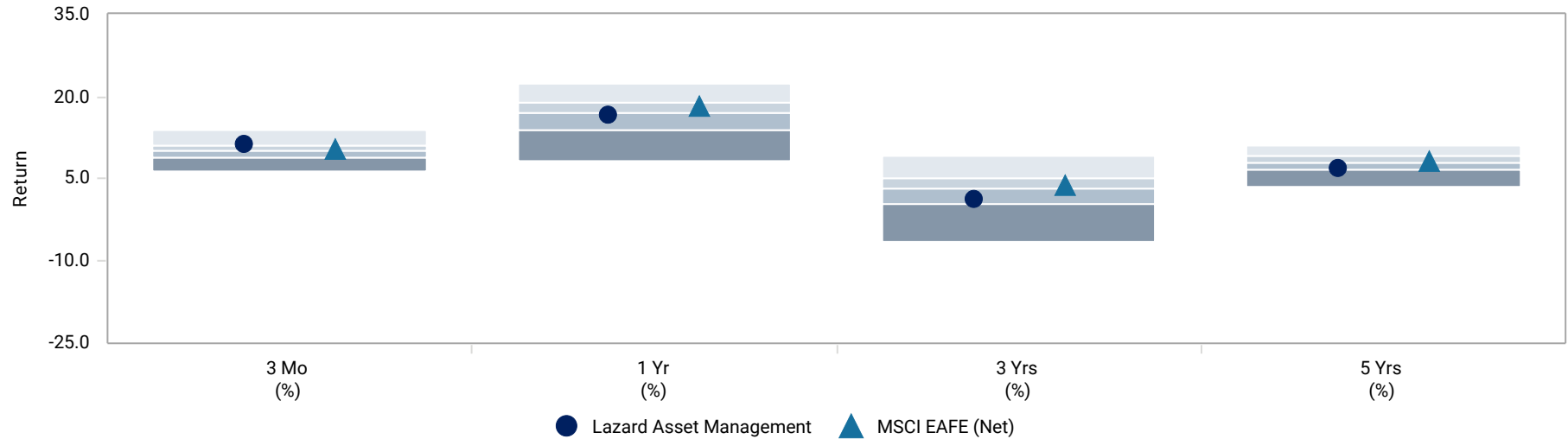
● Lazard Asset Management ▲ MSCI EAFE (Net)



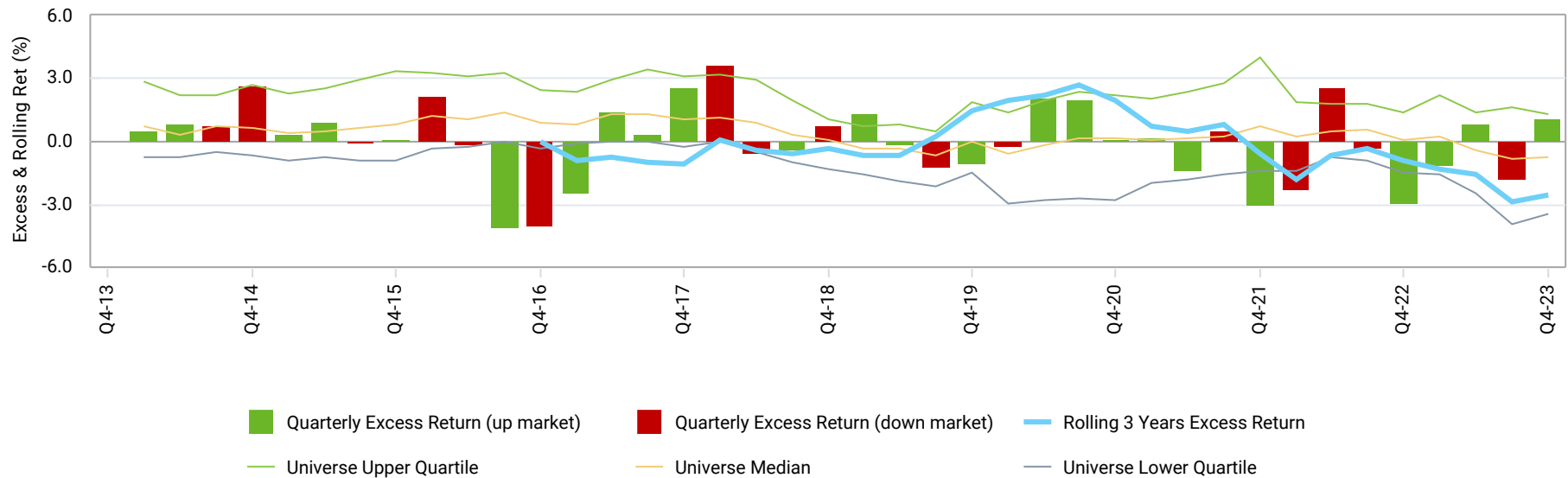


# LAZARD ASSET MANAGEMENT

## eV All EAFE Equity (net of fees)



## Quarter Excess Return with a Rolling 3 Years Excess Return over Since Inception Ending December 31, 2023

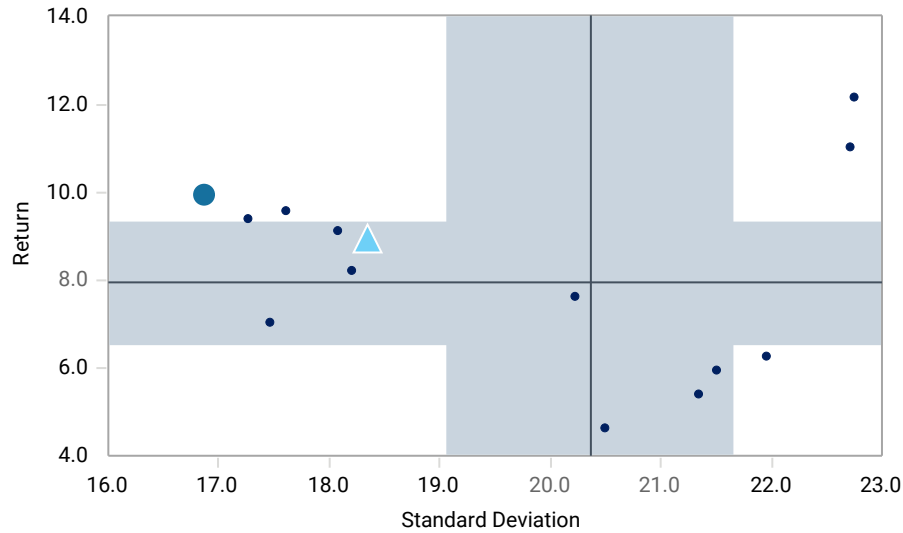


# Los Angeles City Employees' Retirement System-LACERS Master Trust

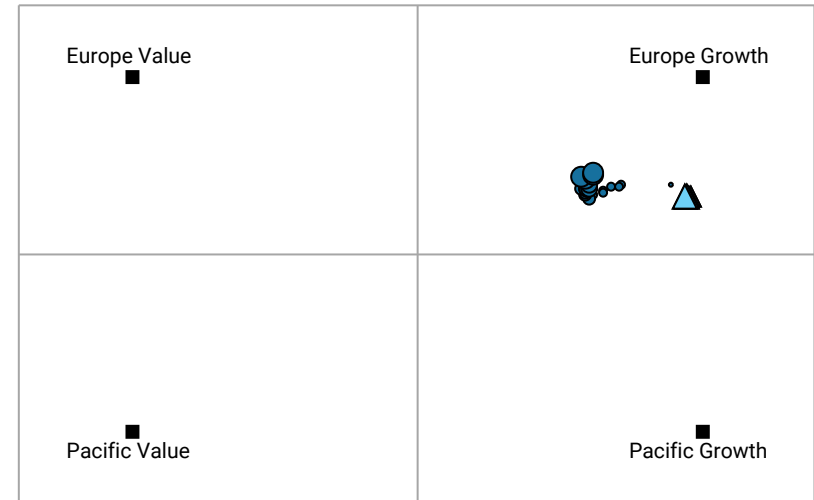
## MFS INSTITUTIONAL ADVISORS

December 31, 2023

5 Years Return vs. Standard Deviation

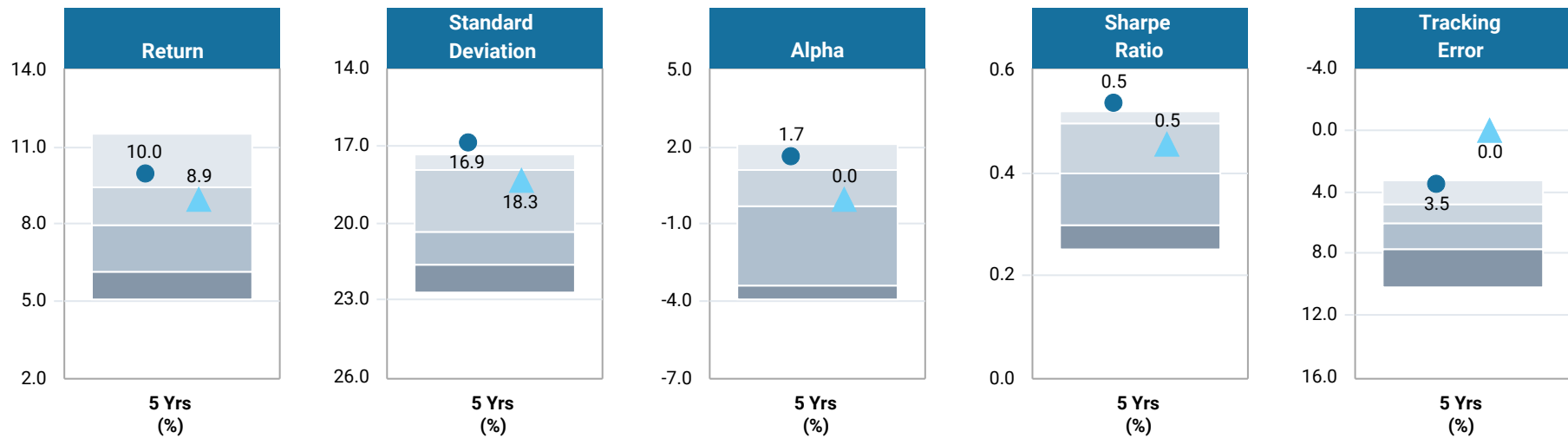


Rolling 5 Years Style Map



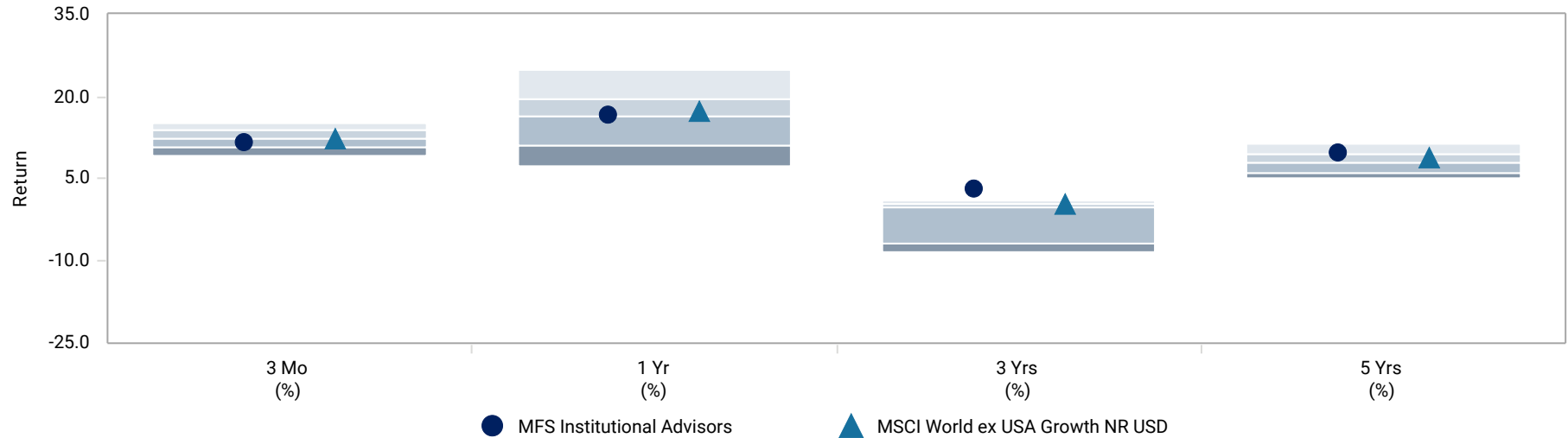
- MFS Institutional Advisors
- ▲ MSCI World ex USA Growth NR USD

- MFS Institutional Advisors
- ▲ MSCI World ex USA Growth NR USD

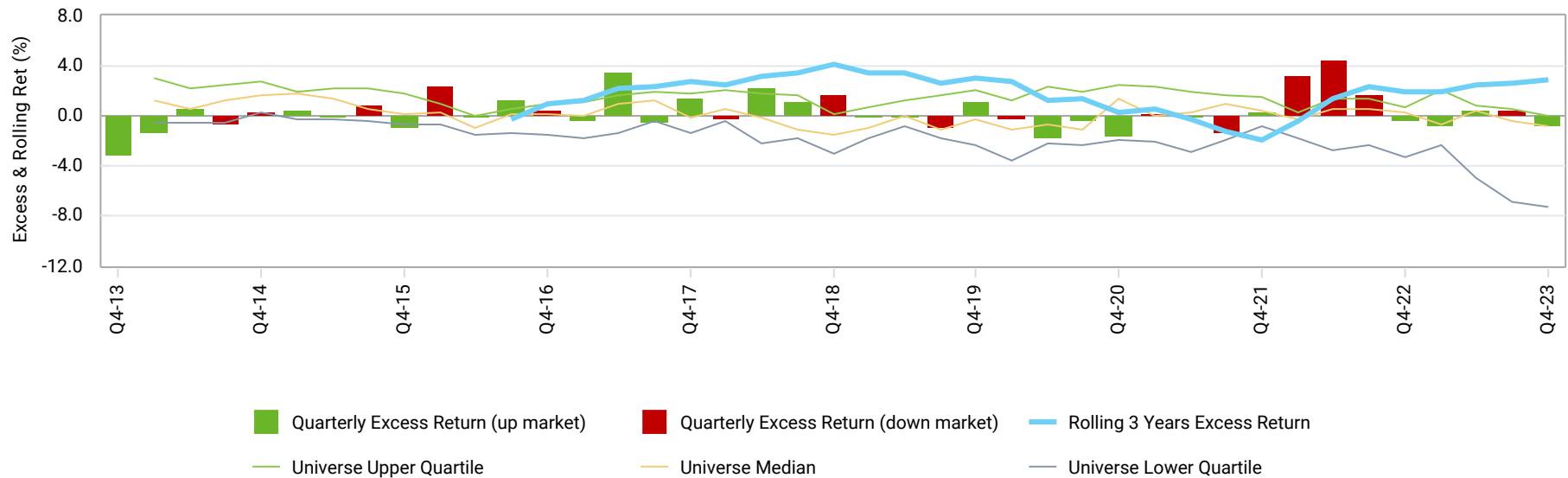


# MFS INSTITUTIONAL ADVISORS

eV EAFE All Cap Growth (net of fees)

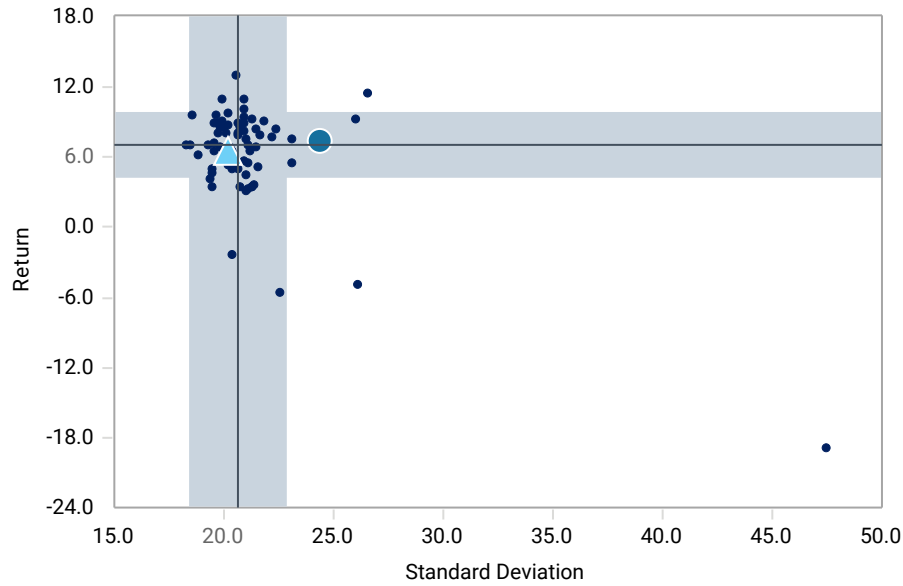


Quarter Excess Return with a Rolling 3 Years Excess Return over Since Inception Ending December 31, 2023

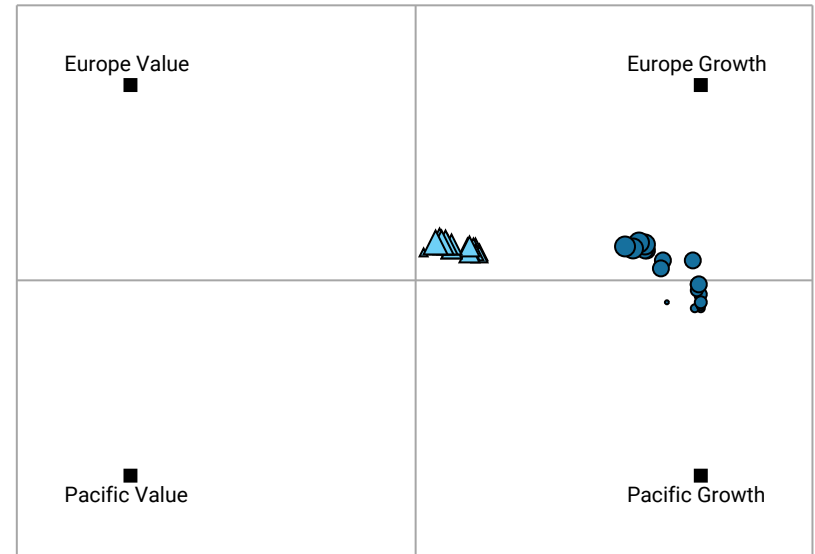


# OBERWEIS ASSET MGMT

5 Years Return vs. Standard Deviation

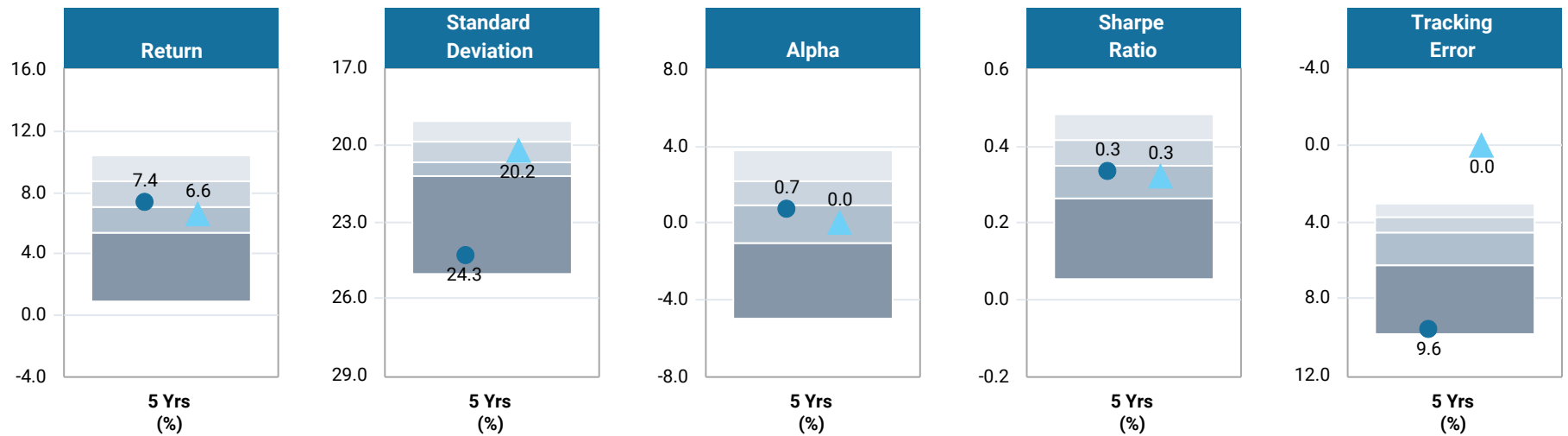


Rolling 5 Years Style Map



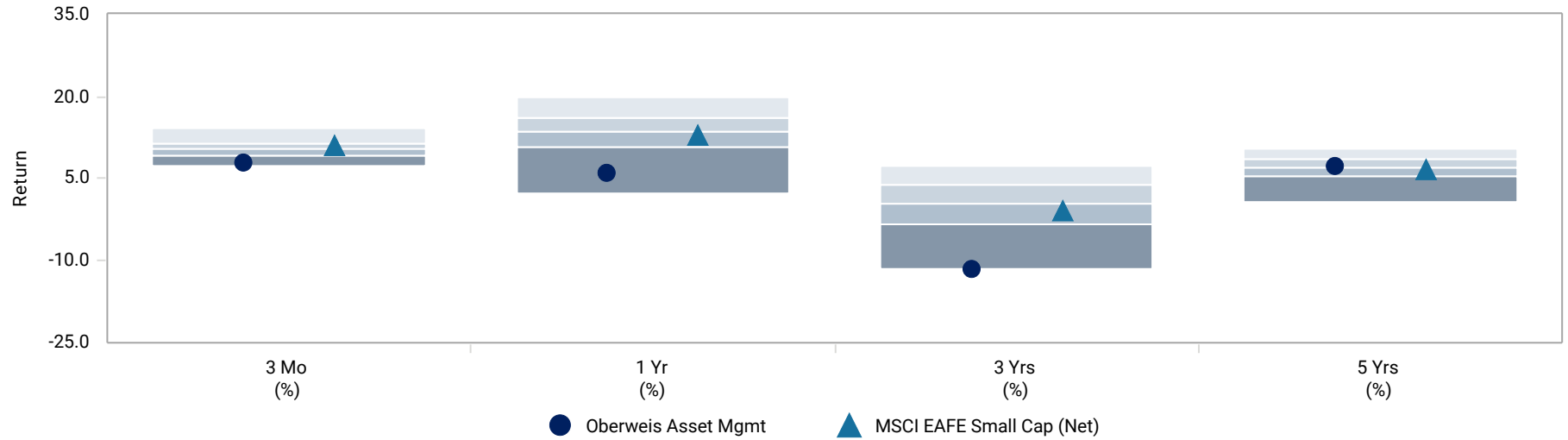
● Oberweis Asset Mgmt ▲ MSCI EAFE Small Cap (Net)

● Oberweis Asset Mgmt ▲ MSCI EAFE Small Cap (Net)

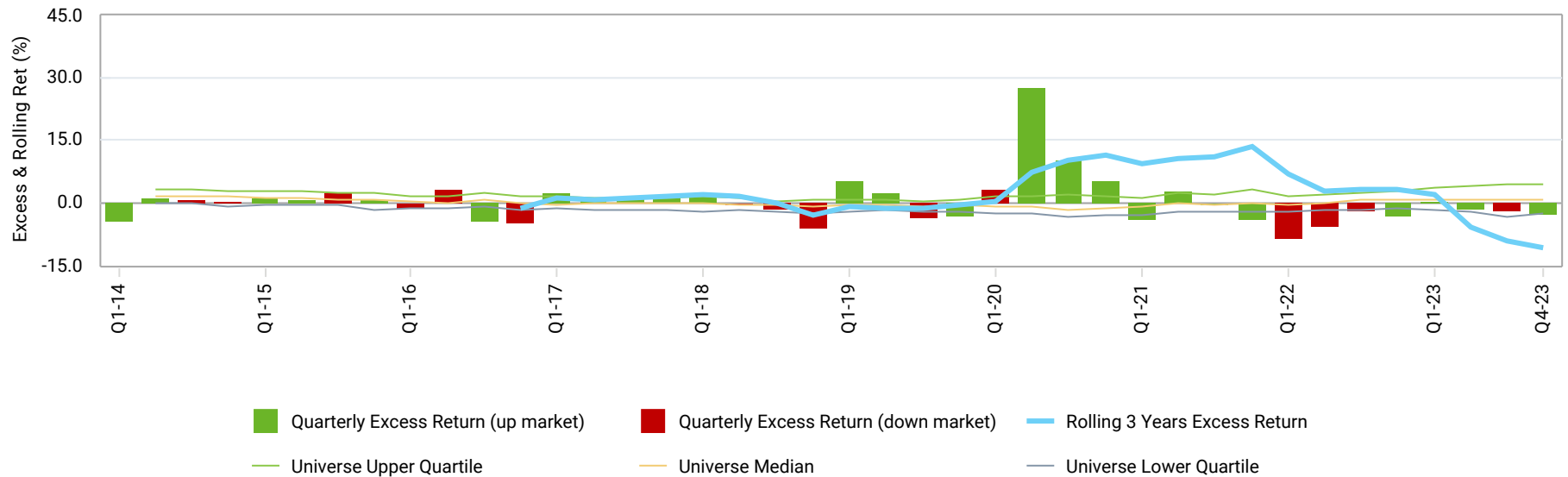


# OBERWEIS ASSET MGMT

## eV EAFE Small Cap Equity (net of fees)



## Quarter Excess Return with a Rolling 3 Years Excess Return over Since Inception Ending December 31, 2023

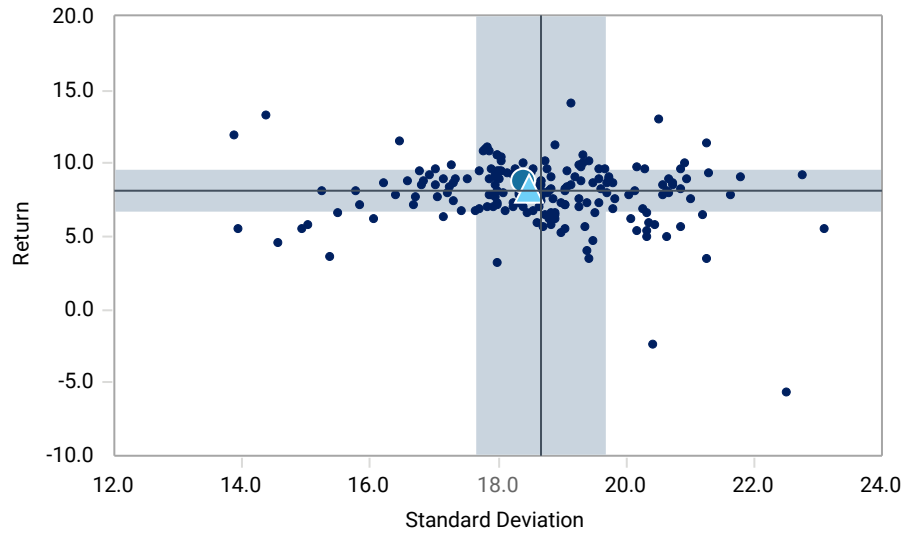


# Los Angeles City Employees' Retirement System-LACERS Master Trust

## SSGA WORLD EX US IMI

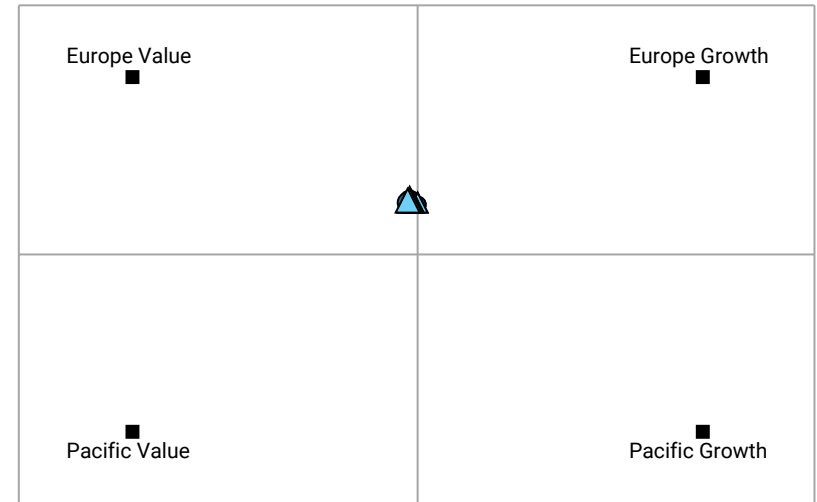
December 31, 2023

5 Years Return vs. Standard Deviation

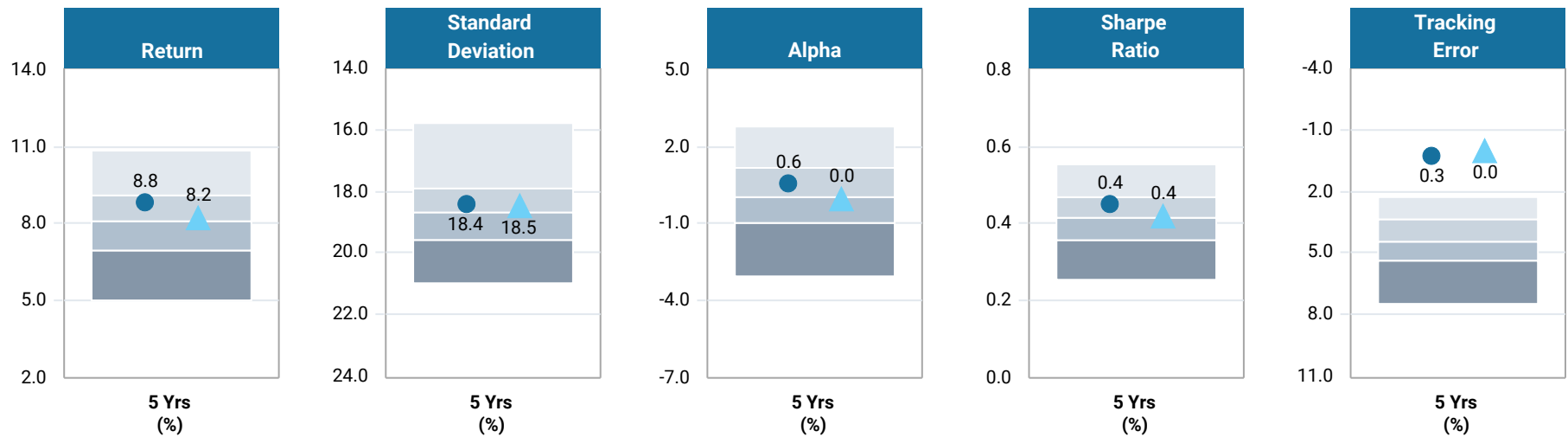


● SSGA World ex US IMI  
▲ MSCI World ex U.S. IMI Index (Net)

Rolling 5 Years Style Map

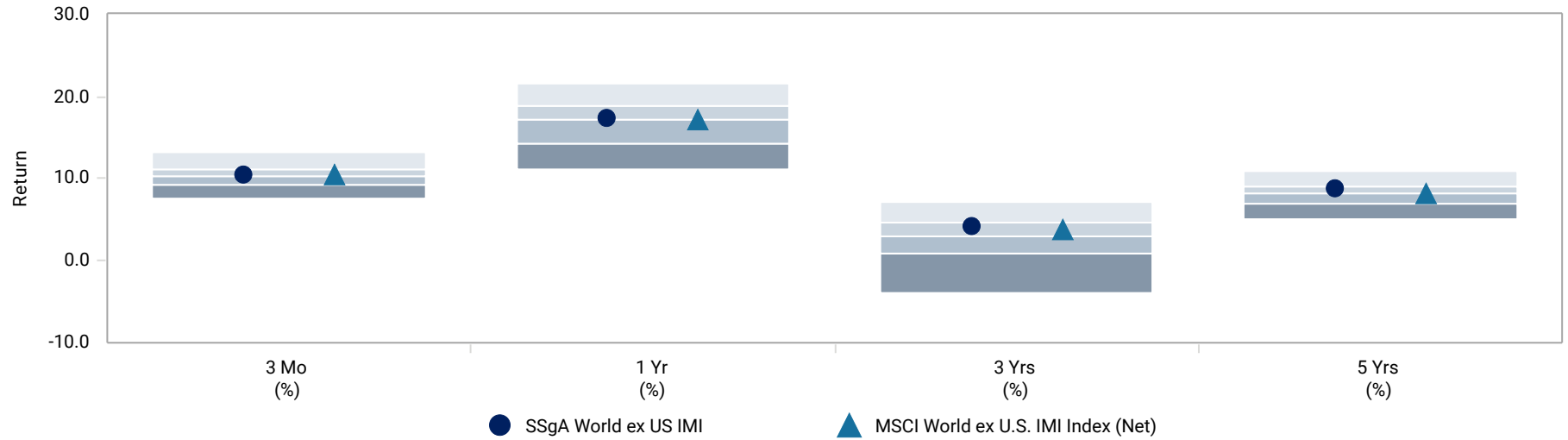


● SSGA World ex US IMI  
▲ MSCI World ex U.S. IMI Index (Net)

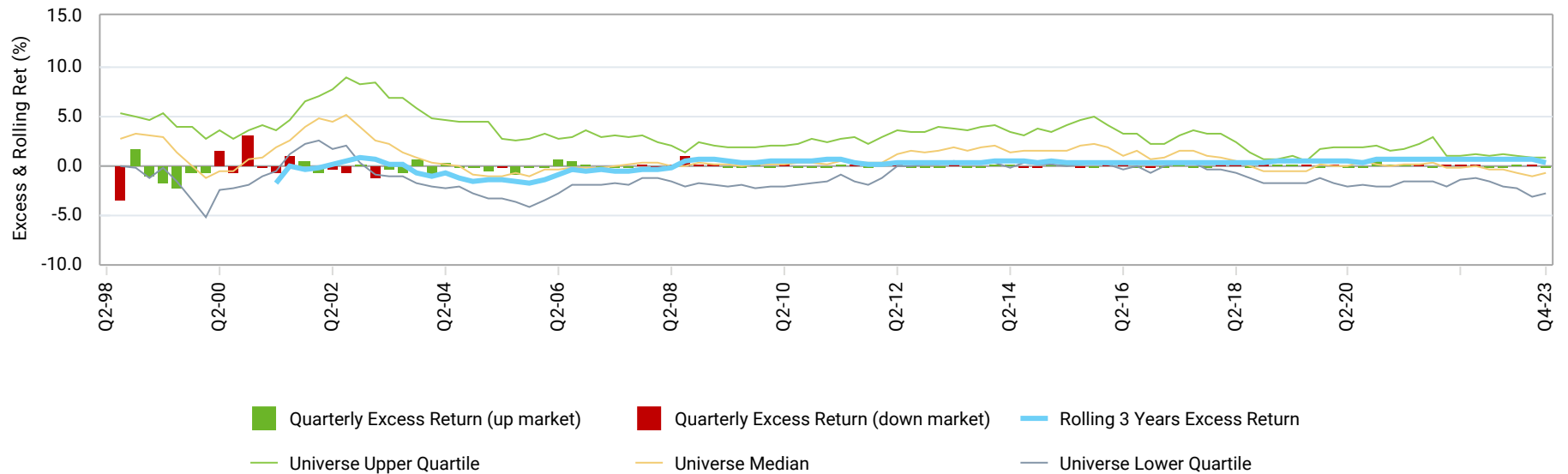


# SSGA WORLD EX US IMI

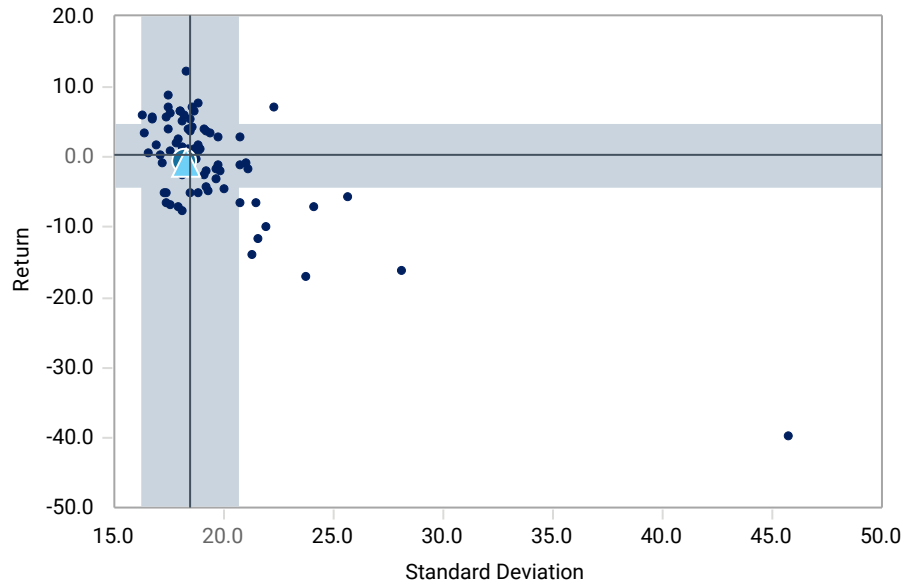
eV EAFE Core Equity (net of fees)



Quarter Excess Return with a Rolling 3 Years Excess Return over Since Inception Ending December 31, 2023



Since Inception Return vs. Standard Deviation



Rolling 1 Year Style Map

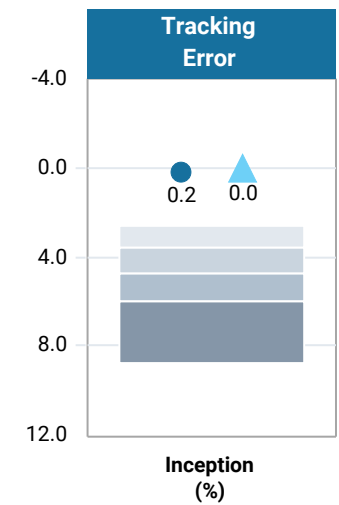
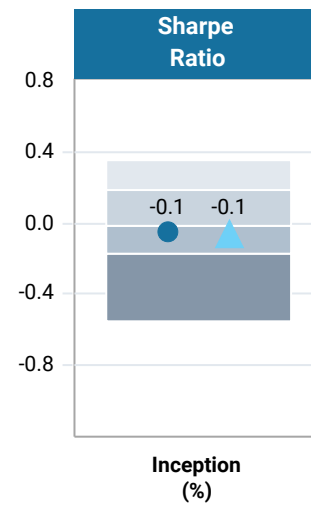
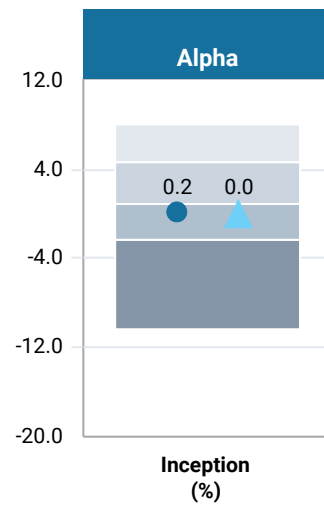
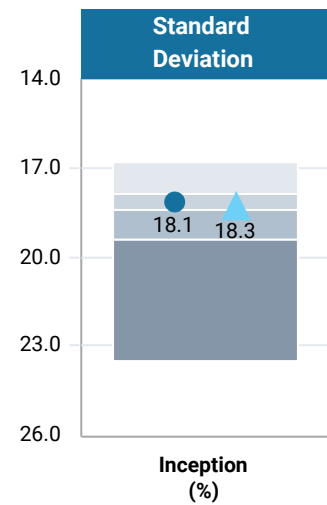
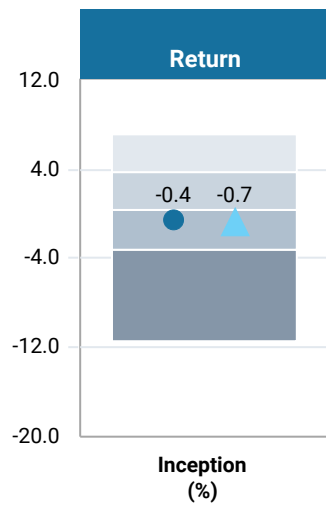


● State Street EAFE SC

▲ MSCI EAFE Small Cap (Net)

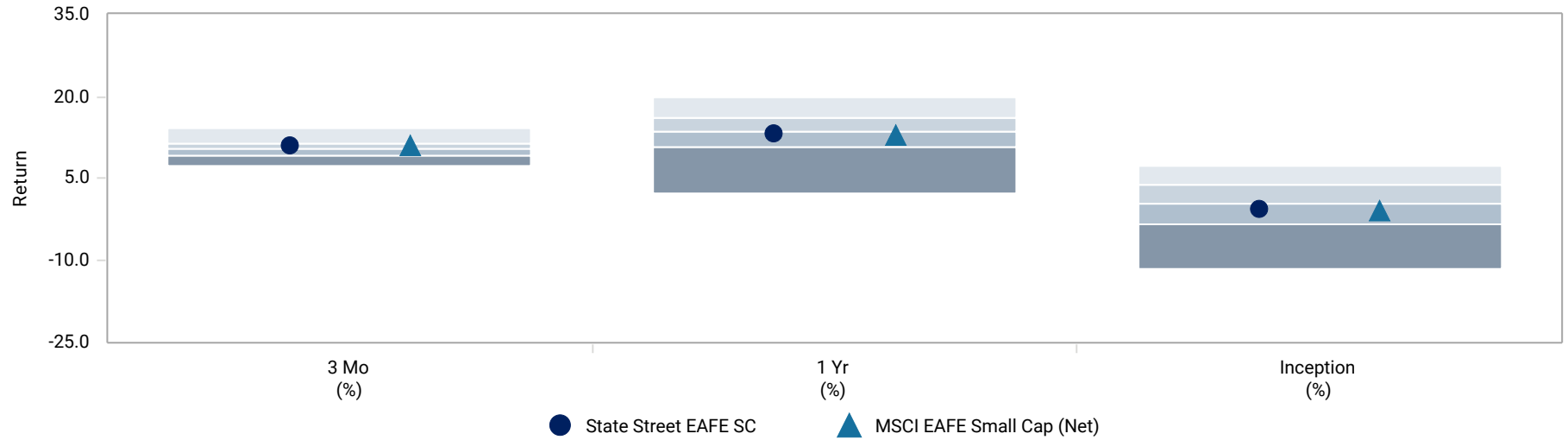
● State Street EAFE SC

▲ MSCI EAFE Small Cap (Net)

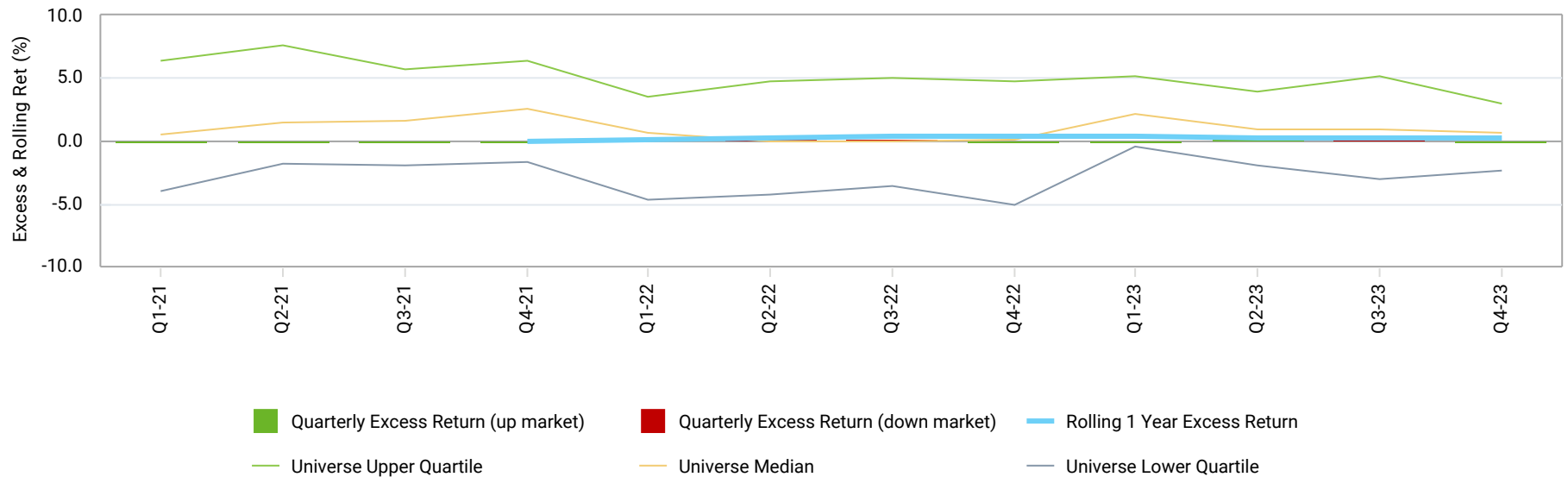




**eV EAFE Small Cap Equity (net of fees)**

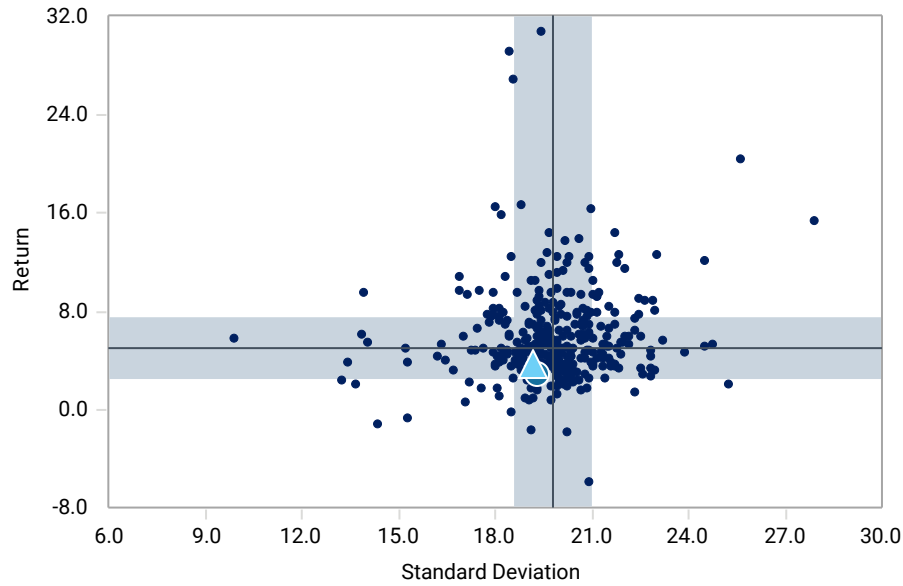


**Quarter Excess Return with a Rolling 1 Year Excess Return over Since Inception Ending December 31, 2023**



# AXIOM EMERGING MARKETS

5 Years Return vs. Standard Deviation



Rolling 5 Years Style Map

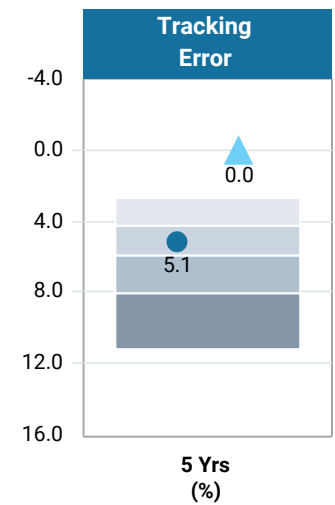
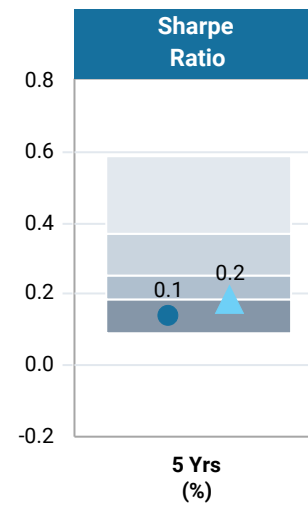
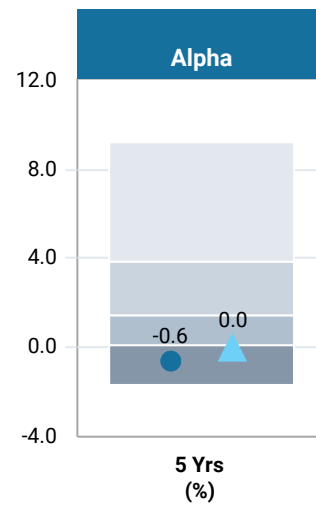
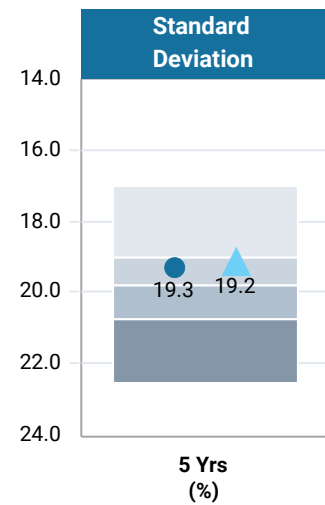
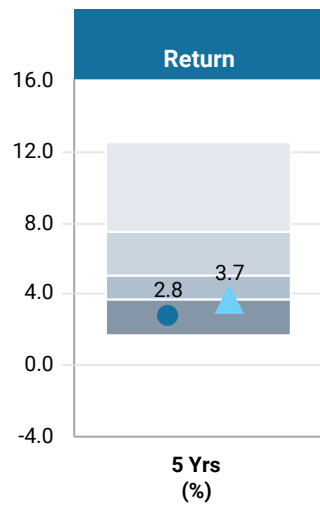


● Axiom Emerging Markets

▲ MSCI Emerging Markets (Net)

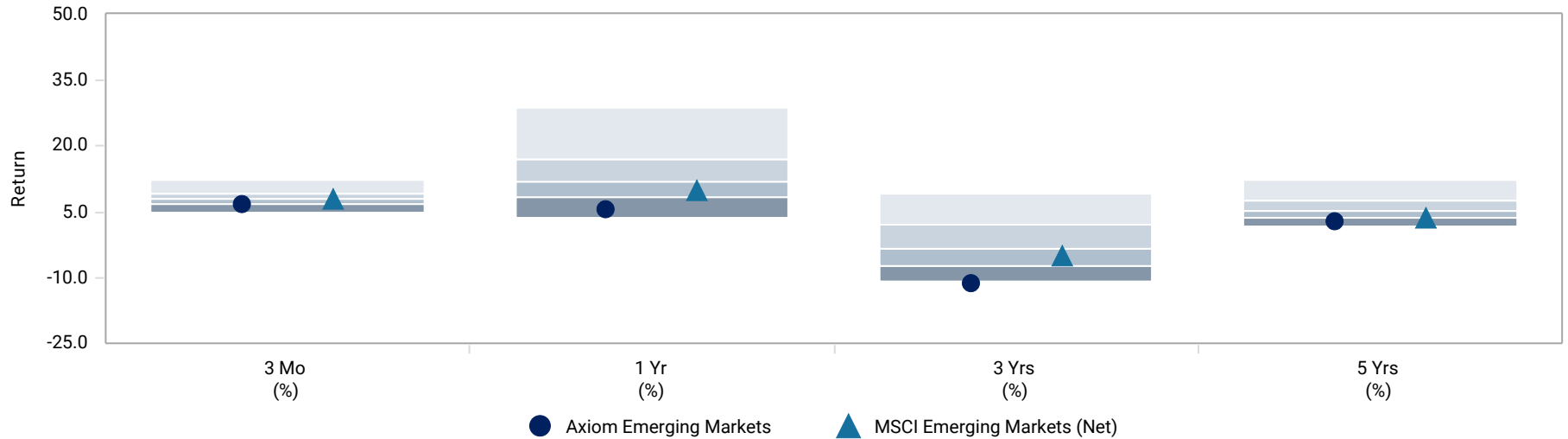
● Axiom Emerging Markets

▲ MSCI Emerging Markets (Net)

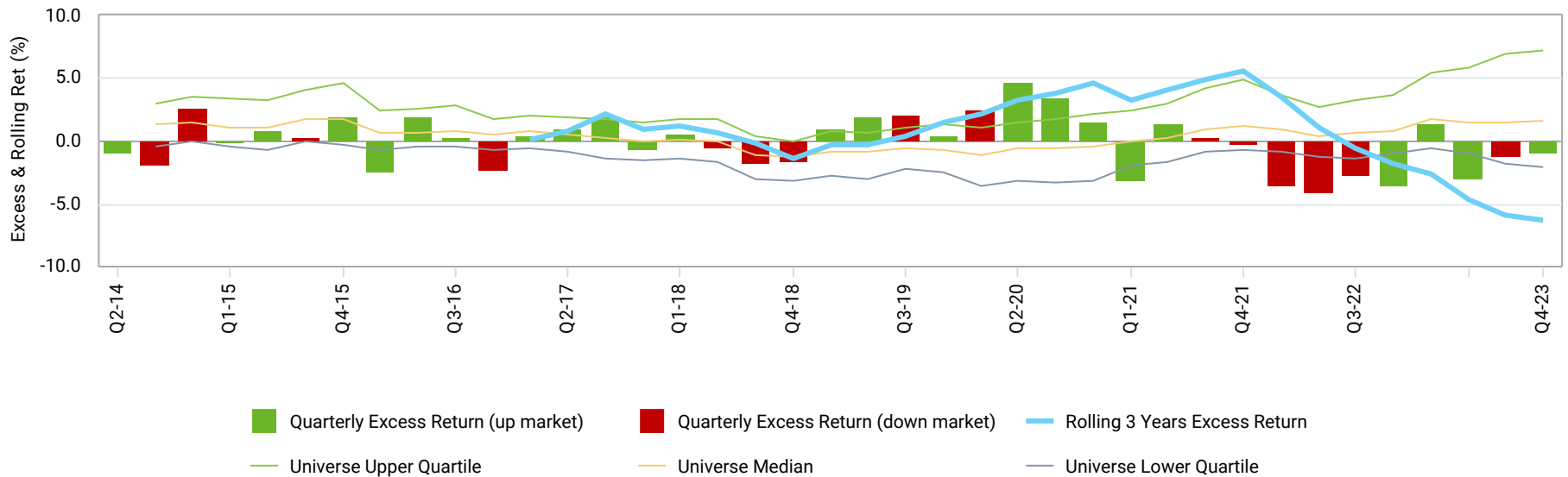


# AXIOM EMERGING MARKETS

eV Emg Mkts Equity (net of fees)

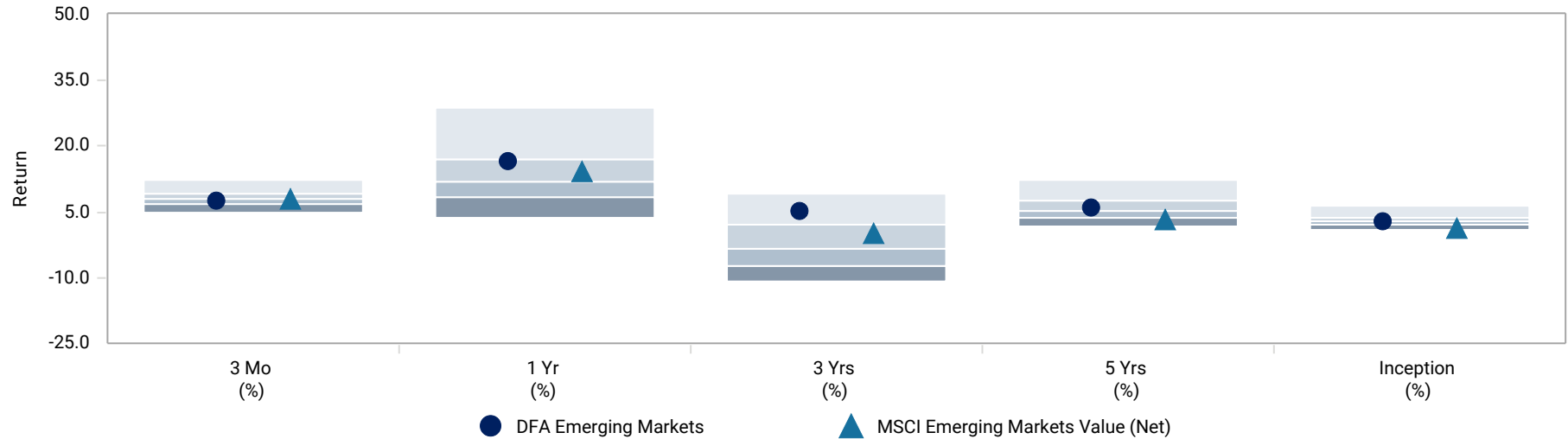


Quarter Excess Return with a Rolling 3 Years Excess Return over Since Inception Ending December 31, 2023

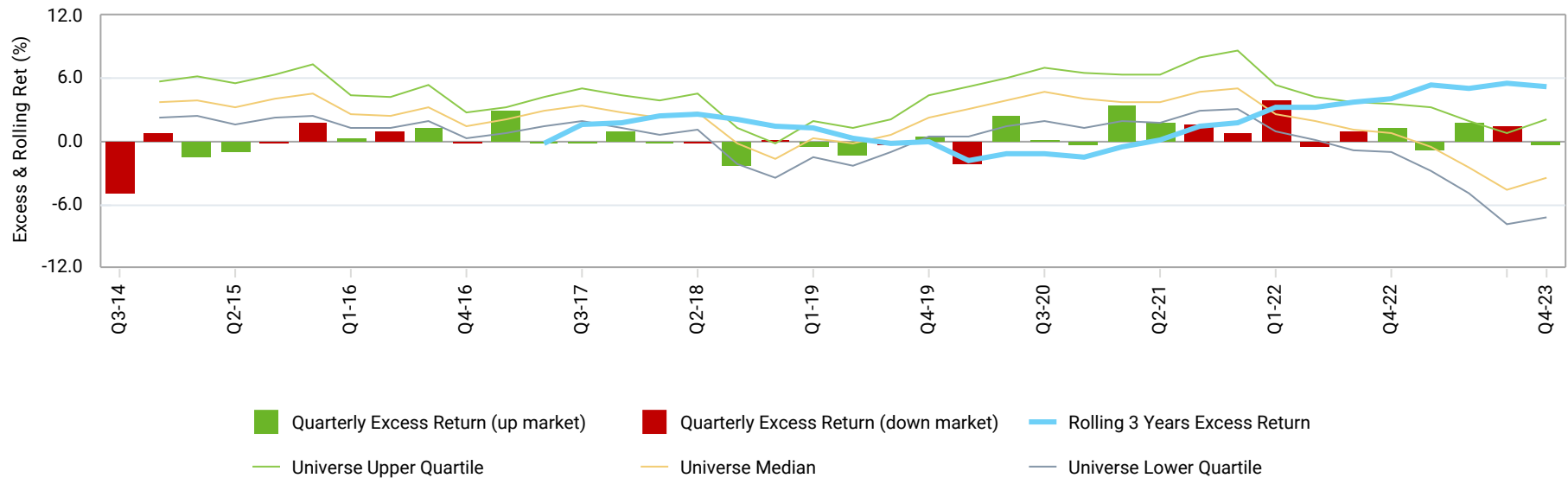


# DFA EMERGING MARKETS

eV Emg Mkts Equity (net of fees)

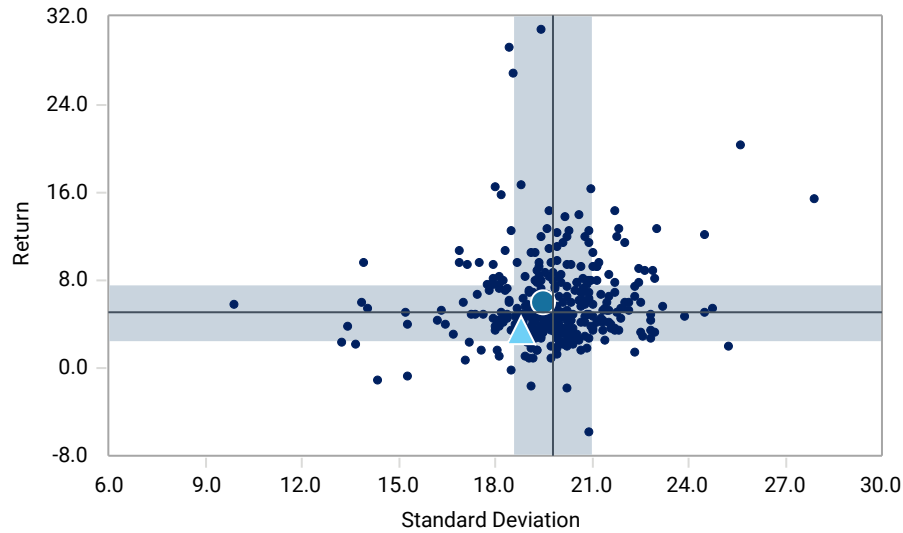


Quarter Excess Return with a Rolling 3 Years Excess Return over Since Inception Ending December 31, 2023

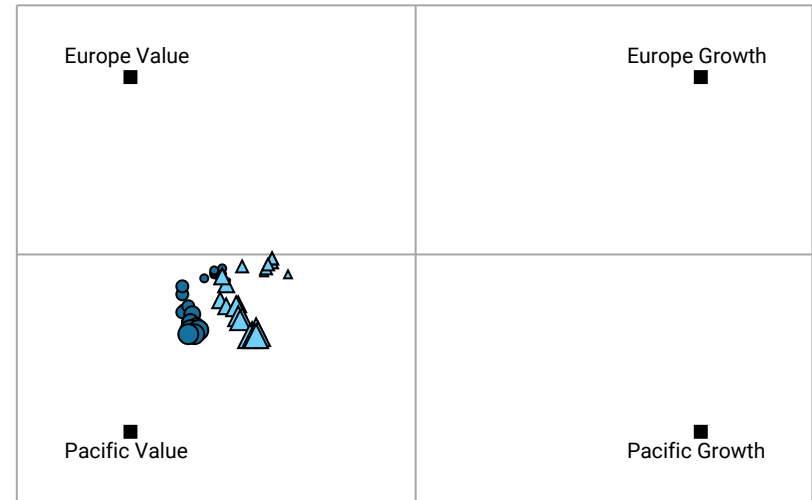


# DFA EMERGING MARKETS

5 Years Return vs. Standard Deviation

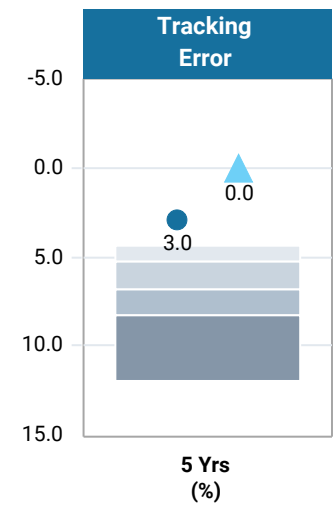
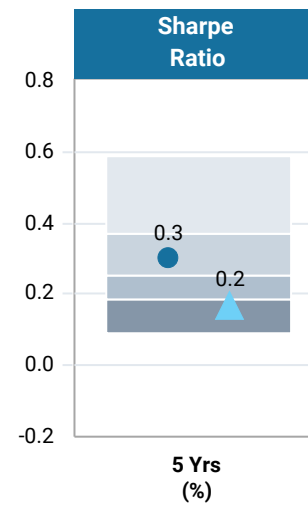
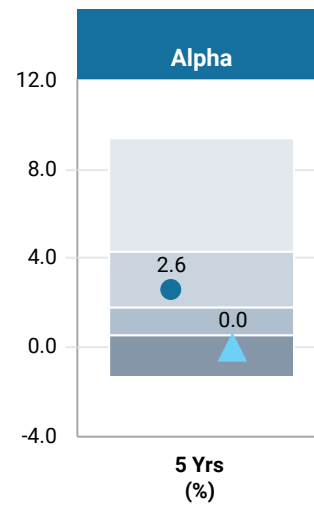
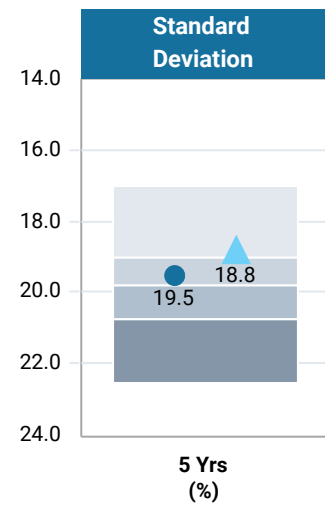
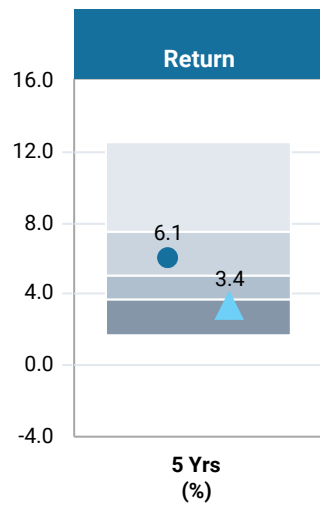


Rolling 5 Years Style Map



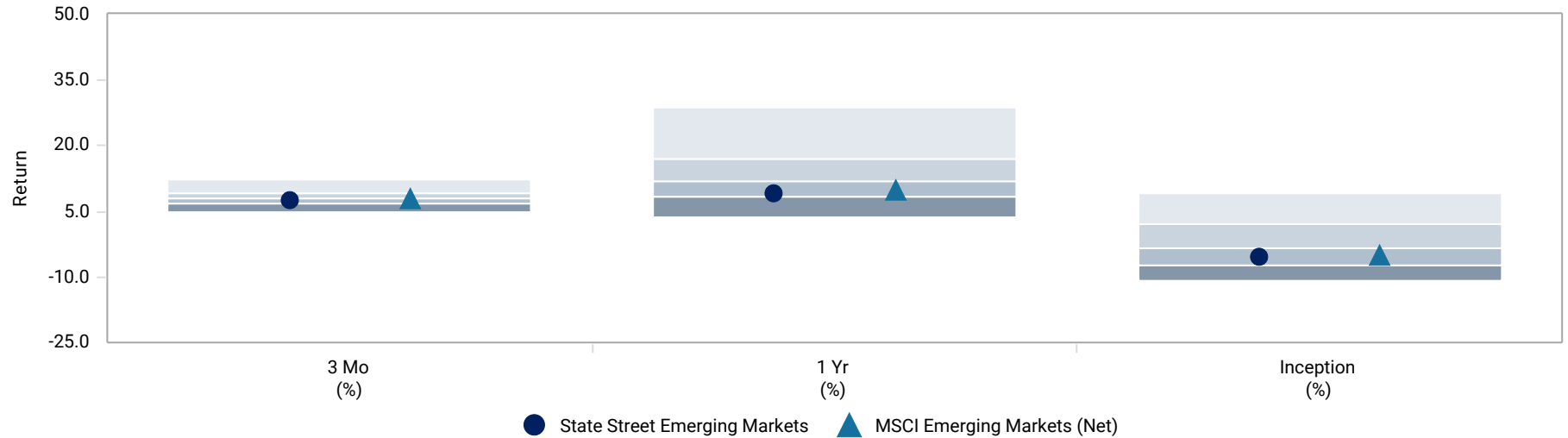
- DFA Emerging Markets
- ▲ MSCI Emerging Markets Value (Net)

- DFA Emerging Markets
- ▲ MSCI Emerging Markets Value (Net)

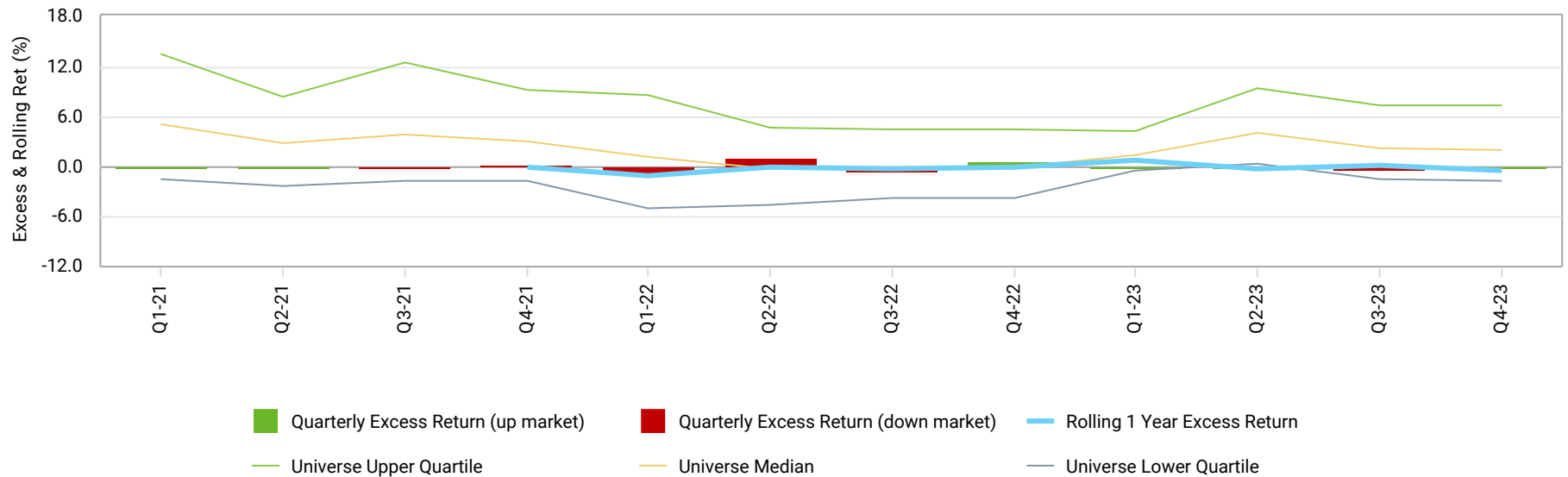


# SSGA EMERGING MARKETS

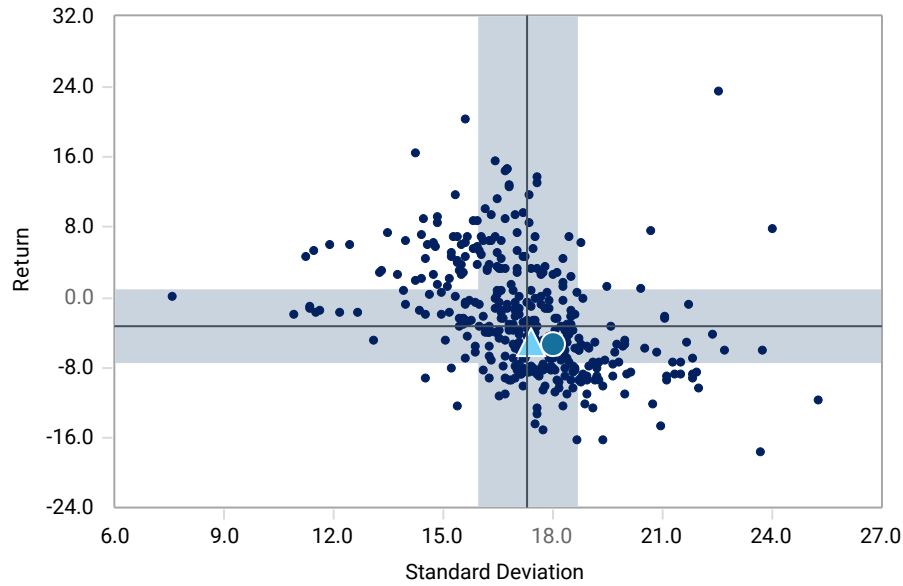
eV Emg Mkts Equity (net of fees)



Quarter Excess Return with a Rolling 1 Year Excess Return over Since Inception Ending December 31, 2023

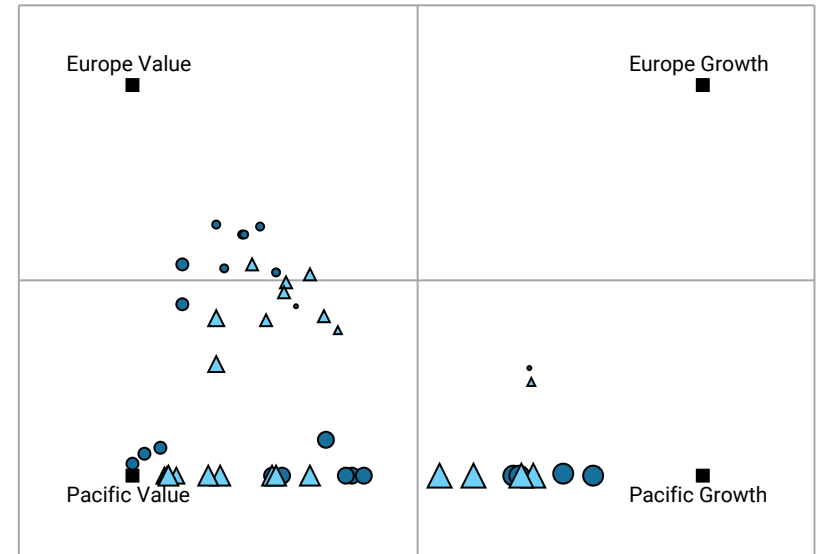


Since Inception Return vs. Standard Deviation

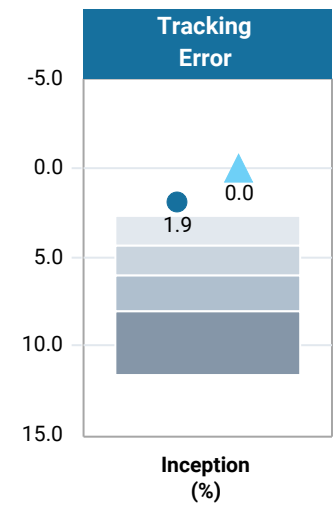
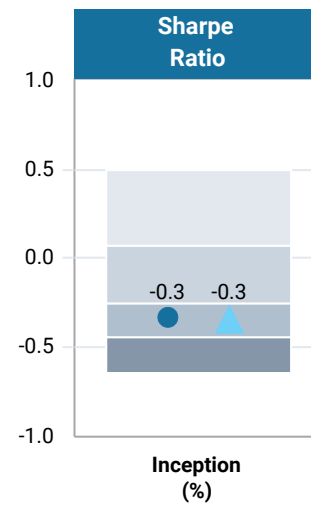
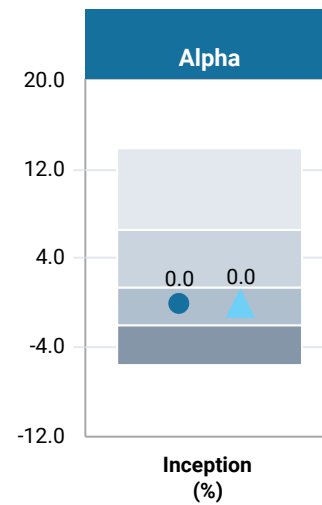
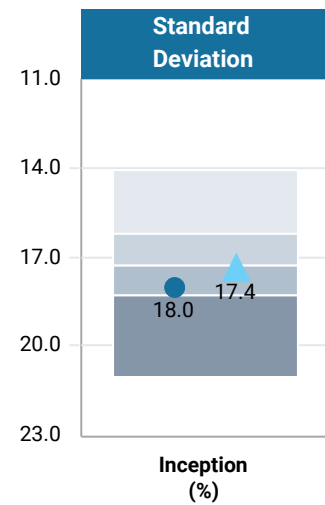
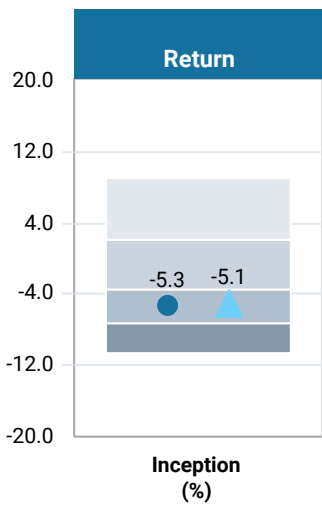


● State Street Emerging Markets ▲ MSCI Emerging Markets (Net)

Rolling 1 Year Style Map

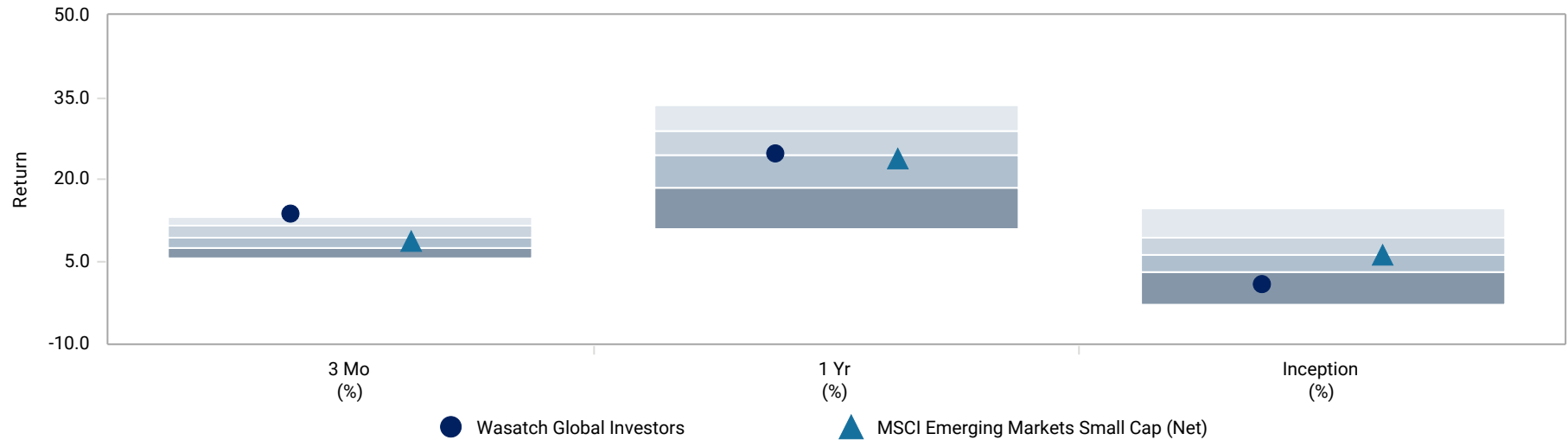


● State Street Emerging Markets ▲ MSCI Emerging Markets (Net)

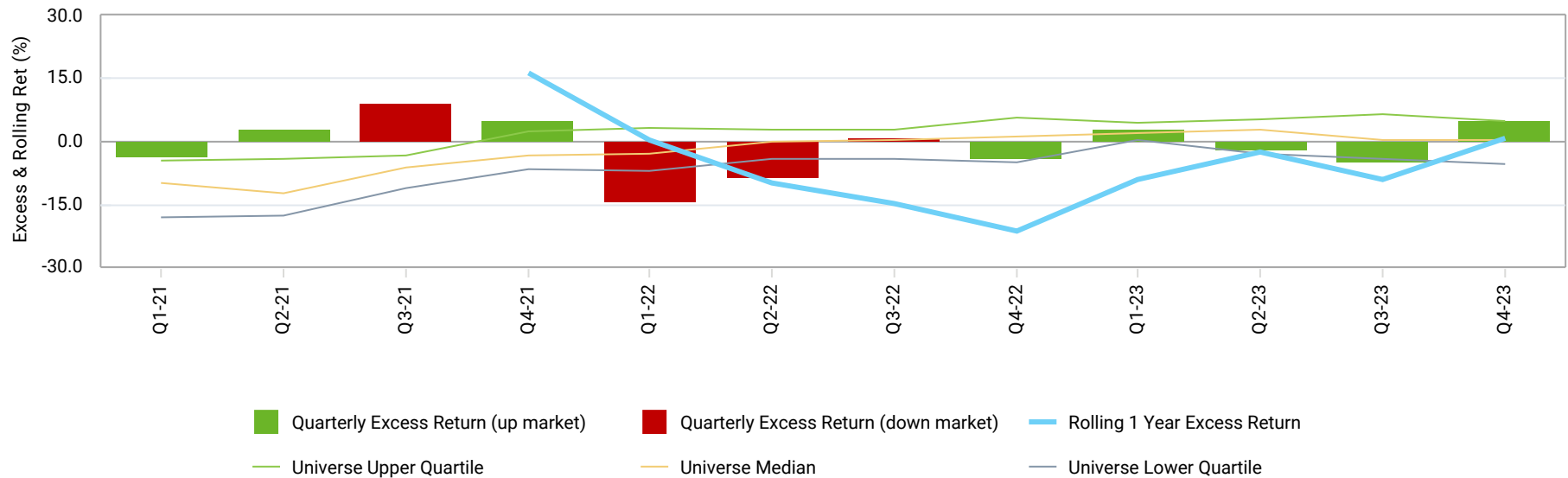


# WASATCH GLOBAL INVESTORS

## eV Emg Mkts Small Cap Equity (net of fees)



## Quarter Excess Return with a Rolling 1 Year Excess Return over Since Inception Ending December 31, 2023



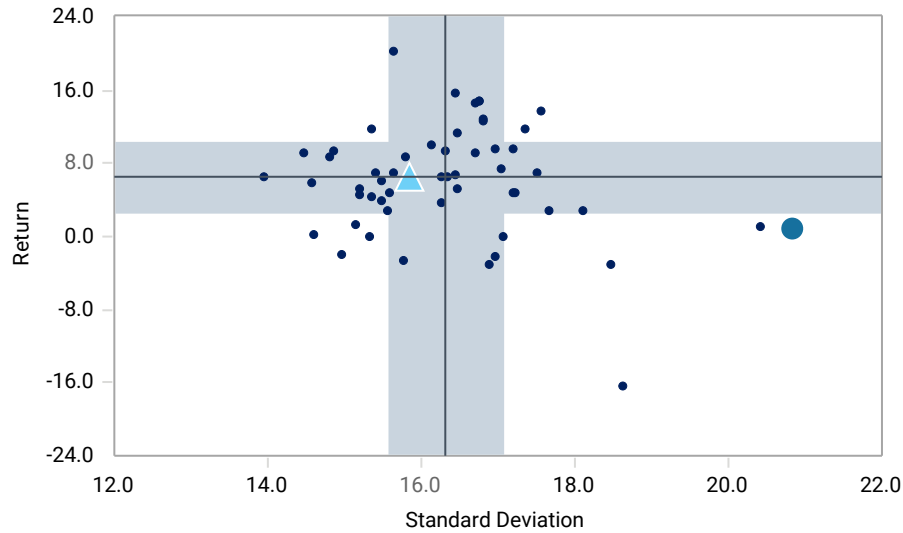


# Los Angeles City Employees' Retirement System-LACERS Master Trust

## WASATCH GLOBAL INVESTORS

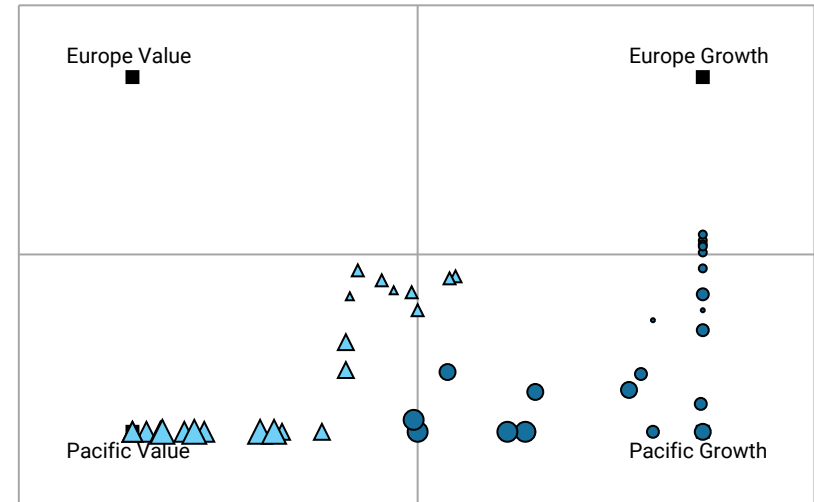
December 31, 2023

Since Inception Return vs. Standard Deviation

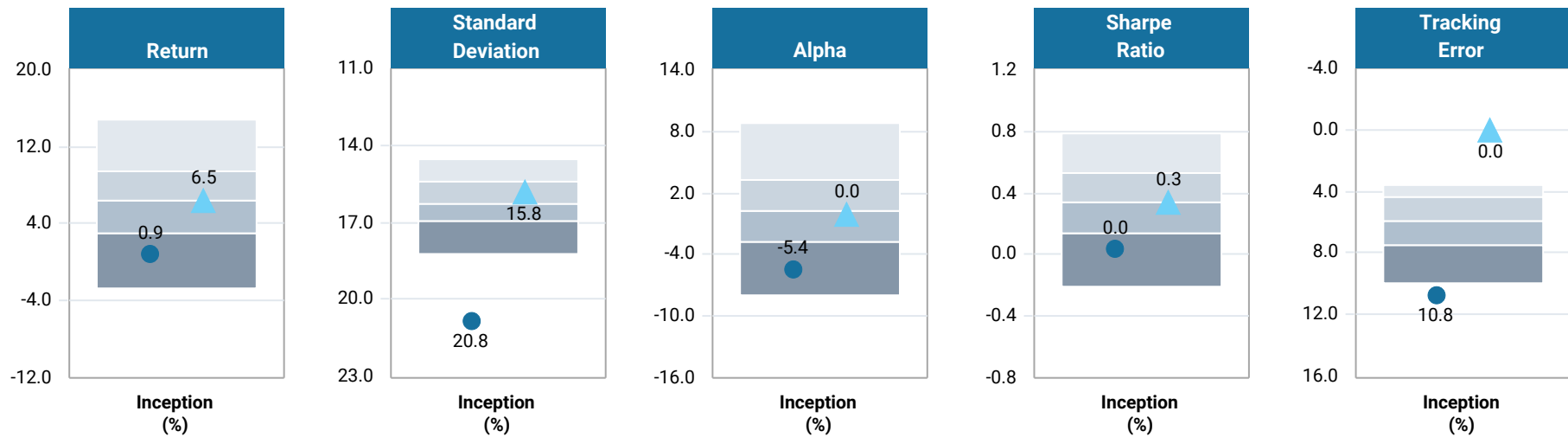


- Wasatch Global Investors
- ▲ MSCI Emerging Markets Small Cap (Net)

Rolling 1 Year Style Map



- Wasatch Global Investors
- ▲ MSCI Emerging Markets Small Cap (Net)

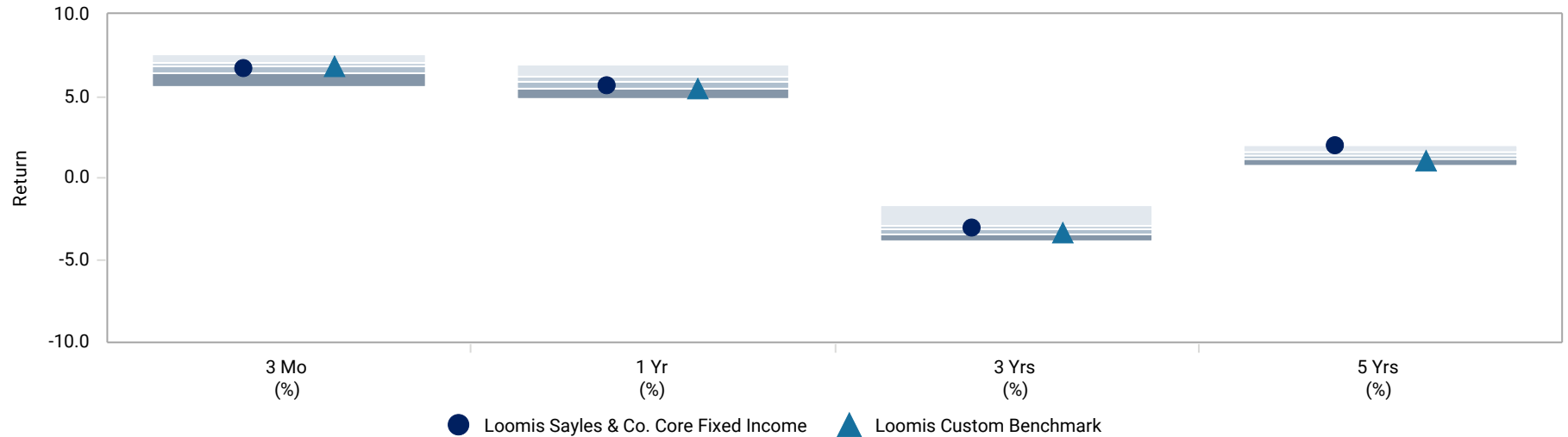




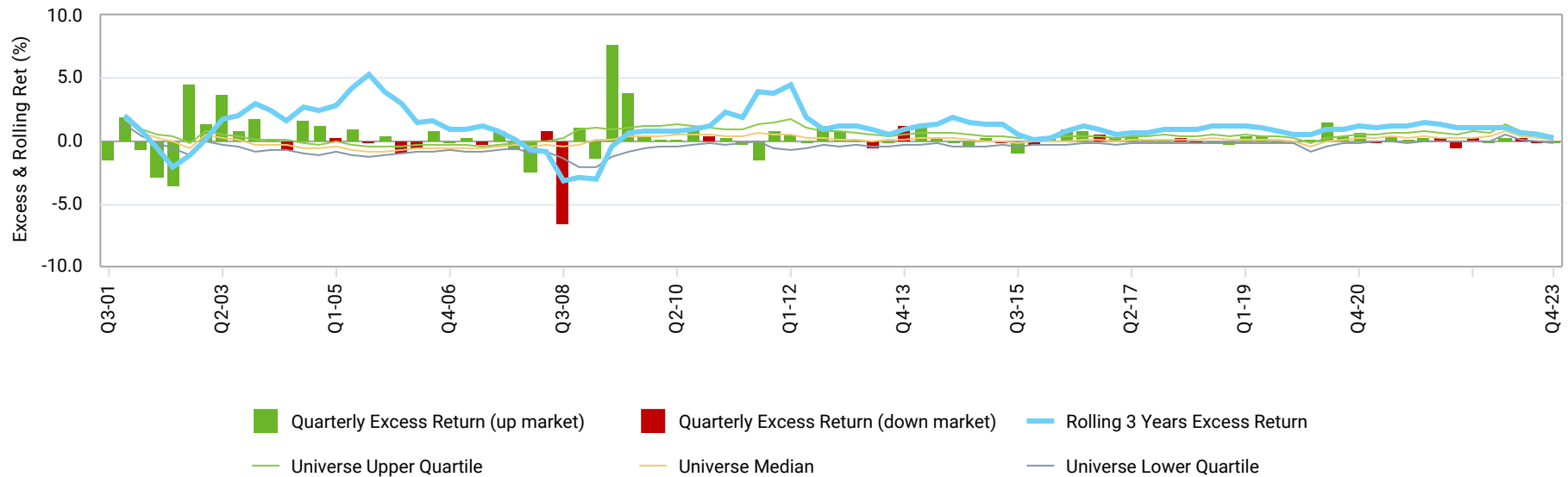
# CORE FIXED INCOME MANAGER PERFORMANCE

# LOOMIS SAYLES & CO. CORE FIXED INCOME

eV US Core Fixed Inc (net of fees)

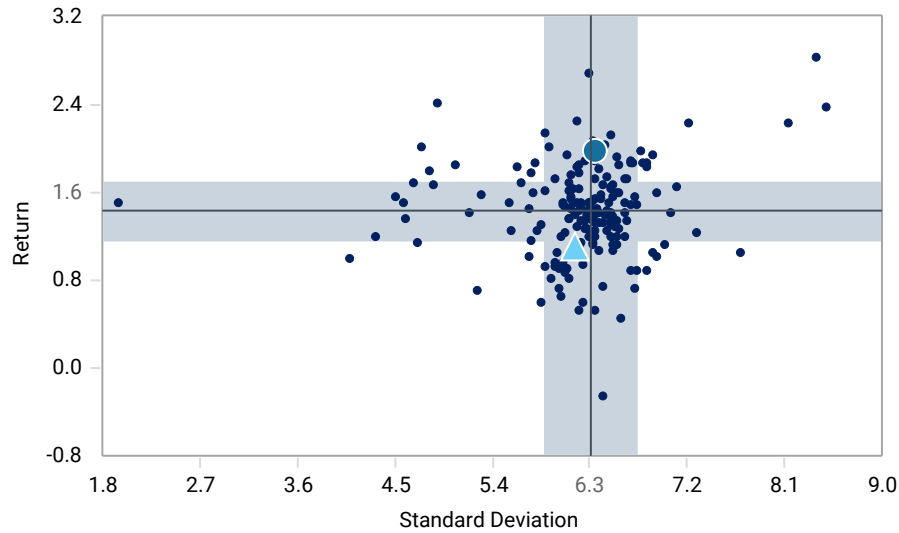


Quarter Excess Return with a Rolling 3 Years Excess Return over Since Inception Ending December 31, 2023



# LOOMIS SAYLES & CO. CORE FIXED INCOME

5 Years Return vs. Standard Deviation

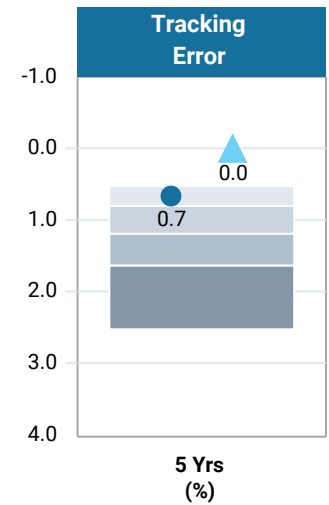
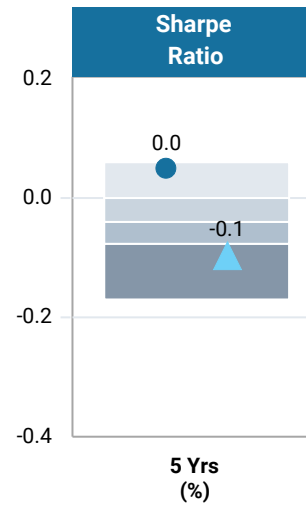
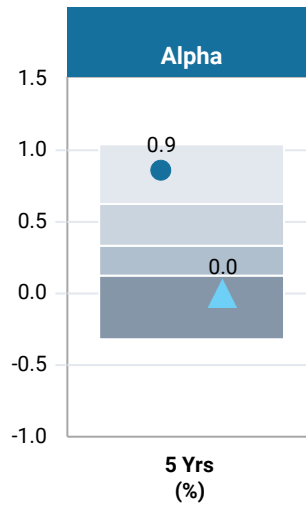
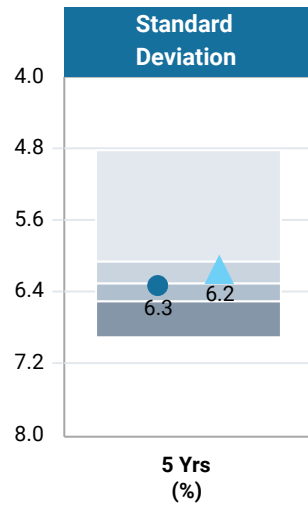
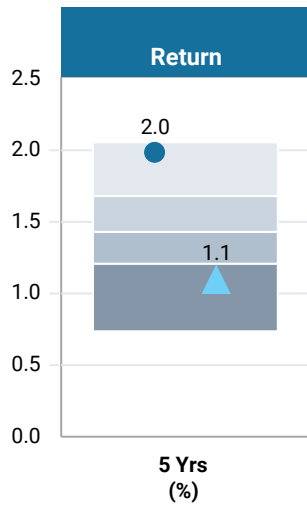


Style Map: (5 Years)



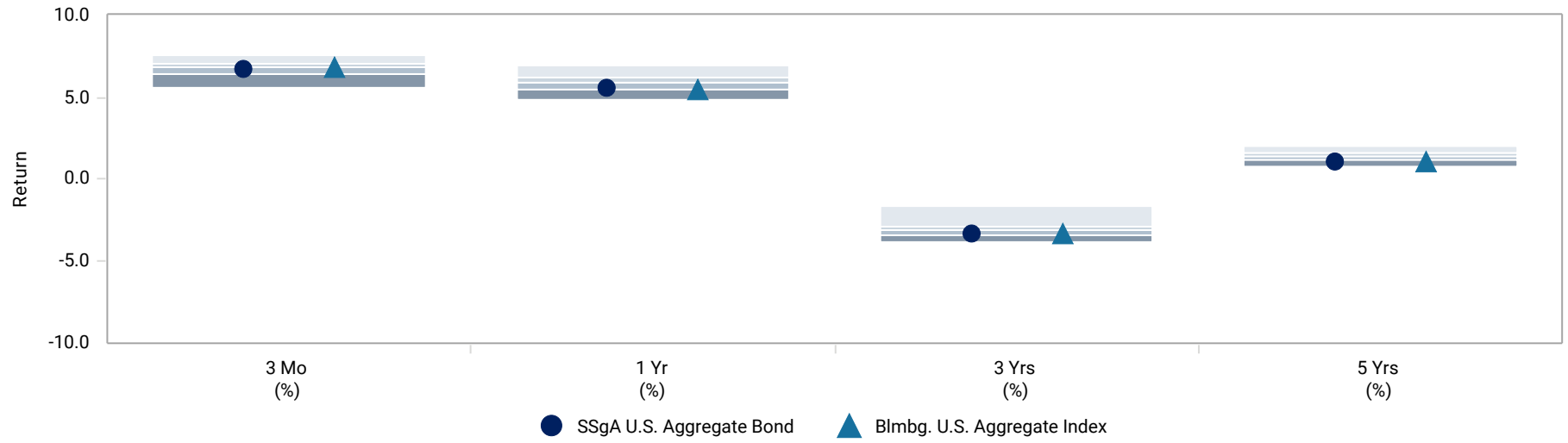
● Loomis Sayles & Co. Core Fixed Income  
▲ Loomis Custom Benchmark

● Loomis Sayles & Co. Core Fixed Income  
▲ Loomis Custom Benchmark

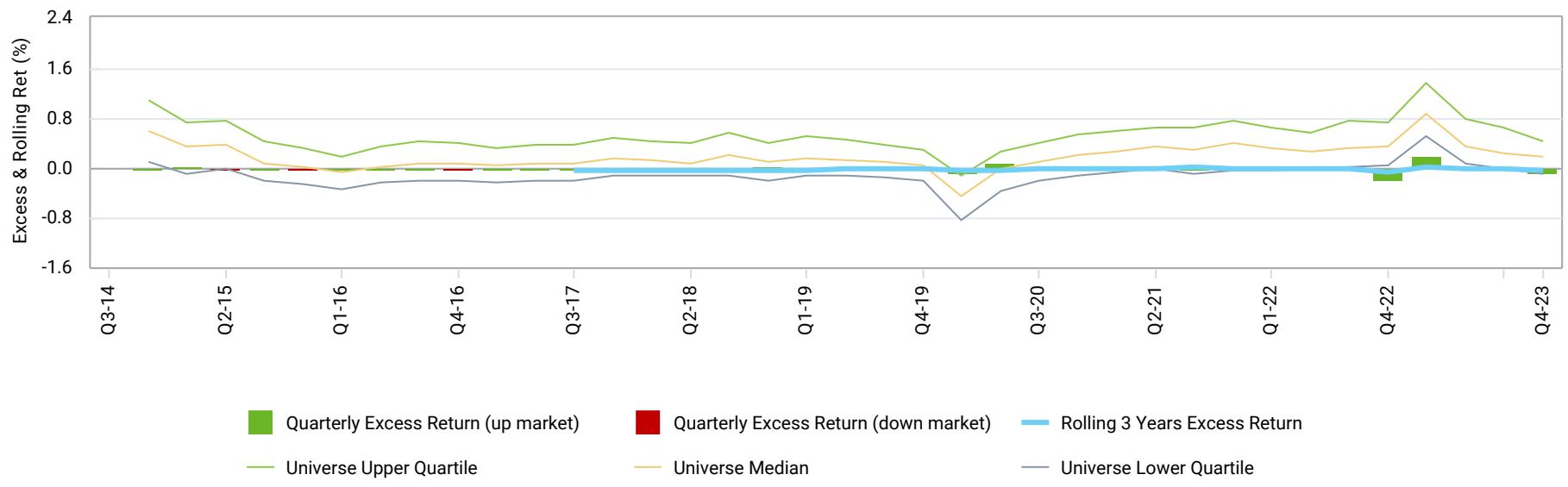


# SSGA U.S. AGGREGATE BOND

## eV US Core Fixed Inc (net of fees)



## Quarter Excess Return with a Rolling 3 Years Excess Return over Since Inception Ending December 31, 2023

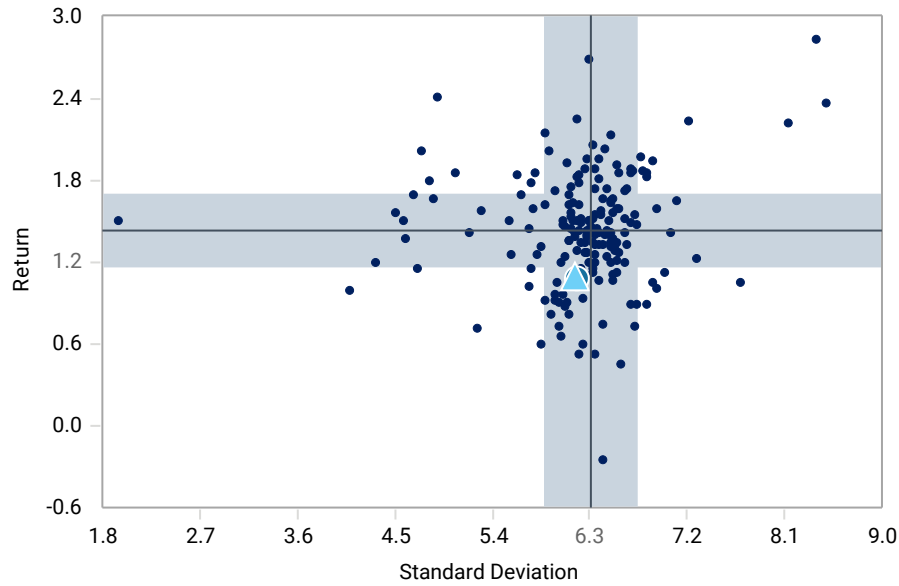


# Los Angeles City Employees' Retirement System-LACERS Master Trust

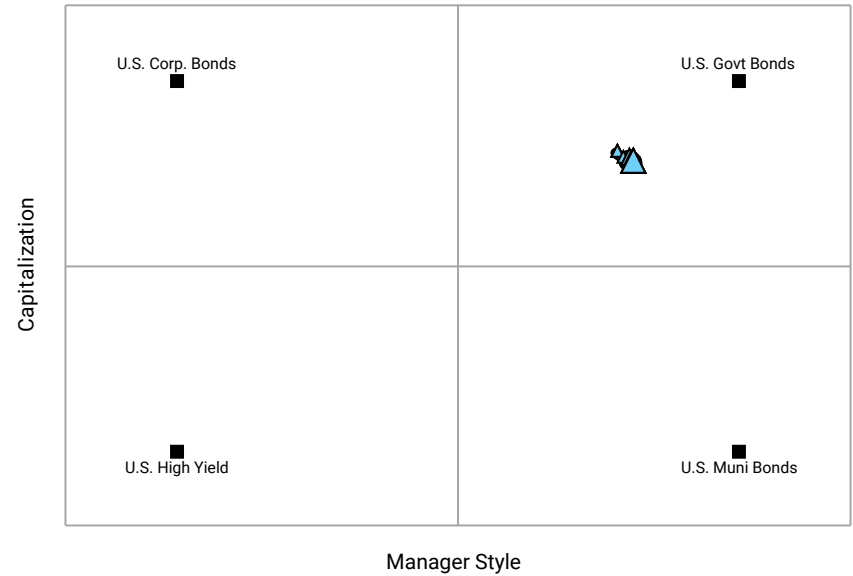
## SSGA U.S. AGGREGATE BOND

December 31, 2023

5 Years Return vs. Standard Deviation

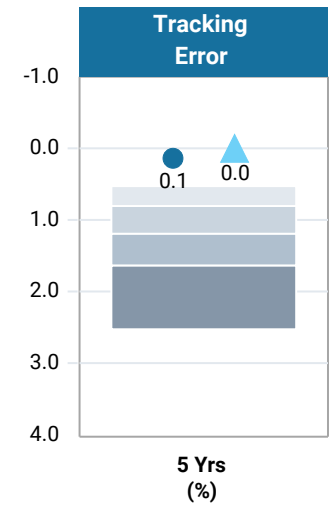
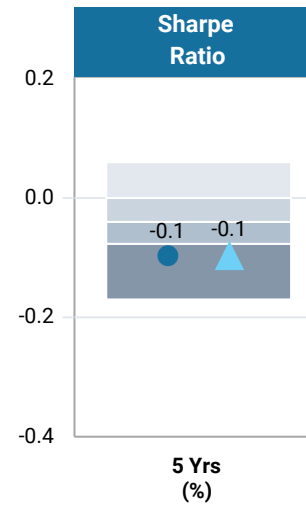
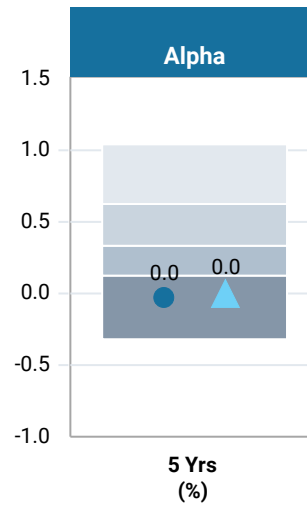
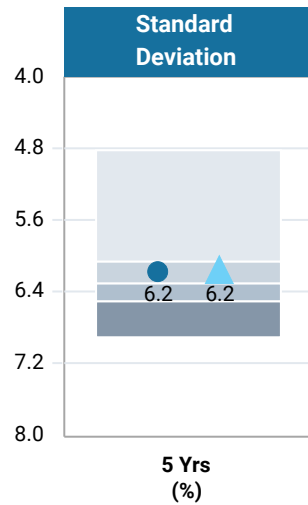
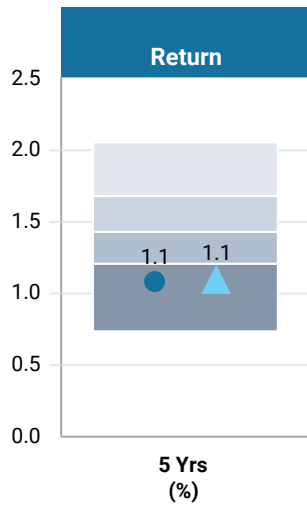


Style Map: (5 Years)

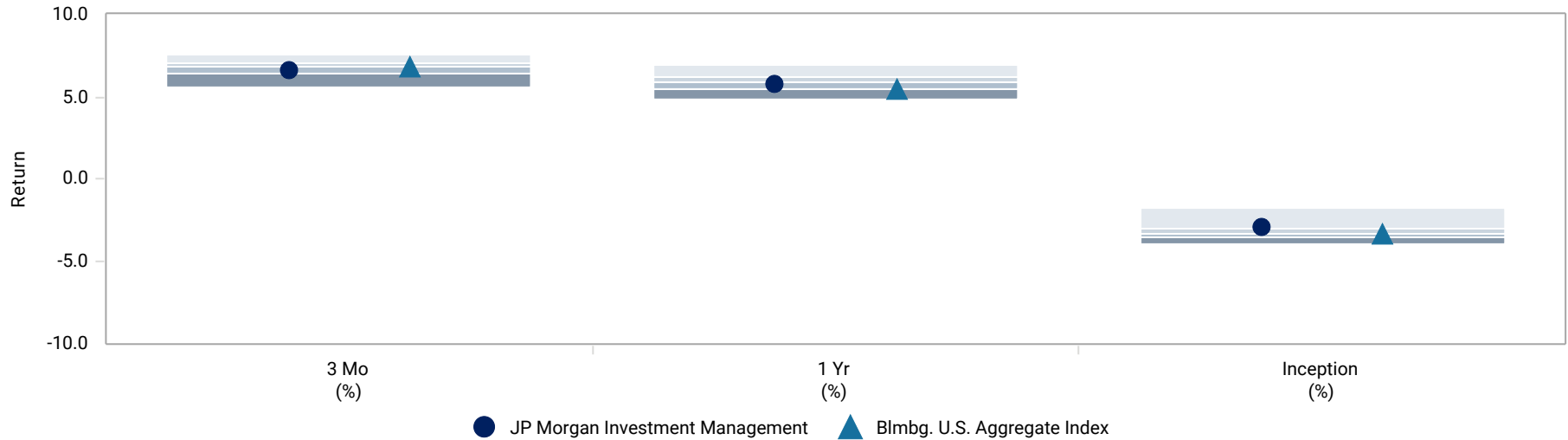


● SSGA U.S. Aggregate Bond ▲ Blmbg. U.S. Aggregate Index

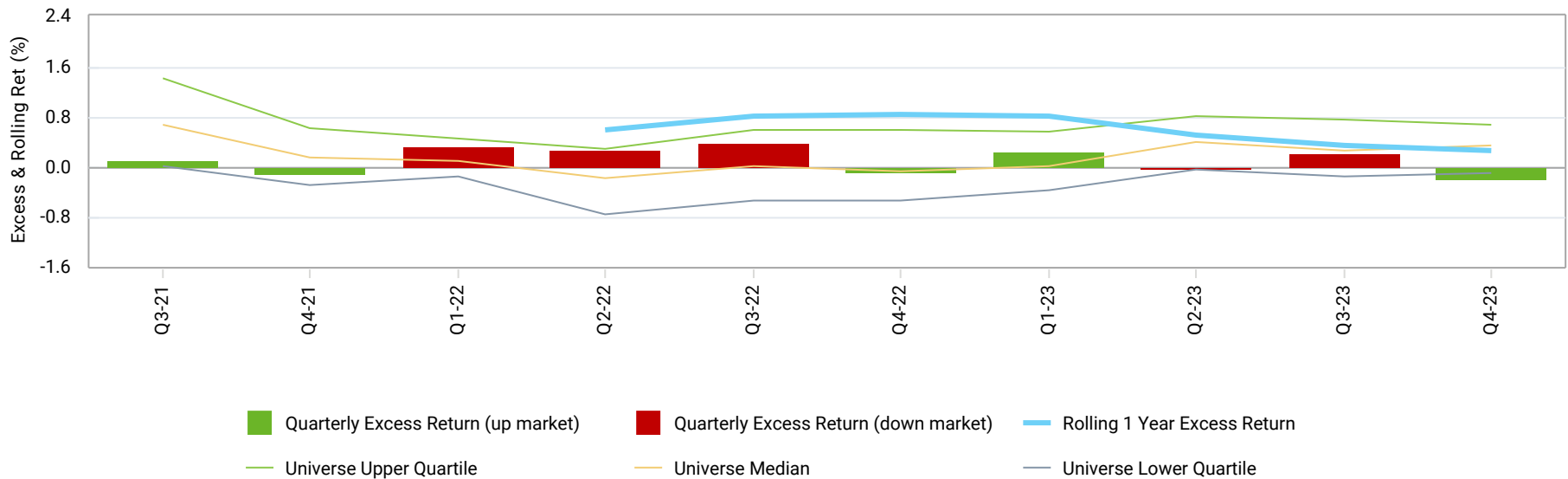
● SSGA U.S. Aggregate Bond ▲ Blmbg. U.S. Aggregate Index



**eV US Core Fixed Inc (net of fees)**

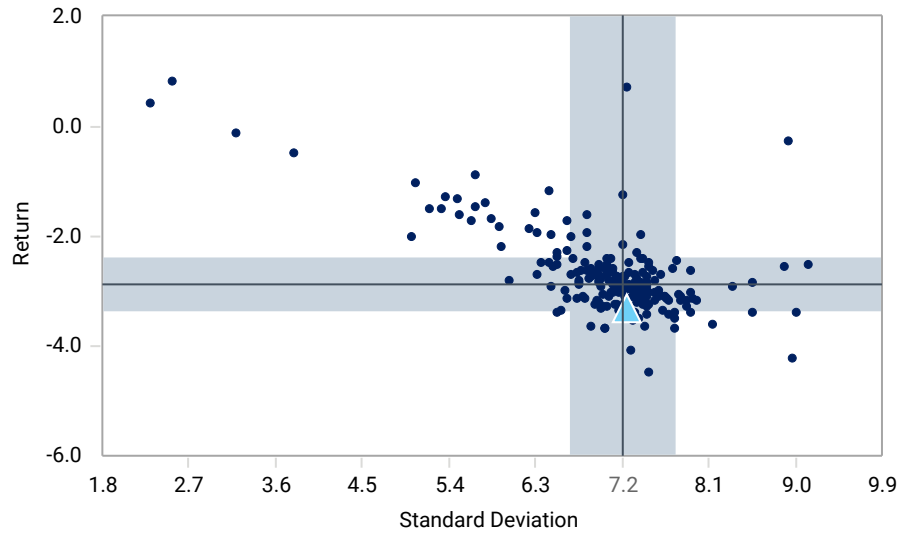


**Quarter Excess Return with a Rolling 1 Year Excess Return over Since Inception Ending December 31, 2023**



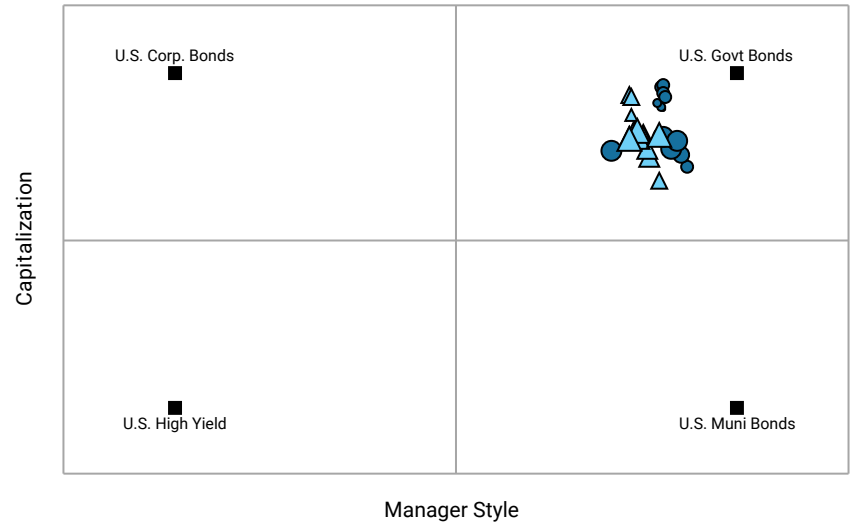
# JP MORGAN INVESTMENT MANAGEMENT

3 Years Return vs. Standard Deviation

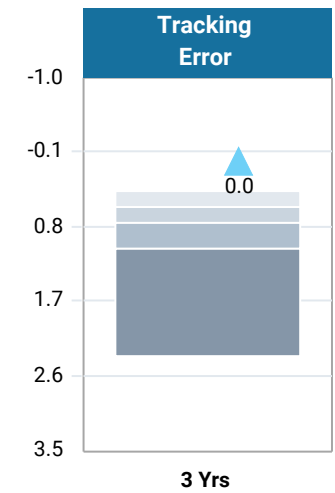
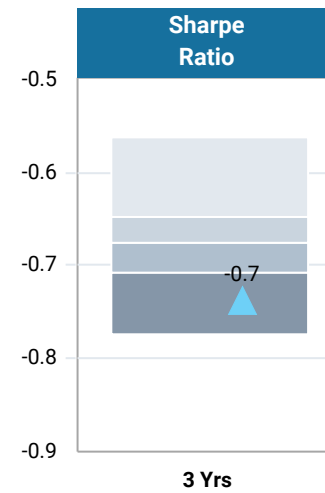
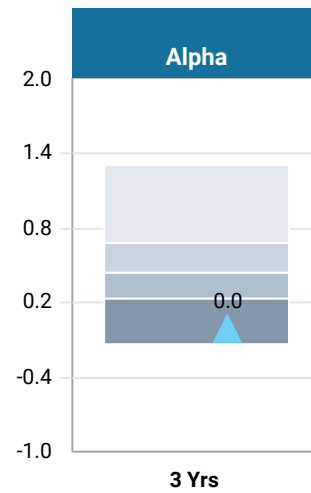
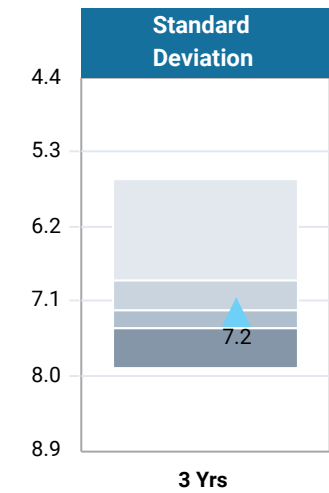
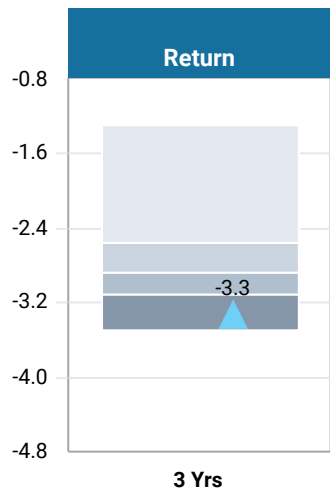


● JP Morgan Investment Management  
▲ Blmbg. U.S. Aggregate Index

Style Map: (1 Year)

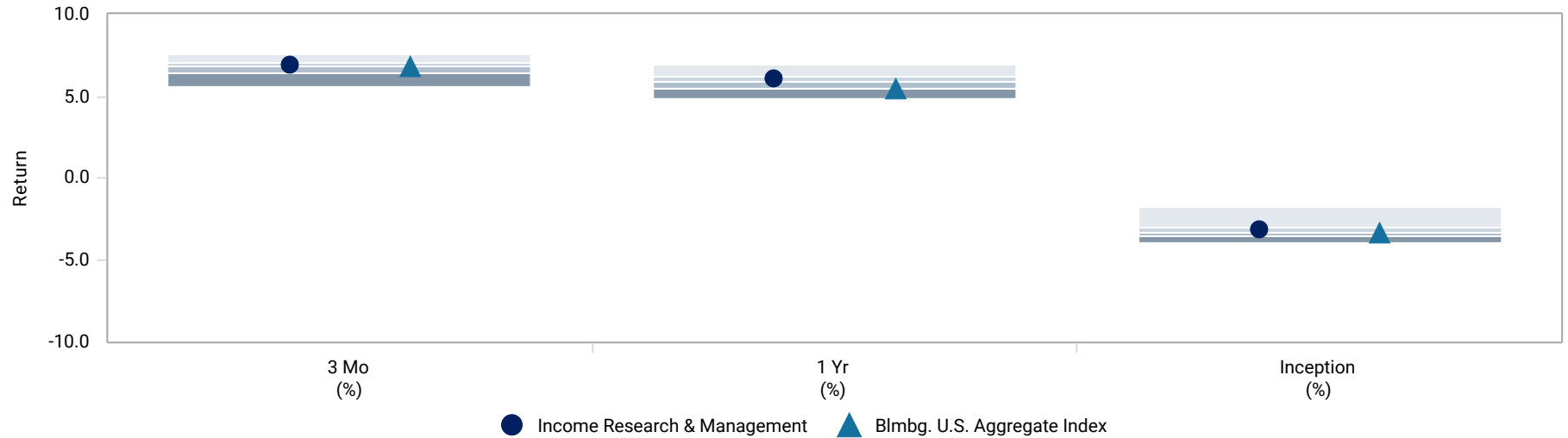


● JP Morgan Investment Management  
▲ Blmbg. U.S. Aggregate Index

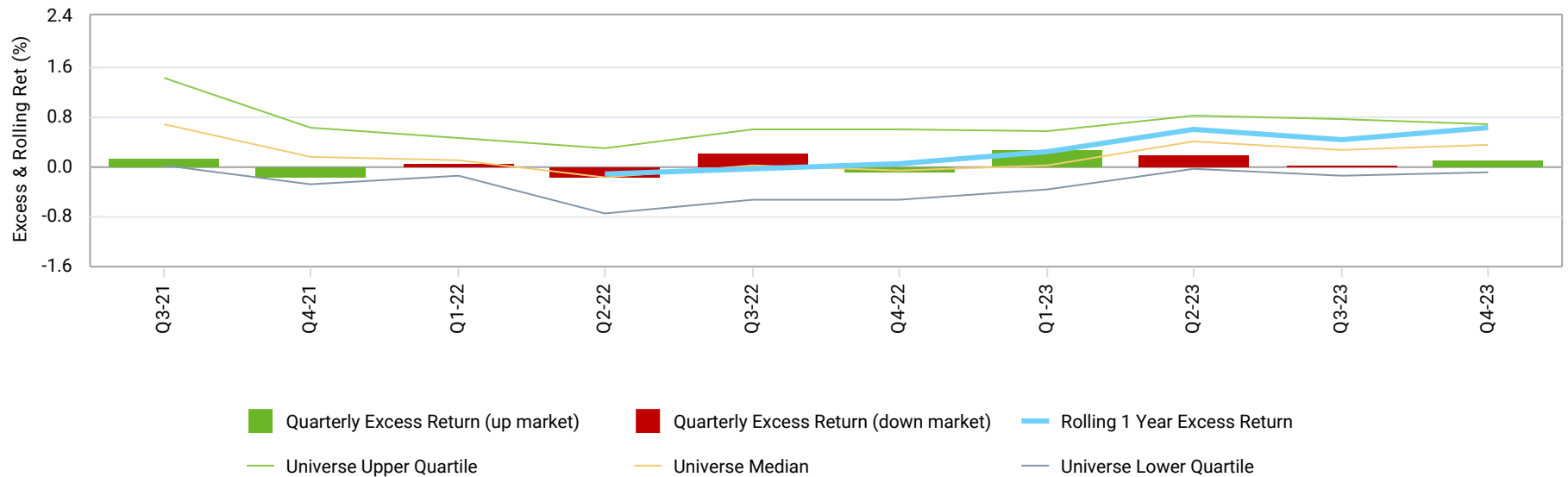




**eV US Core Fixed Inc (net of fees)**



**Quarter Excess Return with a Rolling 1 Year Excess Return over Since Inception Ending December 31, 2023**

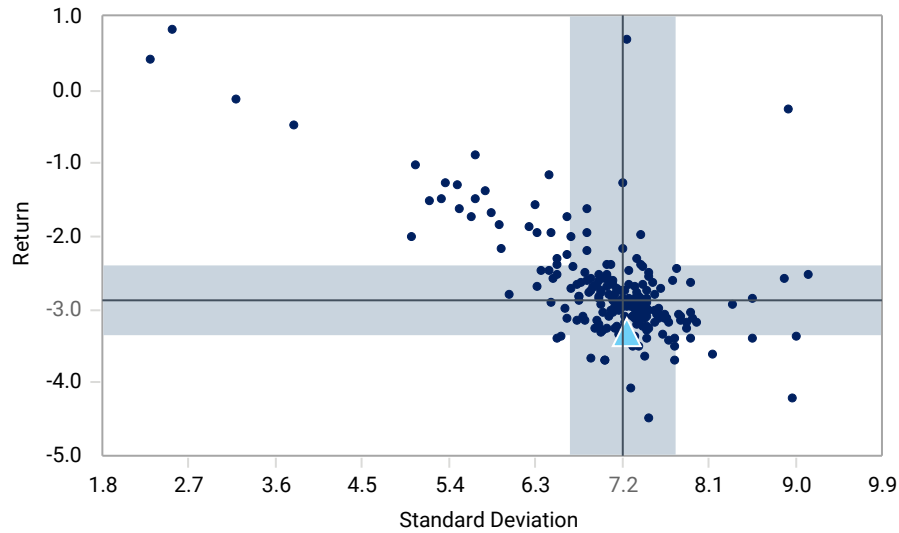


# Los Angeles City Employees' Retirement System-LACERS Master Trust

## INCOME RESEARCH & MANAGEMENT

December 31, 2023

3 Years Return vs. Standard Deviation

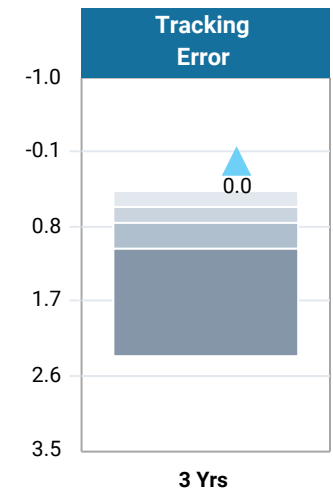
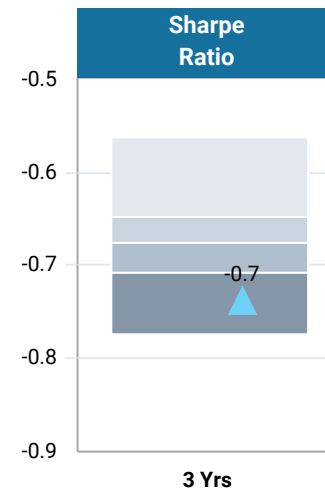
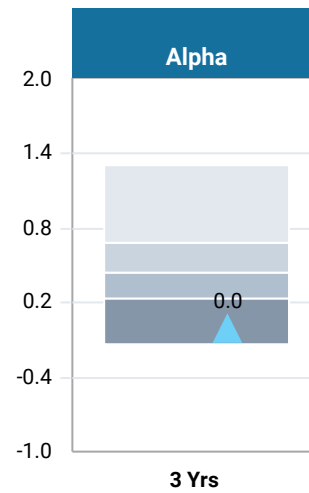
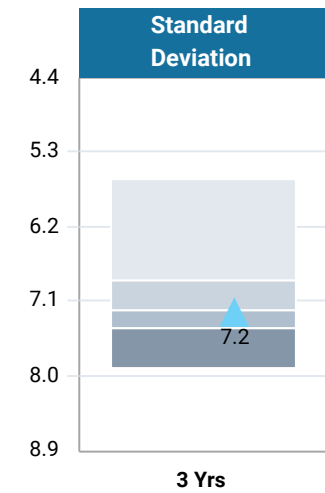
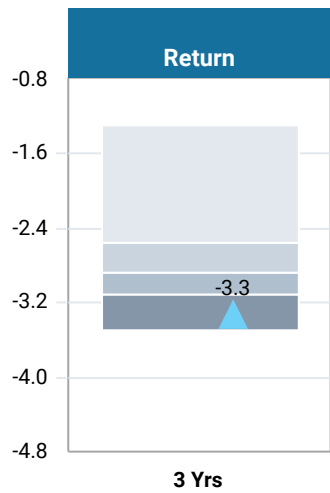


● Income Research & Management  
▲ Blmbg. U.S. Aggregate Index

Style Map: (1 Year)

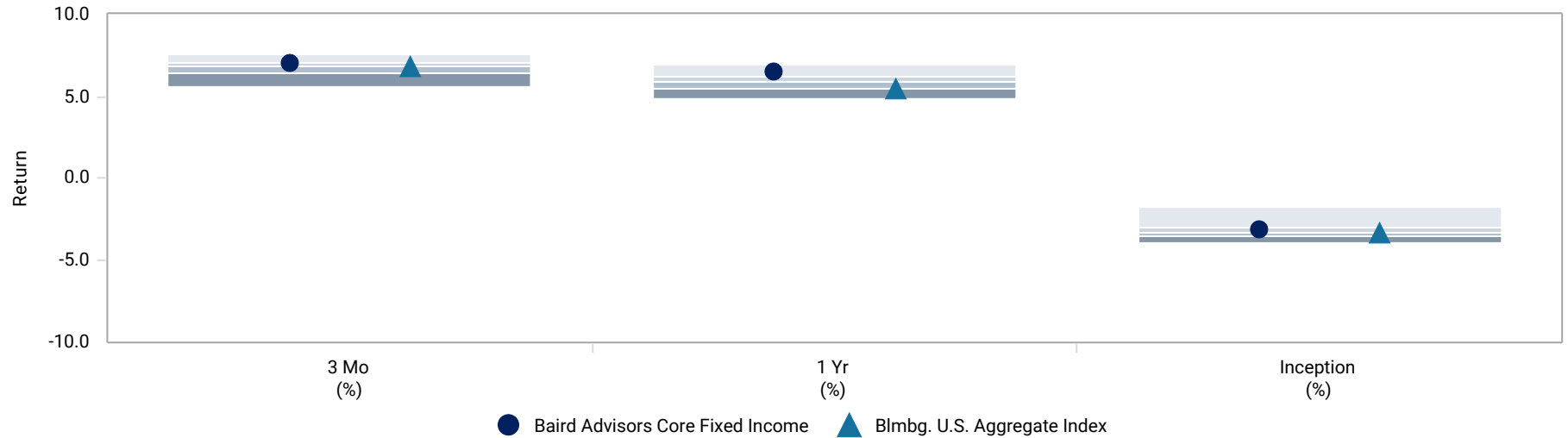


● Income Research & Management ▲ Blmbg. U.S. Aggregate Index

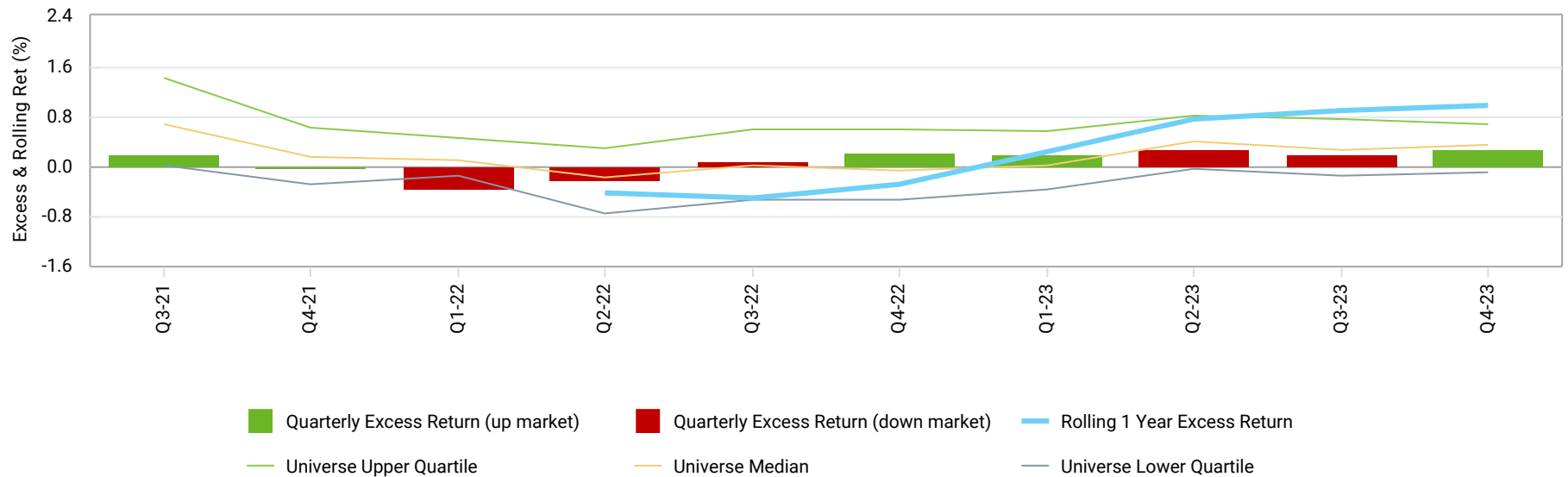


# BAIRD ADVISORS CORE FIXED INCOME

## eV US Core Fixed Inc (net of fees)

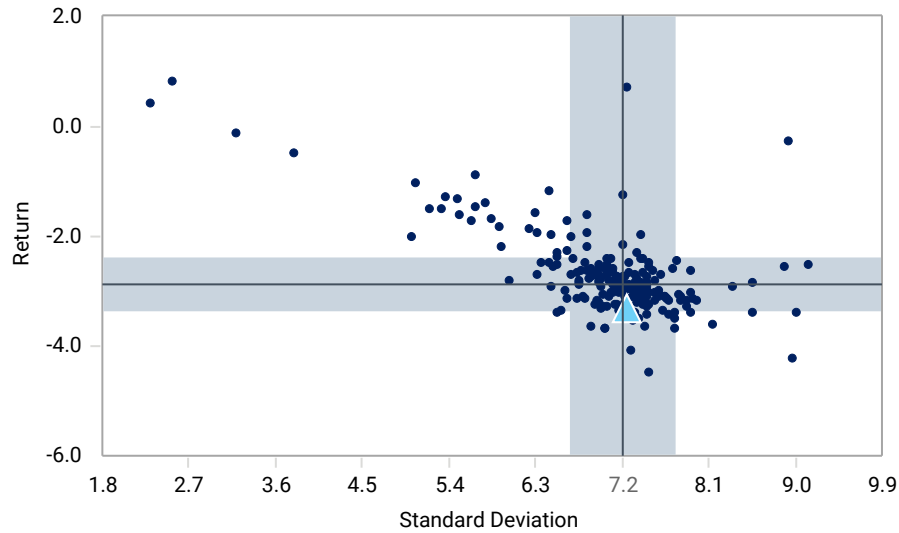


## Quarter Excess Return with a Rolling 1 Year Excess Return over Since Inception Ending December 31, 2023



# BAIRD ADVISORS CORE FIXED INCOME

3 Years Return vs. Standard Deviation

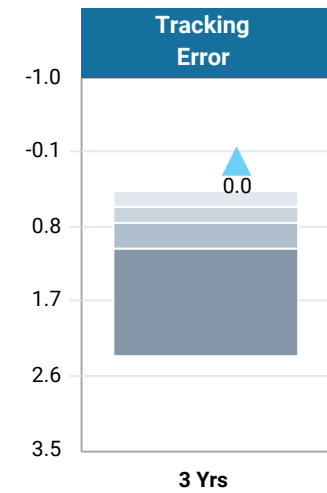
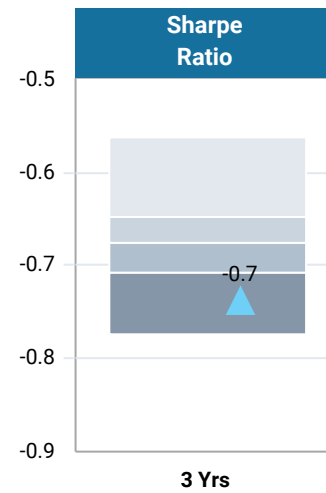
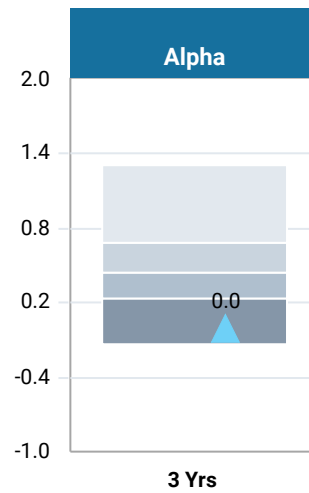
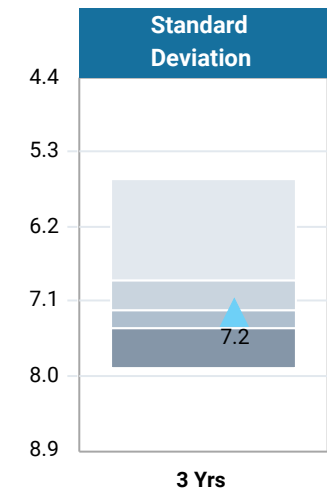
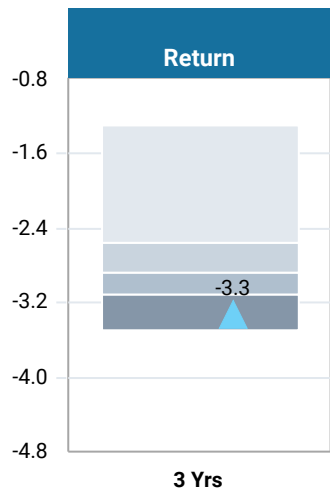


● Baird Advisors Core Fixed Income  
▲ Blmbg. U.S. Aggregate Index

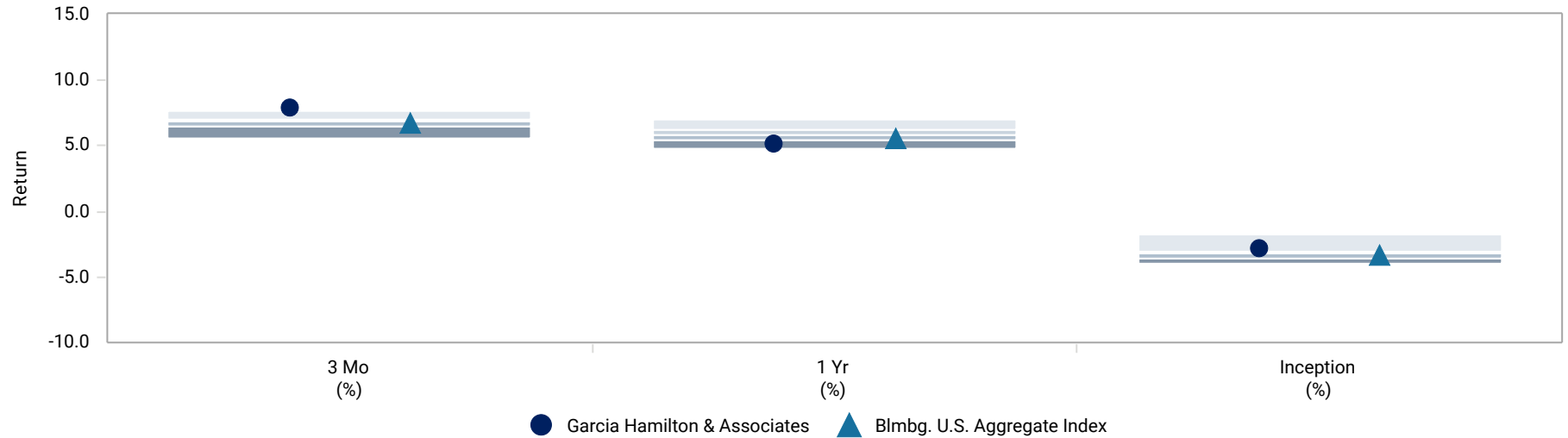
Style Map: (1 Year)



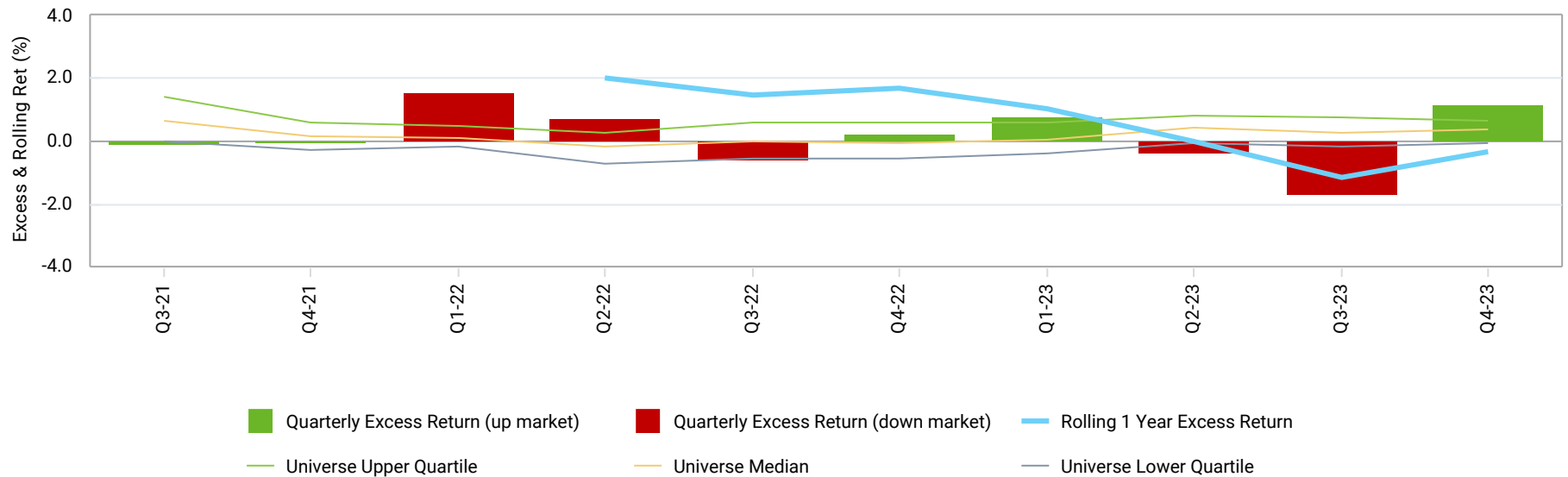
● Baird Advisors Core Fixed Income  
▲ Blmbg. U.S. Aggregate Index



**eV US Core Fixed Inc (net of fees)**



**Quarter Excess Return with a Rolling 1 Year Excess Return over Since Inception Ending December 31, 2023**

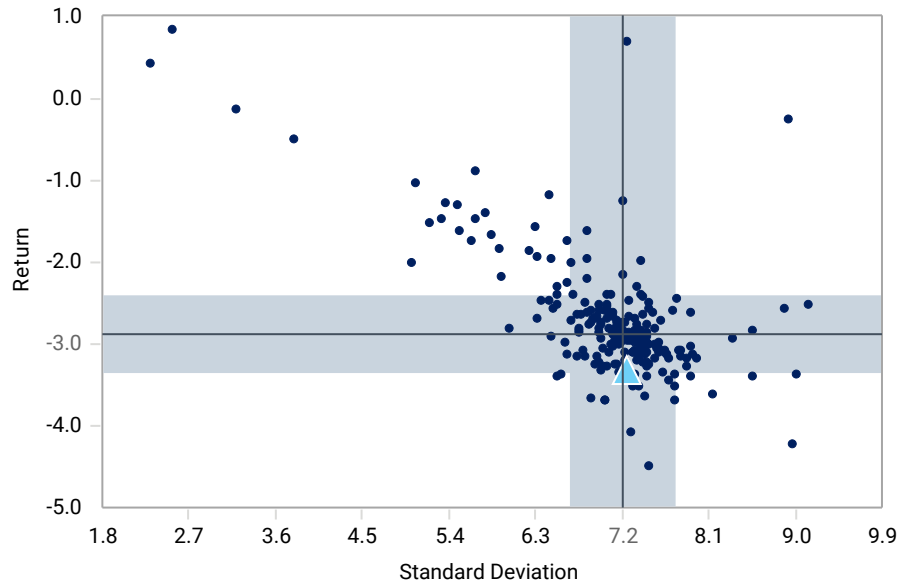


# Los Angeles City Employees' Retirement System-LACERS Master Trust

## GARCIA HAMILTON & ASSOCIATES

December 31, 2023

3 Years Return vs. Standard Deviation

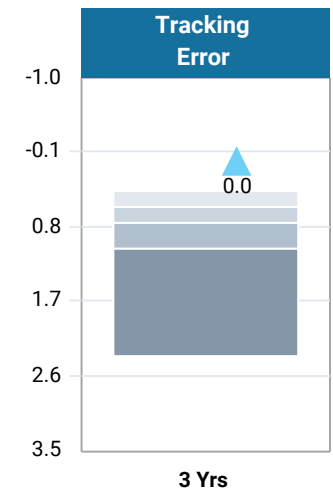
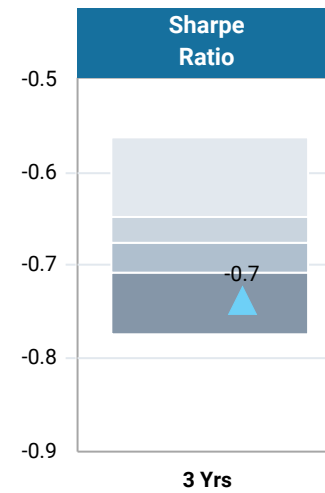
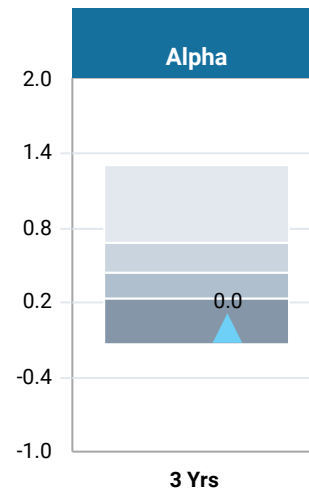
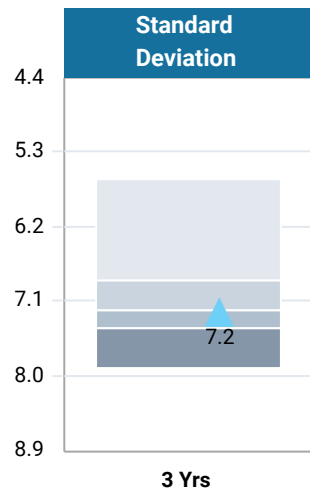
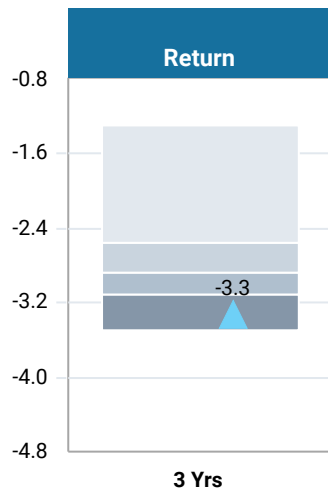


● Garcia Hamilton & Associates ▲ Blmbg. U.S. Aggregate Index

Style Map: (1 Year)



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

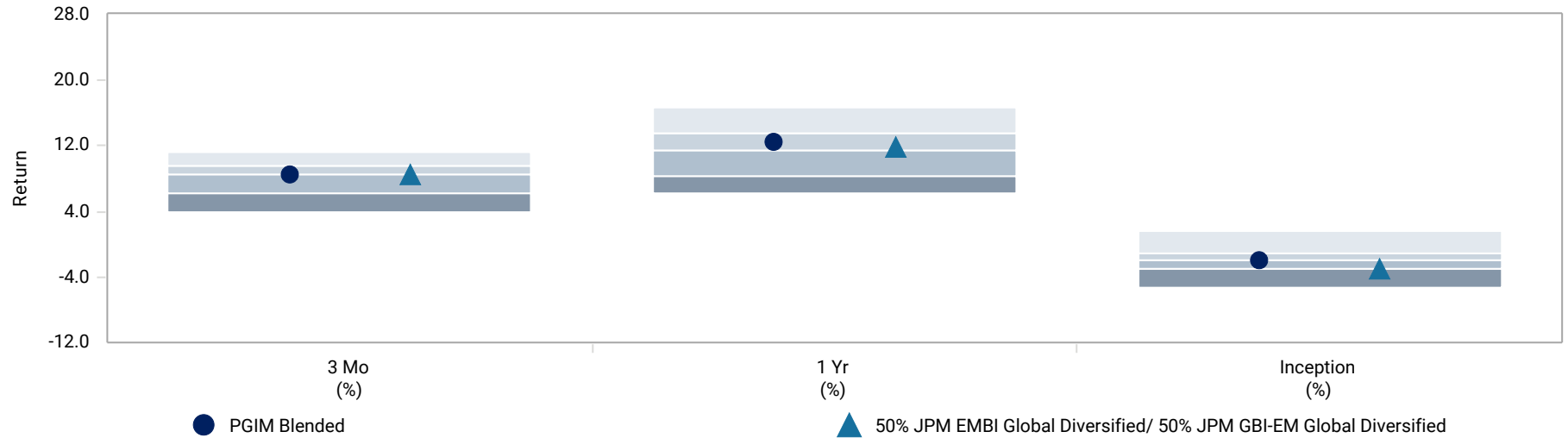




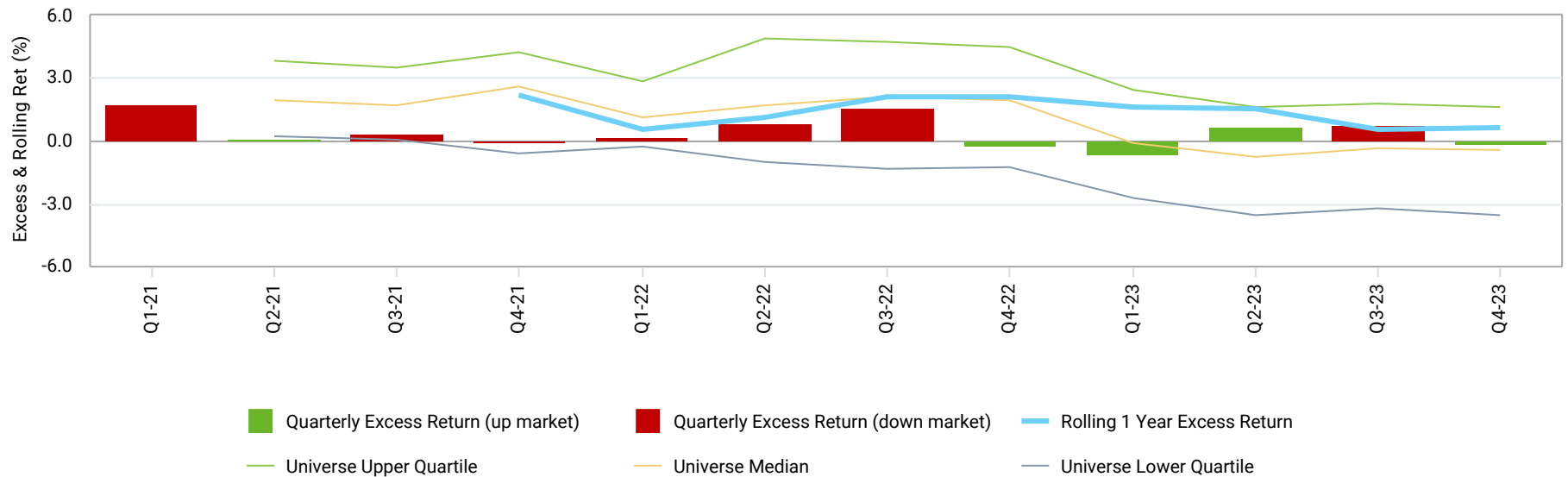
# CREDIT OPPORTUNITIES MANAGER PERFORMANCE

# PGIM BLENDED

## eV All Emg Mkts Fixed Inc (net of fees)



## Quarter Excess Return with a Rolling 1 Year Excess Return over Since Inception Ending December 31, 2023



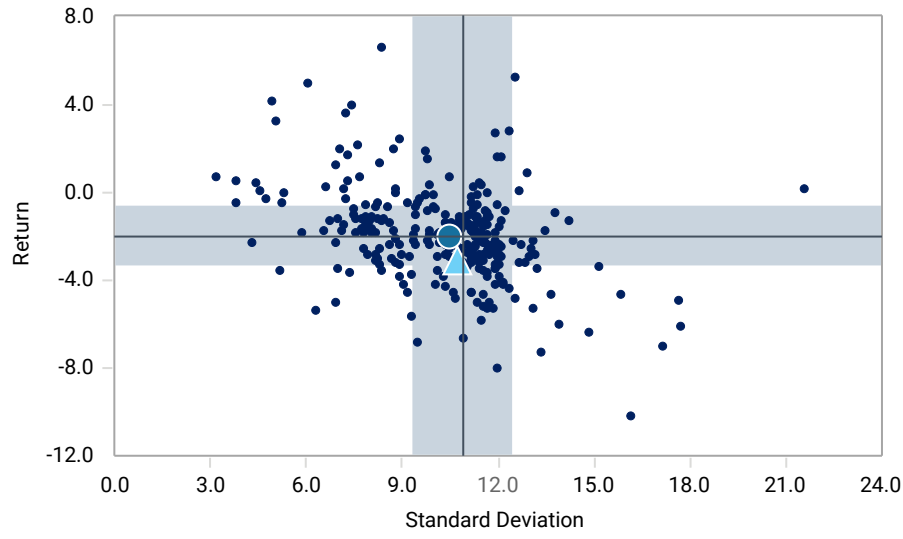


# Los Angeles City Employees' Retirement System-LACERS Master Trust

## PGIM BLENDED

December 31, 2023

Since Inception Return vs. Standard Deviation

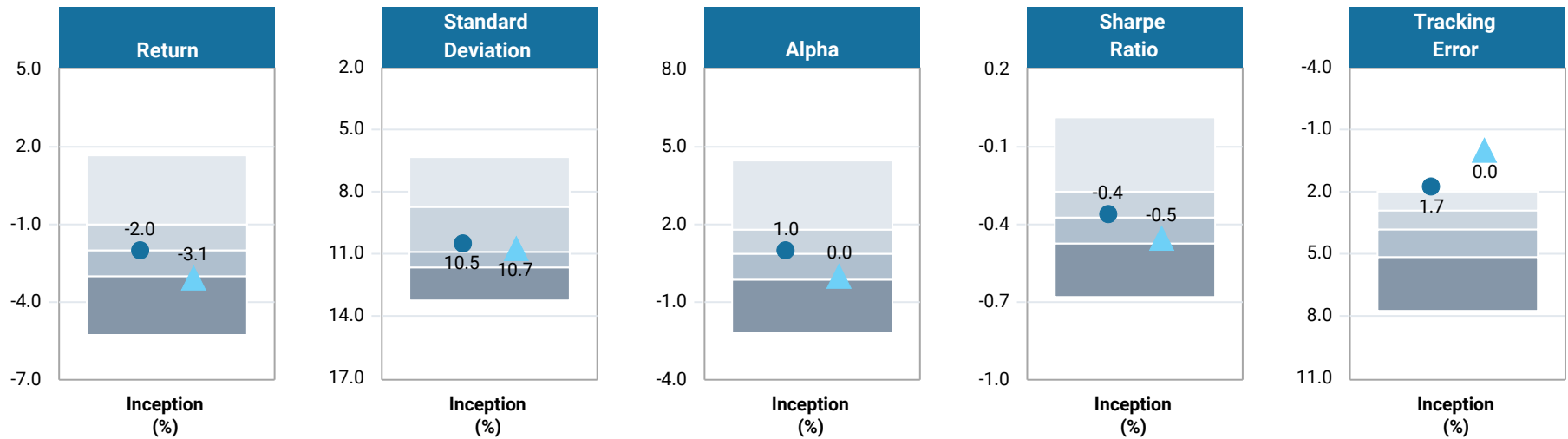


- PGIM Blended
- ▲ 50% JPM EMBI Global Diversified/ 50% JPM GBI-EM Global Diversified

Style Map: (1 Year)

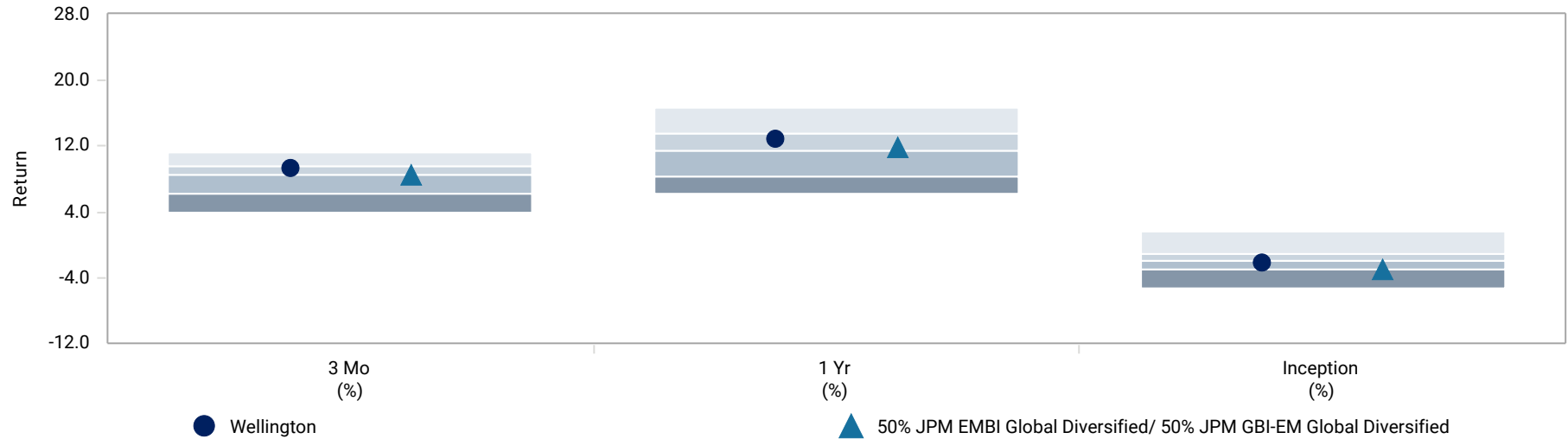


- PGIM Blended
- ▲ 50% JPM EMBI Global Diversified/ 50% JPM GBI-EM Global Diversified

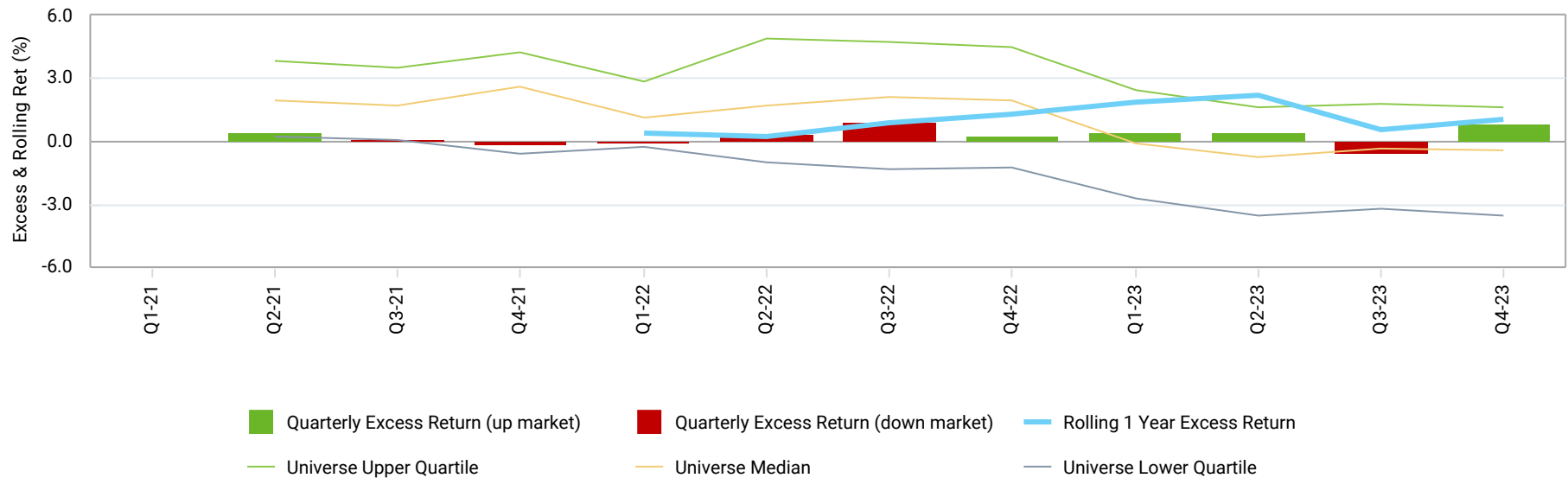


# WELLINGTON

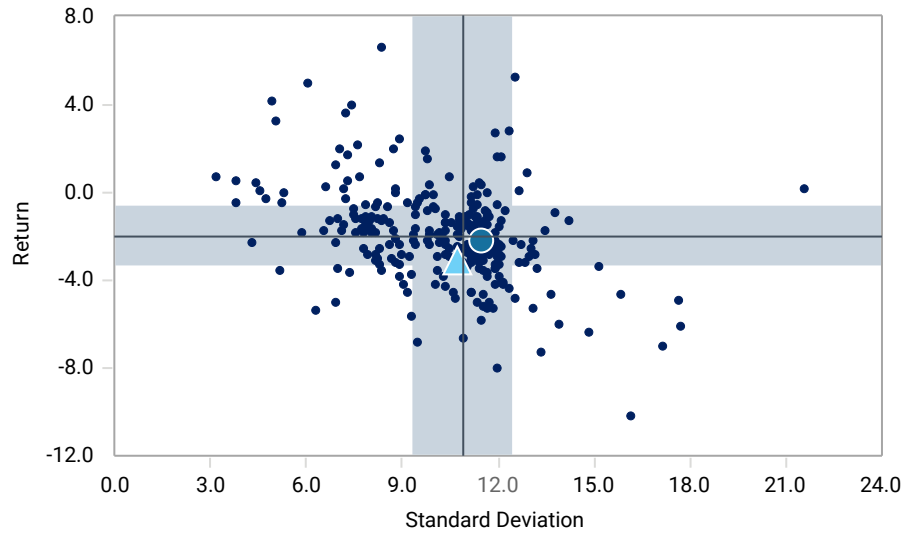
## eV All Emg Mkts Fixed Inc (net of fees)



## Quarter Excess Return with a Rolling 1 Year Excess Return over Since Inception Ending December 31, 2023

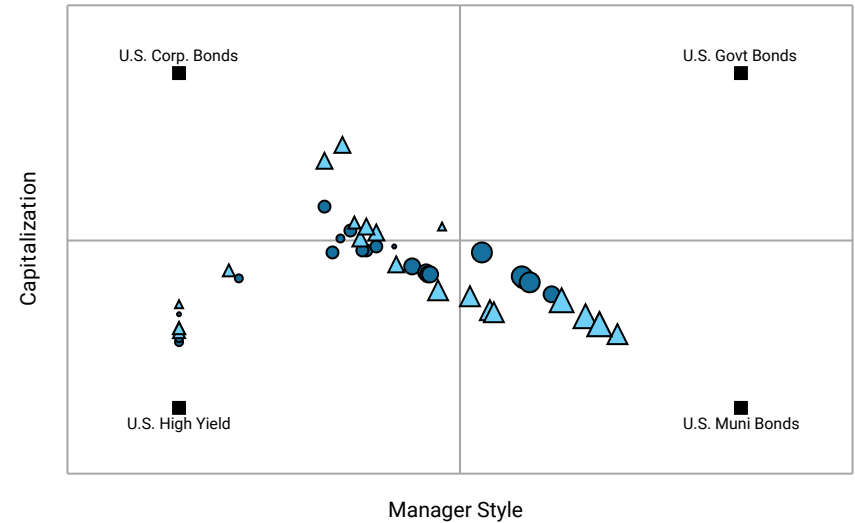


Since Inception Return vs. Standard Deviation

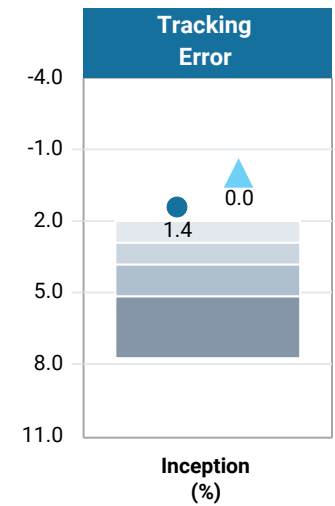
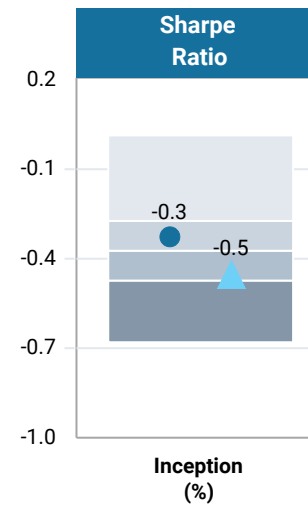
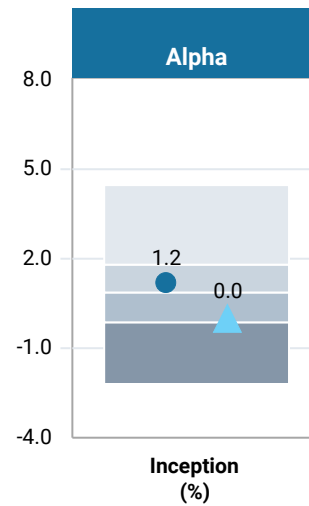
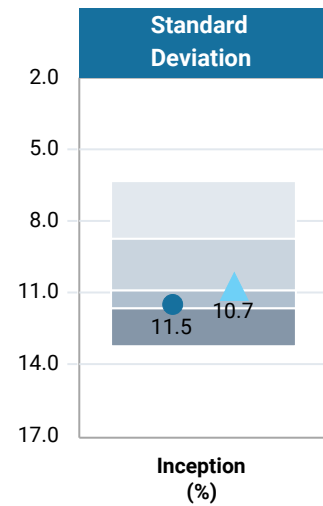
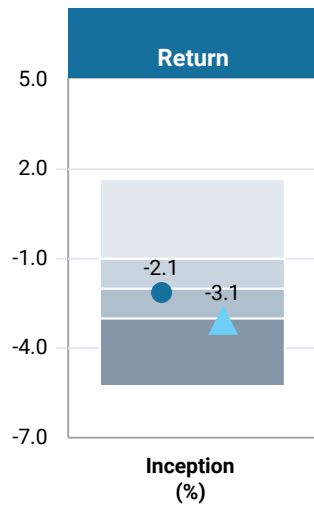


- Wellington
- ▲ 50% JPM EMBI Global Diversified/ 50% JPM GBI-EM Global Diversified

Style Map: (1 Year)

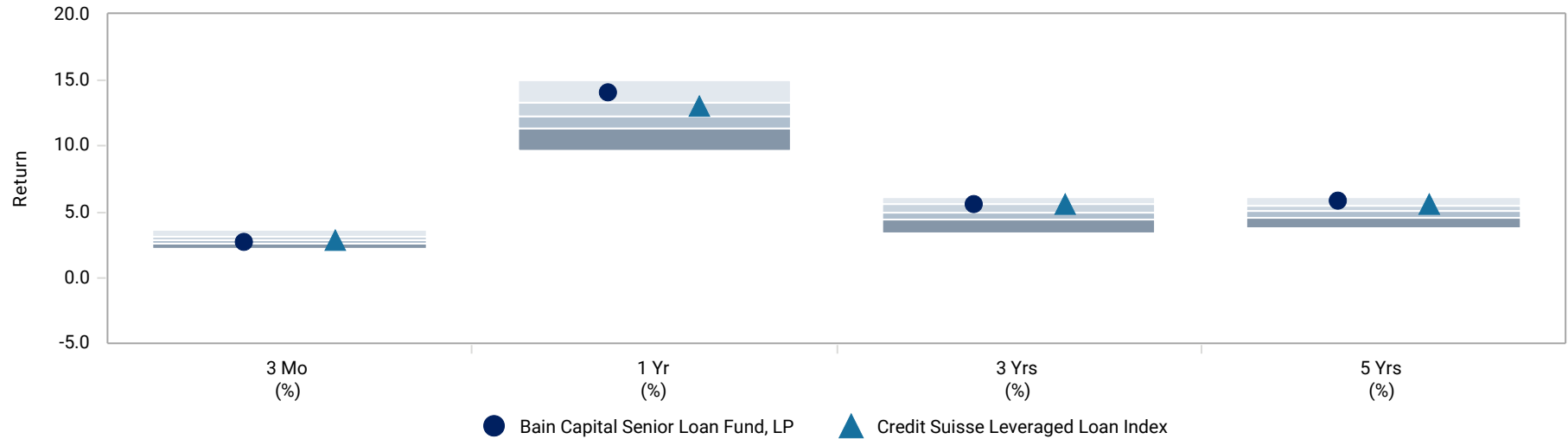


- Wellington
- ▲ 50% JPM EMBI Global Diversified/ 50% JPM GBI-EM Global Diversified

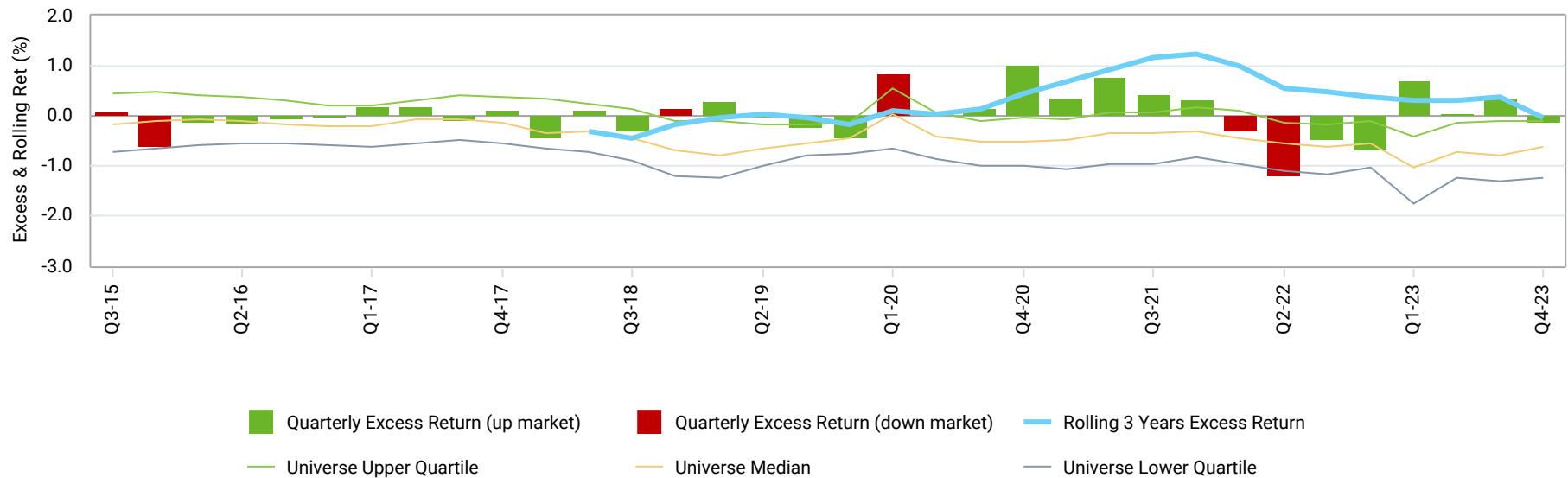


# BAIN CAPITAL SENIOR LOAN FUND, LP

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

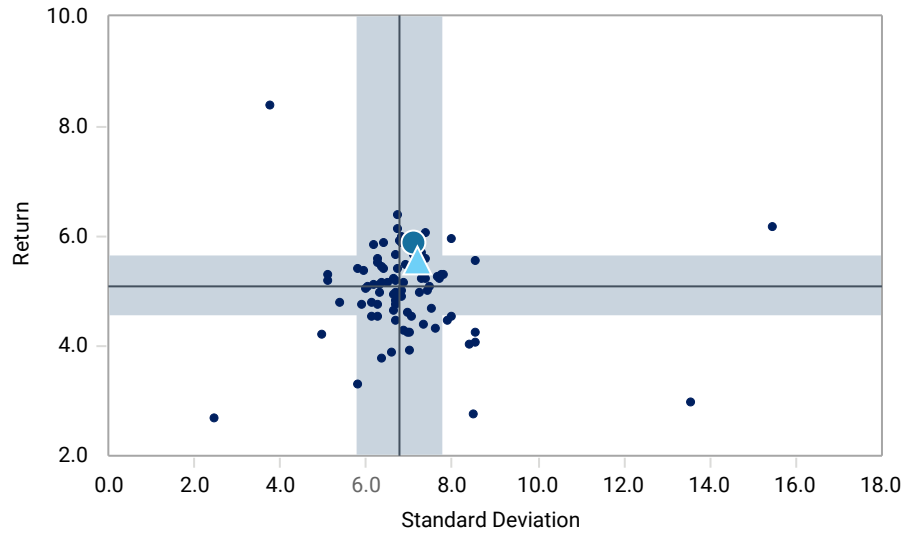


Quarter Excess Return with a Rolling 3 Years Excess Return over Since Inception Ending December 31, 2023



# BAIN CAPITAL SENIOR LOAN FUND, LP

5 Years Return vs. Standard Deviation

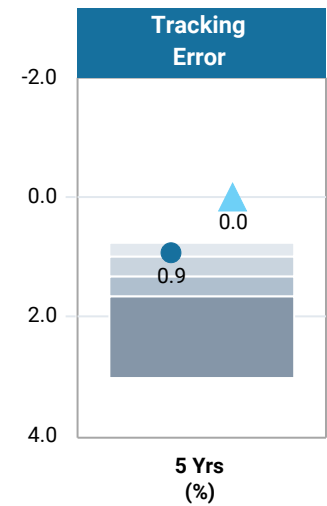
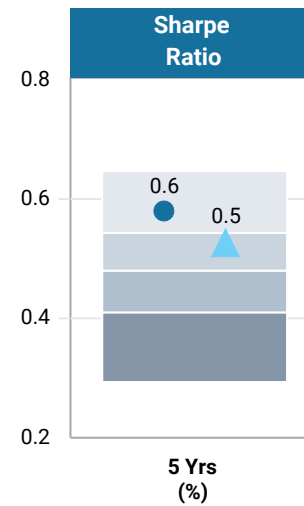
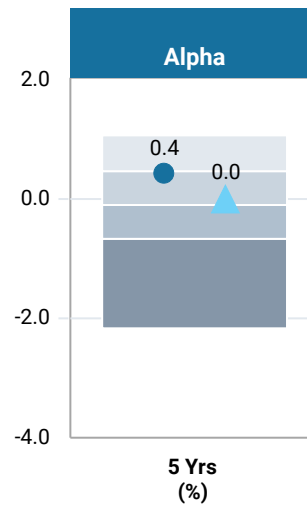
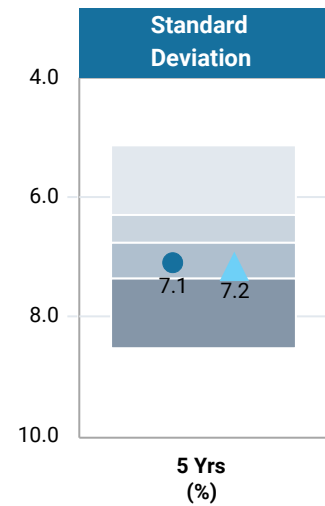
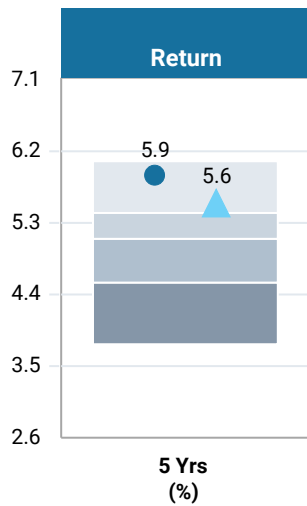


Style Map: (3 Years)



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

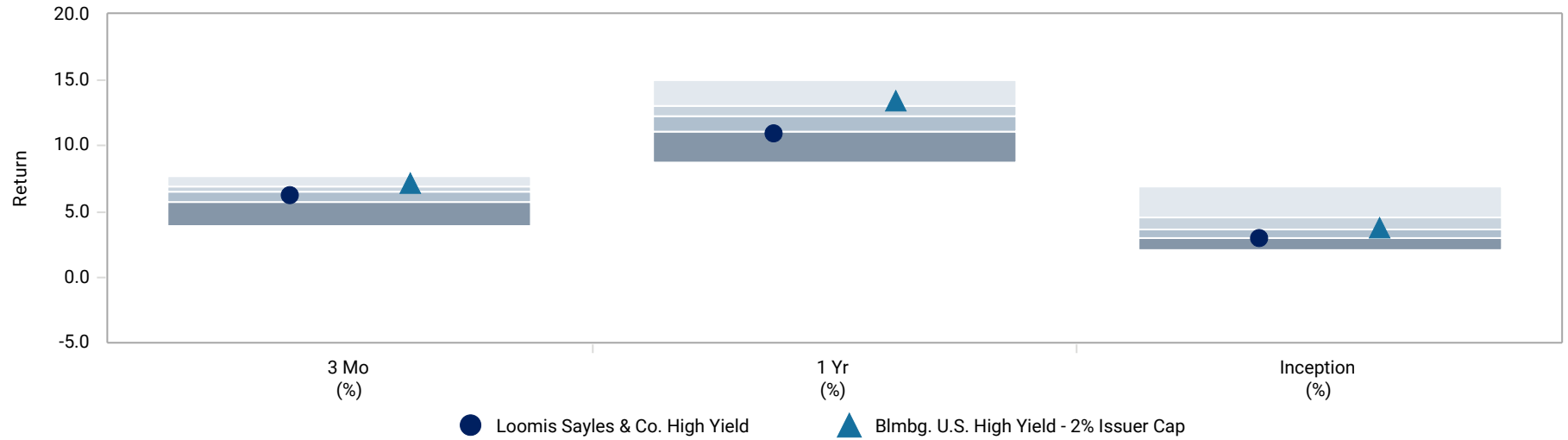
- Bain Capital Senior Loan Fund, LP
- ▲ Credit Suisse Leveraged Loan Index



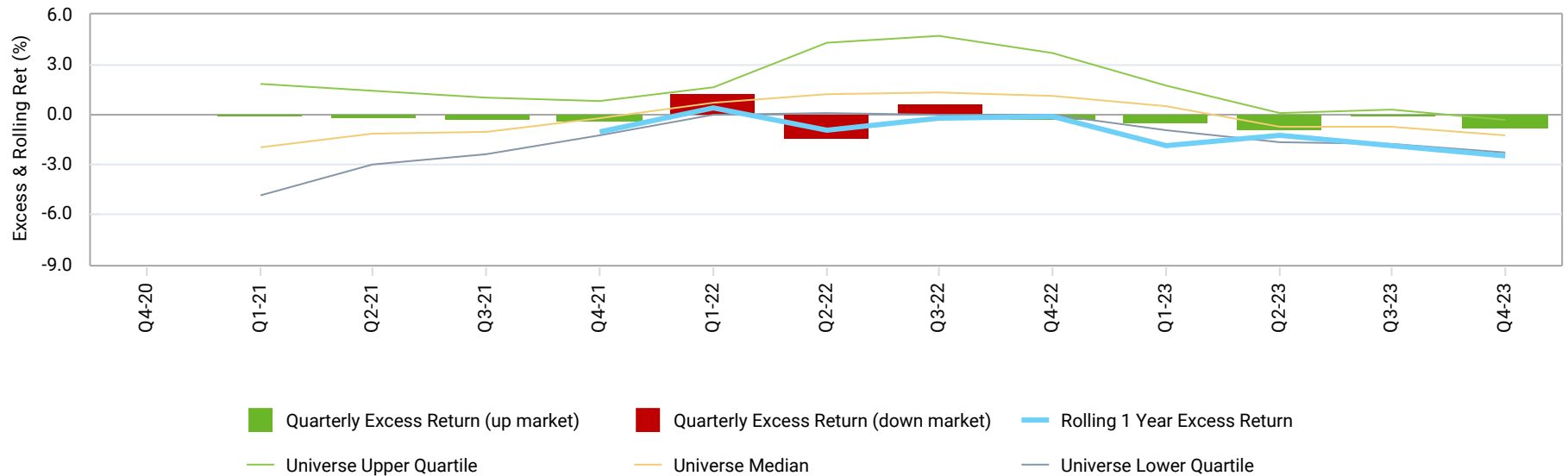
Los Angeles City Employees' Retirement System-LACERS Master Trust  
**LOOMIS SAYLES & CO. HIGH YIELD**

December 31, 2023

**eV US High Yield Fixed Inc (net of fees)**



**Quarter Excess Return with a Rolling 1 Year Excess Return over Since Inception Ending December 31, 2023**

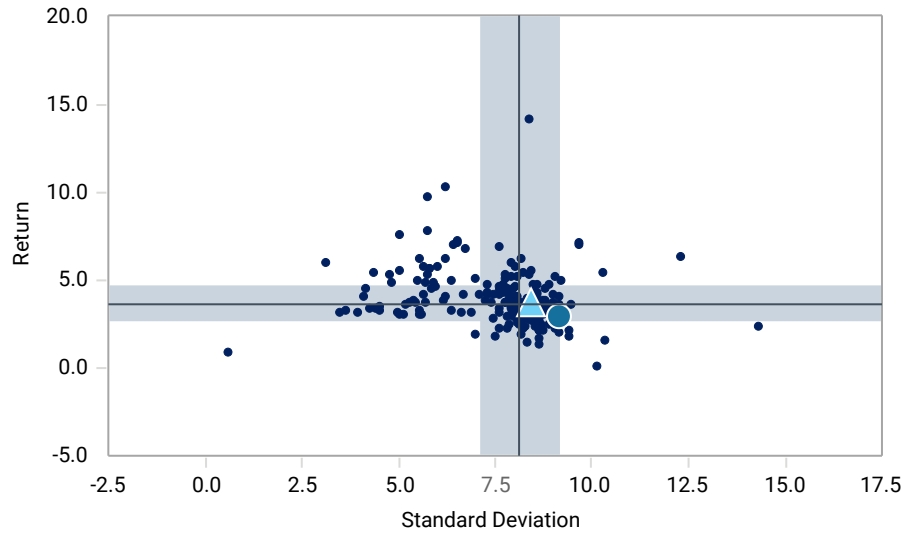


# Los Angeles City Employees' Retirement System-LACERS Master Trust

## LOOMIS SAYLES & CO. HIGH YIELD

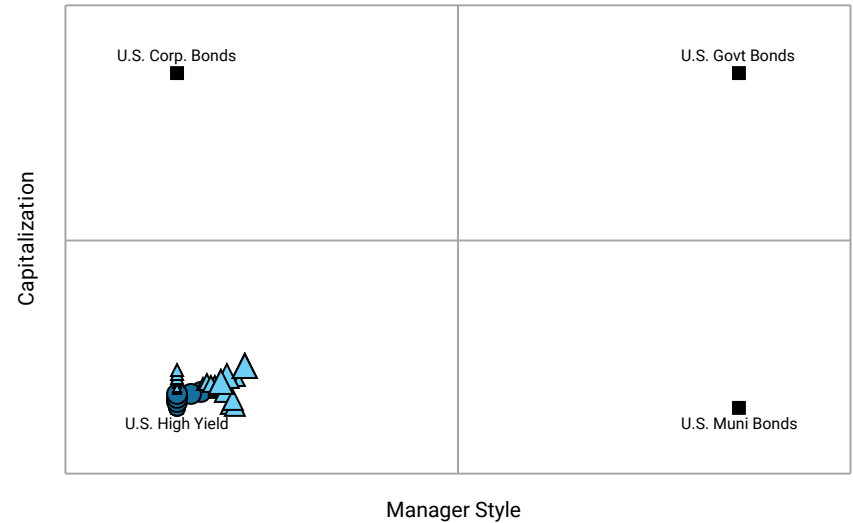
December 31, 2023

Since Inception Return vs. Standard Deviation

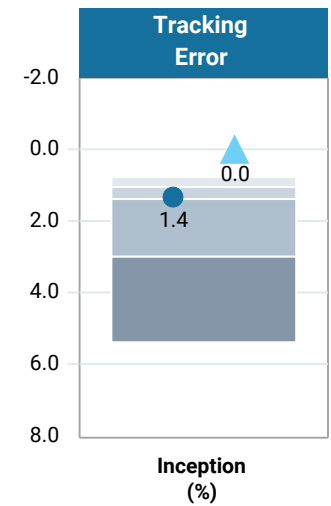
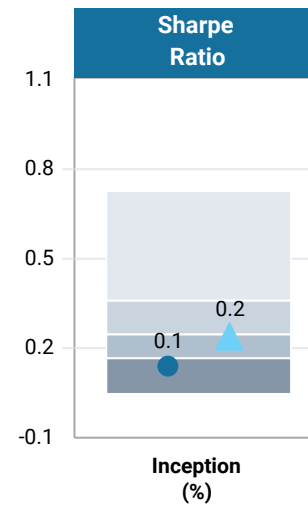
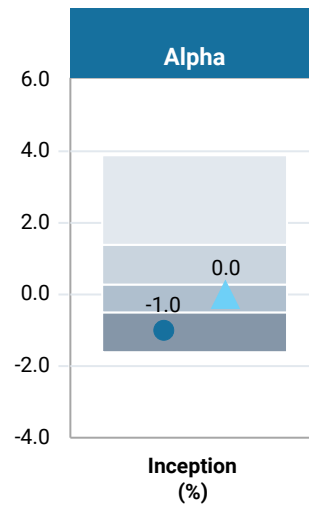
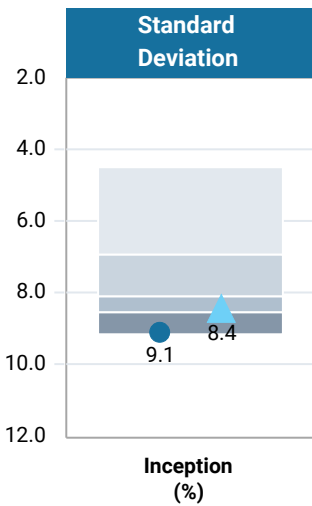
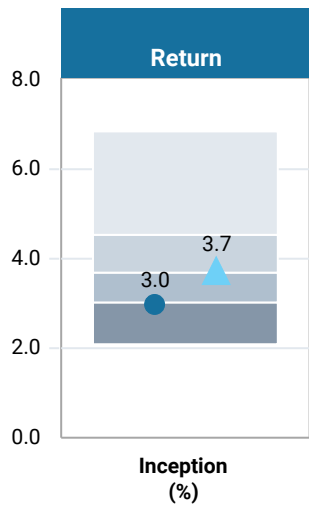


- Loomis Sayles & Co. High Yield
- ▲ Blmbg. U.S. High Yield - 2% Issuer Cap

Style Map: (1 Year)

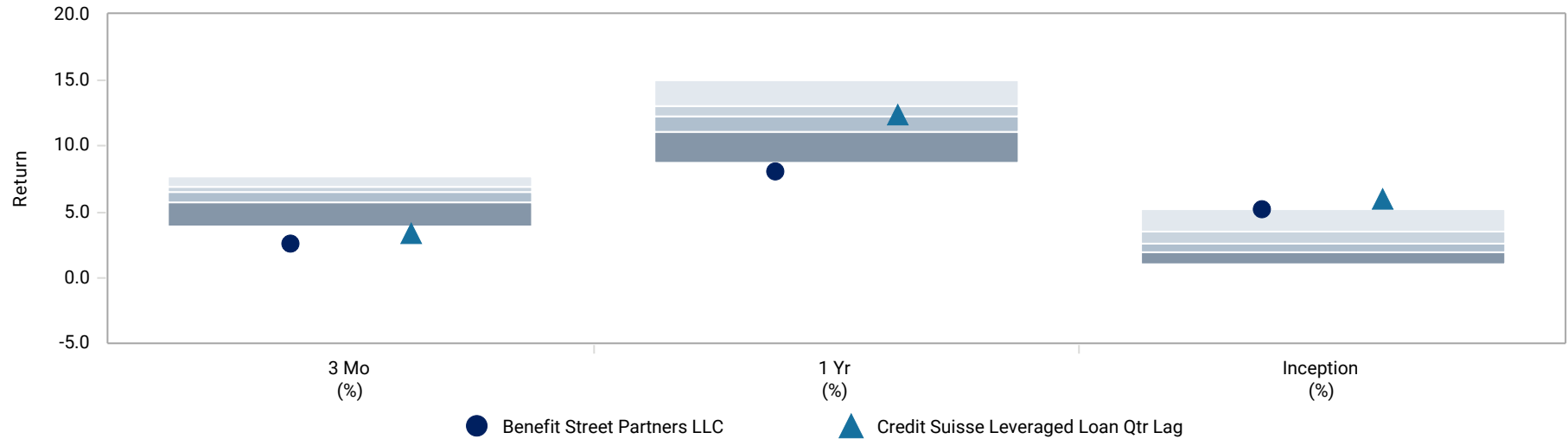


- Loomis Sayles & Co. High Yield
- ▲ Blmbg. U.S. High Yield - 2% Issuer Cap

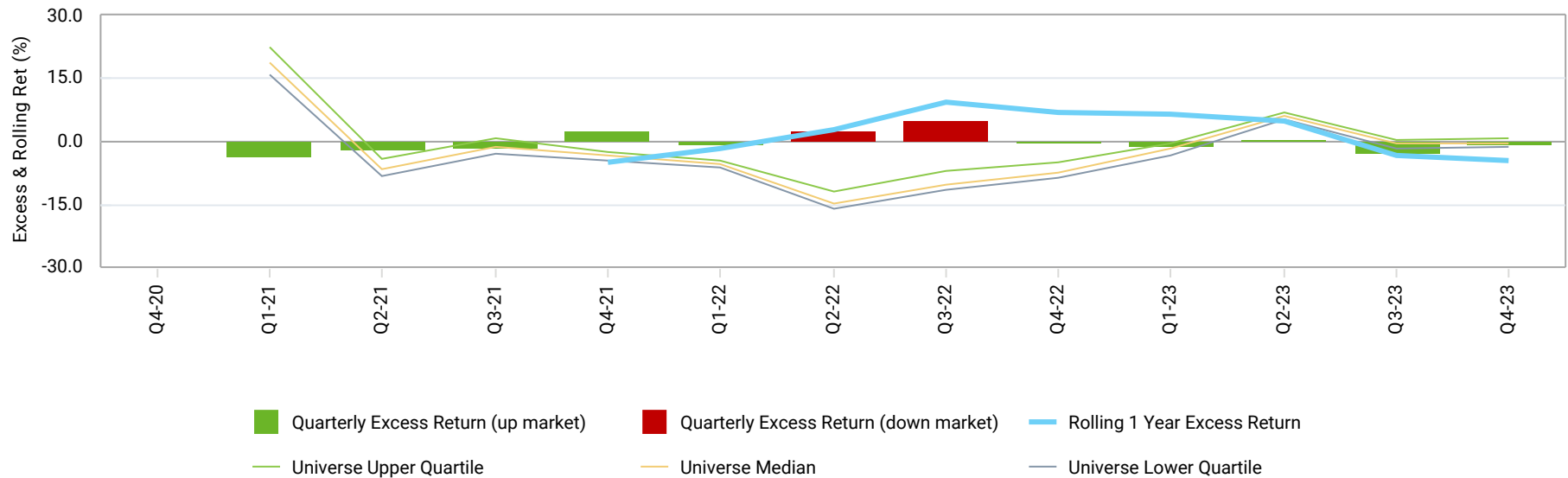


# BENEFIT STREET PARTNERS LLC

## eV US High Yield Fixed Inc (net of fees)



## Quarter Excess Return with a Rolling 1 Year Excess Return over Since Inception Ending December 31, 2023



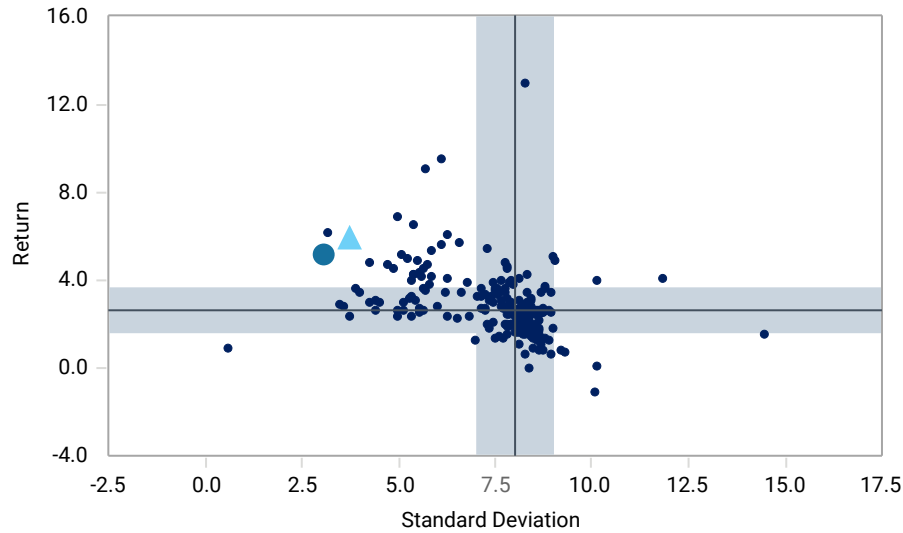


# Los Angeles City Employees' Retirement System-LACERS Master Trust

## BENEFIT STREET PARTNERS LLC

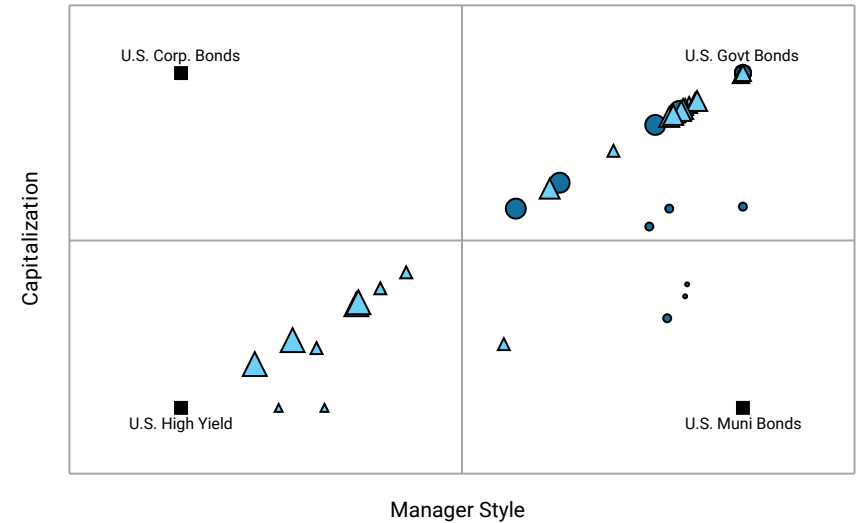
December 31, 2023

Since Inception Return vs. Standard Deviation

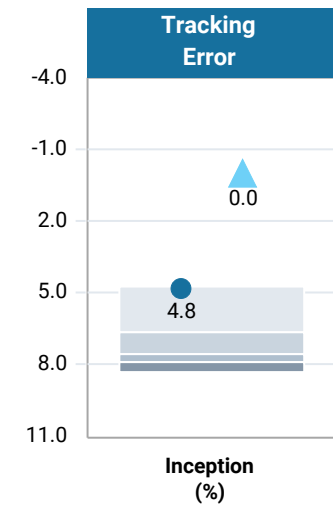
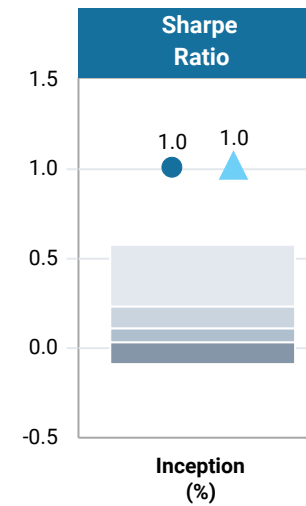
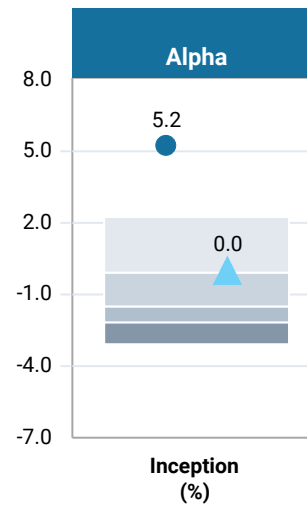
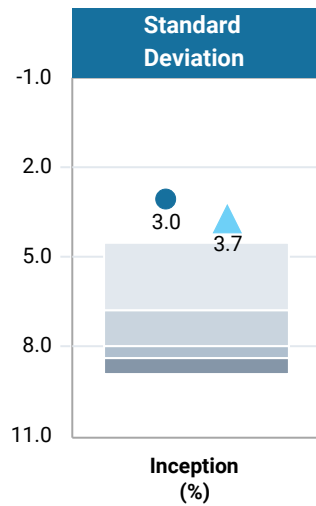
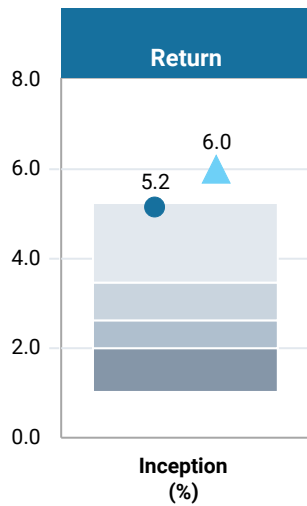


- Benefit Street Partners LLC
- ▲ Credit Suisse Leveraged Loan Qtr Lag

Style Map: (1 Year)

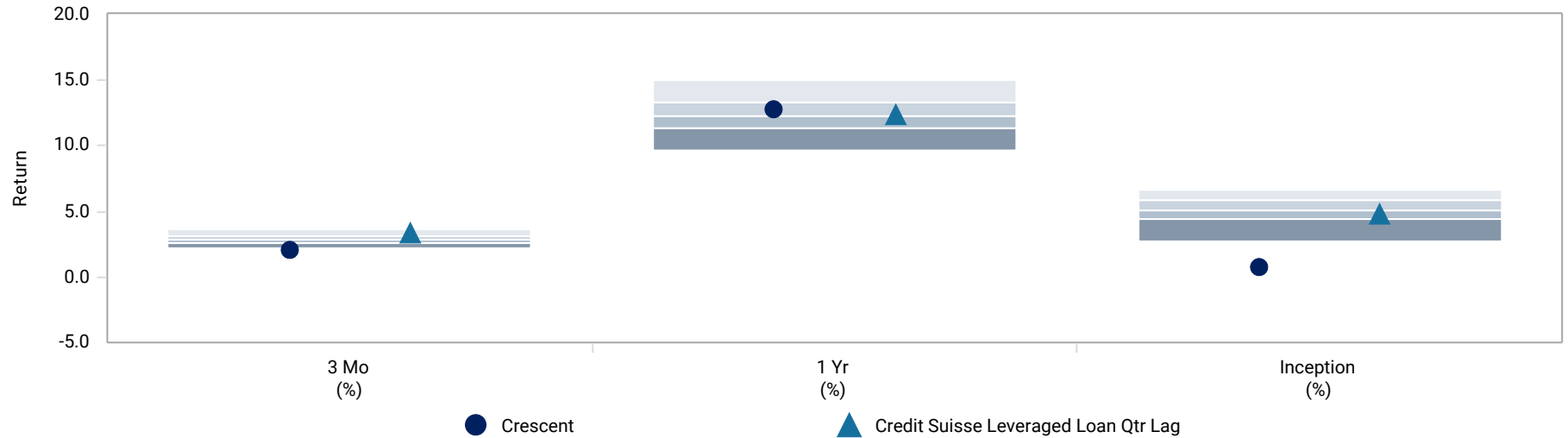


- Benefit Street Partners LLC
- ▲ Credit Suisse Leveraged Loan Qtr Lag

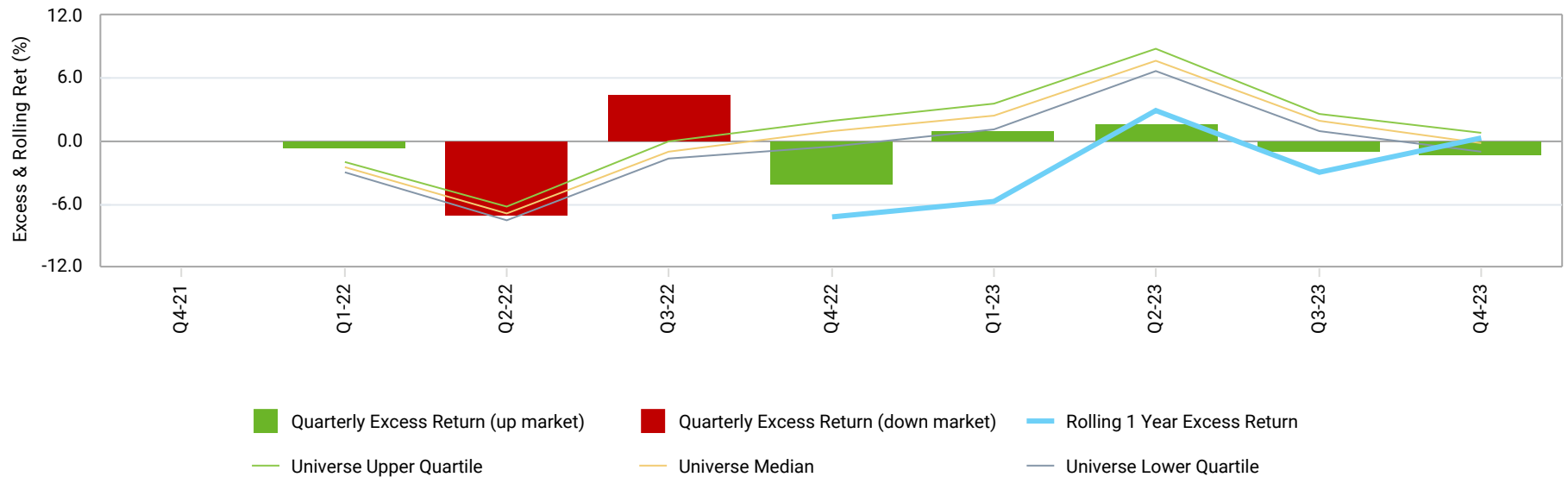


# CRESCENT

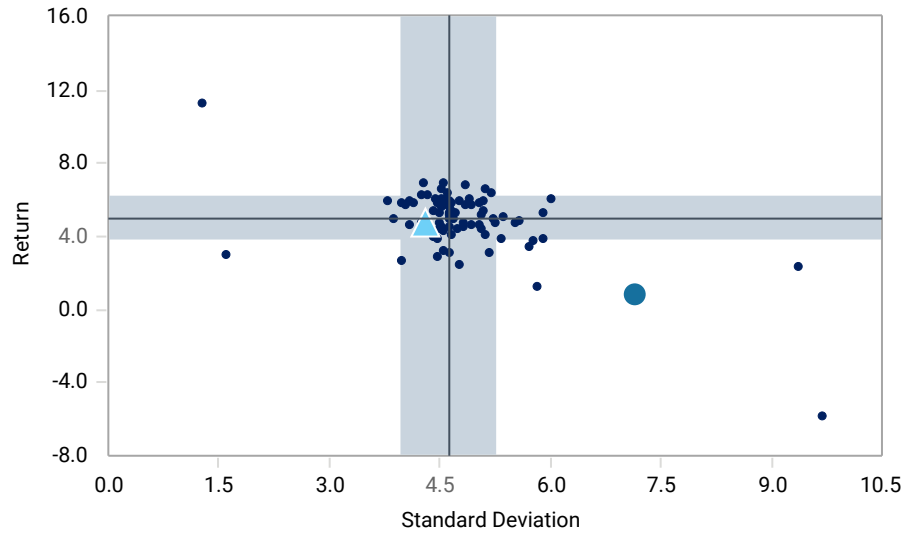
## eV US Float-Rate Bank Loan Fixed Inc (net of fees)



## Quarter Excess Return with a Rolling 1 Year Excess Return over Since Inception Ending December 31, 2023



Since Inception Return vs. Standard Deviation

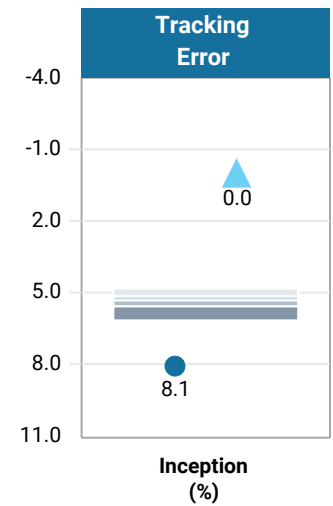
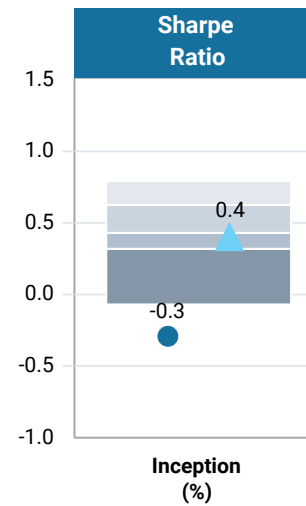
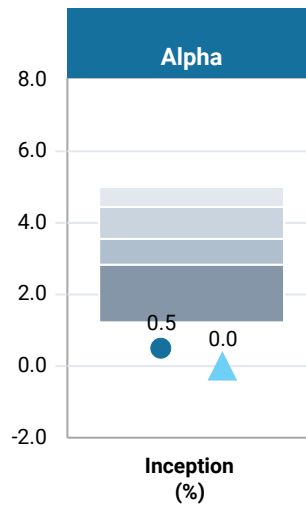
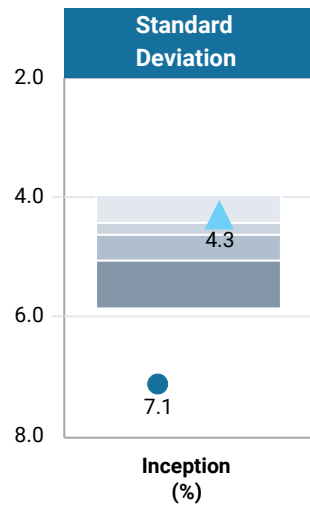
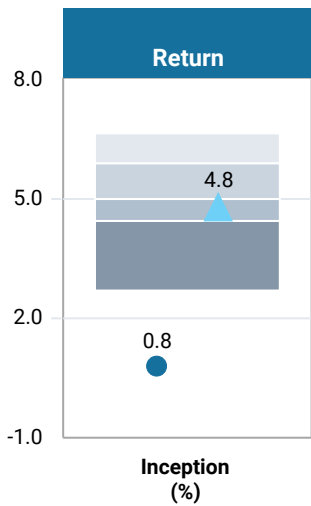


- Crescent
- ▲ Credit Suisse Leveraged Loan Qtr Lag

Style Map: (1 Year)

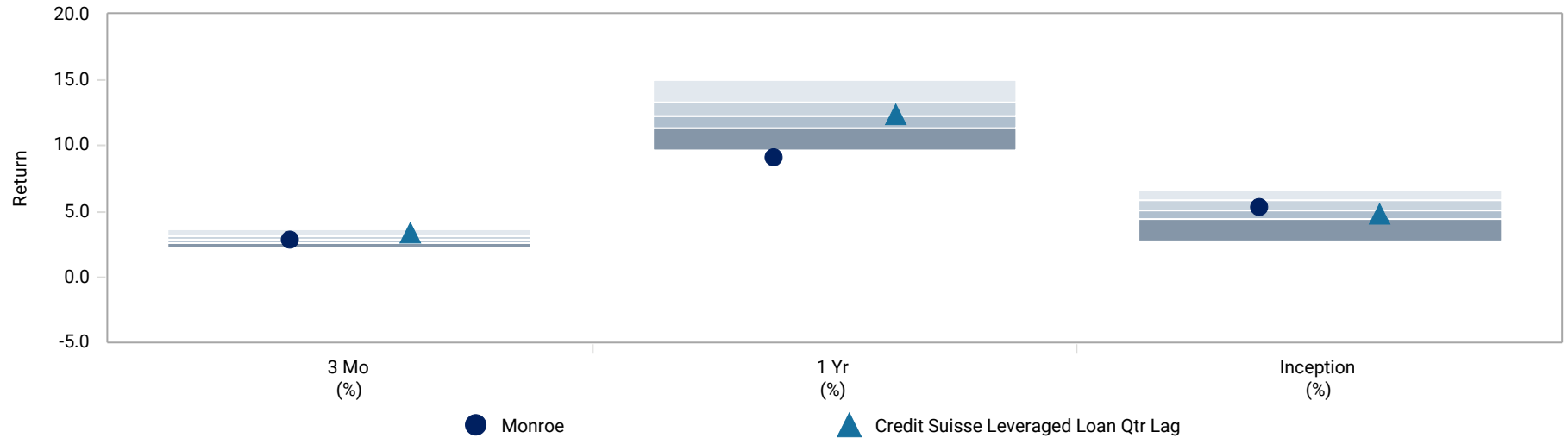


- Crescent
- ▲ Credit Suisse Leveraged Loan Qtr Lag

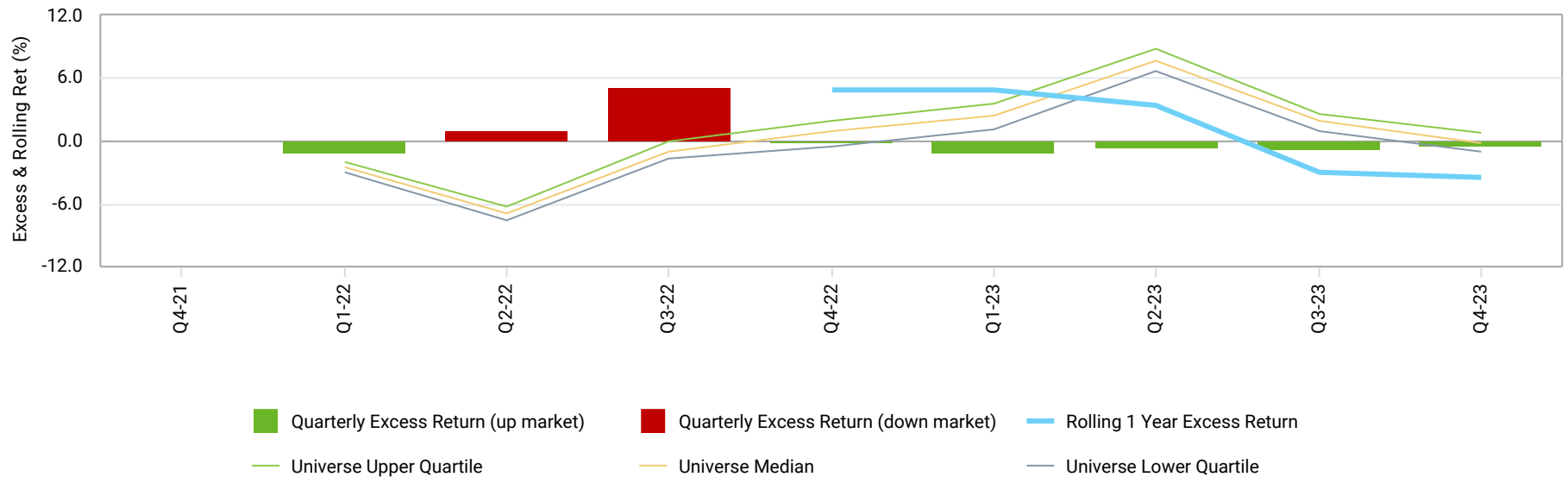


# MONROE

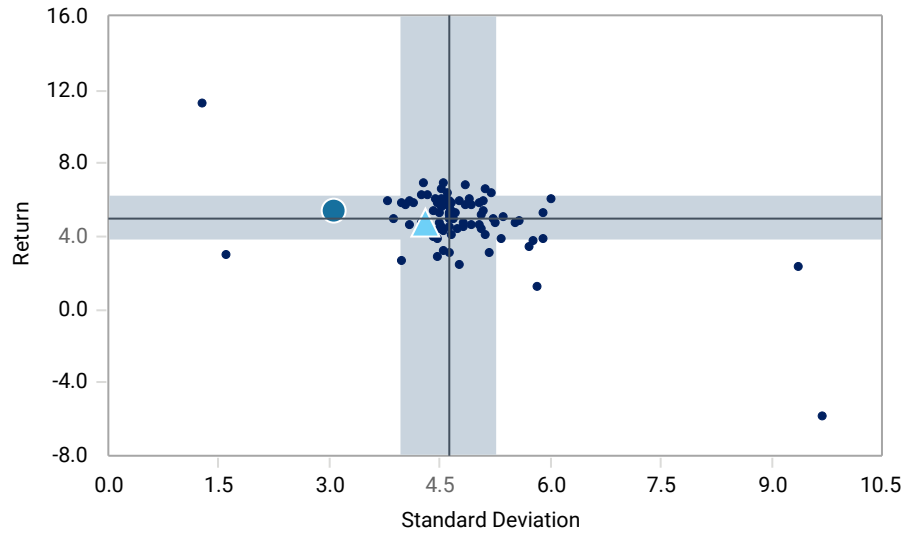
## eV US Float-Rate Bank Loan Fixed Inc (net of fees)



## Quarter Excess Return with a Rolling 1 Year Excess Return over Since Inception Ending December 31, 2023

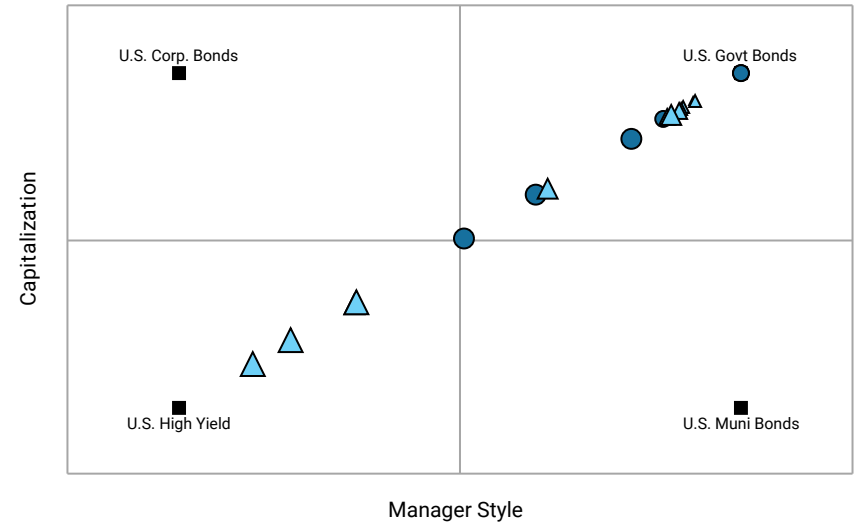


Since Inception Return vs. Standard Deviation

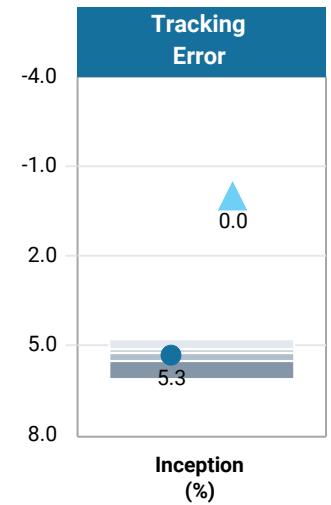
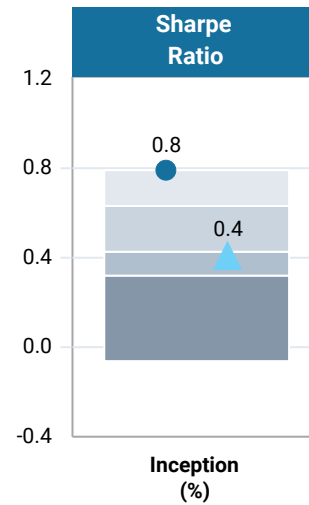
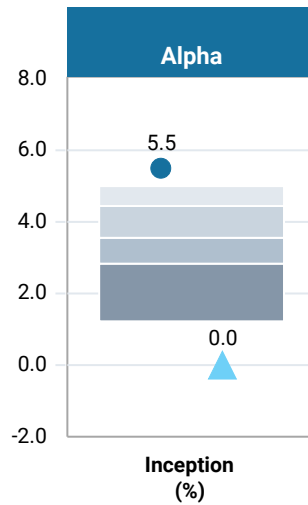
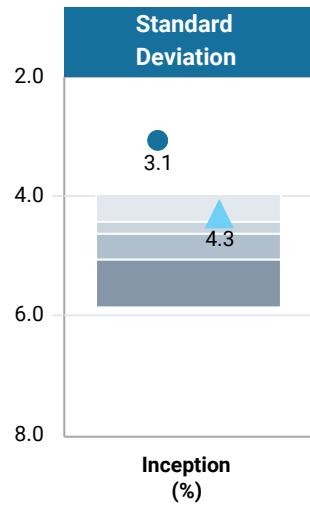
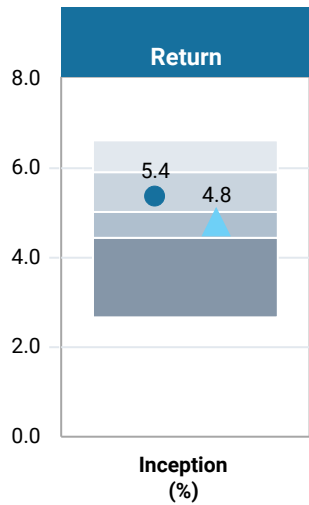


- Monroe
- ▲ Credit Suisse Leveraged Loan Qtr Lag

Style Map: (1 Year)

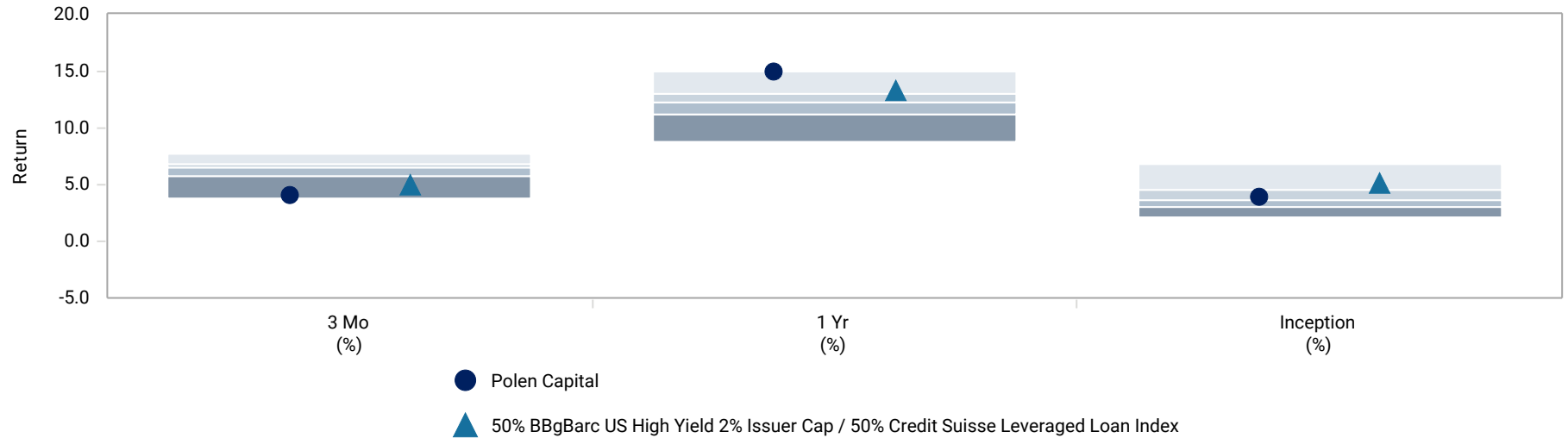


- Monroe
- ▲ Credit Suisse Leveraged Loan Qtr Lag

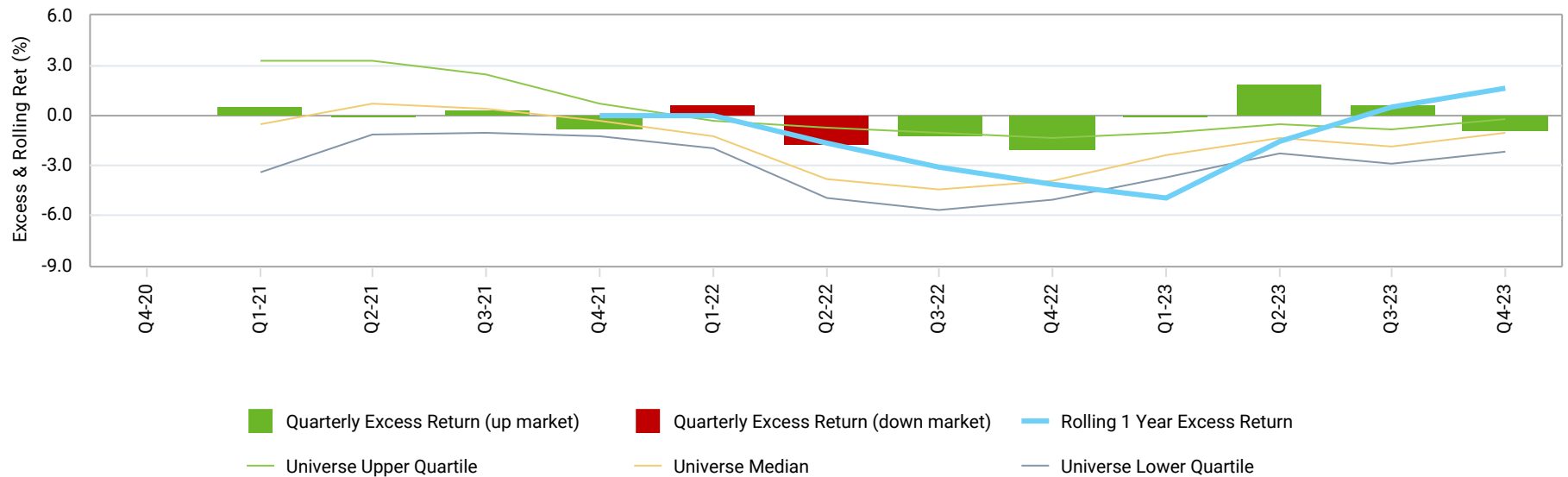


# POLEN CAPITAL

## eV US High Yield Fixed Inc (net of fees)

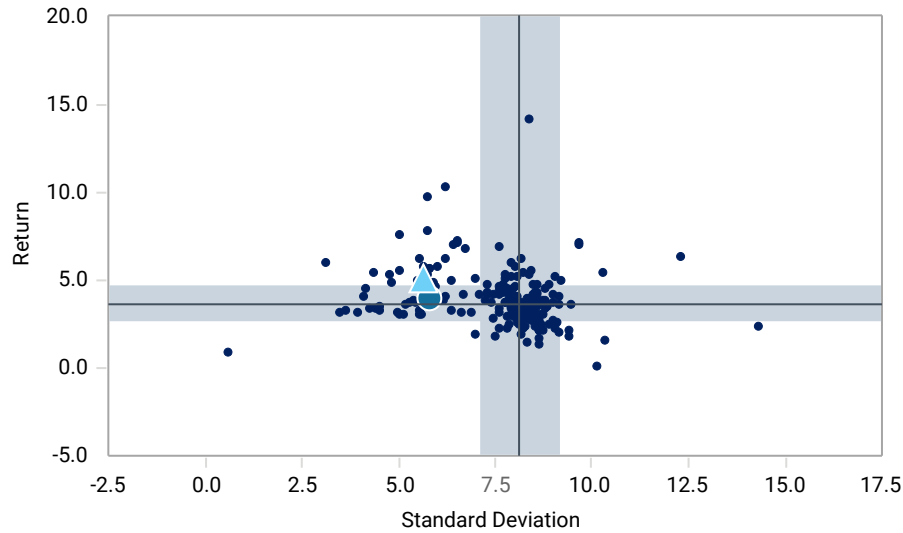


## Quarter Excess Return with a Rolling 1 Year Excess Return over Since Inception Ending December 31, 2023



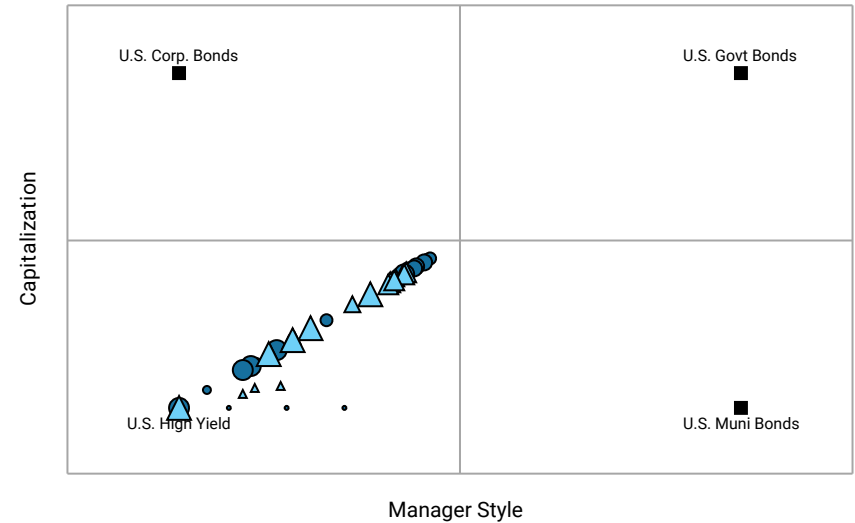
# POLEN CAPITAL

Since Inception Return vs. Standard Deviation

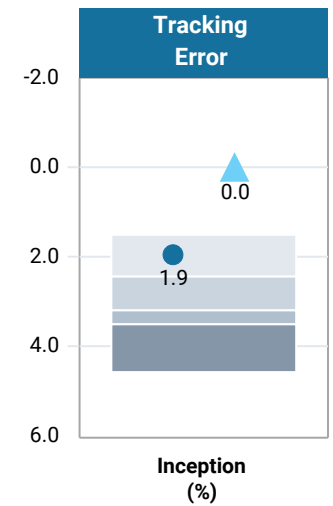
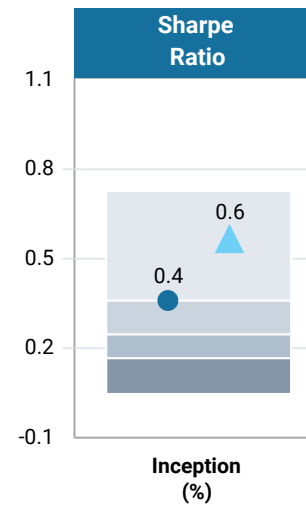
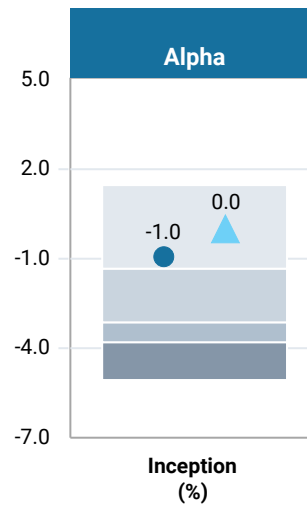
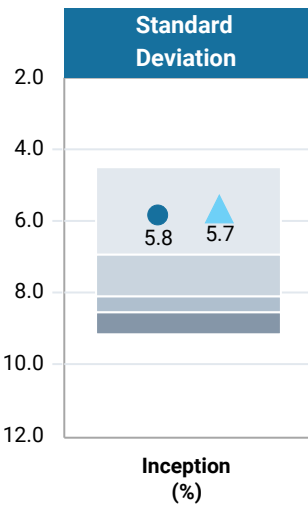
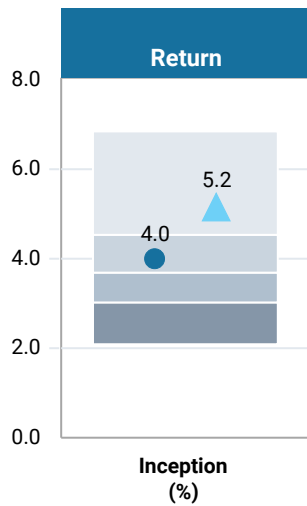


- Polen Capital
- ▲ 50% BBgBarc US High Yield 2% Issuer Cap / 50% Credit Suisse Leveraged Loa

Style Map: (1 Year)



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



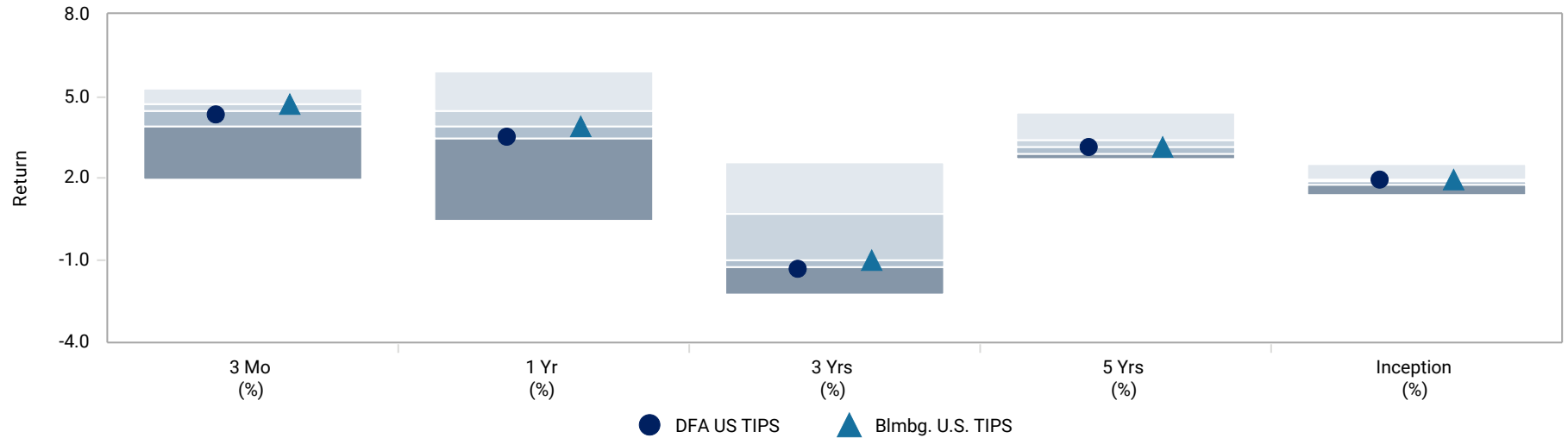


# REAL ASSETS MANAGER PERFORMANCE

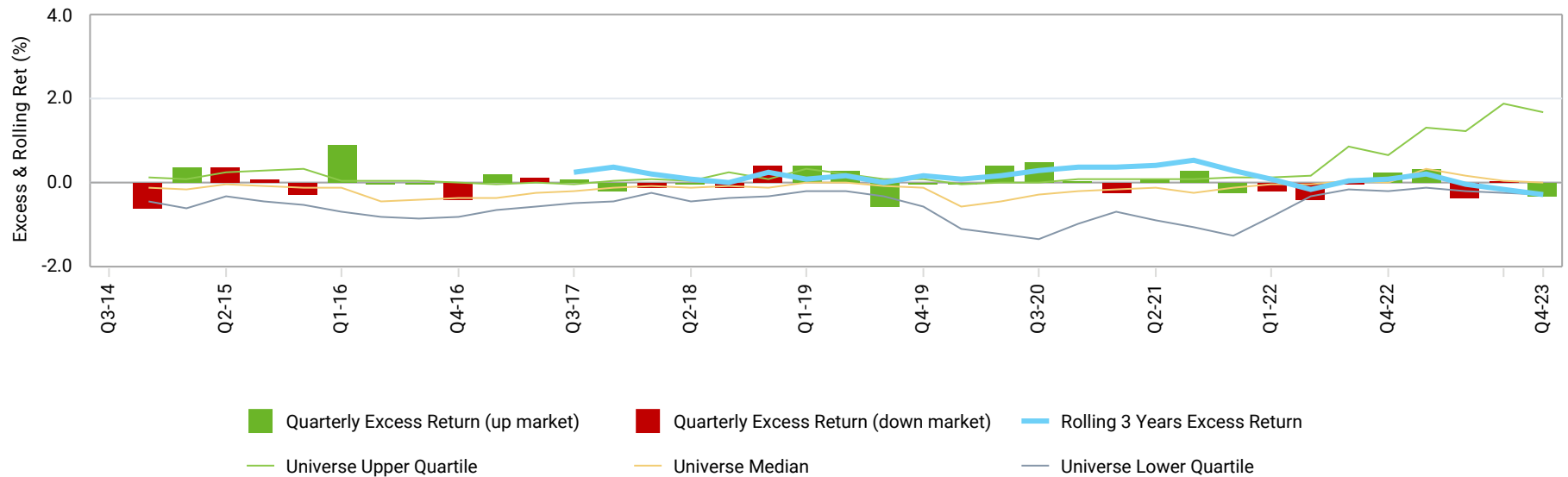


# DFA US TIPS

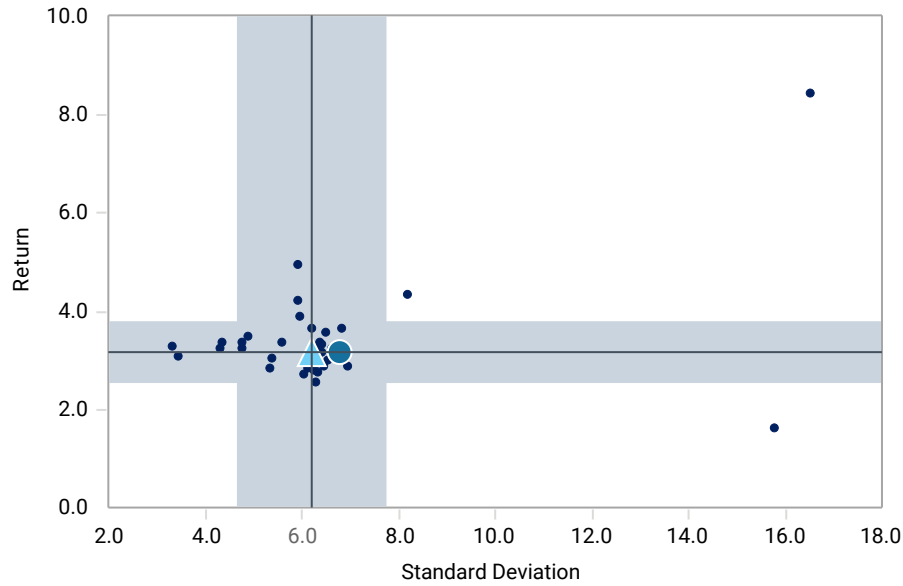
eV US TIPS / Inflation Fixed Inc (net of fees)



Quarter Excess Return with a Rolling 3 Years Excess Return over Since Inception Ending December 31, 2023



5 Years Return vs. Standard Deviation

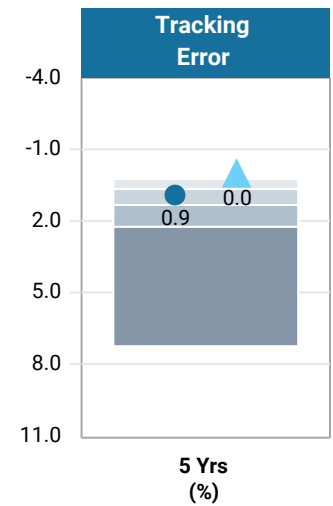
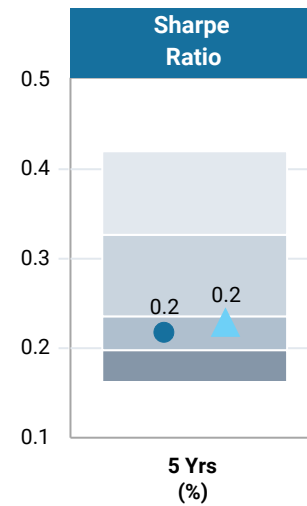
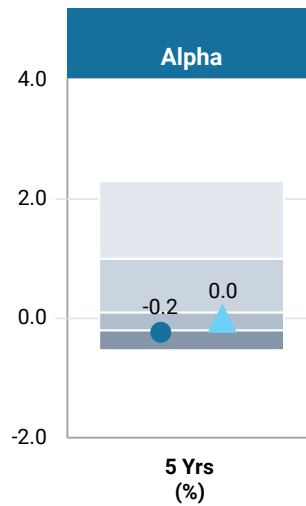
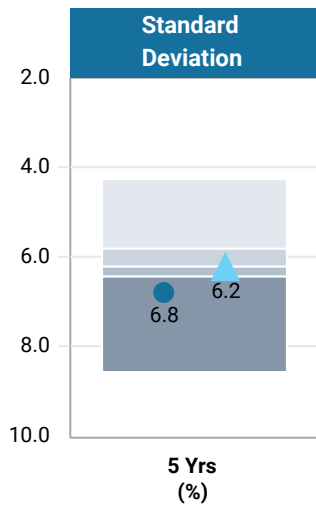
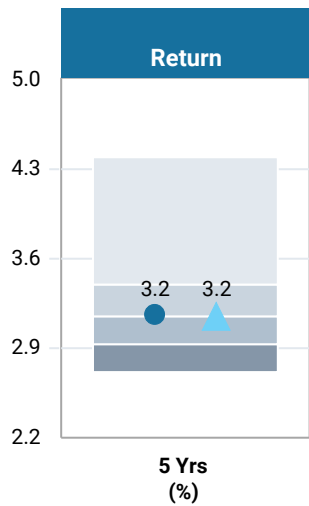


● DFA US TIPS    ▲ Blmbg. U.S. TIPS

Style Map: (5 Years)



● DFA US TIPS    ▲ Blmbg. U.S. TIPS

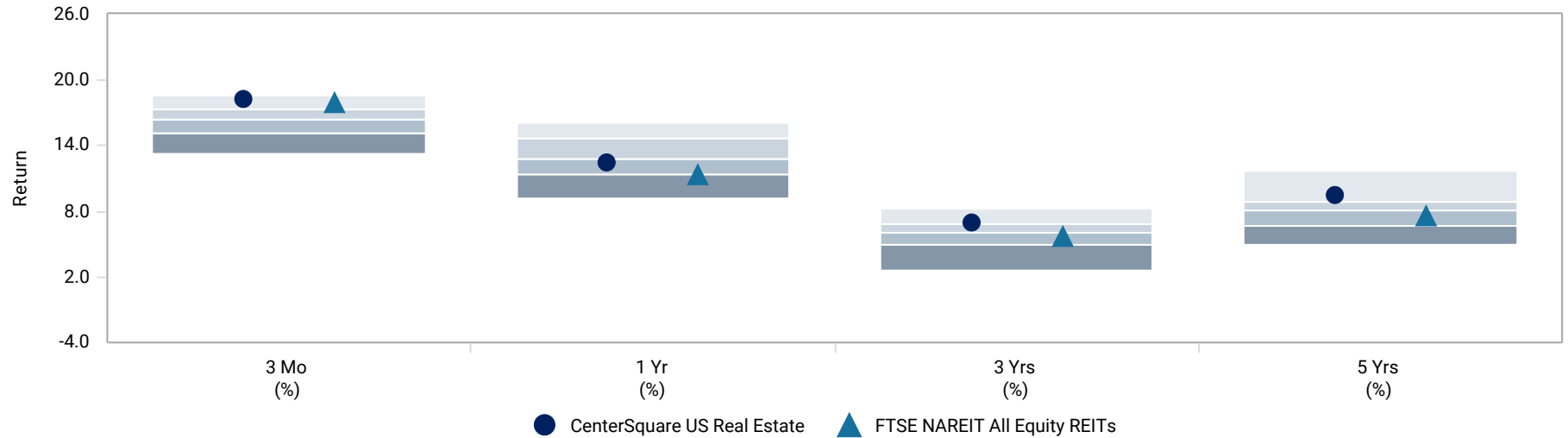


# Los Angeles City Employees' Retirement System-LACERS Master Trust

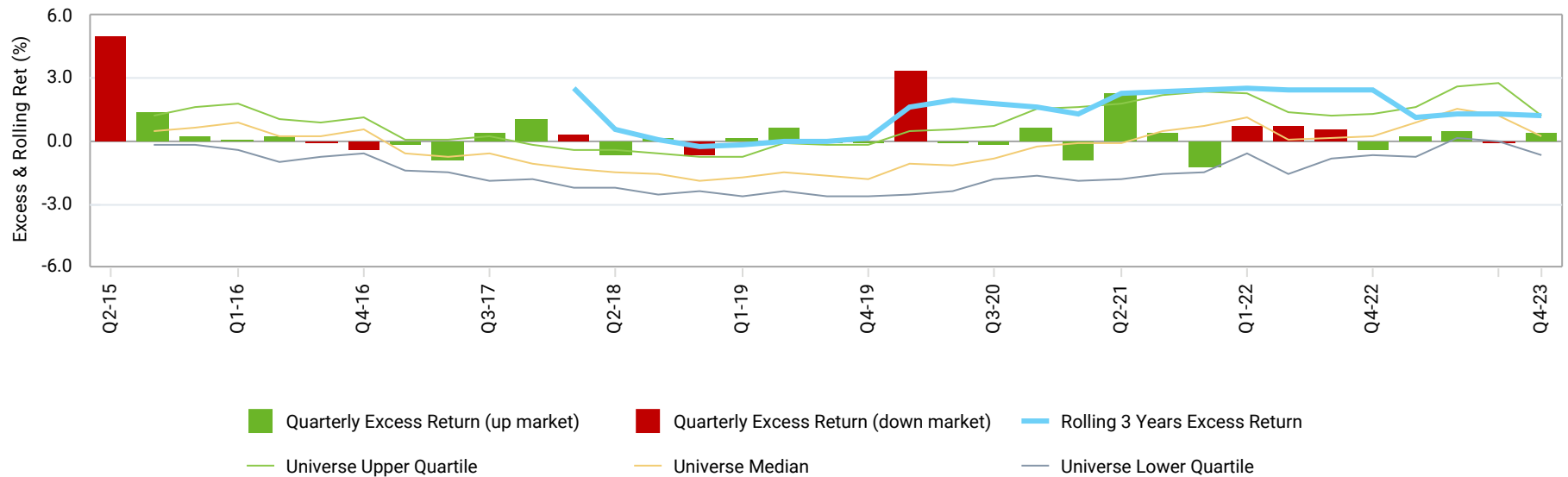
## CENTERSQUARE US REAL ESTATE

December 31, 2023

### eV US REIT (net of fees)



### Quarter Excess Return with a Rolling 3 Years Excess Return over Since Inception Ending December 31, 2023

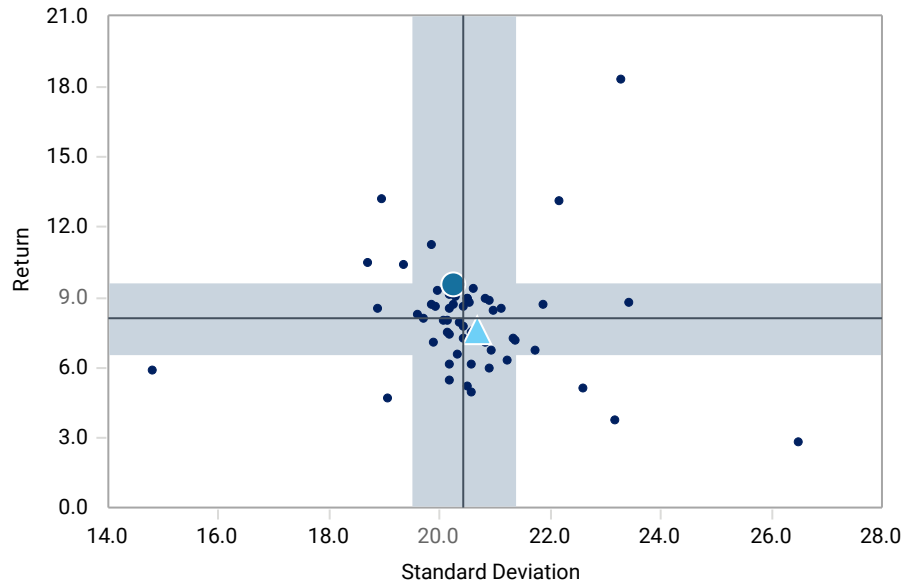


# Los Angeles City Employees' Retirement System-LACERS Master Trust

## CENTERSQUARE US REAL ESTATE

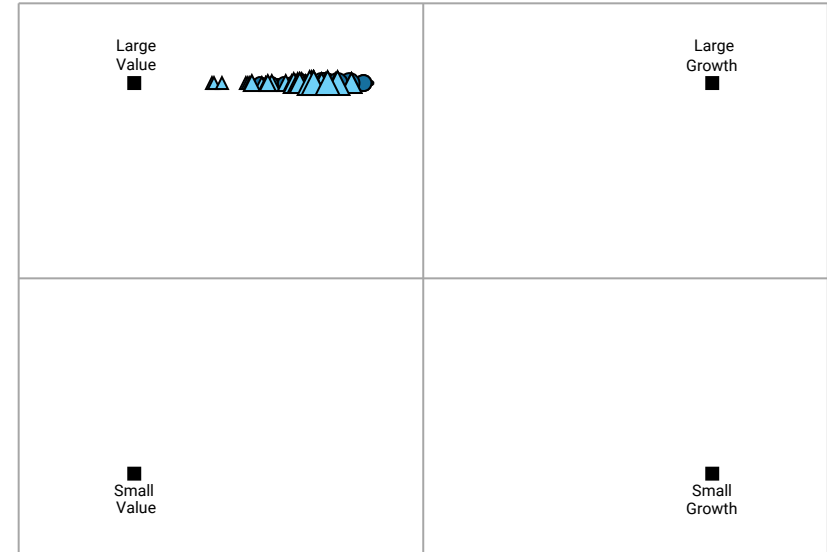
December 31, 2023

5 Years Return vs. Standard Deviation

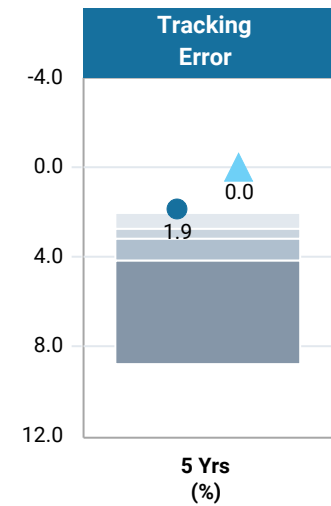
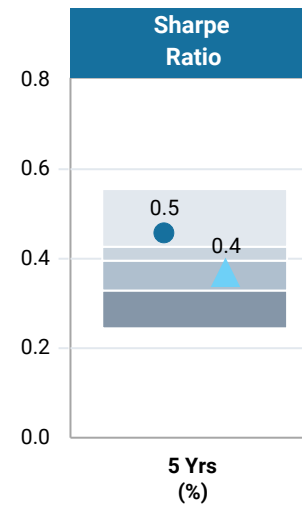
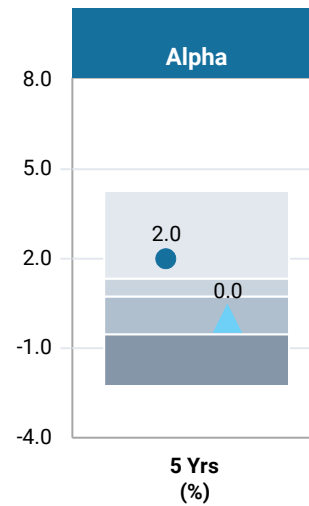
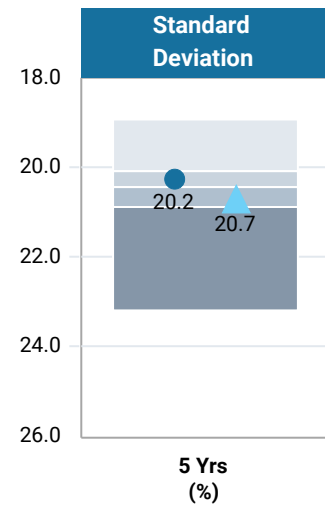
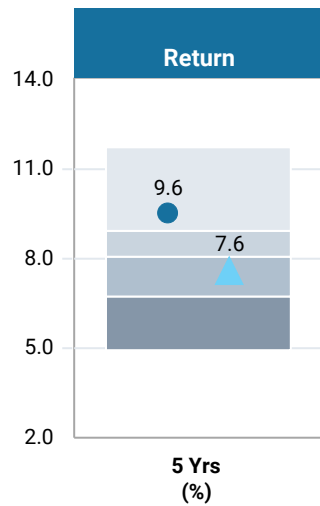


● CenterSquare US Real Estate ▲ FTSE NAREIT All Equity REITs

Rolling 5 Years Style Map



● CenterSquare US Real Estate ▲ FTSE NAREIT All Equity REITs





# DEFINITIONS

# POLICY INDEX DEFINITIONS

EFFECTIVE JULY 1, 2023

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

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

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

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

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

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

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

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

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

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



# POLICY INDEX DEFINITIONS

INTERIM POLICY TARGETS ADOPTED ON JULY 12, 2022

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

	2022	2023	2024	2025
<b>Total Portfolio</b>	<b>100.00%</b>	<b>100.00%</b>	<b>100.00%</b>	<b>100.00%</b>
<b>U.S. Equity</b>	<b>19.50%</b>	<b>20.50%</b>	<b>20.50%</b>	<b>21.00%</b>
Large Cap	14.00%	14.50%	14.50%	15.00%
Small/Mid Cap	5.50%	6.00%	6.00%	6.00%
<b>Non-U.S. Equity</b>	<b>25.50%</b>	<b>25.50%</b>	<b>25.50%</b>	<b>26.00%</b>
Developed	14.40%	14.40%	14.40%	15.00%
Developed Small Cap	3.00%	3.00%	3.00%	3.00%
Emerging Markets	6.75%	6.75%	6.75%	6.67%
Emerging Markets Small Cap	1.35%	1.35%	1.35%	1.33%
<b>Private Equity</b>	<b>18.00%</b>	<b>17.50%</b>	<b>17.00%</b>	<b>16.00%</b>
<b>Core Fixed Income</b>	<b>15.00%</b>	<b>14.00%</b>	<b>12.75%</b>	<b>11.25%</b>
<b>Credit Opportunities</b>	<b>8.00%</b>	<b>9.25%</b>	<b>10.75%</b>	<b>12.75%</b>
Bank Loans/High Yield	3.00%	3.00%	3.00%	3.00%
Emerging Market Debt	4.00%	4.00%	4.00%	4.00%
Private Credit	1.00%	2.25%	3.75%	5.75%
<b>Public Real Assets</b>	<b>7.50%</b>	<b>6.25%</b>	<b>6.00%</b>	<b>5.00%</b>
TIPS	4.50%	4.00%	4.00%	3.60%
REITS	3.00%	2.25%	2.00%	1.40%
<b>Real Estate</b>	<b>5.50%</b>	<b>6.00%</b>	<b>6.50%</b>	<b>7.00%</b>
<b>Cash</b>	<b>1.00%</b>	<b>1.00%</b>	<b>1.00%</b>	<b>1.00%</b>

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





# DISCLOSURES



## Information Disclaimer

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

## Reporting Methodology

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

