

PORTFOLIO PERFORMANCE REVIEW

LOS ANGELES CITY EMPLOYEES' RETIREMENT SYSTEM

Quarter Ending December 31, 2019



BOSTON | ATLANTA | CHARLOTTE | CHICAGO | DETROIT | LAS VEGAS | PORTLAND | SAN FRANCISCO

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EXECUTIVE SUMMARY

NEPC, LLC

PERFORMANCE OVERVIEW

Q4 Market Summary

Macro			Equity			Credit			Real Assets		
US Dollar	VIX	US 10-Yr	S&P 500	MSCI EAFE	MSCI EM	US Agg.	High Yield	Dollar EMD	Oil	Gold	REITS
											
-3.0%	-2.5	24 bps	9.1%	8.2%	11.8%	0.2%	2.6%	1.8%	13.0%	3.1%	0.6%

	Market Value	3 Mo	Rank	Fiscal YTD	Rank	1 Yr	Rank	3 Yrs	Rank	5 Yrs	Rank	10 Yrs	Rank	15 Yrs	Rank	Inception	Inception Date
LACERS Master Trust	\$18,867,824,935	5.34%	40	5.87%	38	18.08%	28	10.09%	15	7.56%	27	8.97%	19	7.13%	14	8.30%	Oct-94
Policy Index		6.20%	6	6.91%	7	20.88%	9	10.46%	8	7.78%	19	8.92%	20	7.08%	20	8.29%	Oct-94
InvMetrics Public DB \$1-50B Gross Median		5.08%		5.65%		16.86%		9.07%		6.98%		8.10%		6.43%		7.89%	Oct-94

Note: Performance is gross of fees

Global risk assets rallied during the quarter as prospects of a trade deal increased and global central banks continued easing monetary policy to offset economic growth concerns

- The U.S. Equity composite under-performed due to mid and small cap manager selection. The Non-U.S. Equity composite outperformed due to manager outperformance.

Dollar weakness provided a tailwind for international and emerging market asset returns

- The Emerging Markets composite outperformed developed markets but underperformed the benchmark due to manager underperformance.

Increasing yields caused the spread between the 10-year and 3-month Treasuries to move into positive territory, widening to 37 basis points – marking the largest spread since January 2019

- The Core Fixed Income composite outperformed the benchmark due to manager selection.



Market segment (index representation) as follows: US Dollar (DXY Index), VIX (CBOE Volatility Index), US 10-Year (US 10-Year Treasury Yield), S&P 500 (US Equity), MSCI EAFE Index (International Developed Equity), MSCI Emerging Markets (Emerging Markets Equity), US Agg (Barclays US Aggregate Bond Index), High Yield (Barclays US High Yield Index), Dollar EMD (JPM EMBI Global Diversified Index), Crude Oil (WTI Crude Oil Spot), Gold (Gold Price Spot), and REITs (NAREIT Composite Index). Source: FactSet

MARKET OUTLOOK

NEPC, LLC

MACRO PERFORMANCE OVERVIEW

Q4 Macro Market Summary

Global central banks continued easing with the Fed cutting rates and the ECB reigniting monthly bond purchases

Emerging market currencies appreciated relative to the dollar as trade concerns eased

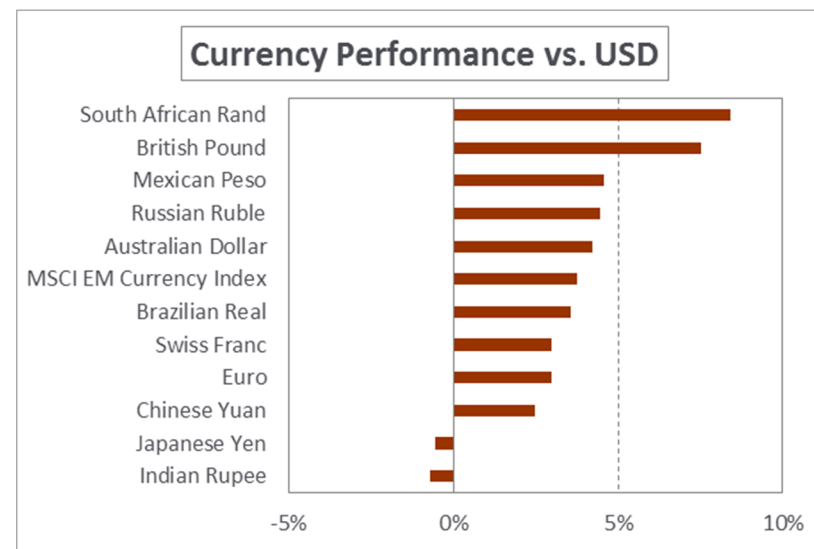
Global government bond yields increased reflecting optimism around trade and expected growth

	Yield 9/30/19	Yield 12/31/19	Δ
US 10-Year	1.68%	1.92%	+0.24%
US 30-Year	2.12%	2.39%	+0.27%
US Real 10-Year	0.15%	0.15%	-
German 10-Year	-0.58%	-0.19%	+0.40%
Japan 10-Year	-0.23%	-0.02%	+0.21%
China 10-Year	3.17%	3.20%	+0.03%
EM Local Debt	5.21%	5.22%	+0.01%

Source: FactSet

Central Banks	Current Rate	CPI YOY	Notes from the Quarter
Federal Reserve	1.50% - 1.75%	2.0%	The Fed cut interest rates by 25 basis points in October and signaled a pause from further rate cuts
European Central Bank	0.00%	1.0%	The ECB maintained its current benchmark interest rates and restarted monthly bond purchases of €20 billion in November
Bank of Japan	-0.10%	0.5%	The BoJ will continue its ultra-easy QE program with inflation remaining well below target

Source: FactSet



Source: FactSet



EQUITY PERFORMANCE OVERVIEW

Q4 Equity Market Summary

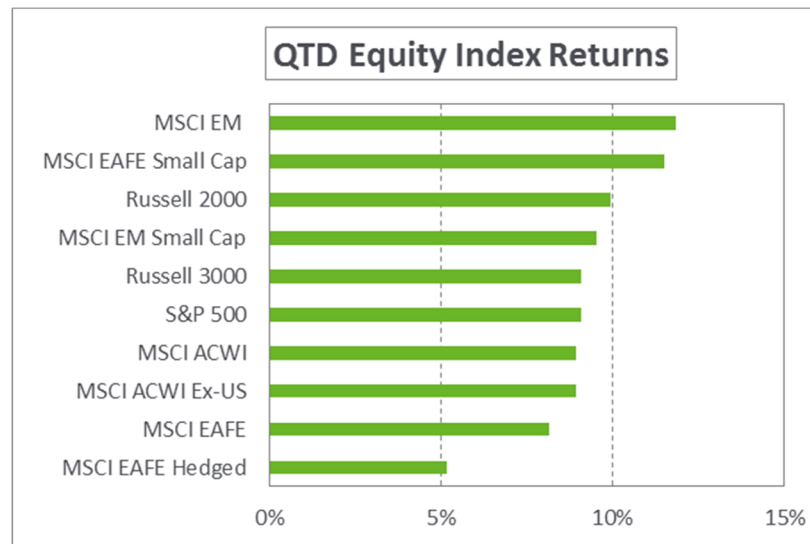
Global equities posted stellar returns in Q4, adding to already sizable year-to-date gains

Dollar weakness provided a boon to international and emerging market returns

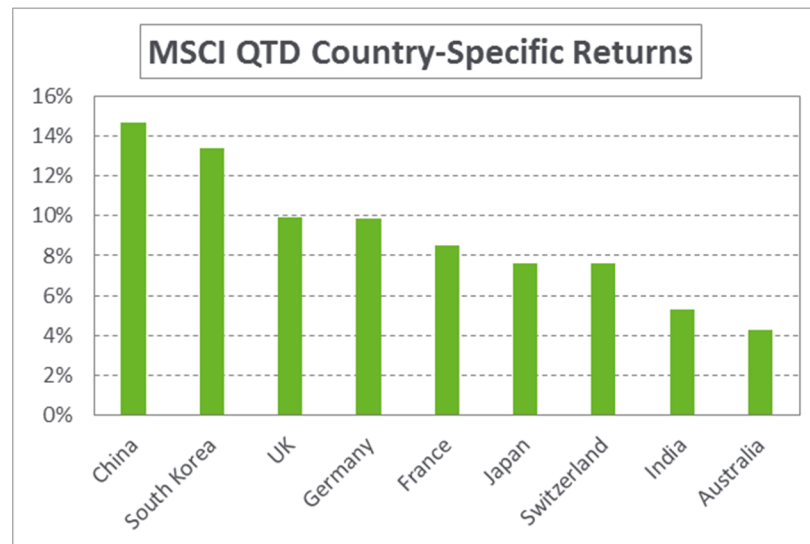
Chinese equities outperformed broad emerging market equities – following news of a potential trade deal between the US and China

Russell 3000 QTD Sector Returns	
Technology	+14.3%
Health Care	+14.9%
Consumer Discretionary	+6.3%
Consumer Staples	+4.7%
Energy	+5.7%
Materials & Processing	+7.0%
Producer Durables	+6.4%
Financial Services	+7.6%
Utilities	+1.5%

Source: FactSet



Source: FactSet



Source: FactSet



CREDIT PERFORMANCE OVERVIEW

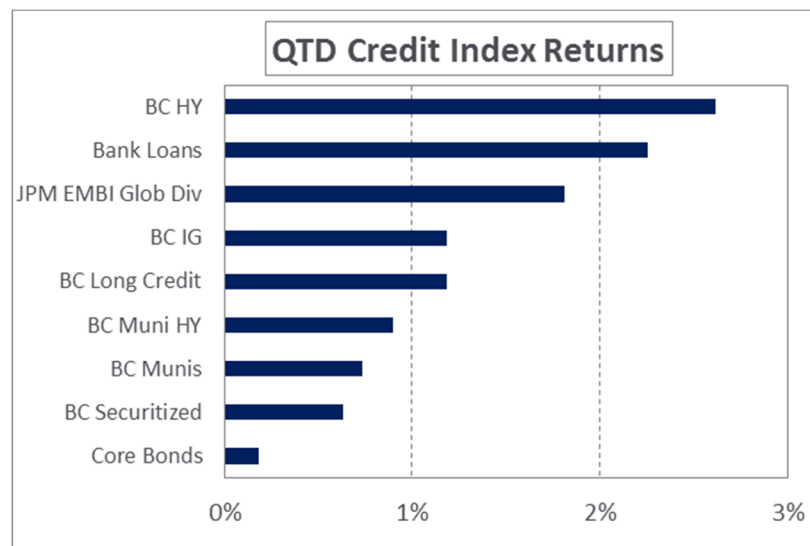
Q4 Credit Market Summary

Return-seeking credit broadly outperformed safe-haven assets with spread tightening reflecting risk on sentiment

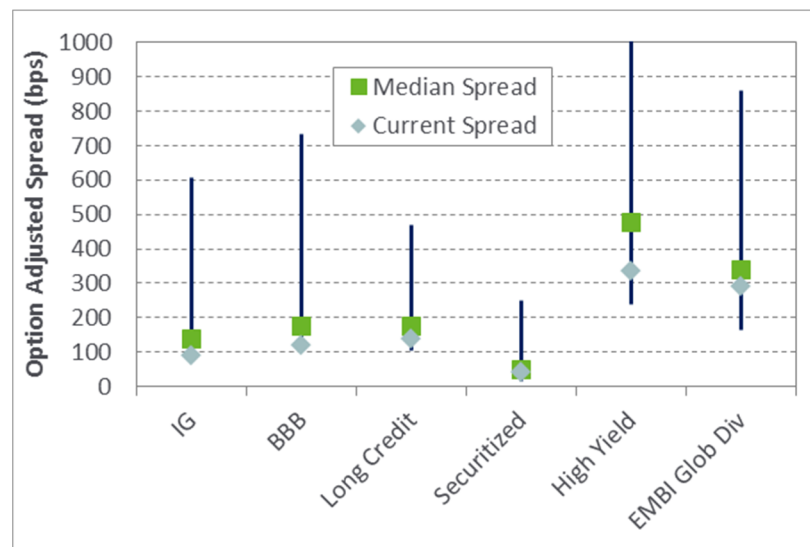
In most areas of credit, spreads moved lower and remain well below long-term median levels

Credit Spread (Basis Points)	9/30/2019	12/31/2019	Δ
BC IG Credit	115	93	-22
BC Long Credit	167	139	-28
BC Securitized	47	42	-5
BC High Yield	373	336	-37
Muni HY	250	226	-24
JPM EMBI	337	291	-46
Bank Loans - Libor	398	372	-25

Source: FactSet



Source: FactSet



Source: FactSet; Ranges calculated since 11/30/2000



REAL ASSETS PERFORMANCE OVERVIEW

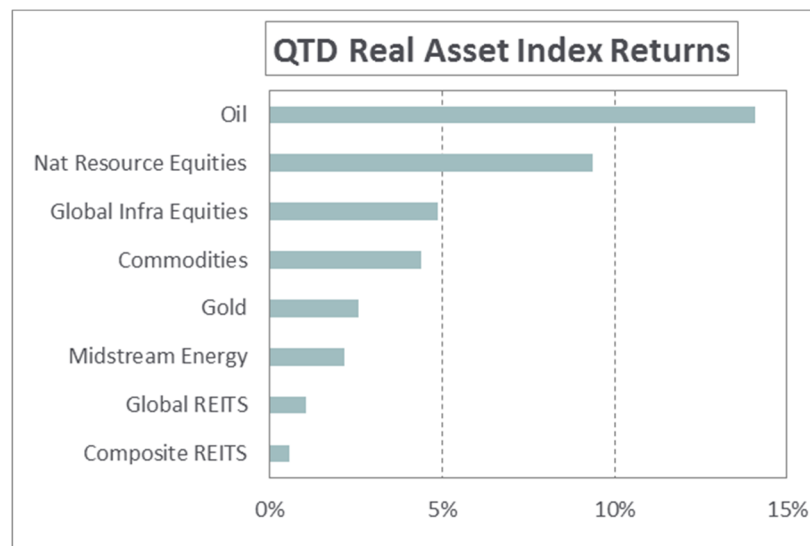
Q4 Real Assets Market Summary

Spot WTI crude oil increased 13.0% as a result of OPEC production cuts and easing US-China trade concerns

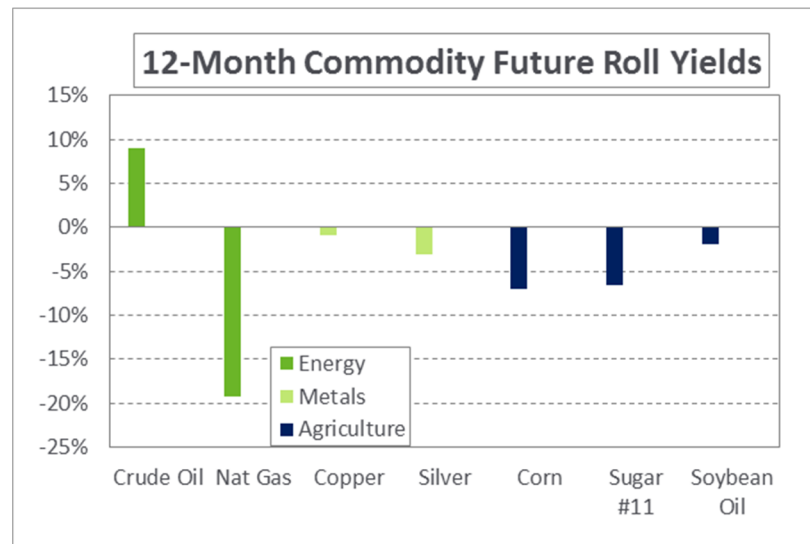
The expectation of modestly higher inflation caused gold and other inflation-sensitive assets to rally

Real Asset Yields	9/30/19	12/31/19
Midstream Energy	6.4%	6.4%
Core Real Estate	4.5%	4.4%
Composite REITs	4.0%	4.1%
Global REITs	4.1%	4.2%
Global Infrastructure Equities	4.2%	4.0%
Natural Resource Equities	4.3%	3.9%
US 10-Year Breakeven Inflation	1.49%	1.77%
Commodity Index Roll Yield	-3.0%	-1.7%
10-Year TIPS Real Yield	0.2%	0.2%

Source: FactSet



Source: FactSet



Source: FactSet

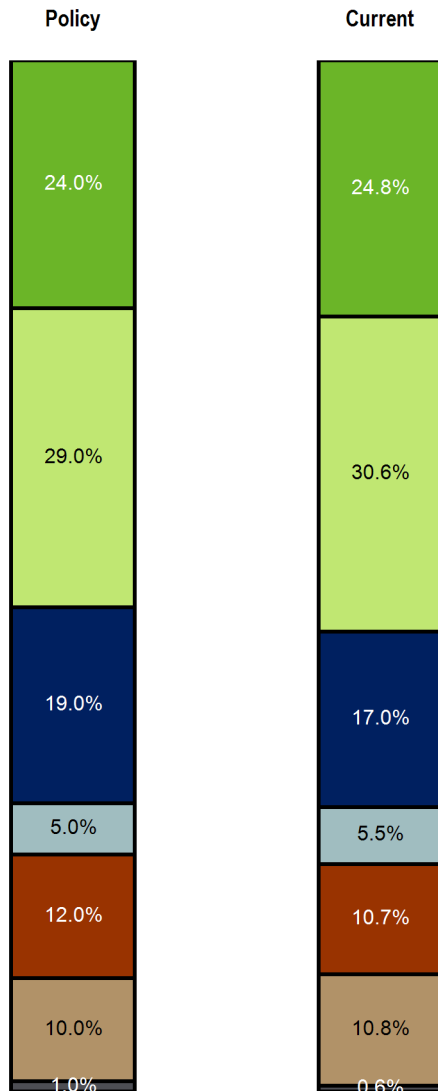


ASSET CLASS POLICY OVERVIEW

NEPC, LLC

Los Angeles City Employees' Retirement System

TOTAL FUND ASSET ALLOCATION VS. POLICY



Asset Allocation vs. Target						
	Current	Policy	Current Difference*	Policy Range	Within Range	
U.S. Equity	\$4,671,501,921	24.00%	24.76%	0.76%	19.00% - 29.00%	Yes
Non-US Equity	\$5,770,746,991	29.00%	30.59%	1.59%	24.00% - 34.00%	Yes
Core Fixed Income	\$3,211,478,959	19.00%	17.02%	-1.98%	15.00% - 22.00%	Yes
Opportunistic Credit	\$1,044,491,951	5.00%	5.54%	0.54%	0.00% - 10.00%	Yes
Private Equity	\$2,021,711,983	12.00%	10.72%	-1.28%		Yes
Real Assets	\$2,040,951,824	10.00%	10.82%	0.82%	7.00% - 13.00%	Yes
Cash	\$106,941,305	1.00%	0.57%	-0.43%	0.00% - 2.00%	Yes
Total	\$18,867,824,935	100.00%	100.00%			

*Difference between Policy and Current Allocation

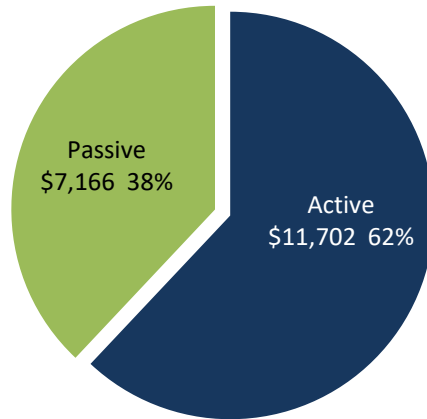
Note: Policy Target Asset Allocation does not reflect the new target asset allocation adopted on April 10, 2018. Implementation of the new asset allocation is currently in progress.



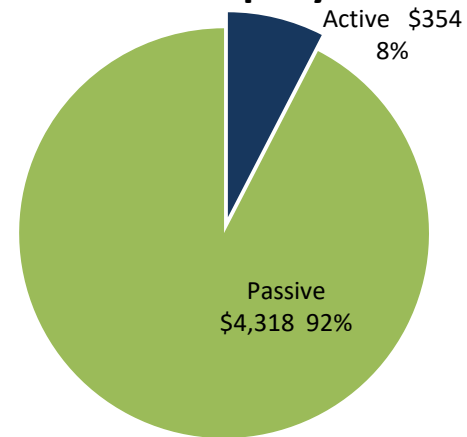
ACTIVE VS. PASSIVE MANAGER BREAKDOWN

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

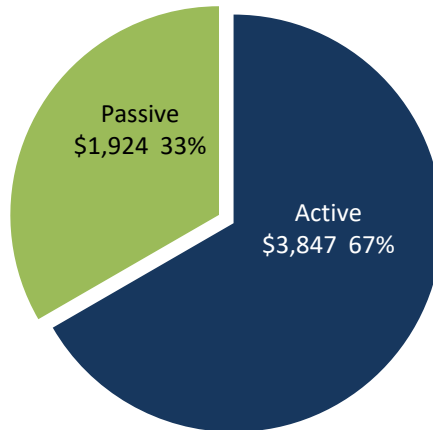
Total Fund



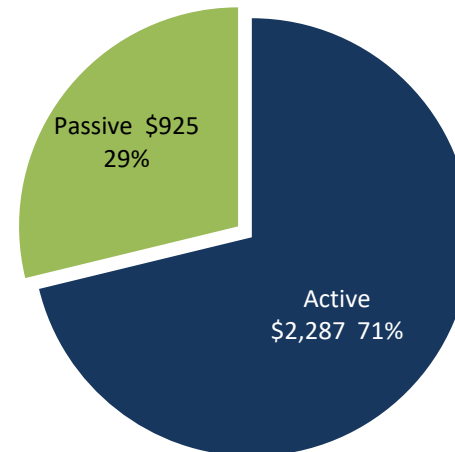
U.S. Equity



Non-U.S. Equity



Core Fixed Income



- Of the Total Fund, LACERS allocated 62% to active managers and 38% to passive managers.

- Credit Opportunities, Private Equity, and Real Assets programs are active and therefore are not shown.



PERFORMANCE OVERVIEW

NEPC, LLC

TOTAL FUND PERFORMANCE SUMMARY (GROSS OF FEES)

	Market Value	3 Mo	Rank	Fiscal YTD	Rank	1 Yr	Rank	3 Yrs	Rank	5 Yrs	Rank	10 Yrs	Rank	15 Yrs	Rank	Inception	Inception Date
LACERS Master Trust	\$18,867,824,935	5.34%	40	5.87%	38	18.08%	28	10.09%	15	7.56%	27	8.97%	19	7.13%	14	8.30%	Oct-94
Policy Index		6.20%	6	6.91%	7	20.88%	9	10.46%	8	7.78%	19	8.92%	20	7.08%	20	8.29%	Oct-94
InvMetrics Public DB \$1-50B Gross Median		5.08%		5.65%		16.86%		9.07%		6.98%		8.10%		6.43%		7.89%	Oct-94

Over the past five years, the Fund returned 7.56% underperforming the policy index by 0.22% and ranked in the 27th percentile in the Public Funds \$1 Billion- \$50 Billion universe. The Fund's volatility was 6.80% and ranked in the 63rd percentile over this period. The Fund's risk-adjusted performance, as measured by the Sharpe Ratio, ranks in the 33rd percentile in its peer group.

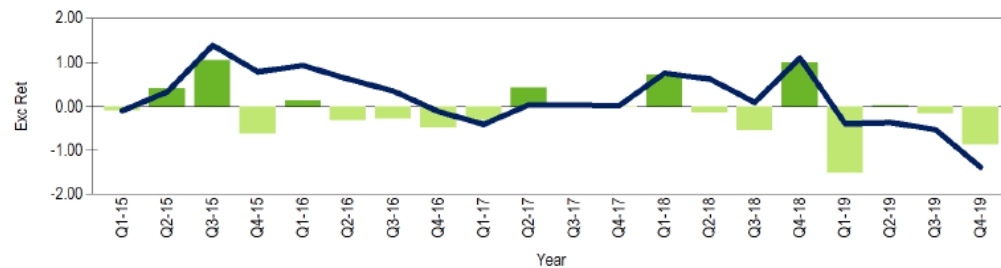
Over the past three years, the Fund returned 10.09% underperforming the policy index by 0.37% and ranked in the 15th percentile in its peer group. The Fund's volatility ranks in the 60th percentile resulting in a three-year Sharpe Ratio of 1.29 and ranked in the 28th percentile.

In the one-year ended December 31, 2019, the Fund experienced a net investment gain of \$2.92 billion, which includes a net investment gain of \$962.74 million during the fourth calendar quarter. Assets increased from \$16.27 billion twelve months ago to \$18.87 billion on December 31, 2019. The Fund returned 18.08%, underperforming the policy index by 2.80% and ranked in the 28th percentile in its peer group.

All asset classes were within policy range as of December 31, 2019.

The InvMetrics Public Funds \$1 Billion- \$50 Billion Universe contains 62 observations for the period ending December 31, 2019.

Quarterly and Cumulative Excess Performance



5 Years Ending December 31, 2019

	Annualized Return (%)	Rank	Annualized Standard Deviation	Rank	Sharpe Ratio	Rank	Sortino Ratio RF	Rank
LACERS Master Trust	7.56%	27	6.80%	63	0.96	33	1.29	29
Policy Index	7.78%	19	7.83%	89	0.86	61	1.16	45
InvMetrics Public DB \$1-50B Gross Median	6.98%	--	6.46%	--	0.89	--	1.12	--

3 Years Ending December 31, 2019

	Annualized Return (%)	Rank	Annualized Standard Deviation	Rank	Sharpe Ratio	Rank	Sortino Ratio RF	Rank
LACERS Master Trust	10.09%	15	6.55%	60	1.29	28	1.38	33
Policy Index	10.46%	8	7.56%	88	1.17	54	1.36	37
InvMetrics Public DB \$1-50B Gross Median	9.07%	--	6.24%	--	1.19	--	1.26	--



Los Angeles City Employees' Retirement System

TOTAL FUND PERFORMANCE DETAIL (GROSS)

	Market Value (\$)	% of Portfolio	3 Mo (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
LACERS Master Trust	18,867,824,935	100.00	5.34	5.87	18.08	10.09	7.56	8.97	8.30	Oct-94
Policy Index			<u>6.20</u>	<u>6.91</u>	<u>20.88</u>	<u>10.46</u>	<u>7.78</u>	<u>8.92</u>	<u>8.29</u>	Oct-94
Over/Under			-0.86	-1.04	-2.80	-0.37	-0.22	0.05	0.01	
U.S. Equity	4,671,501,921	24.76	9.01	10.02	30.73	14.20	11.20	13.41	10.69	Oct-94
U.S. Equity Blend			<u>9.10</u>	<u>10.37</u>	<u>31.02</u>	<u>14.57</u>	<u>11.24</u>	<u>13.42</u>	<u>9.65</u>	Oct-94
Over/Under			-0.09	-0.35	-0.29	-0.37	-0.04	-0.01	1.04	
Non-U.S. Equity	5,770,746,991	30.59	9.55	7.39	22.55	11.08	6.80	6.25	5.42	Nov-94
MSCI ACWI ex USA			<u>8.92</u>	<u>6.96</u>	<u>21.51</u>	<u>9.87</u>	<u>5.51</u>	<u>4.97</u>	<u>5.23</u>	Nov-94
Over/Under			0.63	0.43	1.04	1.21	1.29	1.28	0.19	
Core Fixed Income	3,211,478,959	17.02	0.29	2.46	9.09	4.22	3.36		3.49	Jul-12
Core Fixed Income Blend			<u>0.18</u>	<u>2.45</u>	<u>8.72</u>	<u>4.03</u>	<u>3.05</u>		<u>2.90</u>	Jul-12
Over/Under			0.11	0.01	0.37	0.19	0.31		0.59	
Credit Opportunities	1,044,491,951	5.54	2.19	3.72	14.20	6.92	5.86		5.97	Jun-13
Credit Opportunities Blend			<u>2.33</u>	<u>3.76</u>	<u>14.58</u>	<u>6.50</u>	<u>6.20</u>		<u>6.16</u>	Jun-13
Over/Under			-0.14	-0.04	-0.38	0.42	-0.34		-0.19	
Real Assets	2,040,951,824	10.82	1.49	2.68	8.80	5.76	6.12	6.99	6.32	Nov-94
CPI + 5% (Unadjusted)			<u>1.31</u>	<u>2.80</u>	<u>7.39</u>	<u>7.20</u>	<u>6.90</u>	<u>6.83</u>	<u>7.28</u>	Nov-94
Over/Under			0.18	-0.12	1.41	-1.44	-0.78	0.16	-0.96	
Public Real Assets	1,213,466,379	6.43	1.41	2.99	11.58	3.86	2.97		2.17	Jun-14
Public Real Assets Blend			<u>1.02</u>	<u>1.74</u>	<u>10.23</u>	<u>2.53</u>	<u>1.14</u>		<u>-0.10</u>	Jun-14
Over/Under			0.39	1.25	1.35	1.33	1.83		2.27	
Private Real Estate	809,255,880	4.29	1.64	2.33	5.67	7.61	8.81	8.47	6.89	Oct-94
Real Estate Blend			<u>1.71</u>	<u>3.25</u>	<u>6.18</u>	<u>7.95</u>	<u>9.84</u>	<u>11.31</u>	<u>9.80</u>	Oct-94
Over/Under			-0.07	-0.92	-0.51	-0.34	-1.03	-2.84	-2.91	
Private Equity	2,021,711,983	10.72	0.00	2.40	6.28	12.72	10.42	12.70	10.41	Nov-95
Private Equity Blend			<u>9.88</u>	<u>11.98</u>	<u>34.86</u>	<u>17.97</u>	<u>14.55</u>	<u>17.06</u>	<u>13.27</u>	Nov-95
Over/Under			-9.88	-9.58	-28.58	-5.25	-4.13	-4.36	-2.86	
Cash	106,941,305	0.57								



Los Angeles City Employees' Retirement System

TOTAL FUND PERFORMANCE DETAIL (NET)

	Market Value (\$)	% of Portfolio	3 Mo (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
LACERS Master Trust	18,867,824,935	100.00	5.29	5.78	17.88	9.89	7.37	8.77		Oct-94
Policy Index			6.20	6.91	20.88	10.46	7.78	8.92		Oct-94
Over/Under			-0.91	-1.13	-3.00	-0.57	-0.41	-0.15		
U.S. Equity	4,671,501,921	24.76	9.00	9.99	30.65	14.13	11.11	13.25		Oct-94
U.S. Equity Blend			9.10	10.37	31.02	14.57	11.24	13.42		Oct-94
Over/Under			-0.10	-0.38	-0.37	-0.44	-0.13	-0.17		
Non-U.S. Equity	5,770,746,991	30.59	9.46	7.19	22.11	10.67	6.42	5.89		Nov-94
MSCI ACWI ex USA			8.92	6.96	21.51	9.87	5.51	4.97		Nov-94
Over/Under			0.54	0.23	0.60	0.80	0.91	0.92		
Core Fixed Income	3,211,478,959	17.02	0.27	2.41	8.98	4.12	3.26		3.37	Jul-12
Core Fixed Income Blend			0.18	2.45	8.72	4.03	3.05		2.90	Jul-12
Over/Under			0.09	-0.04	0.26	0.09	0.21		0.47	
Credit Opportunities	1,044,491,951	5.54	2.12	3.57	13.86	6.57	5.50		5.62	Jun-13
Credit Opportunities Blend			2.33	3.76	14.58	6.50	6.20		6.16	Jun-13
Over/Under			-0.21	-0.19	-0.72	0.07	-0.70		-0.54	
Real Assets	2,040,951,824	10.82	1.45	2.60	8.63	5.60	5.96	6.84		Nov-94
CPI + 5% (Unadjusted)			1.31	2.80	7.39	7.20	6.90	6.83		Nov-94
Over/Under			0.14	-0.20	1.24	-1.60	-0.94	0.01		
Public Real Assets	1,213,466,379	6.43	1.36	2.89	11.36	3.61	2.74		1.96	Jun-14
Public Real Assets Blend			1.02	1.74	10.23	2.53	1.14		-0.10	Jun-14
Over/Under			0.34	1.15	1.13	1.08	1.60		2.06	
Private Real Estate	809,255,880	4.29	1.62	2.29	5.57	7.53	8.72	8.35		Oct-94
Real Estate Blend			1.71	3.25	6.18	7.95	9.84	11.31		Oct-94
Over/Under			-0.09	-0.96	-0.61	-0.42	-1.12	-2.96		
Private Equity	2,021,711,983	10.72	0.00	2.40	6.29	12.73	10.44	12.71		Nov-95
Private Equity Blend			9.88	11.98	34.86	17.97	14.55	17.06		Nov-95
Over/Under			-9.88	-9.58	-28.57	-5.24	-4.11	-4.35		
Cash	106,941,305	0.57								



Los Angeles City Employees' Retirement System

TOTAL FUND RISK STATISTICS (NET)

3 Years Ending December 31, 2019													
	% of Total MV (%)	Annualized Return (%)	Rank	Annualized Standard Deviation	Rank	Annualized Alpha Jensen (%)	Rank	Information Ratio	Rank	Sortino Ratio RF	Rank	Tracking Error	Rank
LACERS Master Trust	100.00%	9.89%	25	6.56%	60	0.64%	39	-0.44	--	1.35	40	1.28%	72
Total Equity	55.34%	12.22%	32	11.52%	70	0.13%	27	0.20	22	1.00	48	0.67%	16
U.S. Equity	24.76%	14.13%	40	12.50%	46	-0.56%	32	-0.80	--	0.99	35	0.55%	3
Non-U.S. Equity	30.59%	10.67%	31	11.68%	65	0.71%	35	0.82	10	1.07	37	0.98%	12
Developed ex-U.S.	23.13%	10.55%	51	11.29%	54	0.81%	44	0.69	38	1.00	69	1.42%	19
Emerging Markets	7.46%	10.91%	27	14.27%	83	-0.55%	34	-0.53	--	1.06	32	1.25%	1
Core Fixed Income	17.02%	4.12%	71	2.75%	74	0.24%	79	0.25	39	1.86	69	0.36%	16
Credit Opportunities	5.54%	6.57%	--	3.76%	--	0.42%	--	0.10	--	3.18	--	0.80%	--
Real Assets	10.82%	5.60%	--	2.19%	--	2.05%	--	-0.71	--	3.26	--	2.24%	--
Public Real Assets	6.43%	3.61%	--	3.90%	--	1.26%	--	0.62	--	0.95	--	1.74%	--
Private Real Estate	4.29%	7.53%	25	1.78%	47	8.02%	1	-0.10	--	2.53	76	4.21%	97
Private Equity	10.72%	12.73%	58	4.62%	18	13.16%	19	-0.36	--	10.70	58	14.61%	94

5 Years Ending December 31, 2019													
	% of Total MV (%)	Annualized Return (%)	Rank	Annualized Standard Deviation	Rank	Annualized Alpha Jensen (%)	Rank	Information Ratio	Rank	Sortino Ratio RF	Rank	Tracking Error	Rank
LACERS Master Trust	100.00%	7.37%	30	6.81%	63	0.50%	42	-0.33	--	1.24	34	1.24%	65
Total Equity	55.34%	8.55%	37	11.80%	70	0.23%	32	0.34	11	0.83	37	0.61%	6
U.S. Equity	24.76%	11.11%	29	12.36%	43	-0.22%	21	-0.21	--	1.01	24	0.62%	3
Non-U.S. Equity	30.59%	6.42%	49	12.39%	67	0.98%	32	0.84	1	0.69	30	1.09%	7
Developed ex-U.S.	23.13%	6.45%	69	12.05%	33	0.88%	57	0.51	38	0.68	63	1.53%	19
Emerging Markets	7.46%	5.11%	17	15.94%	93	-0.53%	42	-0.43	--	0.46	17	1.17%	1
Core Fixed Income	17.02%	3.26%	64	2.91%	61	0.34%	65	0.43	46	1.29	67	0.49%	21
Real Assets	10.82%	5.96%	--	2.31%	--	2.02%	--	-0.41	--	4.84	--	2.31%	--
Private Real Estate	4.29%	8.72%	38	1.88%	25	9.51%	1	-0.22	--	3.29	82	5.01%	95
Private Equity	10.72%	10.44%	73	4.17%	13	10.41%	27	-0.30	--	9.24	49	13.78%	80

Sortino Ratio RF = Sortino Ratio Risk Free. The risk free rate is the Citi 91 Day T-Bill Index.



PRIVATE MARKETS PERFORMANCE AS OF SEPTEMBER 30, 2019

Private Equity	10 Year IRR	Since Inception IRR	Since Inception Multiple
Aggregate Portfolio	12.8%	11.1%	1.55x
Core Portfolio	13.5%	11.7%	1.57x
Specialized Portfolio	4.8%	2.0%	1.13x
Russell 3000 + 300 bps	16.1%	13.9%	N/A

Real Estate	10 Year Return (Net)	Since Inception Return (Net)
Total Portfolio (TWR) ¹	7.97%	5.97%
NFI-ODCE + 80 basis points (TWR)	9.72%	7.10%

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.

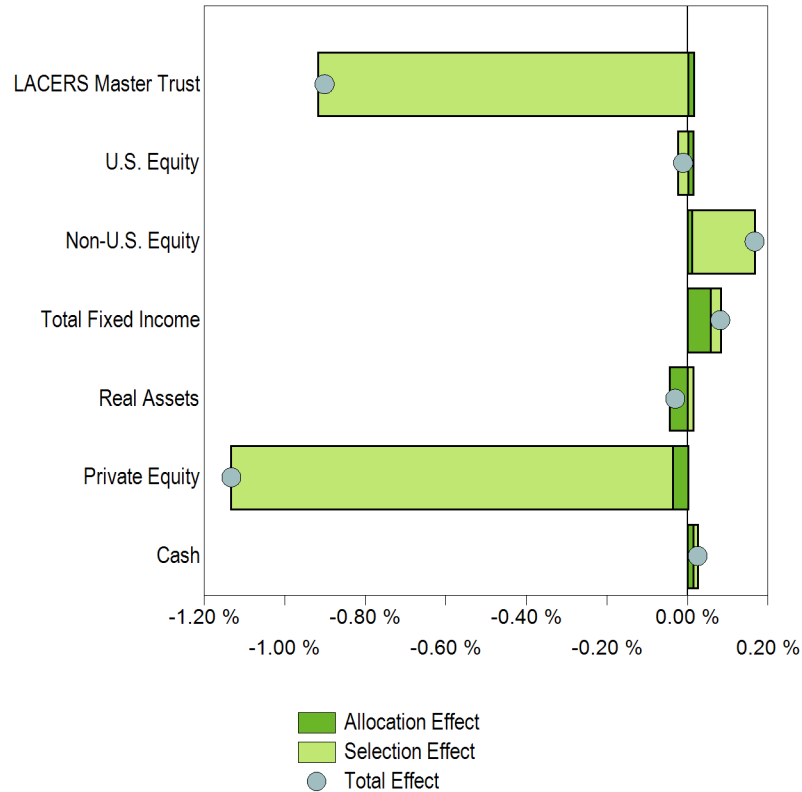
1 - IRR is not available for the Real Estate portfolio and therefore only time weighted returns (TWR) are reported.



Los Angeles City Employees' Retirement System

TOTAL FUND ATTRIBUTION ANALYSIS (NET)

Attribution Effects 3 Months Ending December 31, 2019



Attribution Summary 3 Months Ending December 31, 2019							
	Policy Weight	Wtd. Actual Return	Wtd. Index Return	Excess Return	Selection Effect	Allocation Effect	Total Effects
U.S. Equity	24.00%	9.00%	9.10%	-0.10%	-0.02%	0.01%	-0.01%
Non-U.S. Equity	29.00%	9.46%	8.92%	0.54%	0.15%	0.01%	0.17%
Total Fixed Income	24.00%	0.73%	0.63%	0.10%	0.02%	0.06%	0.08%
Real Assets	10.00%	1.45%	1.31%	0.14%	0.01%	-0.04%	-0.03%
Private Equity	12.00%	0.00%	9.88%	-9.88%	-1.10%	-0.04%	-1.13%
Cash	1.00%	1.76%	0.39%	1.37%	0.01%	0.02%	0.03%
Total	100.00%	5.30%	6.20%	-0.90%	-0.92%	0.02%	-0.90%

Wtd. = Weighted

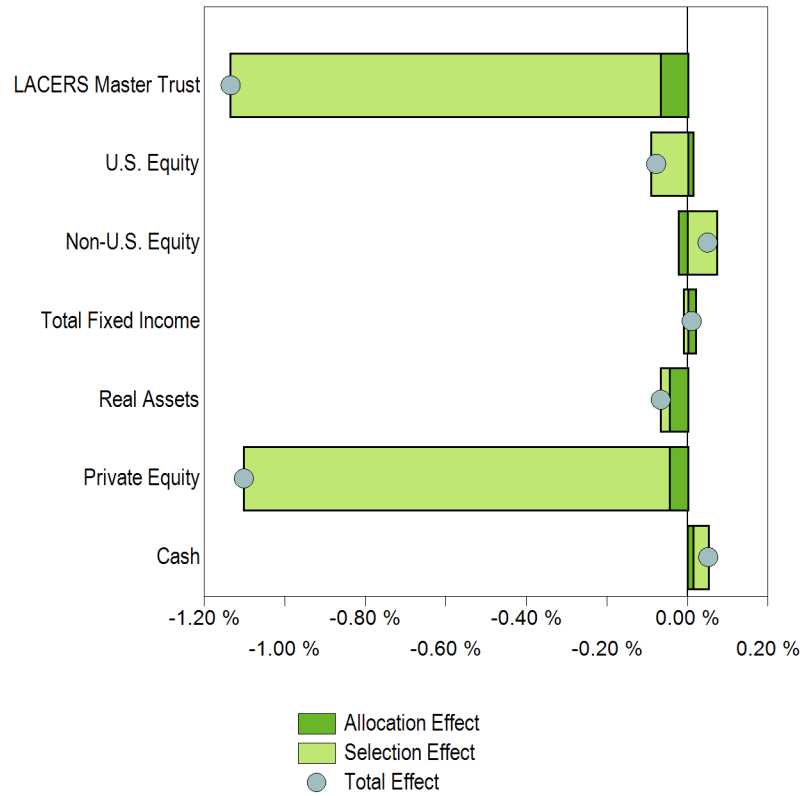
Note: Policy Target Asset Allocation does not reflect the new target asset allocation adopted on April 10, 2018. Implementation of the new asset allocation is currently in progress.



Los Angeles City Employees' Retirement System

TOTAL FUND ATTRIBUTION ANALYSIS (NET)

Attribution Effects FYTD Ending December 31, 2019



Attribution Summary FYTD Ending December 31, 2019							
	Policy Weight	Wtd. Actual Return	Wtd. Index Return	Excess Return	Selection Effect	Allocation Effect	Total Effects
U.S. Equity	24.00%	9.99%	10.37%	-0.37%	-0.09%	0.01%	-0.08%
Non-U.S. Equity	29.00%	7.19%	6.96%	0.23%	0.07%	-0.02%	0.05%
Total Fixed Income	24.00%	2.69%	2.73%	-0.04%	-0.01%	0.02%	0.01%
Real Assets	10.00%	2.60%	2.80%	-0.20%	-0.02%	-0.05%	-0.07%
Private Equity	12.00%	2.40%	11.98%	-9.58%	-1.06%	-0.05%	-1.10%
Cash	1.00%	4.86%	0.89%	3.97%	0.04%	0.01%	0.05%
Total	100.00%	5.77%	6.91%	-1.13%	-1.07%	-0.07%	-1.13%

Wtd. = Weighted

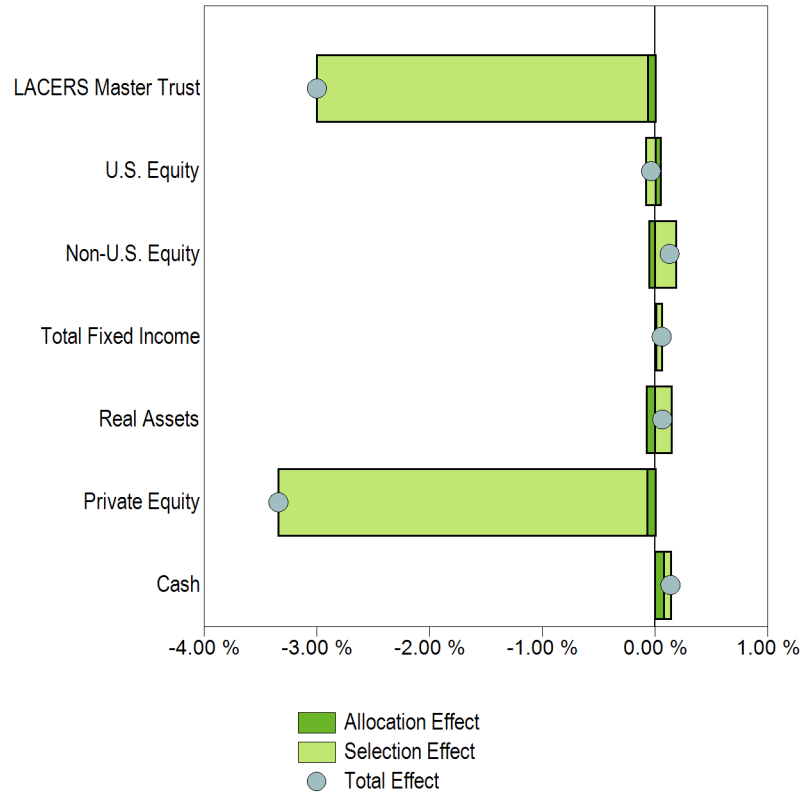
Note: Policy Target Asset Allocation does not reflect the new target asset allocation adopted on April 10, 2018. Implementation of the new asset allocation is currently in progress.



Los Angeles City Employees' Retirement System

TOTAL FUND ATTRIBUTION ANALYSIS (NET)

Attribution Effects 1 Year Ending December 31, 2019



Attribution Summary 1 Year Ending December 31, 2019							
	Policy Weight	Wtd. Actual Return	Wtd. Index Return	Excess Return	Selection Effect	Allocation Effect	Total Effects
U.S. Equity	24.00%	30.65%	31.02%	-0.37%	-0.08%	0.04%	-0.04%
Non-U.S. Equity	29.00%	22.11%	21.51%	0.59%	0.18%	-0.05%	0.13%
Total Fixed Income	24.00%	10.13%	9.94%	0.19%	0.04%	0.01%	0.06%
Real Assets	10.00%	8.63%	7.39%	1.24%	0.14%	-0.08%	0.06%
Private Equity	12.00%	6.29%	34.86%	-28.57%	-3.27%	-0.08%	-3.34%
Cash	1.00%	9.20%	2.07%	7.13%	0.06%	0.08%	0.14%
Total	100.00%	17.88%	20.88%	-3.00%	-2.93%	-0.07%	-3.00%

Wtd. = Weighted

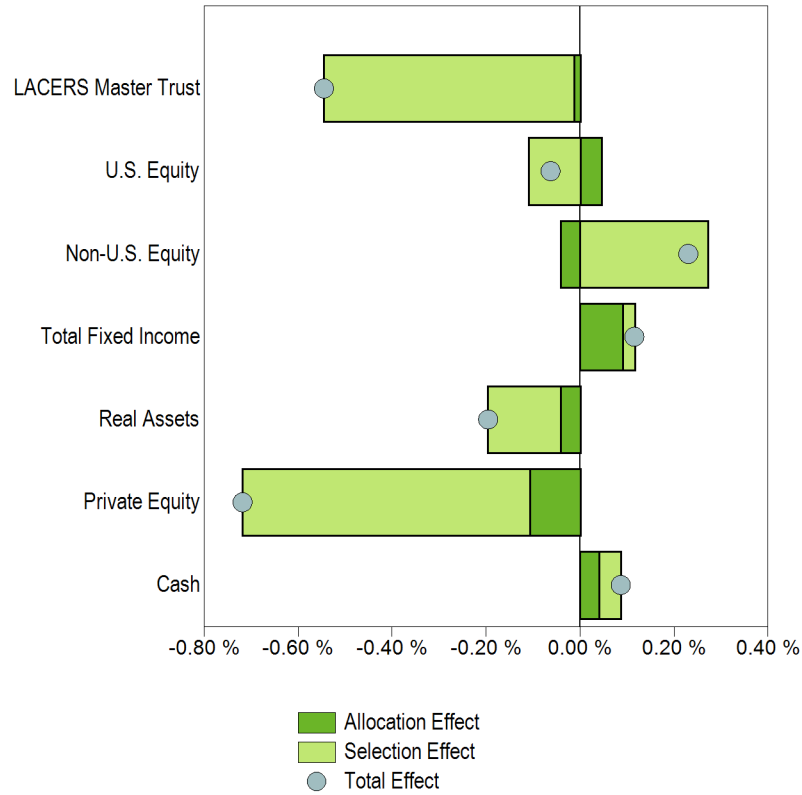
Note: Policy Target Asset Allocation does not reflect the new target asset allocation adopted on April 10, 2018. Implementation of the new asset allocation is currently in progress.



Los Angeles City Employees' Retirement System

TOTAL FUND ATTRIBUTION ANALYSIS (NET)

Attribution Effects 3 Years Ending December 31, 2019



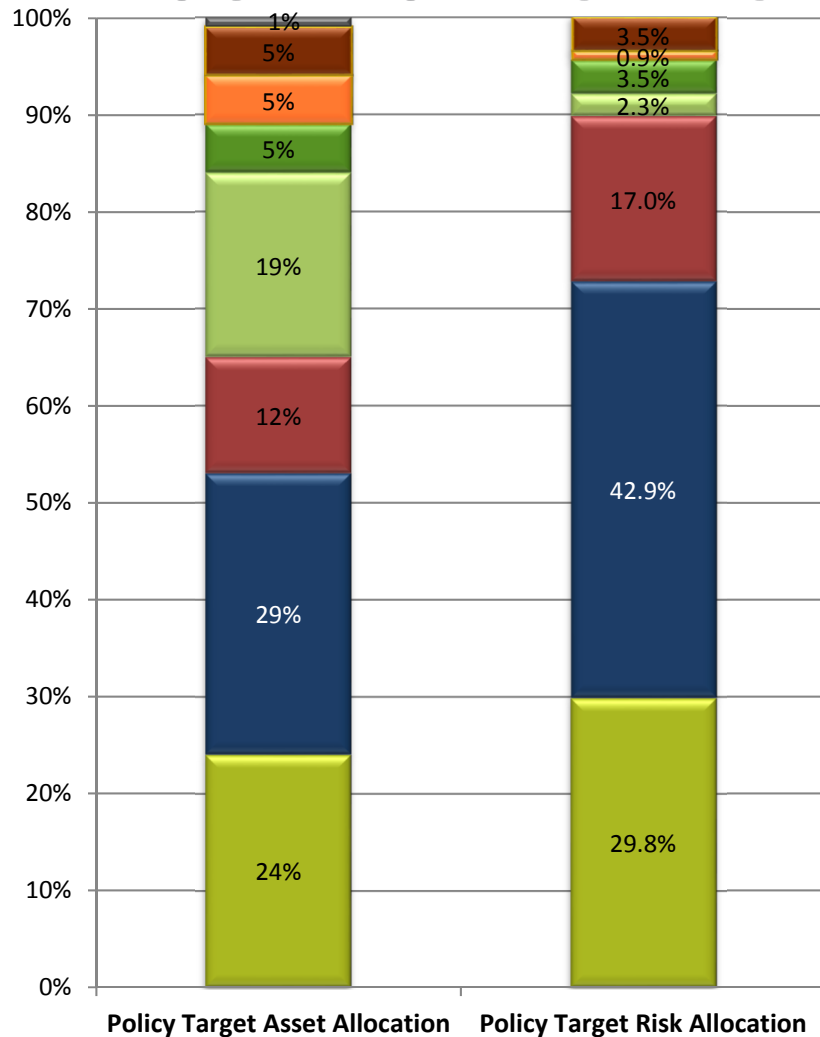
Attribution Summary 3 Years Ending December 31, 2019							
	Policy Weight	Wtd. Actual Return	Wtd. Index Return	Excess Return	Selection Effect	Allocation Effect	Total Effects
U.S. Equity	24.00%	14.13%	14.57%	-0.44%	-0.11%	0.05%	-0.06%
Non-U.S. Equity	29.00%	10.67%	9.87%	0.81%	0.27%	-0.04%	0.23%
Total Fixed Income	24.00%	4.67%	4.55%	0.12%	0.02%	0.09%	0.12%
Real Assets	10.00%	5.60%	7.20%	-1.60%	-0.15%	-0.04%	-0.20%
Private Equity	12.00%	12.73%	17.97%	-5.24%	-0.61%	-0.11%	-0.72%
Cash	1.00%	8.33%	1.64%	6.68%	0.05%	0.04%	0.09%
Total	100.00%	9.92%	10.46%	-0.55%	-0.53%	-0.01%	-0.55%

Wtd. = Weighted

Note: Policy Target Asset Allocation does not reflect the new target asset allocation adopted on April 10, 2018. Implementation of the new asset allocation is currently in progress.



TOTAL FUND RISK ALLOCATION – ASSET ALLOCATION VS. RISK ALLOCATION



- Cash
- Private Real Estate
- Public Real Assets
- Credit Opportunities
- Core Fixed Income
- Private Equity
- Non-U.S. Equity
- U.S. Equity

- Public and Private Equity policy target asset allocation is 65%; accounts for 89.7% of the policy target portfolio risk.
- Core Fixed Income and Credit Opportunities policy allocation is 24%, accounting for 5.8% of the policy target portfolio risk.
- Real Assets (Private Real Estate and Public Real Assets) policy allocation is 10%, accounting for 4.4% of policy target portfolio risk.

Note: Policy Target Asset Allocation does not reflect the new target asset allocation adopted on April 10, 2018. Implementation of the new asset allocation is currently in progress.



PUBLIC MARKETS RISK BUDGET COMPARISON AS OF DECEMBER 31, 2019

Public Markets Asset Class	Target Risk Budget	Actual 3 Yr Tracking Error
U.S. Equity	0.50%	0.55%
Non-U.S. Equity	1.20%	0.98%
Core Fixed Income	1.00%	0.36%
Credit Opportunities	1.50%	0.80%
Public Real Assets*	3.00%	1.74%

- Current public market asset class composite tracking error statistics are compared to asset class target risk budgets to ensure active risks are within expectations.
- Risk budgets are to be evaluated over three-year periods, at minimum, to reflect a full market cycle.
- All equity public markets asset classes are within an appropriately narrow range of their respective risk budgets.
- Both Core Fixed Income and Credit Opportunities have exhibited lower than expected active risk.
- The Public Real Assets composite is not at its target strategy allocation.
- Note: A new Target Risk Budget was approved by the Board on August 14, 2018, and is not reflected in the table above. Implementation of the new asset allocation is in progress.

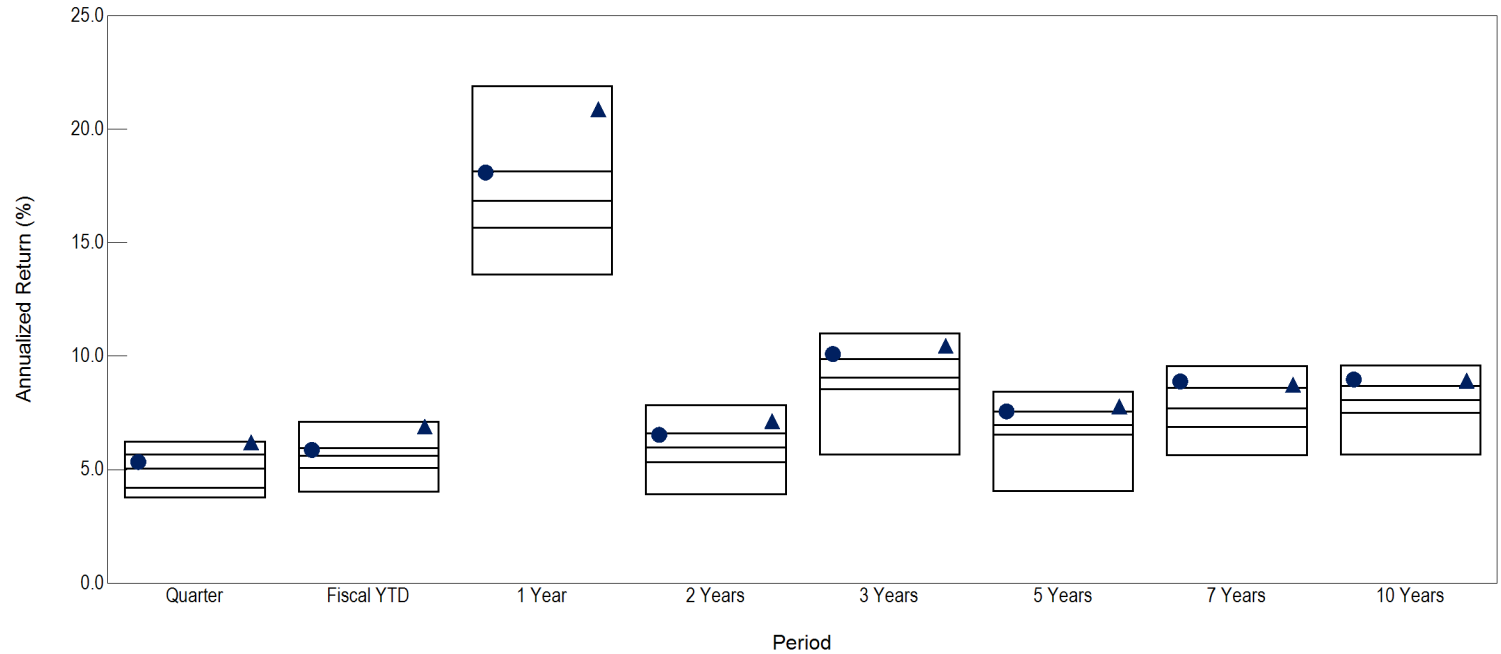
* The benchmark for the Public Real Assets composite is a custom policy benchmark that is comprised of the target weights of the public real asset components. The public real asset benchmark weights are 60% TIPS, 20% Commodities, 10% REITs, and 10% MLPs.



Los Angeles City Employees' Retirement System

TOTAL FUND RETURN SUMMARY VS. PEER UNIVERSE

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

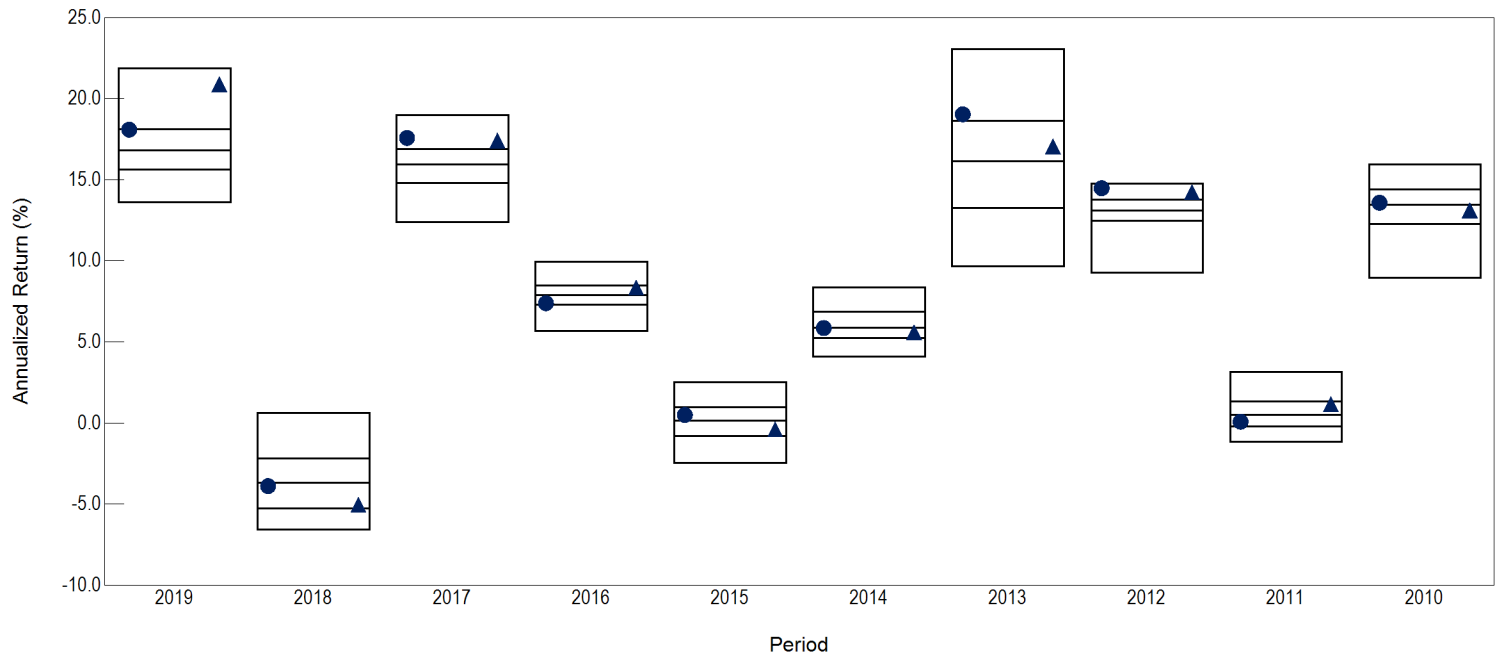


	Return (Rank)															
5th Percentile	6.24	7.10	21.88	7.83	10.99	8.42	9.56	9.60								
25th Percentile	5.69	5.97	18.16	6.61	9.89	7.57	8.62	8.71								
Median	5.08	5.65	16.86	5.99	9.07	6.98	7.73	8.10								
75th Percentile	4.23	5.09	15.68	5.35	8.56	6.56	6.90	7.53								
95th Percentile	3.79	4.05	13.63	3.96	5.69	4.08	5.67	5.69								
# of Portfolios	62	62	62	62	62	61	58	54								
● LACERS Master Trust	5.34	(40)	5.87	(38)	18.08	(28)	6.53	(30)	10.09	(15)	7.56	(27)	8.88	(18)	8.97	(19)
▲ Policy Index	6.20	(6)	6.91	(7)	20.88	(9)	7.14	(17)	10.46	(8)	7.78	(19)	8.74	(23)	8.92	(20)



TOTAL FUND RETURN SUMMARY VS. PEER UNIVERSE

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



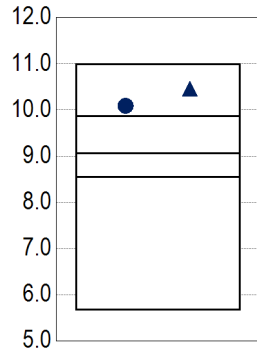
	Return (Rank)																			
5th Percentile	21.88	0.60	19.00	9.95	2.50	8.38	23.05	14.75	3.13	15.93										
25th Percentile	18.16	-2.13	16.94	8.51	1.00	6.90	18.67	13.81	1.37	14.45										
Median	16.86	-3.64	15.99	7.91	0.20	5.93	16.17	13.15	0.53	13.49										
75th Percentile	15.68	-5.22	14.83	7.34	-0.77	5.28	13.30	12.50	-0.16	12.30										
95th Percentile	13.63	-6.53	12.43	5.71	-2.43	4.12	9.70	9.31	-1.14	8.98										
# of Portfolios	62	78	78	78	77	77	76	75	74	71										
● LACERS Master Trust	18.08	(28)	-3.89	(60)	17.57	(15)	7.38	(72)	0.49	(35)	5.85	(53)	19.03	(23)	14.47	(10)	0.08	(68)	13.58	(49)
▲ Policy Index	20.88	(9)	-5.04	(71)	17.41	(16)	8.35	(35)	-0.39	(68)	5.58	(61)	17.06	(35)	14.23	(18)	1.17	(32)	13.11	(55)



TOTAL FUND RISK STATISTICS VS. PEER UNIVERSE

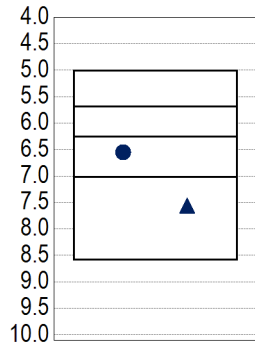
LACERS Master Trust vs. InvMetrics Public DB \$1-50B Gross 3 Years

Annualized Return (%)	Annualized Standard Deviation	Annualized Alpha (%)	Sharpe Ratio	Sortino Ratio Risk Free	Tracking Error
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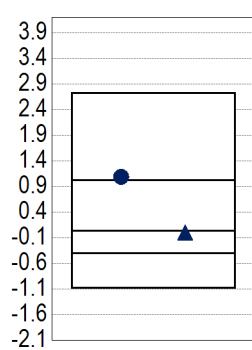
● LACERS Master Trust	Value	10.09
	Rank	15
▲ Policy Index	Value	10.46
	Rank	8

Universe	
5th %tile	10.99
25th %tile	9.89
Median	9.07
75th %tile	8.56
95th %tile	5.69



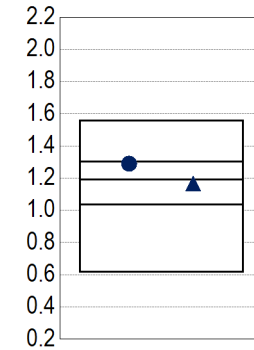
● LACERS Master Trust	Value	6.55
	Rank	60
▲ Policy Index	Value	7.56
	Rank	88

Universe	
5th %tile	5.00
25th %tile	5.67
Median	6.24
75th %tile	7.00
95th %tile	8.57



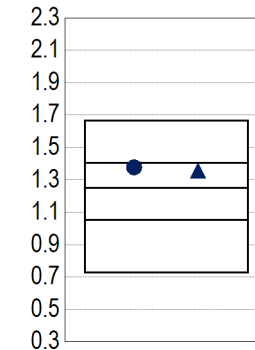
● LACERS Master Trust	Value	1.09
	Rank	22
▲ Policy Index	Value	0.00
	Rank	53

Universe	
5th %tile	2.72
25th %tile	1.03
Median	0.04
75th %tile	-0.39
95th %tile	-1.07



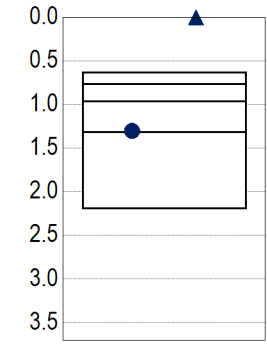
● LACERS Master Trust	Value	1.29
	Rank	28
▲ Policy Index	Value	1.17
	Rank	54

Universe	
5th %tile	1.56
25th %tile	1.31
Median	1.19
75th %tile	1.04
95th %tile	0.62



● LACERS Master Trust	Value	1.38
	Rank	33
▲ Policy Index	Value	1.36
	Rank	37

Universe	
5th %tile	1.67
25th %tile	1.41
Median	1.26
75th %tile	1.06
95th %tile	0.73



● LACERS Master Trust	Value	1.30
	Rank	74
▲ Policy Index	Value	0.00
	Rank	1

Universe	
5th %tile	0.63
25th %tile	0.75
Median	0.95
75th %tile	1.31
95th %tile	2.18

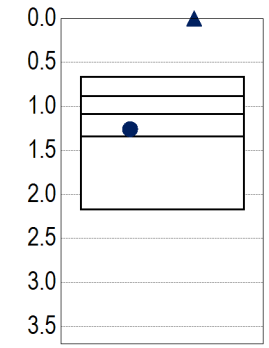
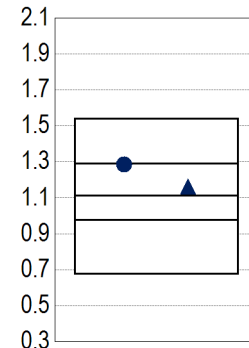
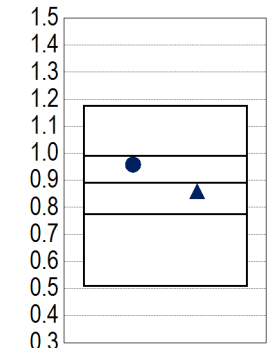
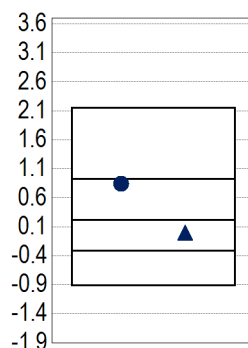
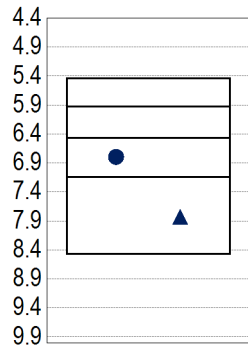
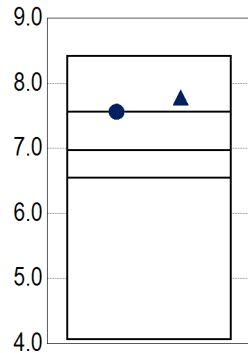
Sortino Ratio RF = Sortino Ratio Risk Free. The risk free rate is the Citi 91 Day T-Bill Index.



TOTAL FUND RISK STATISTICS VS. PEER UNIVERSE

LACERS Master Trust vs. InvMetrics Public DB \$1-50B Gross 5 Years

Annualized Return (%)	Annualized Standard Deviation	Annualized Alpha (%)	Sharpe Ratio	Sortino Ratio Risk Free	Tracking Error
-----------------------	-------------------------------	----------------------	--------------	-------------------------	----------------



● LACERS Master Trust
Value 7.56
Rank 27
▲ Policy Index
Value 7.78
Rank 19

● LACERS Master Trust
Value 6.80
Rank 63
▲ Policy Index
Value 7.83
Rank 89

● LACERS Master Trust
Value 0.84
Rank 29
▲ Policy Index
Value 0.00
Rank 59

● LACERS Master Trust
Value 0.96
Rank 33
▲ Policy Index
Value 0.86
Rank 61

● LACERS Master Trust
Value 1.29
Rank 29
▲ Policy Index
Value 1.16
Rank 45

● LACERS Master Trust
Value 1.26
Rank 72
▲ Policy Index
Value 0.00
Rank 1

Universe
5th %tile 8.42
25th %tile 7.57
Median 6.98
75th %tile 6.56
95th %tile 4.08

Universe
5th %tile 5.44
25th %tile 5.91
Median 6.46
75th %tile 7.13
95th %tile 8.46

Universe
5th %tile 2.15
25th %tile 0.93
Median 0.23
75th %tile -0.30
95th %tile -0.90

Universe
5th %tile 1.17
25th %tile 0.99
Median 0.89
75th %tile 0.78
95th %tile 0.51

Universe
5th %tile 1.54
25th %tile 1.29
Median 1.12
75th %tile 0.98
95th %tile 0.68

Universe
5th %tile 0.66
25th %tile 0.88
Median 1.08
75th %tile 1.33
95th %tile 2.17

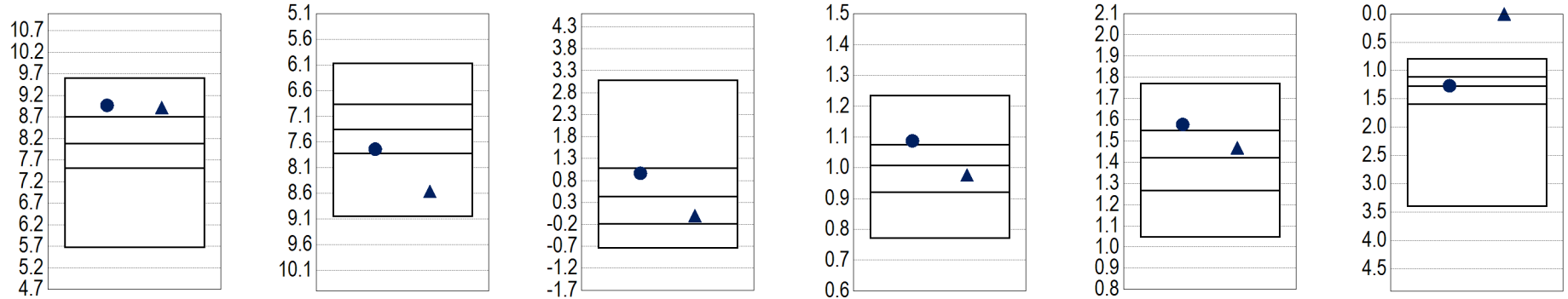
Sortino Ratio RF = Sortino Ratio Risk Free. The risk free rate is the Citi 91 Day T-Bill Index.



TOTAL FUND RISK STATISTICS VS. PEER UNIVERSE

LACERS Master Trust vs. InvMetrics Public DB \$1-50B Gross 10 Years

Annualized Return (%)	Annualized Standard Deviation	Annualized Alpha (%)	Sharpe Ratio	Sortino Ratio Risk Free	Tracking Error
-----------------------	-------------------------------	----------------------	--------------	-------------------------	----------------



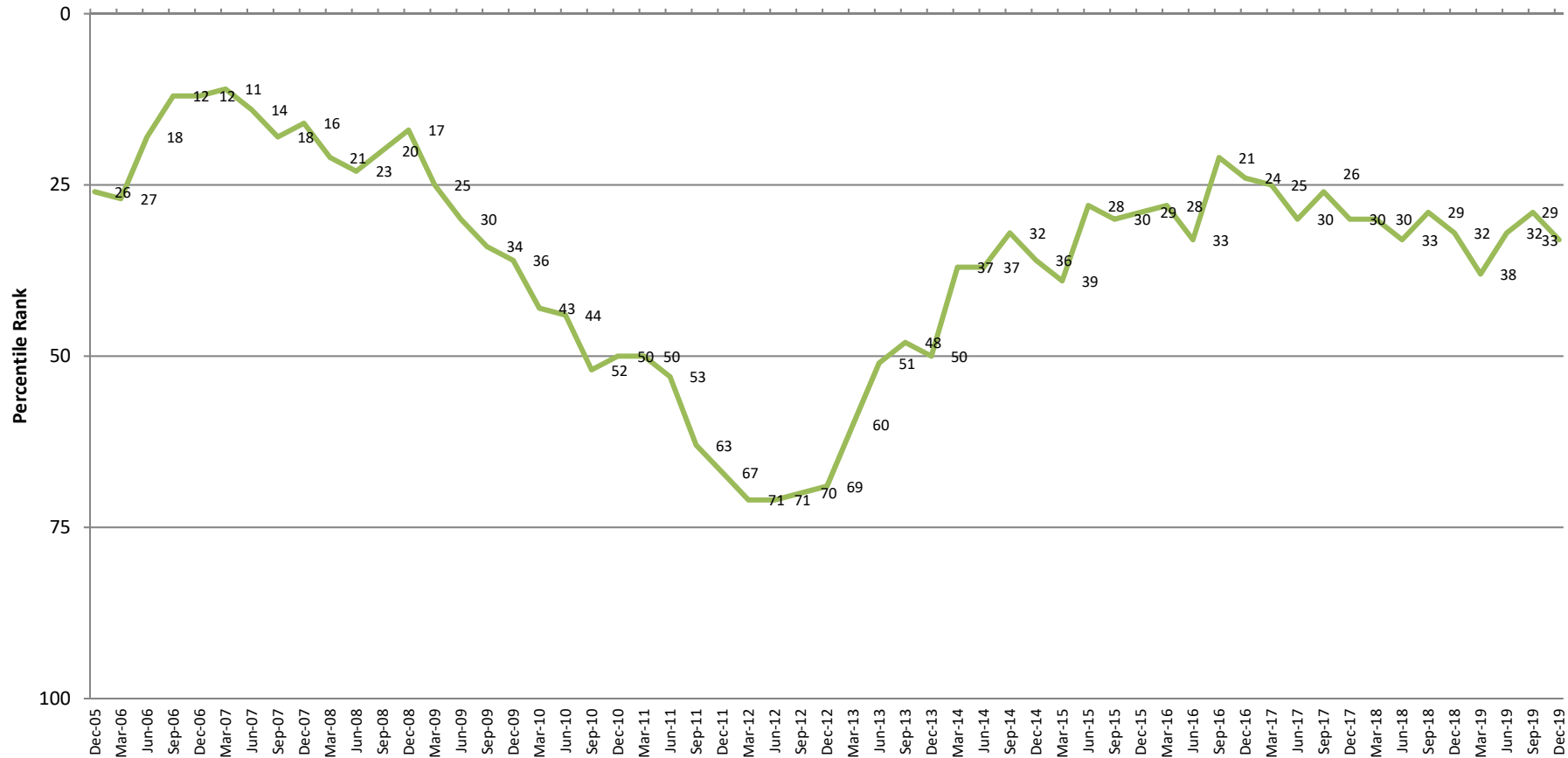
Metric	LACERS Master Trust Value	LACERS Master Trust Rank	Policy Index Value	Policy Index Rank	Universe 5th %tile	Universe 25th %tile	Universe Median	Universe 75th %tile	Universe 95th %tile
Annualized Return (%)	8.97	19	8.92	20	9.60	8.71	8.10	7.53	5.69
Annualized Standard Deviation	7.74	74	8.56	81	6.06	6.85	7.34	7.81	9.03
Annualized Alpha (%)	0.96	33	0.00	70	3.09	1.09	0.45	-0.17	-0.73
Sharpe Ratio	1.09	24	0.98	61	1.23	1.08	1.01	0.92	0.77
Sortino Ratio Risk Free	1.58	21	1.47	42	1.77	1.55	1.42	1.27	1.05
Tracking Error	1.27	50	0.00	1	0.80	1.10	1.27	1.59	3.38

Sortino Ratio RF = Sortino Ratio Risk Free. The risk free rate is the Citi 91 Day T-Bill Index.



HISTORICAL RISK ADJUSTED RETURN UNIVERSE COMPARISON

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

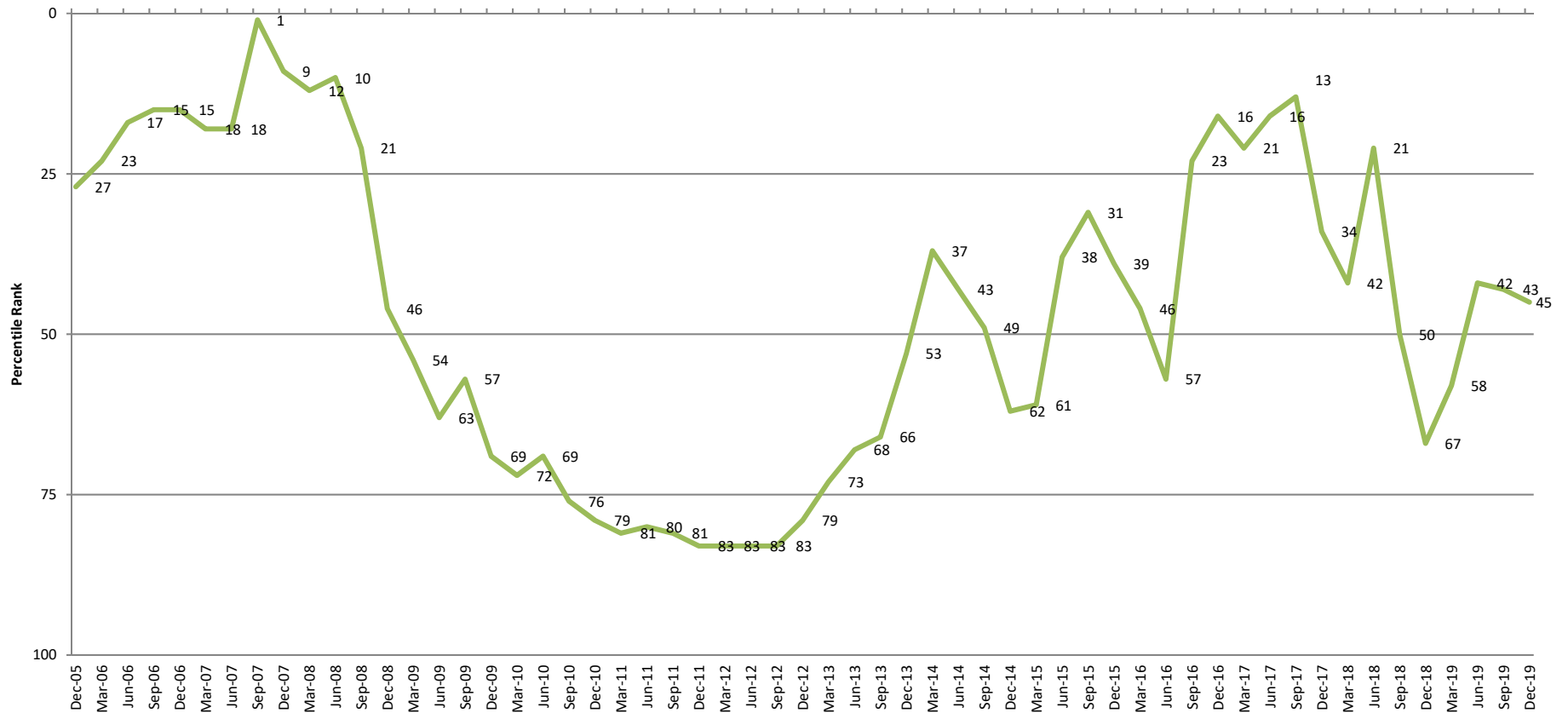


- Total Plan ranks in the 33rd percentile versus other large public plans on a Sharpe Ratio basis.
 - Overweight to non-U.S. equities with contributed positively to Sharpe Ratio rank.
 - Use of passive investment strategies within U.S. Equity has contributed to the overall Sharpe Ratio rank (higher than median).
 - Core Fixed Income contributed negatively to Sharpe Ratio rank.



HISTORICAL RISK ADJUSTED RETURN UNIVERSE COMPARISON

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



- Total Plan ranks in the 45th percentile versus other large public plans on a Sharpe Ratio basis.
 - Overweight to non-U.S. equities with contributed positively to Sharpe Ratio rank.
 - Use of passive investment strategies within U.S. Equity has contributed to the overall Sharpe Ratio rank (higher than median).
 - Core Fixed Income contributed negatively to Sharpe Ratio rank.



U.S. EQUITY

NEPC, LLC

Los Angeles City Employees' Retirement System

U.S. EQUITY (GROSS)

	Market Value (\$)	% of Portfolio	3 Mo (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
U.S. Equity	4,671,501,921	100.00	9.01	10.02	30.73	14.20	11.20	13.41	10.69	Oct-94
U.S. Equity Blend			<u>9.10</u>	<u>10.37</u>	<u>31.02</u>	<u>14.57</u>	<u>11.24</u>	<u>13.42</u>	<u>9.65</u>	Oct-94
Over/Under			-0.09	-0.35	-0.29	-0.37	-0.04	-0.01	1.04	
Rhumblin Advisors Russell 2000 ¹	281,400,483	6.02	9.90	7.29	25.49	8.63			7.63	Apr-15
Russell 2000			<u>9.94</u>	<u>7.30</u>	<u>25.52</u>	<u>8.59</u>			<u>7.72</u>	Apr-15
Over/Under			-0.04	-0.01	-0.03	0.04			-0.09	
Rhumblin Advisors Russell 2000 Growth ¹	149,594,680	3.20	11.36	6.74	28.44	12.50	9.28		9.28	Jan-15
Russell 2000 Growth			<u>11.39</u>	<u>6.75</u>	<u>28.48</u>	<u>12.49</u>	<u>9.34</u>		<u>9.34</u>	Jan-15
Over/Under			-0.03	-0.01	-0.04	0.01	-0.06		-0.06	
Rhumblin Advisors Russell 2000 Value ¹	229,976,111	4.92	8.45	7.57	22.03	4.71			13.19	Mar-16
Russell 2000 Value			<u>8.49</u>	<u>7.87</u>	<u>22.39</u>	<u>4.77</u>			<u>13.29</u>	Mar-16
Over/Under			-0.04	-0.30	-0.36	-0.06			-0.10	
EAM Investors	142,393,066	3.05	10.52	4.95	33.28	17.83			14.15	Sep-15
Russell 2000 Growth			<u>11.39</u>	<u>6.75</u>	<u>28.48</u>	<u>12.49</u>			<u>12.55</u>	Sep-15
Over/Under			-0.87	-1.80	4.80	5.34			1.60	
Principal Global Investors	211,245,061	4.52	6.43	9.84	44.47	19.96	14.59		15.16	Aug-14
Russell MidCap			<u>7.06</u>	<u>7.58</u>	<u>30.54</u>	<u>12.05</u>	<u>9.33</u>		<u>10.01</u>	Aug-14
Over/Under			-0.63	2.26	13.93	7.91	5.26		5.15	
Rhumblin Advisors S&P 500	3,656,886,128	78.28	8.98	10.68	31.14	15.18	11.62	13.58	10.00	Feb-93
S&P 500			<u>9.07</u>	<u>10.92</u>	<u>31.49</u>	<u>15.27</u>	<u>11.70</u>	<u>13.56</u>	<u>9.84</u>	Feb-93
Over/Under			-0.09	-0.24	-0.35	-0.09	-0.08	0.02	0.16	
Rhumblin Advisors Russell 1000 Growth Escrow Account	78 6,315	0.00 0.00								

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

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

eA = eVestment Alliance



Los Angeles City Employees' Retirement System

U.S. EQUITY (NET)

	Market Value (\$)	% of Portfolio	3 Mo (%)	Rank	Fiscal YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank	Inception (%)	Inception Date
U.S. Equity	4,671,501,921	100.00	9.00	34	9.99	37	30.65	26	14.13	40	11.11	29	13.25	33		Oct-94
U.S. Equity Blend			<u>9.10</u>	23	<u>10.37</u>	12	<u>31.02</u>	20	<u>14.57</u>	21	<u>11.24</u>	19	<u>13.42</u>	24		Oct-94
Over/Under			-0.10		-0.38		-0.37		-0.44		-0.13		-0.17			
InvMetrics Public DB > \$1 Billion US Equity Net Median			8.78		9.37		29.90		13.78		10.46		12.81			Oct-94
Rhumblin Advisors Russell 2000 ¹	281,400,483	6.02	9.90	25	7.29	41	25.48	45	8.62	46					7.63	Apr-15
Russell 2000			<u>9.94</u>	25	<u>7.30</u>	41	<u>25.52</u>	45	<u>8.59</u>	46					<u>7.72</u>	Apr-15
Over/Under			-0.04		-0.01		-0.04		0.03						-0.09	
eV US Small Cap Equity Net Median			8.26		6.50		24.68		7.78						7.78	Apr-15
Rhumblin Advisors Russell 2000 Growth ¹	149,594,680	3.20	11.35	26	6.74	25	28.43	49	12.49	73	9.27	75			9.27	Jan-15
Russell 2000 Growth			<u>11.39</u>	26	<u>6.75</u>	25	<u>28.48</u>	49	<u>12.49</u>	73	<u>9.34</u>	75			<u>9.34</u>	Jan-15
Over/Under			-0.04		-0.01		-0.05		0.00		-0.07				-0.07	
eV US Small Cap Growth Equity Net Median			9.26		4.51		28.09		15.46		10.87				10.87	Jan-15
Rhumblin Advisors Russell 2000 Value ¹	229,976,111	4.92	8.45	33	7.57	49	22.02	64	4.70	48					13.18	Mar-16
Russell 2000 Value			<u>8.49</u>	33	<u>7.87</u>	41	<u>22.39</u>	60	<u>4.77</u>	48					<u>13.29</u>	Mar-16
Over/Under			-0.04		-0.30		-0.37		-0.07						-0.11	
eV US Small Cap Value Equity Net Median			7.80		7.48		23.79		4.63						11.96	Mar-16
EAM Investors	142,393,066	3.05	10.33	19	4.60	74	32.39	15	16.99	14					13.35	Sep-15
Russell 2000 Growth			<u>11.39</u>	12	<u>6.75</u>	47	<u>28.48</u>	26	<u>12.49</u>	26					<u>12.55</u>	Sep-15
Over/Under			-1.06		-2.15		3.91		4.50						0.80	
eV US Small Cap Equity Net Median			8.26		6.50		24.68		7.78						11.56	Sep-15

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

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

eA = eVestment Alliance



Los Angeles City Employees' Retirement System

U.S. EQUITY (NET)

	Market Value (\$)	% of Portfolio	3 Mo (%)	Rank	Fiscal YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank	Inception (%)	Inception Date
Principal Global Investors ¹	211,245,061	4.52	6.33	67	9.65	18	43.96	2	19.51	11	14.16	5			14.75	Aug-14
<i>Russell MidCap</i>			<u>7.06</u>	51	<u>7.58</u>	45	<u>30.54</u>	44	<u>12.05</u>	48	<u>9.33</u>	49			<u>10.01</u>	Aug-14
Over/Under			-0.73		2.07		13.42		7.46		4.83				4.74	
<i>eV US Mid Cap Equity Net Median</i>			7.17		7.22		29.61		11.66		9.23				9.63	Aug-14
Rhumblin Advisors S&P 500	3,656,886,128	78.28	8.98	37	10.68	27	31.14	37	15.17	36	11.61	29	13.57	25		Feb-93
<i>S&P 500</i>			<u>9.07</u>	37	<u>10.92</u>	23	<u>31.49</u>	35	<u>15.27</u>	36	<u>11.70</u>	28	<u>13.56</u>	25		Feb-93
Over/Under			-0.09		-0.24		-0.35		-0.10		-0.09		0.01			
<i>eV US Large Cap Equity Net Median</i>			8.27		9.61		28.89		13.30		10.10		12.57			Feb-93
Rhumblin Advisors Russell 1000 Growth	78	0.00														
Escrow Account	6,315	0.00														

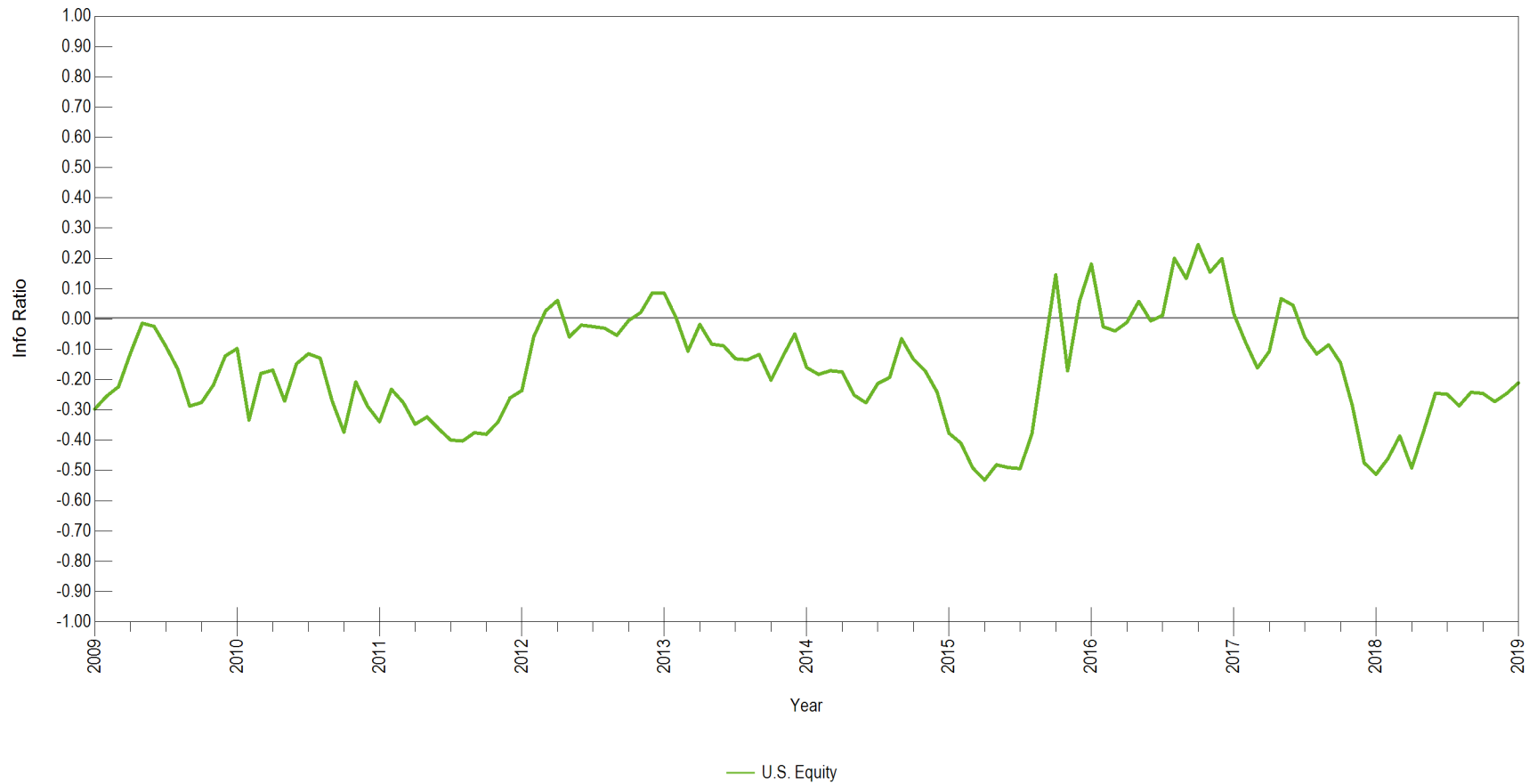
1- Portfolio has a mid-month inception date. Since inception return is calculated from the first full month of performance.

eA = eVestment Alliance



U.S. EQUITY ROLLING 5 YEAR INFORMATION RATIO

Rolling 5 Year Information Ratio



*Returns are net of fees.



MANAGER REPORT CARD

U.S. Equity Managers	Inception Date	Mandate	Current Quarter (Net)		One Year (Net)		Three Years (Net)		Five Years (Net)		Since Inception (Net)	Annual Mgt Fee Paid \$ (000)	Comments
			Index	Universe	Index	Universe	Index	Universe	Index	Universe			
Principal Global Investors	Jul-14	Mid Cap	* *	✓ ✓	✓ ✓	✓ ✓	✓ ✓	✓ ✓	✓ ✓	✓	616.9	Performance compliant with LACERS' Manager Monitoring Policy	
EAM Investors	Sep-15	Small Cap Growth	* ✓	✓ ✓	✓ ✓	✓ ✓	N/A N/A	N/A N/A	✓	✓	913.9	Performance compliant with LACERS' Manager Monitoring Policy	
Rhumblin (Passive)	Feb-93	S&P 500	* ✓	* ✓	* ✓	* ✓	* ✓	* ✓	✓ ✓	✓ ✓	178.2	Performance compliant with LACERS' Manager Monitoring Policy	
Rhumblin (Passive)	Jun-15	R2000	* ✓	* ✓	✓ ✓	✓ ✓	N/A N/A	N/A N/A	*	*	14.6	Performance compliant with LACERS' Manager Monitoring Policy	
Rhumblin (Passive)	Jun-15	R2000 Growth	* ✓	* ✓	= *	* *	* *	* *	*	*	7.7	Performance compliant with LACERS' Manager Monitoring Policy	
Rhumblin (Passive)	Feb-16	R2000 Value	* ✓	* *	* ✓	* ✓	N/A N/A	N/A N/A	*	*	5.8	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, 2019.
- * 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

NEPC, LLC

Los Angeles City Employees' Retirement System

NON-U.S. EQUITY (GROSS)

	Market Value (\$)	% of Portfolio	3 Mo (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Non-U.S. Equity	5,770,746,991	100.00	9.55	7.39	22.55	11.08	6.80	6.25	5.42	Nov-94
MSCI ACWI ex USA			<u>8.92</u>	<u>6.96</u>	<u>21.51</u>	<u>9.87</u>	<u>5.51</u>	<u>4.97</u>	<u>5.23</u>	Nov-94
Over/Under			0.63	0.43	1.04	1.21	1.29	1.28	0.19	
Developed ex-U.S.	4,363,730,372	75.62	8.91	7.69	24.12	10.90	6.78		8.80	Jun-12
MSCI EAFE			<u>8.17</u>	<u>7.01</u>	<u>22.01</u>	<u>9.56</u>	<u>5.67</u>		<u>7.77</u>	Jun-12
Over/Under			0.74	0.68	2.11	1.34	1.11		1.03	
AQR Capital (On Watch)	298,055,931	5.16	12.87	12.20	23.00	10.14	8.67		5.92	Feb-14
MSCI EAFE Small Cap			<u>11.52</u>	<u>11.03</u>	<u>24.96</u>	<u>10.92</u>	<u>8.85</u>		<u>5.91</u>	Feb-14
Over/Under			1.35	1.17	-1.96	-0.78	-0.18		0.01	
Barrow Hanley (On Watch)	577,704,244	10.01	10.31	10.59	26.76	8.88	4.70		3.95	Nov-13
MSCI EAFE Value			<u>7.82</u>	<u>5.94</u>	<u>16.09</u>	<u>6.31</u>	<u>3.54</u>		<u>2.19</u>	Nov-13
Over/Under			2.49	4.65	10.67	2.57	1.16		1.76	
Lazard Asset Management ¹	636,252,465	11.03	7.24	4.90	21.17	11.65	6.07		5.42	Nov-13
MSCI EAFE			<u>8.17</u>	<u>7.01</u>	<u>22.01</u>	<u>9.56</u>	<u>5.67</u>		<u>4.03</u>	Nov-13
Over/Under			-0.93	-2.11	-0.84	2.09	0.40		1.39	
MFS Institutional Advisors	675,065,175	11.70	9.32	7.89	28.22	15.90	10.32		7.91	Oct-13
MSCI World ex USA Growth NR USD			<u>8.09</u>	<u>7.60</u>	<u>27.92</u>	<u>12.34</u>	<u>7.18</u>		<u>5.62</u>	Oct-13
Over/Under			1.23	0.29	0.30	3.56	3.14		2.29	
Oberweis Asset Mgmt ¹	253,069,813	4.39	8.61	4.34	26.60	11.59	9.23		7.45	Jan-14
MSCI EAFE Small Cap			<u>11.52</u>	<u>11.03</u>	<u>24.96</u>	<u>10.92</u>	<u>8.85</u>		<u>6.79</u>	Jan-14
Over/Under			-2.91	-6.69	1.64	0.67	0.38		0.66	
SSgA World ex US IMI	1,923,582,745	33.33	8.36	7.56	23.39	9.95	6.24	6.06	5.89	Aug-93
MSCI World ex USA IMI NR USD ²			<u>8.36</u>	<u>7.45</u>	<u>22.91</u>	<u>9.49</u>	<u>5.79</u>	<u>5.66</u>	<u>5.62</u>	Aug-93
Over/Under			0.00	0.11	0.48	0.46	0.45	0.40	0.27	

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

2 Since inception index return sourced from SSgA.

eA = eVestment



Los Angeles City Employees' Retirement System

NON-U.S. EQUITY (GROSS)

	Market Value (\$)	% of Portfolio	3 Mo (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Emerging Markets	1,407,016,618	24.38	11.60	6.44	17.93	11.49	5.68		4.71	Jun-12
<i>MSCI Emerging Markets</i>			<u>11.84</u>	<u>7.09</u>	<u>18.44</u>	<u>11.57</u>	<u>5.61</u>		<u>4.82</u>	<i>Jun-12</i>
Over/Under			-0.24	-0.65	-0.51	-0.08	0.07		-0.11	
Axiom Emerging Markets (On Watch)	479,513,849	8.31	12.42	10.14	25.55	13.80	7.25		5.95	Mar-14
<i>MSCI Emerging Markets Growth NR USD</i>			<u>13.68</u>	<u>11.37</u>	<u>25.10</u>	<u>14.50</u>	<u>7.45</u>		<u>6.39</u>	<i>Mar-14</i>
Over/Under			-1.26	-1.23	0.45	-0.70	-0.20		-0.44	
DFA Emerging Markets ¹	456,711,564	7.91	10.63	3.16	10.70	9.07	4.53		1.58	Aug-14
<i>MSCI Emerging Markets Value NR USD</i>			<u>9.94</u>	<u>2.82</u>	<u>11.96</u>	<u>8.57</u>	<u>3.67</u>		<u>0.95</u>	<i>Aug-14</i>
Over/Under			0.69	0.34	-1.26	0.50	0.86		0.63	
QMA Emerging Markets ¹	470,791,205	8.16	11.71	6.08	18.10	11.49	5.32		4.85	May-14
<i>MSCI Emerging Markets</i>			<u>11.84</u>	<u>7.09</u>	<u>18.44</u>	<u>11.57</u>	<u>5.61</u>		<u>4.54</u>	<i>May-14</i>
Over/Under			-0.13	-1.01	-0.34	-0.08	-0.29		0.31	

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



Los Angeles City Employees' Retirement System

NON-U.S. EQUITY (NET)

	Market Value (\$)	% of Portfolio	3 Mo (%)	Rank	Fiscal YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank	Inception (%)	Inception Date
Non-U.S. Equity	5,770,746,991	100.00	9.46	70	7.19	85	22.11	61	10.67	31	6.42	49	5.89	40		Nov-94
MSCI ACWI ex USA			8.92	87	6.96	89	21.51	64	9.87	58	5.51	79	4.97	95		Nov-94
Over/Under			0.54		0.23		0.60		0.80		0.91		0.92			
Developed ex-U.S.	4,363,730,372	75.62	8.83	71	7.53	71	23.73	53	10.55	51	6.45	69			8.50	Jun-12
MSCI EAFE			8.17	95	7.01	91	22.01	83	9.56	84	5.67	84			7.77	Jun-12
Over/Under			0.66		0.52		1.72		0.99		0.78				0.73	
InvMetrics Public DB > \$1 Billion Dev Mkt ex-US Eq Net Median			9.36		8.16		23.91		10.55		6.56				8.65	Jun-12
AQR Capital ¹ (On Watch)	298,055,931	5.16	12.67	32	11.77	18	22.06	69	9.30	63	7.86	63			5.19	Feb-14
MSCI EAFE Small Cap			11.52	61	11.03	25	24.96	39	10.92	47	8.85	42			5.91	Feb-14
Over/Under			1.15		0.74		-2.90		-1.62		-0.99				-0.72	
eV EAFE Small Cap Equity Net Median			12.10		9.81		23.76		10.62		8.38				5.75	Feb-14
Barrow Hanley ¹ (On Watch)	577,704,244	10.01	10.18	30	10.31	12	26.12	10	8.33	36	4.17	72			3.44	Nov-13
MSCI EAFE Value			7.82	75	5.94	87	16.09	86	6.31	71	3.54	83			2.19	Nov-13
Over/Under			2.36		4.37		10.03		2.02		0.63				1.25	
eV EAFE Value Equity Net Median			9.04		7.58		20.15		7.53		5.02				3.48	Nov-13
Lazard Asset Management ¹	636,252,465	11.03	7.11	88	4.63	94	20.56	65	11.03	31	5.51	63			4.87	Nov-13
MSCI EAFE			8.17	69	7.01	63	22.01	51	9.56	50	5.67	59			4.03	Nov-13
Over/Under			-1.06		-2.38		-1.45		1.47		-0.16				0.84	
eV All EAFE Equity Net Median			9.03		7.57		22.07		9.53		6.22				4.71	Nov-13
MFS Institutional Advisors	675,065,175	11.70	9.21	53	7.67	78	27.69	64	15.36	32	9.78	1			7.39	Oct-13
MSCI World ex USA Growth NR USD			8.09	96	7.60	79	27.92	64	12.34	76	7.18	69			5.62	Oct-13
Over/Under			1.12		0.07		-0.23		3.02		2.60				1.77	
eV EAFE All Cap Growth Net Median			9.27		8.48		29.56		14.14		8.32				6.27	Oct-13

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



Los Angeles City Employees' Retirement System

NON-U.S. EQUITY (NET)

	Market Value (\$)	% of Portfolio	3 Mo (%)	Rank	Fiscal YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank	Inception (%)	Inception Date
Oberweis Asset Mgmt ¹	253,069,813	4.39	8.41	97	3.98	98	25.64	36	10.66	50	8.31	52			6.56	Jan-14
MSCI EAFE Small Cap			<u>11.52</u>	61	<u>11.03</u>	25	<u>24.96</u>	39	<u>10.92</u>	47	<u>8.85</u>	42			<u>6.79</u>	Jan-14
Over/Under			-3.11		-7.05		0.68		-0.26		-0.54				-0.23	
eV EAFE Small Cap Equity Net Median			12.10		9.81		23.76		10.62		8.38				6.52	Jan-14
SSgA World ex US IMI	1,923,582,745	33.33	8.35	65	7.55	49	23.36	40	9.93	47	6.21	54	6.04	72	5.89	Aug-93
MSCI World ex USA IMI NR USD ²			<u>8.36</u>	65	<u>7.45</u>	49	<u>22.91</u>	45	<u>9.49</u>	52	<u>5.79</u>	62	<u>5.66</u>	80	<u>5.62</u>	Aug-93
Over/Under			-0.01		0.10		0.45		0.44		0.42		0.38		0.27	
eV EAFE Core Equity Net Median			9.06		7.37		22.15		9.56		6.35		7.06		7.27	Aug-93
Emerging Markets	1,407,016,618	24.38	11.46	26	6.16	36	17.31	26	10.91	27	5.11	17			4.08	Jun-12
MSCI Emerging Markets			<u>11.84</u>	10	<u>7.09</u>	15	<u>18.44</u>	18	<u>11.57</u>	17	<u>5.61</u>	12			<u>4.82</u>	Jun-12
Over/Under			-0.38		-0.93		-1.13		-0.66		-0.50				-0.74	
InvMetrics Public DB > \$1 Billion Emg Mkt Eq Net Median			10.33		5.65		16.11		9.55		4.17				3.62	Jun-12
Axiom Emerging Markets (On Watch)	479,513,849	8.31	12.24	27	9.77	16	24.70	21	13.02	27	6.50	32			5.26	Mar-14
MSCI Emerging Markets Growth NR USD			<u>13.68</u>	9	<u>11.37</u>	5	<u>25.10</u>	20	<u>14.50</u>	14	<u>7.45</u>	19			<u>6.39</u>	Mar-14
Over/Under			-1.44		-1.60		-0.40		-1.48		-0.95				-1.13	
eV Emg Mkts Equity Net Median			11.37		7.00		19.28		10.66		5.45				4.71	Mar-14
DFA Emerging Markets ¹	456,711,564	7.91	10.50	67	2.89	89	10.13	95	8.53	82	4.00	80			1.09	Aug-14
MSCI Emerging Markets Value NR USD			<u>9.94</u>	73	<u>2.82</u>	90	<u>11.96</u>	91	<u>8.57</u>	82	<u>3.67</u>	84			<u>0.95</u>	Aug-14
Over/Under			0.56		0.07		-1.83		-0.04		0.33				0.14	
eV Emg Mkts Equity Net Median			11.37		7.00		19.28		10.66		5.45				3.35	Aug-14
QMA Emerging Markets ¹ (On Watch)	470,791,205	8.16	11.61	44	5.88	65	17.66	64	11.05	47	4.87	64			4.41	May-14
MSCI Emerging Markets			<u>11.84</u>	36	<u>7.09</u>	49	<u>18.44</u>	57	<u>11.57</u>	43	<u>5.61</u>	46			<u>4.54</u>	May-14
Over/Under			-0.23		-1.21		-0.78		-0.52		-0.74				-0.13	
eV Emg Mkts Equity Net Median			11.37		7.00		19.28		10.66		5.45				4.72	May-14

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

2 Since inception index return sourced from SSgA.

eA = eVestment



Los Angeles City Employees' Retirement System

NON-U.S. EQUITY COUNTRY ALLOCATION

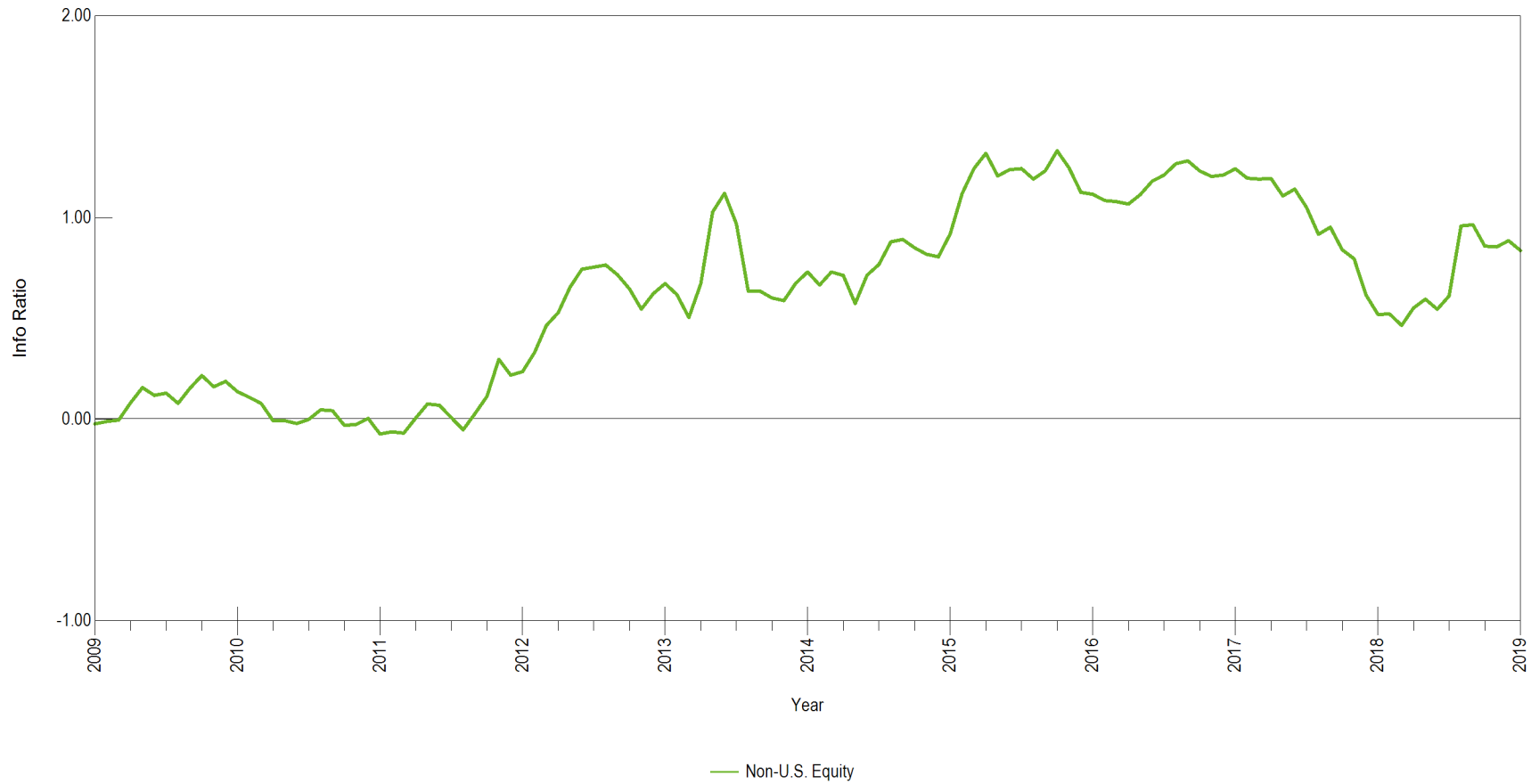
Versus MSCI ACWI ex USA - Quarter Ending December 31, 2019		
	Manager Ending Allocation (USD)	Index Ending Allocation (USD)
Europe		
Austria	0.2%	0.1%
Belgium	0.6%	0.7%
Croatia**	0.0%	0.0%
Czech Republic*	0.0%	0.0%
Denmark	1.3%	1.2%
Estonia**	0.0%	0.0%
Finland	1.1%	0.6%
France	9.5%	7.5%
Germany	5.9%	5.7%
Greece*	0.2%	0.1%
Hungary*	0.1%	0.1%
Ireland	0.5%	0.4%
Italy	1.6%	1.5%
Lithuania**	0.0%	0.0%
Luxembourg	0.0%	0.0%
Netherlands	2.2%	2.6%
Norway	0.8%	0.4%
Poland*	0.2%	0.2%
Portugal	0.1%	0.1%
Romania**	0.0%	0.0%
Russia*	0.9%	1.1%
Serbia**	0.0%	0.0%
Slovenia**	0.0%	0.0%
Spain	1.1%	1.9%
Sweden	1.6%	1.8%
Switzerland	6.0%	6.2%
United Kingdom	10.4%	10.9%
Total-Europe	44.2%	43.1%

Versus MSCI ACWI ex USA - Quarter Ending December 31, 2019		
	Manager Ending Allocation (USD)	Index Ending Allocation (USD)
Americas		
Brazil*	2.1%	2.1%
Canada	5.0%	6.7%
Chile*	0.1%	0.2%
Colombia*	0.3%	0.1%
Mexico*	0.8%	0.6%
Peru*	0.1%	0.1%
United States	2.8%	0.0%
Total-Americas	11.2%	9.8%
AsiaPacific		
Australia	3.1%	4.5%
China*	5.3%	9.3%
Hong Kong	5.3%	2.3%
India*	2.3%	2.4%
Indonesia*	0.4%	0.5%
Japan	15.1%	16.2%
Korea*	3.3%	3.2%
Malaysia*	0.3%	0.5%
New Zealand	0.1%	0.2%
Philippines*	0.3%	0.3%
Singapore	1.4%	0.8%
Taiwan*	3.7%	3.2%
Thailand*	0.6%	0.7%
Total-AsiaPacific	41.3%	44.1%
Other		
Egypt*	0.1%	0.0%
Israel	0.6%	0.4%
Other Countries	0.2%	0.0%
Qatar*	0.0%	0.3%
South Africa*	1.1%	1.3%
Turkey*	0.2%	0.1%
United Arab Emirates*	0.0%	0.2%
Total-Other	2.2%	2.9%
Totals		
Developed	76.2%	72.7%
Emerging*	22.5%	27.3%
Other	0.2%	
Cash	1.0%	



NON-U.S. EQUITY ROLLING 5 YEAR INFORMATION

Rolling 5 Year Information Ratio



*Returns are net of fees



MANAGER REPORT CARD

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			
Axiom International	Mar-14	Emerging Markets	✘	✓	✘	✓	✘	✓	✘	✓	✘	2,905.3	On Watch since April 2019 due to performance
Q.M.A.	Apr-14	Emerging Markets	✘	✓	✘	✘	✘	✓	✘	✘	✘	1,632.8	On Watch since July 2019 due to performance
DFA Emerging Markets	Jul-14	Emerging Markets	✓	✘	✘	✘	✘	✘	✓	✘	✓	2,208.6	Performance compliant with LACERS' Manager Monitoring Policy
AQR	Feb-14	Non-U.S. Developed	✓	✓	✘	✘	✘	✘	✘	✘	✘	2,522.4	On Watch since May 2019 due to performance.
Oberweis Asset Mgt.	Jan-14	Non-U.S. Developed	✘	✘	✓	✓	✘	✓	✘	✘	✘	1,434.9	Performance compliant with LACERS' Manager Monitoring Policy
Barrow, Hanley, Mewhinney & Strauss	Nov-13	Non-U.S. Developed	✓	✓	✓	✓	✓	✓	✓	✘	✓	2,574.2	On Watch since April 2019 due to performance
Lazard Asset Mgt.	Nov-13	Non-U.S. Developed	✘	✘	✘	✘	✓	✓	✘	✘	✓	3,003.5	Performance compliant with LACERS' Manager Monitoring Policy
MFS Institutional Advisors	Oct-13	Non-U.S. Developed	✓	✘	✘	✘	✓	✓	✓	✓	✓	2,662.1	Performance compliant with LACERS' Manager Monitoring Policy
SsgA (Passive)	Aug-93	Non-U.S. Developed	✘	✘	✓	✓	✓	✓	✓	✘	✓✓	391.2	Performance compliant with LACERS' Manager Monitoring Policy

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

- Annual Management Fee Paid as of fiscal year ending June 30, 2019.
- * Where net of fees performance is not available gross of fee returns are evaluated.

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



CORE FIXED INCOME

NEPC, LLC

Los Angeles City Employees' Retirement System

CORE FIXED INCOME (GROSS)

	Market Value (\$)	% of Portfolio	3 Mo (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Core Fixed Income	3,211,478,959	100.00	0.29	2.46	9.09	4.22	3.36		3.49	Jul-12
<i>Core Fixed Income Blend</i>			<i>0.18</i>	<i>2.45</i>	<i>8.72</i>	<i>4.03</i>	<i>3.05</i>		<i>2.90</i>	<i>Jul-12</i>
Over/Under			0.11	0.01	0.37	0.19	0.31		0.59	
Baird Advisors	345,116,832	10.75	0.51	1.96	7.52	3.69	3.15	4.07	4.36	Mar-05
<i>BBgBarc US Govt/Credit Int TR</i>			<i>0.37</i>	<i>1.75</i>	<i>6.80</i>	<i>3.24</i>	<i>2.57</i>	<i>3.05</i>	<i>3.71</i>	<i>Mar-05</i>
Over/Under			0.14	0.21	0.72	0.45	0.58	1.02	0.65	
LM Capital (On Watch)	328,203,357	10.22	0.50	2.54	9.41	4.07	3.31	4.11	4.65	Mar-05
<i>Core Fixed Income Blend</i>			<i>0.18</i>	<i>2.45</i>	<i>8.72</i>	<i>4.03</i>	<i>3.05</i>	<i>3.91</i>	<i>4.39</i>	<i>Mar-05</i>
Over/Under			0.32	0.09	0.69	0.04	0.26	0.20	0.26	
Loomis Sayles	811,671,270	25.27	0.21	2.56	9.70	4.75	3.89	4.91	9.03	Jul-80
<i>BC US Agg LACERS custom</i>			<i>0.18</i>	<i>2.45</i>	<i>8.72</i>	<i>4.03</i>	<i>3.05</i>	<i>3.75</i>	<i>7.55</i>	<i>Jul-80</i>
Over/Under			0.03	0.11	0.98	0.72	0.84	1.16	1.48	
Neuberger Berman (On Watch)	801,758,828	24.97	0.35	2.48	9.33	4.14	3.27	4.68	5.72	Sep-01
<i>Core Fixed Income Blend</i>			<i>0.18</i>	<i>2.45</i>	<i>8.72</i>	<i>4.03</i>	<i>3.05</i>	<i>3.91</i>	<i>4.65</i>	<i>Sep-01</i>
Over/Under			0.17	0.03	0.61	0.11	0.22	0.77	1.07	
SSgA U.S. Aggregate Bond ¹	924,728,673	28.79	0.17	2.46	8.71	4.04	3.07		3.25	Jul-14
<i>BBgBarc US Aggregate TR</i>			<i>0.18</i>	<i>2.45</i>	<i>8.72</i>	<i>4.03</i>	<i>3.05</i>		<i>3.23</i>	<i>Jul-14</i>
Over/Under			-0.01	0.01	-0.01	0.01	0.02		0.02	

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

BBgBarc = Bloomberg Barclays



Los Angeles City Employees' Retirement System

CORE FIXED INCOME (NET)

	Market Value (\$)	% of Portfolio	3 Mo (%)	Rank	Fiscal YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank	Inception (%)	Inception Date
Core Fixed Income	3,211,478,959	100.00	0.27	62	2.41	61	8.98	39	4.12	71	3.26	64			3.37	Jul-12
Core Fixed Income Blend			<u>0.18</u>	72	<u>2.45</u>	54	<u>8.72</u>	58	<u>4.03</u>	79	<u>3.05</u>	73			<u>2.90</u>	Jul-12
Over/Under			0.09		-0.04		0.26		0.09		0.21				0.47	
InvMetrics Public DB > \$1 Billion US Fixed Income Net Median			0.65		2.49		8.81		4.31		3.49				3.36	Jul-12
Baird Advisors	345,116,832	10.75	0.49	28	1.91	25	7.40	16	3.56	16	3.02	14	3.94	10	4.23	Mar-05
BBgBarc US Govt/Credit Int TR			<u>0.37</u>	51	<u>1.75</u>	51	<u>6.80</u>	45	<u>3.24</u>	42	<u>2.57</u>	47	<u>3.05</u>	65	<u>3.71</u>	Mar-05
Over/Under			0.12		0.16		0.60		0.32		0.45		0.89		0.52	
eV US Interm Duration Fixed Inc Net Median			0.37		1.75		6.74		3.19		2.56		3.16		3.88	Mar-05
LM Capital (On Watch)	328,203,357	10.22	0.48	10	2.49	46	9.30	36	3.96	69	3.20	46	3.98	51	4.51	Mar-05
Core Fixed Income Blend			<u>0.18</u>	43	<u>2.45</u>	53	<u>8.72</u>	69	<u>4.03</u>	57	<u>3.05</u>	66	<u>3.91</u>	60	<u>4.39</u>	Mar-05
Over/Under			0.30		0.04		0.58		-0.07		0.15		0.07		0.12	
eV US Core Fixed Inc Net Median			0.14		2.46		9.07		4.09		3.15		3.98		4.43	Mar-05
Loomis Sayles	811,671,270	25.27	0.18	44	2.50	42	9.56	19	4.61	10	3.76	10	4.78	11		Jul-80
BC US Agg LACERS custom			<u>0.18</u>	43	<u>2.45</u>	53	<u>8.72</u>	69	<u>4.03</u>	57	<u>3.05</u>	66	<u>3.75</u>	72		Jul-80
Over/Under			0.00		0.05		0.84		0.58		0.71		1.03			
eV US Core Fixed Inc Net Median			0.14		2.46		9.07		4.09		3.15		3.98			Jul-80
Neuberger Berman (On Watch)	801,758,828	24.97	0.32	16	2.42	58	9.19	43	3.99	64	3.12	55	4.51	17	5.57	Sep-01
Core Fixed Income Blend			<u>0.18</u>	43	<u>2.45</u>	53	<u>8.72</u>	69	<u>4.03</u>	57	<u>3.05</u>	66	<u>3.91</u>	60	<u>4.65</u>	Sep-01
Over/Under			0.14		-0.03		0.47		-0.04		0.07		0.60		0.92	
eV US Core Fixed Inc Net Median			0.14		2.46		9.07		4.09		3.15		3.98		4.59	Sep-01
SSgA U.S. Aggregate Bond ¹	924,728,673	28.79	0.17	45	2.45	54	8.67	71	4.01	60	3.03	68			3.21	Jul-14
BBgBarc US Aggregate TR			<u>0.18</u>	43	<u>2.45</u>	53	<u>8.72</u>	69	<u>4.03</u>	57	<u>3.05</u>	66			<u>3.23</u>	Jul-14
Over/Under			-0.01		0.00		-0.05		-0.02		-0.02				-0.02	
eV US Core Fixed Inc Net Median			0.14		2.46		9.07		4.09		3.15				3.29	Jul-14

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

BBgBarc = Bloomberg Barclays

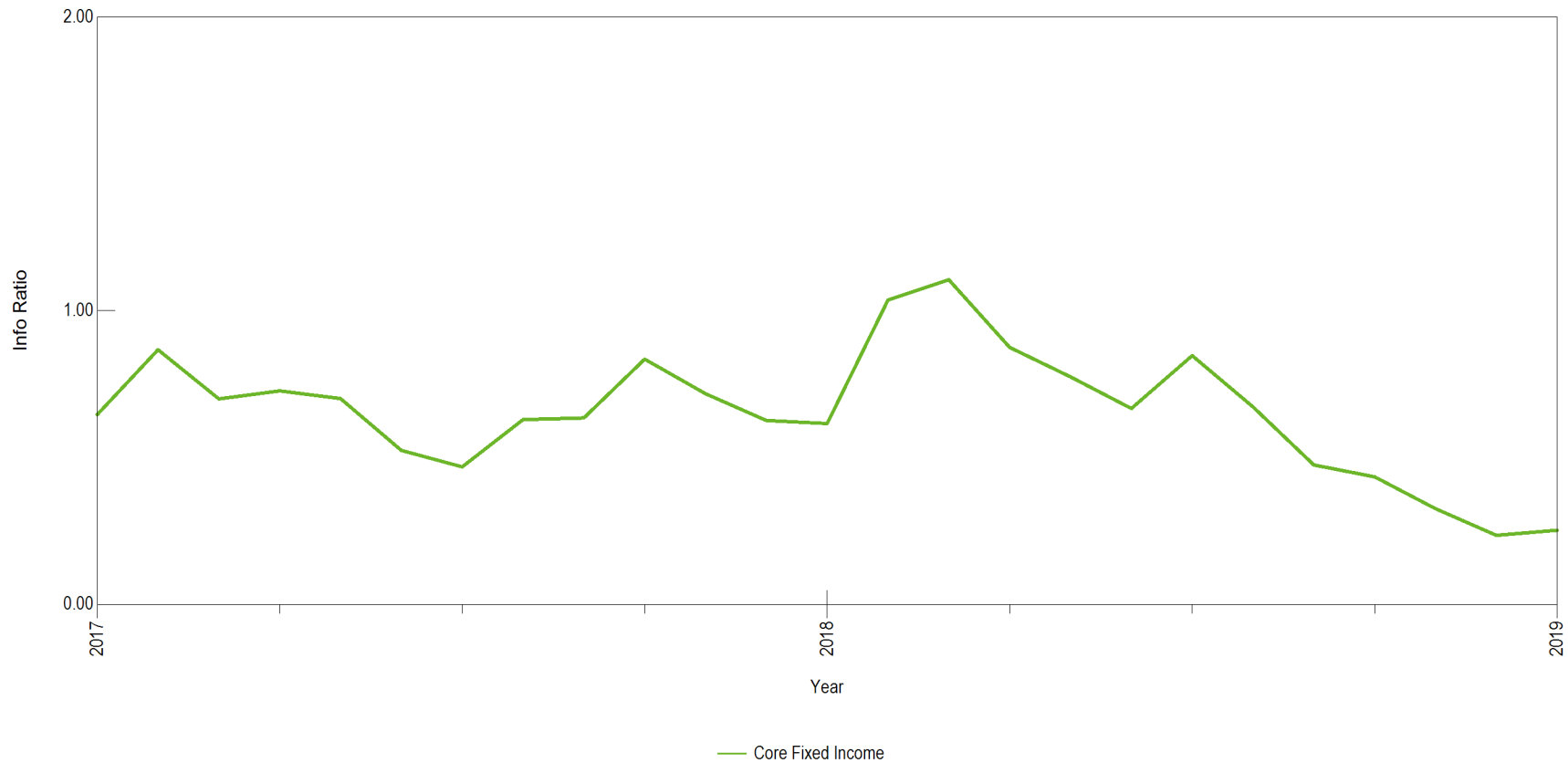
eV = eVestment



Los Angeles City Employees' Retirement System

CORE FIXED INCOME 3 YEAR INFORMATION RATIO

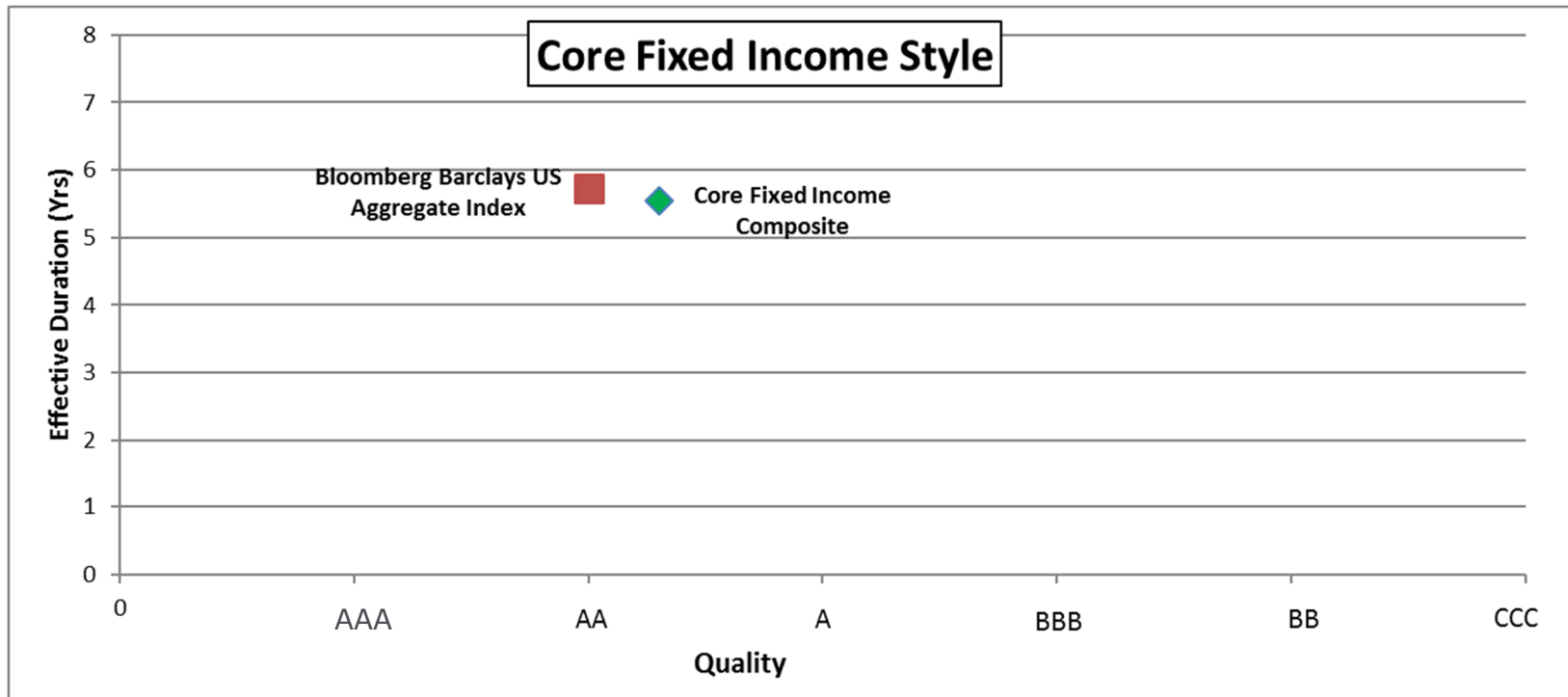
Rolling 3 Year Information Ratio



*Returns are net of fees



CORE FIXED INCOME STYLE ANALYSIS



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



MANAGER REPORT CARD

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		
Neuberger Berman	Sep-01	Core	✓	✓	✓	✓	✗	✗	✓	✗	✓	1,031.6	On Watch since March 2019 due to performance
Loomis Sayles	Jul-80	Core	=	✓	✓	✓	✓	✓	✓	✓	✓✓	952.5	Performance compliant with LACERS' Manager Monitoring Policy
Baird Advisors	Mar-05	Intermediate	✓	✓	✓	✓	✓	✓	✓	✓	✓	317.7	Performance compliant with LACERS' Manager Monitoring Policy
LM Capital Group	Mar-05	Core	✓	✓	✓	✓	✗	✗	✓	✓	✓	314.7	On Watch since March 2019 due to performance
SSgA (Passive)	Jul-14	Core	✗	✓	✗	✗	✗	✗	✗	✗	✗	394.4	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, 2019.
- * Where net of fees performance is not available gross of fee returns are evaluated.

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



CREDIT OPPORTUNITIES

NEPC, LLC

Los Angeles City Employees' Retirement System

CREDIT OPPORTUNITIES (GROSS)

	Market Value (\$)	% of Portfolio	3 Mo (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Credit Opportunities	1,044,491,951	100.00	2.19	3.72	14.20	6.92	5.86		5.97	Jun-13
<i>Credit Opportunities Blend</i>			2.33	3.76	14.58	6.50	6.20		6.16	Jun-13
Over/Under			-0.14	-0.04	-0.38	0.42	-0.34		-0.19	
AEGON USA (ON Watch)	394,220,945	37.74	3.08	4.65	15.18	6.96	6.45		6.46	Jun-13
<i>BBgBarc US High Yield 2% Issuer Cap TR</i>			2.61	3.98	14.32	6.36	6.14		6.02	Jun-13
Over/Under			0.47	0.67	0.86	0.60	0.31		0.44	
Prudential Emerging Markets	435,565,443	41.70	2.60	4.54	17.48	8.28	7.15		6.31	May-14
<i>JP Morgan EMBI Global Diversified</i>			1.81	3.34	15.04	6.69	6.24		5.42	May-14
Over/Under			0.79	1.20	2.44	1.59	0.91		0.89	
Bain Capital Senior Loan Fund, LP*	214,692,345	20.55	-0.20	0.48	6.22	3.81			3.73	Jun-15
<i>Credit Suisse Leveraged Loans</i>			1.68	2.61	8.17	4.48			4.40	Jun-15
Over/Under			-1.88	-2.13	-1.95	-0.67			-0.67	

- Credit Opportunities Blend = 65% BBgBarc US High Yield 2% Issuer Cap TR / 35% JP Morgan EMBI Global Diversified 7/01/2014 to present; BBgBarc US High Yield 2% Issuer Cap TR prior to

eA = eVestment Alliance

BBgBarc = Bloomberg Barclays

*Net of fee return since vehicle is commingled.



Los Angeles City Employees' Retirement System

CREDIT OPPORTUNITIES (NET)

	Market Value (\$)	% of Portfolio	3 Mo (%)	Rank	Fiscal YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank	Inception (%)	Inception Date
Credit Opportunities	1,044,491,951	100.00	2.12		3.57		13.86		6.57		5.50				5.62	Jun-13
<i>Credit Opportunities Blend</i>			<u>2.33</u>		<u>3.76</u>		<u>14.58</u>		<u>6.50</u>		<u>6.20</u>				<u>6.16</u>	<i>Jun-13</i>
Over/Under			-0.21		-0.19		-0.72		0.07		-0.70				-0.54	
AEGON USA (On Watch)	394,220,945	37.74	2.98	14	4.46	18	14.75	29	6.56	13	6.05	21			6.09	Jun-13
<i>BBgBarc US High Yield 2% Issuer Cap TR</i>			<u>2.61</u>	35	<u>3.98</u>	40	<u>14.32</u>	36	<u>6.36</u>	21	<u>6.14</u>	18			<u>6.02</u>	<i>Jun-13</i>
Over/Under			0.37		0.48		0.43		0.20		-0.09				0.07	
<i>eV US High Yield Fixed Inc Net Median</i>			2.40		3.75		13.51		5.86		5.54				5.38	<i>Jun-13</i>
Prudential Emerging Markets	435,565,443	41.70	2.51	55	4.34	14	17.04	11	7.86	9	6.73	10			5.91	May-14
<i>JP Morgan EMBI Global Diversified</i>			<u>1.81</u>	96	<u>3.34</u>	41	<u>15.04</u>	36	<u>6.69</u>	35	<u>6.24</u>	27			<u>5.42</u>	<i>May-14</i>
Over/Under			0.70		1.00		2.00		1.17		0.49				0.49	
<i>eV Emg Mkts Fixed Inc - Hard Currency Net Median</i>			2.55		3.16		14.55		6.38		5.84				4.60	<i>May-14</i>
Bain Capital Senior Loan Fund, LP	214,692,345	20.55	-0.20	99	0.48	95	6.22	87	3.81	66					3.73	Jun-15
<i>Credit Suisse Leveraged Loans</i>			<u>1.68</u>	37	<u>2.61</u>	61	<u>8.17</u>	45	<u>4.48</u>	11					<u>4.40</u>	<i>Jun-15</i>
Over/Under			-1.88		-2.13		-1.95		-0.67						-0.67	
<i>eV US Float-Rate Bank Loan Fixed Inc Net Median</i>			1.63		2.68		8.05		3.96						3.99	<i>Jun-15</i>

- Credit Opportunities Blend = 65% BBgBarc US High Yield 2% Issuer Cap TR / 35% JP Morgan EMBI Global Diversified 7/01/2014 to present; BBgBarc US High Yield 2% Issuer Cap TR prior to

eA = eVestment Alliance

BBgBarc = Bloomberg Barclays



MANAGER REPORT CARD

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		
AEGON USA	Jun-13	High Yield Bonds	✓	✓	✓	✓	✓	✓	✗	✓	✓	1,428.4	On Watch since October 2017 due to organizational reasons
Prudential	May-14	Emerging Market Debt	✓	✗	✓	✓	✓	✓	✓	✓	✓	1,432.7	Performance compliant with LACERS' Manager Monitoring Policy
Bain	Jun-15	Bank Loans	✗	✗	✗	✗	✗	✗	N/A	N/A	✗	754.3	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, 2019.
- * Where net of fees performance is not available gross of fee returns are evaluated.

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



REAL ASSETS

NEPC, LLC

Los Angeles City Employees' Retirement System

REAL ASSETS (GROSS)

	Market Value (\$)	% of Portfolio	3 Mo (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Real Assets	2,040,951,824	100.00	1.49	2.68	8.80	5.76	6.12	6.99	6.32	Nov-94
<i>CPI + 5% (Unadjusted)</i>			<u>1.31</u>	<u>2.80</u>	<u>7.39</u>	<u>7.20</u>	<u>6.90</u>	<u>6.83</u>	<u>7.28</u>	<i>Nov-94</i>
Over/Under			0.18	-0.12	1.41	-1.44	-0.78	0.16	-0.96	
Public Real Assets	1,213,466,379	59.46	1.41	2.99	11.58	3.86	2.97		2.17	Jun-14
<i>Public Real Assets Blend</i>			<u>1.02</u>	<u>1.74</u>	<u>10.23</u>	<u>2.53</u>	<u>1.14</u>		<u>-0.10</u>	<i>Jun-14</i>
Over/Under			0.39	1.25	1.35	1.33	1.83		2.27	
TIPS	757,292,768	37.10	0.80	1.61	8.60	3.52	2.78		2.02	Jul-14
<i>BBgBarc US TIPS TR</i>			<u>0.79</u>	<u>2.14</u>	<u>8.43</u>	<u>3.31</u>	<u>2.62</u>		<u>2.01</u>	<i>Jul-14</i>
Over/Under			0.01	-0.53	0.17	0.21	0.16		0.01	
DFA US TIPS¹	757,292,768	37.10	0.80	1.61	8.60	3.52	2.95		2.15	Aug-14
<i>BBgBarc US TIPS TR</i>			<u>0.79</u>	<u>2.14</u>	<u>8.43</u>	<u>3.31</u>	<u>2.62</u>		<u>2.01</u>	<i>Aug-14</i>
Over/Under			0.01	-0.53	0.17	0.21	0.33		0.14	
REITS	233,580,919	11.44	0.21	8.07	30.24	10.93			9.38	Mar-15
<i>FTSE NAREIT All Equity REIT</i>			<u>0.13</u>	<u>7.87</u>	<u>28.66</u>	<u>10.16</u>			<u>7.92</u>	<i>Mar-15</i>
Over/Under			0.08	0.20	1.58	0.77			1.46	
CenterSquare US Real Estate¹	233,580,919	11.44	0.21	8.07	30.24	10.93			10.28	May-15
<i>FTSE NAREIT All Equity REIT</i>			<u>0.13</u>	<u>7.87</u>	<u>28.66</u>	<u>10.16</u>			<u>9.24</u>	<i>May-15</i>
Over/Under			0.08	0.20	1.58	0.77			1.04	
Commodities	222,592,691	10.91	4.72	2.33	7.21	-0.25			-3.51	Jun-15
<i>Bloomberg Commodity Index TR USD</i>			<u>4.42</u>	<u>2.50</u>	<u>7.69</u>	<u>-0.94</u>			<u>-4.02</u>	<i>Jun-15</i>
Over/Under			0.30	-0.17	-0.48	0.69			0.51	
CoreCommodity Mgmt¹	222,592,691	10.91	4.72	2.33	7.21	-0.25			-3.51	Jul-15
<i>Bloomberg Commodity Index TR USD</i>			<u>4.42</u>	<u>2.50</u>	<u>7.69</u>	<u>-0.94</u>			<u>-4.02</u>	<i>Jul-15</i>
Over/Under			0.30	-0.17	-0.48	0.69			0.51	
Private Real Estate	809,255,880	39.65	1.64	2.33	5.67	7.61	8.81	8.47	6.89	Oct-94
<i>Real Estate Blend</i>			<u>1.71</u>	<u>3.25</u>	<u>6.18</u>	<u>7.95</u>	<u>9.84</u>	<u>11.31</u>	<u>9.80</u>	<i>Oct-94</i>
Over/Under			-0.07	-0.92	-0.51	-0.34	-1.03	-2.84	-2.91	
Timber	18,229,566	0.89	-0.05	-0.54	2.74	2.61	2.92	4.45	9.14	Sep-99

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

- Public Real Assets Custom Benchmark = 60% BBgBarc US TIPS TR / 20% Bloomberg Commodity Index TR USD / 10% Alerian MLP TR USD / 10% FTSE NAREIT All REIT

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

eA = eVestment Alliance



Los Angeles City Employees' Retirement System

REAL ASSETS (NET)

	Market Value (\$)	% of Portfolio	3 Mo (%)	Rank	Fiscal YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank	Inception (%)	Inception Date
Real Assets	2,040,951,824	100.00	1.45		2.60		8.63		5.60		5.96		6.84			Nov-94
<i>CPI + 5% (Unadjusted)</i>			<u>1.31</u>		<u>2.80</u>		<u>7.39</u>		<u>7.20</u>		<u>6.90</u>		<u>6.83</u>			<i>Nov-94</i>
Over/Under			0.14		-0.20		1.24		-1.60		-0.94		0.01			
Public Real Assets	1,213,466,379	59.46	1.36		2.89		11.36		3.61		2.74				1.96	Jun-14
<i>Public Real Assets Blend</i>			<u>1.02</u>		<u>1.74</u>		<u>10.23</u>		<u>2.53</u>		<u>1.14</u>				<u>-0.10</u>	<i>Jun-14</i>
Over/Under			0.34		1.15		1.13		1.08		1.60				2.06	
TIPS	757,292,768	37.10	0.79		1.58		8.55		3.46		2.72				1.96	Jul-14
<i>BBgBarc US TIPS TR</i>			<u>0.79</u>		<u>2.14</u>		<u>8.43</u>		<u>3.31</u>		<u>2.62</u>				<u>2.01</u>	<i>Jul-14</i>
Over/Under			0.00		-0.56		0.12		0.15		0.10				-0.05	
DFA US TIPS¹	757,292,768	37.10	0.79	50	1.58	84	8.55	48	3.46	29	2.89	16			2.10	Aug-14
<i>BBgBarc US TIPS TR</i>			<u>0.79</u>	<u>50</u>	<u>2.14</u>	<u>42</u>	<u>8.43</u>	<u>54</u>	<u>3.31</u>	<u>52</u>	<u>2.62</u>	<u>42</u>			<u>2.01</u>	<i>Aug-14</i>
Over/Under			0.00		-0.56		0.12		0.15		0.27				0.09	
<i>eV US TIPS / Inflation Fixed Inc Net Median</i>			0.79		2.11		8.55		3.33		2.53				1.76	<i>Aug-14</i>
REITS	233,580,919	11.44	0.11		7.88		29.74		10.46						8.93	Mar-15
<i>FTSE NAREIT All Equity REIT</i>			<u>0.13</u>		<u>7.87</u>		<u>28.66</u>		<u>10.16</u>						<u>7.92</u>	<i>Mar-15</i>
Over/Under			-0.02		0.01		1.08		0.30						1.01	
CenterSquare US Real Estate¹	233,580,919	11.44	0.11	54	7.88	51	29.74	32	10.46	27					9.81	May-15
<i>FTSE NAREIT All Equity REIT</i>			<u>0.13</u>	<u>53</u>	<u>7.87</u>	<u>51</u>	<u>28.66</u>	<u>41</u>	<u>10.16</u>	<u>32</u>					<u>9.24</u>	<i>May-15</i>
Over/Under			-0.02		0.01		1.08		0.30						0.57	
<i>eV US REIT Net Median</i>			0.31		7.89		27.88		8.55						8.01	<i>May-15</i>
Commodities	222,592,691	10.91	4.57		2.06		6.62		-0.97						-4.19	Jun-15
<i>Bloomberg Commodity Index TR USD</i>			<u>4.42</u>		<u>2.50</u>		<u>7.69</u>		<u>-0.94</u>						<u>-4.02</u>	<i>Jun-15</i>
Over/Under			0.15		-0.44		-1.07		-0.03						-0.17	
CoreCommodity Mgmt¹	222,592,691	10.91	4.57		2.06		6.62		-0.97						-4.19	Jul-15
<i>Bloomberg Commodity Index TR USD</i>			<u>4.42</u>		<u>2.50</u>		<u>7.69</u>		<u>-0.94</u>						<u>-4.02</u>	<i>Jul-15</i>
Over/Under			0.15		-0.44		-1.07		-0.03						-0.17	

¹ Portfolio has a mid-month inception date. Since inception return is calculated from the first full month of performance. No universe is available.

- Public Real Assets Custom Benchmark = 60% BBgBarc US TIPS TR / 20% Bloomberg Commodity Index TR USD / 10% Alerian MLP TR USD / 10% FTSE NAREIT All REIT

eA = eVestment Alliance



Los Angeles City Employees' Retirement System

REAL ASSETS (NET)

	Market Value (\$)	% of Portfolio	3 Mo (%)	Rank	Fiscal YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank	Inception (%)	Inception Date
Private Real Estate	809,255,880	39.65	1.62	20	2.29	62	5.57	58	7.53	25	8.72	38	8.35	79		Oct-94
<i>Real Estate Blend</i>			<u>1.71</u>	18	<u>3.25</u>	14	<u>6.18</u>	28	<u>7.95</u>	14	<u>9.84</u>	3	<u>11.31</u>	4		Oct-94
Over/Under			-0.09		-0.96		-0.61		-0.42		-1.12		-2.96			
<i>InvMetrics Public DB Real Estate Priv Net Median</i>			1.28		2.86		5.84		7.23		8.51		9.96			Oct-94
Timber	18,229,566	0.89	-0.05		-0.54		2.74		2.61		2.92		5.06			Sep-99

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



MANAGER REPORT CARD

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	=	=	✓	=	✓	✓	✓	✓	✓	333.9	Performance compliant with LACERS' Manager Monitoring Policy
CenterSquare	Apr-15	REITS	✗	✗	✓	✓	✓	✓	N/A	N/A	✓	592.3	Performance compliant with LACERS' Manager Monitoring Policy
CoreCommodity Mgt.	Jul-15	Commodities	✓	N/A	✗	N/A	✗	N/A	N/A	N/A	✗	983.9	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, 2019.
- * Where net of fees performance is not available gross of fee returns are evaluated.

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



APPENDIX

NEPC, LLC

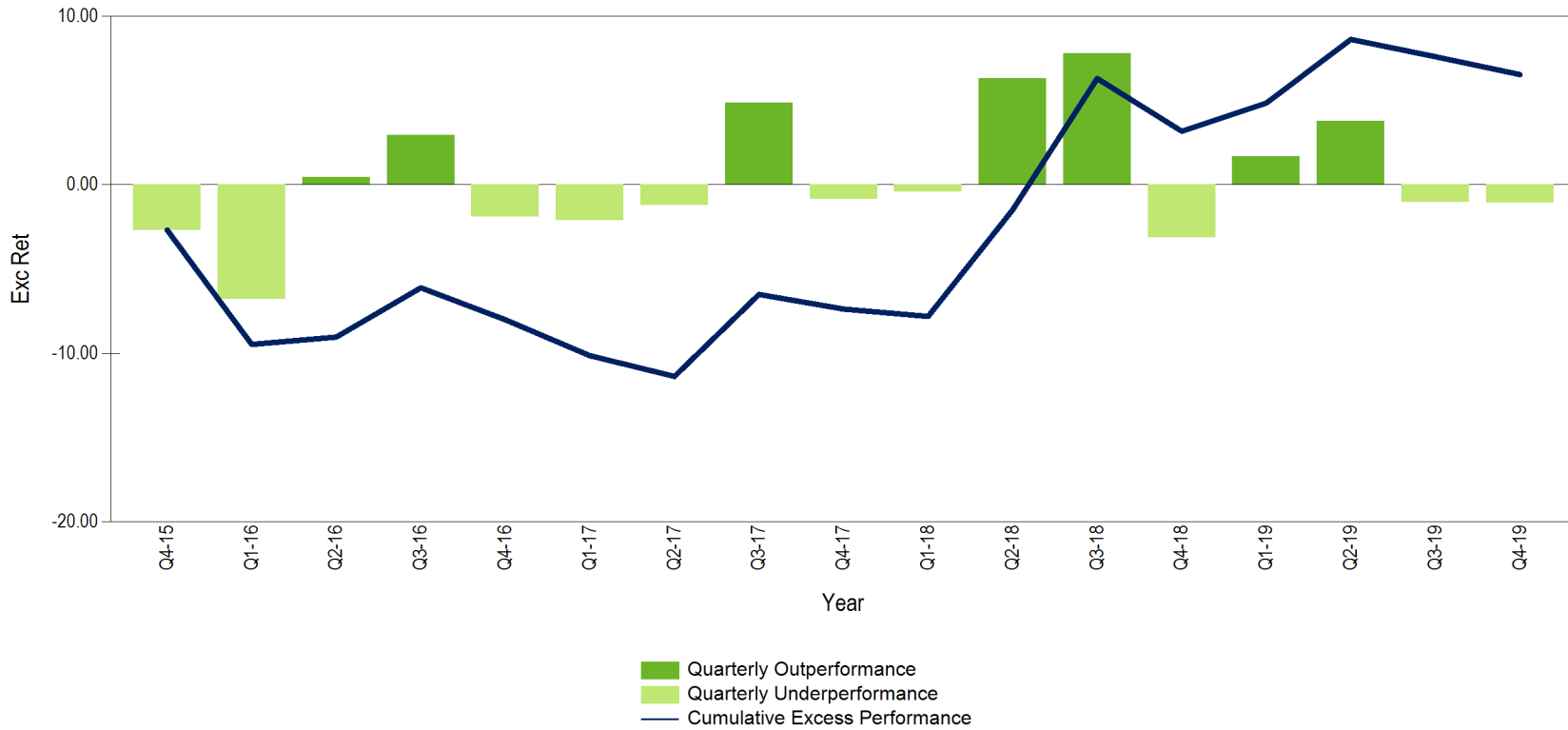
U.S. EQUITY MANAGER PERFORMANCE

NEPC, LLC

Los Angeles City Employees' Retirement System

EAM INVESTORS

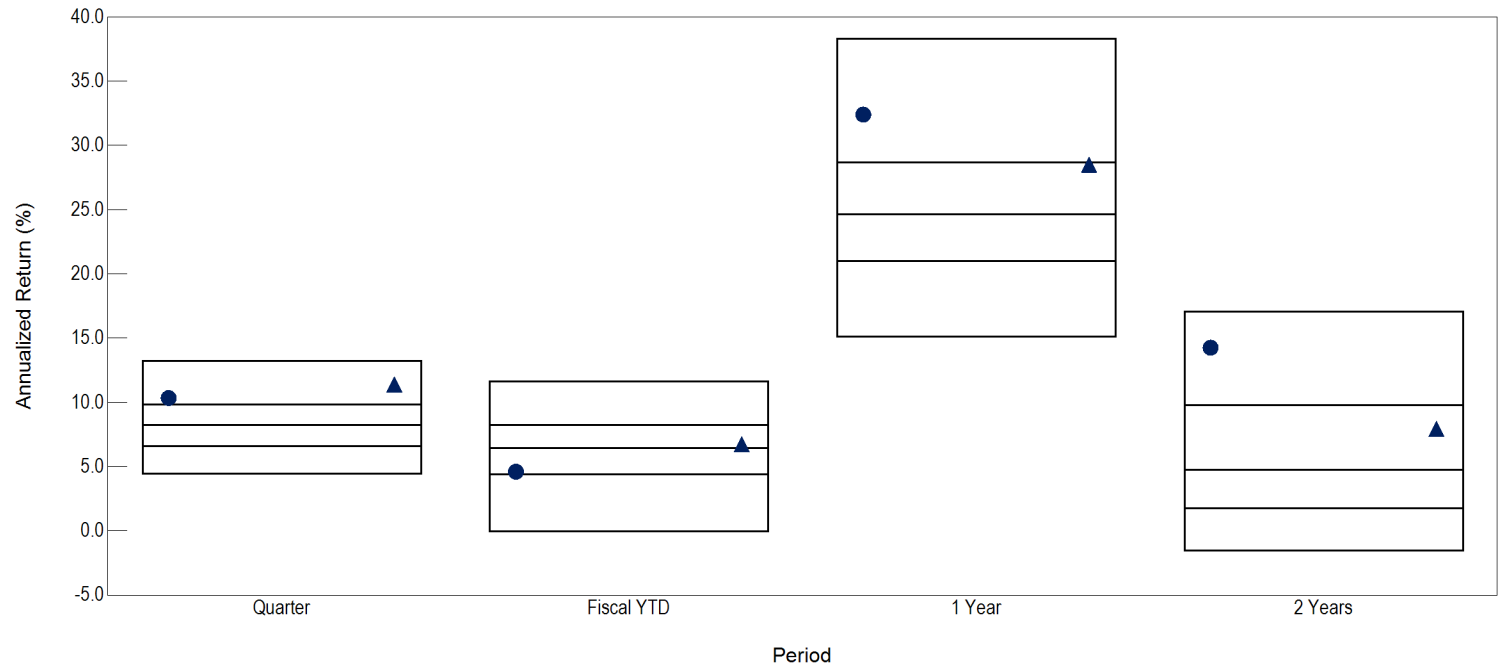
Quarterly and Cumulative Excess Performance



Los Angeles City Employees' Retirement System

EAM INVESTORS

EAM Investors vs. eV US Small Cap Equity Net



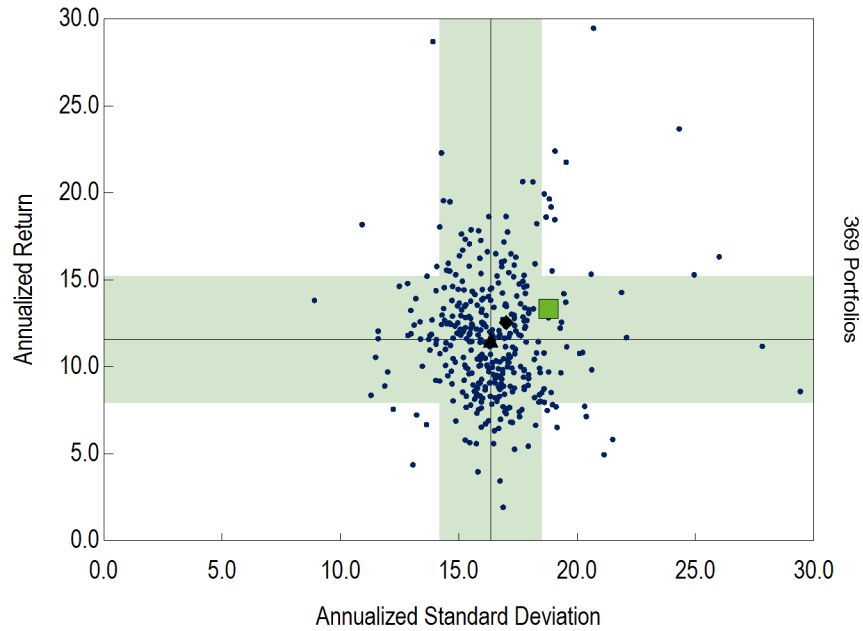
	Return (Rank)		Quarter		Fiscal YTD		1 Year		2 Years	
5th Percentile			13.20		11.64		38.30		17.05	
25th Percentile			9.89		8.27		28.73		9.84	
Median			8.26		6.50		24.68		4.82	
75th Percentile			6.65		4.47		21.03		1.81	
95th Percentile			4.47		0.00		15.14		-1.48	
# of Portfolios			395		395		395		392	
● EAM Investors			10.33	(19)	4.60	(74)	32.39	(15)	14.25	(11)
▲ Russell 2000 Growth			11.39	(12)	6.75	(47)	28.48	(26)	7.95	(33)



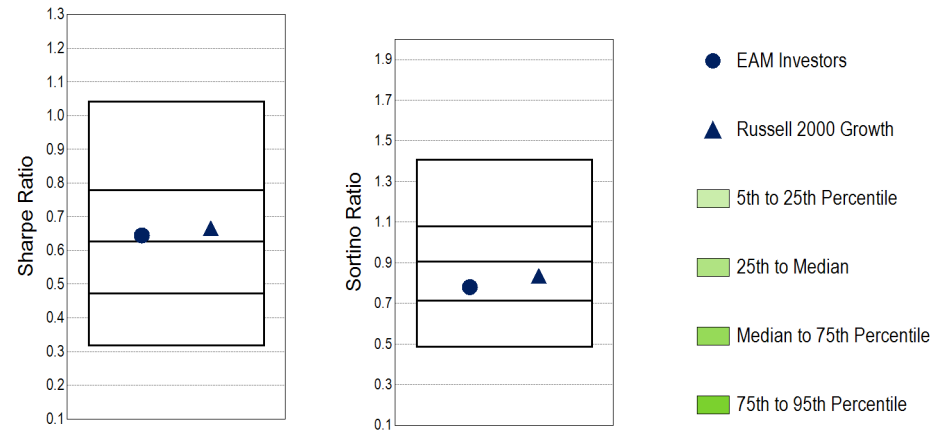
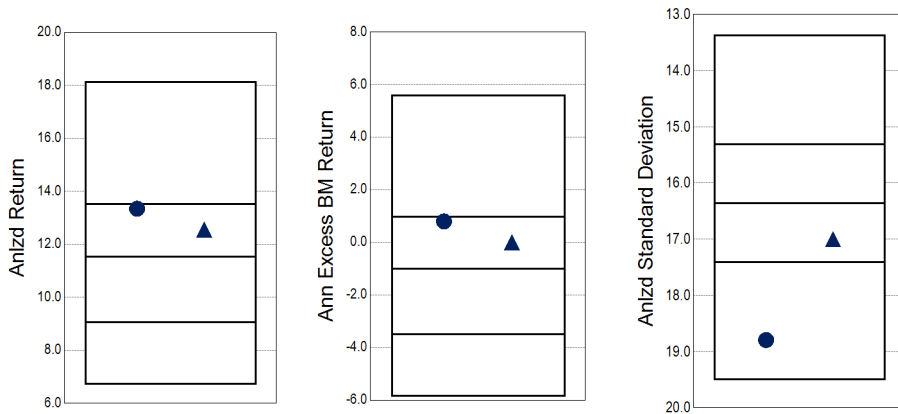
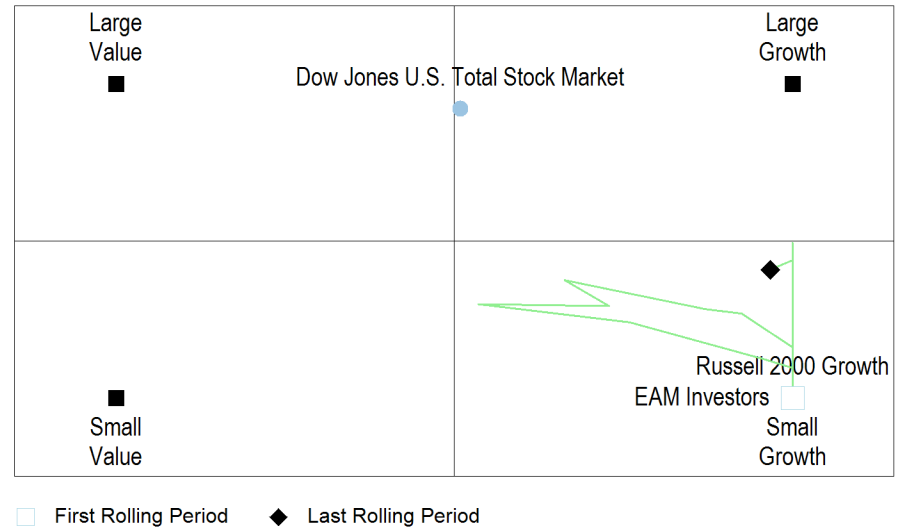
Los Angeles City Employees' Retirement System

EAM INVESTORS

Since Inception Risk Return

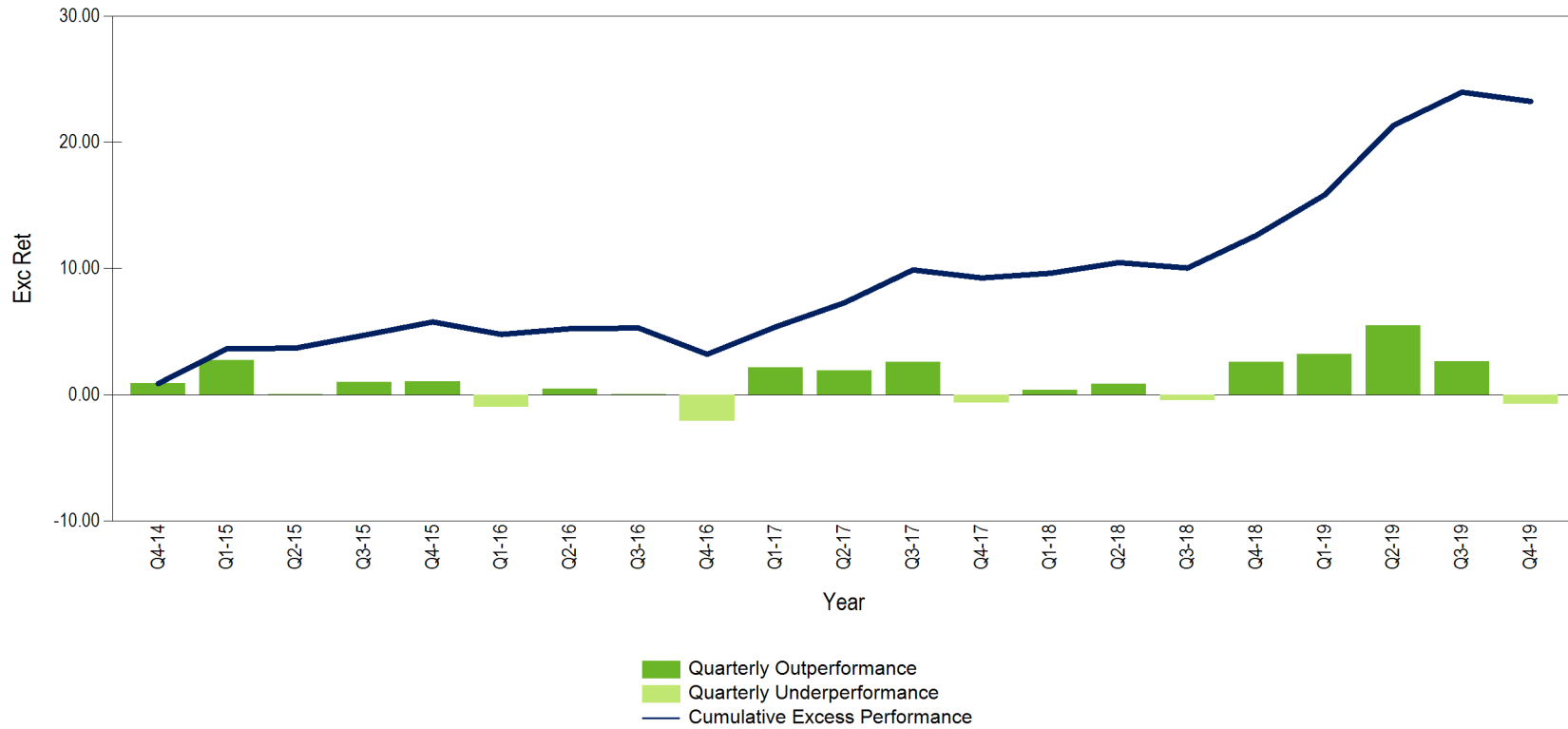


Since Inception Style Map



PRINCIPAL GLOBAL INVESTORS

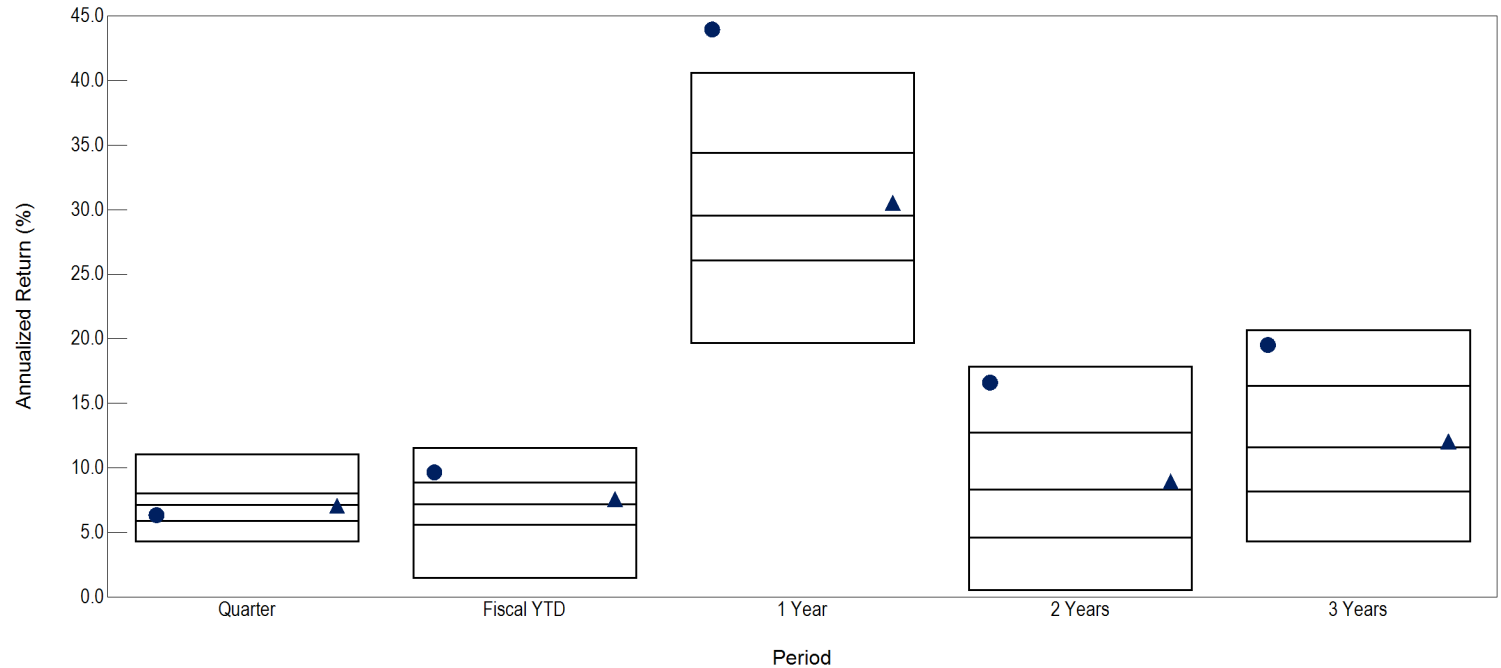
Quarterly and Cumulative Excess Performance



Los Angeles City Employees' Retirement System

PRINCIPAL GLOBAL INVESTORS

Principal Global Investors vs. eV US Mid Cap Equity Net



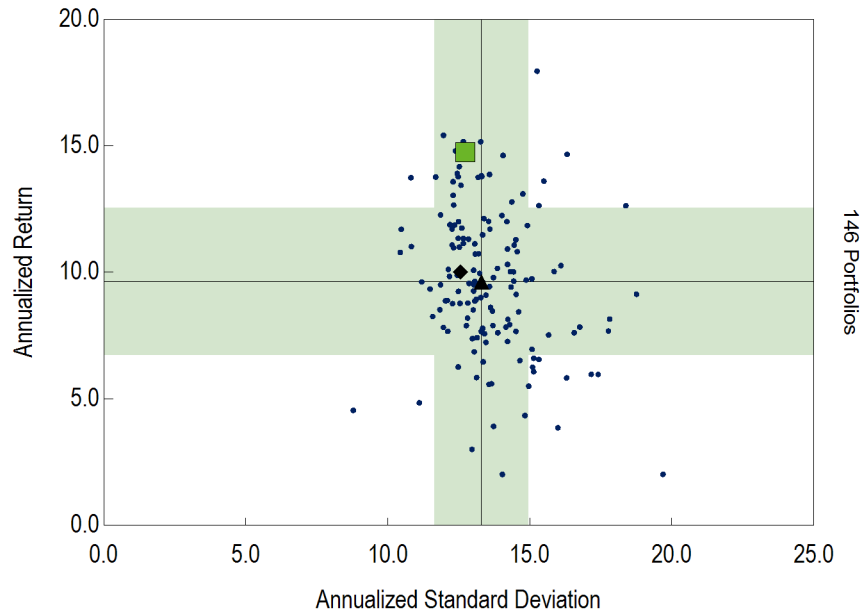
	Return (Rank)									
5th Percentile	11.04		11.54		40.61		17.86		20.65	
25th Percentile	8.07		8.93		34.43		12.79		16.39	
Median	7.17		7.22		29.61		8.36		11.66	
75th Percentile	5.92		5.61		26.11		4.67		8.22	
95th Percentile	4.36		1.53		19.73		0.56		4.34	
# of Portfolios	157		156		156		155		154	
● Principal Global Investors	6.33	(67)	9.65	(18)	43.96	(2)	16.60	(10)	19.51	(11)
▲ Russell MidCap	7.06	(51)	7.58	(45)	30.54	(44)	8.96	(47)	12.05	(48)



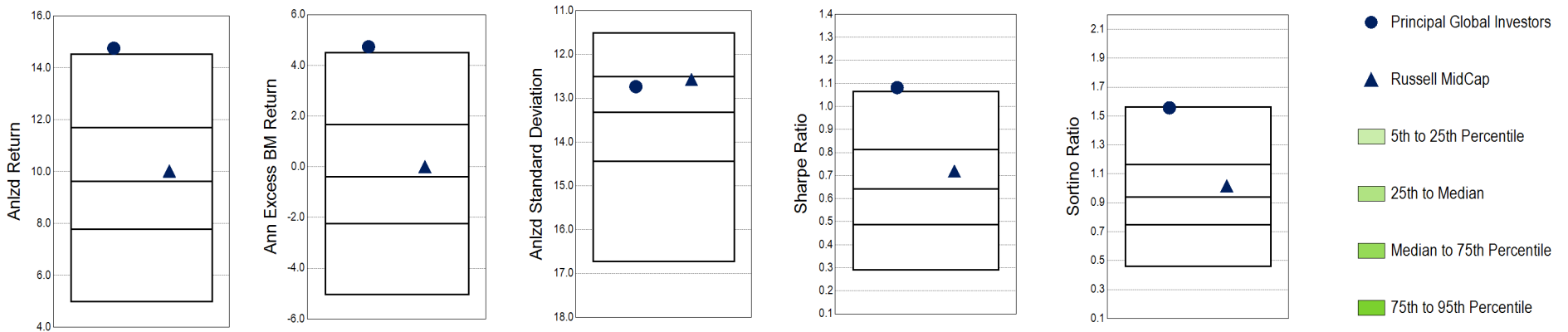
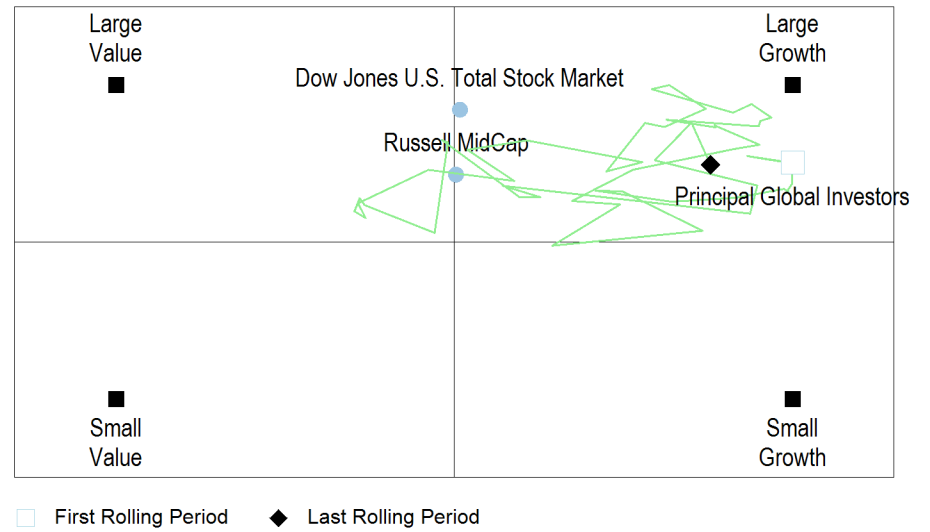
Los Angeles City Employees' Retirement System

PRINCIPAL GLOBAL INVESTORS

Since Inception Risk Return



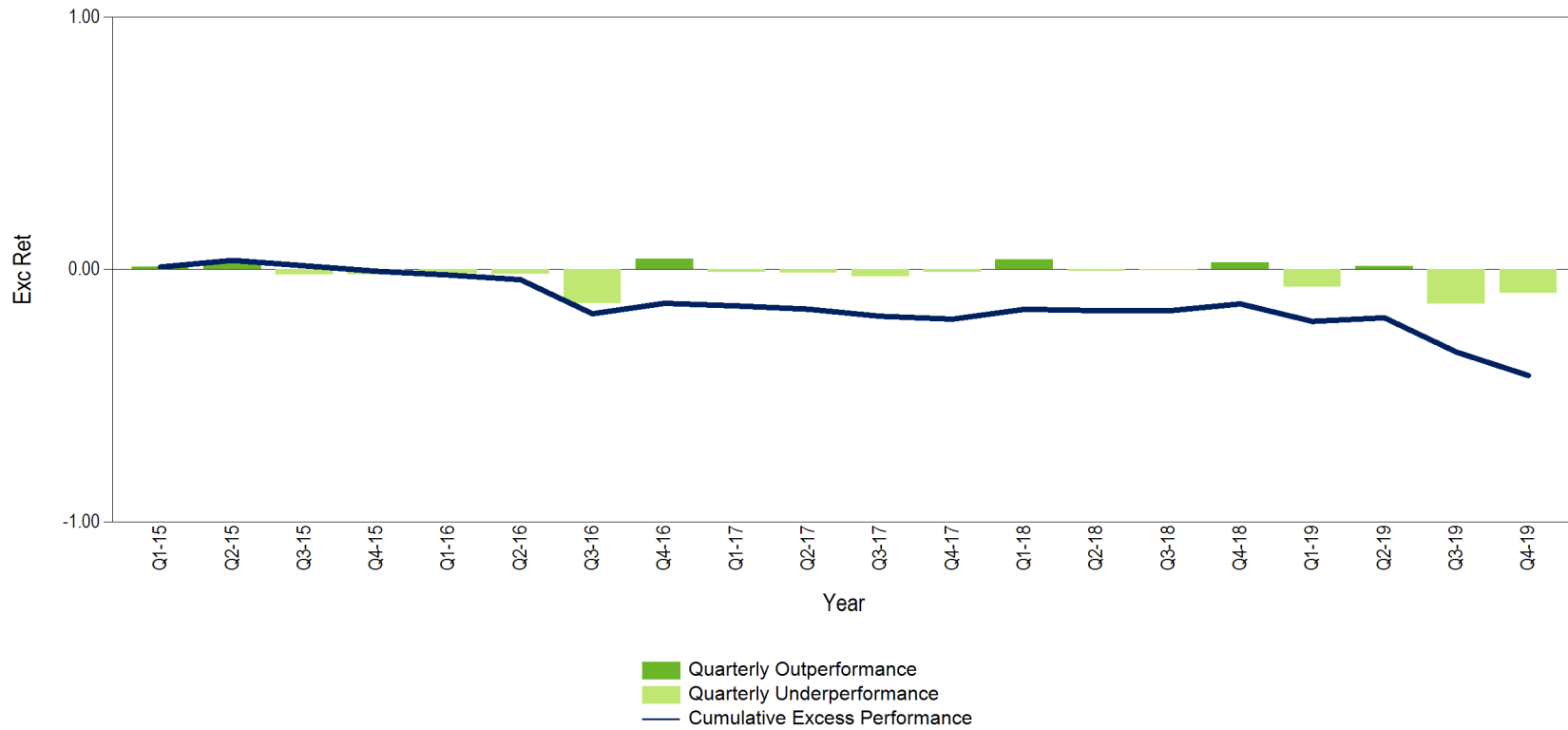
Since Inception Style Map



Los Angeles City Employees' Retirement System

RHUMBLINE ADVISORS S&P 500

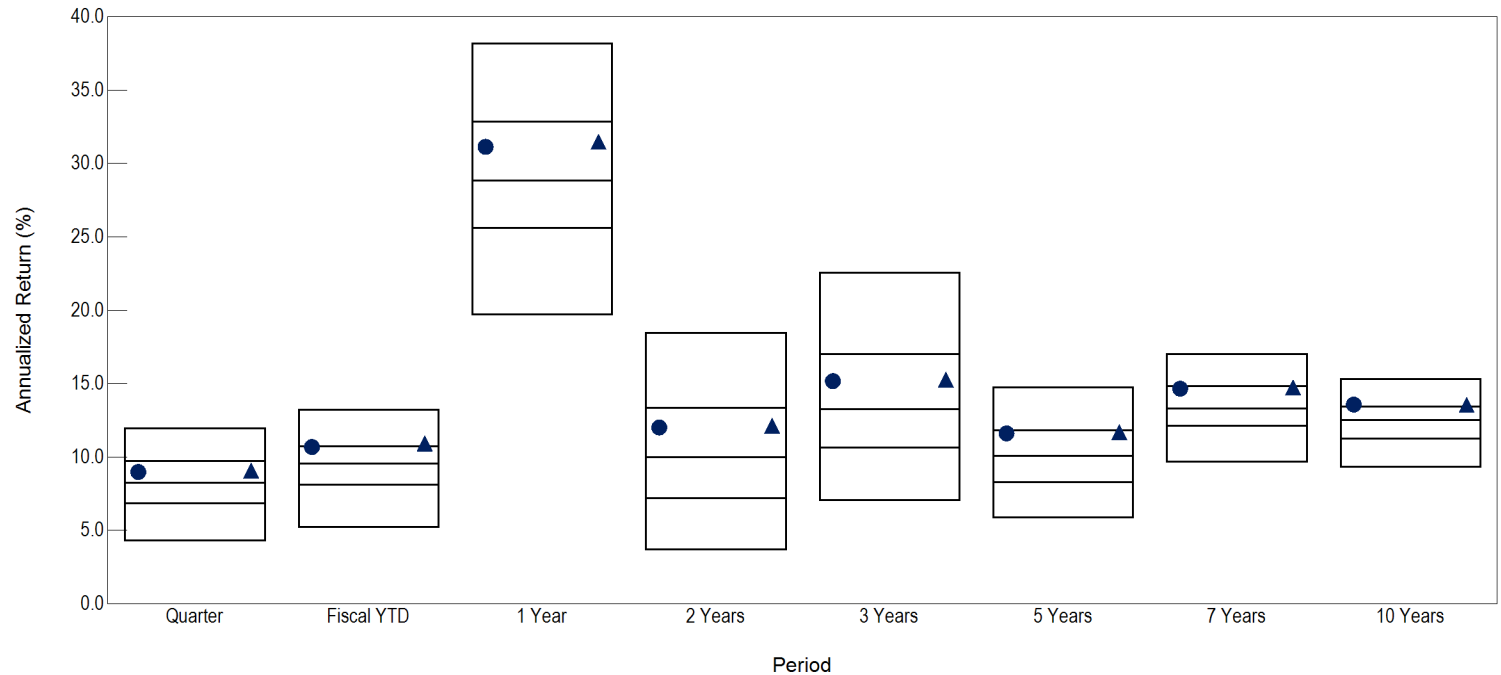
Quarterly and Cumulative Excess Performance



Los Angeles City Employees' Retirement System

RHUMBLINE ADVISORS S&P 500

Rhumbline Advisors S&P 500 vs. eV US Large Cap Equity Net



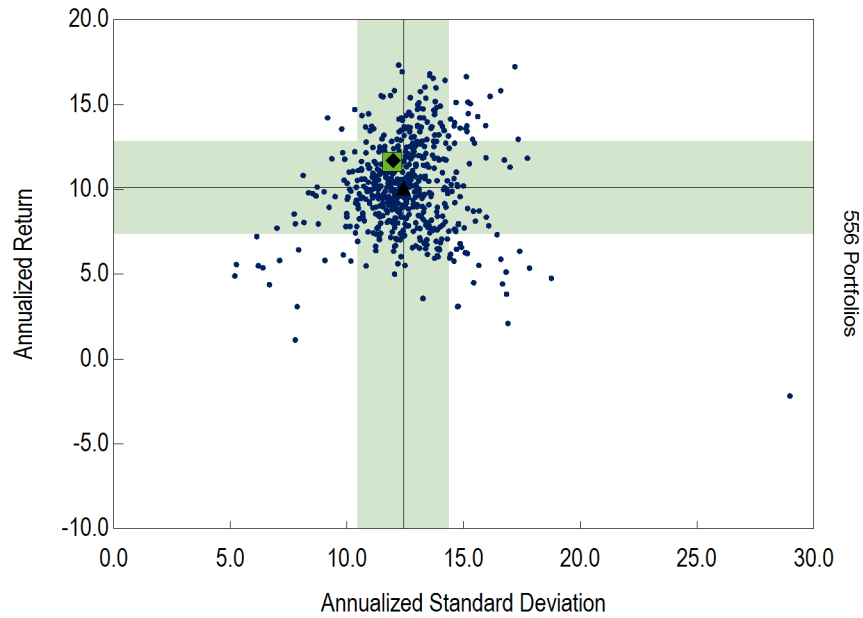
Return (Rank)

5th Percentile	11.94	13.23	38.19	18.46	22.56	14.75	17.04	15.32
25th Percentile	9.77	10.77	32.92	13.39	17.08	11.85	14.88	13.49
Median	8.27	9.61	28.89	10.02	13.30	10.10	13.34	12.57
75th Percentile	6.89	8.17	25.65	7.26	10.68	8.32	12.19	11.31
95th Percentile	4.38	5.29	19.77	3.76	7.12	5.93	9.73	9.36
# of Portfolios	607	607	607	602	591	556	518	442
● Rhumbline Advisors S&P 500	8.98 (37)	10.68 (27)	31.14 (37)	12.01 (33)	15.17 (36)	11.61 (29)	14.66 (29)	13.57 (25)
▲ S&P 500	9.07 (37)	10.92 (23)	31.49 (35)	12.13 (32)	15.27 (36)	11.70 (28)	14.73 (28)	13.56 (25)

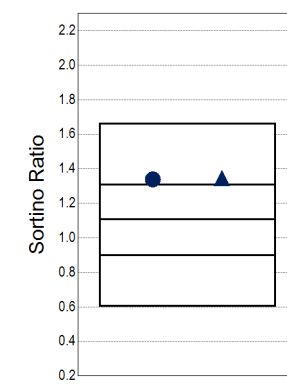
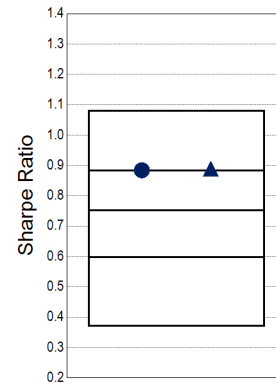
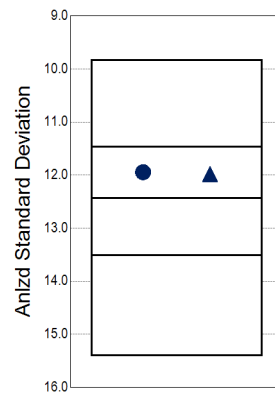
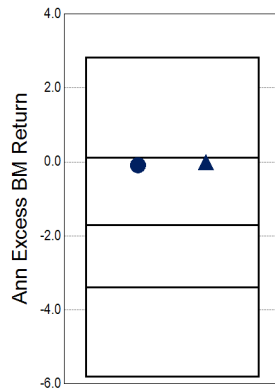
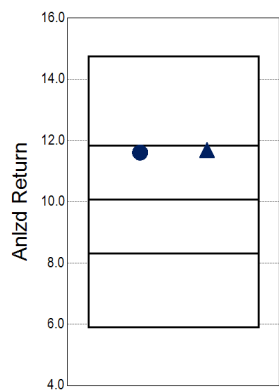
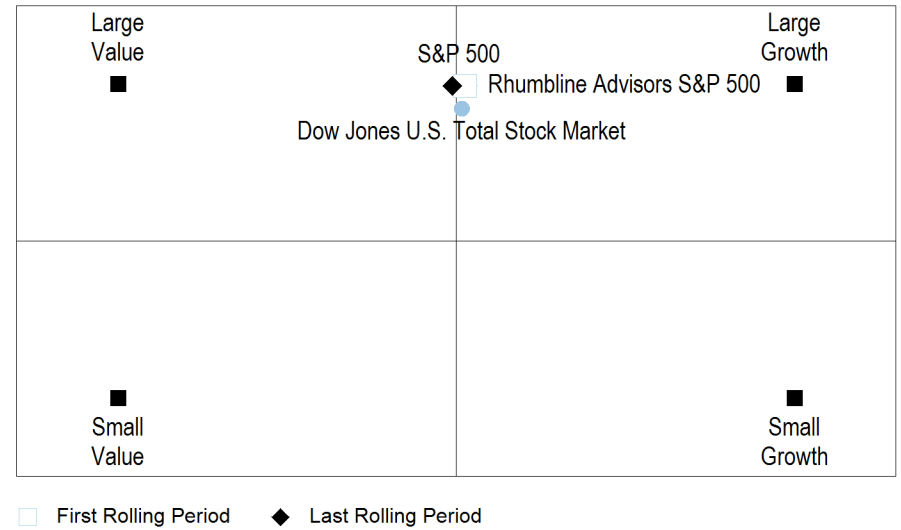


RHUMBLINE ADVISORS S&P 500

5 Year Risk Return



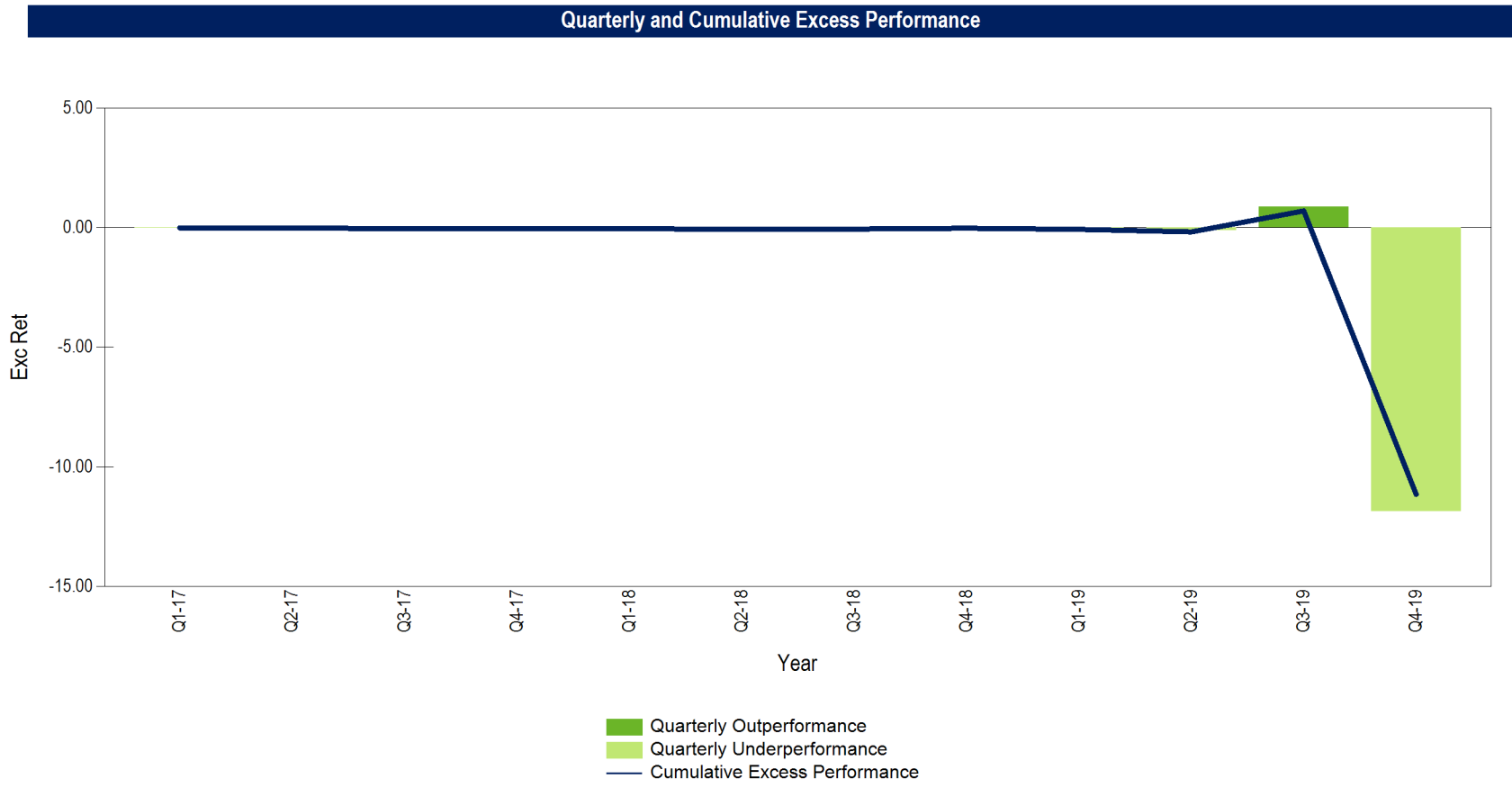
5 Year Style Map



- Rhumbline Advisors S&P 500
- ▲ S&P 500
- 5th to 25th Percentile
- 25th to Median
- Median to 75th Percentile
- 75th to 95th Percentile

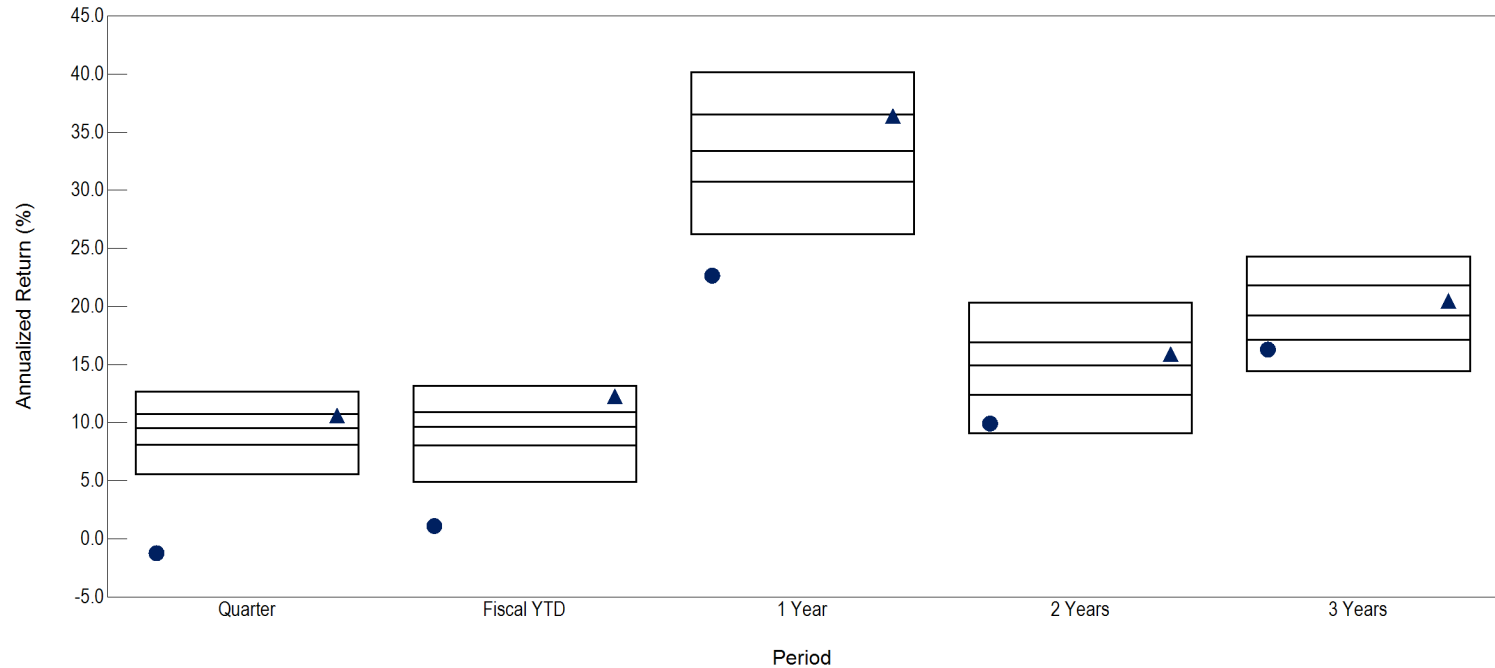


RHUMBLINE ADVISORS RUSSELL 1000 GROWTH



RHUMBLINE ADVISORS RUSSELL 1000 GROWTH

Rhumbline Advisors Russell 1000 Growth vs. eV US Large Cap Growth Equity Net

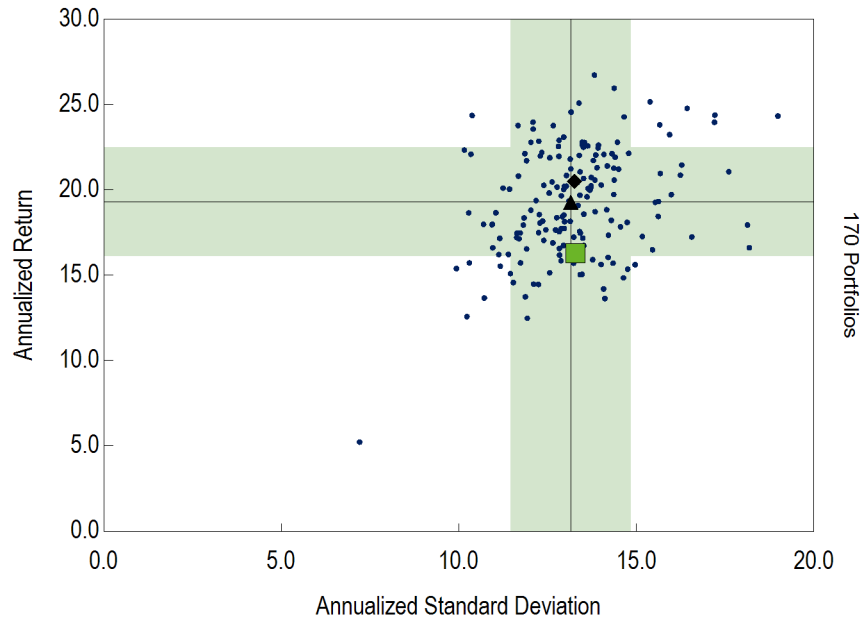


	Return (Rank)									
5th Percentile	12.69		13.18		40.15		20.34		24.30	
25th Percentile	10.81		10.96		36.56		16.97		21.85	
Median	9.58		9.70		33.43		14.98		19.29	
75th Percentile	8.13		8.11		30.77		12.42		17.16	
95th Percentile	5.60		4.94		26.25		9.12		14.51	
# of Portfolios	176		176		176		174		170	
● Rhumbline Advisors Russell 1000 Growth	-1.24	(99)	1.10	(99)	22.65	(99)	9.92	(94)	16.29	(83)
▲ Russell 1000 Growth	10.62	(29)	12.27	(11)	36.39	(28)	15.90	(36)	20.49	(37)

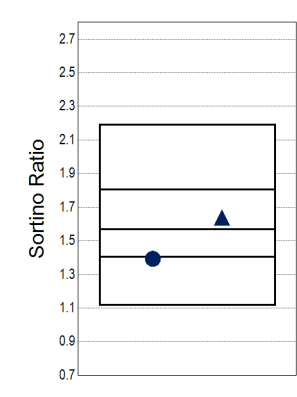
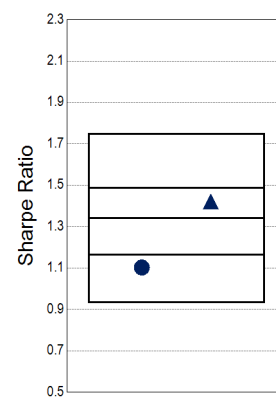
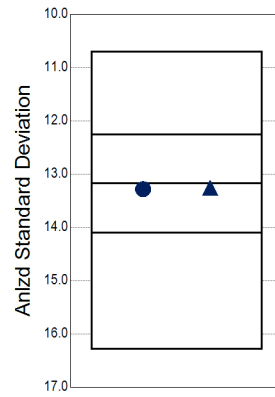
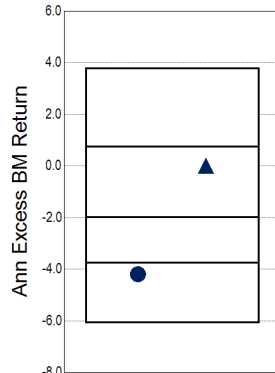
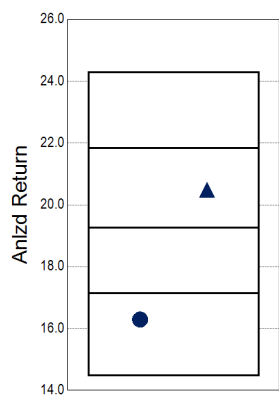
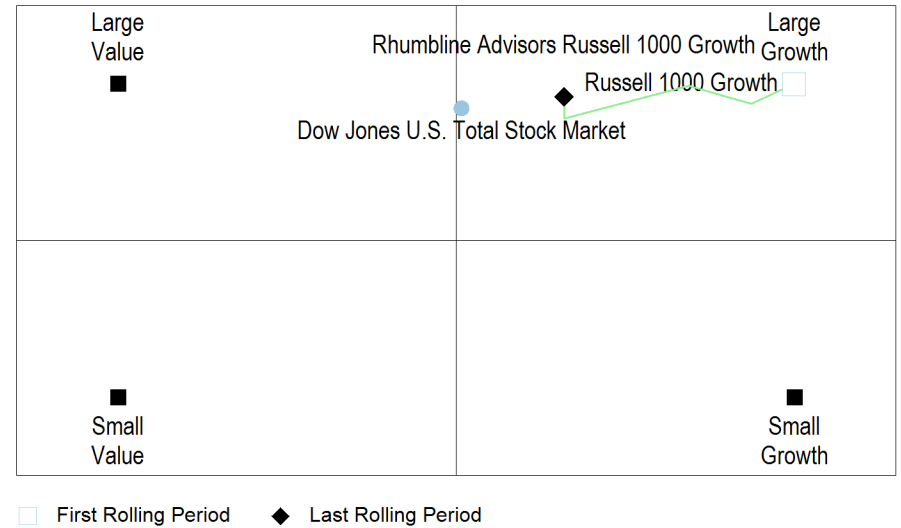


RHUMBLINE ADVISORS RUSSELL 1000 GROWTH

3 Year Risk Return



3 Year Style Map

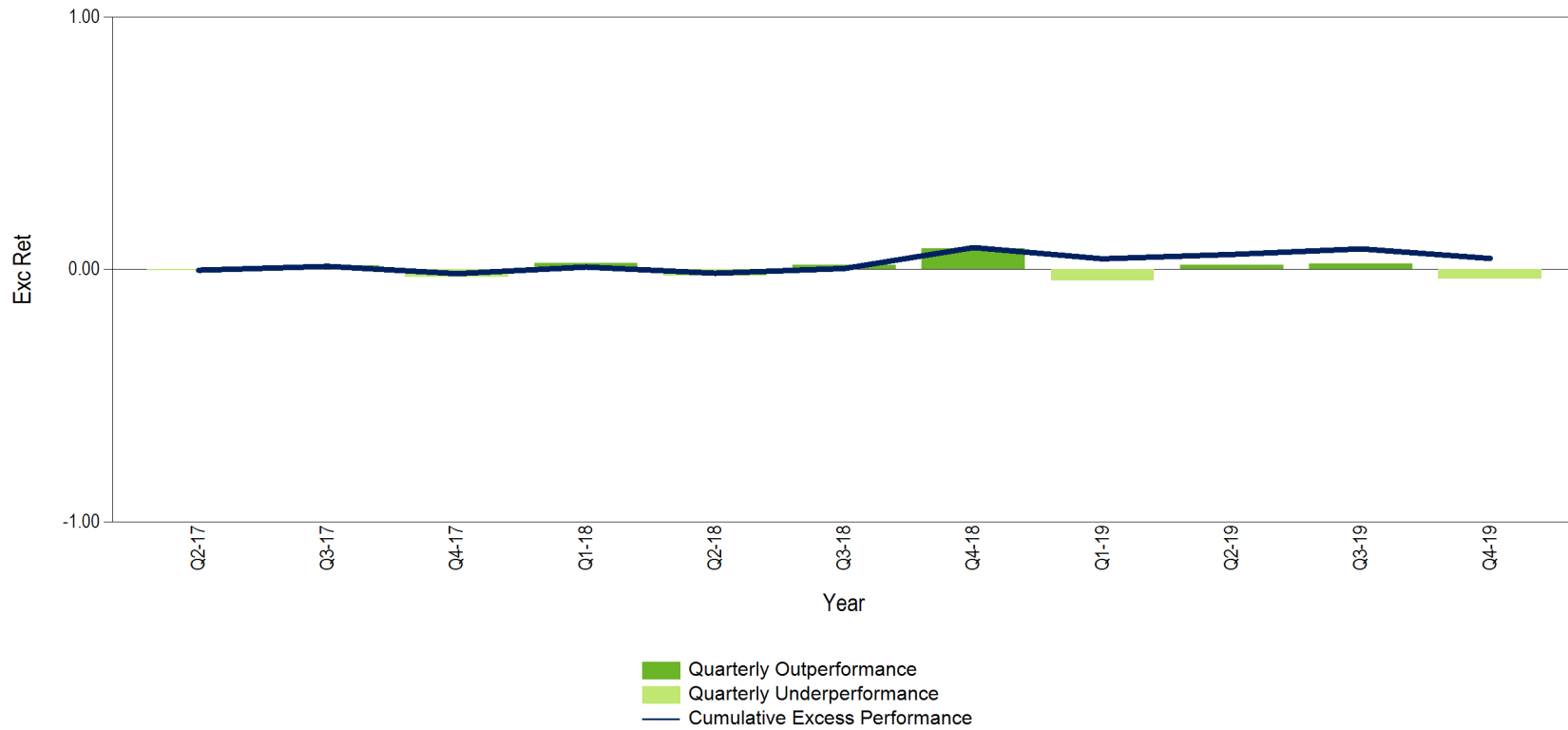


- Rhumbline Advisors Russell 1000 Growth
- ▲ Russell 1000 Growth
- 5th to 25th Percentile
- 25th to Median
- Median to 75th Percentile
- 75th to 95th Percentile



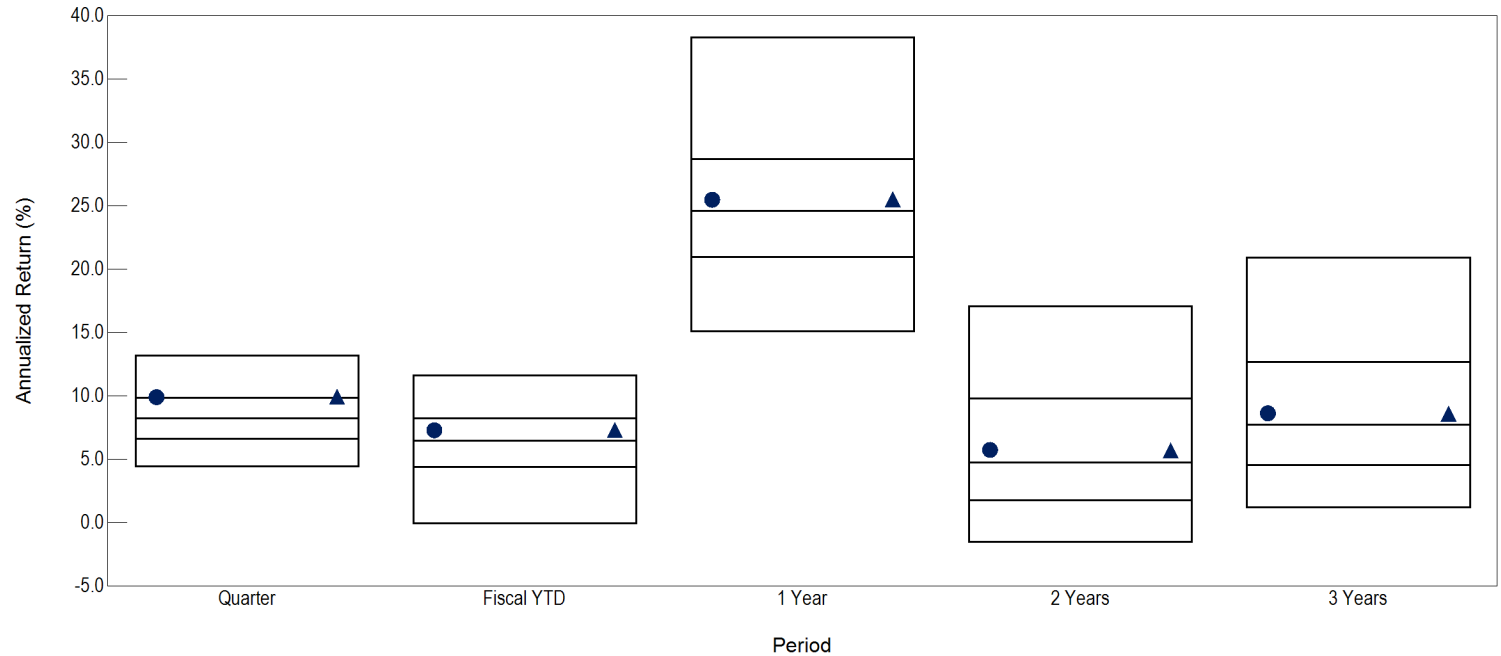
RHUMBLINE ADVISORS RUSSELL 2000

Quarterly and Cumulative Excess Performance



RHUMBLINE ADVISORS RUSSELL 2000

Rhumbline Advisors Russell 2000 vs. eV US Small Cap Equity Net

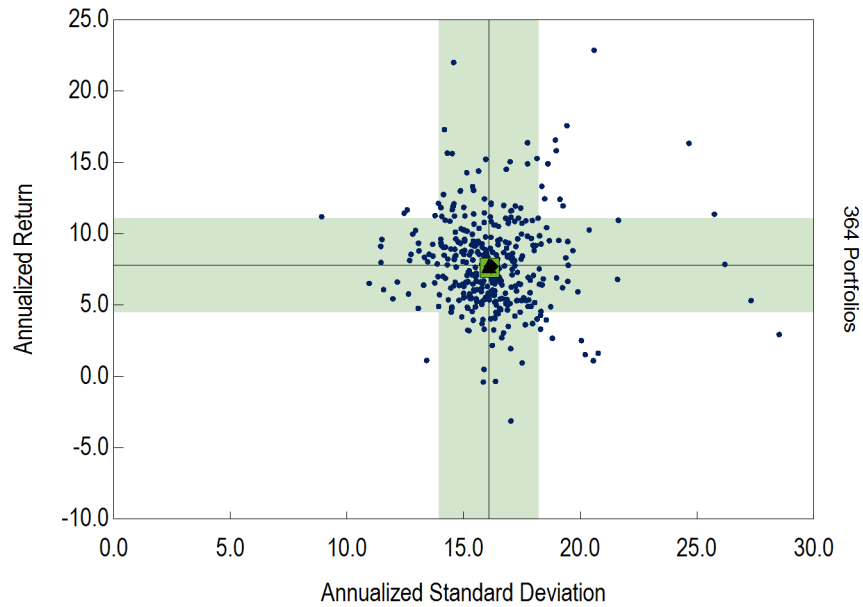


	Return (Rank)									
5th Percentile	13.20		11.64		38.30		17.05		20.89	
25th Percentile	9.89		8.27		28.73		9.84		12.73	
Median	8.26		6.50		24.68		4.82		7.78	
75th Percentile	6.65		4.47		21.03		1.81		4.58	
95th Percentile	4.47		0.00		15.14		-1.48		1.25	
# of Portfolios	395		395		395		392		385	
● Rhumbline Advisors Russell 2000	9.90	(25)	7.29	(41)	25.48	(45)	5.74	(45)	8.62	(46)
▲ Russell 2000	9.94	(25)	7.30	(41)	25.52	(45)	5.69	(45)	8.59	(46)

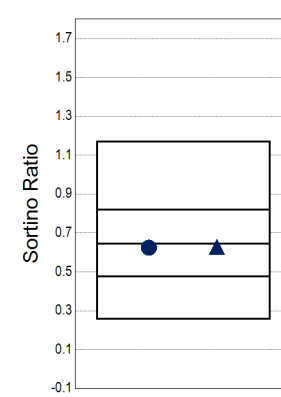
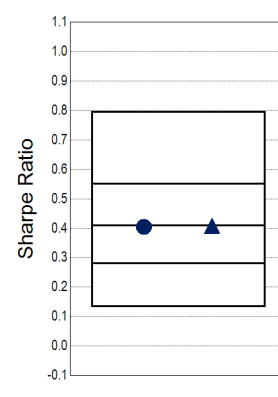
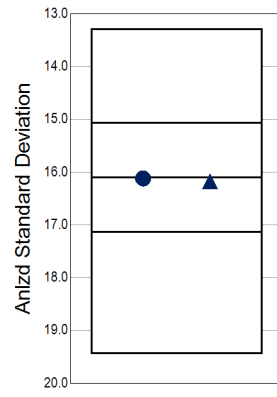
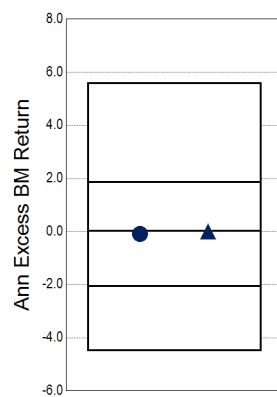
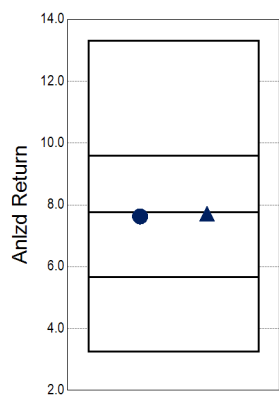
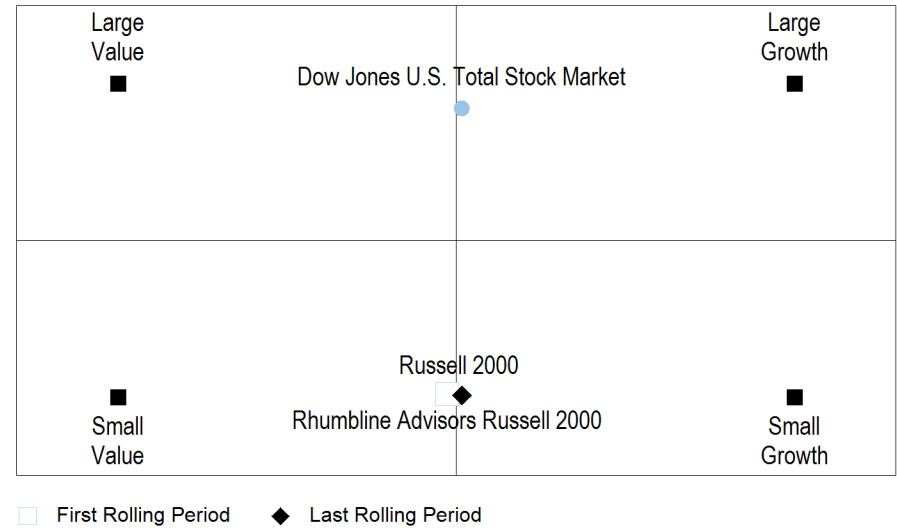


RHUMBLINE ADVISORS RUSSELL 2000

Since Inception Risk Return



Since Inception Style Map

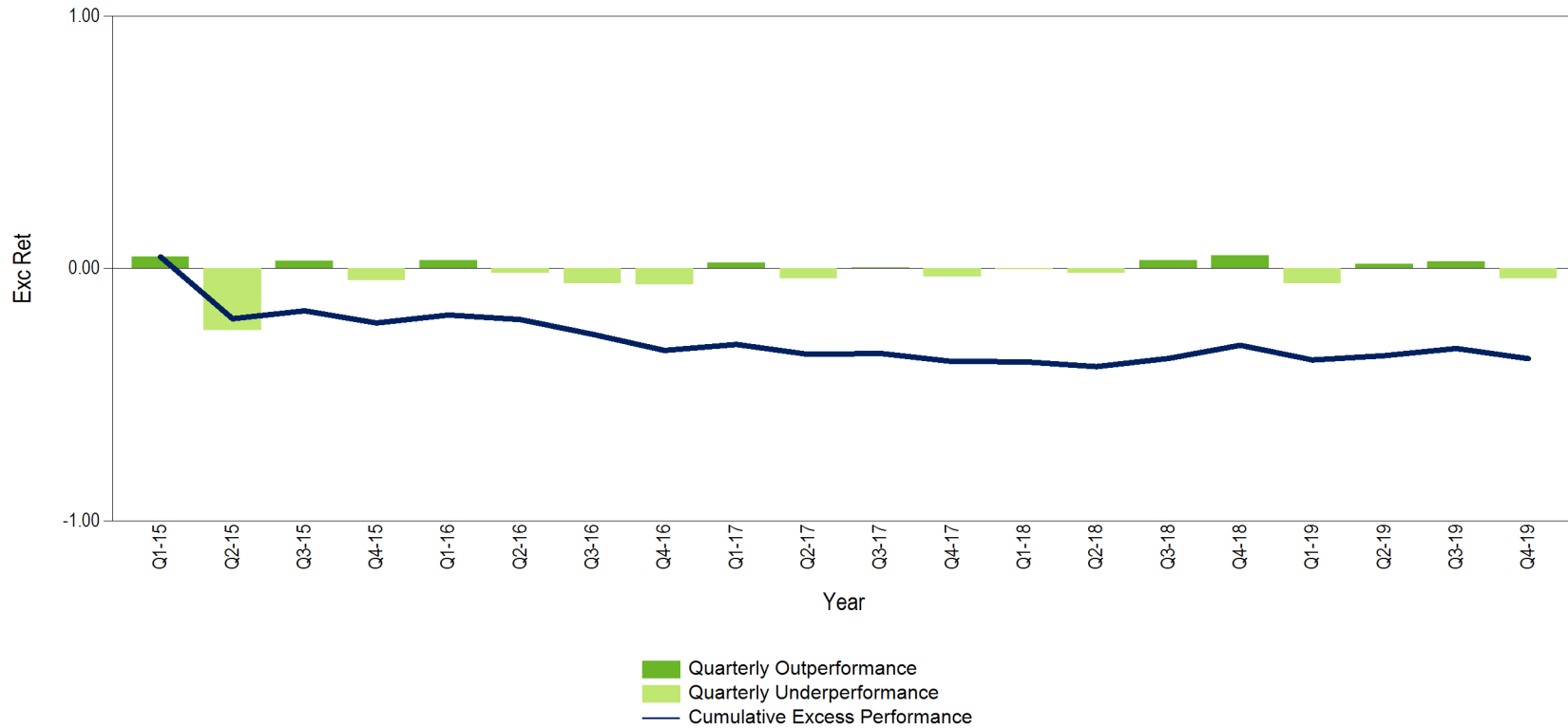


- Rhumbline Advisors Russell 2000
- ▲ Russell 2000
- 5th to 25th Percentile
- 25th to Median
- Median to 75th Percentile
- 75th to 95th Percentile



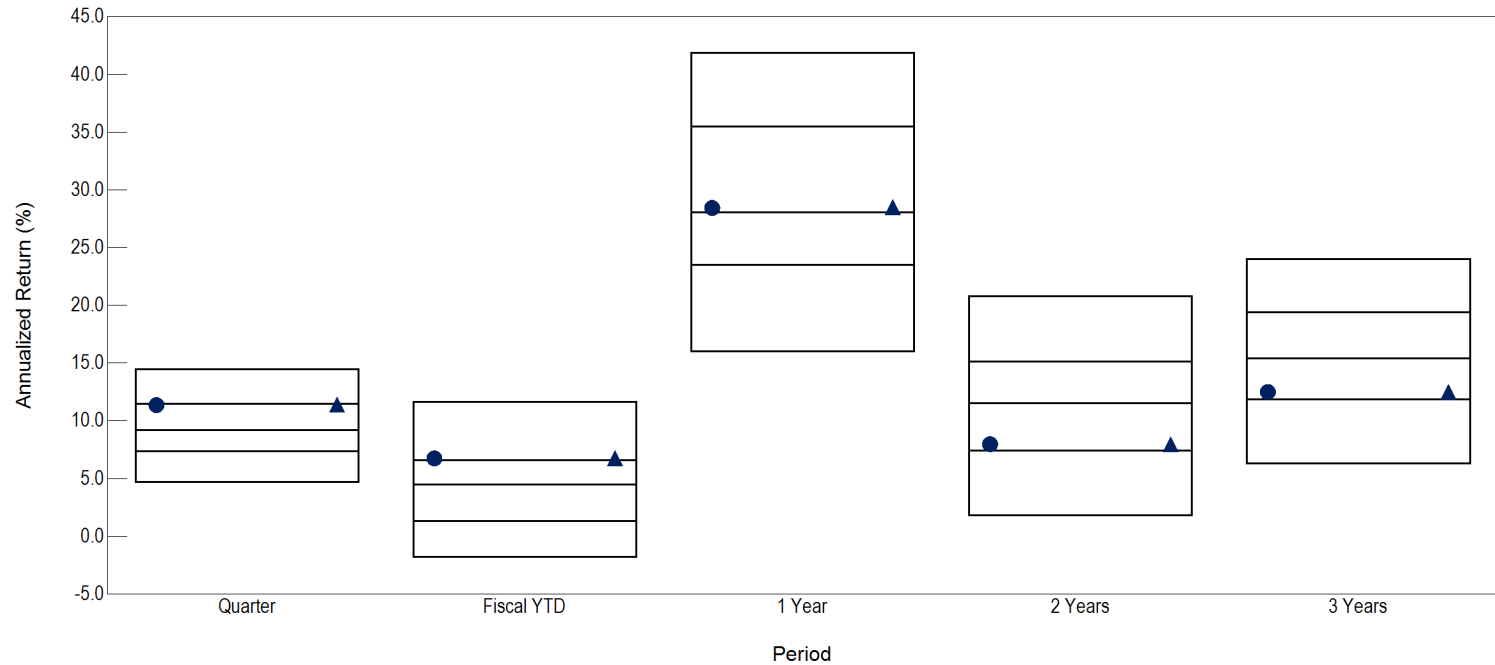
RHUMBLINE ADVISORS RUSSELL 2000 GROWTH

Quarterly and Cumulative Excess Performance



RHUMBLINE ADVISORS RUSSELL 2000 GROWTH

Rhumbline Advisors Russell 2000 Growth vs. eV US Small Cap Growth Equity Net

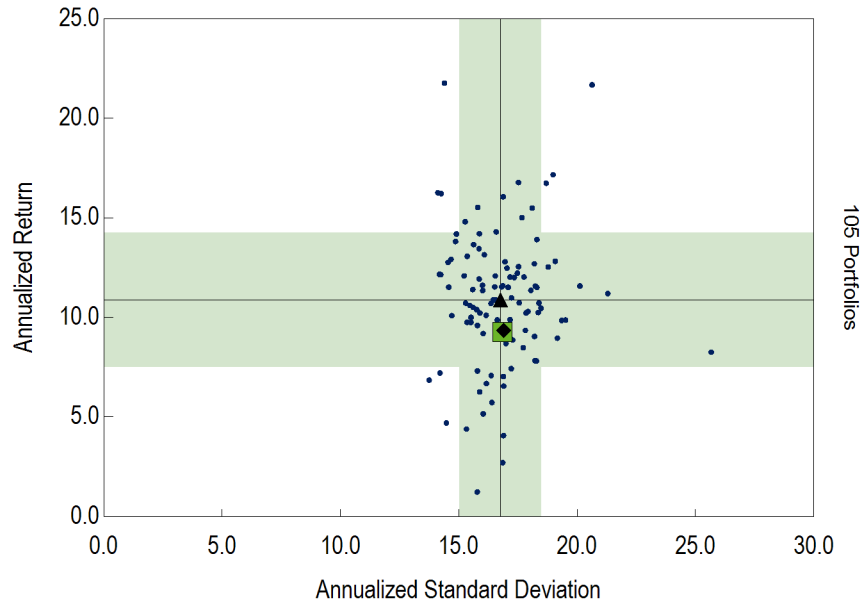


	Return (Rank)									
5th Percentile	14.48		11.64		41.88		20.76		24.02	
25th Percentile	11.52		6.62		35.52		15.20		19.45	
Median	9.26		4.51		28.09		11.58		15.46	
75th Percentile	7.42		1.36		23.54		7.45		11.91	
95th Percentile	4.73		-1.73		16.06		1.90		6.36	
# of Portfolios	117		117		117		116		115	
● Rhumbline Advisors Russell 2000 Growth	11.35	(26)	6.74	(25)	28.43	(49)	7.97	(74)	12.49	(73)
▲ Russell 2000 Growth	11.39	(26)	6.75	(25)	28.48	(49)	7.95	(74)	12.49	(73)

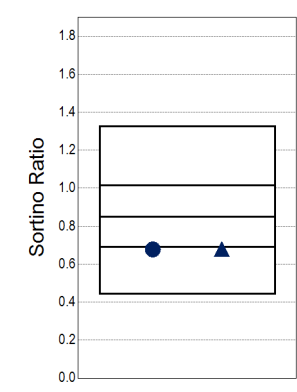
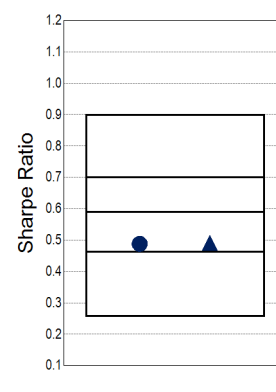
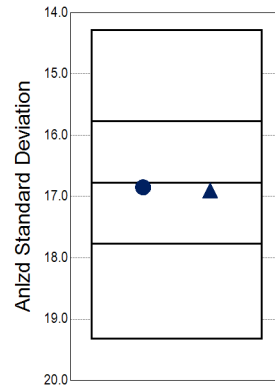
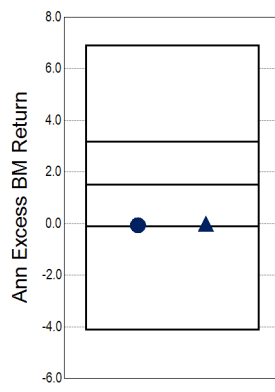
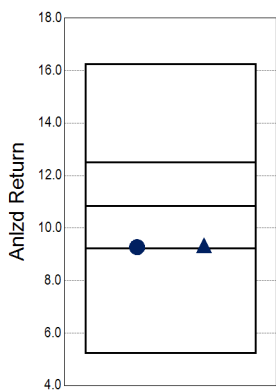
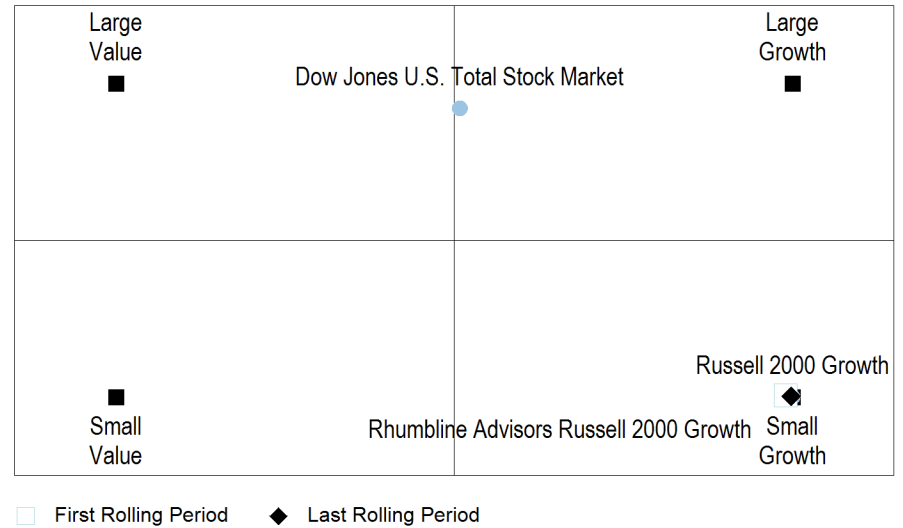


RHUMBLINE ADVISORS RUSSELL 2000 GROWTH

Since Inception Risk Return



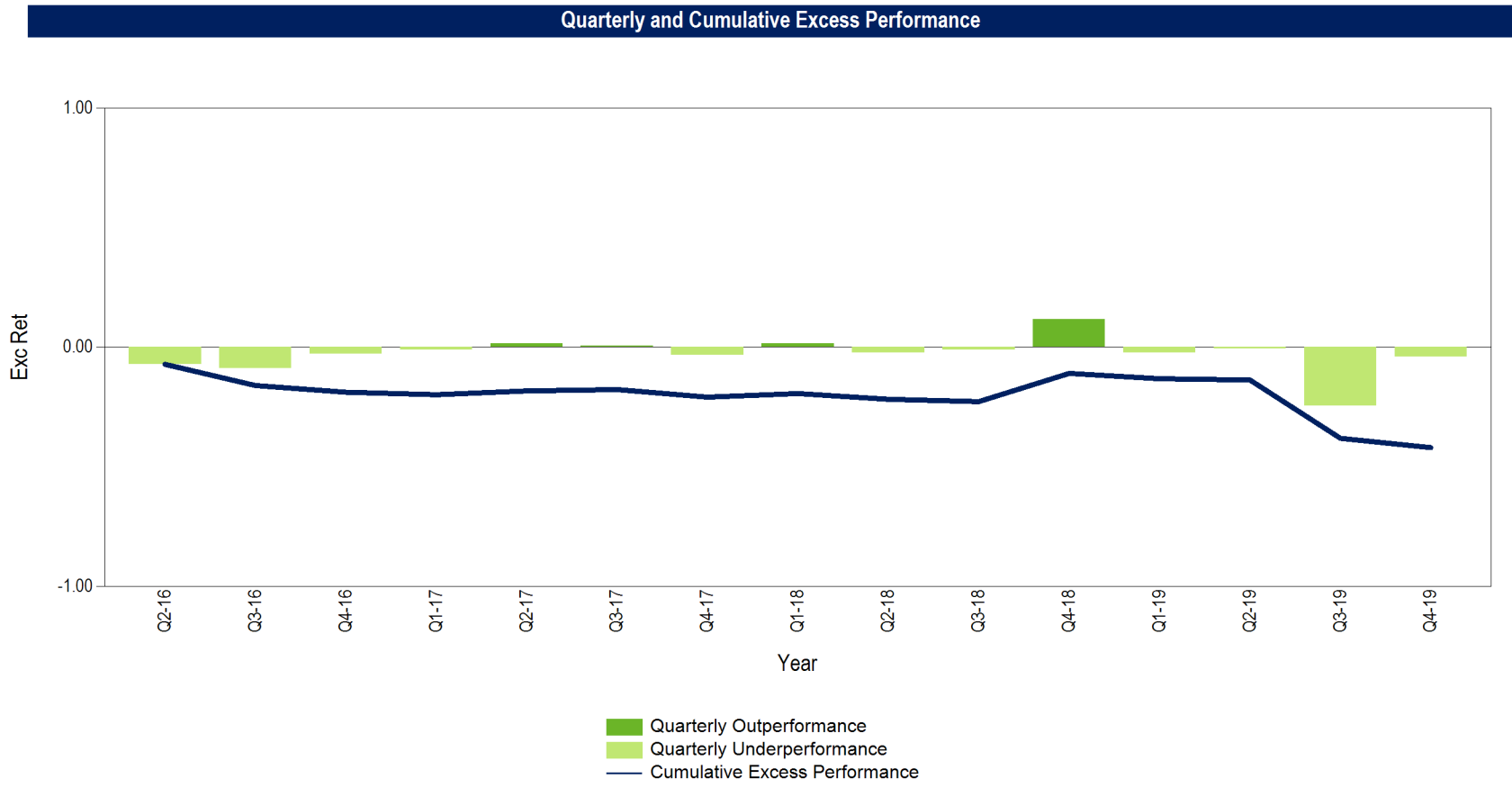
Since Inception Style Map



- Rhumbline Advisors Russell 2000 Growth
- ▲ Russell 2000 Growth
- 5th to 25th Percentile
- 25th to Median
- Median to 75th Percentile
- 75th to 95th Percentile

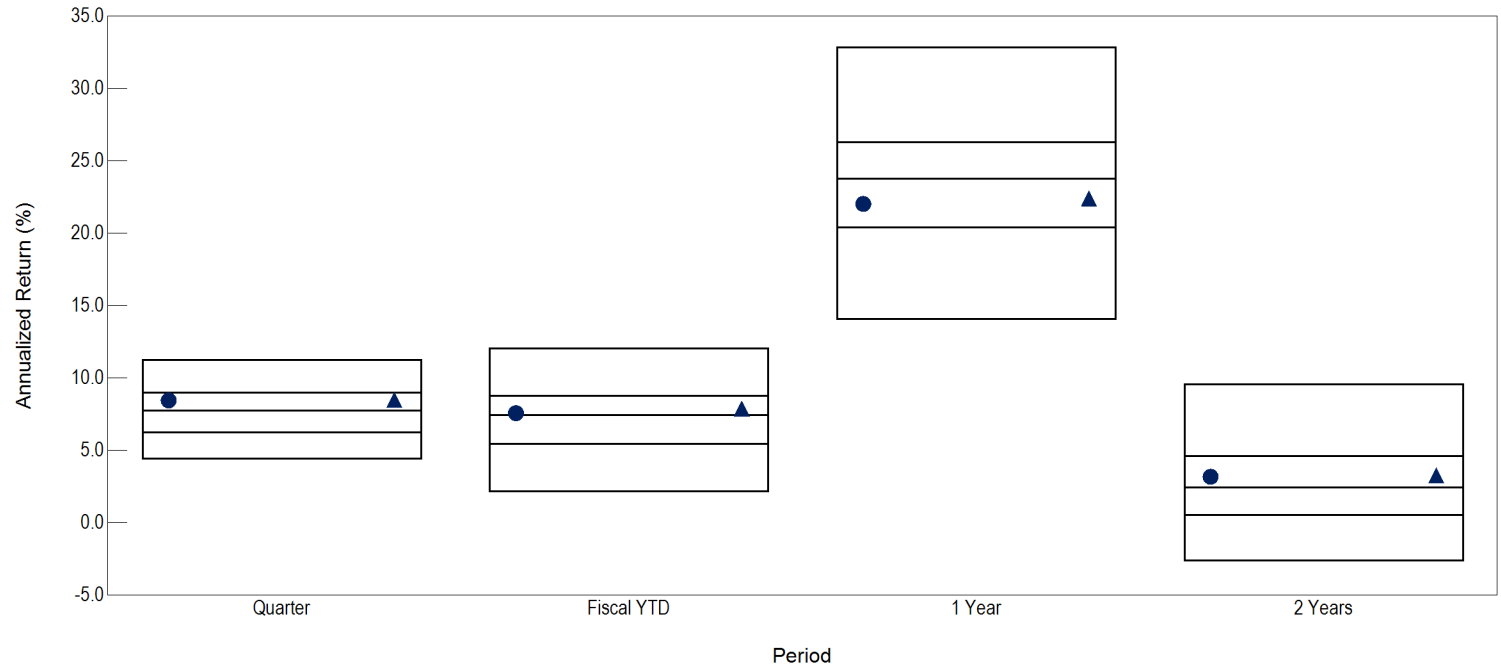


RHUMBLINE ADVISORS RUSSELL 2000 VALUE



RHUMBLINE ADVISORS RUSSELL 2000 VALUE

Rhumbline Advisors Russell 2000 Value vs. eV US Small Cap Value Equity Net

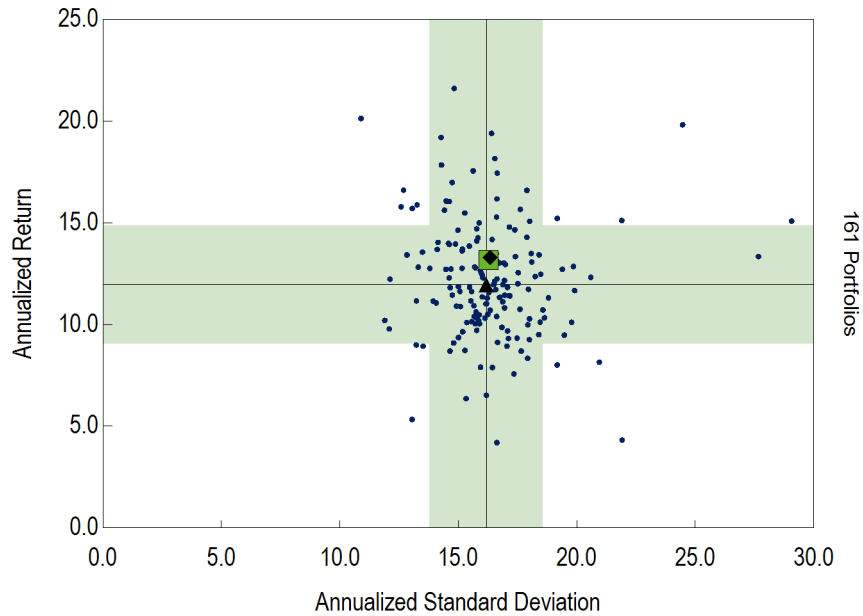


	Return (Rank)							
5th Percentile	11.24	12.05	32.83	9.54				
25th Percentile	9.01	8.81	26.33	4.64				
Median	7.80	7.48	23.79	2.48				
75th Percentile	6.31	5.51	20.44	0.57				
95th Percentile	4.47	2.23	14.11	-2.56				
# of Portfolios	169	169	169	167				
● Rhumbline Advisors Russell 2000 Value	8.45	(33)	7.57	(49)	22.02	(64)	3.18	(39)
▲ Russell 2000 Value	8.49	(33)	7.87	(41)	22.39	(60)	3.27	(38)

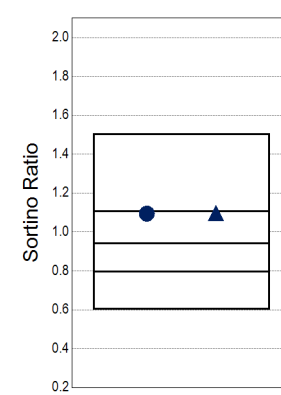
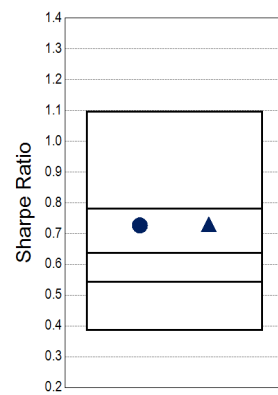
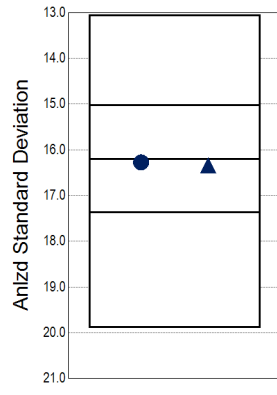
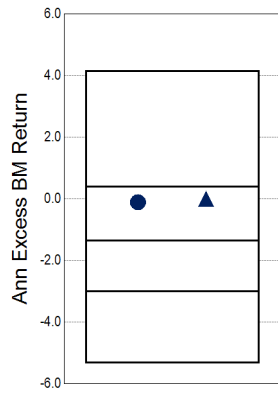
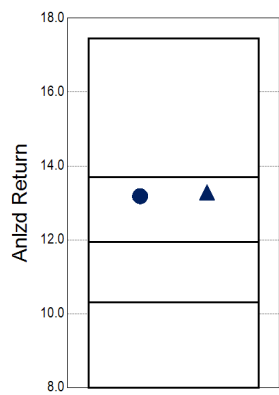
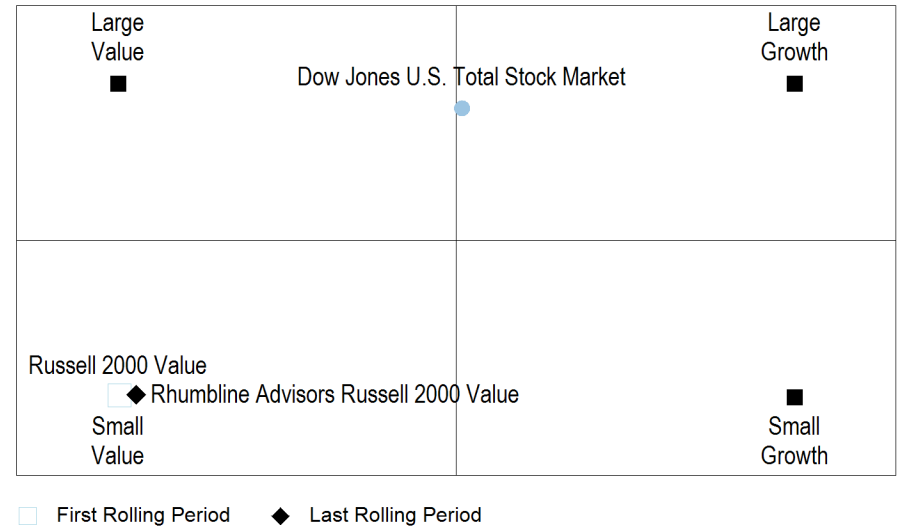


RHUMBLINE ADVISORS RUSSELL 2000 VALUE

Since Inception Risk Return



Since Inception Style Map



- Rhumbline Advisors Russell 2000 Value
- ▲ Russell 2000 Value
- 5th to 25th Percentile
- 25th to Median
- Median to 75th Percentile
- 75th to 95th Percentile

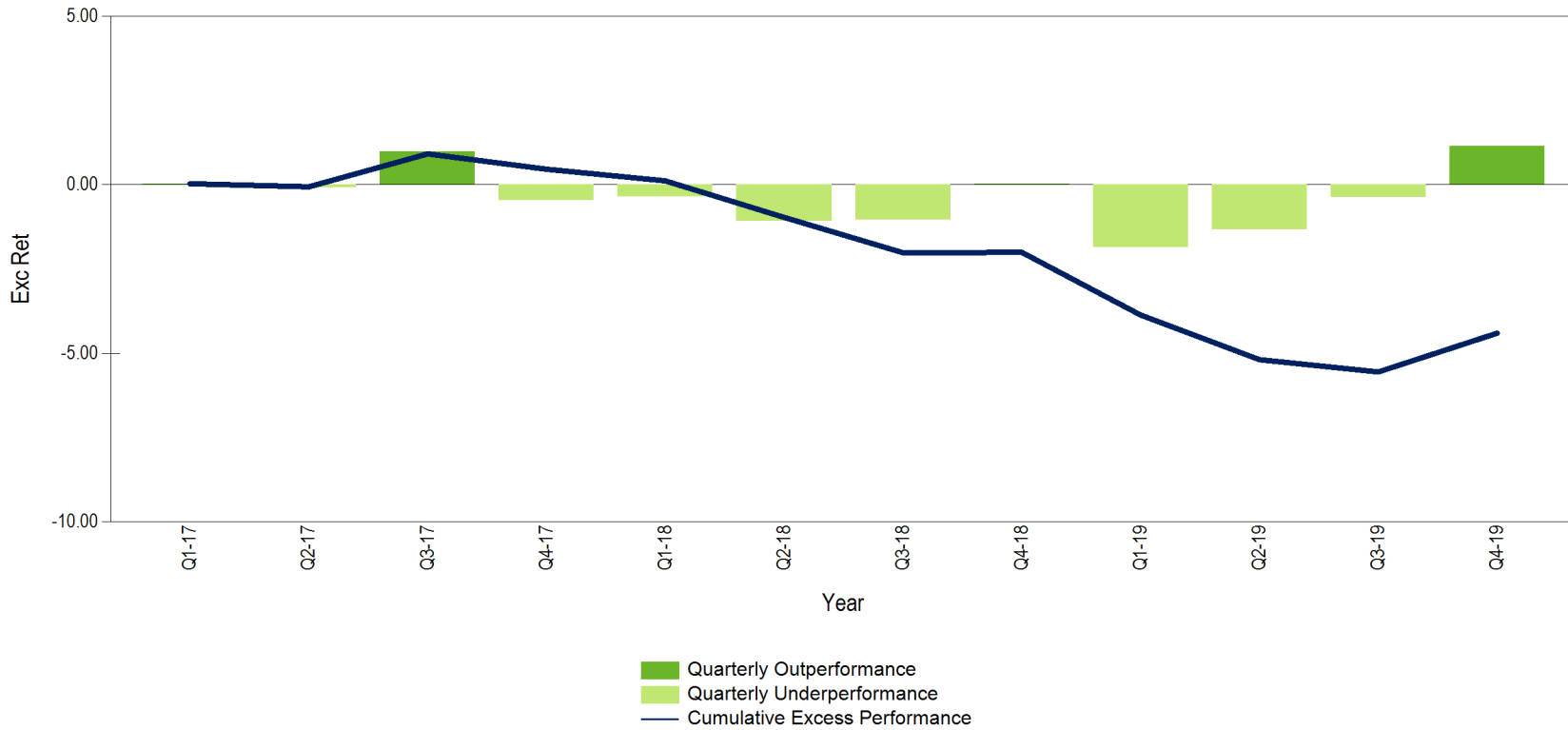


NON-U.S. EQUITY MANAGER PERFORMANCE

NEPC, LLC

AQR CAPITAL

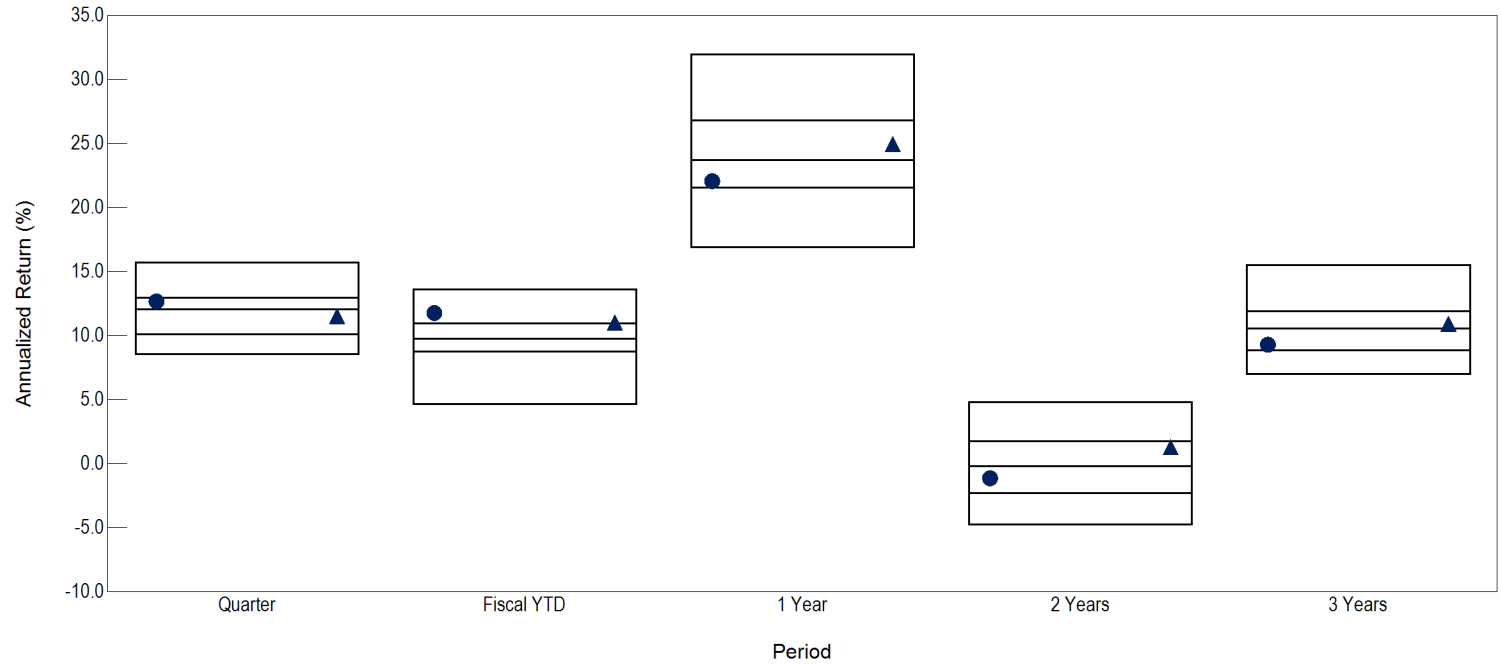
Quarterly and Cumulative Excess Performance



Los Angeles City Employees' Retirement System

AQR CAPITAL

AQR Capital vs. eV EAFE Small Cap Equity Net



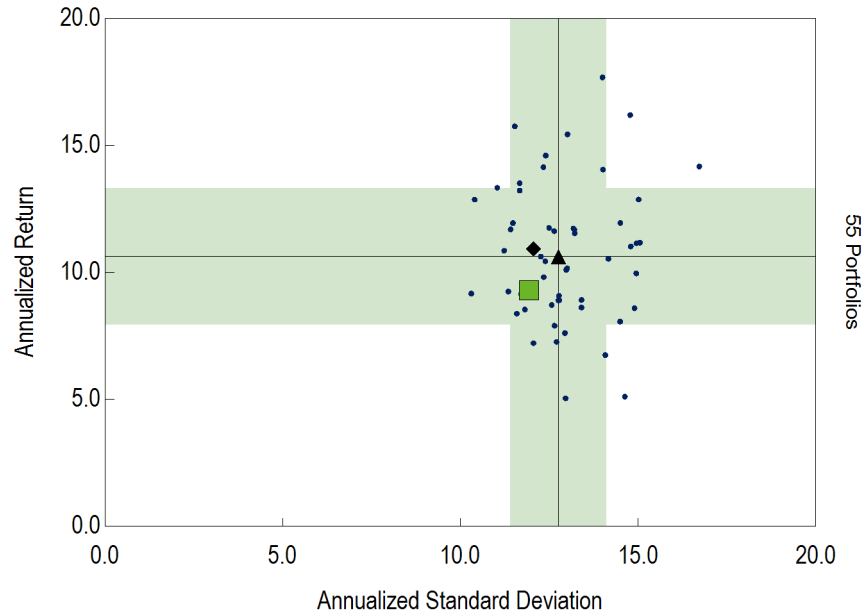
	Return (Rank)									
5th Percentile	15.72		13.60		31.99		4.82		15.53	
25th Percentile	13.00		11.02		26.87		1.81		11.94	
Median	12.10		9.81		23.76		-0.16		10.62	
75th Percentile	10.14		8.79		21.61		-2.22		8.89	
95th Percentile	8.59		4.72		16.97		-4.68		7.06	
# of Portfolios	58		57		57		55		55	
● AQR Capital	12.67	(32)	11.77	(18)	22.06	(69)	-1.13	(60)	9.30	(63)
▲ MSCI EAFE Small Cap	11.52	(61)	11.03	(25)	24.96	(39)	1.30	(28)	10.92	(47)



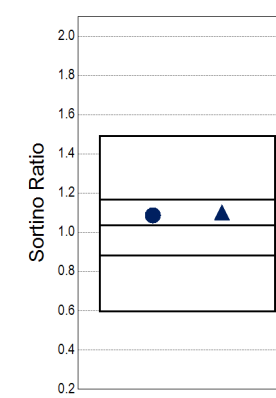
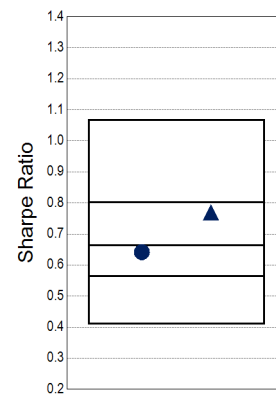
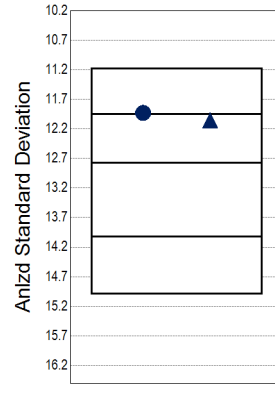
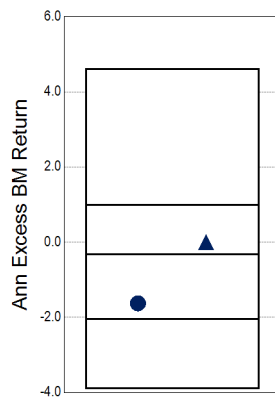
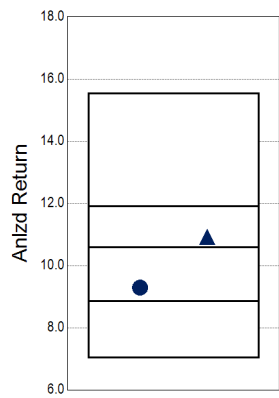
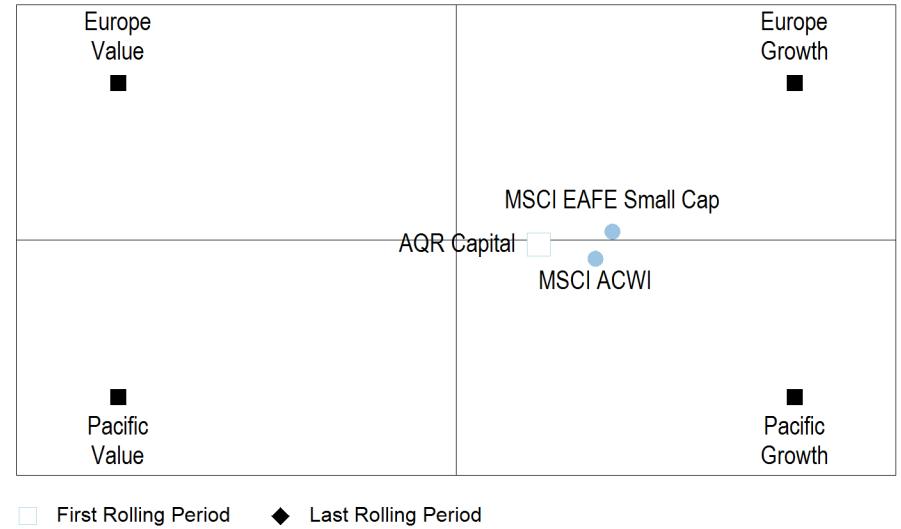
Los Angeles City Employees' Retirement System

AQR CAPITAL

3 Year Risk Return



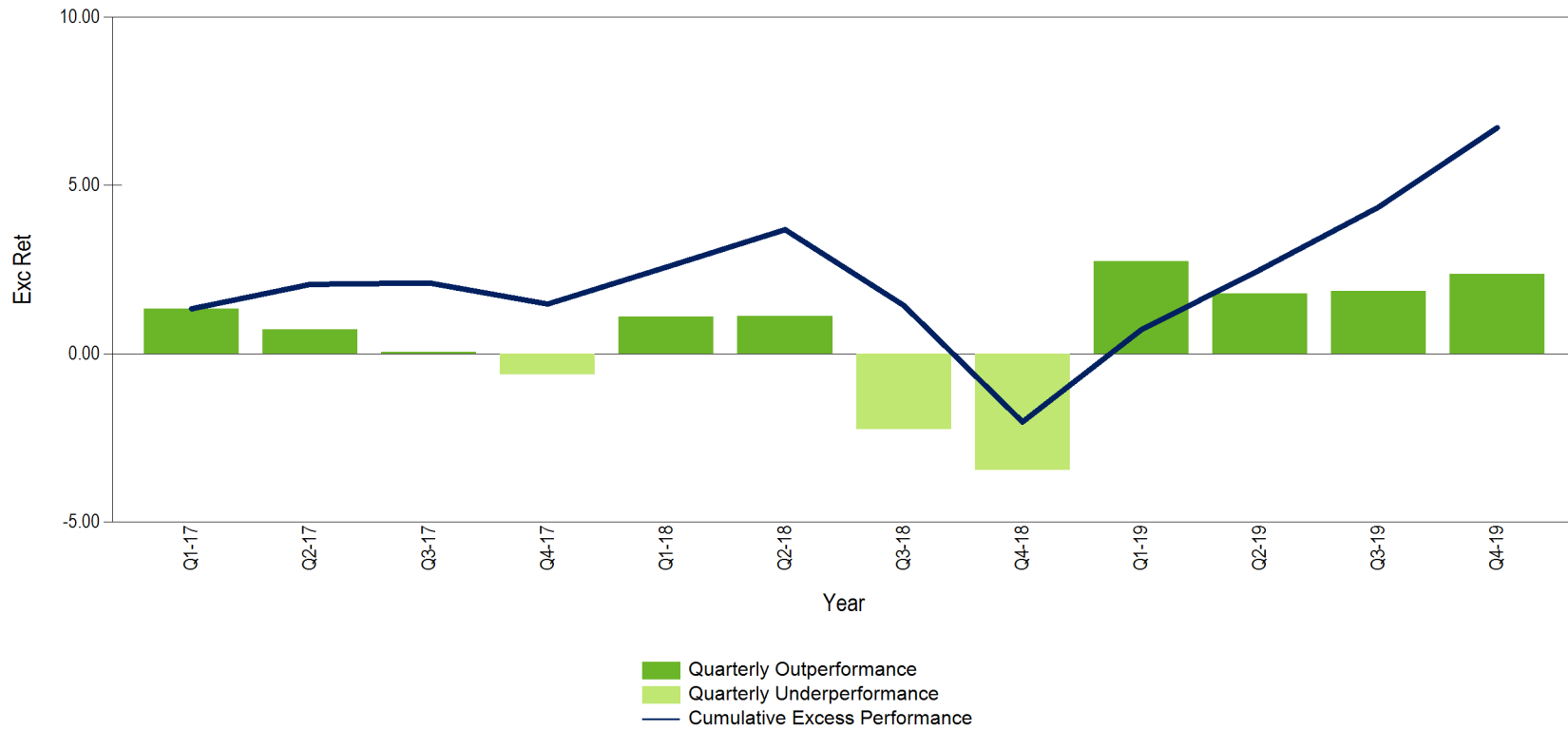
3 Year Style Map



- AQR Capital
- ▲ MSCI EAFE Small Cap
- 5th to 25th Percentile
- 25th to Median
- Median to 75th Percentile
- 75th to 95th Percentile



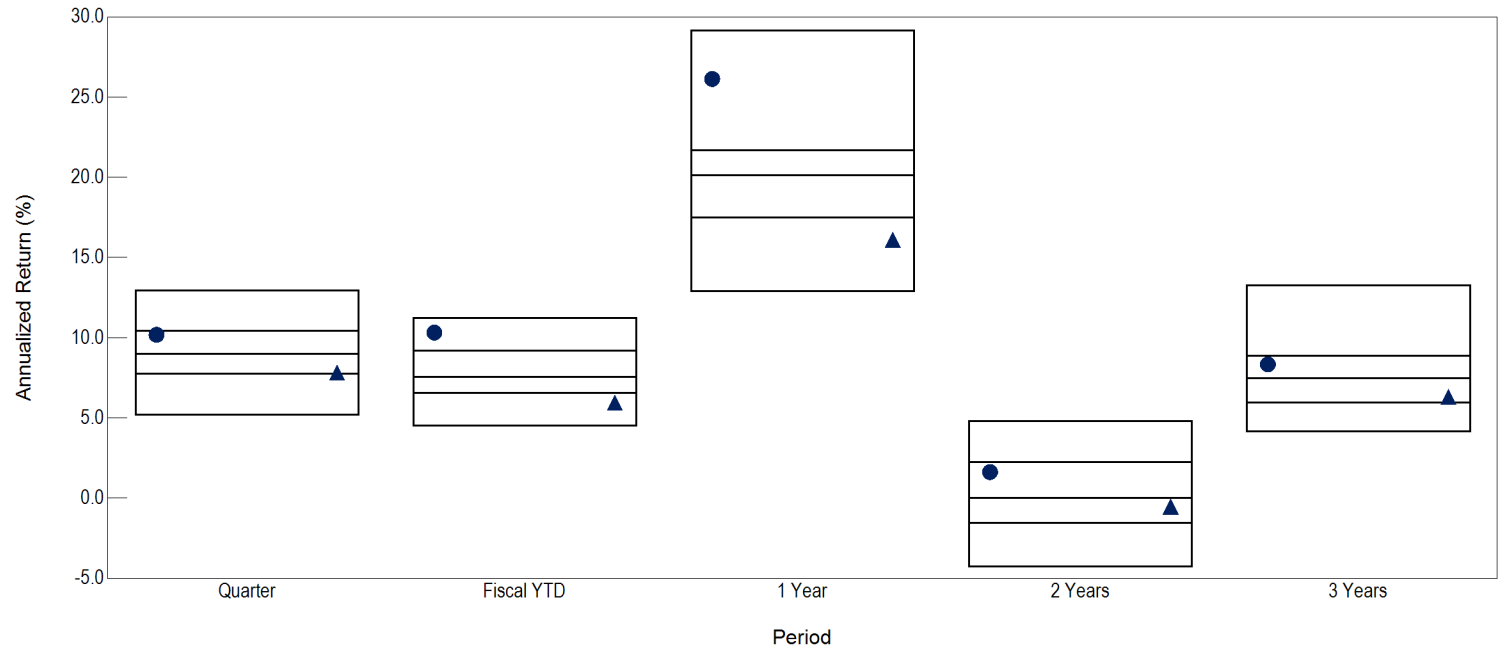
Quarterly and Cumulative Excess Performance



Los Angeles City Employees' Retirement System

BARROW HANLEY

Barrow Hanley vs. eV EAFE Value Equity Net



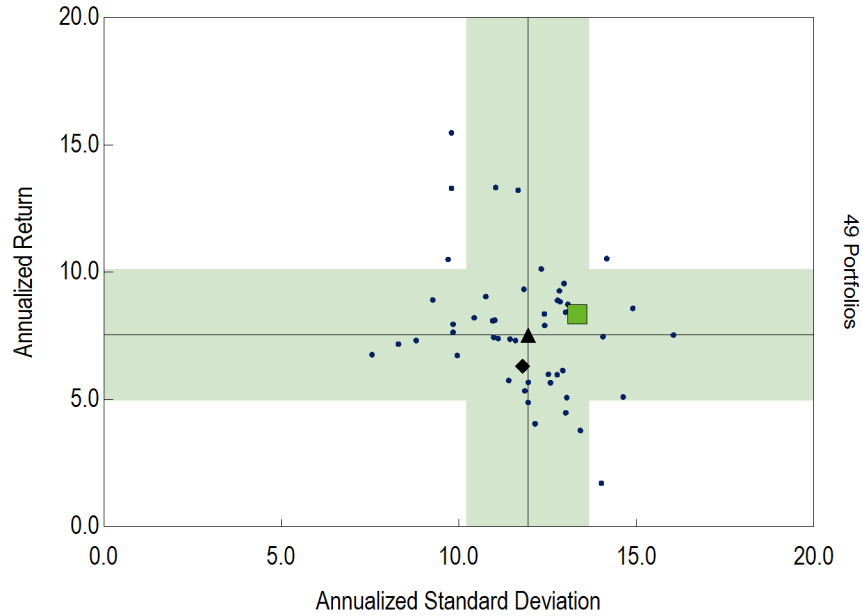
	Return (Rank)									
5th Percentile	12.94		11.24		29.16		4.80		13.27	
25th Percentile	10.45		9.22		21.73		2.30		8.89	
Median	9.04		7.58		20.15		0.05		7.53	
75th Percentile	7.78		6.61		17.53		-1.49		5.99	
95th Percentile	5.23		4.54		12.96		-4.21		4.21	
# of Portfolios	54		54		54		51		49	
● Barrow Hanley	10.18	(30)	10.31	(12)	26.12	(10)	1.62	(34)	8.33	(36)
▲ MSCI EAFE Value	7.82	(75)	5.94	(87)	16.09	(86)	-0.54	(64)	6.31	(71)



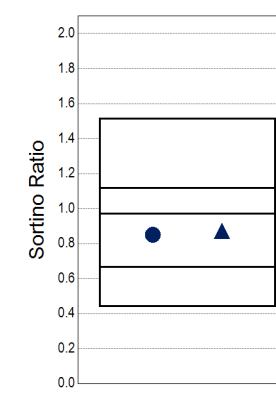
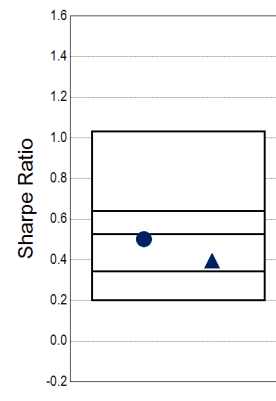
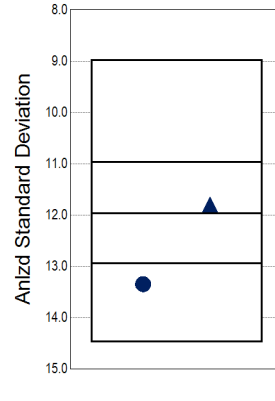
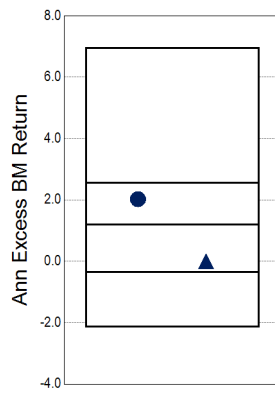
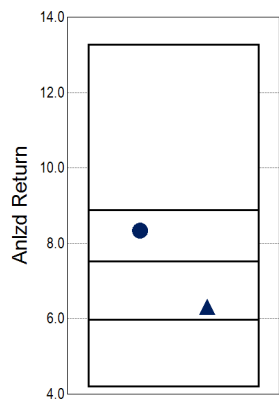
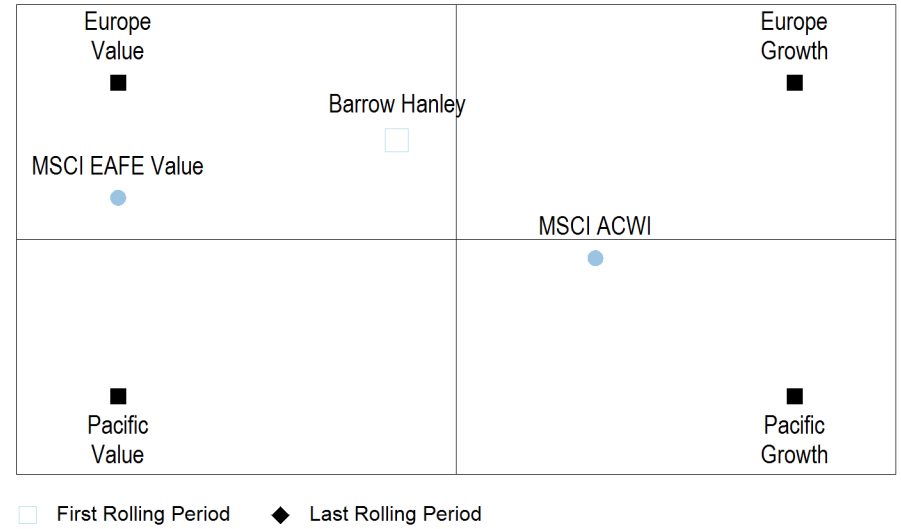
Los Angeles City Employees' Retirement System

BARROW HANLEY

3 Year Risk Return



3 Year Style Map

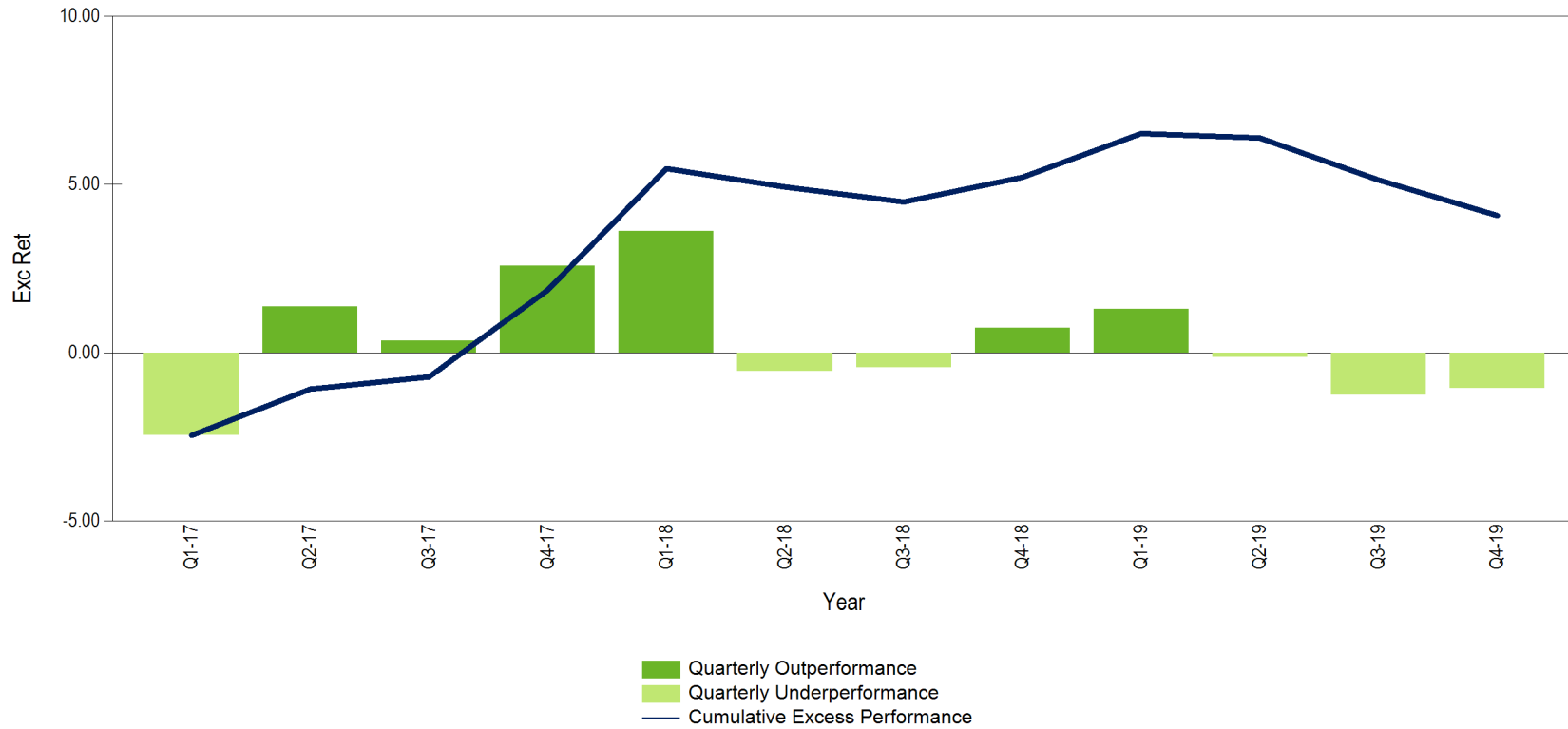


- Barrow Hanley
- ▲ MSCI EAFE Value
- 5th to 25th Percentile
- 25th to Median
- Median to 75th Percentile
- 75th to 95th Percentile



LAZARD ASSET MANAGEMENT

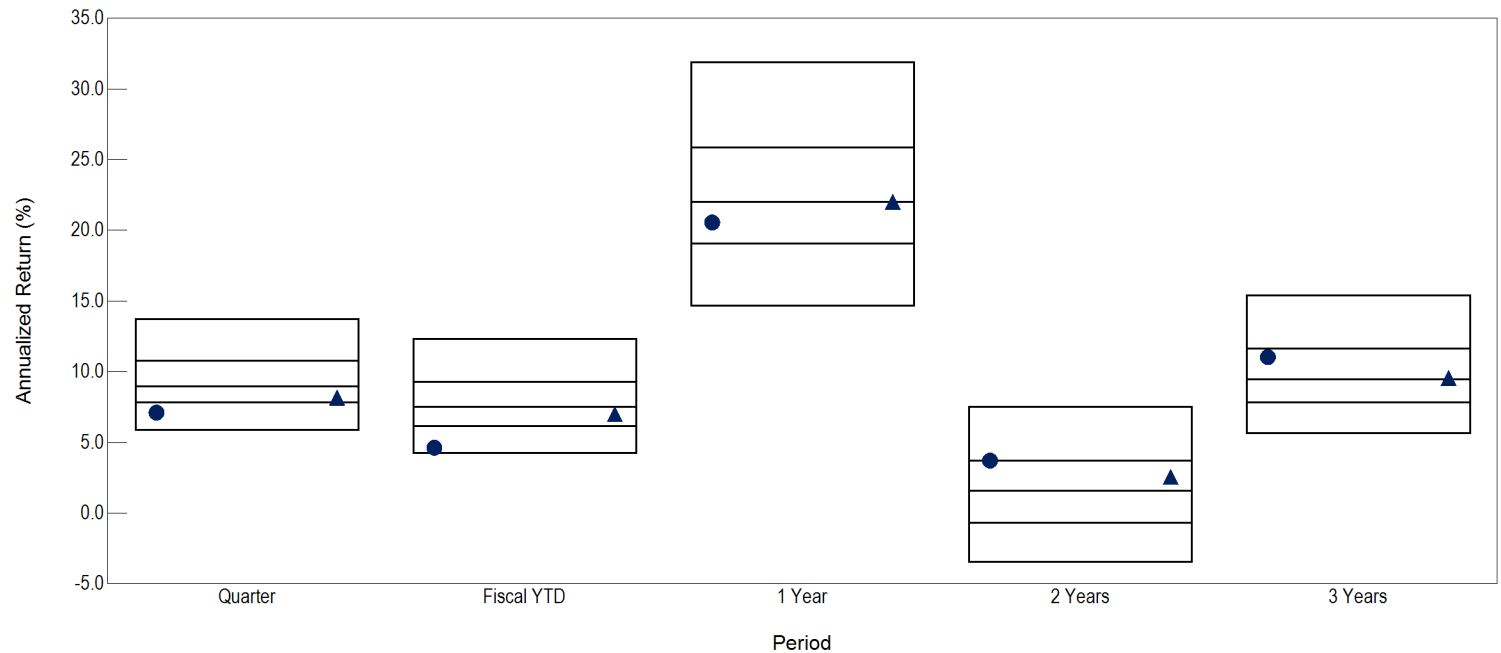
Quarterly and Cumulative Excess Performance



Los Angeles City Employees' Retirement System

LAZARD ASSET MANAGEMENT

Lazard Asset Management vs. eV All EAFE Equity Net

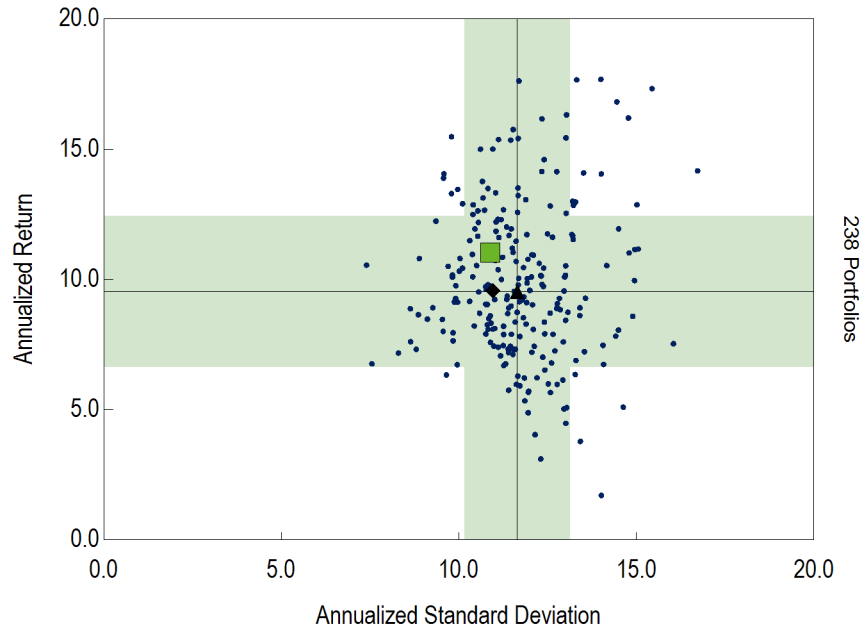


	Return (Rank)									
5th Percentile	13.71		12.34		31.88		7.52		15.38	
25th Percentile	10.82		9.31		25.90		3.76		11.69	
Median	9.03		7.57		22.07		1.65		9.53	
75th Percentile	7.89		6.20		19.10		-0.61		7.89	
95th Percentile	5.92		4.28		14.74		-3.40		5.70	
# of Portfolios	249		247		247		242		238	
● Lazard Asset Management	7.11	(88)	4.63	(94)	20.56	(65)	3.72	(26)	11.03	(31)
▲ MSCI EAFE	8.17	(69)	7.01	(63)	22.01	(51)	2.56	(40)	9.56	(50)

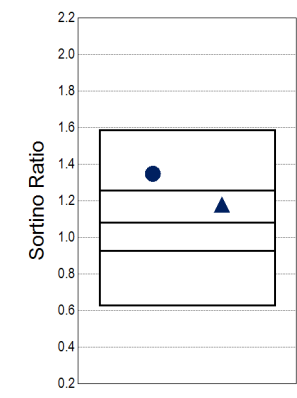
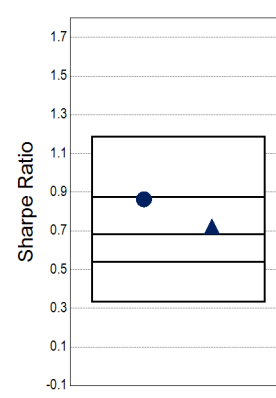
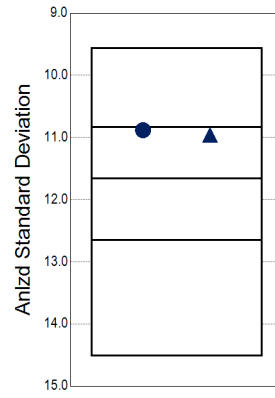
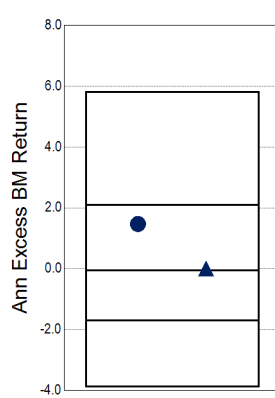
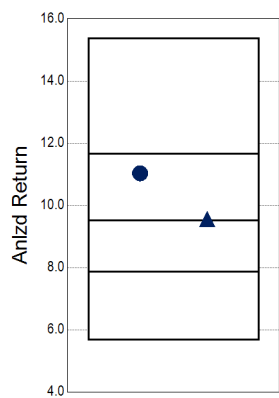
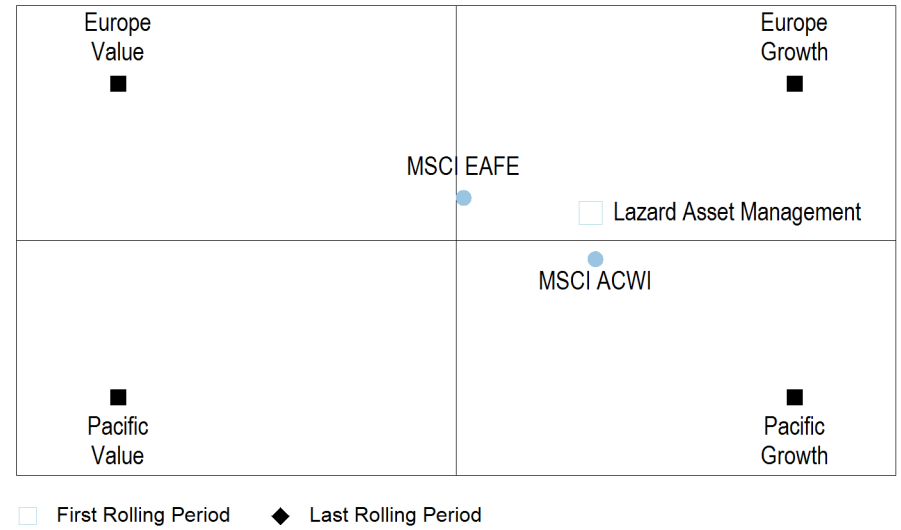


LAZARD ASSET MANAGEMENT

3 Year Risk Return



3 Year Style Map



- Lazard Asset Management
- ▲ MSCI EAFE
- 5th to 25th Percentile
- 25th to Median
- Median to 75th Percentile
- 75th to 95th Percentile



MFS INSTITUTIONAL ADVISORS

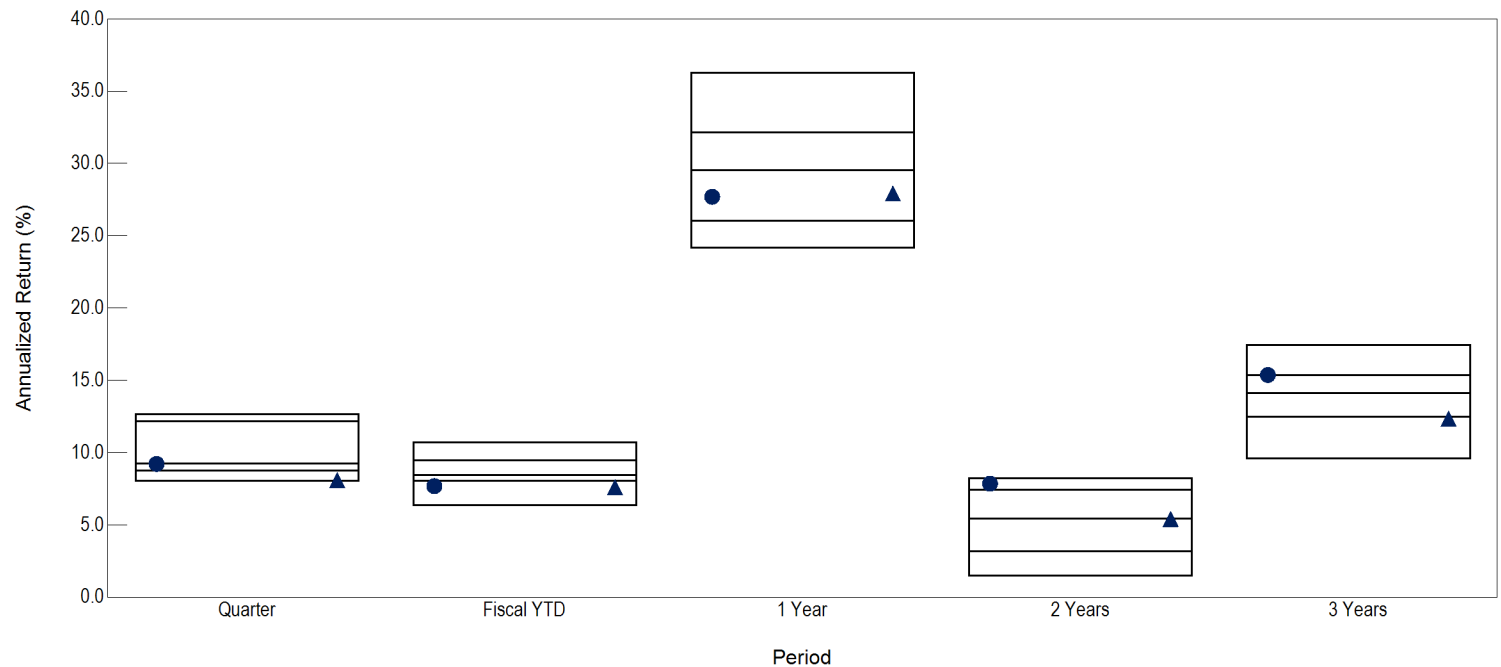
Quarterly and Cumulative Excess Performance



Los Angeles City Employees' Retirement System

MFS INSTITUTIONAL ADVISORS

MFS Institutional Advisors vs. eV EAFE All Cap Growth Net

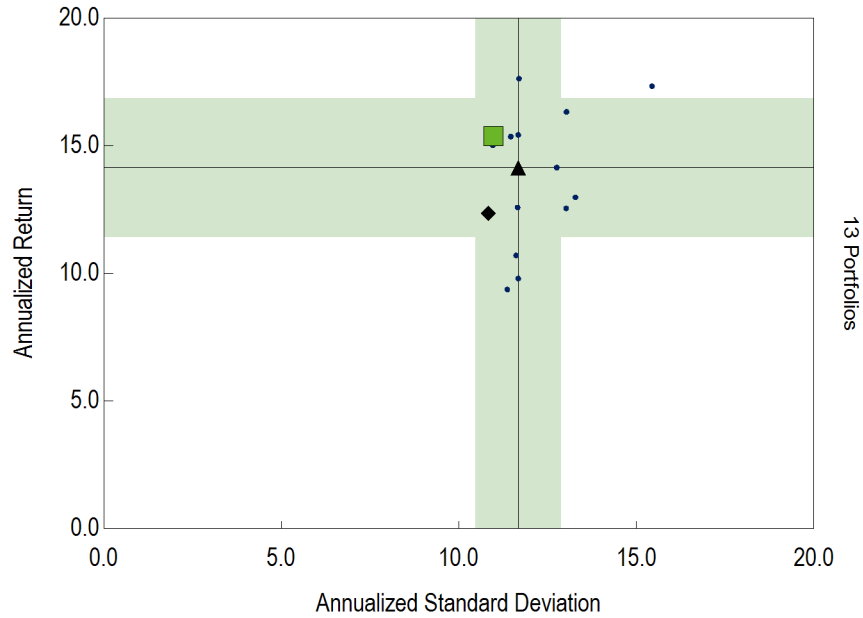


	Return (Rank)									
5th Percentile	12.66		10.70		36.28		8.23		17.44	
25th Percentile	12.19		9.49		32.20		7.45		15.42	
Median	9.27		8.48		29.56		5.47		14.14	
75th Percentile	8.81		8.07		26.09		3.22		12.54	
95th Percentile	8.10		6.41		24.19		1.53		9.62	
# of Portfolios	13		13		13		13		13	
● MFS Institutional Advisors	9.21	(53)	7.67	(78)	27.69	(64)	7.85	(8)	15.36	(32)
▲ MSCI World ex USA Growth NR USD	8.09	(96)	7.60	(79)	27.92	(64)	5.41	(53)	12.34	(76)

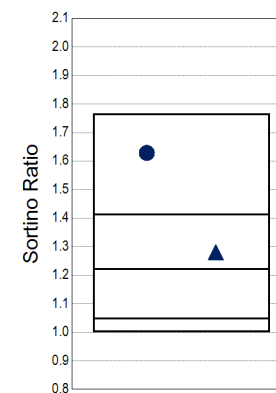
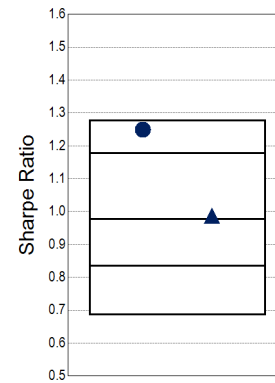
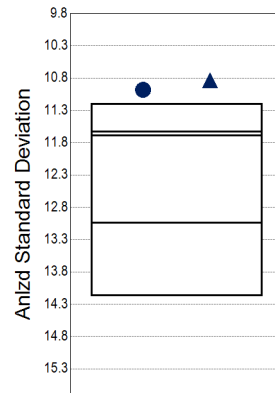
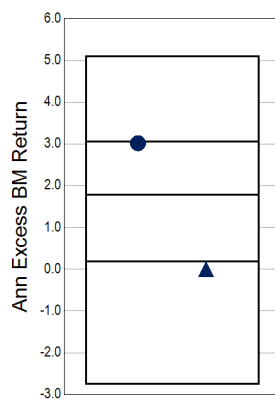
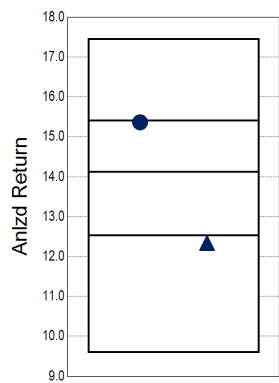
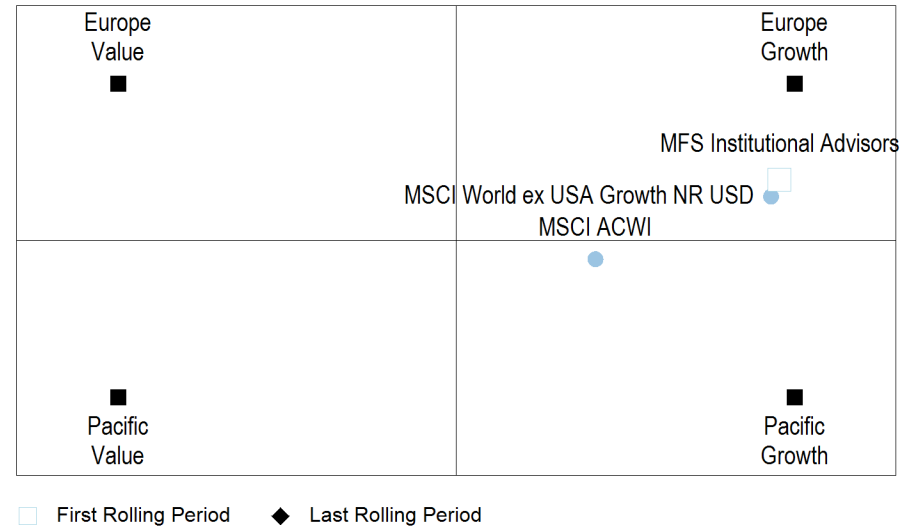


MFS INSTITUTIONAL ADVISORS

3 Year Risk Return



3 Year Style Map



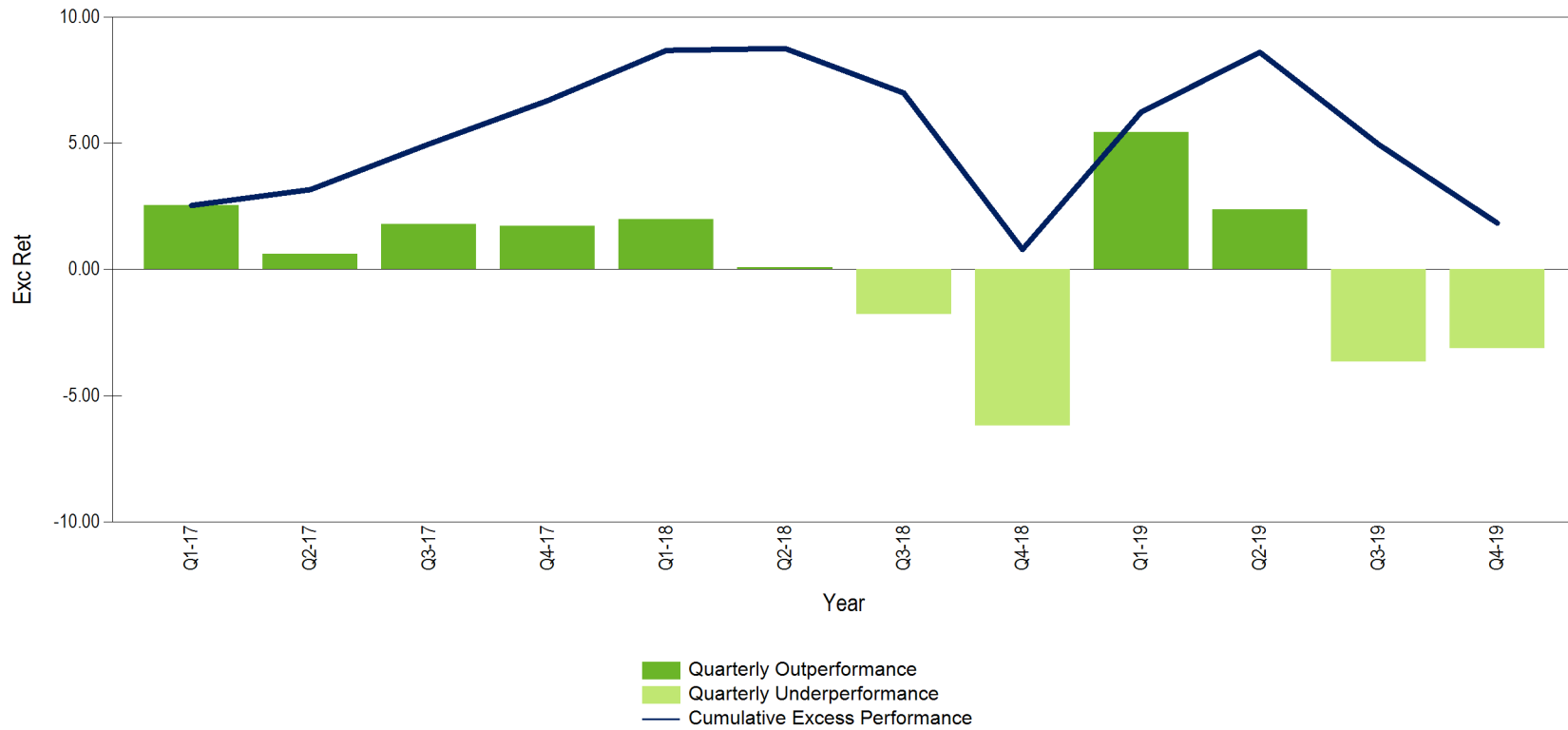
- MFS Institutional Advisors
- ▲ MSCI World ex USA Growth NR USD
- 5th to 25th Percentile
- 25th to Median
- Median to 75th Percentile
- 75th to 95th Percentile



Los Angeles City Employees' Retirement System

OBERWEIS ASSET MGMT

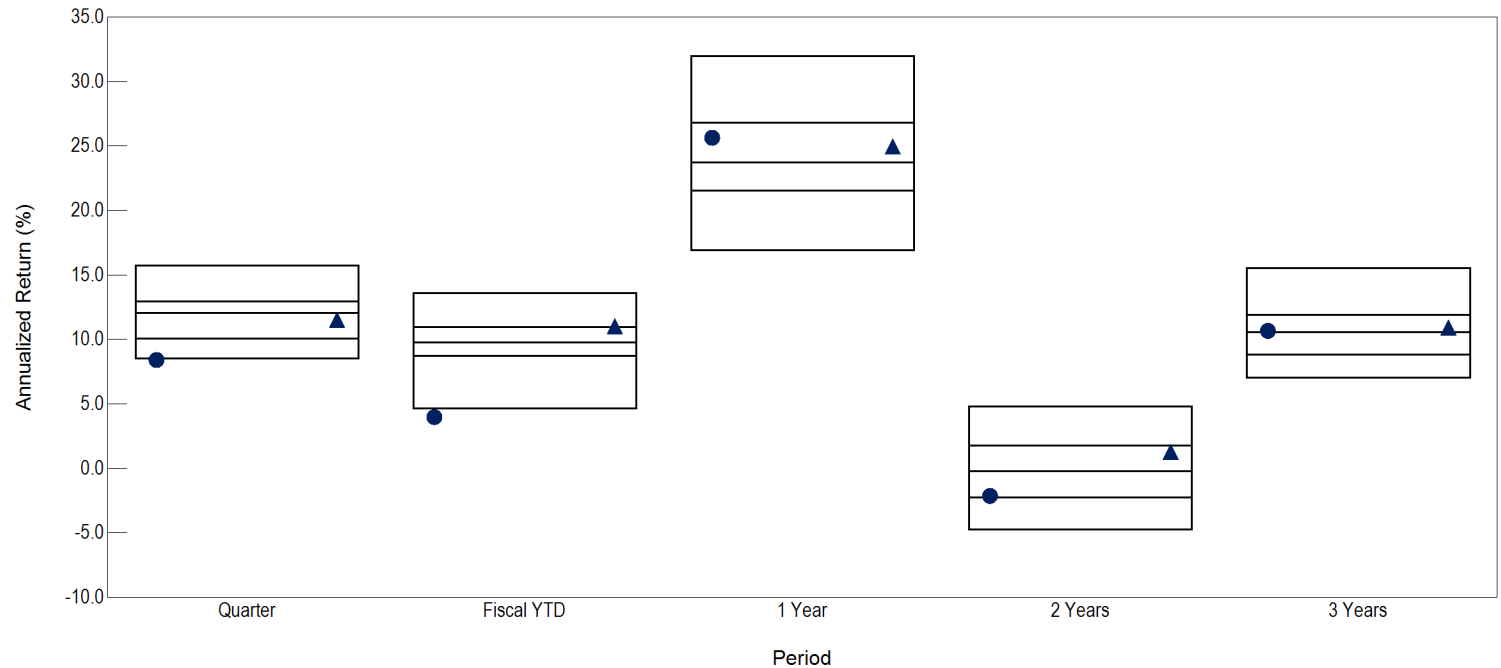
Quarterly and Cumulative Excess Performance



Los Angeles City Employees' Retirement System

OBERWEIS ASSET MGMT

Oberweis Asset Mgmt vs. eV EAFE Small Cap Equity Net



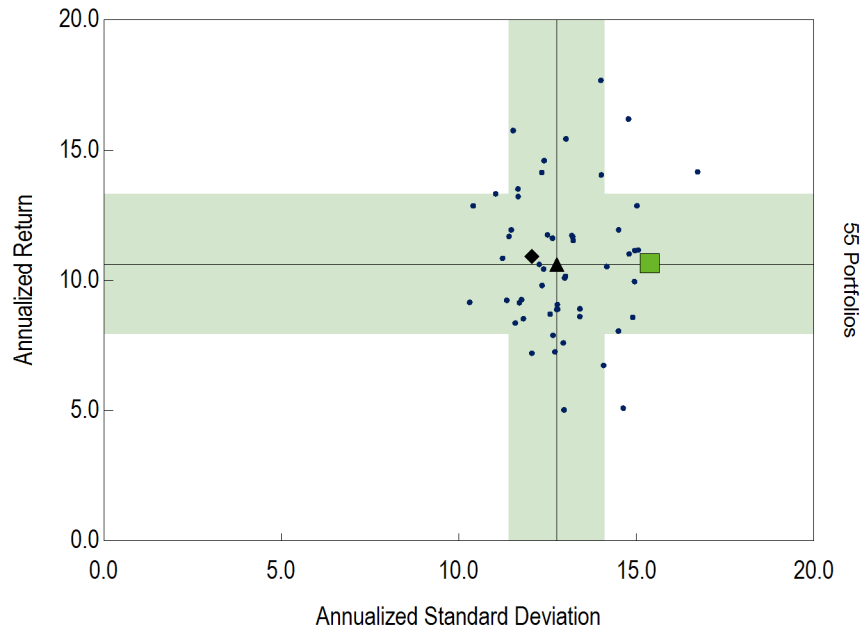
	Return (Rank)									
5th Percentile	15.72		13.60		31.99		4.82		15.53	
25th Percentile	13.00		11.02		26.87		1.81		11.94	
Median	12.10		9.81		23.76		-0.16		10.62	
75th Percentile	10.14		8.79		21.61		-2.22		8.89	
95th Percentile	8.59		4.72		16.97		-4.68		7.06	
# of Portfolios	58		57		57		55		55	
● Oberweis Asset Mgmt	8.41	(97)	3.98	(98)	25.64	(36)	-2.13	(74)	10.66	(50)
▲ MSCI EAFE Small Cap	11.52	(61)	11.03	(25)	24.96	(39)	1.30	(28)	10.92	(47)



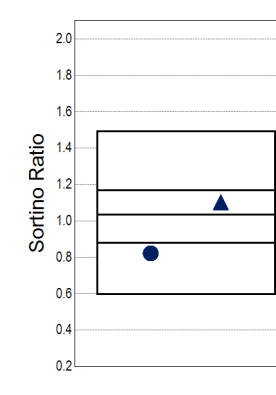
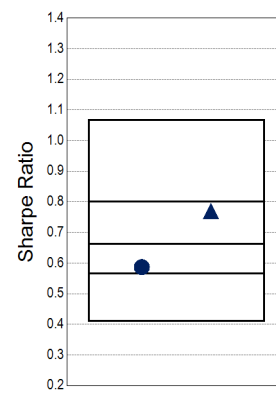
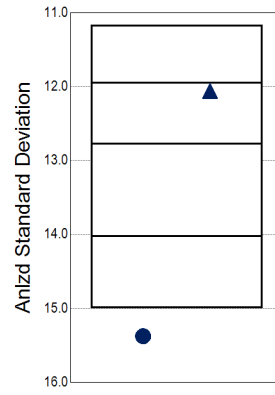
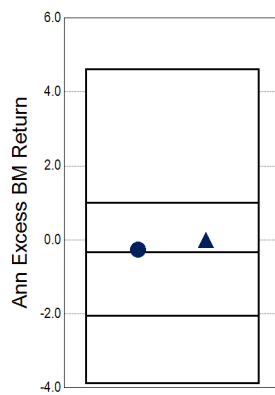
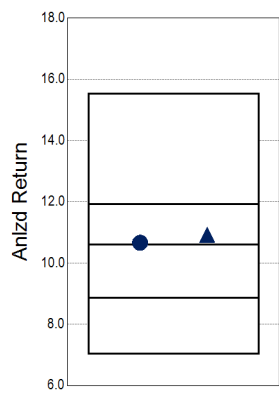
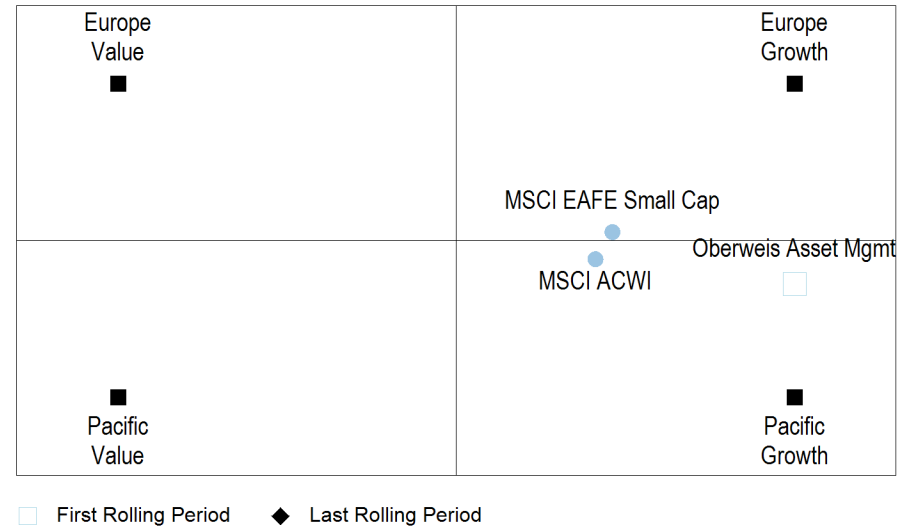
Los Angeles City Employees' Retirement System

OBERWEIS ASSET MGMT

3 Year Risk Return



3 Year Style Map



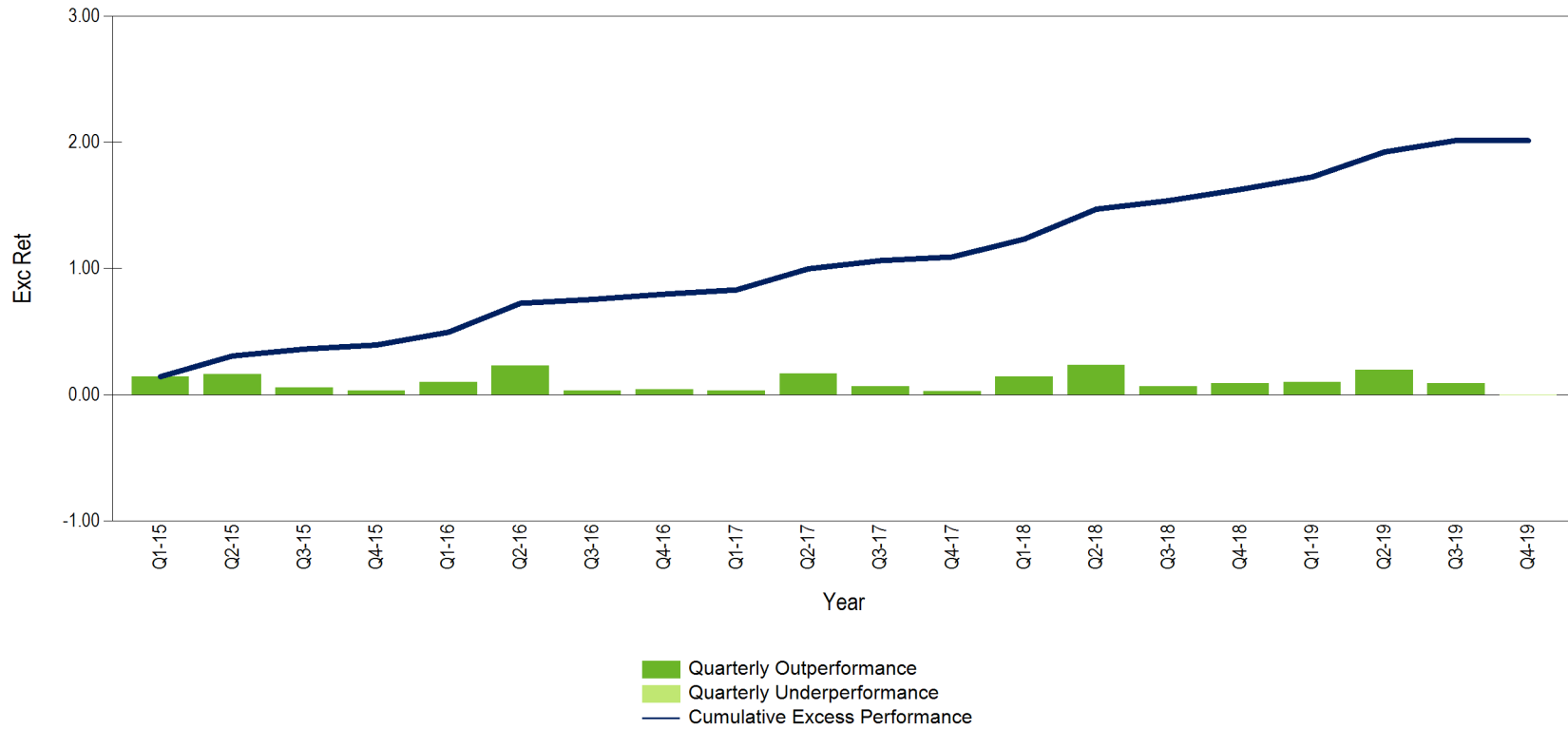
- Oberweis Asset Mgmt
- ▲ MSCI EAFE Small Cap
- 5th to 25th Percentile
- 25th to Median
- Median to 75th Percentile
- 75th to 95th Percentile



Los Angeles City Employees' Retirement System

SSGA WORLD EX US IMI

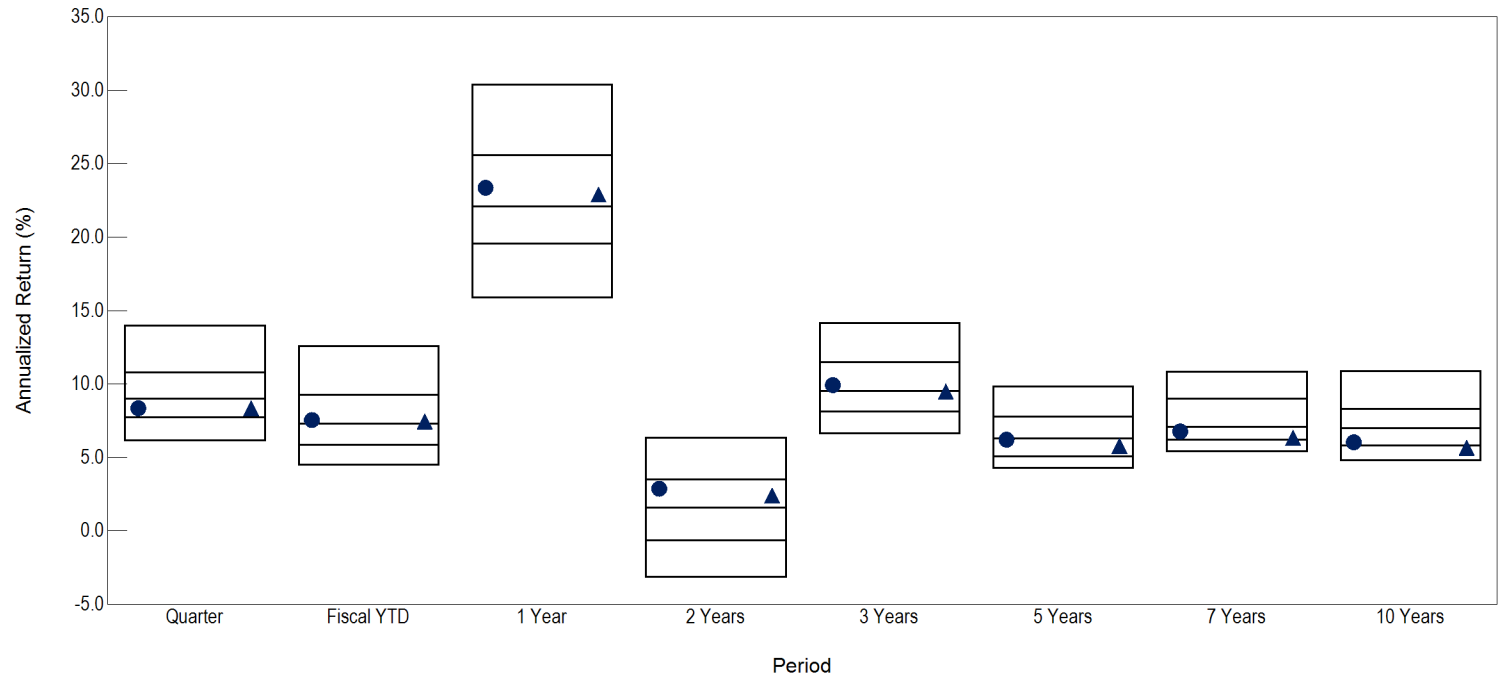
Quarterly and Cumulative Excess Performance



Los Angeles City Employees' Retirement System

SSGA WORLD EX US IMI

SSgA World ex US IMI vs. eV EAFE Core Equity Net



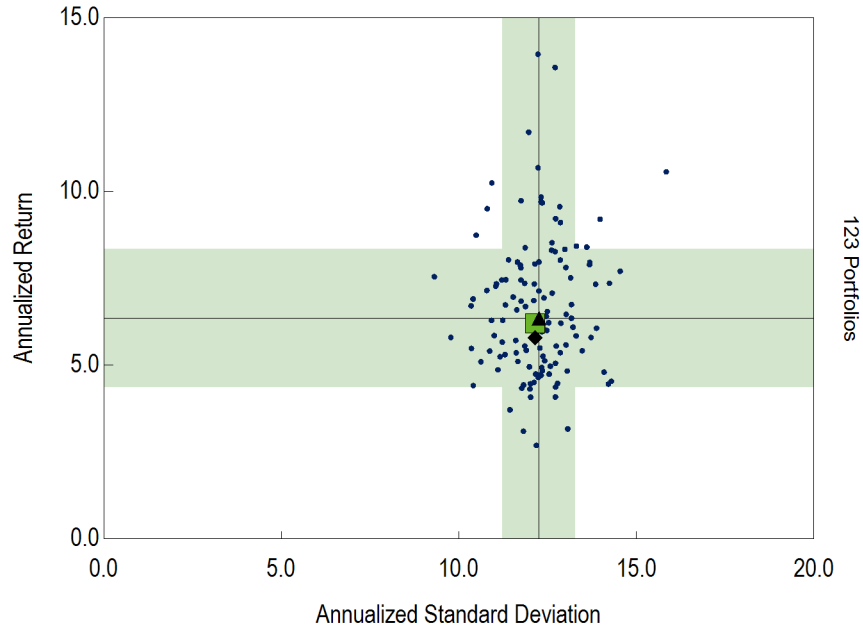
	Return (Rank)															
5th Percentile	13.98	12.58	30.39	6.36	14.14	9.83	10.85	10.89								
25th Percentile	10.83	9.33	25.62	3.56	11.55	7.85	9.06	8.34								
Median	9.06	7.37	22.15	1.64	9.56	6.35	7.14	7.06								
75th Percentile	7.79	5.89	19.60	-0.60	8.17	5.12	6.28	5.86								
95th Percentile	6.23	4.57	15.94	-3.09	6.70	4.32	5.48	4.85								
# of Portfolios	149	147	147	145	144	123	106	86								
● SSGA World ex US IMI	8.35	(65)	7.55	(49)	23.36	(40)	2.87	(34)	9.93	(47)	6.21	(54)	6.77	(61)	6.04	(72)
▲ MSCI World ex USA IMI NR USD	8.36	(65)	7.45	(49)	22.91	(45)	2.40	(38)	9.49	(52)	5.79	(62)	6.35	(73)	5.66	(80)



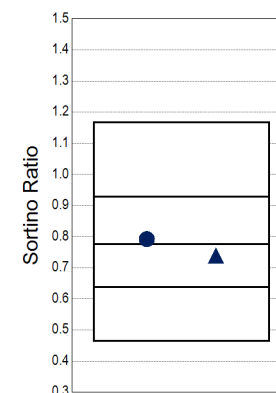
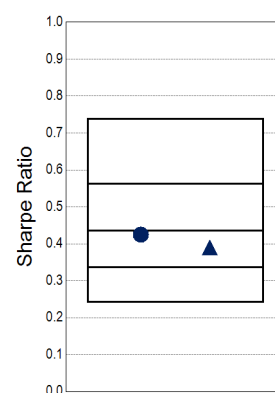
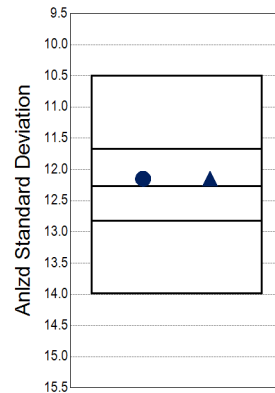
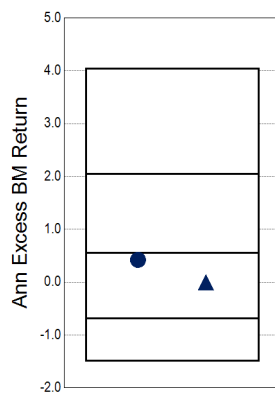
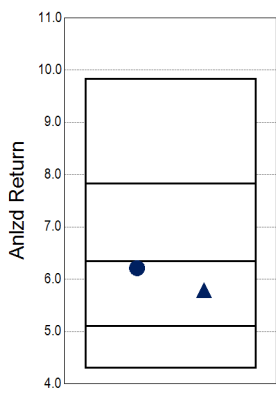
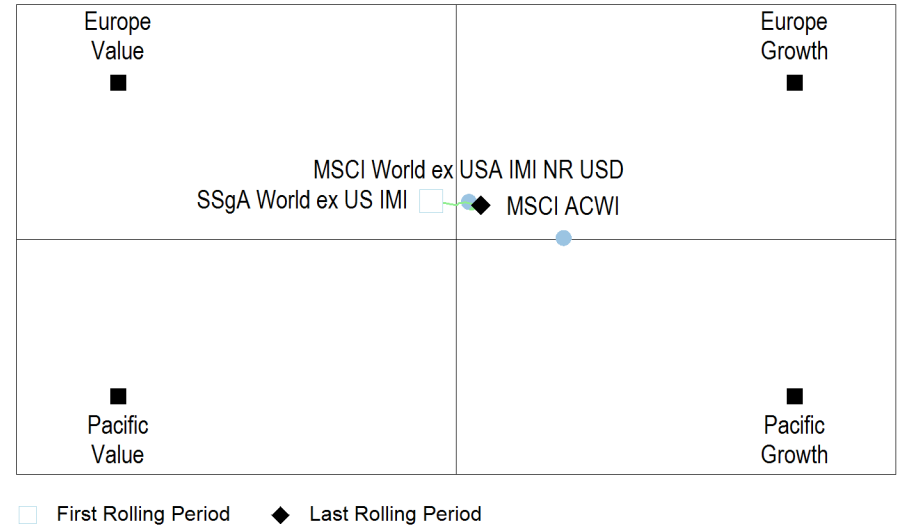
Los Angeles City Employees' Retirement System

SSGA WORLD EX US IMI

5 Year Risk Return



5 Year Style Map

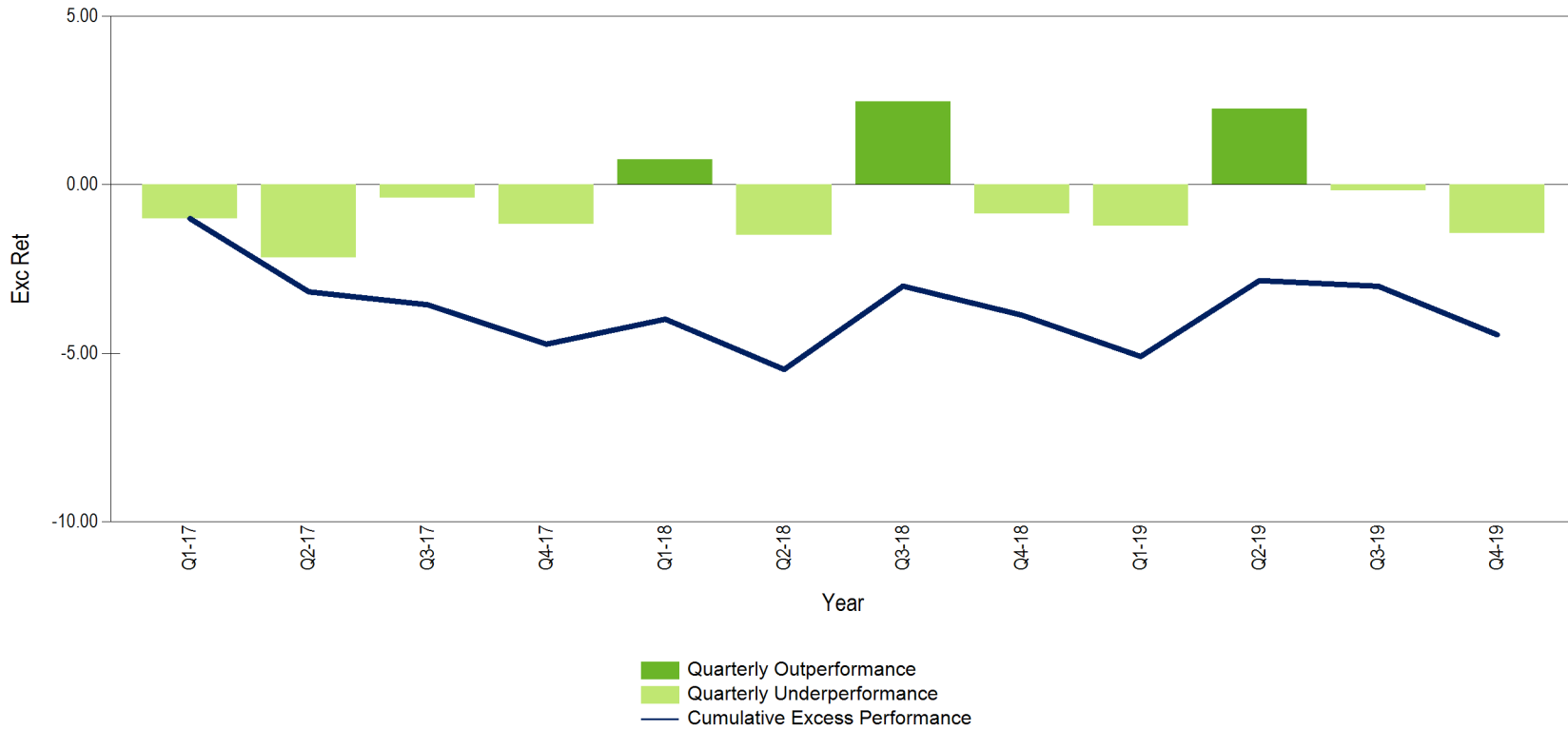


- SSGA World ex US IMI
- ▲ MSCI World ex USA IMI NR USD
- 5th to 25th Percentile
- 25th to Median
- Median to 75th Percentile
- 75th to 95th Percentile



AXIOM EMERGING MARKETS

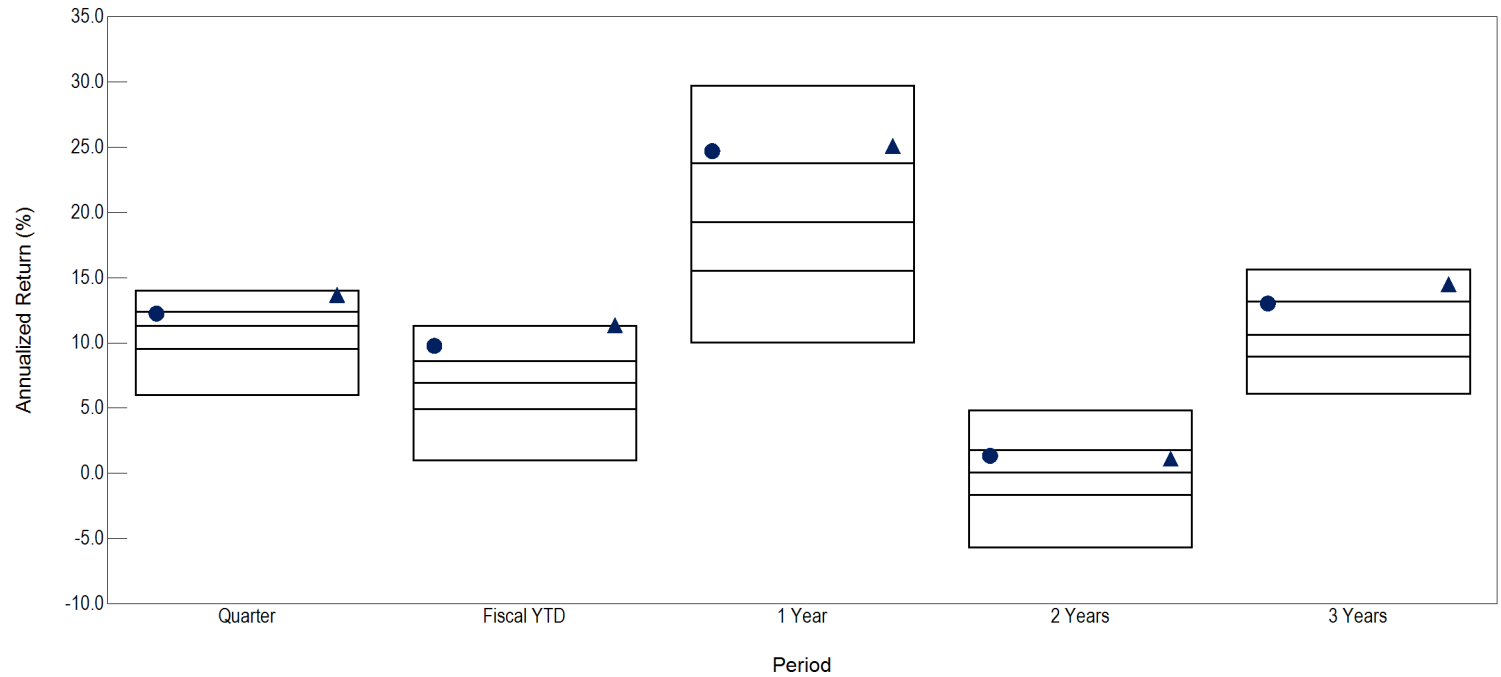
Quarterly and Cumulative Excess Performance



Los Angeles City Employees' Retirement System

AXIOM EMERGING MARKETS

Axiom Emerging Markets vs. eV Emg Mkts Equity Net

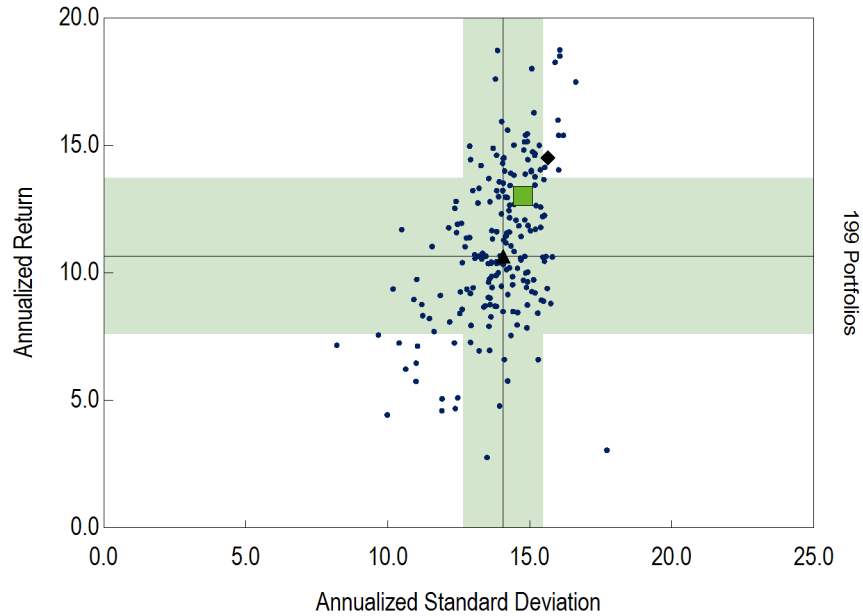


	Return (Rank)									
5th Percentile	14.00		11.32		29.70		4.81		15.63	
25th Percentile	12.43		8.66		23.82		1.83		13.22	
Median	11.37		7.00		19.28		0.09		10.66	
75th Percentile	9.60		4.98		15.56		-1.62		9.01	
95th Percentile	6.03		1.03		10.05		-5.64		6.17	
# of Portfolios	218		217		216		207		199	
● Axiom Emerging Markets	12.24	(27)	9.77	(16)	24.70	(21)	1.34	(32)	13.02	(27)
▲ MSCI Emerging Markets Growth NR USD	13.68	(9)	11.37	(5)	25.10	(20)	1.12	(34)	14.50	(14)

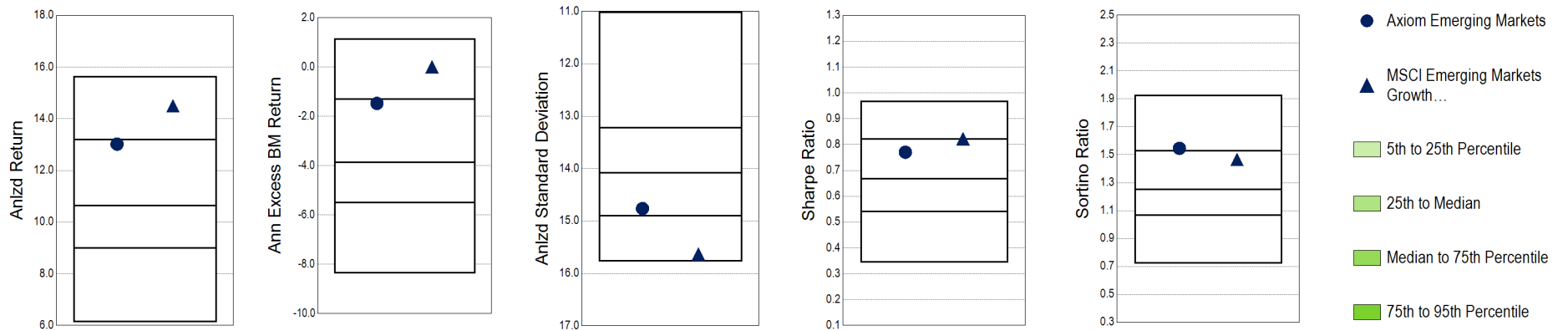
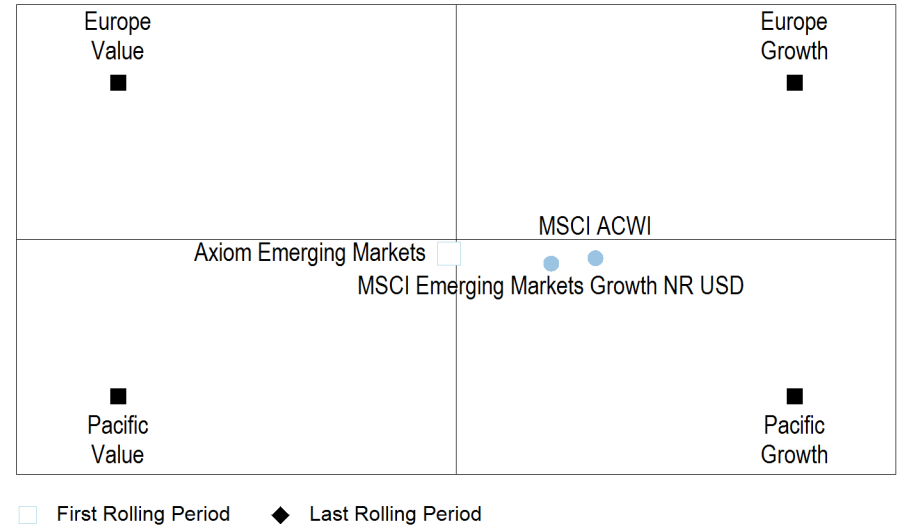


AXIOM EMERGING MARKETS

3 Year Risk Return



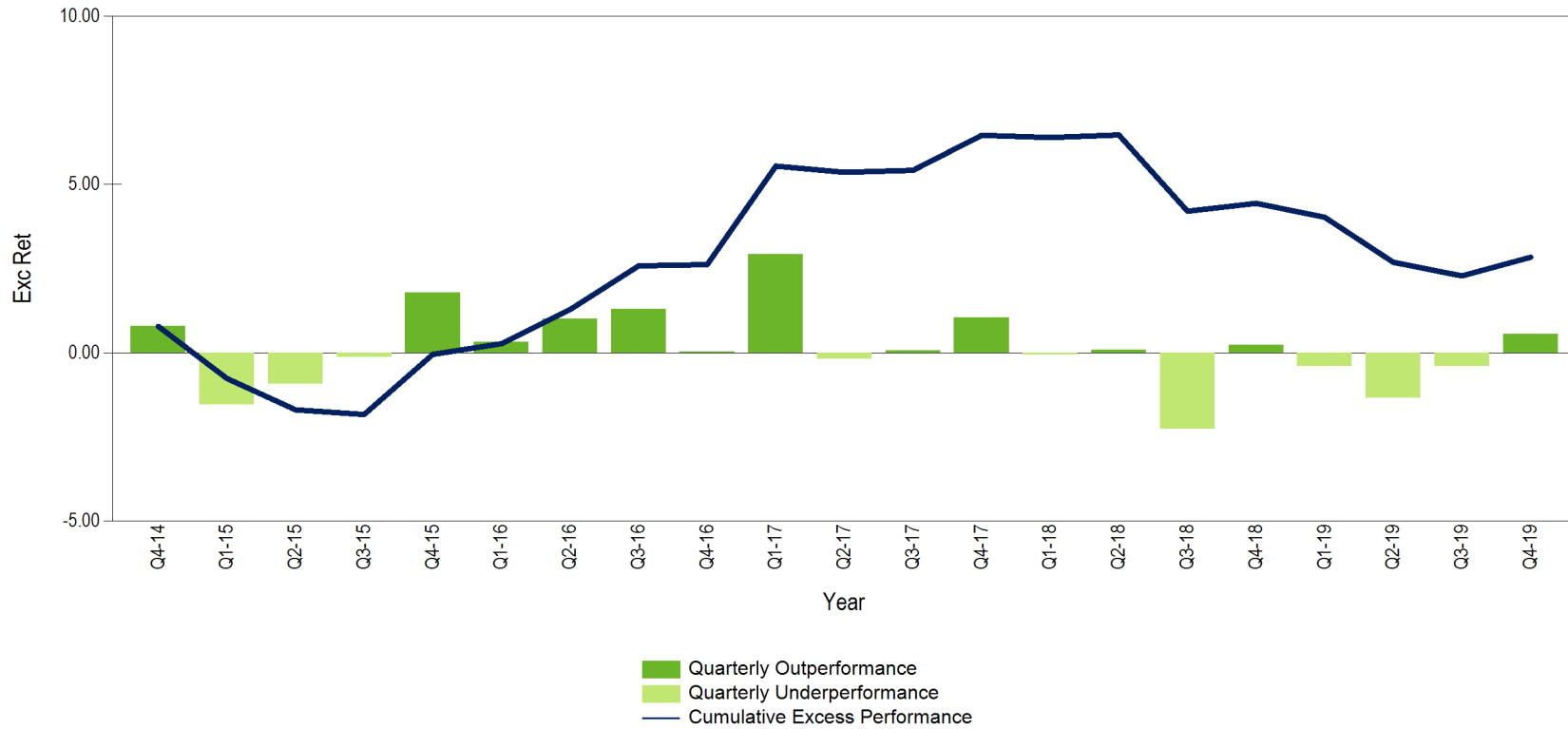
3 Year Style Map



Los Angeles City Employees' Retirement System

DFA EMERGING MARKETS

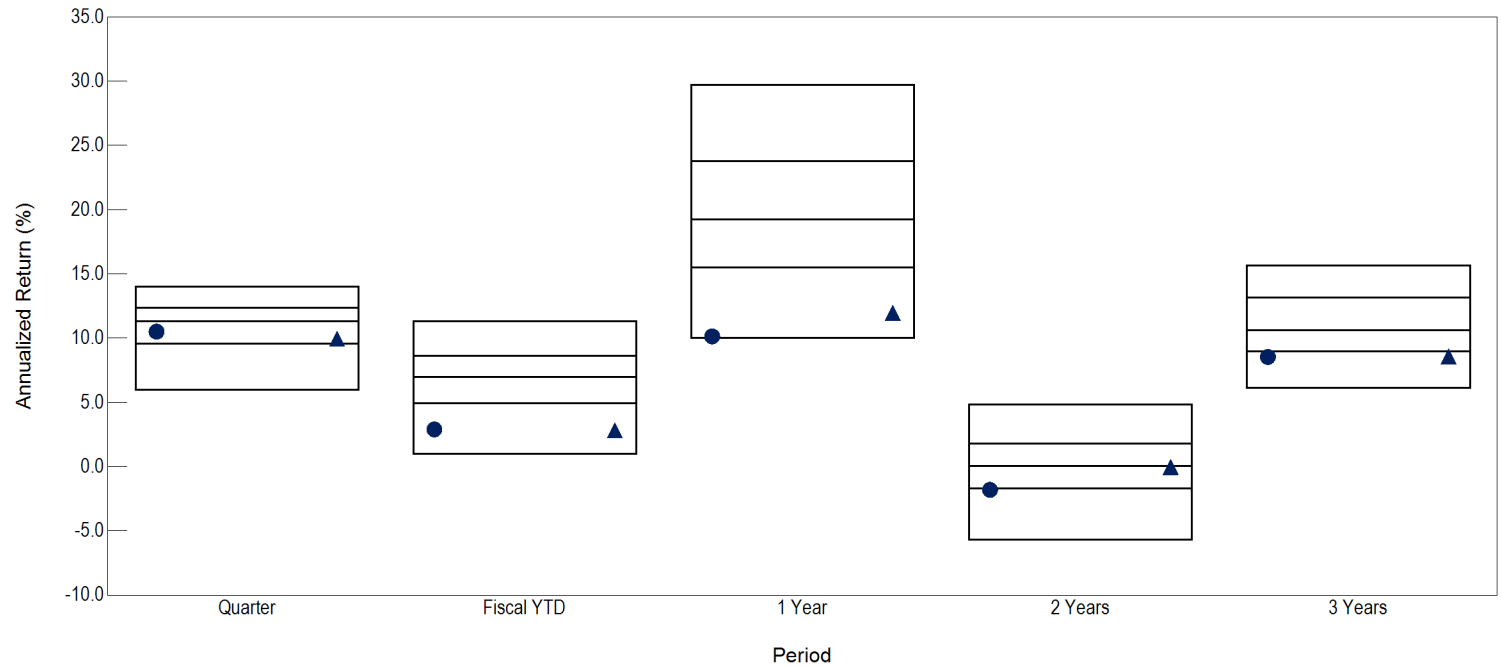
Quarterly and Cumulative Excess Performance



Los Angeles City Employees' Retirement System

DFA EMERGING MARKETS

DFA Emerging Markets vs. eV Emg Mkts Equity Net



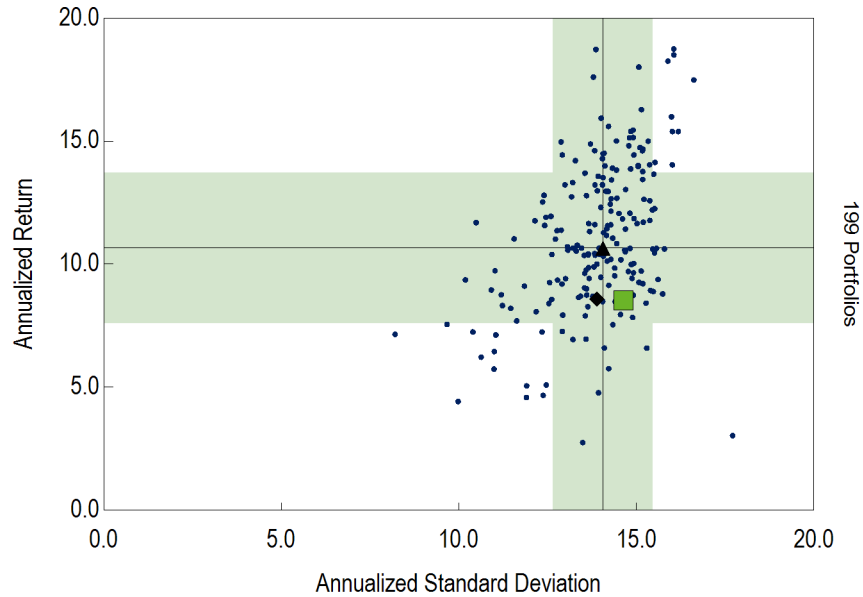
	Return (Rank)									
5th Percentile	14.00		11.32		29.70		4.81		15.63	
25th Percentile	12.43		8.66		23.82		1.83		13.22	
Median	11.37		7.00		19.28		0.09		10.66	
75th Percentile	9.60		4.98		15.56		-1.62		9.01	
95th Percentile	6.03		1.03		10.05		-5.64		6.17	
# of Portfolios	218		217		216		207		199	
● DFA Emerging Markets	10.50	(67)	2.89	(89)	10.13	(95)	-1.81	(77)	8.53	(82)
▲ MSCI Emerging Markets Value NR USD	9.94	(73)	2.82	(90)	11.96	(91)	-0.03	(52)	8.57	(82)



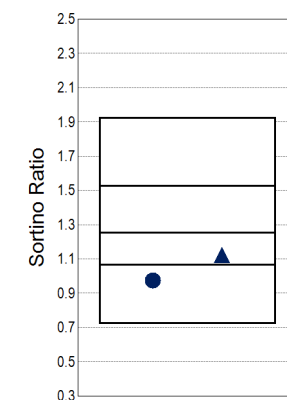
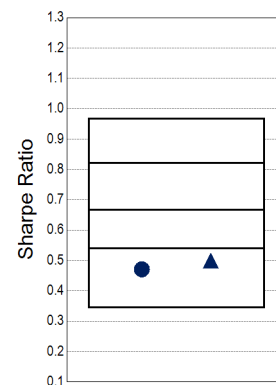
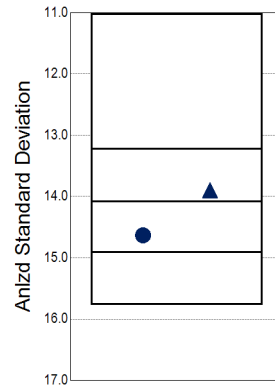
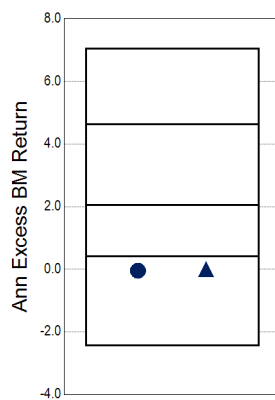
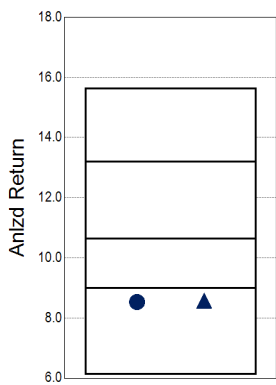
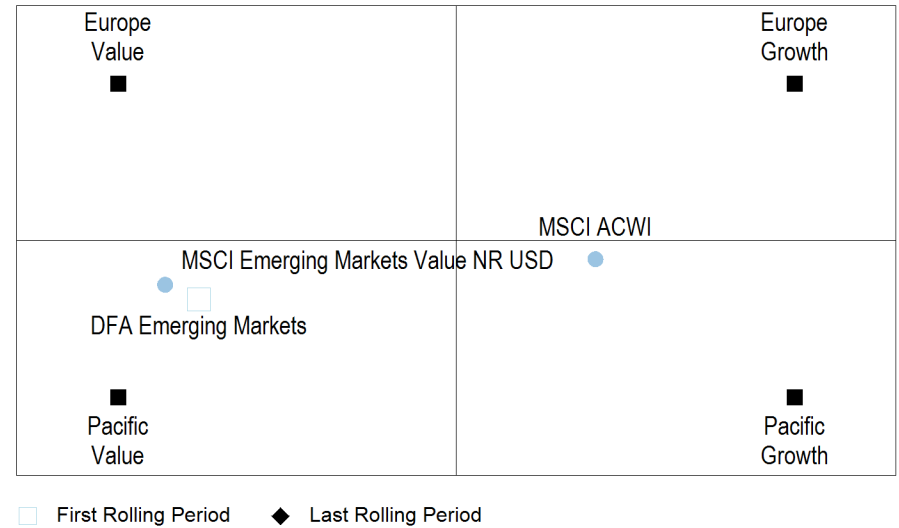
Los Angeles City Employees' Retirement System

DFA EMERGING MARKETS

3 Year Risk Return



3 Year Style Map



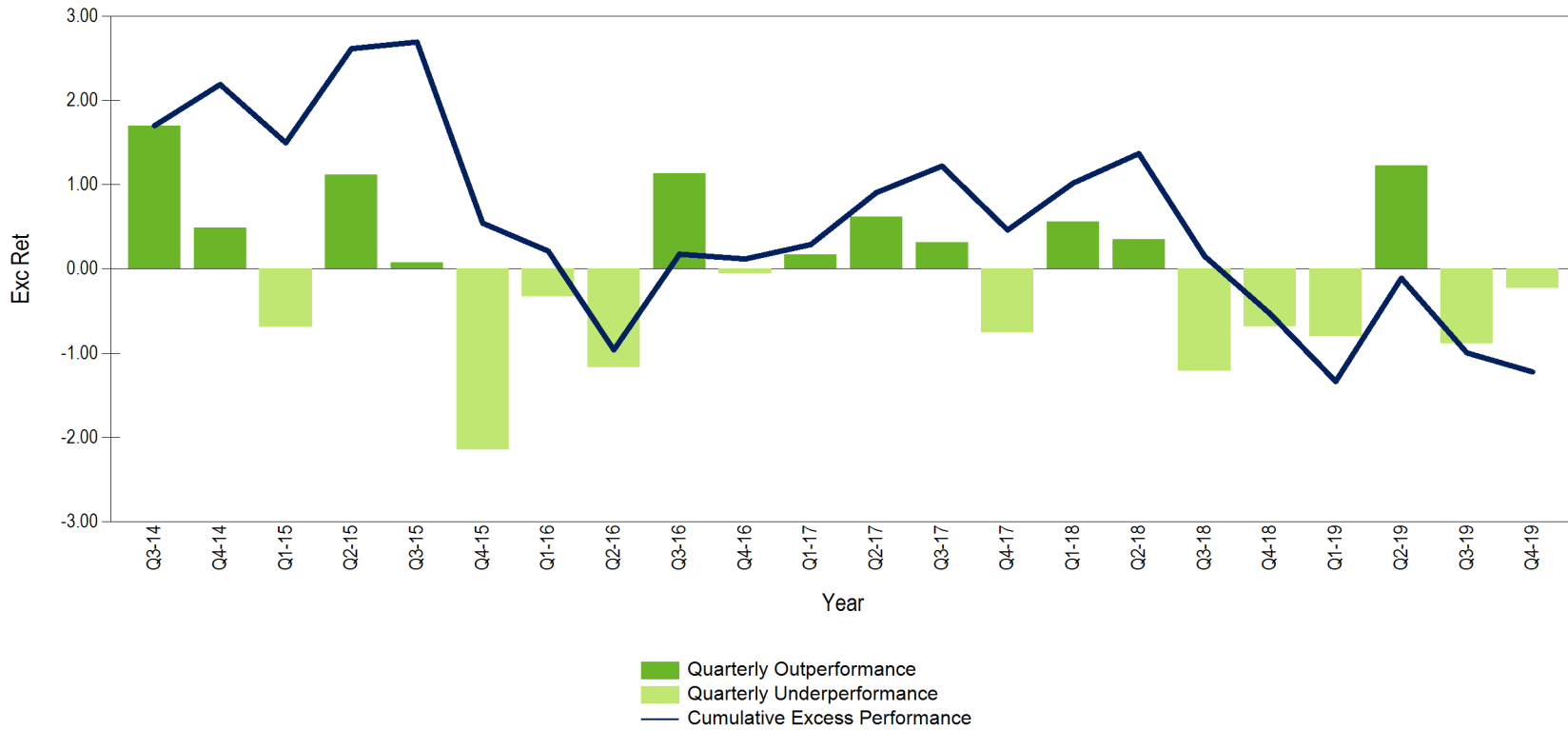
- DFA Emerging Markets
- ▲ MSCI Emerging Markets Value NR USD
- 5th to 25th Percentile
- 25th to Median
- Median to 75th Percentile
- 75th to 95th Percentile



Los Angeles City Employees' Retirement System

QMA EMERGING MARKETS

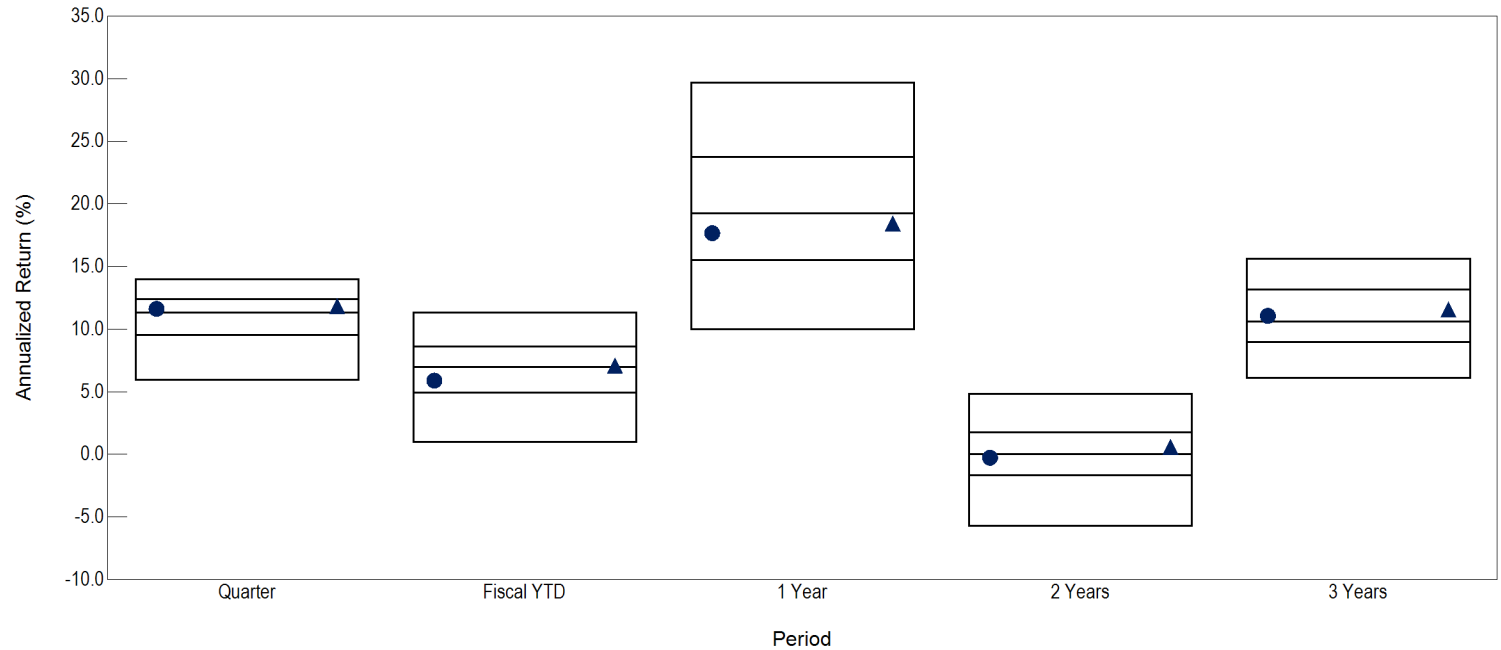
Quarterly and Cumulative Excess Performance



Los Angeles City Employees' Retirement System

QMA EMERGING MARKETS

QMA Emerging Markets vs. eV Emg Mkts Equity Net



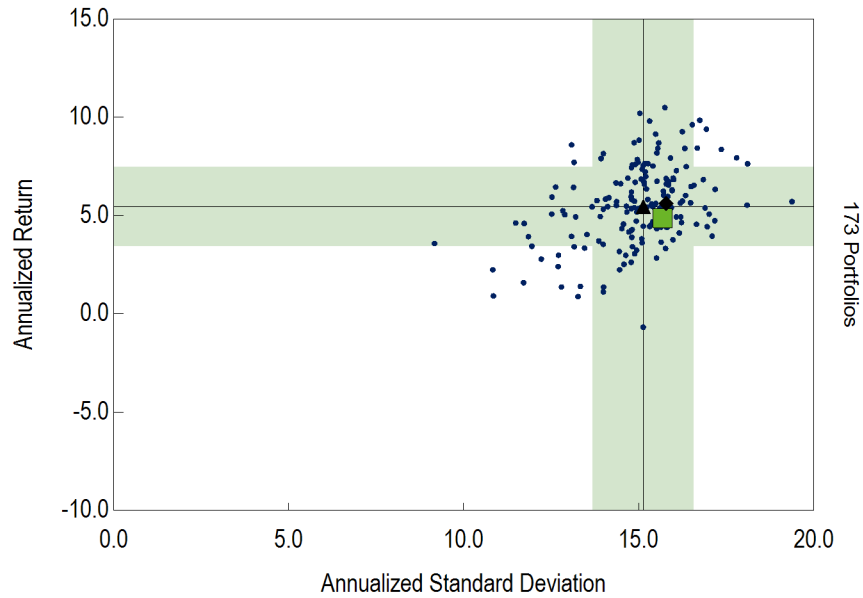
	Return (Rank)									
5th Percentile	14.00		11.32		29.70		4.81		15.63	
25th Percentile	12.43		8.66		23.82		1.83		13.22	
Median	11.37		7.00		19.28		0.09		10.66	
75th Percentile	9.60		4.98		15.56		-1.62		9.01	
95th Percentile	6.03		1.03		10.05		-5.64		6.17	
# of Portfolios	218		217		216		207		199	
● QMA Emerging Markets	11.61	(44)	5.88	(65)	17.66	(64)	-0.27	(56)	11.05	(47)
▲ MSCI Emerging Markets	11.84	(36)	7.09	(49)	18.44	(57)	0.58	(41)	11.57	(43)



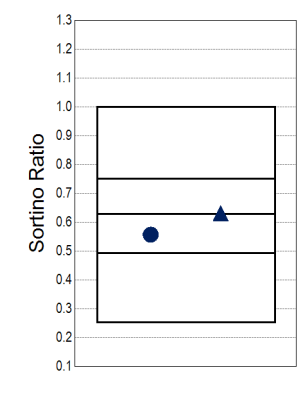
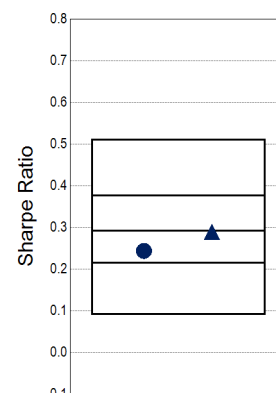
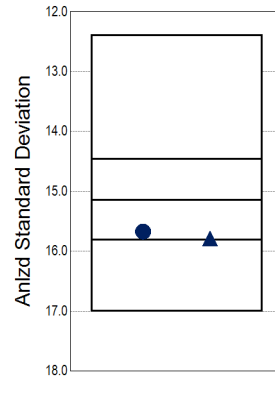
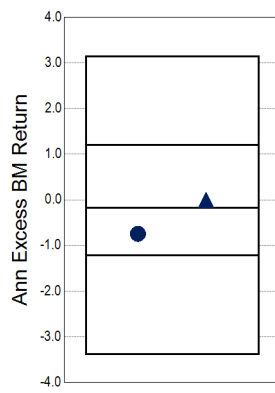
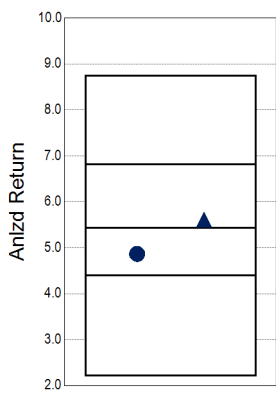
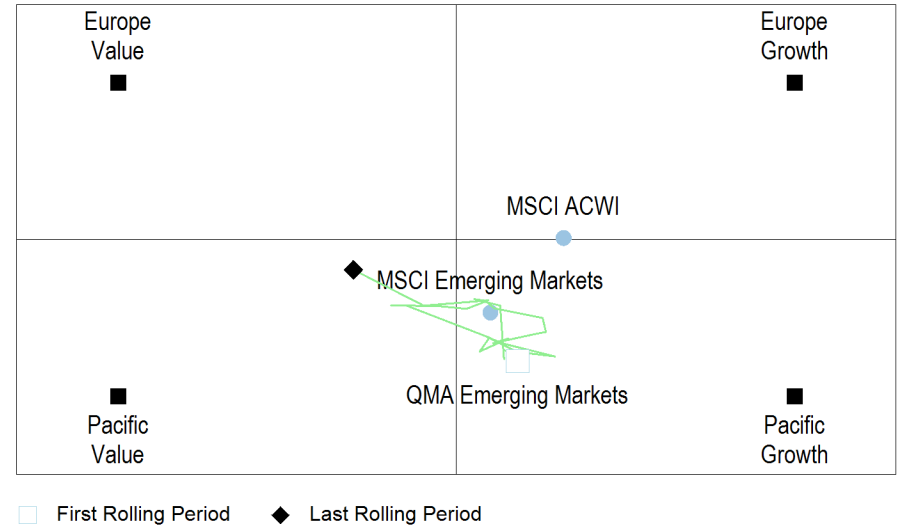
Los Angeles City Employees' Retirement System

QMA EMERGING MARKETS

5 Year Risk Return



5 Year Style Map



- QMA Emerging Markets
- ▲ MSCI Emerging Markets
- 5th to 25th Percentile
- 25th to Median
- Median to 75th Percentile
- 75th to 95th Percentile



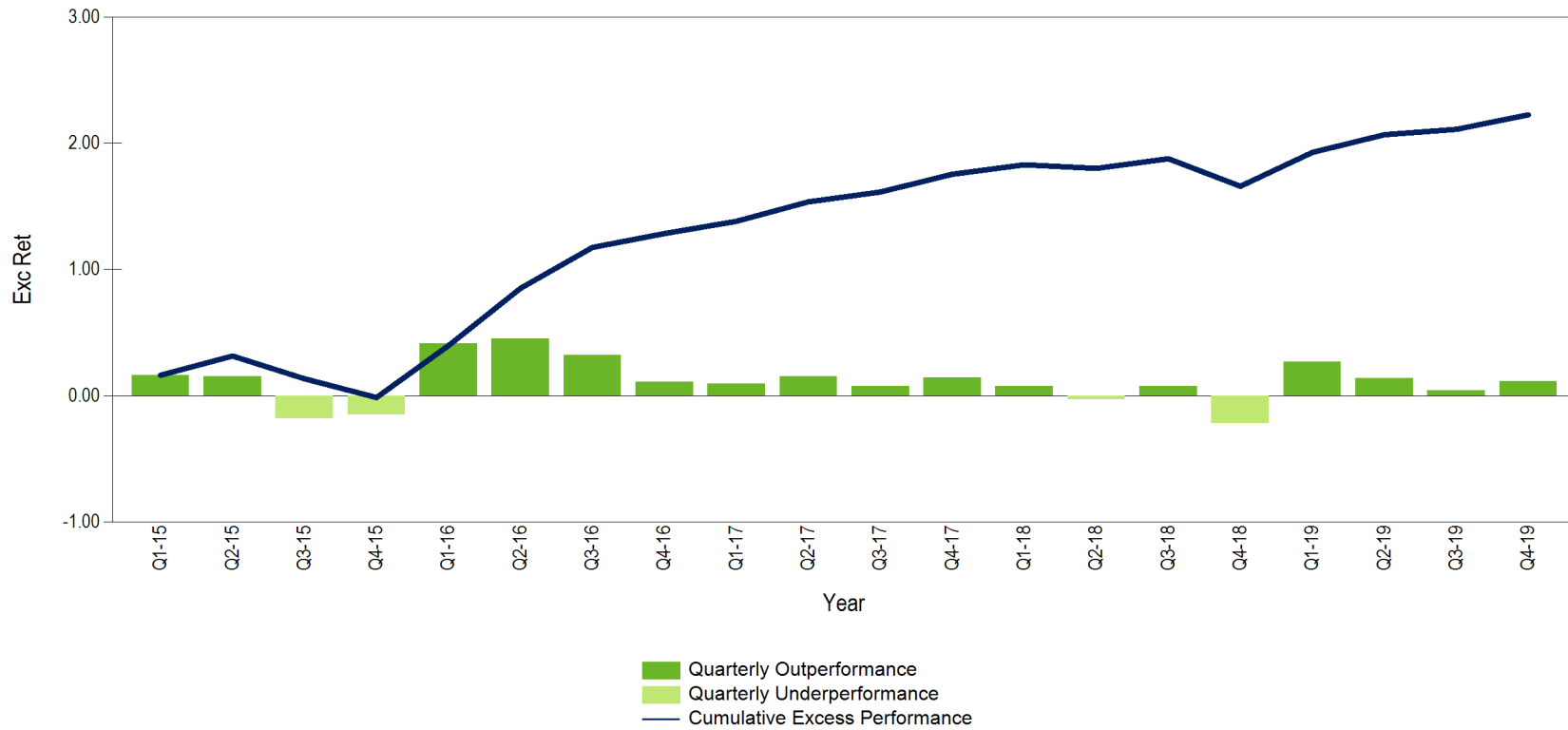
CORE FIXED INCOME MANAGER PERFORMANCE

NEPC, LLC

Los Angeles City Employees' Retirement System

BAIRD ADVISORS

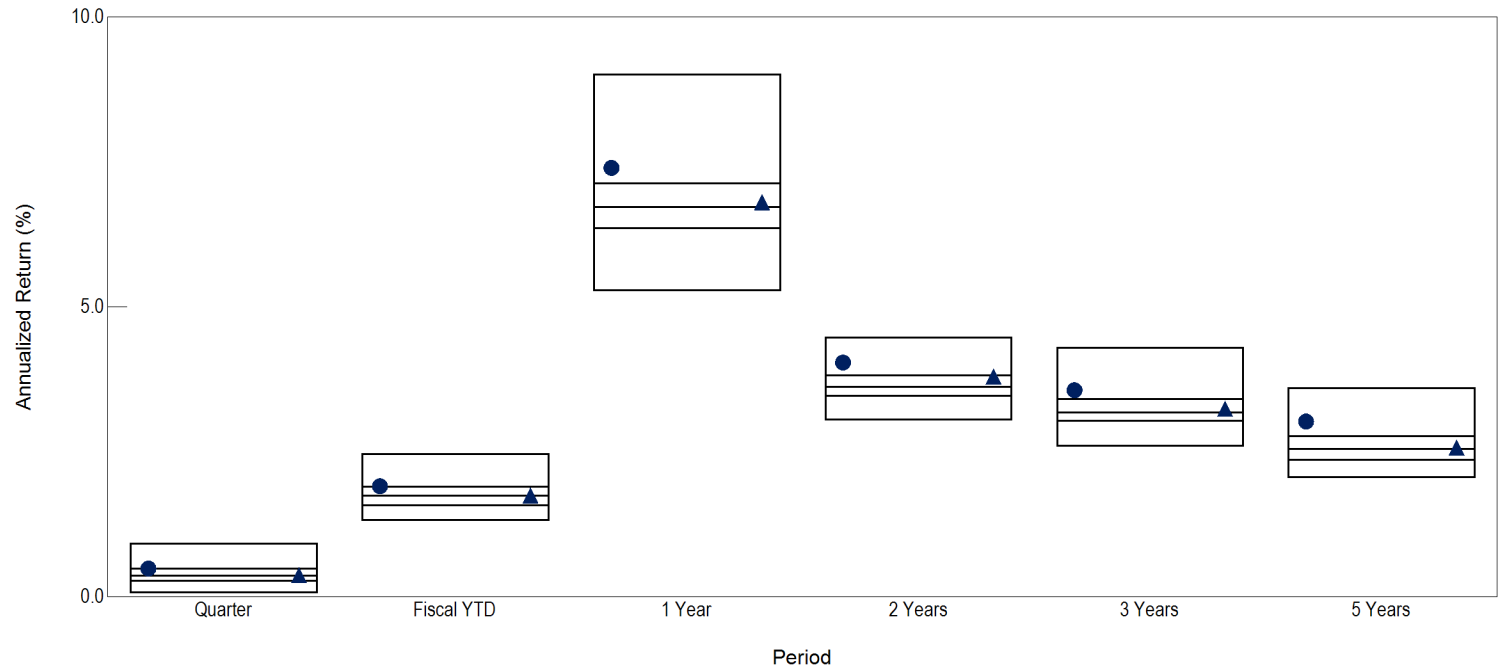
Quarterly and Cumulative Excess Performance



Los Angeles City Employees' Retirement System

BAIRD ADVISORS

Baird Advisors vs. eV US Interm Duration Fixed Inc Net



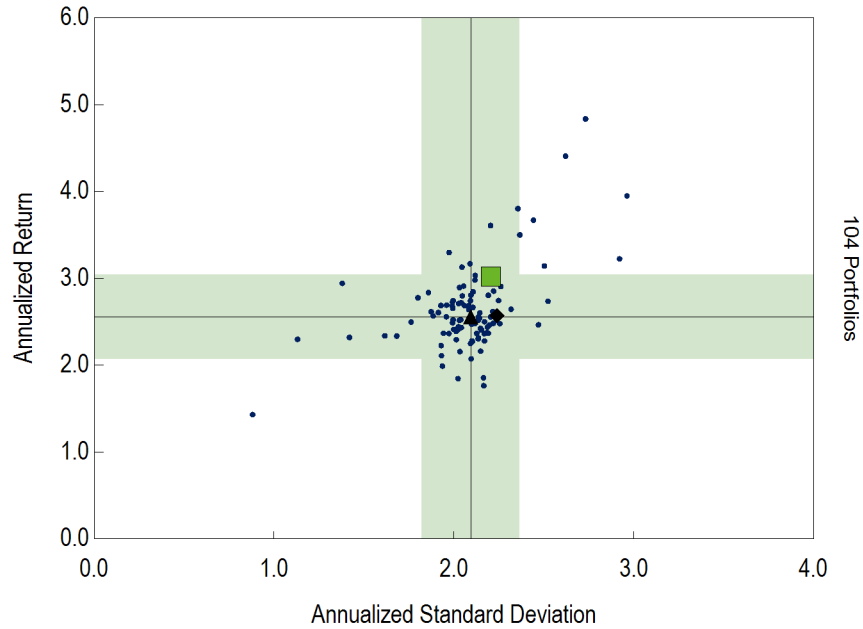
	Return (Rank)											
5th Percentile	0.92		2.47		9.01		4.47		4.29		3.59	
25th Percentile	0.50		1.91		7.14		3.83		3.42		2.78	
Median	0.37		1.75		6.74		3.63		3.19		2.56	
75th Percentile	0.29		1.59		6.37		3.48		3.05		2.37	
95th Percentile	0.09		1.33		5.30		3.07		2.62		2.08	
# of Portfolios	109		109		109		109		106		104	
● Baird Advisors	0.49	(28)	1.91	(25)	7.40	(16)	4.04	(13)	3.56	(16)	3.02	(14)
▲ BBgBarc US Govt/Credit Int TR	0.37	(51)	1.75	(51)	6.80	(45)	3.80	(31)	3.24	(42)	2.57	(47)



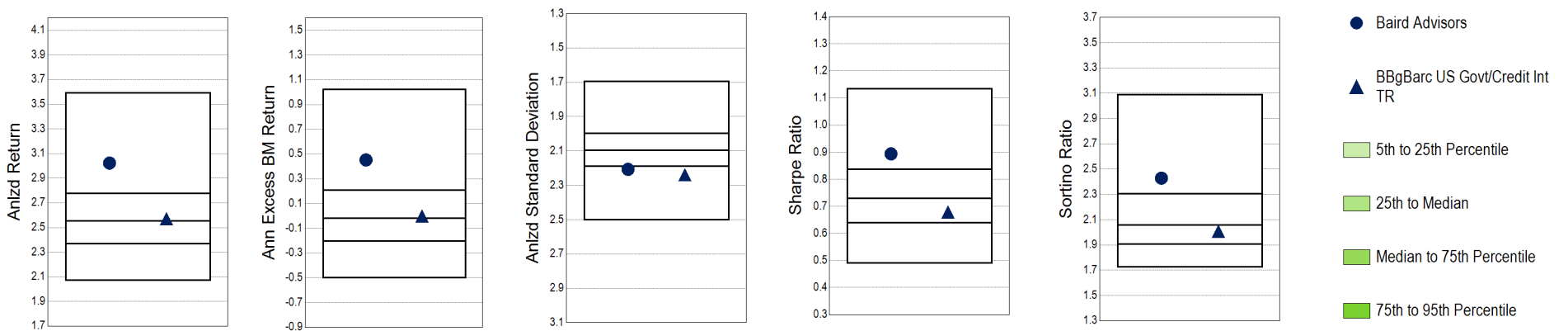
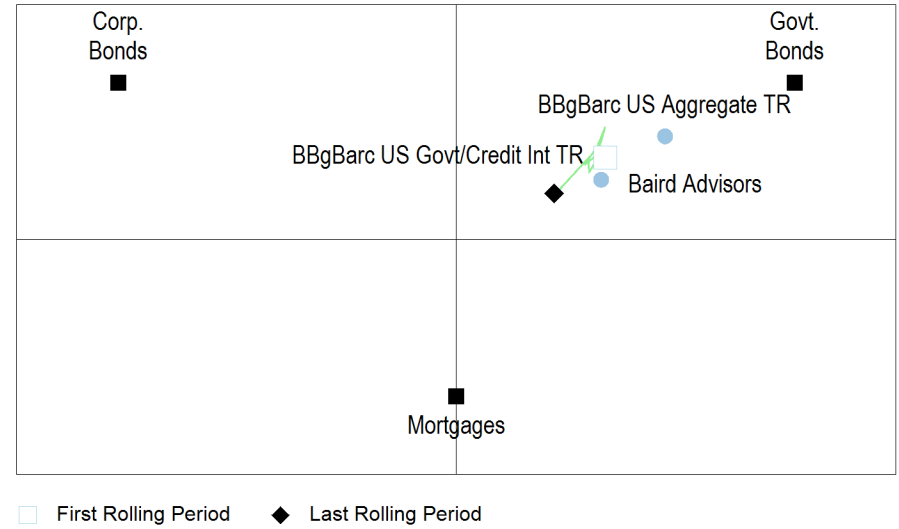
Los Angeles City Employees' Retirement System

BAIRD ADVISORS

5 Year Risk Return



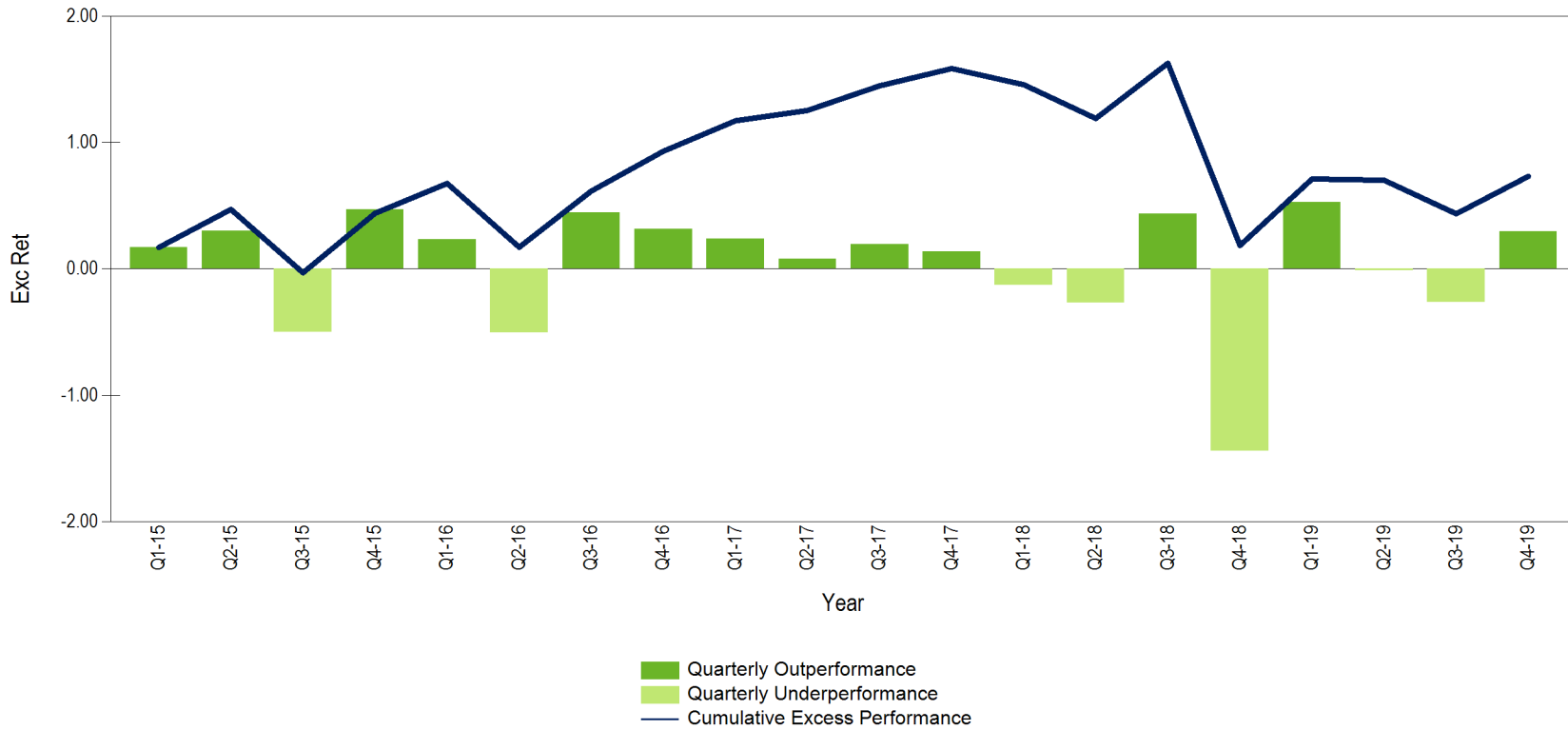
5 Year Style Map



Los Angeles City Employees' Retirement System

LM CAPITAL

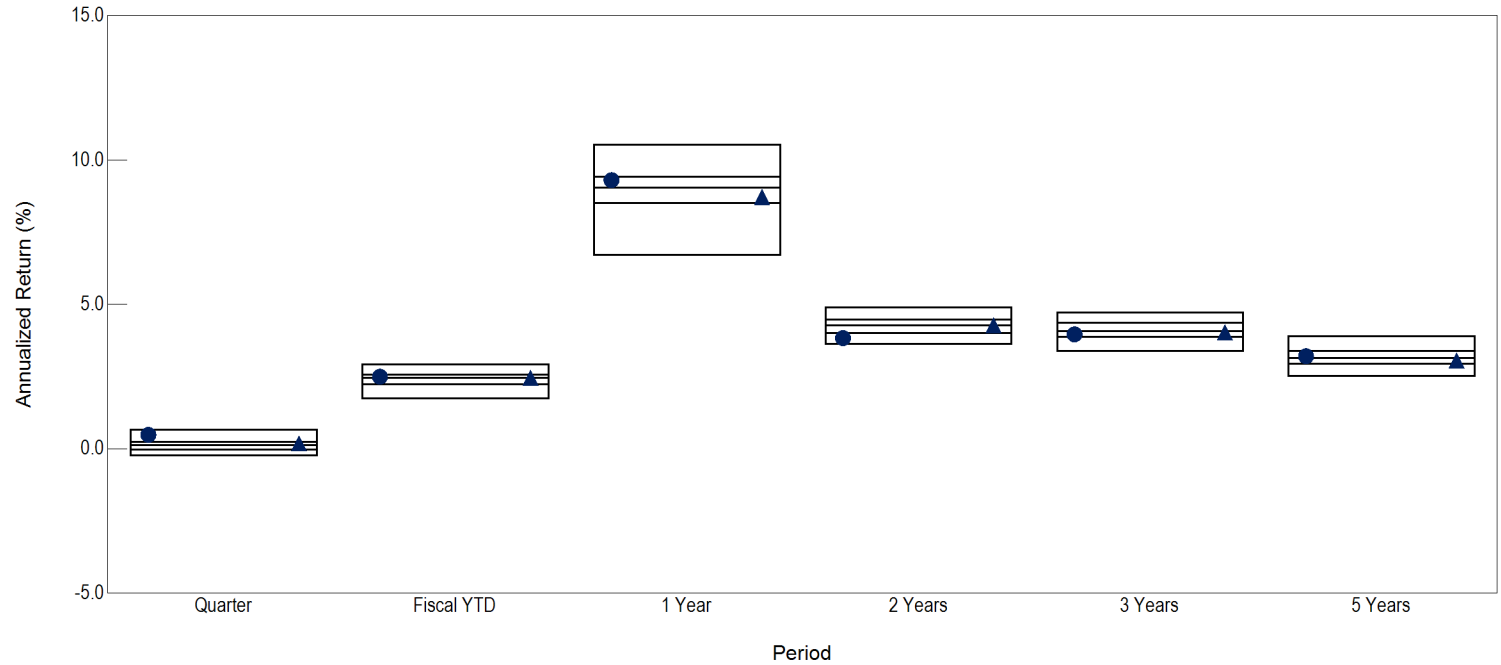
Quarterly and Cumulative Excess Performance



Los Angeles City Employees' Retirement System

LM CAPITAL

Core Fixed Income Managers vs. eV US Core Fixed Inc Net



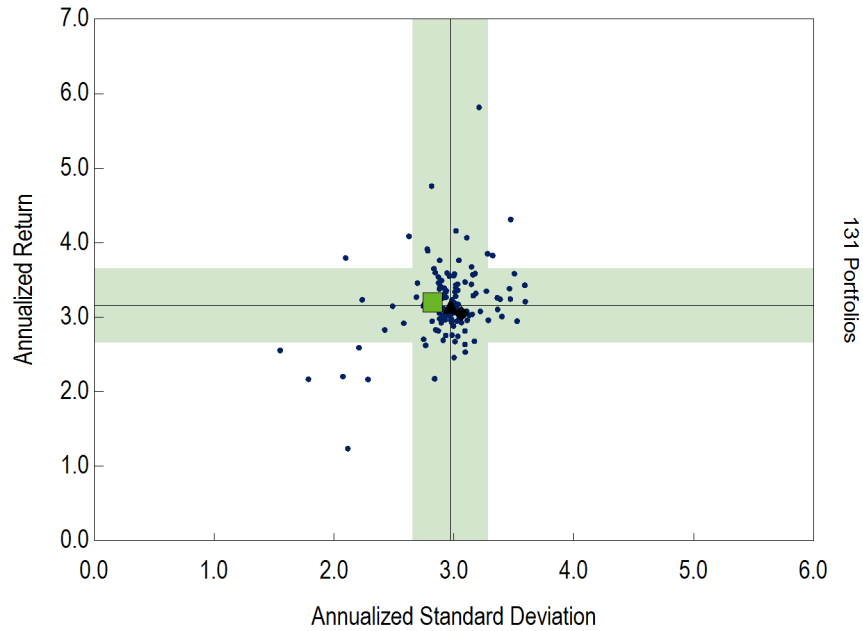
	Return (Rank)		Quarter		Fiscal YTD		1 Year		2 Years		3 Years		5 Years	
5th Percentile	0.66		2.91		10.53		4.90		4.72		3.90			
25th Percentile	0.26		2.58		9.44		4.49		4.38		3.41			
Median	0.14		2.46		9.07		4.29		4.09		3.15			
75th Percentile	0.00		2.26		8.52		4.03		3.90		2.96			
95th Percentile	-0.21		1.76		6.73		3.66		3.40		2.54			
# of Portfolios	137		137		137		136		135		131			
● LM Capital	0.48	(10)	2.49	(46)	9.30	(36)	3.83	(93)	3.96	(69)	3.20	(46)		
▲ Core Fixed Income Blend	0.18	(43)	2.45	(53)	8.72	(69)	4.27	(53)	4.03	(57)	3.05	(66)		



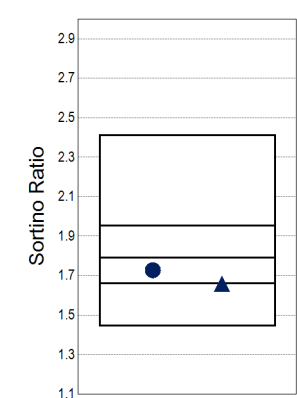
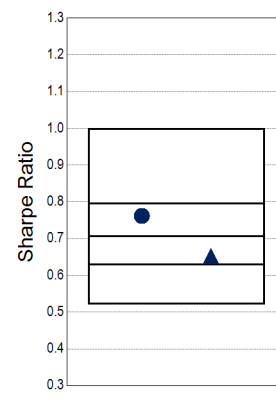
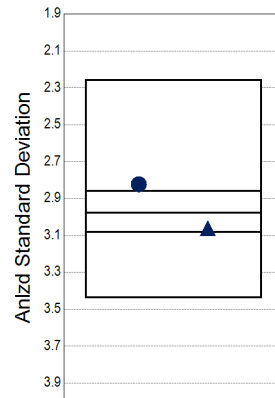
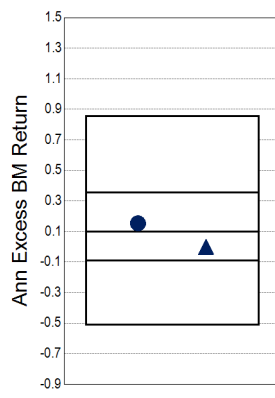
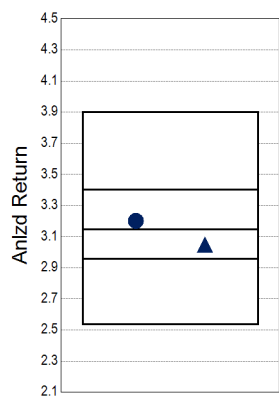
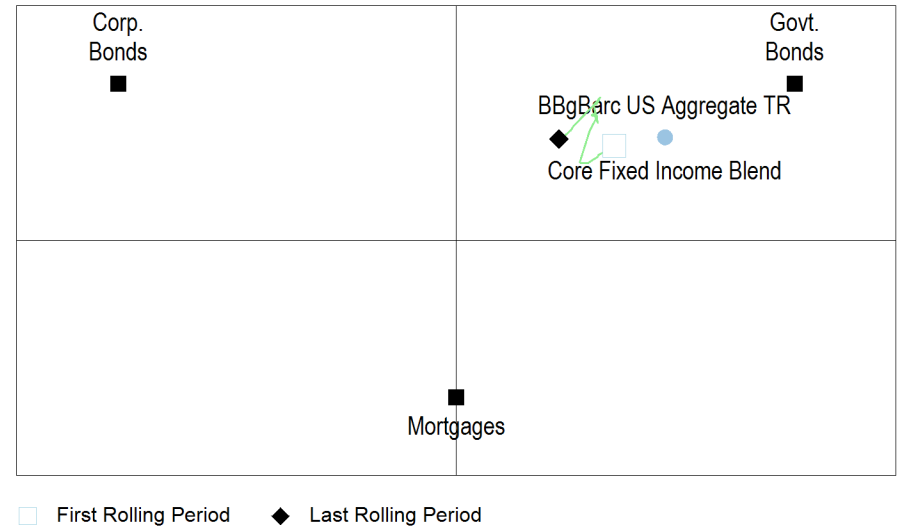
Los Angeles City Employees' Retirement System

LM CAPITAL

5 Year Risk Return



5 Year Style Map



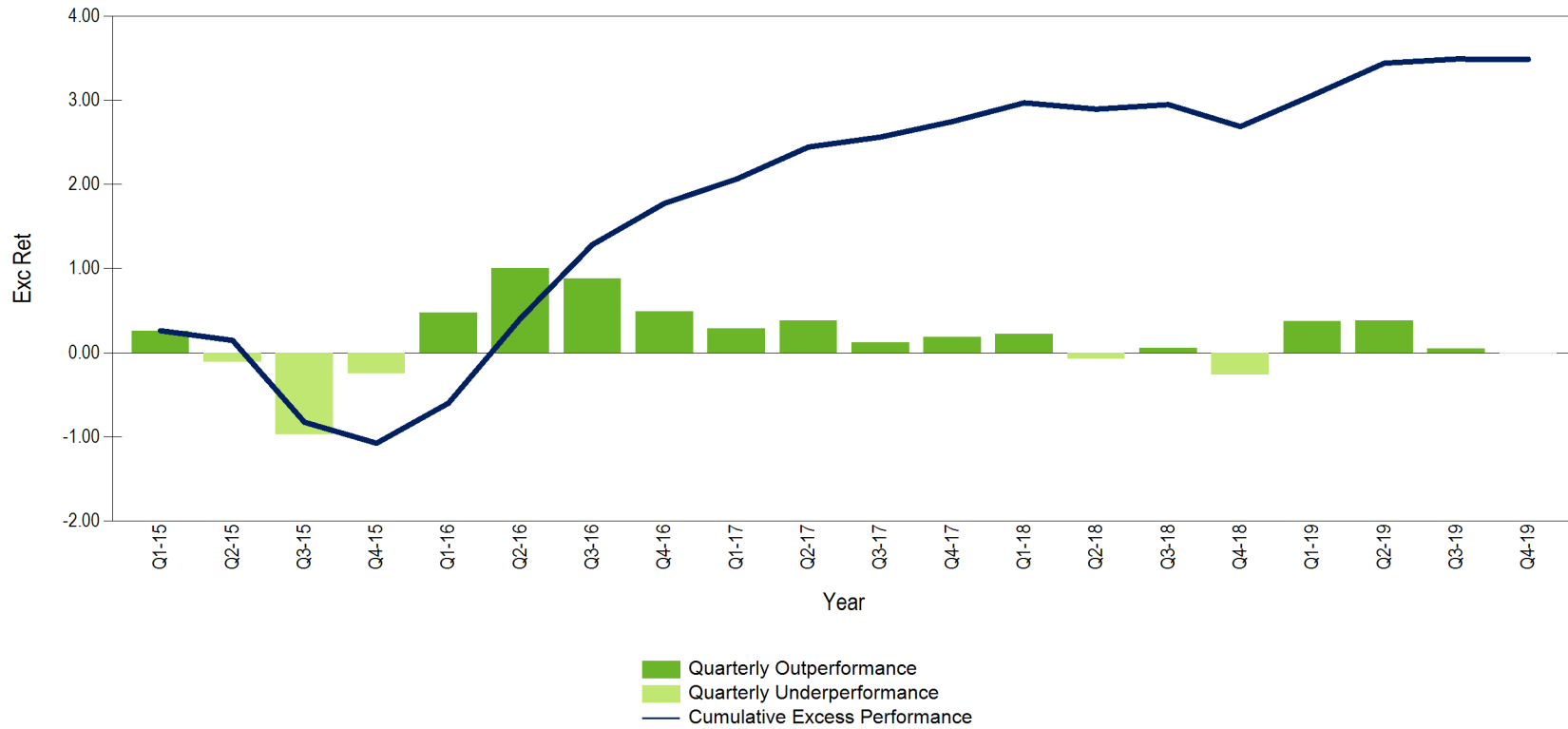
- LM Capital
- ▲ Core Fixed Income Blend
- 5th to 25th Percentile
- 25th to Median
- Median to 75th Percentile
- 75th to 95th Percentile



Los Angeles City Employees' Retirement System

LOOMIS SAYLES

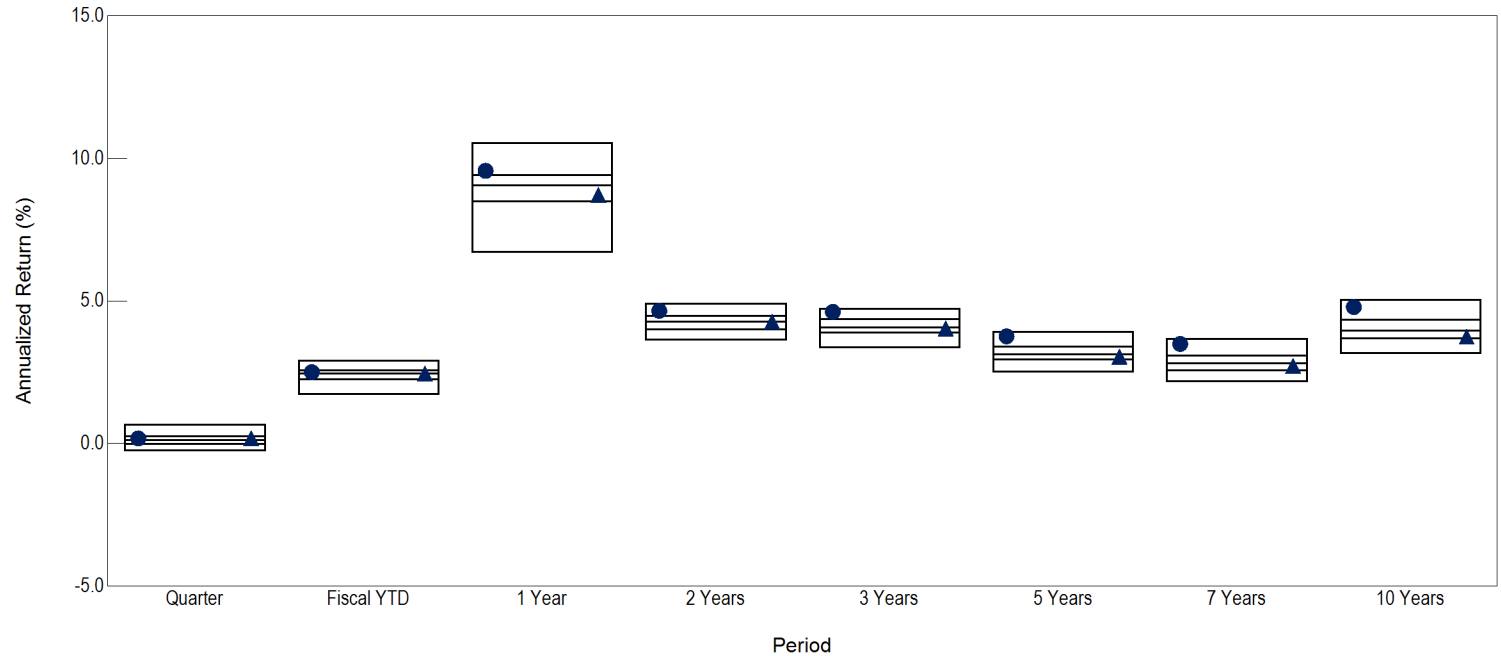
Quarterly and Cumulative Excess Performance



Los Angeles City Employees' Retirement System

LOOMIS SAYLES

Loomis Sayles vs. eV US Core Fixed Inc Net



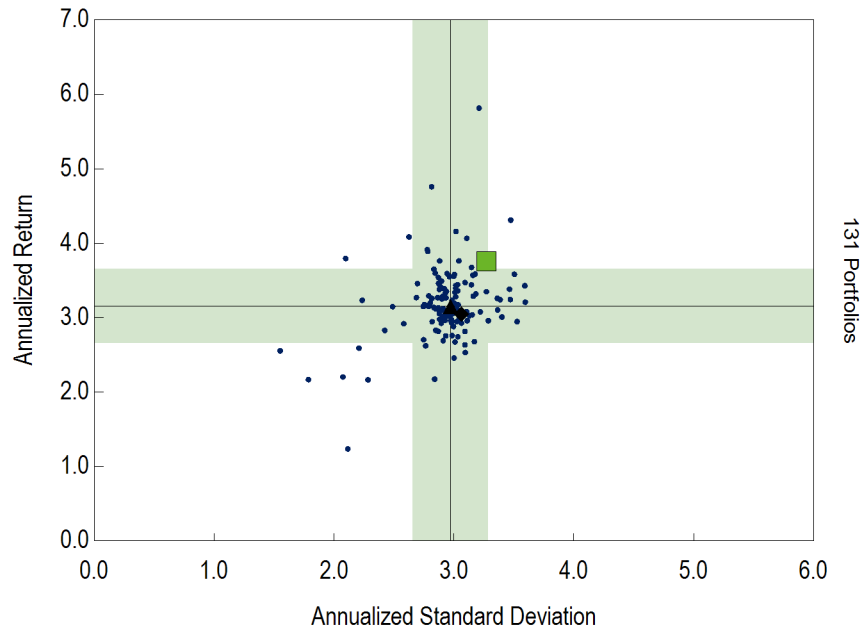
	Return (Rank)															
5th Percentile	0.66	2.91	10.53	4.90	4.72	3.90	3.66	5.04								
25th Percentile	0.26	2.58	9.44	4.49	4.38	3.41	3.11	4.37								
Median	0.14	2.46	9.07	4.29	4.09	3.15	2.83	3.98								
75th Percentile	0.00	2.26	8.52	4.03	3.90	2.96	2.59	3.70								
95th Percentile	-0.21	1.76	6.73	3.66	3.40	2.54	2.21	3.19								
# of Portfolios	137	137	137	136	135	131	129	118								
● Loomis Sayles	0.18	(44)	2.50	(42)	9.56	(19)	4.65	(15)	4.61	(10)	3.76	(10)	3.49	(8)	4.78	(11)
▲ BC US Agg LACERS custom	0.18	(43)	2.45	(53)	8.72	(69)	4.27	(53)	4.03	(57)	3.05	(66)	2.72	(60)	3.75	(72)



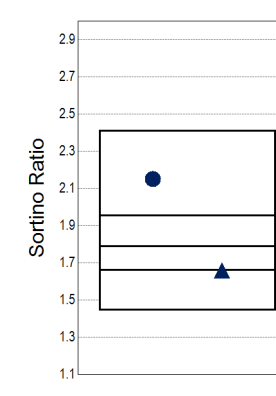
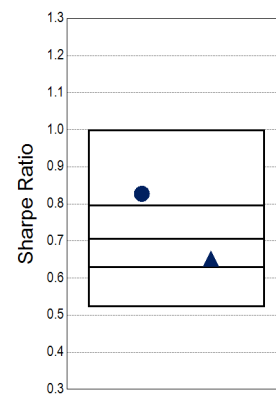
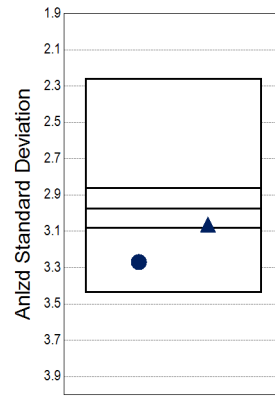
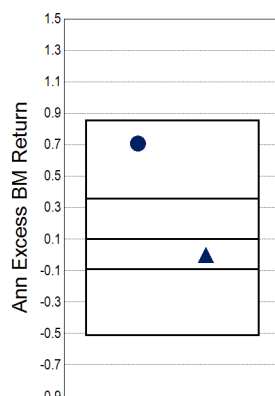
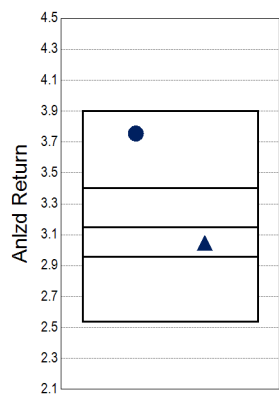
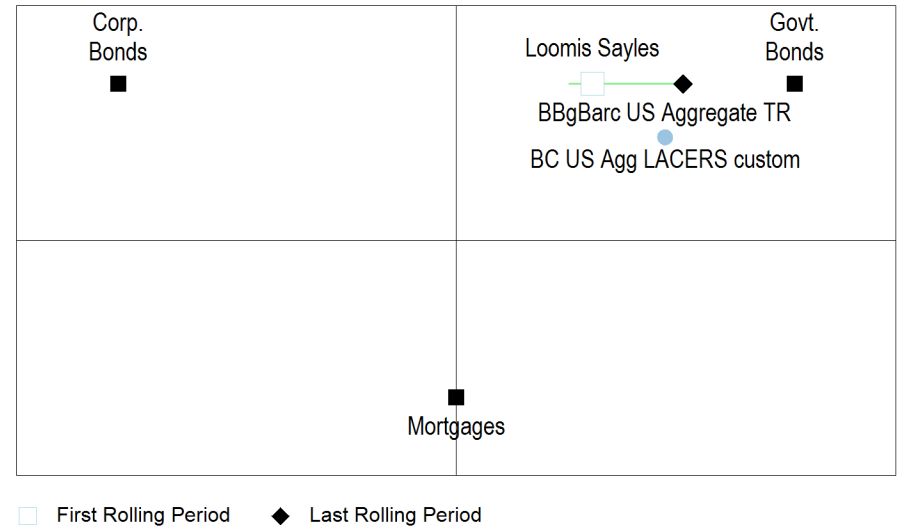
Los Angeles City Employees' Retirement System

LOOMIS SAYLES

5 Year Risk Return



5 Year Style Map



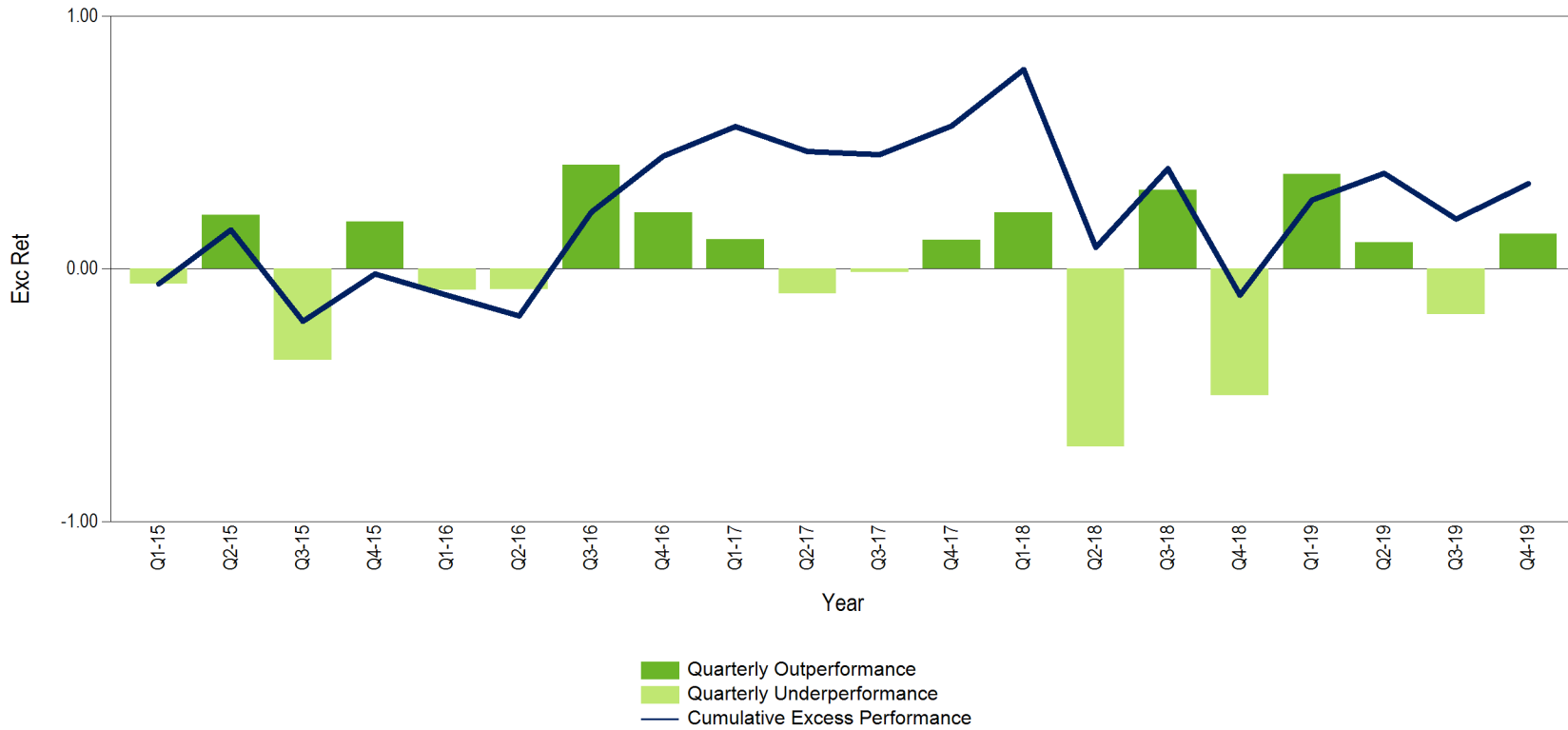
- Loomis Sayles
- ▲ BC US Agg LACERS custom
- 5th to 25th Percentile
- 25th to Median
- Median to 75th Percentile
- 75th to 95th Percentile



Los Angeles City Employees' Retirement System

NEUBERGER BERMAN

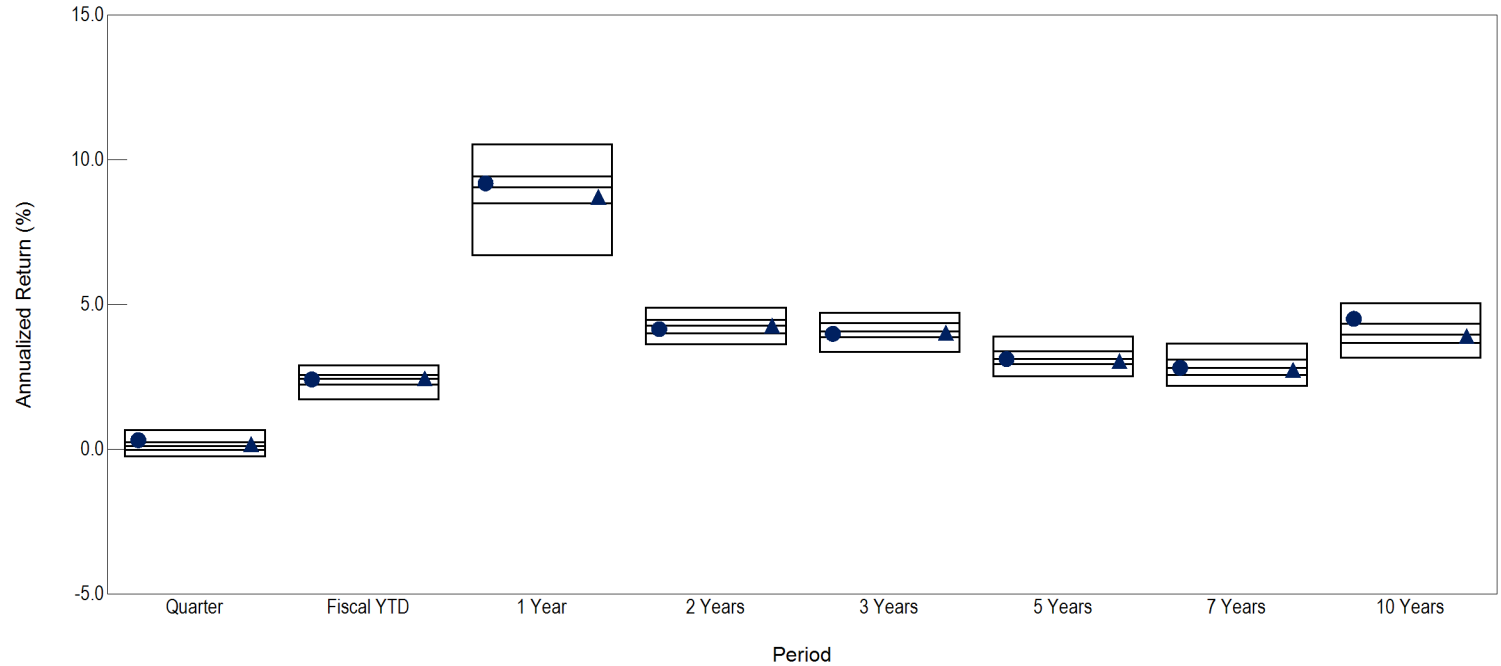
Quarterly and Cumulative Excess Performance



Los Angeles City Employees' Retirement System

NEUBERGER BERMAN

Neuberger Berman vs. eV US Core Fixed Inc Net



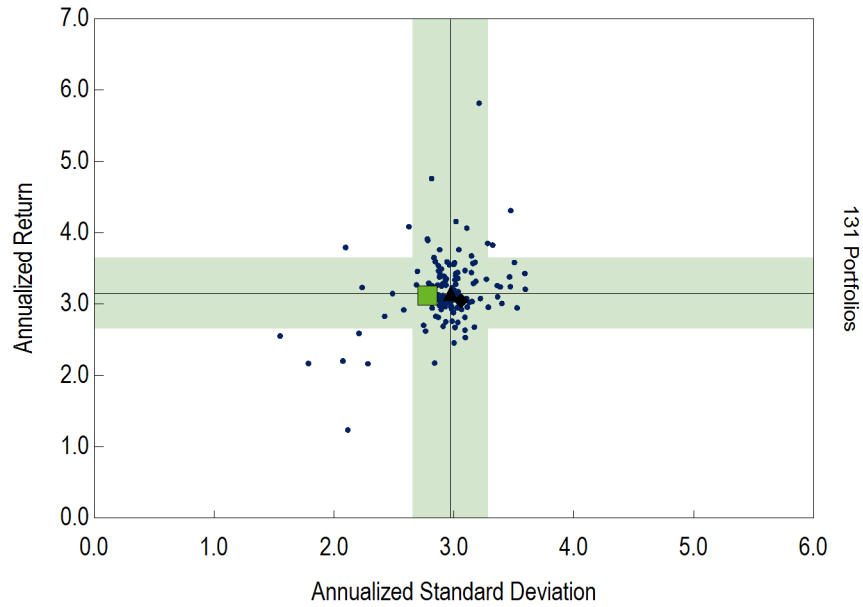
	Return (Rank)															
5th Percentile	0.66	2.91	10.53	4.90	4.72	3.90	3.66	5.04								
25th Percentile	0.26	2.58	9.44	4.49	4.38	3.41	3.11	4.37								
Median	0.14	2.46	9.07	4.29	4.09	3.15	2.83	3.98								
75th Percentile	0.00	2.26	8.52	4.03	3.90	2.96	2.59	3.70								
95th Percentile	-0.21	1.76	6.73	3.66	3.40	2.54	2.21	3.19								
# of Portfolios	137	137	137	136	135	131	129	118								
● Neuberger Berman	0.32	(16)	2.42	(58)	9.19	(43)	4.15	(66)	3.99	(64)	3.12	(55)	2.82	(52)	4.51	(17)
▲ Core Fixed Income Blend	0.18	(43)	2.45	(53)	8.72	(69)	4.27	(53)	4.03	(57)	3.05	(66)	2.74	(58)	3.91	(60)



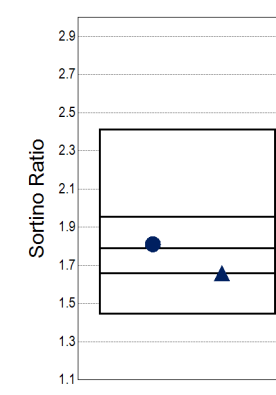
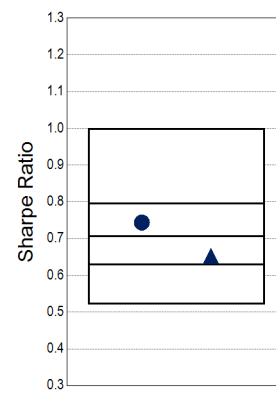
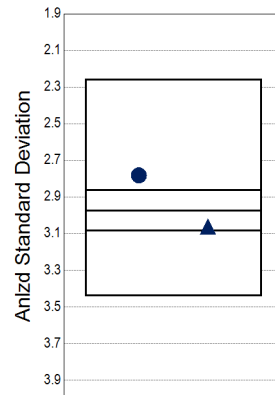
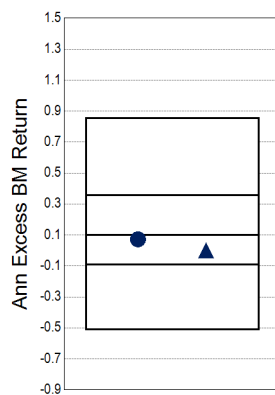
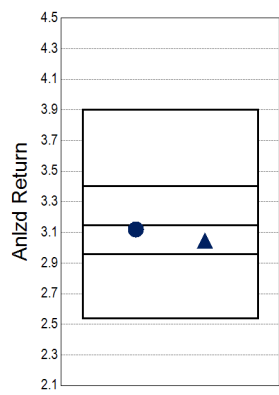
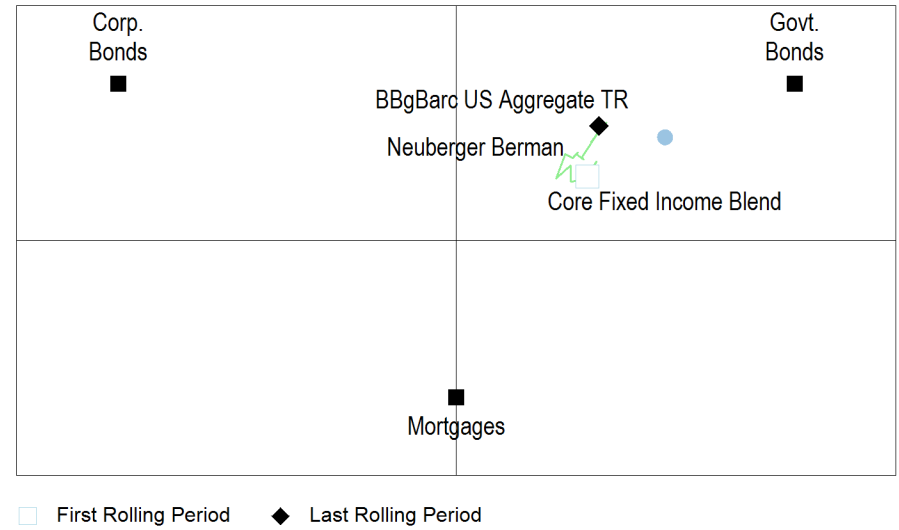
Los Angeles City Employees' Retirement System

NEUBERGER BERMAN

5 Year Risk Return



5 Year Style Map



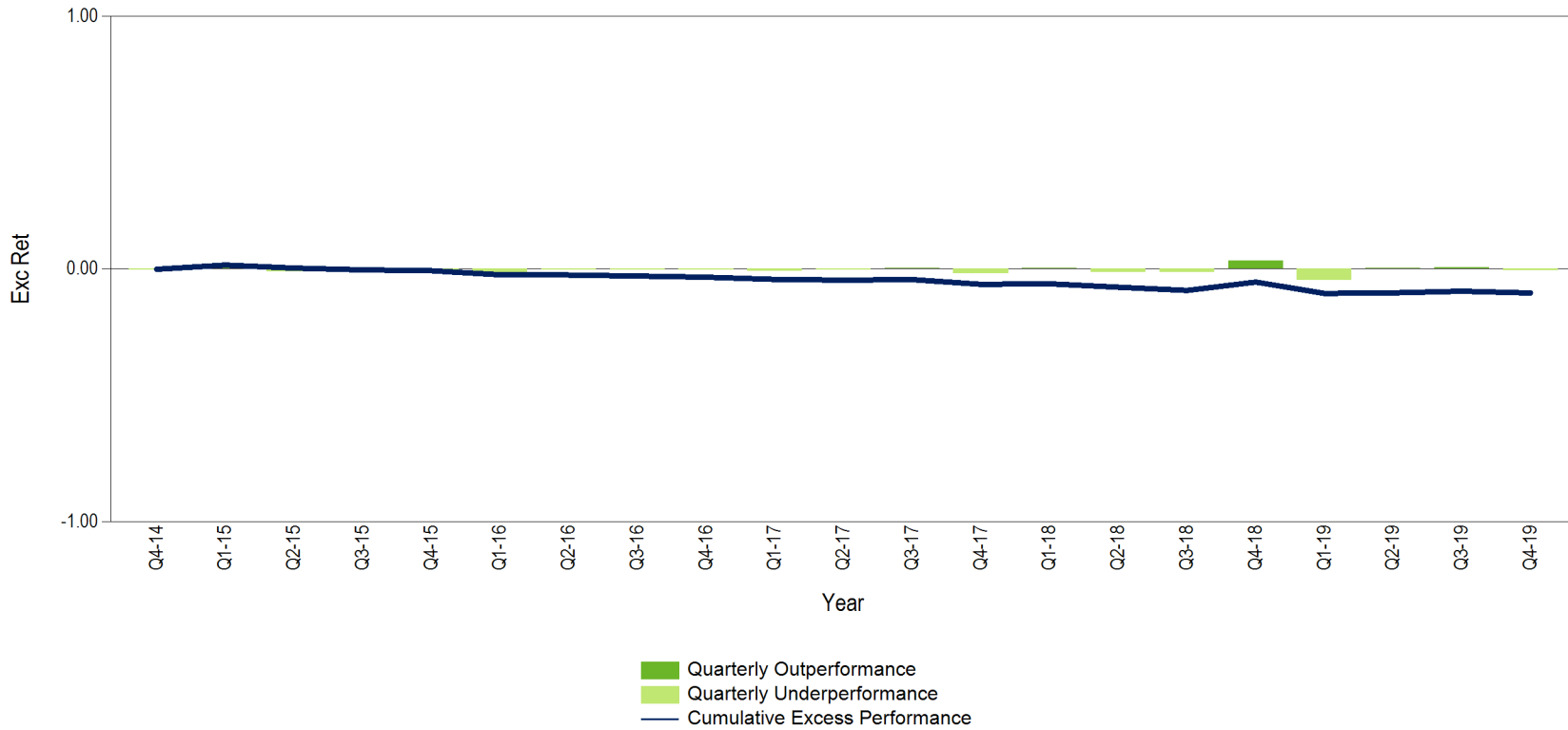
- Neuberger Berman
- ▲ Core Fixed Income Blend
- 5th to 25th Percentile
- 25th to Median
- Median to 75th Percentile
- 75th to 95th Percentile



Los Angeles City Employees' Retirement System

SSGA U.S. AGGREGATE BOND

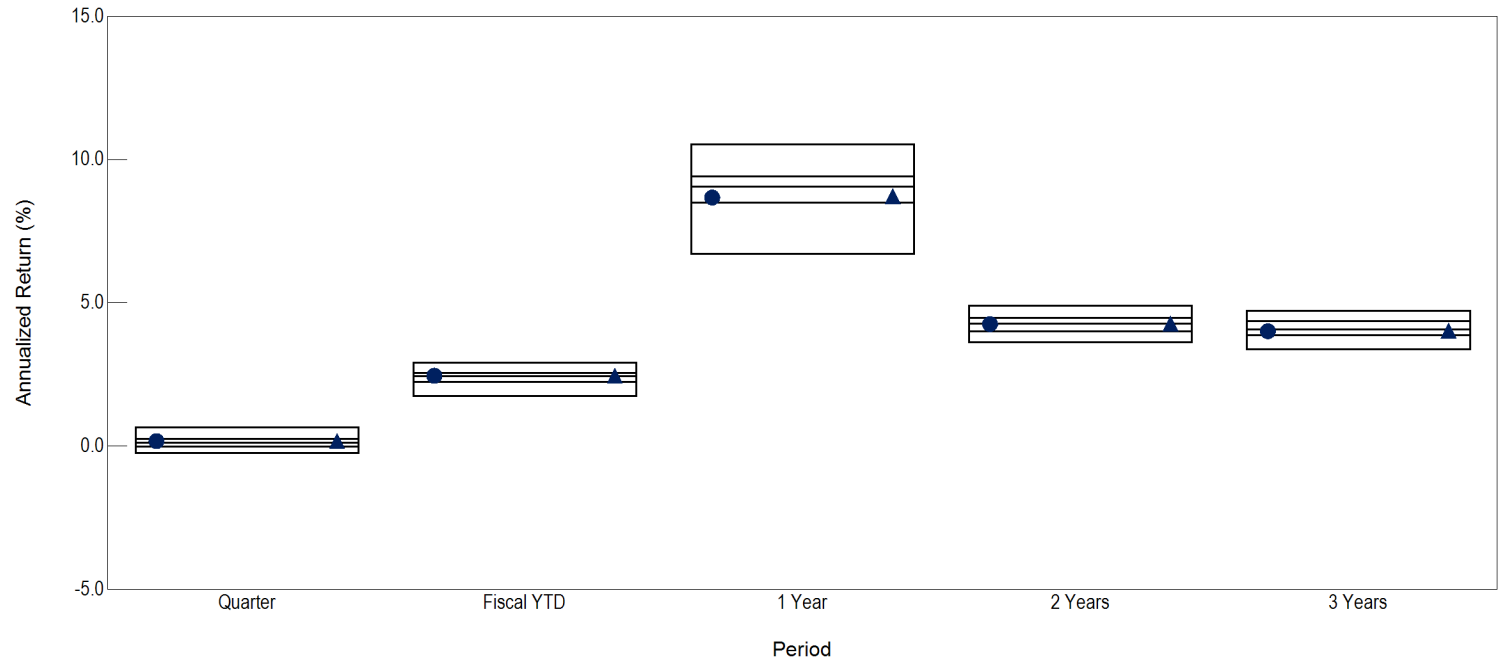
Quarterly and Cumulative Excess Performance



Los Angeles City Employees' Retirement System

SSGA U.S. AGGREGATE BOND

SSgA U.S. Aggregate Bond vs. eV US Core Fixed Inc Net



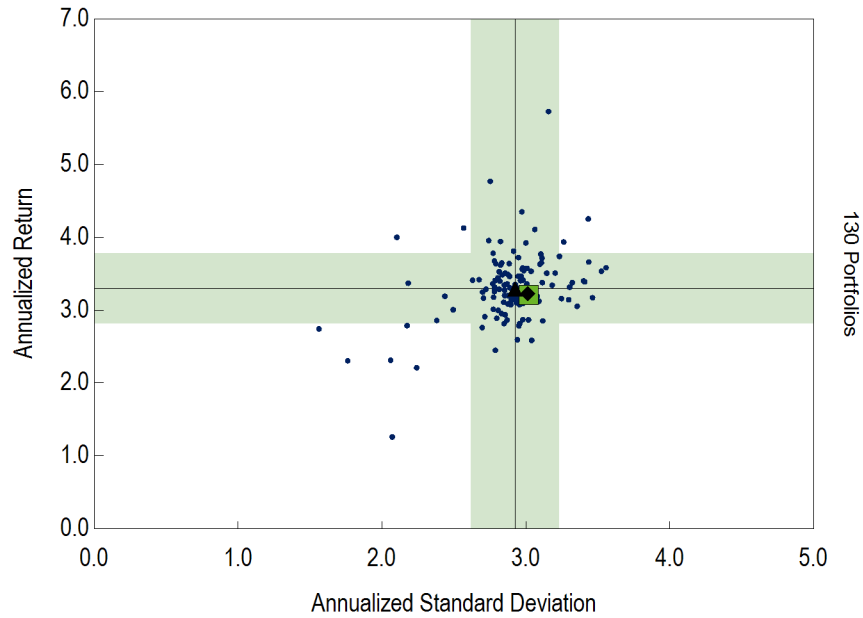
	Return (Rank)									
5th Percentile	0.66		2.91		10.53		4.90		4.72	
25th Percentile	0.26		2.58		9.44		4.49		4.38	
Median	0.14		2.46		9.07		4.29		4.09	
75th Percentile	0.00		2.26		8.52		4.03		3.90	
95th Percentile	-0.21		1.76		6.73		3.66		3.40	
# of Portfolios	137		137		137		136		135	
● SSGA U.S. Aggregate Bond	0.17	(45)	2.45	(54)	8.67	(71)	4.26	(54)	4.01	(60)
▲ BBgBarc US Aggregate TR	0.18	(43)	2.45	(53)	8.72	(69)	4.27	(53)	4.03	(57)



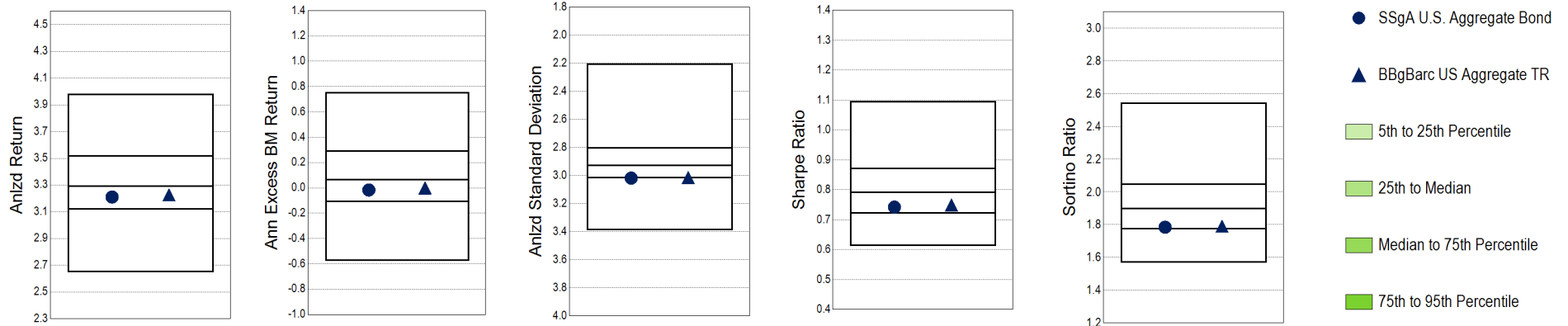
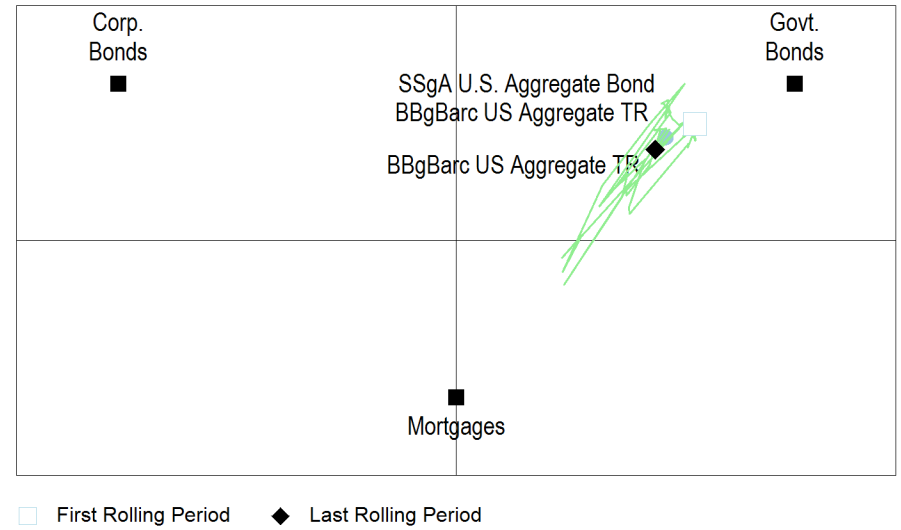
Los Angeles City Employees' Retirement System

SSGA U.S. AGGREGATE BOND

Since Inception Risk Return



Since Inception Style Map



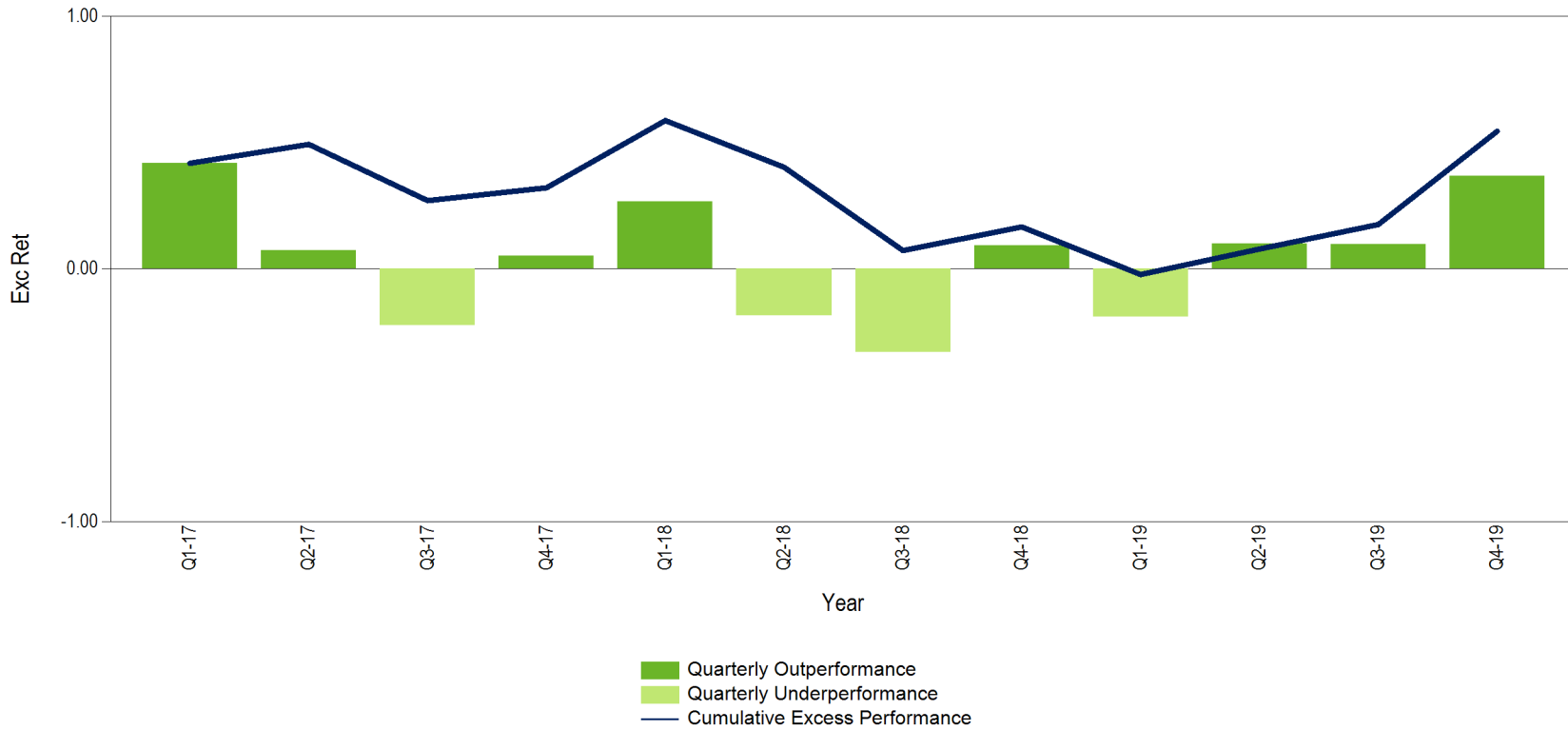
CREDIT OPPORTUNITIES MANAGER PERFORMANCE

NEPC, LLC

Los Angeles City Employees' Retirement System

AEGON USA

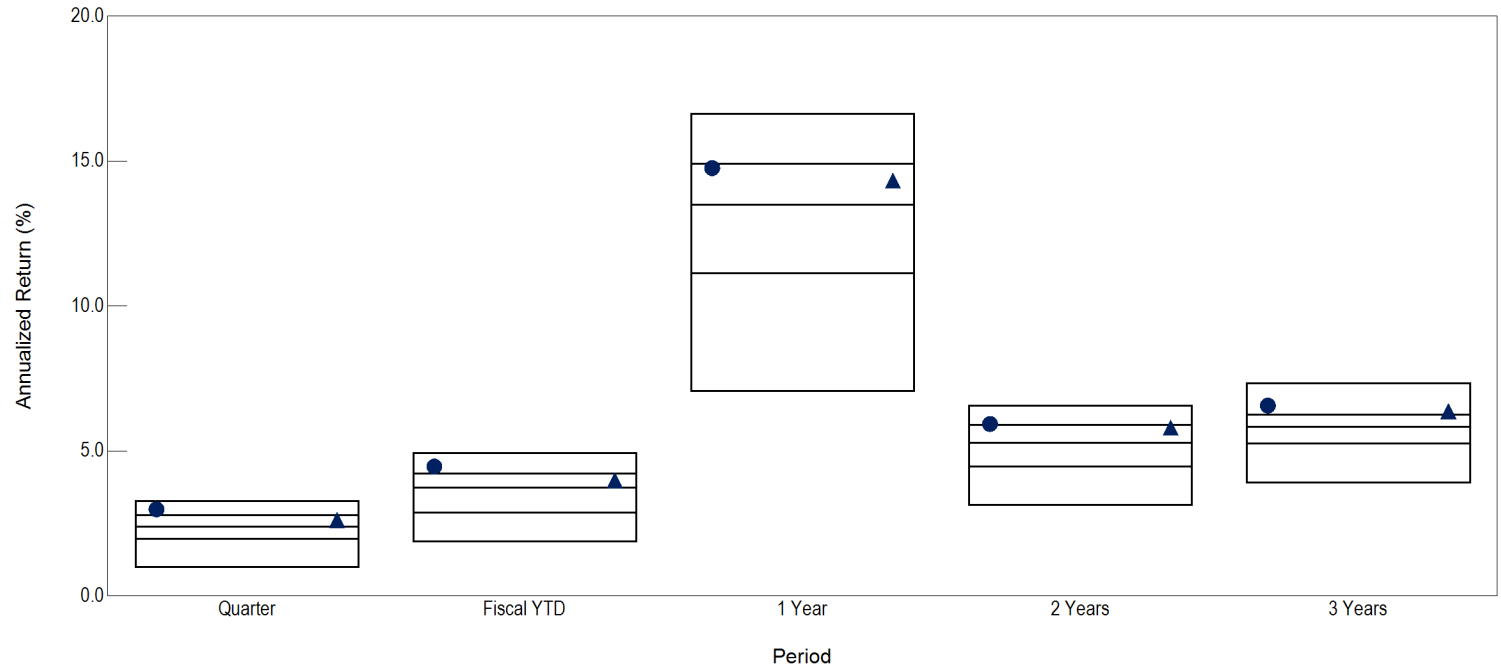
Quarterly and Cumulative Excess Performance



Los Angeles City Employees' Retirement System

AEGON USA

AEGON USA vs. eV US High Yield Fixed Inc Net



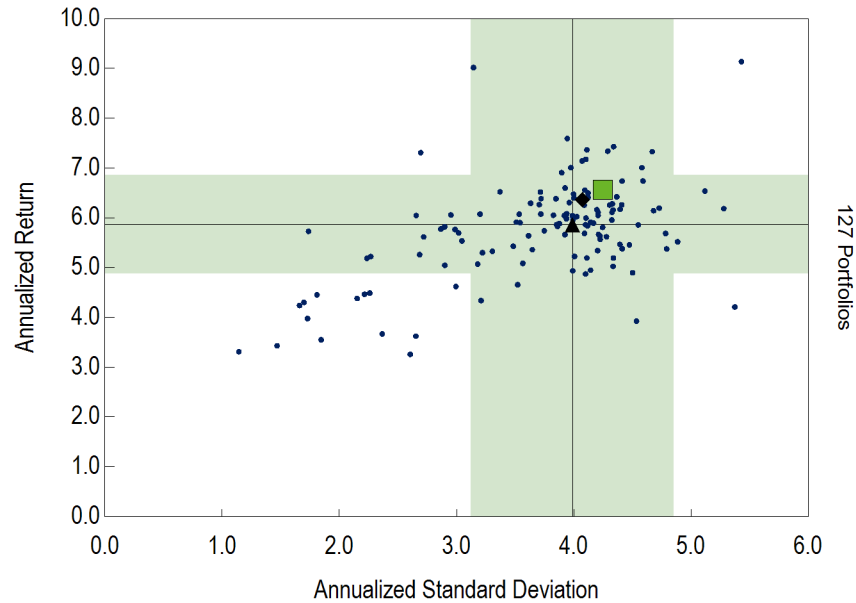
	Return (Rank)									
5th Percentile	3.27		4.92		16.61		6.56		7.32	
25th Percentile	2.81		4.24		14.93		5.91		6.26	
Median	2.40		3.75		13.51		5.31		5.86	
75th Percentile	1.98		2.90		11.15		4.48		5.28	
95th Percentile	1.02		1.90		7.09		3.15		3.94	
# of Portfolios	131		131		131		131		127	
● AEGON USA	2.98	(14)	4.46	(18)	14.75	(29)	5.93	(25)	6.56	(13)
▲ BBgBarc US High Yield 2% Issuer Cap TR	2.61	(35)	3.98	(40)	14.32	(36)	5.80	(30)	6.36	(21)



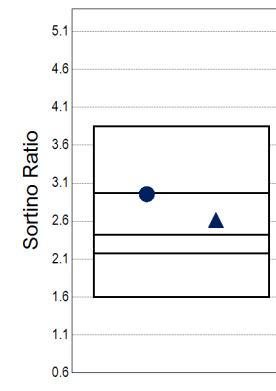
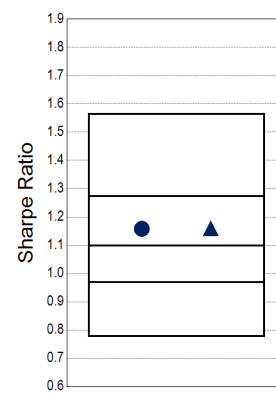
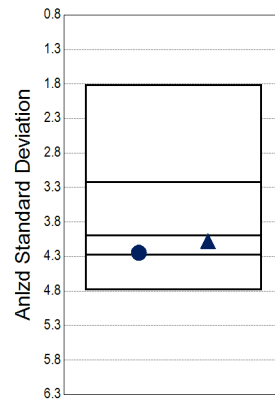
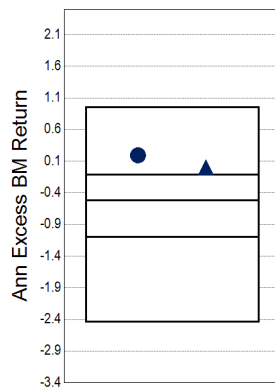
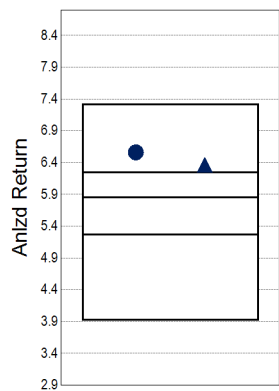
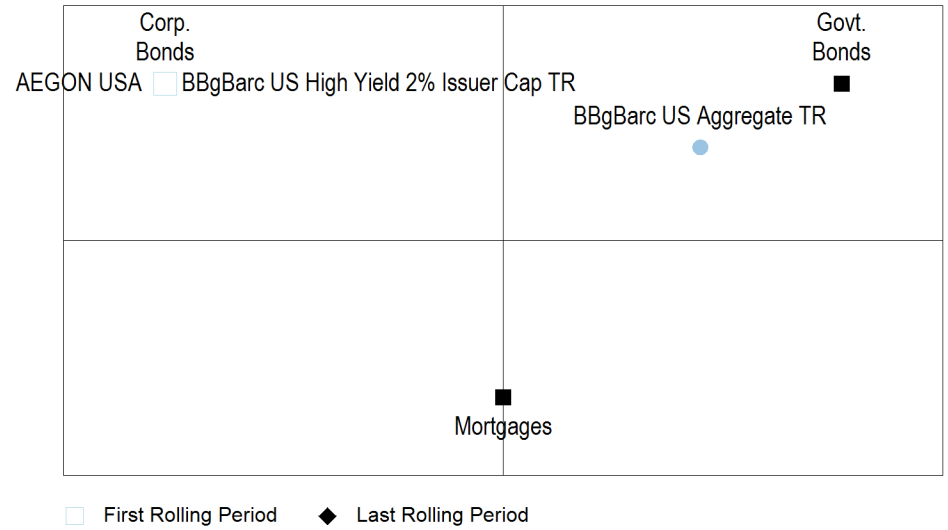
Los Angeles City Employees' Retirement System

AEGON USA

3 Year Risk Return



3 Year Style Map

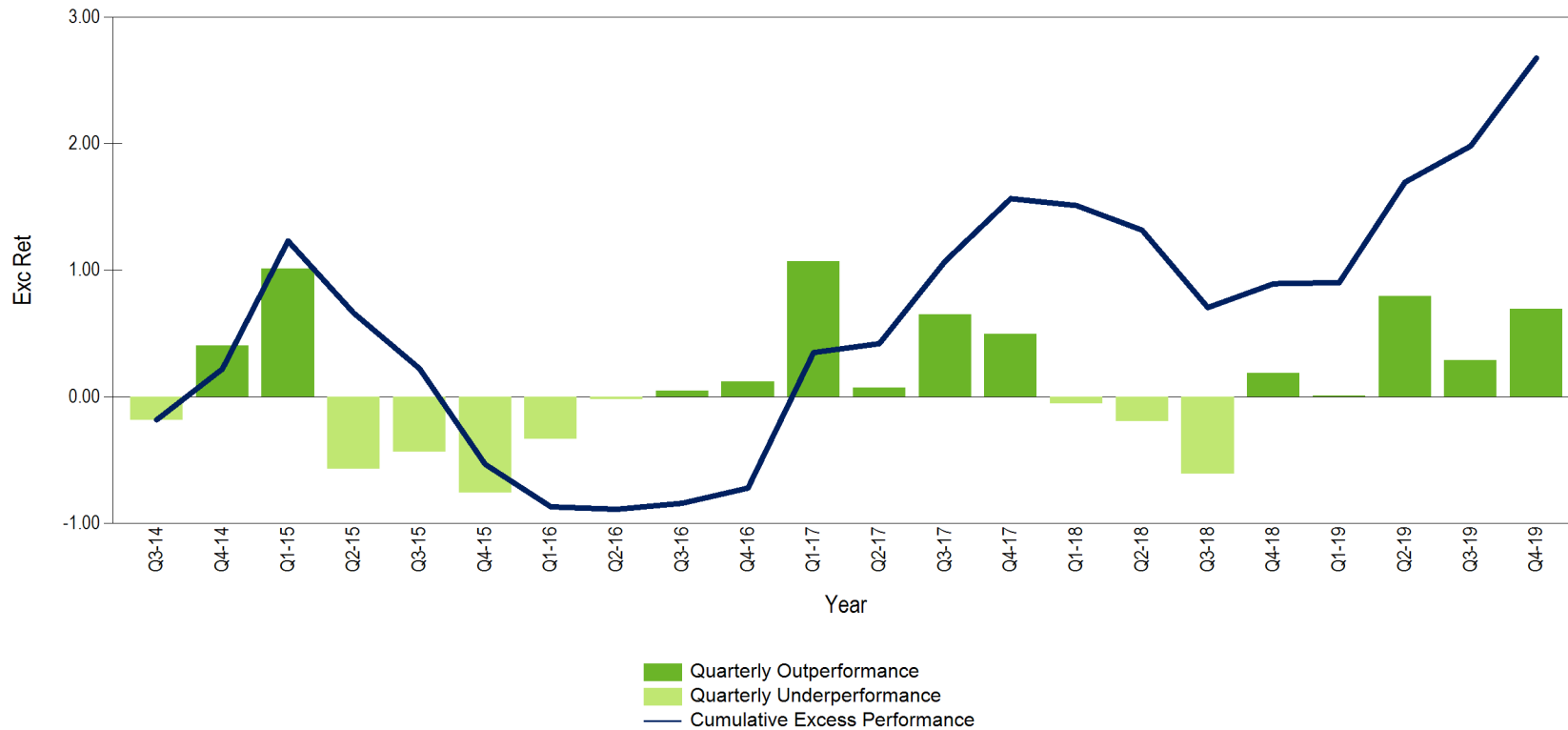


- AEGON USA
- ▲ BBgBarc US High Yield 2% Issuer Cap TR
- 5th to 25th Percentile
- 25th to Median
- Median to 75th Percentile
- 75th to 95th Percentile



PRUDENTIAL EMERGING MARKETS

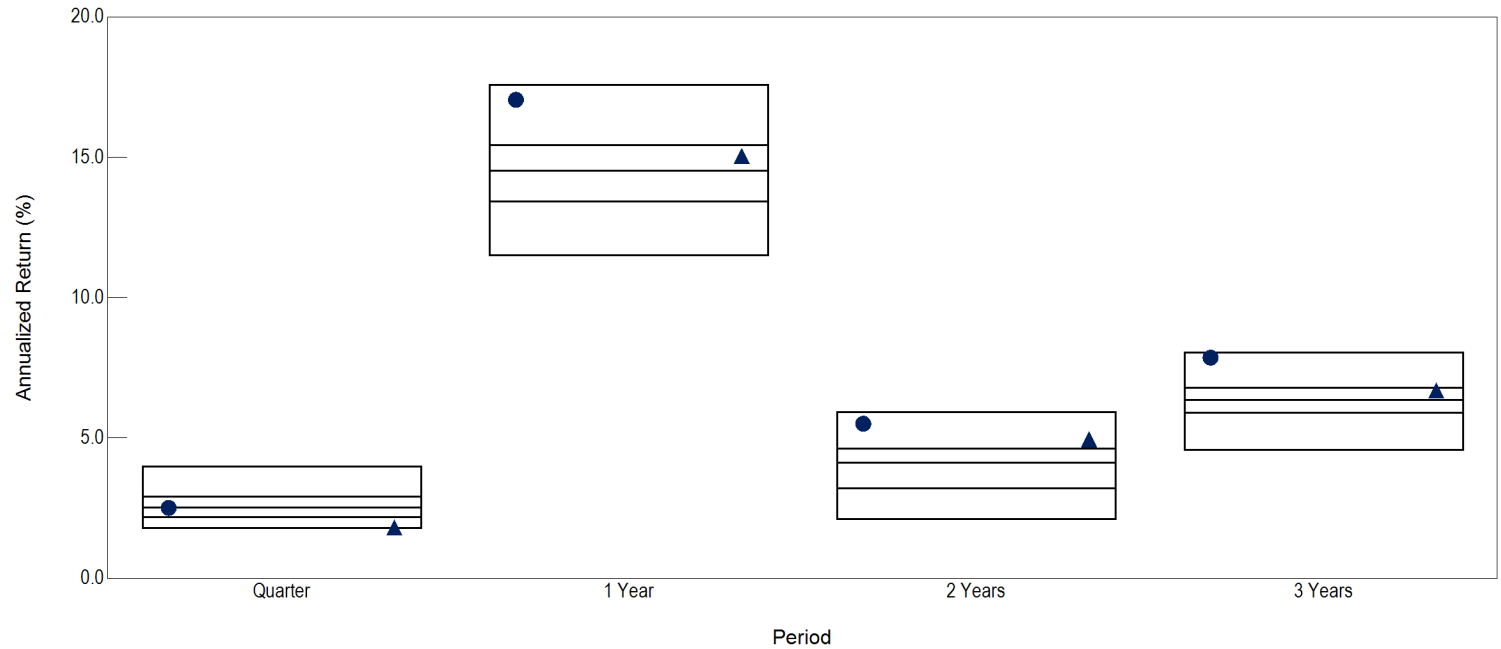
Quarterly and Cumulative Excess Performance



Los Angeles City Employees' Retirement System

PRUDENTIAL EMERGING MARKETS

Prudential Emerging Markets vs. eV Emg Mkts Fixed Inc - Hard Currency Net

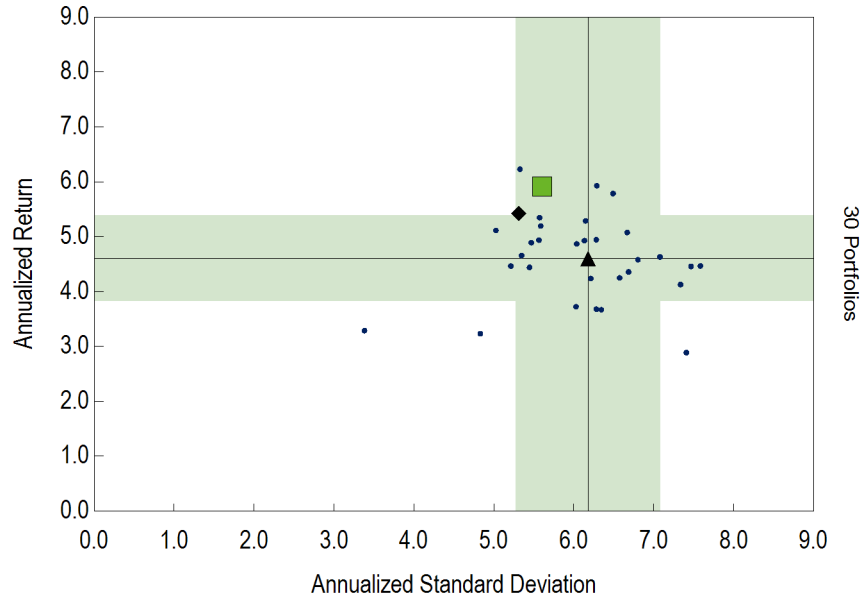


	Return (Rank)		1 Year		2 Years		3 Years	
5th Percentile	3.99		17.58		5.92		8.04	
25th Percentile	2.93		15.45		4.65		6.80	
Median	2.55		14.55		4.14		6.38	
75th Percentile	2.21		13.45		3.23		5.91	
95th Percentile	1.81		11.53		2.13		4.60	
# of Portfolios	39		39		34		34	
● Prudential Emerging Markets	2.51	(55)	17.04	(11)	5.50	(6)	7.86	(9)
▲ JP Morgan EMBI Global Diversified	1.81	(96)	15.04	(36)	4.95	(18)	6.69	(35)

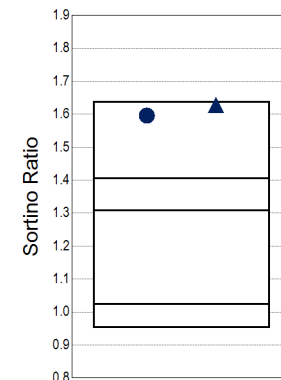
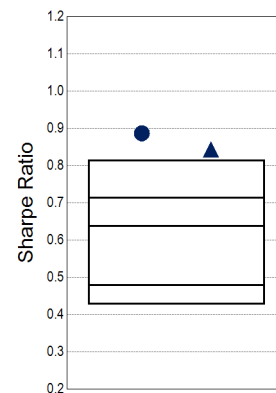
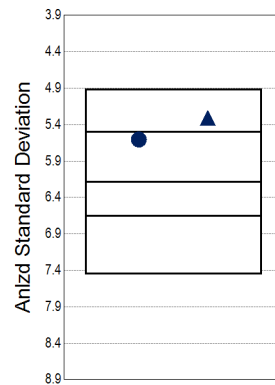
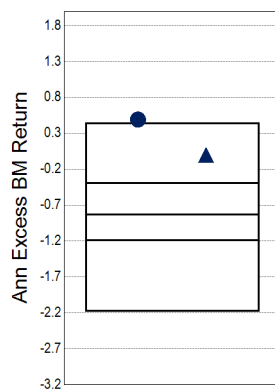
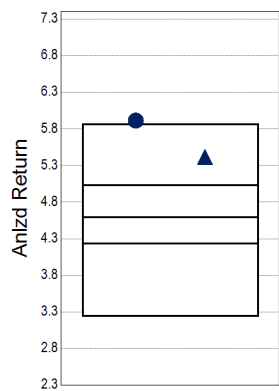
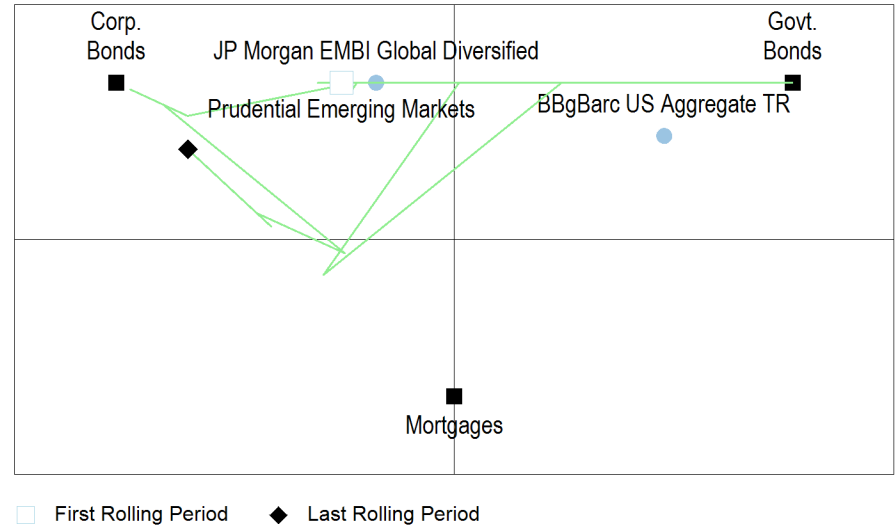


PRUDENTIAL EMERGING MARKETS

Since Inception Risk Return



Since Inception Style Map

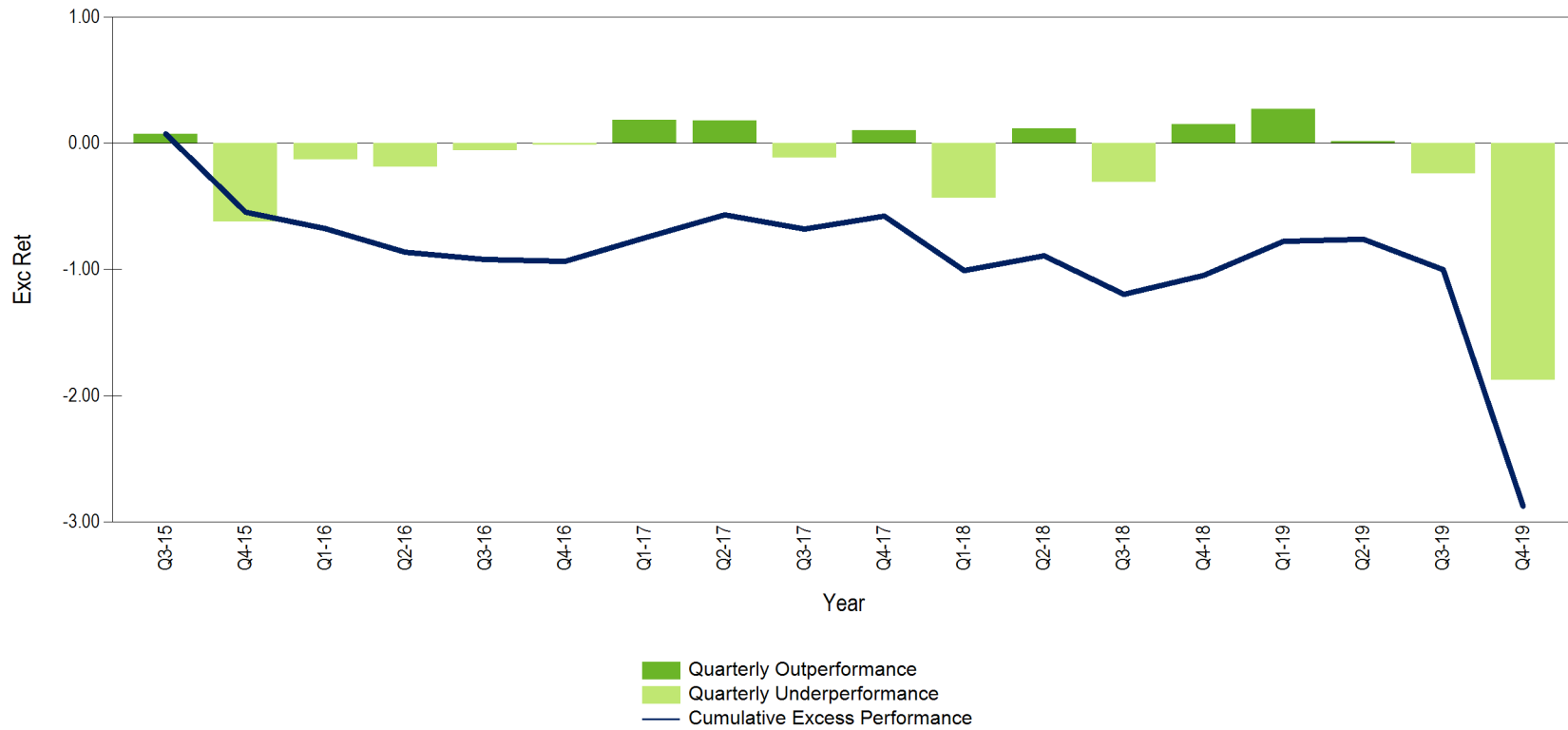


- Prudential Emerging Markets
- ▲ JP Morgan EMBI Global Div...
- 5th to 25th Percentile
- 25th to Median
- Median to 75th Percentile
- 75th to 95th Percentile



BAIN CAPITAL SENIOR LOAN FUND, LP

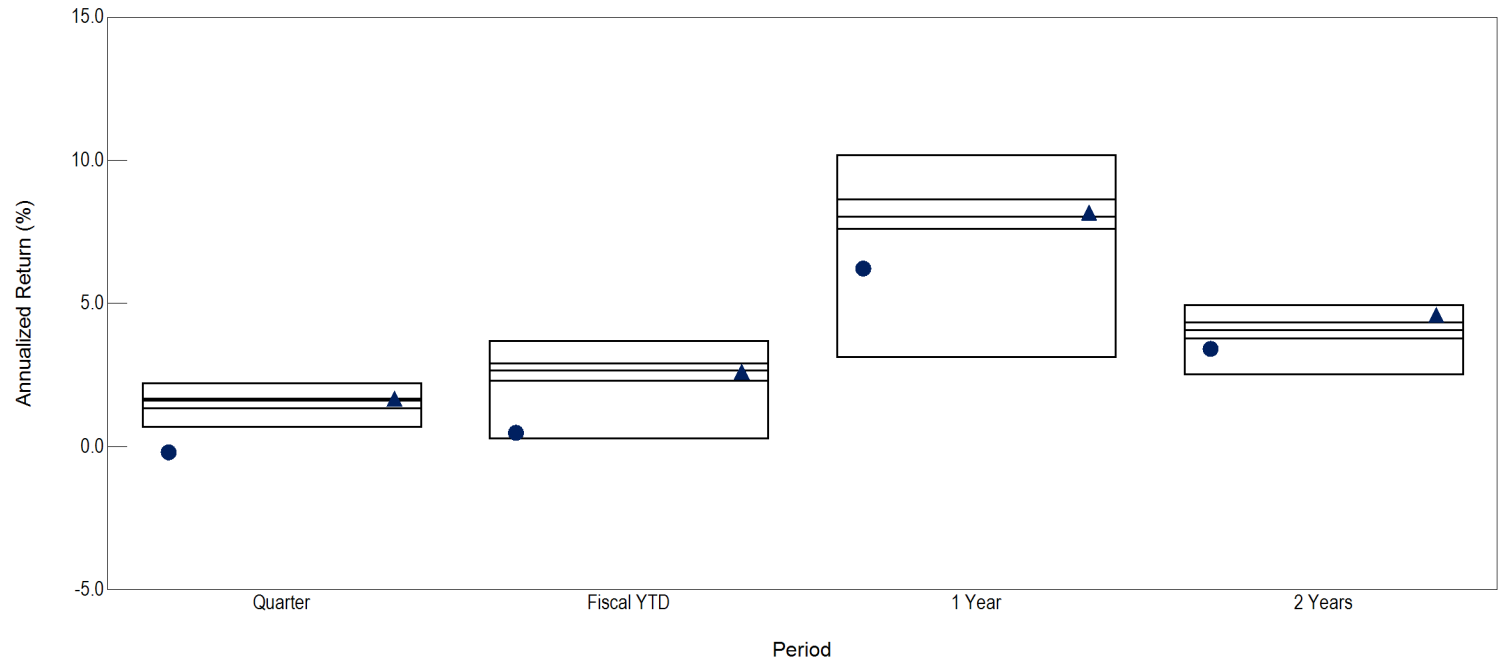
Quarterly and Cumulative Excess Performance



Los Angeles City Employees' Retirement System

BAIN CAPITAL SENIOR LOAN FUND, LP

Bain Capital Senior Loan Fund, LP vs. eV US Float-Rate Bank Loan Fixed Inc Net

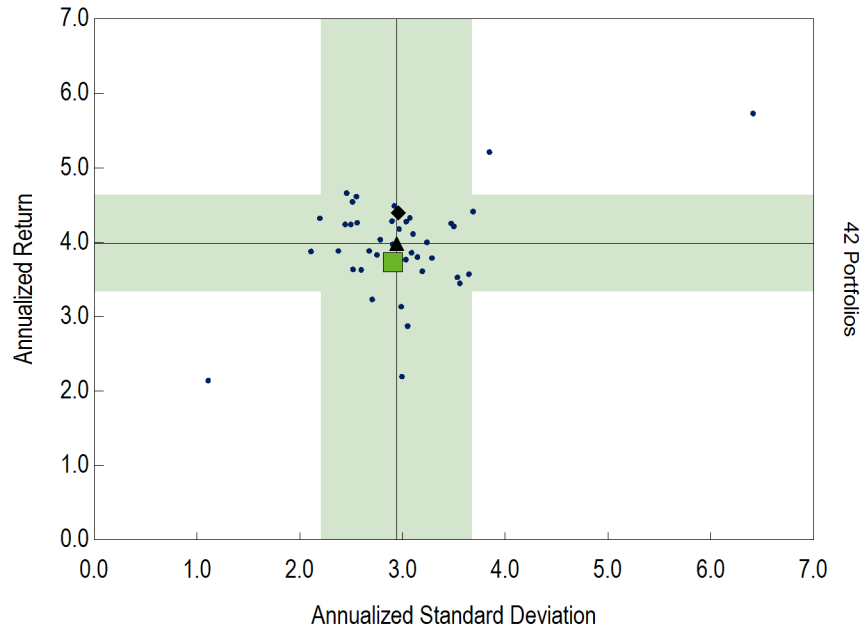


	Return (Rank)							
5th Percentile	2.20		3.70		10.17		4.94	
25th Percentile	1.71		2.94		8.67		4.36	
Median	1.63		2.68		8.05		4.09	
75th Percentile	1.35		2.34		7.63		3.80	
95th Percentile	0.72		0.30		3.15		2.54	
# of Portfolios	44		44		44		44	
● Bain Capital Senior Loan Fund, LP	-0.20	(99)	0.48	(95)	6.22	(87)	3.41	(87)
▲ Credit Suisse Leveraged Loans	1.68	(37)	2.61	(61)	8.17	(45)	4.60	(12)

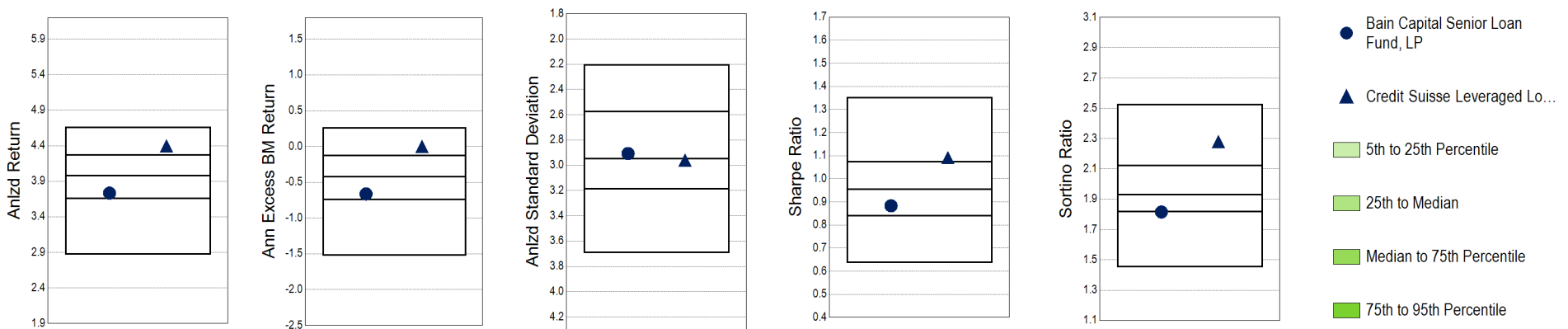
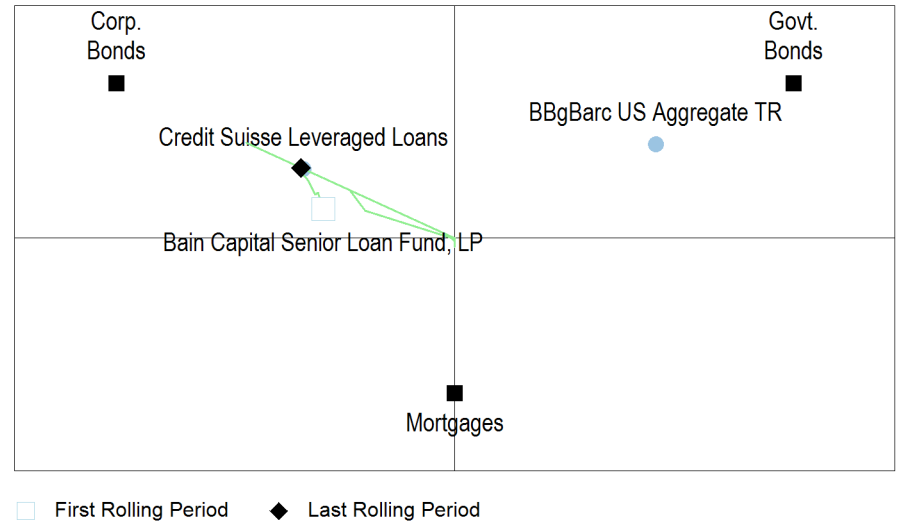


BAIN CAPITAL SENIOR LOAN FUND, LP

Since Inception Risk Return



Since Inception Style Map



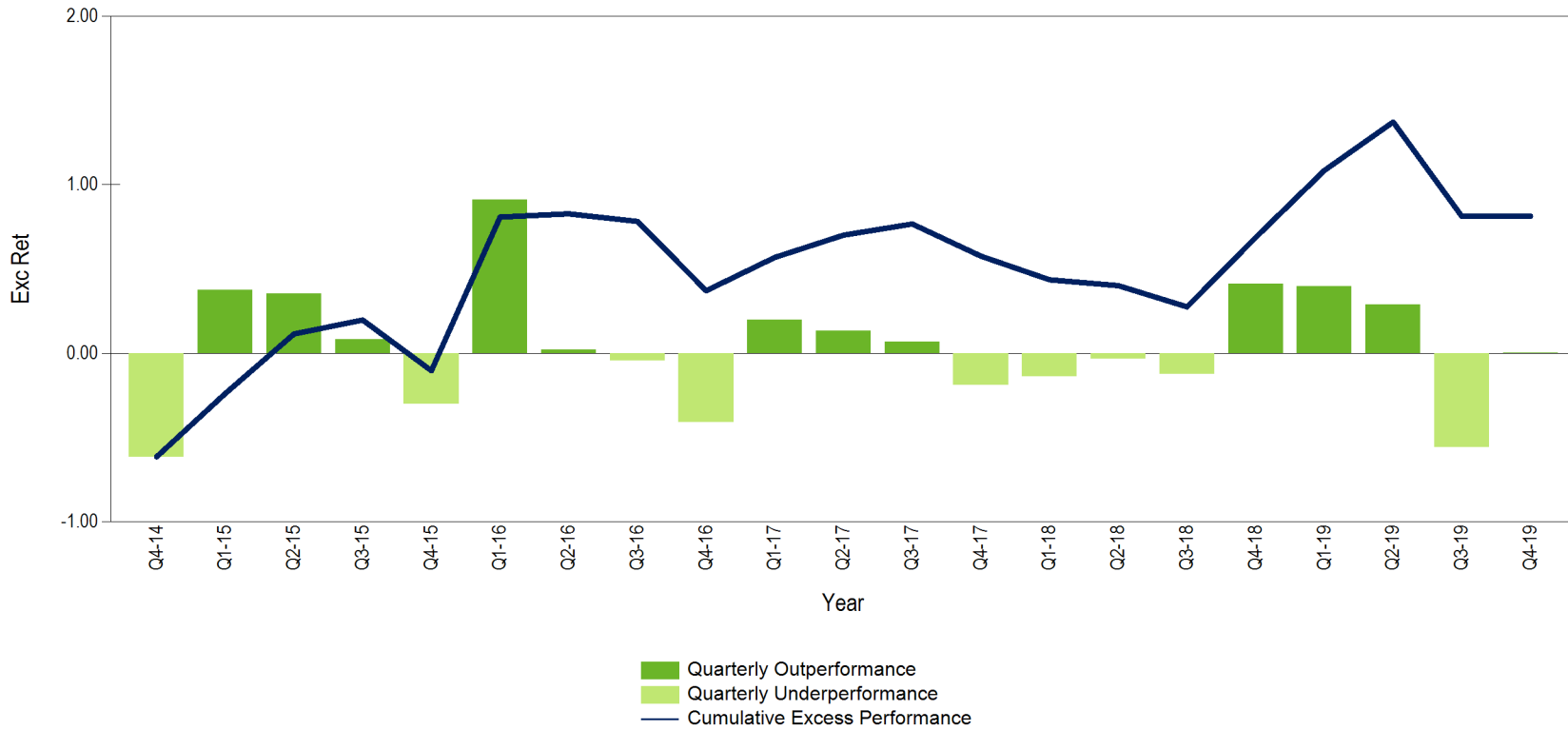
REAL ASSETS MANAGER PERFORMANCE

NEPC, LLC

Los Angeles City Employees' Retirement System

DFA US TIPS

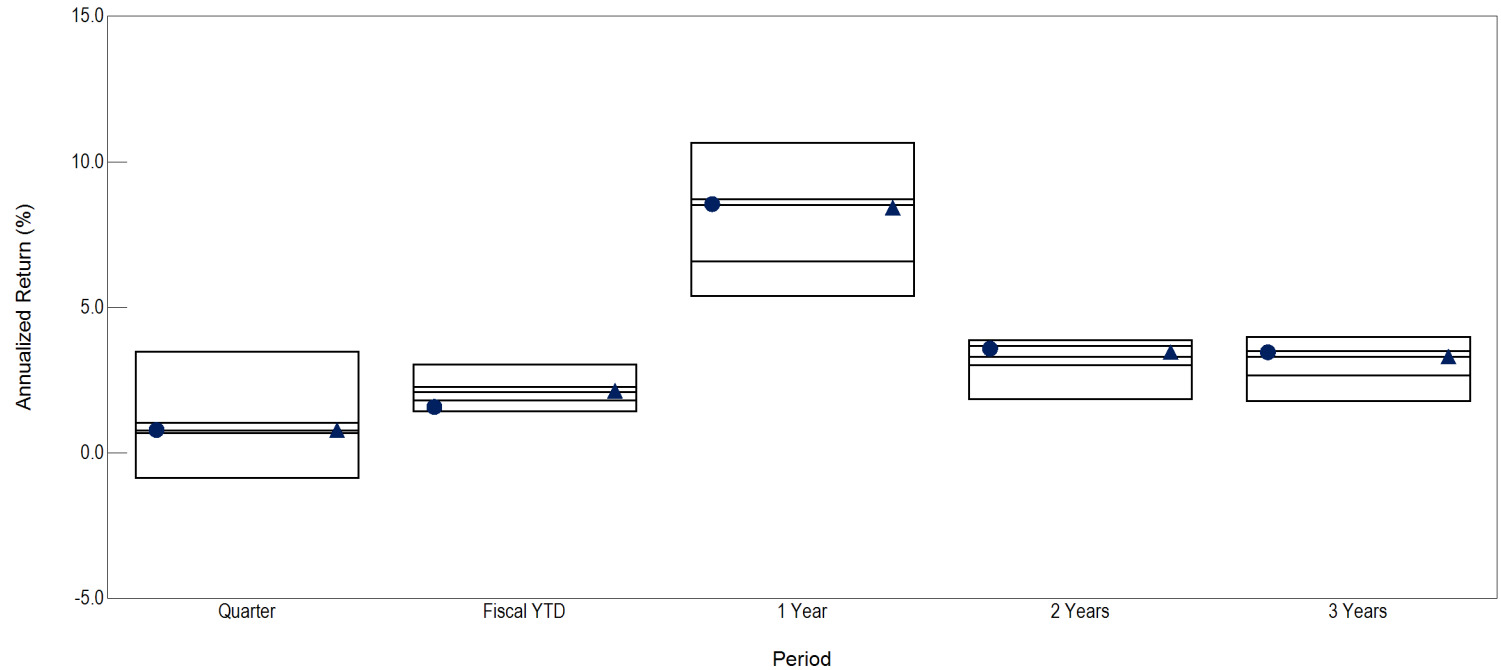
Quarterly and Cumulative Excess Performance



Los Angeles City Employees' Retirement System

DFA US TIPS

DFA US TIPS vs. eV US TIPS / Inflation Fixed Inc Net



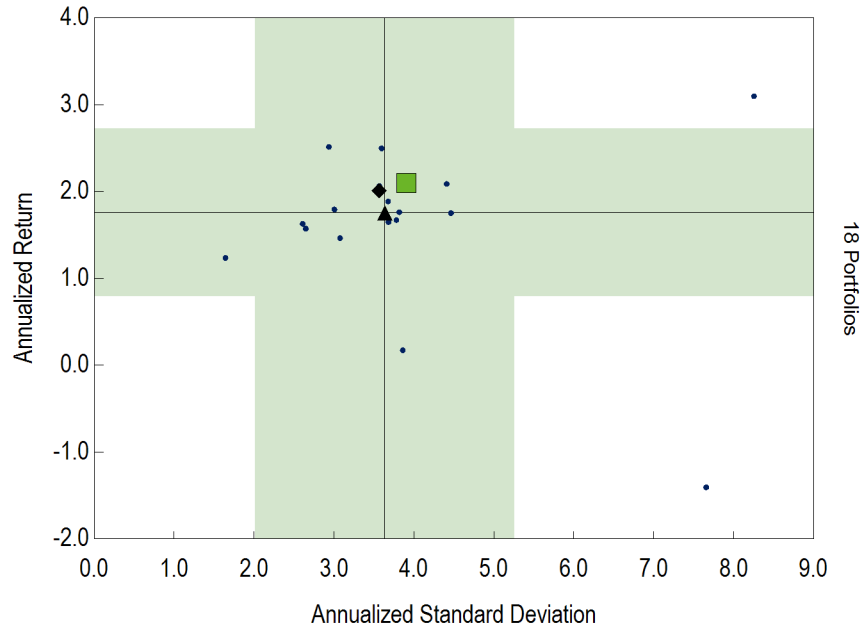
	Return (Rank)									
5th Percentile	3.48		3.04		10.65		3.88		3.99	
25th Percentile	1.06		2.29		8.74		3.69		3.53	
Median	0.79		2.11		8.55		3.33		3.33	
75th Percentile	0.71		1.82		6.61		3.04		2.70	
95th Percentile	-0.83		1.45		5.42		1.87		1.81	
# of Portfolios	19		19		19		19		19	
● DFA US TIPS	0.79	(50)	1.58	(84)	8.55	(48)	3.58	(30)	3.46	(29)
▲ BbgBarc US TIPS TR	0.79	(50)	2.14	(42)	8.43	(54)	3.47	(33)	3.31	(52)



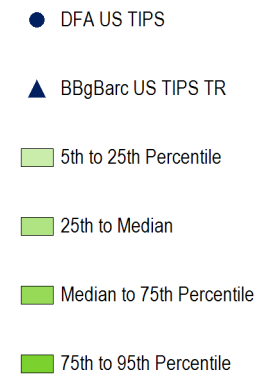
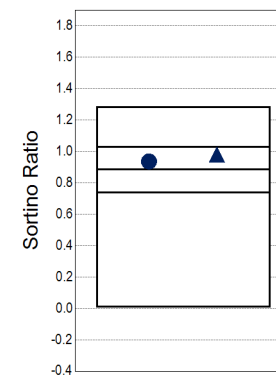
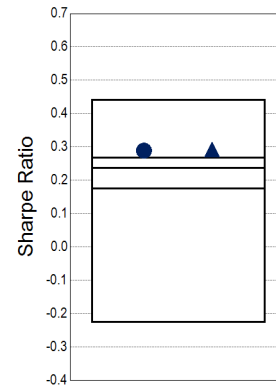
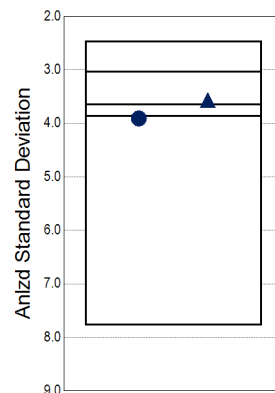
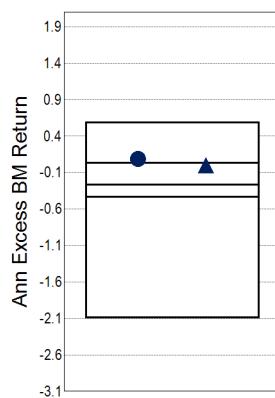
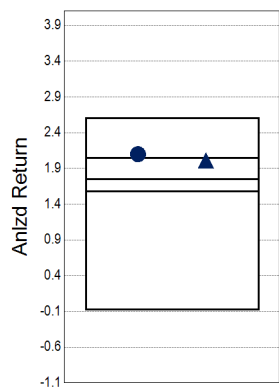
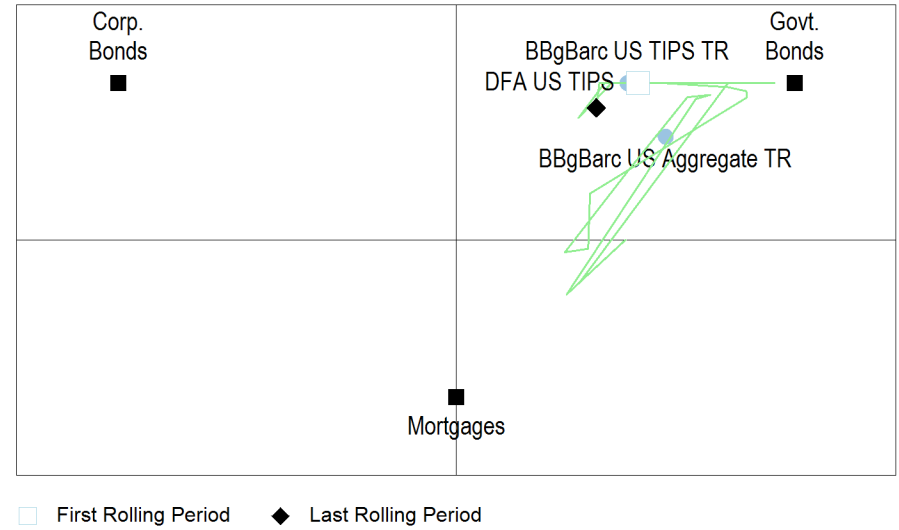
Los Angeles City Employees' Retirement System

DFA US TIPS

Since Inception Risk Return

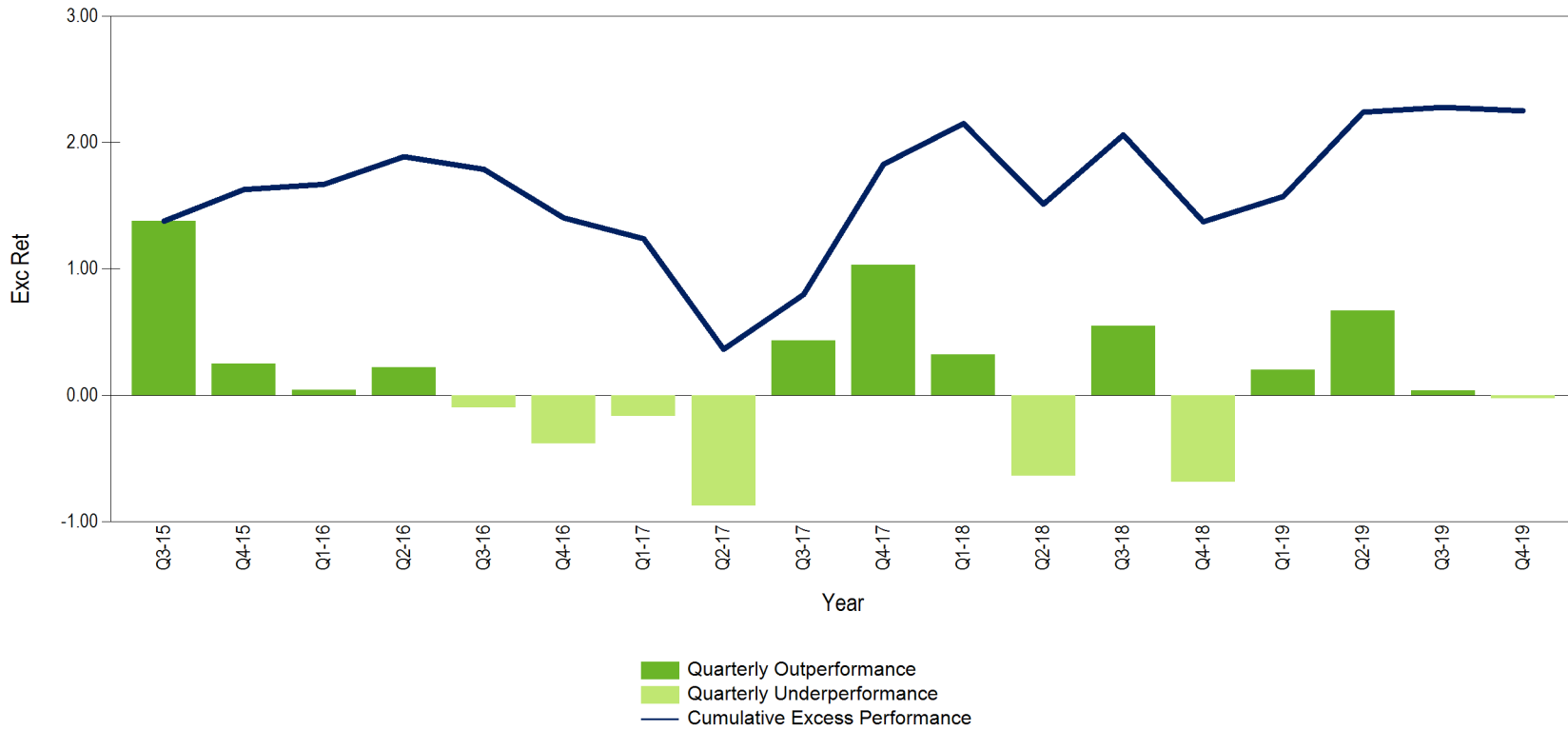


Since Inception Style Map



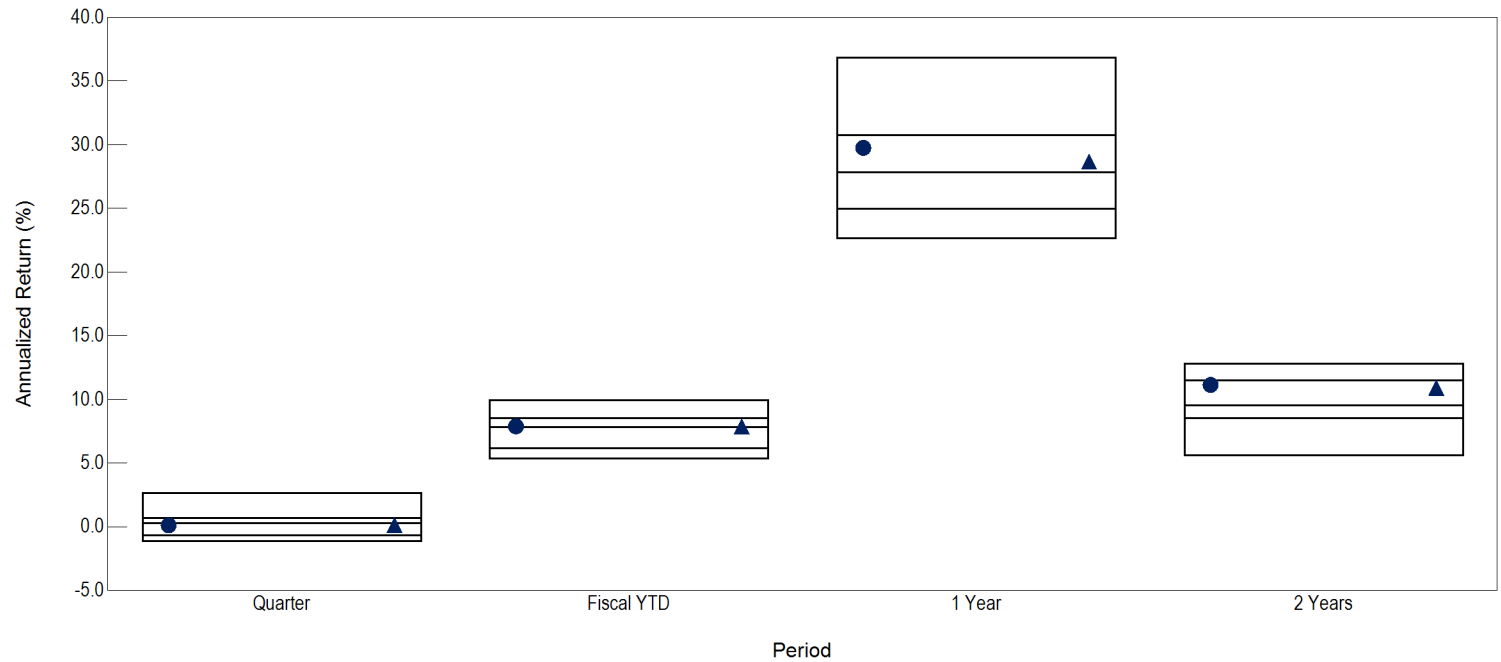
CENTERSQUARE US REAL ESTATE

Quarterly and Cumulative Excess Performance



CENTERSQUARE US REAL ESTATE

CenterSquare US Real Estate vs. eV US REIT Net

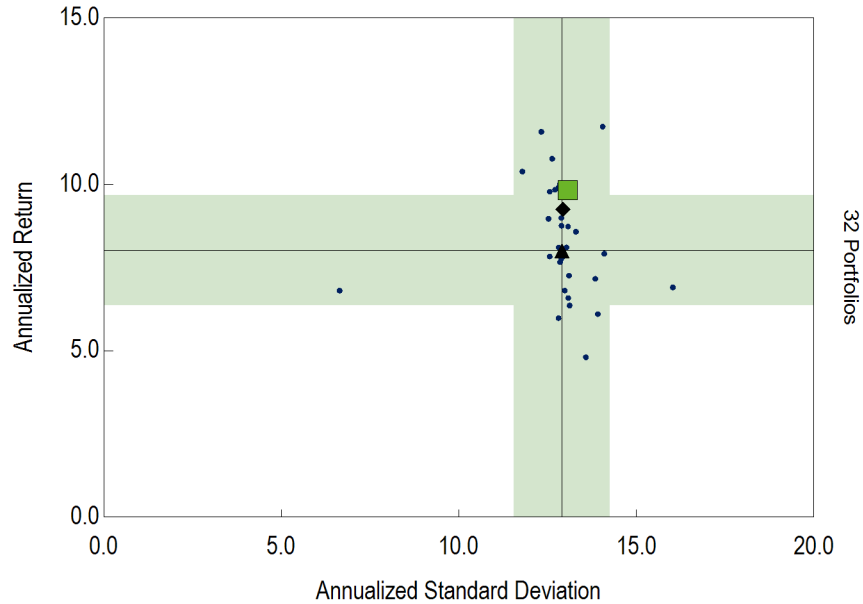


	Return (Rank)							
5th Percentile	2.65		9.93		36.83		12.80	
25th Percentile	0.75		8.57		30.81		11.56	
Median	0.31		7.89		27.88		9.57	
75th Percentile	-0.65		6.23		25.03		8.60	
95th Percentile	-1.08		5.40		22.70		5.64	
# of Portfolios	35		35		33		33	
● CenterSquare US Real Estate	0.11	(54)	7.88	(51)	29.74	(32)	11.13	(29)
▲ FTSE NAREIT All Equity REIT	0.13	(53)	7.87	(51)	28.66	(41)	10.91	(29)

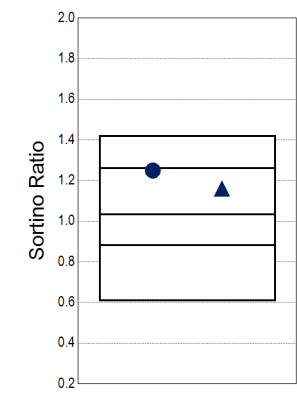
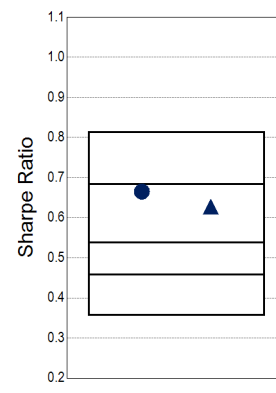
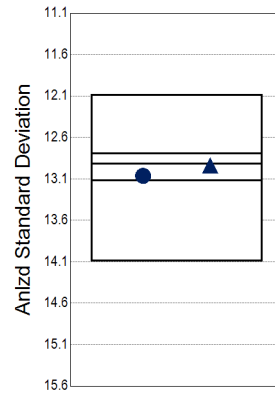
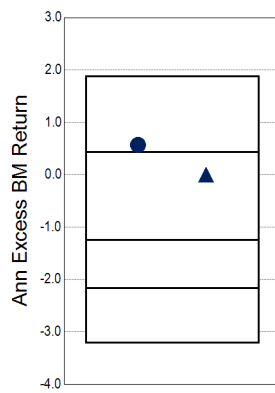
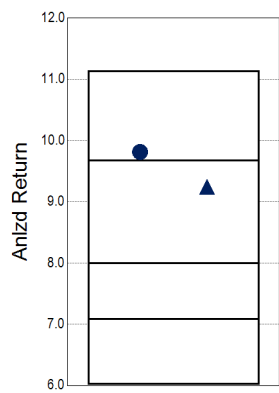
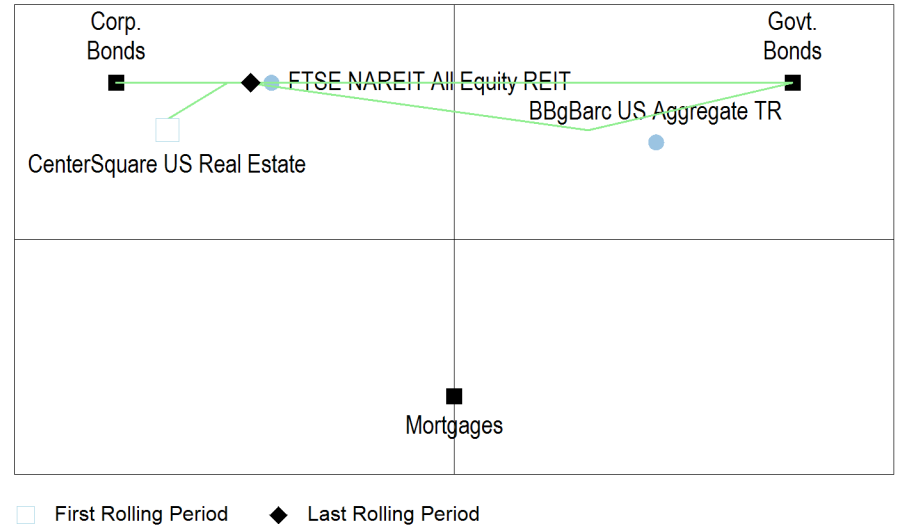


CENTERSQUARE US REAL ESTATE

Since Inception Risk Return



Since Inception Style Map



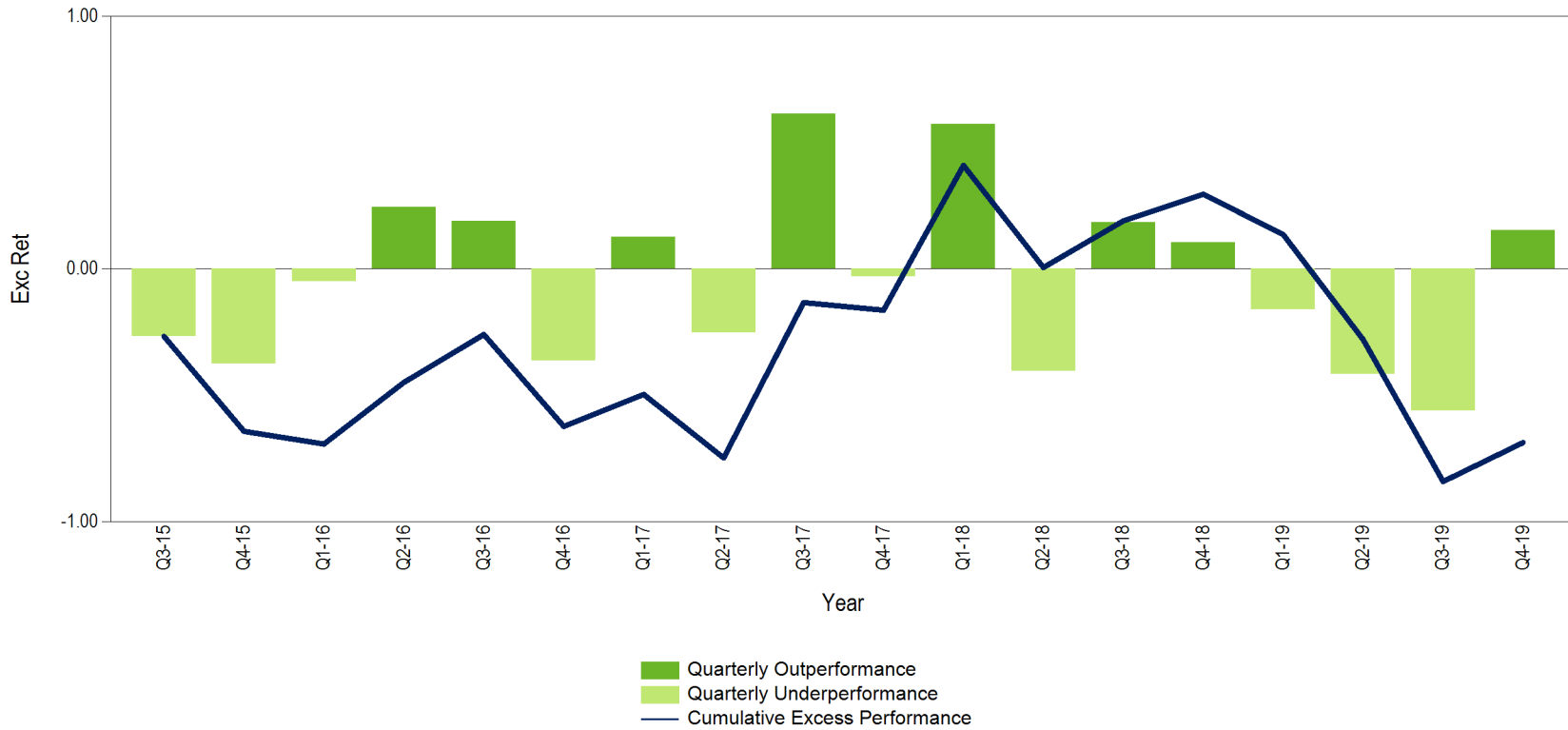
- CenterSquare US Real Estate
- ▲ FTSE NAREIT All Equity REIT
- 5th to 25th Percentile
- 25th to Median
- Median to 75th Percentile
- 75th to 95th Percentile



Los Angeles City Employees' Retirement System

CORE COMMODITY MGMT

Quarterly and Cumulative Excess Performance



DEFINITIONS

NEPC, LLC

POLICY INDEX DEFINITIONS

Policy Index: Current (adopted January 10, 2012) 24% Russell 3000 Index, 29% MSCI ACWI ex USA Net Index, 19% Bbg Barclays U.S. Aggregate Bond Index, 5% Credit Opportunities Blend, 10% Real Assets Blend, 12% 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: Bbg Barclays U.S. Aggregate Bond Index

Credit Opportunities Blend: 65% Bbg Barclays U.S. HY 2% Cap Index, 35% JPM EMBIGD Index

Public Real Assets Blend: 60% Bbg Barclays U.S. TIPS Index, 20% Bbg Commodity Index, 10% FTSE NAREIT All Equity Index, 10% Alerian MLP 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: February 1, 2012 – current: Russell 3000 + 3%; Inception – January 31, 2012: Russell 3000 + 4%

Note: Policy index definitions do not reflect the updated target asset allocation adopted on April 10, 2018.

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



GLOSSARY OF INVESTMENT TERMINOLOGY

Of Portfolios/Observations¹ - The total number of data points that make up a specified universe

Allocation Index³ - The allocation index measures the value added (or subtracted) to each portfolio by active management. It is calculated monthly: The portfolio asset allocation to each category from the prior month-end is multiplied by a specified market index.

Asset Allocation Effect² - Measures an investment manager's ability to effectively allocate their portfolio's assets to various sectors. The allocation effect determines whether the overweighting or underweighting of sectors relative to benchmark contributes positively or negatively to the overall portfolio return. Positive allocation occurs when the portfolio is over weighted in a sector that outperforms the benchmark and underweighted in a sector that underperforms the benchmark. Negative allocation occurs when the portfolio is over weighted in a sector that underperforms the benchmark and under weighted in a sector that outperforms the benchmark.

Agency Bonds (Agencies)³ - The full faith and credit of the United States government is normally not pledged to payment of principal and interest on the majority of government agencies issuing these bonds, with maturities of up to ten years. Their yields, therefore, are normally higher than government and their marketability is good, thereby qualifying them as a low risk-high liquidity type of investment. They are eligible as security for advances to the member banks by the Federal Reserve, which attests to their standing.

Asset Backed Securities (ABS)³ - Bonds which are similar to mortgage-backed securities but are collateralized by assets other than mortgages; commonly backed by credit card receivables, auto loans, or other types of consumer financing.

Attribution³ - Attribution is an analytical technique that allows us to evaluate the performance of the portfolio relative to the benchmark. A proper attribution tells us where value was added or subtracted as a result of the manager's decisions.

Average Effective Maturity⁴ - For a single bond, it is a measure of maturity that takes into account the possibility that a bond might be called back to the issuer.

For a portfolio of bonds, average effective maturity is the weighted average of the maturities of the underlying bonds. The measure is computed by weighing each bond's maturity by its market value with respect to the portfolio and the likelihood of any of the bonds being called. In a pool of mortgages, this would also account for the likelihood of prepayments on the mortgages.

Batting Average¹ - A measurement representing an investment manager's ability to meet or beat an index.

Formula: Divide the number of days (or months, quarters, etc.) in which the manager beats or matches the index by the total number of days (or months, quarters, etc.) in the period of question and multiply that factor by 100.

Brinson Fachler (BF) Attribution¹ - The BF methodology is a highly accepted industry standard for calculating the allocation, selection, and interaction effects within a portfolio that collectively explains a portfolio's underlying performance. The main advantage of the BF methodology is that rather than using the overall return of the benchmark, it goes a level deeper than BHB and measures whether the benchmark sector, country, etc. outperformed/or underperformed the overall benchmark.

Brinson Hood Beebower (BHB) Attribution¹ - The BHB methodology shows that excess return must be equal to the sum of all other factors (i.e., allocation effect, selection effect, interaction effect, etc.). The advantage to using the BHB methodology is that it is a highly accepted industry standard for calculating the allocation, selection, and interaction effects within a portfolio that collectively explains a portfolio's underlying performance.

Corporate Bond (Corp)⁴ - A debt security issued by a corporation and sold to investors. The backing for the bond is usually the payment ability of the company, which is typically money to be earned from future operations. In some cases, the company's physical assets may be used as collateral for bonds.

Correlation¹ - A range of statistical relationships between two or more random variables or observed data values. A correlation is a single number that describes the degree of relationship between variables.

Data Source: ¹InvestorForce, ²Interaction Effect Performance Attribution, ³NEPC, LLC, ⁴Investopedia, ⁵Hedgeco.net



GLOSSARY OF INVESTMENT TERMINOLOGY

Coupon⁴ – The interest rate stated on a bond when it is issued. The coupon is typically paid semiannually. This is also referred to as the "coupon rate" or "coupon percent rate."

Currency Effect¹ – Is the effect that changes in currency exchange rates over time affect excess performance.

Derivative Instrument² – A financial obligation that derives its precise value from the value of one or more other instruments (or assets) at the same point of time. For example, the relationship between the value of an S&P 500 futures contract (the derivative instrument in this case) is determined by the value of the S&P 500 Index and the value of a U.S. Treasury bill that matures at the expiration of the futures contract.

Downside Deviation¹ – Equals the standard deviation of negative return or the measure of downside risk focusing on the standard deviation of negative returns.

Formula:

Annualized Standard Deviation (Fund Return - Average Fund Return) where average fund return is greater than individual fund returns, monthly or quarterly.

Duration³ – Duration is a measure of interest rate risk. The greater the duration of a bond, or a portfolio of bonds, the greater its price volatility will be in response to a change in interest rates. A bond's duration is inversely related to interest rates and directly related to time to maturity.

Equity/Debt/Cash Ratio¹ – The percentage of an investment or portfolio that is in Equity, Debt, and/or Cash (i.e. A 7/89/4 ratio represents an investment that is made up of 7% Equity, 89% Debt, and 4% Cash).

Foreign Bond³ – A bond that is issued in a domestic market by a foreign entity, in the domestic market's currency. A foreign bond is most often issued by a foreign firm to raise capital in a domestic market that would be most interested in purchasing the firm's debt. For foreign firms doing a large amount of business in the domestic market, issuing foreign bonds is a common practice.

Hard Hurdle⁵ – is a hurdle rate that once beaten allows a fund manager to charge a performance fee on only the funds above the specified hurdle rate.

High-Water Mark⁴ – The highest peak in value that an investment fund/account has reached. This term is often used in the context of fund manager compensation, which is performance based. Some performance-based fees only get paid when fund performance exceeds the high-water mark. The high-water mark ensures that the manager does not get paid large sums for poor performance.

Hurdle Rate⁴ – The minimum rate of return on an investment required, in order for a manager to collect incentive fees from the investor, which is usually tied to a benchmark.

Interaction Effects² – The interaction effect measures the combined impact of an investment manager's selection and allocation decisions within a sector. For example, if an investment manager had superior selection and over weighted that particular sector, the interaction effect is positive. If an investment manager had superior selection, but underweighted that sector, the interaction effect is negative. In this case, the investment manager did not take advantage of the superior selection by allocating more assets to that sector. Since many investment managers consider the interaction effect to be part of the selection or the allocation, it is often combined with the either effect.

Median³ – The value (rate of return, market sensitivity, etc.) that exceeds one-half of the values in the population and that is exceeded by one-half of the values. The median has a percentile rank of 50.

Modified Duration³ – The percentage change in the price of a fixed income security that results from a change in yield.

Mortgage Backed Securities (MBS)³ – Bonds which are a general obligation of the issuing institution but are also collateralized by a pool of mortgages.

Municipal Bond (Muni)⁴ – A debt security issued by a state, municipality or county to finance its capital expenditures.

Net Investment Change¹ – Is the change in an investment after accounting for all Net Cash Flows.

Performance Fee⁴ – A payment made to a fund manager for generating positive returns. The performance fee is generally calculated as a percentage of investment profits, often both realized and unrealized.

Data Source: ¹InvestorForce, ²Interaction Effect Performance Attribution, ³NEPC, LLC, ⁴Investopedia, ⁵Hedgeco.net



GLOSSARY OF INVESTMENT TERMINOLOGY

Policy Index³ - A custom benchmark designed to indicate the returns that a passive investor would earn by consistently following the asset allocation targets set forth in this investment policy statement.

Price to Book (P/B)⁴ - A ratio used to compare a stock's market value to its book value. It is calculated by dividing the current closing price of the stock by the latest quarter's book value per share, also known as the "price-equity ratio".

Price to Earnings (P/E)³ - The weighted equity P/E is based on current price and trailing 12 months earnings per share (EPS).

Price to Sales (P/S)⁴ - A ratio for valuing a stock relative to its own past performance, other companies, or the market itself. Price to sales is calculated by dividing a stock's current price by its revenue per share for the trailing 12 months.

Return on Equity (ROE)⁴ - The amount of net income returned as a percentage of shareholders equity. Return on equity measures a corporation's profitability by revealing how much profit a company generates with the money shareholders have invested.

Selection (or Manager) Effect² - Measures the investment manager's ability to select securities within a given sector relative to a benchmark. The over or underperformance of the portfolio is weighted by the benchmark weight, therefore, selection is not affected by the manager's allocation to the sector. The weight of the sector in the portfolio determines the size of the effect—the larger the sector, the larger the effect is, positive or negative.

Soft Hurdle rate⁵ - is a hurdle rate that once beaten allows a fund manager to charge a performance fee based on the entire annualized return.

Tiered Fee¹ - A fee structure that is paid to fund managers based on the size of the investment (i.e. 1.00% fee on the first \$10M invested, 0.90% on the next \$10M, and 0.80% on the remaining balance).

Total Effects² - The active management (total) effect is the sum of the selection, allocation, and interaction effects. It is also the difference between the total portfolio return and the total benchmark return. You can use the active management effect to determine the amount the investment manager has added to a portfolio's return.

Total Return¹ - The actual rate of return of an investment over a specified time period. Total return includes interest, capital gains, dividends, and distributions realized over a defined time period.

Universe³ - The list of all assets eligible for inclusion in a portfolio.

Upside Deviation¹ - Standard Deviation of Positive Returns

Weighted Avg. Market Cap.⁴ - A stock market index weighted by the market capitalization of each stock in the index. In such a weighting scheme, larger companies account for a greater portion of the index. Most indexes are constructed in this manner, with the best example being the S&P 500.

Yield (%)³ - The current yield of a security is the current indicated annual dividend rate divided by current price.

Yield to Maturity³ - The discount rate that equates the present value of cash flows, both principal and interest, to market price.

Data Source: ¹InvestorForce, ²Interaction Effect Performance Attribution, ³NEPC, LLC, ⁴Investopedia, ⁵Hedgeco.net



DISCLOSURES

NEPC, LLC

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.
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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.

