



Board of Administration Agenda

REGULAR MEETING

TUESDAY, MARCH 26, 2019

TIME: 10:00 A.M.

MEETING LOCATION:

LACERS Ken Spiker Boardroom
202 West First Street, Suite 500
Los Angeles, California 90012-4401

Live Board Meetings can be heard at: (213) 621-CITY (Metro), (818) 904-9450 (Valley), (310) 471-CITY (Westside), and (310) 547-CITY (San Pedro Area).

Sign Language Interpreters, Communication Access Real-Time Transcription, Assistive Listening Devices, or other auxiliary aids and/or services may be provided upon request. To ensure availability, you are advised to make your request at least 72 hours prior to the meeting you wish to attend. Due to difficulties in securing Sign Language Interpreters, five or more business days' notice is strongly recommended. For additional information, please contact: Board of Administration Office at (213) 473-7169.

President:	Cynthia M. Ruiz
Vice President:	Elizabeth L. Greenwood
Commissioners:	Elizabeth Lee Sandra Lee Nilza R. Serrano Sung Won Sohn Michael R. Wilkinson
Manager-Secretary:	Neil M. Guglielmo
Executive Assistant:	Ani Ghokassian
Legal Counsel:	City Attorney's Office Retirement Benefits Division

- I. PUBLIC COMMENTS ON MATTERS WITHIN THE BOARD'S JURISDICTION
- II. APPROVAL OF MINUTES FOR [REGULAR BOARD MEETING](#) AND [SPECIAL BOARD MEETING](#) OF MARCH 12, 2019 AND POSSIBLE BOARD ACTION
- III. BOARD PRESIDENT VERBAL REPORT
- IV. GENERAL MANAGER VERBAL REPORT
 - A. REPORT ON DEPARTMENT OPERATIONS
 - B. UPCOMING AGENDA ITEMS
- V. RECEIVE AND FILE ITEMS
 - A. [MONTHLY REPORT ON SEMINARS AND CONFERENCES FOR FEBRUARY 2019](#)

- VI. BOARD/DEPARTMENT ADMINISTRATION
 - A. [PROPOSED BUDGET, PERSONNEL, AND ANNUAL RESOLUTIONS FOR FISCAL YEAR 2019-20 AND POSSIBLE BOARD ACTION](#)
- VII. CONSENT AGENDA
 - A. [TRAVEL AUTHORITY – RODNEY JUNE, CHIEF INVESTMENT OFFICER; CEM INVESTMENT BENCHMARKING CLIENT WORKSHOP, TORONTO, CANADA; APRIL 3 – 4, 2019 AND POSSIBLE BOARD ACTION](#)
- VIII. INVESTMENTS
 - A. CHIEF INVESTMENT OFFICER VERBAL REPORT
 - B. [PRESENTATION BY CII REGARDING ESG INVESTING](#)
 - C. [PRESENTATION BY NEPC, LLC OF THE PORTFOLIO PERFORMANCE REVIEW REPORT FOR THE QUARTER ENDING DECEMBER 31, 2018](#)
 - D. [REAL ESTATE FISCAL YEAR 2019-20 STRATEGIC PLAN AND POSSIBLE BOARD ACTION](#)
 - E. **CLOSED SESSION PURSUANT TO GOVERNMENT CODE SECTION 54956.81 TO CONSIDER THE SALE OF ONE PARTICULAR, SPECIFIC PENSION FUND INVESTMENT AND POSSIBLE BOARD ACTION**
- IX. DISABILITY RETIREMENT APPLICATION(S)
 - A. **CLOSED SESSION PURSUANT TO GOVERNMENT CODE SECTION 54957(b) TO CONSIDER THE DISABILITY RETIREMENT APPLICATION OF ELAINE BUTLER AND POSSIBLE BOARD ACTION**
- X. CLOSED SESSION
 - A. **CLOSED SESSION PURSUANT TO GOVERNMENT CODE SECTION 54956.8 TO CONFER WITH REAL PROPERTY NEGOTIATOR AND POSSIBLE BOARD ACTION.**
PROPERTY: 202 WEST FIRST STREET, LOS ANGELES, CA 90012;
AGENCY NEGOTIATORS: JAMES N. TRAVERS, DENNIS SMITH
NEGOTIATING PARTIES: LACERS, ONNI TIMES SQUARE
UNDER NEGOTIATION: PRICE AND TERMS OF PAYMENT FOR PROPOSED LEASE
 - B. **CLOSED SESSION PURSUANT TO GOVERNMENT CODE SECTION 54956.9 (D)(4) TO CONFER WITH AND RECEIVE ADVICE FROM LEGAL COUNSEL REGARDING INITIATION OF LITIGATION (ONE CASE) AND POSSIBLE BOARD ACTION**

XI. COMMITTEE REPORT(S)

- A. INVESTMENT COMMITTEE VERBAL REPORT ON THE MEETING OF MARCH 12, 2019
- B. BENEFITS ADMINISTRATION COMMITTEE VERBAL REPORT ON THE MEETING OF MARCH 26, 2019

XII. OTHER BUSINESS

XIII. NEXT MEETING: The next Regular meeting of the Board is scheduled for Tuesday, April 9, 2019 at 10:00 a.m. in the LACERS Ken Spiker Boardroom, 202 West First Street, Suite 500, Los Angeles, CA 90012-4401.

XIV. ADJOURNMENT

MINUTES OF THE REGULAR MEETING
BOARD OF ADMINISTRATION
LOS ANGELES CITY EMPLOYEES' RETIREMENT SYSTEM

LACERS Ken Spiker Boardroom
202 West First Street, Fifth Floor
Los Angeles, California

March 12, 2019

10:02 a.m.

Agenda of: Mar. 26, 2019

Item No: II

PRESENT:	President:	Cynthia M. Ruiz
	Vice President:	(arrived at 10:18 a.m.) Elizabeth L. Greenwood
	Commissioners:	Sandra Lee Nilza R. Serrano Sung Won Sohn Michael R. Wilkinson
	Manager-Secretary:	Neil M. Guglielmo
	Executive Assistant:	Ani Ghoukassian
	Legal Counsel:	Anya Freedman
ABSENT:	Commissioner:	Elizabeth Lee

The Items in the Minutes are numbered to correspond with the Agenda.

I

PUBLIC COMMENTS ON MATTERS WITHIN THE BOARD'S JURISDICTION – President Ruiz asked if there were any persons who wished to speak on matters within the Board's jurisdiction, to which there was no response and no public comment cards were received.

II

APPROVAL OF MINUTES FOR REGULAR BOARD MEETING OF FEBRUARY 26, 2019 AND POSSIBLE BOARD ACTION – A motion to approve the Regular Board Meeting minutes of February 26, 2019 was moved by Commissioner Serrano, seconded by Commissioner Wilkinson, and adopted by the following vote: Ayes, Commissioners Sandra Lee, Serrano, Wilkinson, President Ruiz -4; Nays, None.

III

BOARD PRESIDENT VERBAL REPORT – There was no verbal report.

IV

GENERAL MANAGER VERBAL REPORT

- A. REPORT ON DEPARTMENT OPERATIONS – Neil M. Guglielmo, General Manager discussed the following items:
- 2019 Health Plan Enrollment statements being sent to members in March.
 - Anthem pharmacy change from Express Scripts to Ingenio. New cards being sent to Non-Medicare members at the end of March.
 - 136 attendees to the LACERS *Well* Extravaganza, other purpose workshops coming up.
 - Member email recognizing the great service from Jennifer Romero, Administrative Clerk with Health Benefits Administration & Communications Division.
 - Transparent California submitted the annual request for retirement benefits paid in 2018. LACERS will provide the requested report.
 - Office safety improvements walk thru at LACERS offices.
 - Wi-fi being installed in the common areas of LACERS.
 - IT staff installing charging cables in the Board Room for Commissioners and staff.
 - LACERS emails sent to other City Departments are ending up in Spam folders but LACERS Systems Division has worked with the City to resolve.
- B. UPCOMING AGENDA ITEMS – Neil M. Guglielmo, General Manager, stated the following future agenda items:
- March 26, 2019 Board – Preliminary budget discussion for FY 2019-20
 - March 26, 2019 Benefits Administration Committee – 2020 Health Plan Contract Renewal Timeline and Strategy

V

RECEIVE AND FILE ITEMS

- A. BENEFITS PAYMENTS APPROVED BY GENERAL MANAGER – The report was received by the Board and filed.
- B. MARKETING CESSATION NOTIFICATION – The report was received by the Board and filed.
- C. EDUCATION AND TRAVEL EXPENDITURE REPORT FOR THE QUARTER ENDING DECEMBER 31, 2018 – The report was received by the Board and filed.
- D. LEGISLATIVE UPDATE OF MARCH 2019 – The report was received by the Board and filed.

VI

BOARD/DEPARTMENT ADMINISTRATION

- A. ESTABLISHMENT OF AD HOC COMMITTEE ON LACERS OFFICE HEADQUARTERS AND POSSIBLE BOARD ACTION – President Ruiz nominated Commissioners Elizabeth Lee, Serrano, and President Ruiz to the Ad Hoc Committee on LACERS Office Headquarters. Commissioner Serrano moved approval, seconded by Commissioner Wilkinson, and adopted

by the following vote: Ayes, Commissioners Sandra Lee, Serrano, Sohn, Wilkinson, and President Ruiz -5; Nays, None.

VII

BENEFITS ADMINISTRATION

Vice President Greenwood arrived to the Meeting at 10:18 a.m and left at 10:20 a.m..

- A. REQUEST FOR PROPOSAL FOR DISABILITY MEDICAL EVALUATION SERVICE PROVIDER AND POSSIBLE BOARD ACTION – Ferralyn Sneed, Senior Management Analyst II with Retirement Services Division presented this item to the Board. Commissioner Wilkinson moved approval, seconded by Commissioner Serrano, and adopted by the following vote: Ayes, Commissioners Sandra Lee, Serrano, Sohn, Wilkinson, and President Ruiz -5; Nays, None.

Vice President Greenwood returned to the Meeting at 10:23 a.m.

- B. WEBSITE REDESIGN CONTRACT WITH DIGITAL DEPLOYMENT INC., AND POSSIBLE BOARD ACTION – Taneda Larios, Senior Management Analyst II with Executive Division presented this item to the Board. Vice President Greenwood moved approval of the following Resolution:

**CONTRACT WITH
DIGITAL DEPLOYMENT INC.
FOR WEBSITE DESIGN AND SUPPORT SERVICES**

RESOLUTION 190312-A

WHEREAS, the Los Angeles Fire and Police Pension System (LAFPP) released Request for Proposal (RFP) for website design and support services containing a similar scope of work;

WHEREAS, the LACERS has determined that the pool of respondents would be substantially the same as those who submitted proposals to LAFPP;

WHEREAS, the LACERS desires to conform its website to the industry standard platform for responsive-design, inclusive of a robust content management solution;

WHEREAS, it is LACERS' desire to provide ease of access to information and resources to its members;

WHEREAS, the website redesign project aligns with the newly adopted LACERS' Strategic Plan, Goal Area 1, in providing outstanding customer service and increasing member engagement through diverse communication channels; and

NOW, THEREFORE, BE IT RESOLVED, that the General Manager is hereby authorized to approve and execute a contract subject to satisfactory business and legal terms, and substantially consistent with the following services and terms:

Company Name: DIGITAL DEPLOYMENT INC.

Service Provided: Website Design
Website Maintenance and Support

Term Dates: April 1, 2019 through April 30, 2022

Total Expenditure Authority: \$188,750

Which motion was seconded by Commissioner Serrano, and adopted by the following vote: Ayes, Commissioners Sandra Lee, Serrano, Sohn, Wilkinson, Vice President Greenwood, and President Ruiz -6; Nays, None.

- C. BOARD EDUCATION: ROLE OF THE HEALTH AND WELFARE CONSULTANT – Alex Rabrenovich, Chief Benefits Analyst with Health Benefits Administration & Communication Division and Steve Gedestad with Keenan Associates provided this education to the Board.

VIII

INVESTMENTS

- A. CHIEF INVESTMENT OFFICER VERBAL REPORT – Rod June, Chief Investment Officer, reported on the portfolio value, \$17.14 Billion as of March 11, 2019. Mr. June discussed the following items:
- Private Credit Search responses have come back.
 - Active Small Cap Equities and Bank Loans/High Yield searches are due April 12, 2019.
 - Upcoming searches include Emerging Market Debt, Emerging Market Small Cap, and Core Fixed Income.
 - Investment staff attended a Real Estate Symposium at Cal State Los Angeles.
 - Future agenda items: CII to provide education to the Board on ESG and Sustainability, Portfolio Performance Review on the Total Fund ending December 31, 2018, and a Real Estate investment opportunity.
- B. PUBLIC COMMENT LETTER TO THE SECURITIES AND EXCHANGE COMMISSION REGARDING FORM 10-Q REPORTING AND POSSIBLE BOARD ACTION – Rod June, Chief Investment Officer and Saira Gandhi, Management Analyst with Investments Division, presented this item to the Board. Commissioner Serrano moved approval of Staff's recommendation pending review by City Attorney, seconded by Commissioner Wilkinson, and adopted by the following vote: Ayes, Commissioner Sandra Lee, Serrano, Sohn, Wilkinson, Vice President Greenwood, and President Ruiz -6; Nays, None.
- C. CONTINUED DISCUSSION BY NEPC, LLC REGARDING TACTICAL ASSET ALLOCATION – Carolyn Smith, Partner with NEPC presented this item to the Board.

IX

CONSENT AGENDA

- A. TRAVEL AUTHORITY – NEIL M. GUGLIELMO, GENERAL MANAGER; C40 DIVEST-INVEST FORUM, LONDON, ENGLAND; MARCH 20-21, 2019 AND POSSIBLE BOARD ACTION – Commissioner Sohn moved approval of the following Resolution:

**TRAVEL AUTHORITY
C40 DIVEST-INVEST FORUM
MARCH 20-21, 2019
LONDON, ENGLAND**

RESOLUTION 190312-B

WHEREAS, Board approval is required for all international travel requests;

WHEREAS, the C40 Divest-Invest Forum in London, England is international travel, and therefore requires approval;

WHEREAS, the request to attend the C40 Divest-Invest Forum, a professional and educational conference which requires international travel, conforms to the LACERS Strategic Plan Board Governance Goal of upholding good governance practices which affirm transparency, accountability, and fiduciary duty;

THEREFORE, BE IT RESOLVED, that Neil M. Guglielmo, General Manager is hereby authorized to attend the C40 Divest-Invest Forum on March 20-21, 2019, in London, England;

BE IT FURTHER RESOLVED, that the reimbursement of up to \$5,000 for Neil M. Guglielmo, General Manager is hereby authorized for reasonable expenses in connection with participation and will be applied to the 2018-19 Fiscal Year budget.

Which motion was seconded by Commissioner Serrano, and adopted by the following vote: Ayes, Commissioners Sandra Lee, Serrano, Sohn, Wilkinson, Vice President Greenwood, and President Ruiz -6; Nays, None.

X

OTHER BUSINESS – There was no other business.

XI

NEXT MEETING – The next Regular meeting of the Board is scheduled for Tuesday, March 26, 2019 at 10:00 a.m. in the LACERS Ken Spiker Boardroom, 202 West First Street, Suite 500, Los Angeles, CA 90012-4401.

XII

ADJOURNMENT – There being no further discussion before the Board, President Ruiz adjourned the meeting at 11:51 a.m.

Cynthia M. Ruiz
President

Neil M. Guglielmo
Manager-Secretary

MINUTES OF THE SPECIAL MEETING
BOARD OF ADMINISTRATION
LOS ANGELES CITY EMPLOYEES' RETIREMENT SYSTEM

LACERS Ken Spiker Boardroom
202 West First Street, Fifth Floor
Los Angeles, California

March 12, 2019

12:02 p.m.

Agenda of: Mar. 26, 2019

Item No: II

PRESENT:	President:	Cynthia M. Ruiz
	Commissioners:	(left at 1:11 p.m.) Sandra Lee Nilza R. Serrano Sung Won Sohn (left at 12:59 p.m.) Michael R. Wilkinson
	Manager-Secretary:	Neil M. Guglielmo
	Executive Assistant:	Ani Ghoukassian
	Legal Counsel:	Anya Freedman
ABSENT:	Vice President:	Elizabeth L. Greenwood
	Commissioner:	Elizabeth Lee

The Items in the Minutes are numbered to correspond with the Agenda.

I

PUBLIC COMMENTS ON MATTERS WITHIN THE BOARD'S JURISDICTION – President Ruiz asked if there were any persons who wished to speak on matters within the Board's jurisdiction, to which there was no response and no public comment cards were received.

President Ruiz adjourned the Special Meeting at 12:03 p.m. to convene in Closed Session.

II

CLOSED SESSION PURSUANT TO GOVERNMENT CODE SECTION 54956.81 TO CONSIDER THE PURCHASE OF ONE PARTICULAR, SPECIFIC PENSION FUND INVESTMENT, AND POSSIBLE BOARD ACTION

President Ruiz reconvened the Special Meeting at 1:14 p.m and announced there was no action taken during the Closed Session.

III

ADJOURNMENT – There being no further discussion before the Board, President Ruiz adjourned the meeting at 1:15 p.m.

Cynthia M. Ruiz
President

Neil M. Guglielmo
Manager-Secretary

Agenda of: MAR. 26, 2019

Item No: V-A

**MONTHLY REPORT ON SEMINARS AND CONFERENCES
ATTENDED BY BOARD MEMBERS ON BEHALF OF LACERS
(FOR THE MONTH OF FEBRUARY 2019)**

In accordance with Section V.H.2 of the approved Board Education and Travel Policy, Board Members are required to report to the Board, on a monthly basis at the last Board meeting of each month, seminars and conferences they attended as a LACERS representative or in the capacity of a LACERS Board Member which are either complimentary (no cost involved) or with expenses fully covered by the Board Member. This monthly report shall include all seminars and conferences attended during the 4-week period preceding the Board meeting wherein the report is to be presented.

BOARD MEMBER:

President Cynthia M. Ruiz
Vice President Elizabeth L. Greenwood

Commissioner Elizabeth Lee
Commissioner Sandra Lee
Commissioner Nilza R. Serrano
Commissioner Sung Won Sohn
Commissioner Michael R. Wilkinson

DATE(S) OF EVENT	SEMINAR / CONFERENCE TITLE	EVENT SPONSOR (ORGANIZATION)	LOCATION (CITY, STATE)
	NOTHING TO REPORT		



Report to Board of Administration

Agenda of: **MARCH 26, 2019**

From: *for Neil M. Guglielmo*
Neil M. Guglielmo, General Manager

ITEM: **VI-A**

SUBJECT: PROPOSED BUDGET, PERSONNEL, AND ANNUAL RESOLUTIONS FOR FISCAL YEAR 2019-20 AND POSSIBLE BOARD ACTION

Recommendation

That the Board:

- 1) Provide input to the Proposed Budget for Fiscal Year 2019-20 (FY20); and accordingly, instruct staff to submit the Proposed Budget schedules to the City Administrative Officer and the Mayor's Office for inclusion in the Mayor's 2019-20 Proposed Budget;
- 2) Authorize the General Manager to solicit quotes for Cyber Liability Insurance;
- 3) Authorize the General Manager to release a Request for Proposal for a Real Estate Investment Manager;
- 4) Authorize the General Manager to issue solicitations for services or vendors related to the proposed expansion of LACERS' office space.

Discussion

With the launch of the new Strategic Plan, the FY20 proposed budget invests in key priorities of the department aimed at protecting and growing our trust fund and ensuring the sustainable delivery of ethical, reliable, and efficient retirement services to our Members. Budget initiatives were developed to meet the outcomes associated with furthering our Strategic Plan goals.

Requests for financial and personnel resources increase the year-to-year Administrative Expense Budget by \$0.85 million (\$1.64 million in obligatory changes offset by a \$0.79 million decrease in discretionary expense) to \$27.96 million, and regularizes net 13 positions (eight new positions with the remaining being continuing positions converted from substitute authorities). The proposed budget increase is largely offset by the elimination of one-time expenses related to the implementation of the new pension administration system. The increase is further tempered by the adoption of a six percent salary savings rate and budgeting closer to past expenditure patterns. The proposed budget also reflects resource realignments for greater organizational efficiency including alignment of active member services, aligning Pension Administration System (PAS) implementation team members to enhance Member engagement, and establishment of a dedicated PAS support team. Under the performance budgeting approach, accountability for the achievement of budget initiatives will be monitored monthly by the management team and biennially by the Board through progress reports on the Business Plan.

The preliminary Proposed Budget Report (attached) is presented for discussion, with the final budget report returning to the Board in May for approval and adoption. The report focuses mainly on the discretionary items within the Administrative Expense Budget. Board concurrence on several proposed initiatives would allow staff to solicit vendor/consultant proposals/quotes to aid in refining budget amounts in the areas of:

- Procurement of cyber liability insurance
- Real estate investment management firm to advise on real property investments
- Office space expansion lease amendment, and related construction services, relocation services, furniture vendors, and other necessary services

Actions taken by the Board over the past year determine the other two components of the LACERS budget: the City Contribution and the Investment Management Fees. The City Contribution is an actuarially determined percentage of the City's payroll and will be finalized when the City adopts the covered payroll in June to complete the determination of the City's contribution to LACERS. With respect to the Investment Management Fees for the coming fiscal year, the individual management fee schedules were adopted throughout the year along with contract awards by the Board. The Investment Management Fee and Expense Budget assumes the market value of portfolio assets in FY20 and applies the management fee rates, in consideration of the Board's new asset allocation plan and anticipated timing of the investments to be made, to develop the budget.

The increase in each of the budget areas is summarized below and detailed further in the attached report and schedules.

	FY19	FY20	\$ change	% change
Administrative Expense	\$ 27,111,957	\$ 27,962,033	\$ 850,076	3.1%
Investment Management Fee & Expense	\$ 77,398,706	\$ 87,121,829	\$ 9,723,123	12.6%
City Contribution	\$ 600,161,457	\$ 623,232,985	\$ 23,071,528	3.8%

The Board also specifically requested a review of memberships and subscriptions for FY20. The schedule can be found in Attachment 3.

Strategic Plan Impact Statement:

This budget includes funding to support FY20 initiatives to meet our seven strategic goals.

This report was prepared by the budget team: Andy Chiu, Edeliza Fang, Julie Guan, Mikiyong Jang, John Koontz, Chhintana Kurimoto, Mayouly Tran, Lin Lin, Ricky Mulawin, Jo Ann Peralta, Elizabeth Torres, and Dale Wong-Nguyen.

NG:TB:DWN

Attachments:

- 1) LACERS Proposed Budget Report for Fiscal Year 2019-20
- 2) Proposed Budget, Personnel, and Annual Resolutions
- 3) Membership and Subscriptions

LACERS PROPOSED BUDGET FY 2019-20

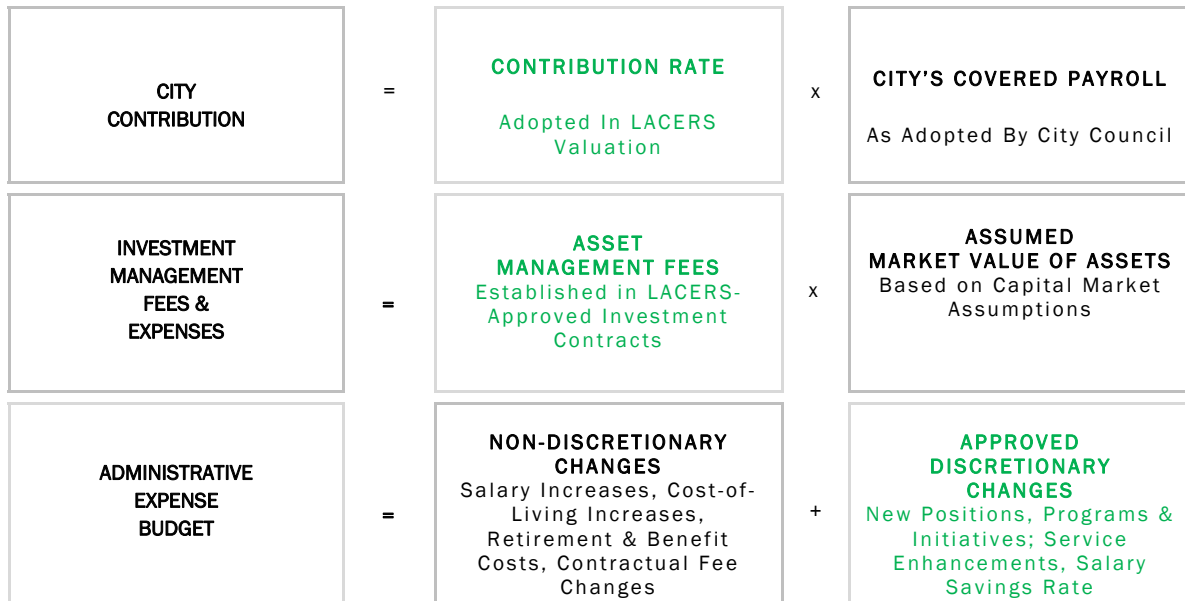
Board of Administration Meeting of March 26, 2019



BUDGET OVERVIEW

The LACERS Board approves an annual budget which estimates the cost of maintaining the Retirement Fund. LACERS' budget is transmitted to the Mayor for inclusion in the City's proposed budget which is due to City Council by April 20, and finalized in June for the fiscal year beginning July 1st. The Board's approval of the Administrative and Investment Expense budget also serves to establish the General Manager's expenditure authority for the fiscal year.

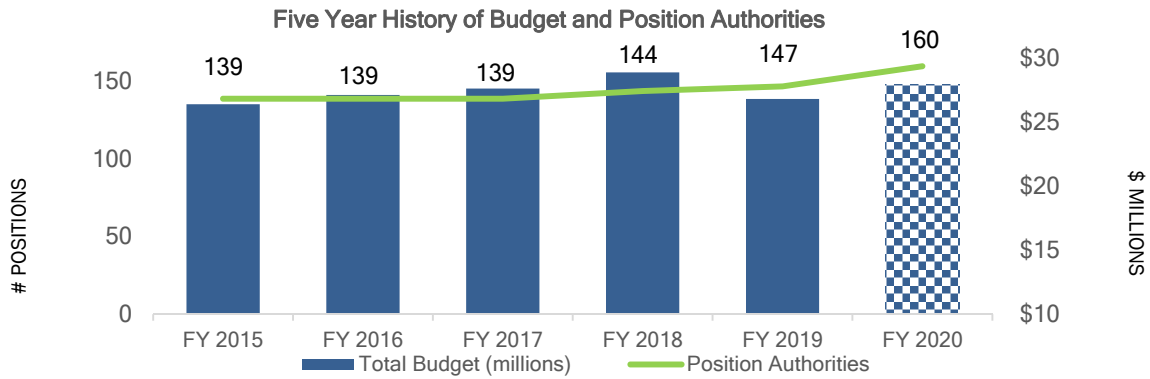
LACERS' budget is comprised of the City's contribution to the LACERS Trust Fund, the Investment Management Fees and Expenses Budget, and the Administrative Expense Budget. Key decisions made by the Board throughout the year will determine certain aspects of the budget. This includes the adoption of the actuarial valuation in October/November which sets the annual contribution rate (a percentage of City payroll) that the City will provide to LACERS for the cost of benefits for City employees; as well as approvals of various investment contracts which set fee rates used to estimate the Investment Management Fees. In March and May of each year, the Board considers programs and initiatives to undertake and fund for the coming fiscal year; this is reflected in the Administrative Expense Budget. An overview of the components of the LACERS' budget, with the Board's discretionary decisions reflected in green, is as follows:



The Proposed Budget for 2019-20 (FY20) increases over the prior year 2018-19 (FY19). This report provides discussion of the three major components of the budget.

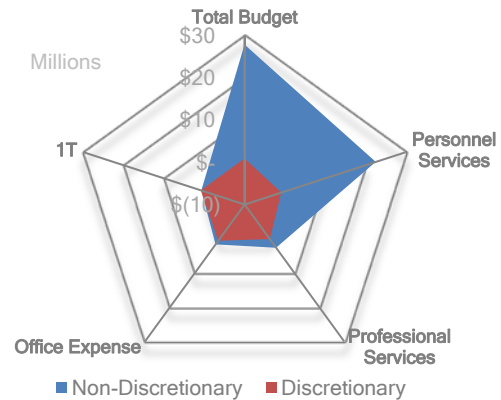
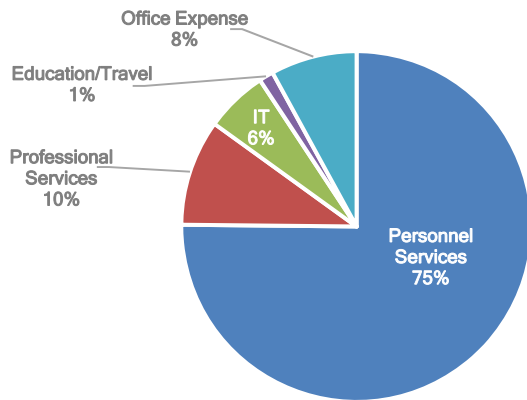
	FY19	FY20	\$ change	% change
Administrative Expense	\$ 27,111,957	\$ 27,962,033	\$ 850,076	3.1%
Investment Management Fee & Expense	\$ 77,398,706	\$ 87,121,829	\$ 9,723,123	12.6%
City Contribution	\$ 600,161,457	\$ 623,232,985	\$ 23,071,528	3.8%

ADMINISTRATIVE EXPENSE BUDGET



In the past five years, LACERS' Administrative Expense Budget has fluctuated between \$26.4 million and \$28.9 million, and has averaged an annual increase of 3.1% during the growth period of FY15-FY18. This was mainly due to resources needed for the Pension Administration System (PAS) implementation. In FY19, a significant budget reduction of \$2 million was attributed to the conclusion of major aspects of the PAS implementation, and additional budget reduction strategies introduced by the new General Manager including adoption of a higher salary savings rate, and closer alignment of overtime and contractual services budgets to past expenditure patterns.

The Proposed 2019-20 Administrative Expense Budget seeks \$27.96 million in funding to maintain core services of \$26.49 million and \$1.47 million to fund new initiatives in line with the new LACERS Strategic Plan. The Proposed Budget is a \$0.85 million or 3.1% increase over the current year budget; however, obligatory changes to salaries and benefits account for \$1.36 million in increases, which is offset by \$1.39 million in elimination of one-time expenses related to the completion of the PAS project. While the Proposed Budget includes 13 new authorized positions, several of these positions have been operating as long term substitute authorities.



	FY20 PROPOSED BUDGET	% OF TOTAL	FY19 ADJUSTED BUDGET	CHANGES	% OVER PRIOR
Personnel Services	\$ 21,016,190	75.2%	\$ 19,457,631	\$ 1,827,559	8.0%
Professional Services	\$ 2,738,721	9.8%	\$ 2,534,197	\$ 204,524	8.1%
Information Technology	\$ 1,608,145	5.8%	\$ 2,944,153	\$ (1,336,008)	-45.4%
Office Expense	\$ 2,224,647	8.0%	\$ 1,866,116	\$ 358,531	19.2%
Education/Training/Related Travel	\$ 374,330	1.3%	\$ 309,860	\$ 64,470	20.8%
TOTAL	\$ 27,962,033		\$ 27,111,957	\$ 850,076	3.1%

Summary of Changes in Appropriations

2019-20 PROPOSED BUDGET	\$	27,962,033
2018-19 ADOPTED BUDGET	\$	27,111,957
NET CHANGE	\$	850,076
PERCENTAGE CHANGE		3.1%

THE NET CHANGE OF \$850,076 IS ACCOUNTED FOR AS FOLLOWS:

CONTINUATION OF CORE SERVICES	FY20 PROPOSED BUDGET	FY20 TOTAL POSITION	OBLIGATORY CHANGES	DISCRETIONARY CHANGES
ALL Employee Benefits & Retirement Contribution	\$5,286,274	-	\$829,600	\$(33,608)
Administrative Services Division	3,756,751	28	1,432,701	(109,851)
City Attorney – Retirement Benefit Div.	638,066	-	24,029	-
Executive Division	2,182,461	9	360,102	(166,702)
Fiscal Management Division	1,978,948	13	(163,768)	(24,198)
Health Benefits & Communications	3,982,326	35	252,613	(46,126)
Human Resources	498,408	5	30,822	(850)
Internal Audit	458,842	3	13,625	(500)
Investment Division	1,431,749	9	34,123	12,674
Retirement Services Division	4,153,063	45	(890,950)	(163,215)
Systems	2,121,728	11	(281,463)	(1,392,404)
Core Programs Total	\$26,488,616	158	\$1,641,434	\$(1,924,780)

MAJOR INITIATIVES

Customer Service Goal	\$221,000			
Member Experience	221,000			221,000
Benefits Delivery Goal	\$71,250			
Increase Usage of Technology	71,250			71,250
Investment Goal	\$740,937			
Outperform Benchmarks	740,937	2		740,937
Organization Goal	\$344,230			
Enterprise Risk Management	281,230		(4,605)	48,840
Front-End Imaging	63,000			32,000
Workforce Development Goal	\$96,000			
Education, Training and Ergo	96,000			24,000
Major Initiatives Total	\$1,473,417	160	(4,605)	1,138,027

TOTAL PROPOSED FY20	\$27,962,033		\$ 1,636,829	\$ (786,753)
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Major Initiatives for 2019-20

MEMBER EXPERIENCE

FY 2019-20 BUDGET REQUEST	IMPACT / PRIORITY OUTCOME
FUNDING – \$221,000 NUMBER OF POSITIONS – 0	IMPROVE THE MEMBER EXPERIENCE WITH AN ENHANCED WEBSITE

TO ADVANCE THE CUSTOMER SERVICE GOAL: *Providing outstanding customer service.*

DESCRIPTION: LACERS strives to improve the Member experience through all points of contact; whether online, by phone, or in person. In order to improve on high customer satisfaction, it is important to continue to explore new ways to reach Members and provide information to help them plan for a successful retirement. This initiative aims to broaden opportunities for LACERS Members to access services on the MyLACERS Member portal and the LACERS website.

A major component of the Member Experience Initiative is the development of a new LACERS internet site. This initiative is focused on the following key priorities:

- ❖ A New Website with Prevailing Design
- ❖ Functionality and Usability
- ❖ Scalability (Desktop/Mobile)
- ❖ Ease of Use/Approachability
- ❖ Integration of Social Media Platforms
- ❖ Content Management System
- ❖ Supportability

OBJECTIVES: To improve upon the functionality and usability of the LACERS website to provide Members with a better user experience. To make retirement information and planning resources more accessible to Members.

DEVICES (Total Users = 9,854) FEBRUARY 2019	
Desktop	72%
Mobile	22%
Tablet	6%

MEMBER PORTAL (MyLACERS) ENROLLMENT (Goal is to increase the total number of registrations by 10% of the unregistered Members each year)			
Measure	2019	2020	2021
Number of Portal Registrations	3,350	3,015	2,713

INCREASE USAGE OF TECHNOLOGY

FY 2019-20 BUDGET REQUEST

FUNDING – \$71,250
NUMBER OF POSITIONS – 0

IMPACT / PRIORITY OUTCOME

MAXIMIZE UTILIZATION OF THE NEW PENSION ADMINISTRATION SYSTEM AND ELIMINATE SIDE SYSTEMS

TO ADVANCE THE BENEFITS DELIVERY GOAL: *Delivering accurate and timely Member benefits.*

DESCRIPTION: LACERS will continue to maximize the function and utilization of the Pension Administration System in benefit delivery, leveraging the technology to eliminate side systems, enhance usability of the system, and continue to implement functionality supporting benefit changes established by the City. Upcoming enhancements include:

- ❖ Implementation of remaining Tier 1 Enhanced/Tier 3 functionality
- ❖ Integration of benefit workflow processes
- ❖ Integration of remaining Member correspondences
- ❖ Implementation of Generational Mortality
- ❖ Automation of 115 Trust-related processes
- ❖ Consolidation of statistical reporting tools

OBJECTIVES: To increase usage of technology to maximize efficiency.

PENSION ADMINISTRATION SYSTEM IMPLEMENTATION OBJECTIVES FY 2019-20

9 Benefit Workflow Processes
5 Reporting Side System Consolidations
84 Member Correspondences
4 Major Enhancements

OUTPERFORM THE BENCHMARK

FY 2019-20 BUDGET REQUEST	IMPACT / PRIORITY OUTCOME
FUNDING – \$740,937 NUMBER OF POSITIONS – 2	INCREASES RESOURCES TO EFFECTIVELY MANAGE PLAN ASSETS

TO ADVANCE THE INVESTMENT GOAL: *Optimizing long-term risk adjusted returns through superior investments.*

DESCRIPTION: To achieve the highest likelihood of attaining the assumed actuarial rate of return of 7.25% over a long investment time horizon, the LACERS' investment program minimizes risk through asset diversification. In 2018, the LACERS Board approved a new asset allocation policy structure that increased Private Equity from 12% to 24%. Private Equity work requires significant staff time and is of higher risk, involving active management and monitoring. This increased complexity of the investment program along with achieving other priorities requires additional Investment staff. The proposed budget includes a new Investment Officer III position and Investment Officer II position. The current space in the Investment Division cannot accommodate additional staffing, therefore the request includes an expansion of our office lease space. The office expansion is initiated by the growth in Investment staff but it will achieve the secondary goal of freeing up space for additional new positions in the FY20 budget. The space will be designed as a model/pilot of contemporary open space plans and ergonomic workstations.

OBJECTIVE: To outperform respective benchmarks and peer comparisons over periods of time.

ASSET CLASS BY MARKET VALUE & ALLOCATION (as of 2/28/19)						
ASSET CLASS	ACTUAL (\$ B)	ACTUAL	TARGET	ACTUAL – TARGET*	MINIMUM	MAXIMUM
U.S. EQUITY	\$4.51	26.2%	19.0%	7.2%	12.0%	26.0%
NON-U.S. EQUITY	\$5.18	30.1%	27.0%	3.1%	18.0%	36.0%
CORE FIXED INCOME	\$2.92	17.0%	13.8%	3.2%	10.8%	16.8%
CREDIT OPPORTUNITIES	\$0.94	5.5%	12.3%	-6.8%	8.3%	16.3%
PRIVATE EQUITY	\$1.90	11.0%	14.0%	-3.0%	N/A	N/A
PUBLIC REAL ASSETS	\$0.92	5.3%	6.0%	-0.7%	4.0%	8.0%
PRIVATE REAL ESTATE	\$0.80	4.6%	7.0%	-2.4%	N/A	N/A
CASH	0.05	0.3%	1.0%	-0.7%	0.0%	2.0%
TOTAL FUND	17.22	100.0%	100.0%	0.0%	N/A	N/A

*Current asset allocation targets approved in April 2018. Transition to new targets in process.

EFFECTIVE ENTERPRISE RISK MANAGEMENT

FY 2019-20 BUDGET REQUEST	IMPACT / PRIORITY OUTCOME
FUNDING – \$281,230 NUMBER OF POSITIONS – 0	INCREASE EMERGENCY PREPAREDNESS AND STRENGTHEN BUSINESS CONTINUITY PLANS

TO ADVANCE THE ORGANIZATION GOAL: *Increasing organizational effectiveness, efficiency, and resiliency.*

DESCRIPTION: This initiative encompasses life safety and business continuity concerns, as well as cybersecurity and data protection projects.

Emergency Management Plan: This effort drives LACERS' investment in emergency planning, disaster recovery, and staff's ongoing training and exercises of those plans. Key activities include: Emergency Preparedness and Response Training, Department Emergency Plan/Business Continuity Plan (BCP) Update, Tabletop Exercise of the BCP.

Cyber Resiliency Plan: This effort includes development and implementation of strategies to build our organization's cyber resilience in the following key areas: Infrastructure, Governance, Preparedness, and Response. The proposed budget requests funding for cyber liability insurance to protect LACERS in the event of a data breach or cyber-attack by being prepared to respond in an appropriate and swift manner, utilizing the cyber incident response team provided by the insurance carrier.

OBJECTIVE: To continue to mature an effective enterprise risk management program.

EMERGENCY PREPAREDNESS TRAINING		
MEASURES	FY 18-19	FY 19-20
New Employees Emergency Training in the First 90 Days	90%	95%
Annual Emergency Preparedness Training (hours per employee)	ESTABLISHING BENCHMARK	TBD
MIR3 (Call-Out System) Test Success Rate (2018)	82%	87%

FRONT-END IMAGING

FY 2019-20 BUDGET REQUEST

FUNDING – \$63,000
NUMBER OF POSITIONS – 0

IMPACT / PRIORITY OUTCOME

ACHIEVE GREATER TECHNOLOGICAL
EFFICIENCY IN OPERATIONAL
SUPPORT SERVICES

TO ADVANCE THE ORGANIZATION GOAL: *Increasing organizational effectiveness, efficiency, and resiliency.*

DESCRIPTION: LACERS will maximize the use of the new Pension Administration System. The future is envisioned with technological efficiency improvements such as launching an automated workflow process by simply scanning certain Member documents and forms.

OBJECTIVES: Utilize technology for internal communications improvement and operational efficiency.

SCANNING PRODUCTION				
DOCUMENT TYPE	FY 16-17	FY 17-18	FY 18-19 (To Date)	FY 19-20
FORM 41 SCANNING	25,093	28,106	12,520	TBD
GENERAL SCANNING	488,332	486,062	244,178	TBD

EDUCATION, TRAINING AND ERGONOMICS

FY 2019-20 BUDGET REQUEST

FUNDING – \$96,000
NUMBER OF POSITIONS – 0

IMPACT / PRIORITY OUTCOME

PROVIDE STAFF WITH EFFECTIVE
LEARNING OPPORTUNITIES AND A
SAFE WORKPLACE

TO ADVANCE THE WORKFORCE GOAL: *Recruiting, retaining, mentoring, empowering, and promoting a high-performing workforce.*

DESCRIPTION: LACERS recognizes the importance of staff development and education. A training program consisting of sessions conducted by trainers in a classroom setting provides personalized and hands-on learning directly to staff. Students are able to focus better on the topics being taught and retain the lessons. The LACERS Human Resources Unit plans to launch the instructor-led training program with sessions held onsite. CALAPRS is a specialized training program which offers students tools, resources and techniques to help them develop into better managers. LACERS provides partial reimbursement of education expenses incurred by staff who elect to participate in the Tuition Reimbursement Program.

LACERS is committed to providing employees with a safe and healthy work environment through its workplace ergonomics program. Standard ergonomic equipment items are made available to staff and ergonomic assessment of employee workstations by the City ergonomist is encouraged. LACERS will be participating in Personnel Department's Ergo Leader Training Program which provides education to identified LACERS staff on basic ergonomics principles, allowing them to properly adjust workstations that are pending ergonomic assessments. Additionally, LACERS' office expansion plan for the Investment Division includes the use of a contemporary open space with ergonomic workstations which will serve as a model/pilot for the department.

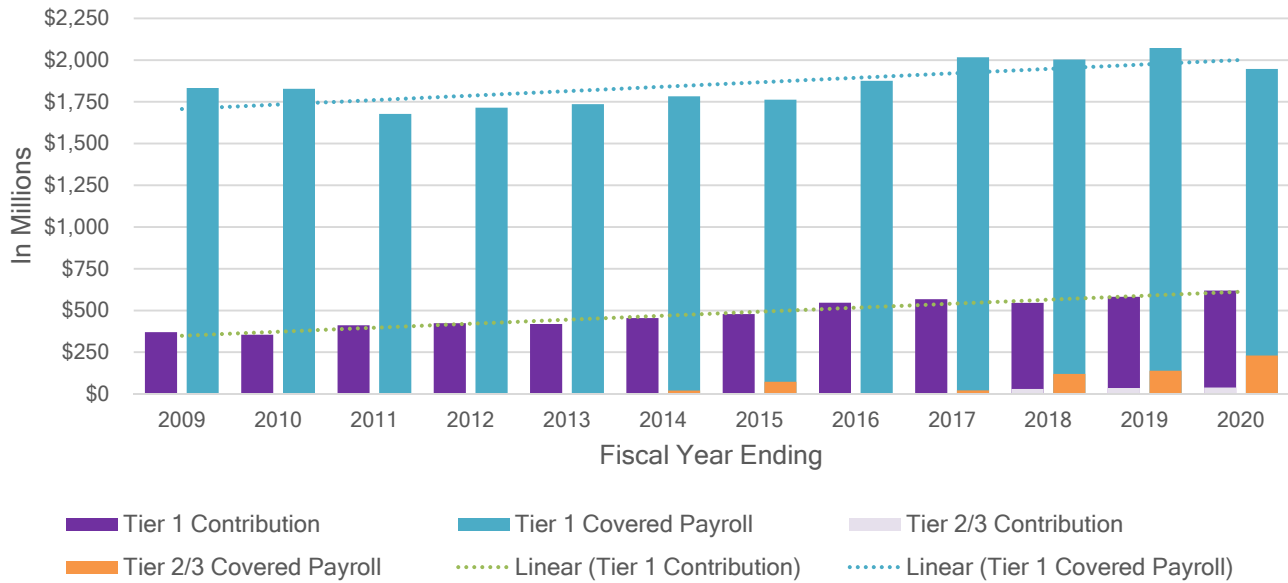
OBJECTIVE: Commit and promote dedicated training and educational resources. Maintain a safe and harassment-free workplace.

STAFF AND SUPERVISOR TRAINING (Target = 90% or greater receiving at least 4 hours of education or training)			
	FY 17-18	FY 18-19 (As of 12/31/18)	FY 19-20 (Target)
Staff	68%	85%	>90%
Supervisors	88%	89%	>90%

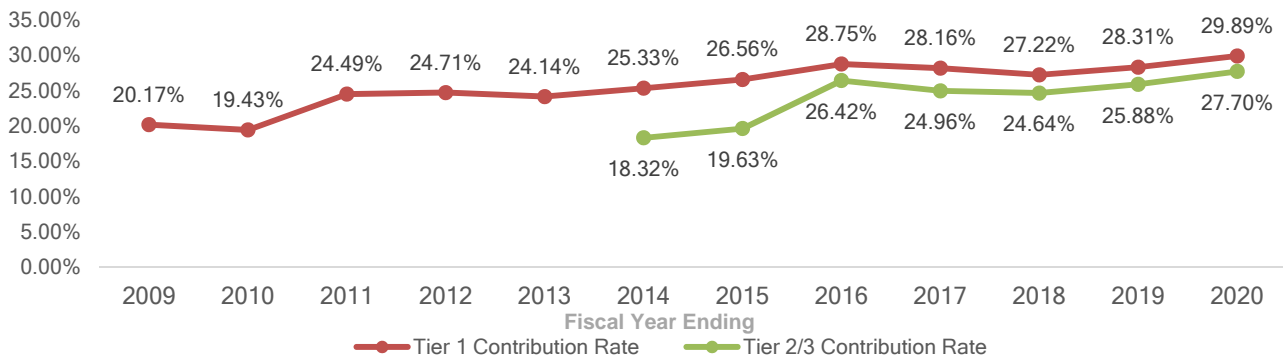
CITY CONTRIBUTION

The City Contribution is a percentage of the City's covered payroll. Over a ten-year period, both factors which determine the contribution amount, the City payroll and contribution rate have been on an upward trend. This corresponds to the increase in the City contribution amount.

City Contribution and Covered Payroll



City Contribution Rate



The City contributes funding for four programs administered by LACERS: Retirement and Health Benefits, the Excess Benefit Plan, the Family Death Benefit Plan, and the Limited Term Retirement Plan.

Retirement and Health Benefits	\$ 657,937,145
Excess Benefit Plan	\$ 1,188,000
Family Death Benefit Plan	\$ 104,000
Limited Term Retirement Plan	\$ 21,000
True-up Adjustment	\$ (36,017,160)
TOTAL	\$ 623,232,985

City contribution rates toward retirement and health benefits for LACERS Members are set by the Board upon adoption of the annual actuarial valuations. Stated in the form of a percentage of covered payroll, the amount of City's contribution is determined when the final covered payroll is adopted in the City's budget in June. The City Contribution reflected above will change when the final covered payroll is known. As of now, the estimate is based on the final FY19 covered payroll of \$2 billion for Tier 1 Members and rate of 29.89%; and a covered payroll of \$140 million and rate of 27.70% for Tier 3 Members. The contributions for the Excess Benefit Plan, the Family Death Benefit Plan, and the Limited Term Retirement Plan are included and adjusted with a credit of \$36,017,160 applied toward the FY20 contribution to LACERS. This credit amount represents a true-up of the Fiscal Year FY19 contribution – the difference between the contributions paid based on the *budgeted* covered payroll amount on July 15th, and the *actual* payroll toward the end of the Fiscal Year.

EXCESS BENEFIT PLAN

The Excess Benefit Plan was established separate from the LACERS Trust Fund, to pay retirement benefit amounts in excess of the benefit limits established by the Internal Revenue Code (IRC), currently \$225,000¹ for 2019. In 2019, there are 49 LACERS Members who receive their monthly LACERS retirement benefit up to the limit allowable by the IRC, and the remainder of their benefit is paid separately by the City. The City's cost of this program is the projected amount of the benefits that will be paid from the City's account for FY20, plus reasonable administrative expenses.

FAMILY DEATH BENEFIT PLAN

Approximately 2,600 Active Members opt into the Family Death Benefit Plan which provides an additional benefit to qualifying surviving minor children, or widow/widower over age 60 if the Member dies while an active City employee. The City's contribution to the Family Death Benefit is equivalent to a match of the Member's contribution which is currently \$3.00 per month. This monthly amount is established pursuant to a biennial study of the full actuarial costs of the benefit as required by the Los Angeles Administrative Code.

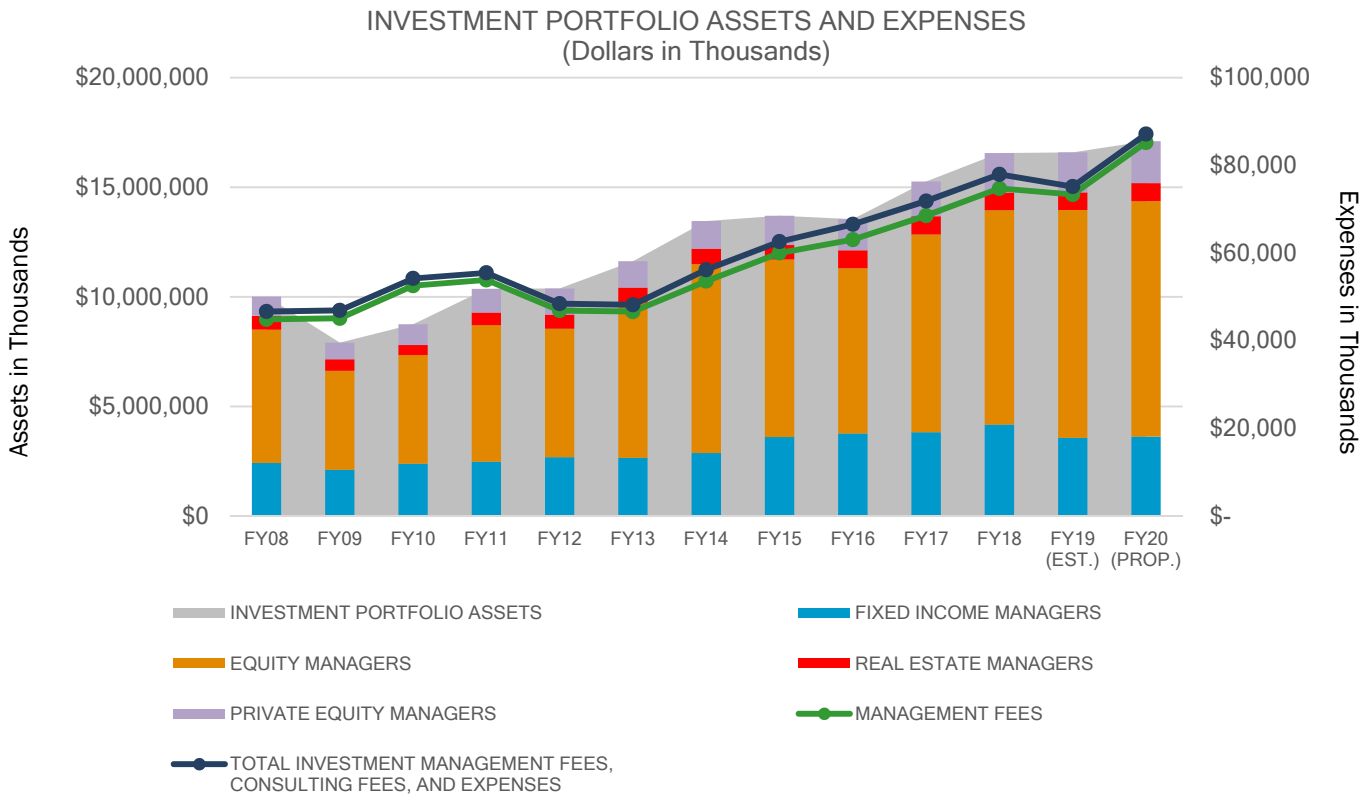
LIMITED TERM RETIREMENT PLAN (LTRP)

The LTRP provides elected officials, who serve four-year terms, the option of participating in a defined contribution plan until they have completed the five years of City service needed to vest in the defined benefit plan. The City provides a contribution to LTRP Members at the same rate as the employer contribution to the LACERS defined benefit plan. There is currently one LTRP Member in the plan.

¹ This reflects the unadjusted Excess Benefit limit. The individual limit must be adjusted based on the age of the Member at retirement, years of City service, service purchases, and calculated on a single-life annuity basis.

INVESTMENT MANAGEMENT FEES AND EXPENSES

In the past ten-year period, overall fees have increased along with the increase in portfolio value.



The Investment management fees are largely asset-based fees established in the respective contracts with investment managers hired by LACERS. Investment consulting fees are flat fees paid to our General Fund consultant, our Private Equity consultant, and our Real Estate consultant. Other expenses include research and services which support administration of the investment program.

Investment Management Fees	\$ 85,206,239
Investment Consulting Fees	\$ 1,750,500
Other Investment Expense	\$ 165,090
TOTAL	\$ 87,121,829

The 2019-20 Investment Management Expense Fee budget increased by \$9.4 million or 12.2%. This includes:

- \$4.98 million in new commitments to ten Private Equity and one Real Estate Fund
- \$4.76 million in new commitments to seven Public Market investments, most with active managers
- \$0.74 million in net market value changes primarily due to rebalancing of existing commitments (\$6.22 million in inflows, \$5.48 million in outflows)
- (\$0.48) million decrease in other Investment consulting fees and expenses. The decrease is largely due to the higher budget basis last year as two private equity consultant contracts overlapped during the transition between consultants

LOS ANGELES CITY EMPLOYEES' RETIREMENT SYSTEM**PROPOSED BUDGET
AND
PERSONNEL RESOLUTIONS****Fiscal Year 2019 - 20****Presented March 26, 2019**

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LOS ANGELES CITY EMPLOYEES' RETIREMENT SYSTEM

STATEMENT OF RECEIPTS AND EXPENDITURES

Actual 2017-18	Adopted Budget 2018-19 ¹	Estimated 2018-19		Budget Appropriation 2019-20 ²
RECEIPTS				
\$ 552,527,264	\$ 600,161,457	\$ 600,161,457	City Contributions (see Schedule 1).....	\$ 623,232,985
236,090,743	255,000,000	246,736,000	Member Contributions.....	258,361,000
131,423	110,000	101,000	Family Death Benefit Plan Member Contributions.....	104,000
391,326,283	379,440,000	403,066,071	Earnings on Investments.....	415,158,054
662,279,127	--	331,000,000	Gain on Sale of Investments.....	--
\$ 1,842,354,840	\$ 1,234,711,457	\$ 1,581,064,528	Total Receipts.....	\$ 1,296,856,039
EXPENDITURES				
845,852,789	\$ 943,400,000	\$ 910,292,000	Retirement Allowances.....	\$ 964,600,000
1,178,272	1,313,000	1,133,000	Family Death Benefit Plan Allowance.....	1,156,000
116,183,508	113,420,000	125,361,000	Retired Medical & Dental Subsidy.....	134,136,000
11,897,489	12,745,000	13,398,000	Retired Medicare Part B Reimbursements.....	14,100,000
8,980,996	9,900,000	10,388,000	Refund of Member Contributions.....	11,427,000
1,430,518	2,530,000	1,236,000	Refund of Deceased Retired Accum. Contributions.....	1,360,000
25,252,249	27,111,957	26,189,382	Administrative Expense	27,962,033
77,580,964	77,398,706	76,698,982	Investment Management Fees and Expenses.....	87,121,829
\$ 1,088,356,785	\$ 1,187,818,663	\$ 1,164,696,364	Total Expenditures.....	\$ 1,241,862,862
753,998,055	46,892,794	416,368,164	Increase in Fund Balance.....	54,993,177
\$ 1,842,354,840	\$ 1,234,711,457	\$ 1,581,064,528	Total Expenditures and Increase in Fund Balance.....	\$ 1,296,856,039

1. The City Contributions amount for the FY 2018-19 Adopted Budget was based on the City's final covered payroll of \$2,211,434,628 and included the application of a net credit adjustment for FY 2017-18 of \$23,745,605 deducted from FY 2018-19 contribution payment. The credit adjustment represents a true-up of the FY 2017-18 City contribution.

2. The preliminary City Contributions amount for FY 2019-20 is based on FY 2018-19 final City covered payroll of \$2,211,434,628 and includes a credit adjustment of \$36,017,160 for the true-up of FY 2018-19 contributions which will be deducted from the FY 2019-20 contribution payment. The preliminary City Contribution budget amount will be finalized upon the receipt of adopted City covered payroll information from the City for FY 2019-20.

LOS ANGELES CITY EMPLOYEES' RETIREMENT SYSTEM

SCHEDULE 1 -- CITY CONTRIBUTIONS

ACTUARIAL REQUIREMENTS

To fund the liabilities of the System for future service as required in Article XI Section 1158 and 1160 of the City Charter in accordance with the actuarial valuation of those liabilities as of June 30, 2018 as follows:

Tier 1 29.89% of \$2,071,678,085 total actuarial salary of Tier 1 members for fiscal year 2019-20	\$ 619,224,582
Tier 3 27.70% of \$139,756,543 total actuarial salary of Tier 3 members for fiscal year 2019-20	38,712,563
Subtotal	\$ 657,937,145
Family Death Benefit Plan (FDBP) To match the estimated total amount contributed by Family Death Benefit Plan (FDBP) members in accordance with the provisions of Section 4.1090 of the Administrative Code.	104,000
Excess Benefit Plan Fund (EBP) To fund retirement benefits in excess of the limits set by Internal Revenue Code Section 415 (b) in accordance with the provisions of Section 4.1800 of the Administrative Code.	1,188,000
Limited Term Retirement Plan Fund (LTRP) To fund the Defined Contribution Plan for elected City officials in accordance with the provisions of Section 4.1850 of the Administrative Code.	21,000
Total City Contributions	\$ 659,250,145
True-up Adjustment: Credit of difference in City contributions for FY 2018-19 based on estimated covered payroll on July 15, 2018 and actual covered payroll up to March 2, 2019.	(36,017,160)
Total City Contributions After True Up	\$ 623,232,985

City Contributions by Funding Source:

	Total Covered Payroll	Contributions				Total
		Tier 1 (29.89%)	Tier 3 (27.70%)	Shared Cost for FDBP/EBP/LTP	FY19 True-Up Adjustments	
General Fund (TRAN)	\$ 1,800,277,570	\$ 503,109,170	\$ 29,812,596	\$ 1,068,883	\$ (26,448,146)	\$ 507,542,503
Airports	301,729,000	85,169,701	7,426,433	179,147	(7,002,839)	85,772,442
Harbor	83,997,772	23,973,636	927,336	49,871	(1,980,805)	22,970,038
LACERS	13,688,086	3,675,632	365,620	8,127	(312,695)	3,736,684
LAFPP	11,742,200	3,296,443	180,578	6,972	(272,675)	3,211,318
Total	\$ 2,211,434,628	\$ 619,224,582	\$ 38,712,563	\$ 1,313,000	\$ (36,017,160)	\$ 623,232,985

LOS ANGELES CITY EMPLOYEES' RETIREMENT SYSTEM

SCHEDULE 2 -- ADMINISTRATIVE EXPENSE

Expenditures 2017-18	Adopted Budget 2018-19	Estimated Expenditures 2018-19		Budget Appropriation 2019-20
SALARIES				
\$ 12,327,207	\$ 13,814,413	\$ 13,050,078	General.....	\$ 14,340,946
538,335	271,318	313,696	Overtime.....	473,744
<u>\$ 12,865,542</u>	<u>\$ 14,085,731</u>	<u>\$ 13,363,774</u>	Total Salaries.....	<u>\$ 14,814,690</u>
EXPENSE				
\$ 155,415	\$ 139,000	\$ 121,090	Printing and Binding.....	\$ 103,000
82,712	190,605	141,308	Travel.....	245,845
5,463,128	5,927,297	5,880,165	Contracts.....	5,082,428
6,474,005	6,412,424	6,361,110	Office and Administrative.....	7,219,345
<u>\$ 12,175,260</u>	<u>\$ 12,669,326</u>	<u>\$ 12,503,673</u>	Total Expense.....	<u>\$ 12,650,618</u>
EQUIPMENT				
\$ 211,447	\$ 356,900	\$ 321,935	Furniture, Office and Technical Equipment.....	\$ 496,725
<u>\$ 211,447</u>	<u>\$ 356,900</u>	<u>\$ 321,935</u>	Total Equipment.....	<u>\$ 496,725</u>
<u>\$ 25,252,249</u>	<u>\$ 27,111,957</u>	<u>\$ 26,189,382</u>	Total Administrative Expense.....	<u>27,962,033</u>

**LOS ANGELES CITY EMPLOYEES' RETIREMENT SYSTEM
DETAIL OF ADMINISTRATIVE EXPENSE ACCOUNTS**

LACERS Account Number	City Account Number	Adopted Budget FY 2018-19	Estimated Expenditures FY 2018-19	Proposed Budget FY 2019-20	Budget \$ Change	Budget % Change
Personnel Services:						
601	Salaries	101	\$ 13,814,413	\$ 13,050,078	\$ 14,340,946	\$ 526,533 3.8%
602	Overtime	109	271,318	313,696	473,744	202,426 74.6%
605	Employee Benefit	601	5,371,900	5,392,101	6,201,500	829,600 15.4%
Total Personnel Services			\$ 19,457,631	\$ 18,755,875	\$ 21,016,190	\$ 1,558,559 8.0%
Professional Services:						
611	Actuarial Services	304	\$ 237,500	\$ 426,000	\$ 425,000	\$ 187,500 78.9%
612	Audit Services	304	126,794	124,000	148,000	21,206 16.7%
613	Legal Services	304	727,048	869,000	812,721	85,673 11.8%
614	Disability Services	304	260,000	217,145	220,000	(40,000) -15.4%
615	Other Consulting	304	178,440	114,540	210,000	31,560 17.7%
616	Benefits Payroll Processing Services	304	265,000	242,191	235,000	(30,000) -11.3%
617	Retired Health Admin.Consultant	304	739,415	709,801	688,000	(51,415) -7.0%
Total Professional Services			\$ 2,534,197	\$ 2,702,677	\$ 2,738,721	\$ 204,524 8.1%
Information Technology:						
622	Pension Administration System Vendor	304	\$ 1,745,456	\$ 1,492,607	\$ 353,205	\$ (1,392,251) -79.8%
623	Computer Hardware	730	275,900	243,322	249,725	(26,175) -9.5%
624	Computer Software	601	159,370	154,523	91,735	(67,635) -42.4%
625	Computer Maintenance and Support	601	222,483	214,894	282,480	59,997 27.0%
626	Other Computer Consulting	304	540,944	576,607	631,000	90,056 16.6%
Total Information Technology			\$ 2,944,153	\$ 2,681,953	\$ 1,608,145	\$ (1,336,008) -45.4%
Education and Related Travel:						
604	Employee Development	601	\$ 119,255	\$ 114,517	\$ 128,485	\$ 9,230 7.7%
634	Travel	213	190,605	141,308	245,845	55,240 29.0%
Total Education and Related Travel			\$ 309,860	\$ 255,825	\$ 374,330	\$ 64,470 20.8%
Office Expense:						
631	Printing and Binding	212	\$ 139,000	\$ 121,090	\$ 103,000	\$ (36,000) -25.9%
632	Postage	601	205,300	201,174	198,300	(7,000) -3.4%
633	Telephone and Utilities	601	10,200	16,044	15,520	5,320 52.2%
635	Office Lease	304	1,016,100	1,005,393	1,165,502	149,402 14.7%
636	Office Equipment Services	304	50,600	67,881	54,000	3,400 6.7%
651	Petty Cash	601	12,000	11,074	10,000	(2,000) -16.7%
652	Board Member Election Expense	601	30,000	28,000	30,000	- 0.0%
653	Furniture and Other Equipment	730	81,000	78,613	247,000	166,000 204.9%
655	Other Office Expense	601	101,916	105,407	114,400	12,484 12.2%
656	Membership Dues and Subscriptions	601	115,000	113,376	136,925	21,925 19.1%
658	Promotional Supplies	601	65,000	10,000	10,000	(55,000) -84.6%
659	Insurance Expense	304	40,000	35,000	140,000	100,000 250.0%
Total Office Expense			\$ 1,866,116	\$ 1,793,052	\$ 2,224,647	\$ 358,531 19.2%
TOTAL ADMINISTRATIVE EXPENSE			\$ 27,111,957	\$ 26,189,382	\$ 27,962,033	\$ 850,076 3.1%

**LOS ANGELES CITY EMPLOYEES' RETIREMENT SYSTEM
INVESTMENT MANAGEMENT FEES AND EXPENSES: FY 2019-20**

	ADOPTED BUDGET FY 2018-19	ESTIMATED EXPENSE FY 2018-19	PROPOSED BUDGET FY 2019-20
1 Baird Advisors	\$ 275,827	\$ 464,621	\$ 623,052
2 LM Capital	303,228	446,636	505,746
3 Loomis Sayles	944,701	889,727	788,293
4 Neuberger Berman	1,099,854	989,415	893,704
5 State Street (Fixed Income Index)	441,181	340,325	-
6 AEGON USA	1,539,459	1,352,263	948,746
7 Bain Capital (formerly Sankaty)	479,041	798,732	856,589
8 Prudential	1,296,996	1,397,120	1,463,036
9 AJO LP (formerly Aronson & Partners)	566,829	536,815	451,778
10 EAM Investors	837,972	921,740	805,437
11 Panagora Asset Management	840,265	836,334	759,387
12 Principal Global	605,937	612,328	739,831
13 Rhumblin (S&P 500)	194,077	183,067	166,208
14 Rhumblin (Russell 1000 Growth)	11,342	12,267	9,400
15 Rhumblin (Russell 2000)	15,290	16,566	2,735
16 Rhumblin (Russell 2000 Growth)	7,783	8,540	1,439
17 Rhumblin (Russell 2000 Value)	6,281	6,710	1,081
18 AQR Capital Management	3,001,912	2,639,400	2,459,766
19 Axiom International	3,125,489	2,936,936	2,576,791
20 Barrow, Hanley, Mewhinney & Strauss	3,020,130	2,782,932	2,780,879
21 Dimensional Fund Advisor (Emerging Mkt)	2,328,623	2,187,585	1,752,460
22 Lazard Asset Management	3,330,574	3,146,607	2,881,909
23 MFS Institutional Advisors	3,021,640	2,749,365	2,315,846
24 Oberweis Asset Management	1,596,771	1,820,913	2,422,505
25 Quantitative Management Assoc. (QMA)	1,881,448	1,720,979	1,488,646
26 State Street Global (Non-US Index)	475,520	414,875	406,767
27 Centersquare (REITS)	459,889	717,483	858,910
28 CoreCommodity	1,398,995	1,070,097	1,280,797
29 Dimensional Fund Advisor (TIPS)	281,857	322,842	311,705
30 Real Assets (Multi-Asset)	560,000	-	-
31 New Emerging Mkt Debt	-	-	720,000
32 New High Yield Bank Loans	-	-	550,000
33 New Private Debt	-	-	1,291,500
34 New Active Small Cap	-	-	682,500
35 New Active Small Cap Growth	-	-	289,800
36 New Active Small Cap Value	-	-	269,675
37 New Emerging Mkt Small Cap	-	-	956,250
38 Real Estate Managers	11,487,174	11,181,980	12,019,774
39 Private Equity Managers	29,570,211	31,376,495	37,873,298
Subtotal - Investment Management Fee	\$ 75,006,296	\$ 74,881,695	\$ 85,206,239
40 General Fund Consulting	\$ 450,000	\$ 450,000	\$ 450,000
41 Private Equity Consulting	1,250,000	733,781	737,500
42 Real Estate Consulting	215,000	215,000	215,000
43 Real Estate & Private Equity Legal Consulting	325,000	275,000	325,000
44 Northern Trust	28,000	23,417	23,000
Subtotal - Investment Consulting Fee	\$ 2,268,000	\$ 1,697,198	\$ 1,750,500
45 Bloomberg Financial Services	\$ 30,000	\$ 25,680	\$ 25,680
46 CEM Benchmarking	-	-	35,000
47 Institutional Shareholder Services	71,910	71,910	71,910
48 Pitchbook Subscription	22,500	22,500	22,500
49 Pacific Center for Asset Management	-	-	10,000
Subtotal - Other Investment Expense	\$ 124,410	\$ 120,090	\$ 165,090
Total Investment Management Fees and Expenses	\$ 77,398,706	\$ 76,698,982	\$ 87,121,829

LOS ANGELES CITY EMPLOYEES' RETIREMENT SYSTEM

PROPOSED PERSONNEL RESOLUTION

FISCAL YEAR 2019-20

WHEREAS, the Board of Administration of the Los Angeles City Employees' Retirement System has the responsibility and authority to establish the number and types of positions to be utilized by the Los Angeles City Employees' Retirement System;

NOW, THEREFORE, BE IT RESOLVED, that:

1. Effective July 1, 2019, the positions listed in the attached schedule of Positions and Salaries are hereby authorized within the Los Angeles City Employees' Retirement System. The class code numbers, classifications and salaries as set forth herein are hereby determined to be appropriate in accordance with existing City laws and ordinances, and applicable Memoranda of Understanding, as appropriate. Further, the employment of the designated number of persons in each code and classification as set forth herein is hereby authorized.
2. Memoranda of Understanding approved by the City Council shall be considered to be incorporated into this Resolution where appropriate. Salaries established under approved Memoranda of Understanding shall apply to all classes of employees therein noted. The provisions of each of the Memoranda of Understanding shall take precedence over any conflicting provision contained in this Resolution, but only for those employees in classes to which the Memoranda of Understanding apply.
3. Upon approval of the General Manager, substitute authority positions may be filled using any class approved and established by the Board of Civil Service Commissioners. This approval shall specify the period during which the position shall be filled.
4. Upon approval of the General Manager, persons may be employed in any class approved and established by the Board of Civil Service Commissioners in-lieu of a vacant position if the in-lieu employment is consistent with City policies and procedures for such employment.
5. The General Manager shall have the authority to correct any clerical or typographical errors in this document.

March 26, 2019

**LOS ANGELES CITY EMPLOYEES' RETIREMENT SYSTEM
POSITIONS AND SALARIES: FY 2019-20**

(a) Regular Positions:

FY19	FY20	Change	MOU	Class Code	Class Title	Salary Range
4	4	0	1	1513	ACCOUNTANT	\$ 55,019 - \$ 80,472
12	11	-1	3	1223	ACCOUNTING CLERK	\$ 49,005 - \$ 71,618
1	0	-1	20	1119	ACCOUNTING REC SUPVR I	\$ 55,332 - \$ 80,931
0	1	1	20	1119	ACCOUNTING REC SUPVR II	\$ 65,146 - \$ 95,255
10	10	0	3	1358	ADMINISTRATIVE CLERK	\$ 37,584 - \$ 54,935
2	2	0	36	9414	ASST GM-LACERS	\$ 140,961 - \$ 206,044
25	30	5	20	1203	BENEFITS SPECIALIST	\$ 55,332 - \$ 80,931
3	3	0	36	9151	CH BENEFITS ANALYST	\$ 123,067 - \$ 179,944
1	1	0	20	1253	CH CLERK	\$ 66,106 - \$ 96,654
1	1	0	36	9147	CH INVESTMENT OFCR	\$ 179,109 - \$ 261,814
1	1	0	1	9734	COMMISSION EXEC ASST II	\$ 70,157 - \$ 102,563
1	1	0	36	1610	DEPARTMENTAL AUDIT MGR	\$ 123,067 - \$ 179,944
1	1	0	36	1593	DEPT CHIEF ACCT IV	\$ 123,067 - \$ 179,944
1	1	0	37	1117	EXEC ADMIN ASST II	\$ 60,656 - \$ 88,698
1	1	0	37	1117	EXEC ADMIN ASST III	\$ 65,020 - \$ 95,067
1	1	0	20	1555	FISCAL SYSTEMS SPEC I	\$ 87,884 - \$ 128,516
0	1	1	20	1555	FISCAL SYSTEMS SPEC II	\$ 102,667 - \$ 150,127
1	1	0	0	9150	GM-LACERS	\$ 270,020 - \$ 270,020
1	1	0	36	1409	INFO SYSTEM MGR II	\$ 123,067 - \$ 179,944
1	1	0	1	1625	INTERNAL AUDITOR III	\$ 82,873 - \$ 121,146
1	1	0	1	1625	INTERNAL AUDITOR IV	\$ 102,667 - \$ 150,127
2	2	0	0	9146	INVESTMENT OFFICER I	\$ 95,442 - \$ 139,541
3	4	1	0	9146	INVESTMENT OFFICER II	\$ 118,912 - \$ 173,889
1	2	1	0	9146	INVESTMENT OFFICER III	\$ 149,563 - \$ 218,655
22	25	3	1	9184	MANAGEMENT ANALYST	\$ 70,157 - \$ 102,563
1	1	0	1	1539	MANAGEMENT ASSISTANT	\$ 49,903 - \$ 72,996
1	1	0	20	1170	PAYROLL SUPERVISOR I	\$ 63,580 - \$ 92,958
1	1	0	20	1129	PERS RECORDS SUPV	\$ 58,986 - \$ 86,255
1	1	0	1	1731	PERSONNEL ANALYST	\$ 70,157 - \$ 102,563
1	1	0	20	1525	PR ACCOUNTANT I	\$ 79,615 - \$ 116,385
0	1	1	20	1525	PR ACCOUNTANT II	\$ 83,938 - \$ 122,733
2	2	0	8	1431	PROGRAMMER/ANALYST III	\$ 75,815 - \$ 110,852
1	1	0	8	1431	PROGRAMMER/ANALYST IV	\$ 81,996 - \$ 119,914
1	1	0	36	1800	PUB INFO DIRECTOR I	\$ 86,777 - \$ 126,867
2	2	0	20	1523	SR ACCOUNTANT I	\$ 63,914 - \$ 93,438
3	2	-1	20	1523	SR ACCOUNTANT II	\$ 69,217 - \$ 101,205
16	18	2	3	1368	SR ADMINISTRATIVE CLERK	\$ 46,374 - \$ 67,818
5	6	1	20	9171	SR MGMT ANALYST I	\$ 82,873 - \$ 121,146
5	5	0	20	9171	SR MGMT ANALYST II	\$ 102,667 - \$ 150,127
1	1	0	0	9167	SR PERSONNEL ANALYST I	\$ 86,339 - \$ 126,199
2	2	0	0	9167	SR PERSONNEL ANALYST II	\$ 106,843 - \$ 156,182
0	0	0	20	1538	SR PROJECT COORDINATOR	\$ 78,049 - \$ 114,088
2	2	0	20	1597-1	SR SYSTEMS ANALYST I	\$ 82,977 - \$ 121,334
1	1	0	20	1597-2	SR SYSTEMS ANALYST II	\$ 102,667 - \$ 150,127
3	3	0	1	1596	SYSTEMS ANALYST	\$ 70,157 - \$ 102,563
1	1	0	21	1455	SYSTEMS PROGRAMMER III	\$ 101,498 - \$ 148,394
<u>147</u>	<u>160</u>	<u>13</u>				

(b) To be Employed As Needed in Such Numbers as Required:

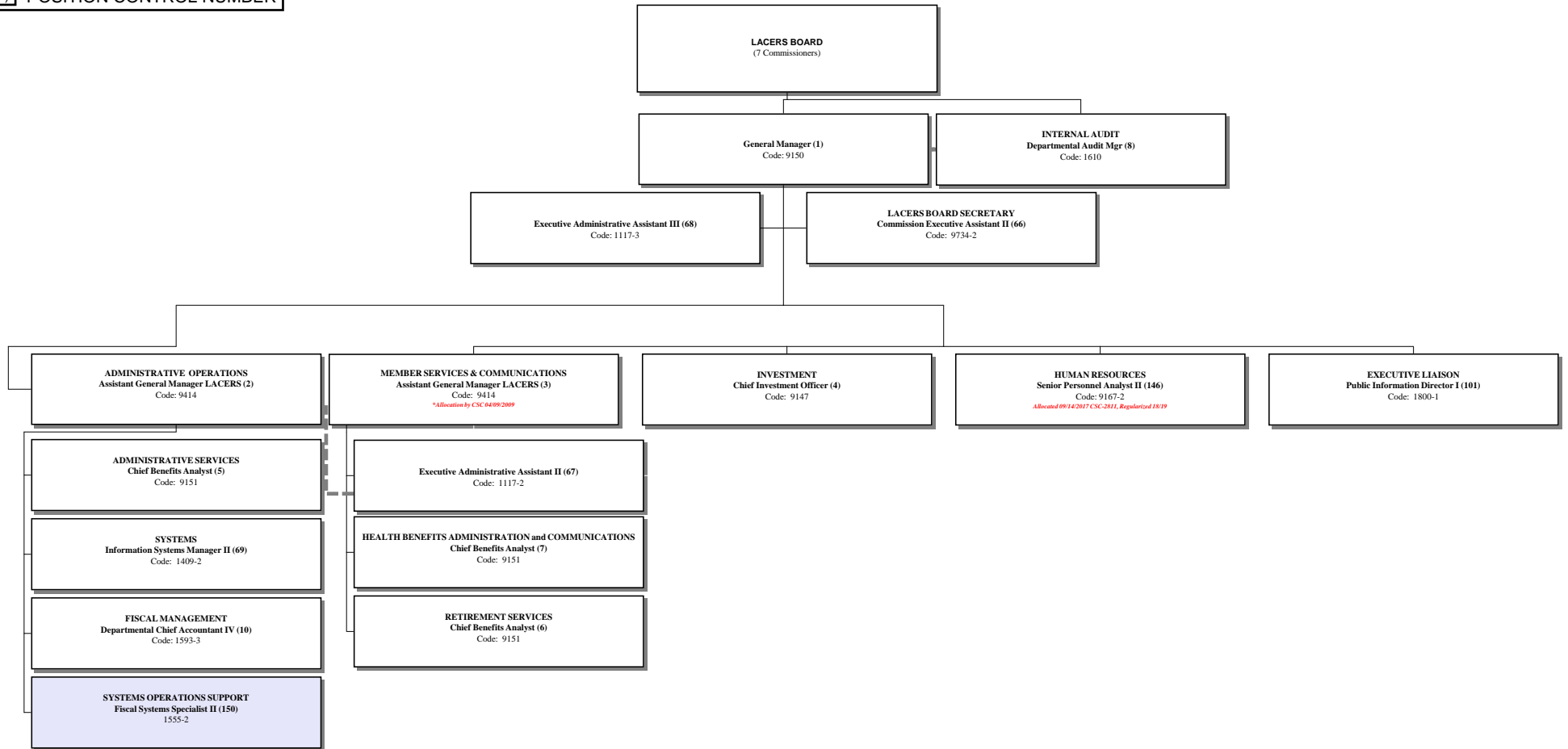
1133	RETIREMENT RELIEF WORKER
1358	ADMINISTRATIVE CLERK
1501	STUDENT WORKER
1502	STUDENT PROFESSIONAL WORKER
1525-1	PRINCIPAL ACCOUNTANT I
1535-1	ADMINISTRATIVE INTERN I
1535-2	ADMINISTRATIVE INTERN II
1596	SYSTEMS ANALYST
9167-2	SENIOR PERSONNEL ANALYST II

FY19	FY20	Change	MOU	Class Code	Class Title	Salary Range
<u>7</u>	<u>7</u>	<u>0</u>	N/A	0101-2	COMMISSIONER	\$50 PER MEETING
<u>7</u>	<u>7</u>	<u>0</u>				

(c) Commissioner Positions:

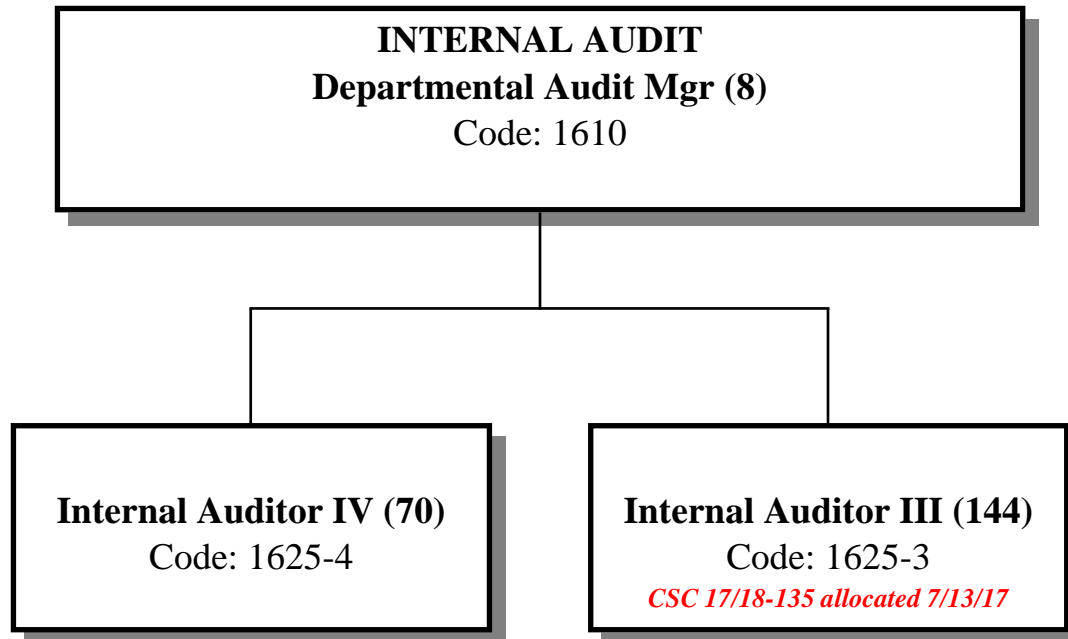
LACERS PROPOSED ORGANIZATIONAL CHART FY 2019/2020

	SUBSTITUTE AUTHORITY
	ADD POSITION
	DELETION OF POSITION
	MOVE POSITION
	REALLOCATE POSITION
(#)	POSITION CONTROL NUMBER



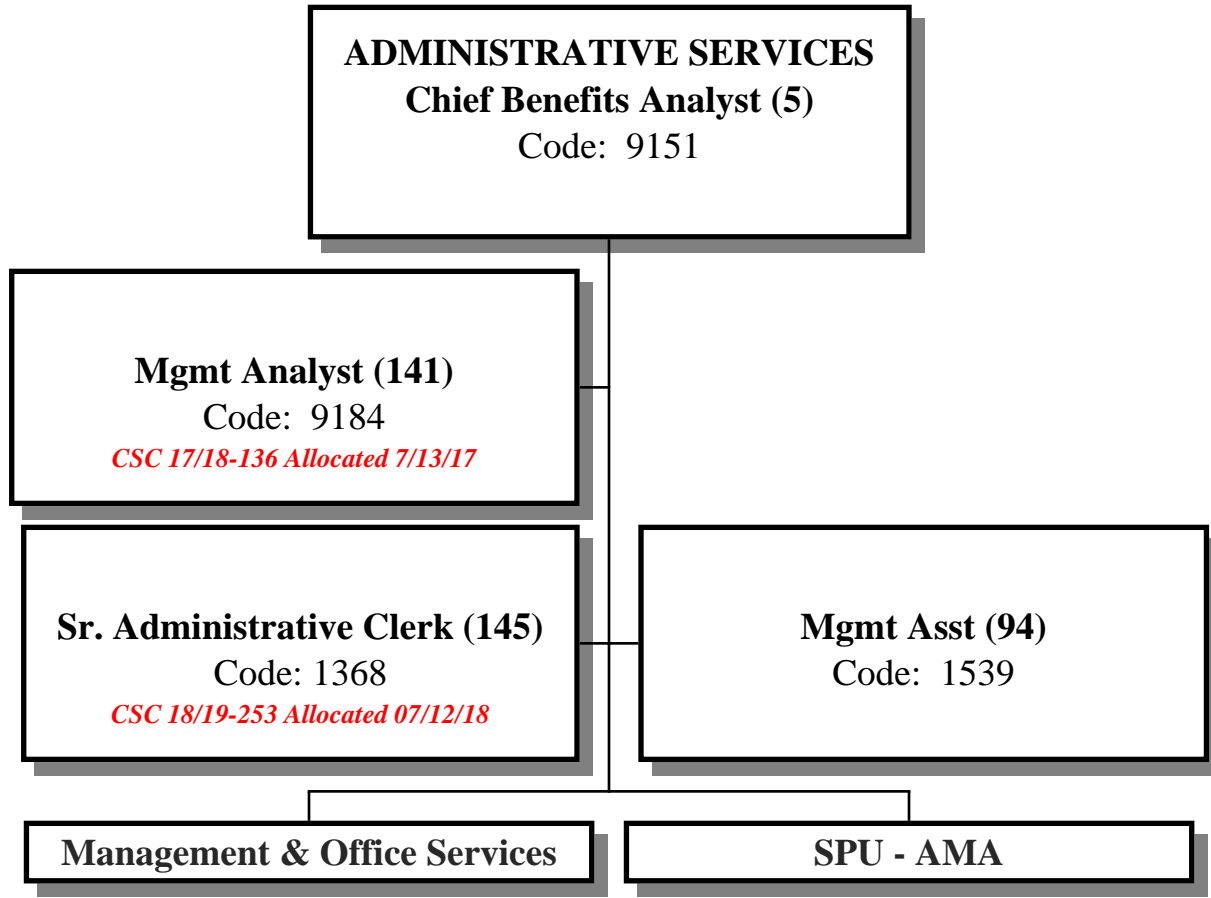
**LACERS
PROPOSED ORGANIZATIONAL CHART FY 2019/2020**

	SUBSTITUTE AUTHORITY
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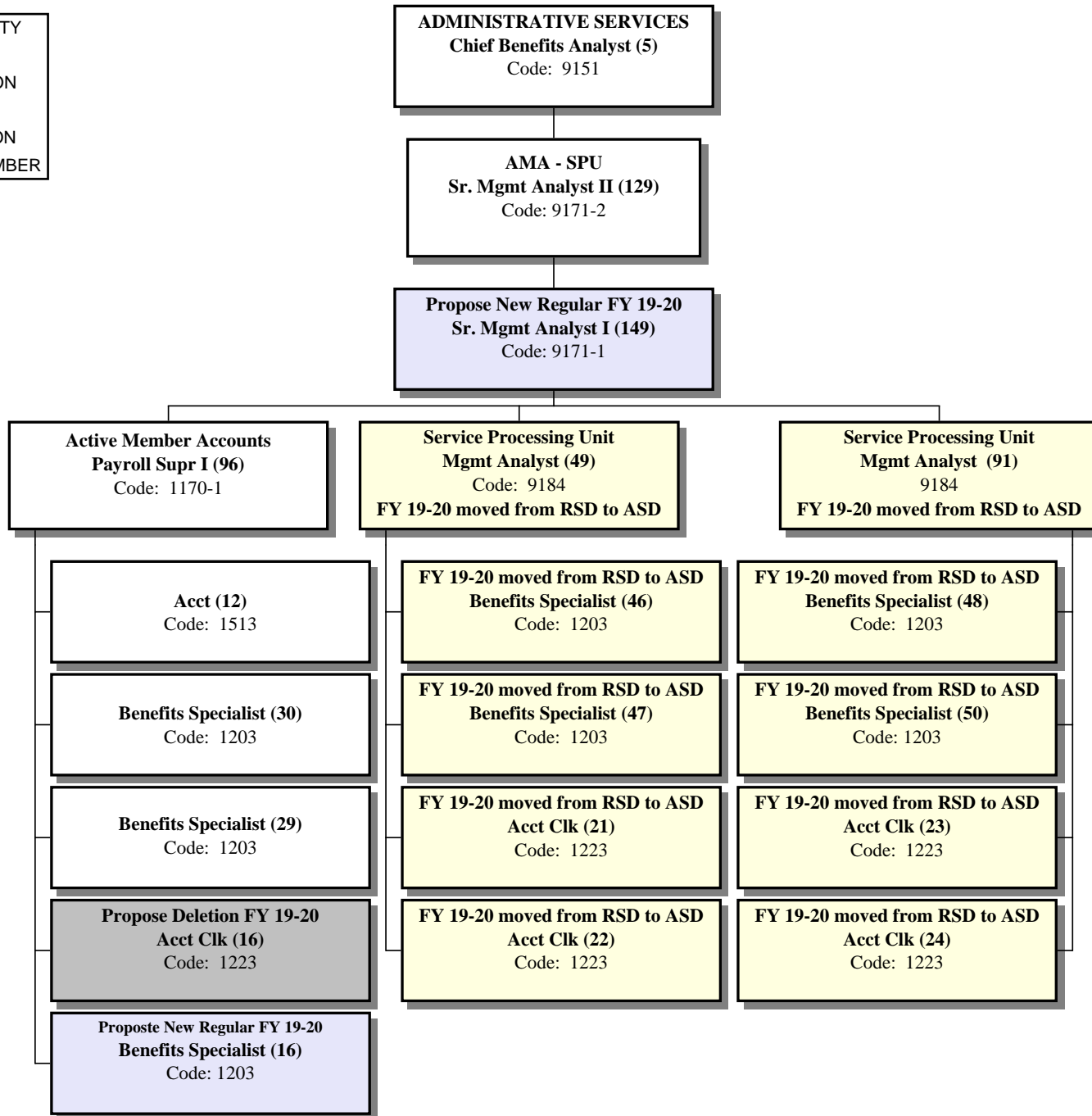
LACERS
PROPOSED ORGANIZATIONAL CHART FY 2019/2020

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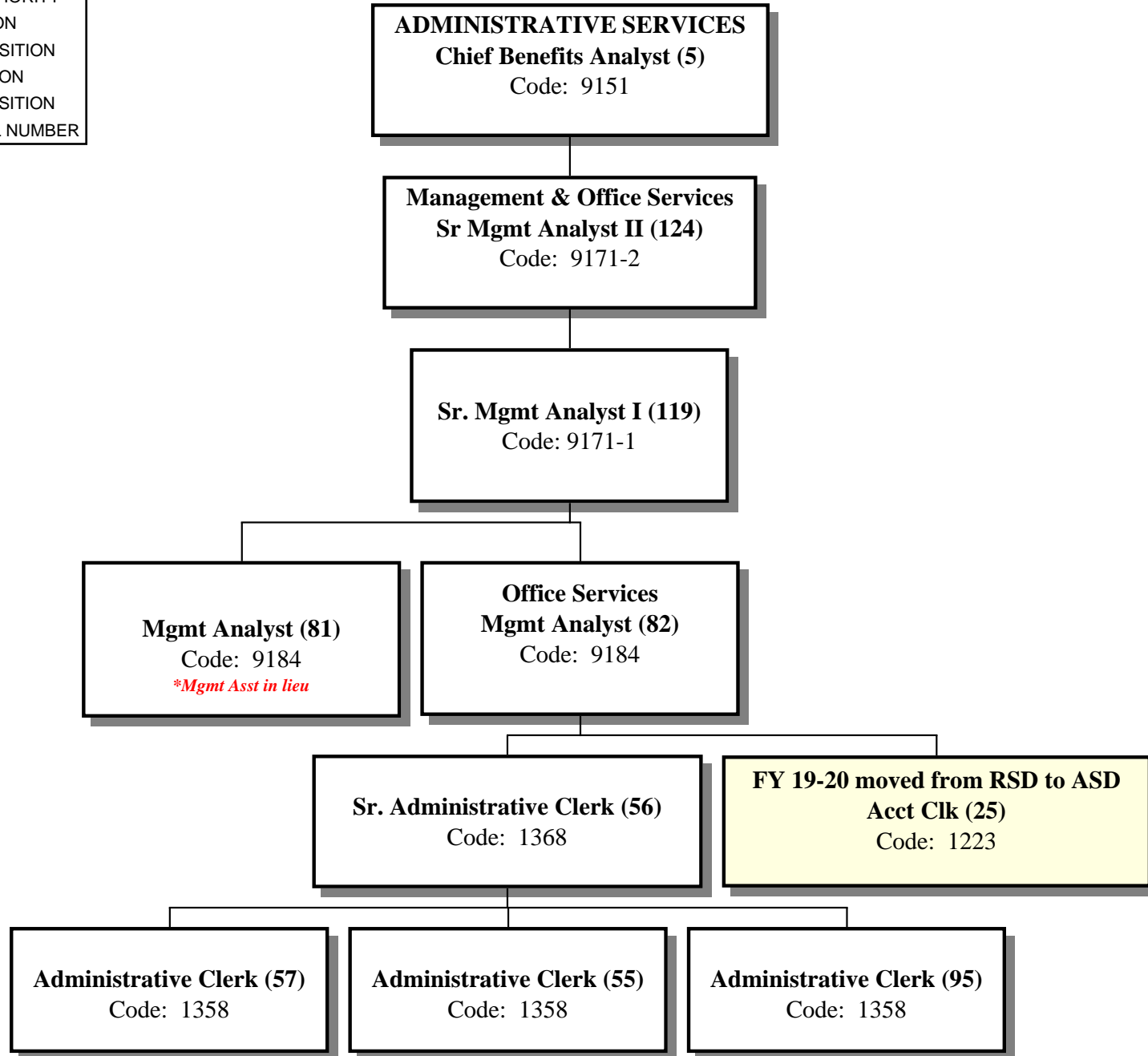
LACERS PROPOSED ORGANIZATIONAL CHART FY 2019/2020

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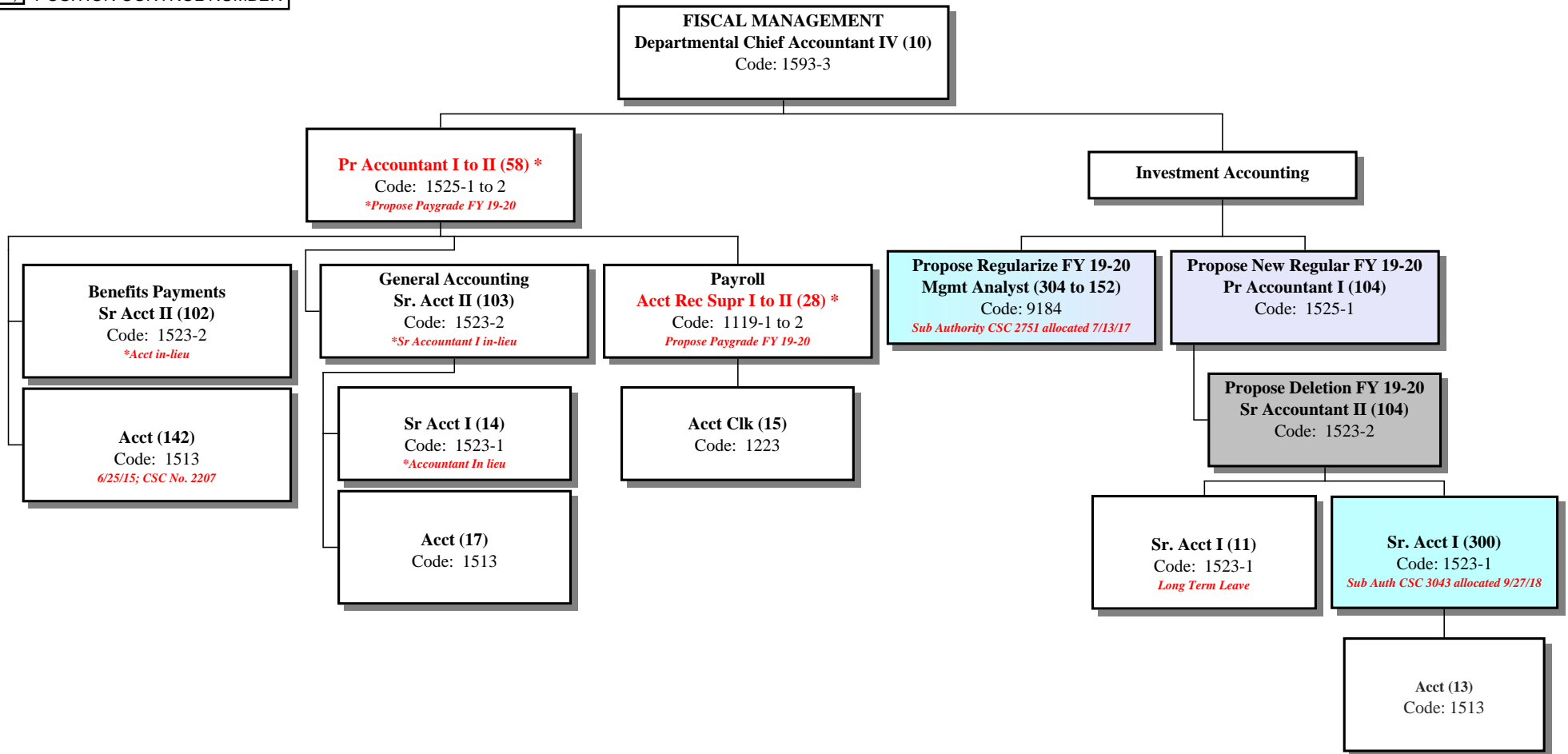
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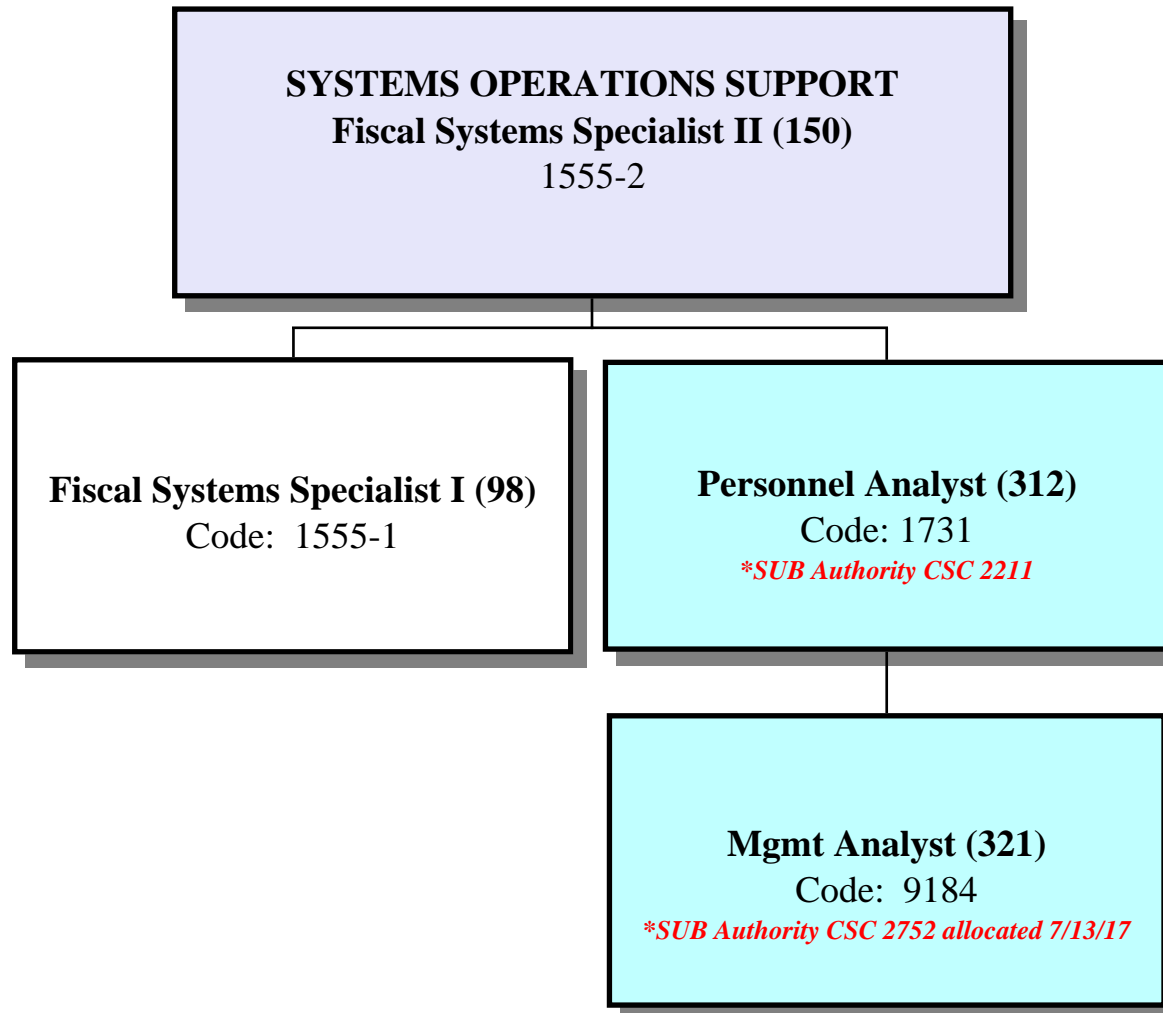
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**LACERS
PROPOSED ORGANIZATIONAL CHART FY 2019/2020**

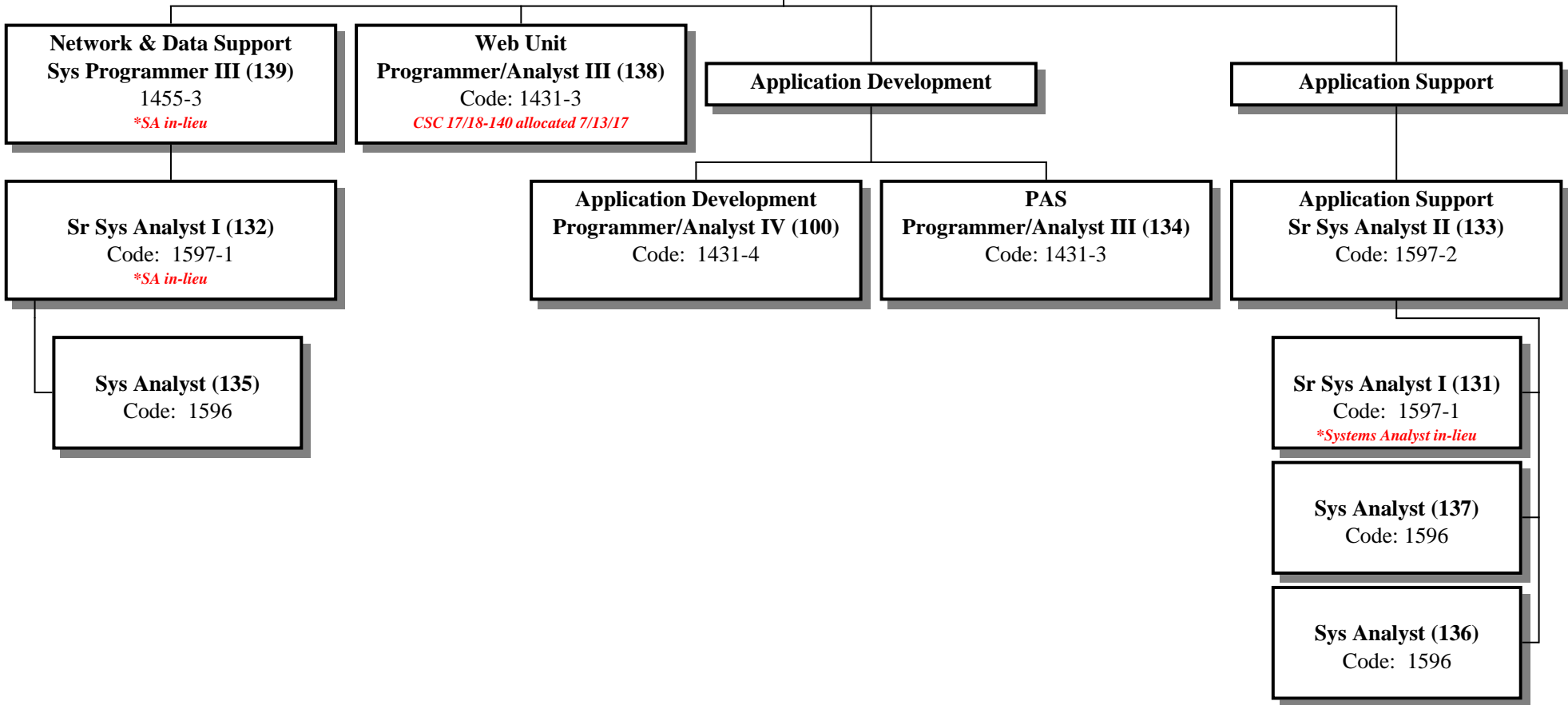
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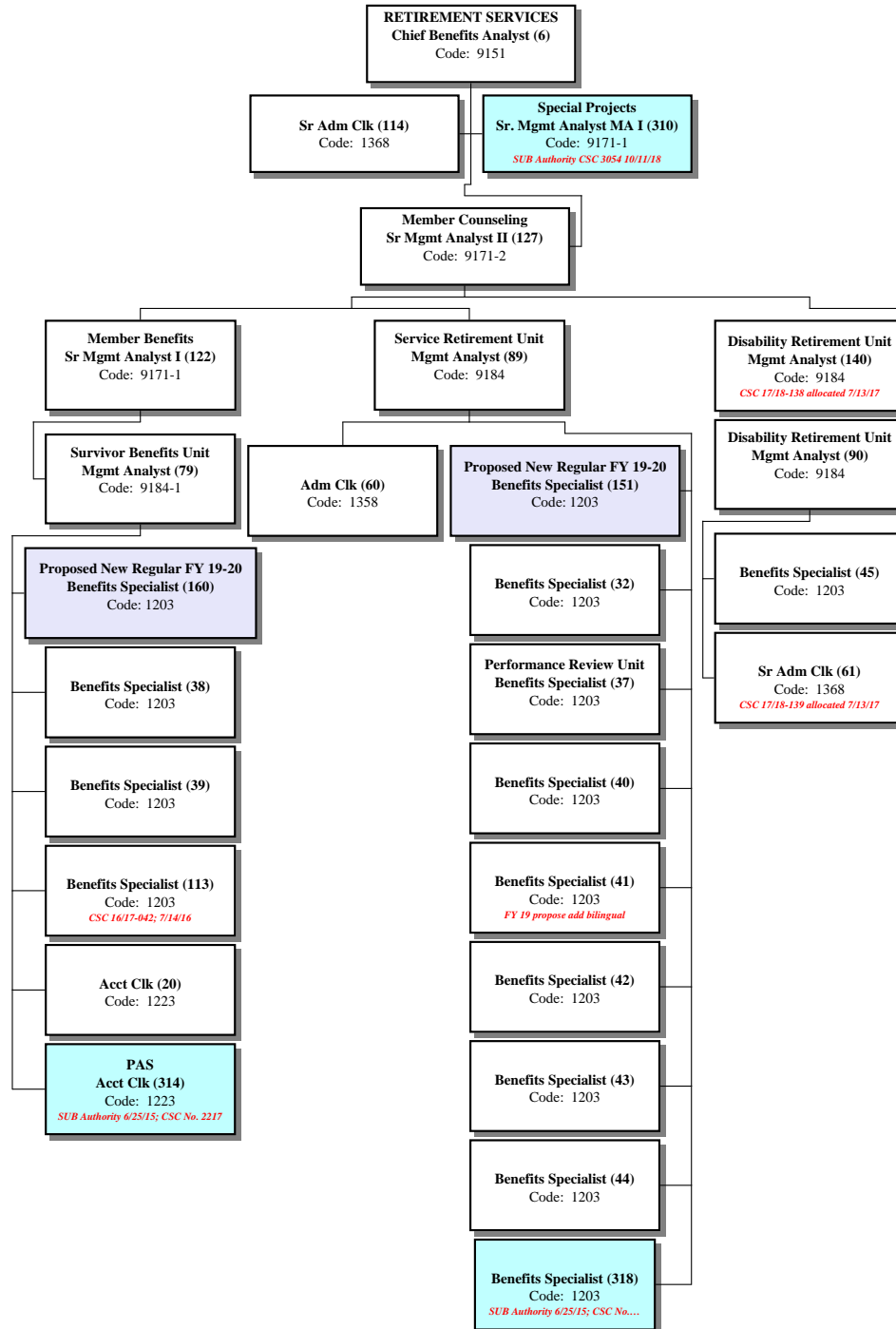
SYSTEMS
Information Systems Manager II (69)
 Code: 1409-2



LACERS

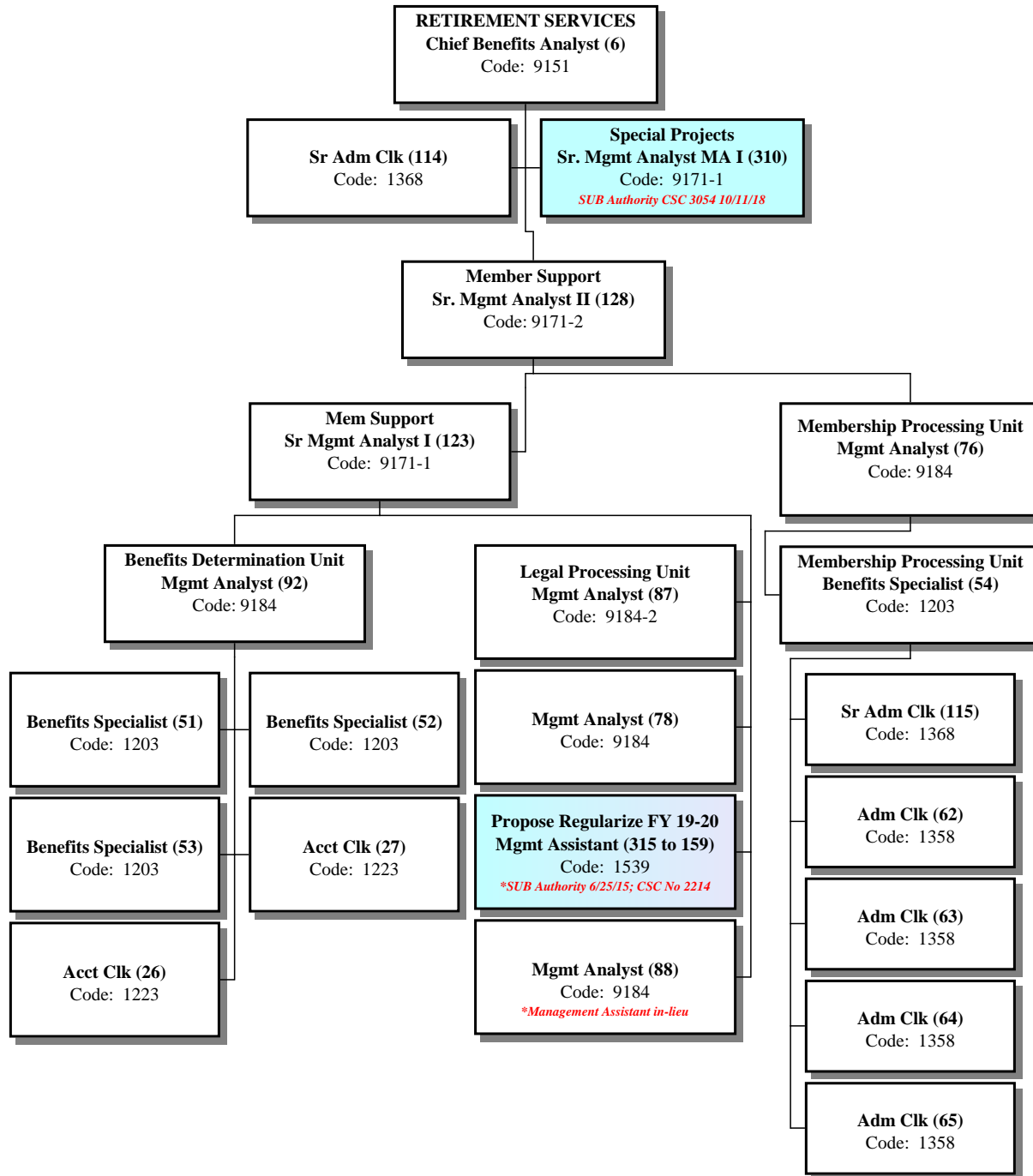
PROPOSED ORGANIZATIONAL CHART FY 2019/2020

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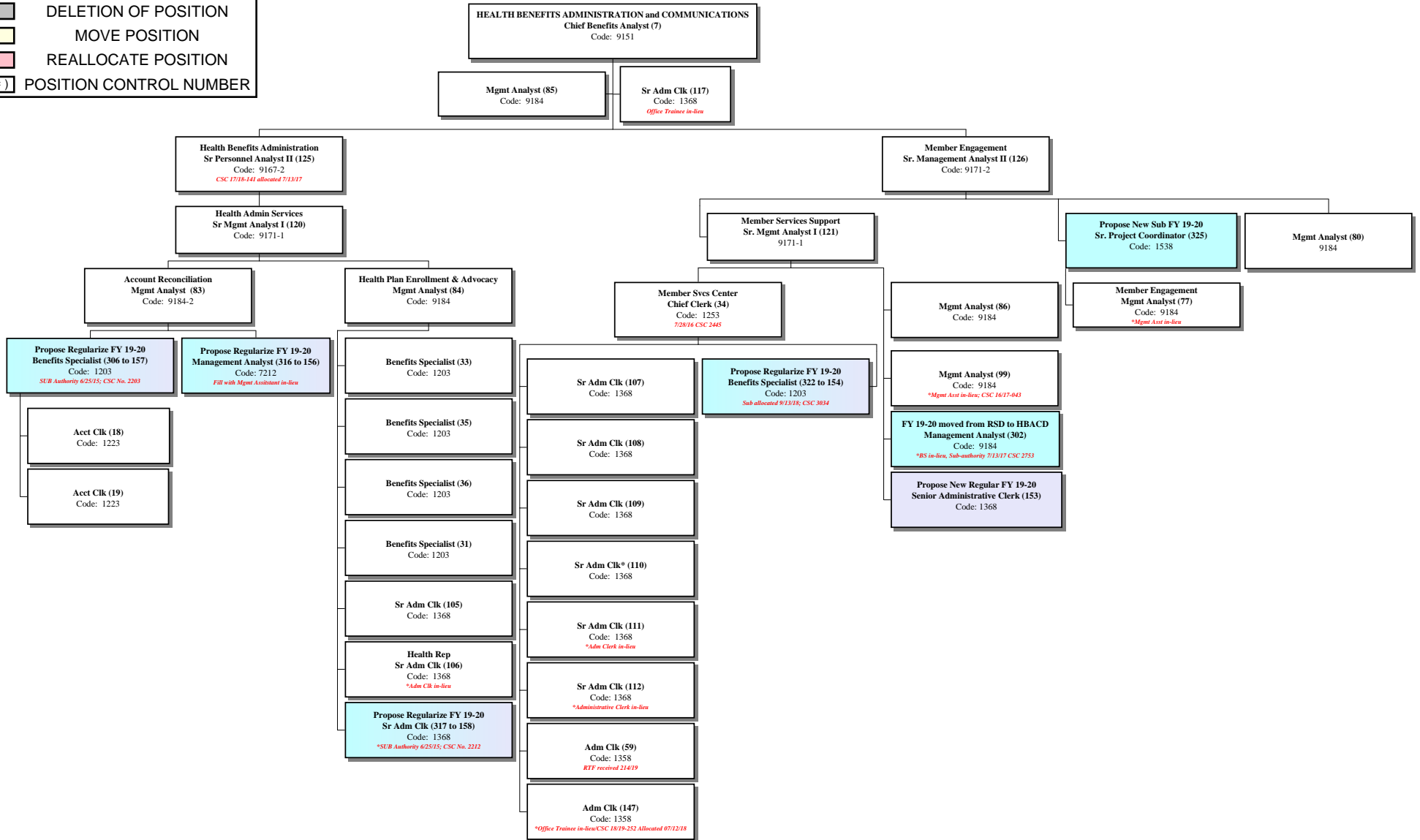
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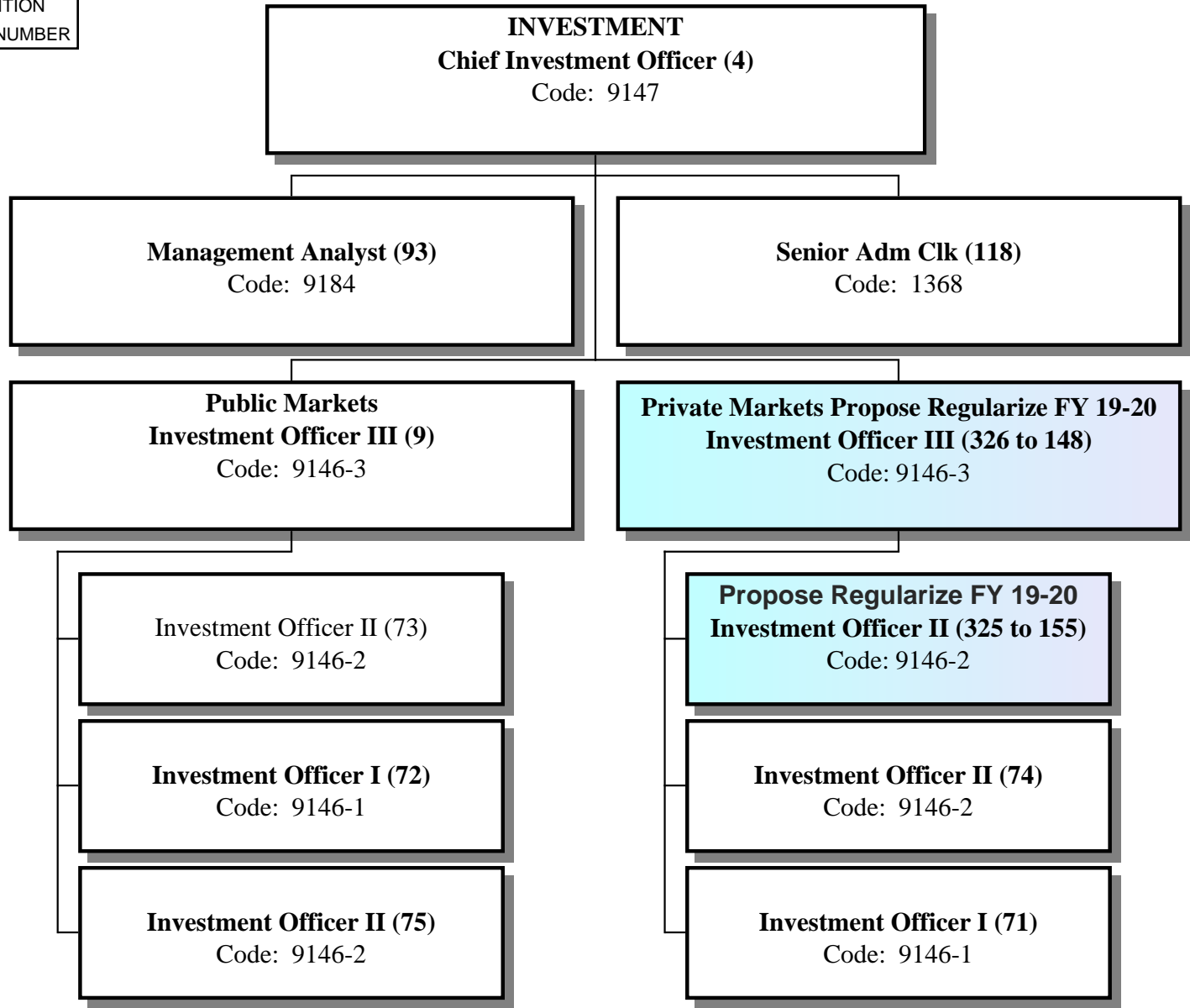
LACERS PROPOSED ORGANIZATIONAL CHART FY 2019/2020

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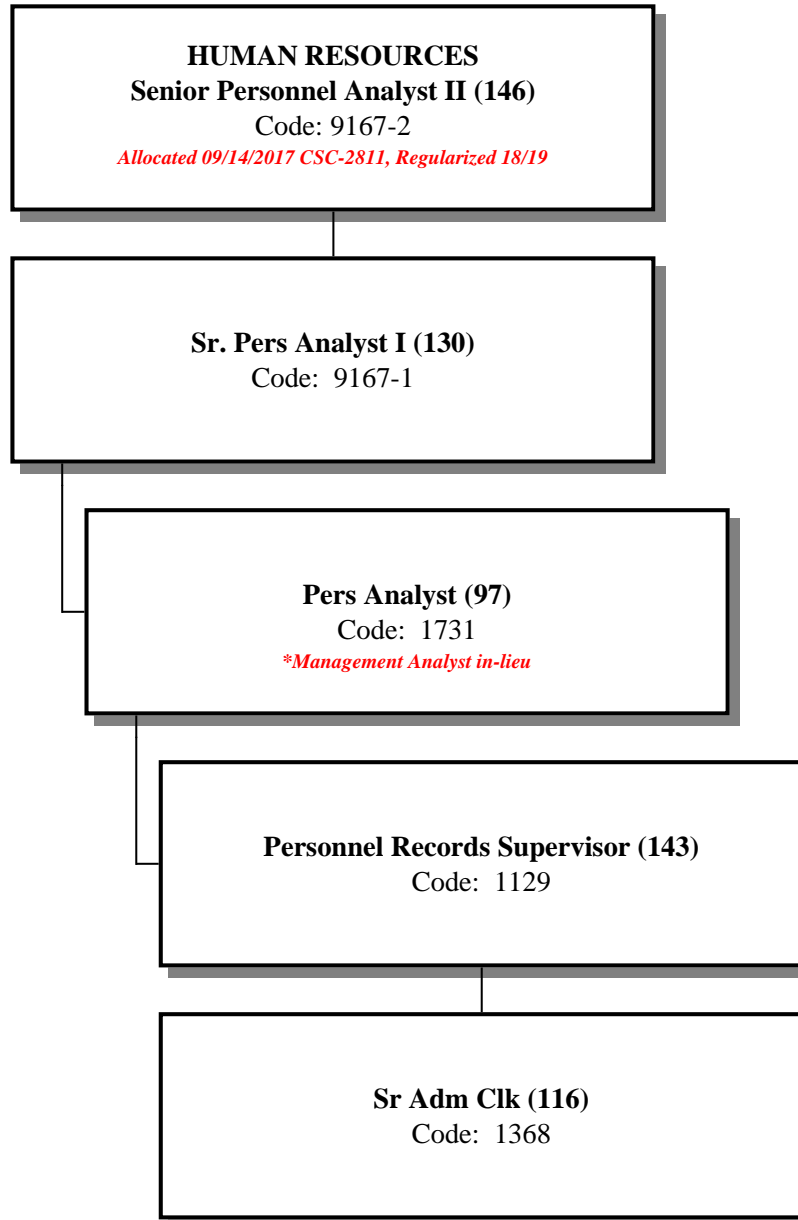
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







LACERS
PROPOSED ORGANIZATIONAL CHART FY 2019/2020

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**LACERS
PROPOSED ORGANIZATIONAL CHART FY 2019/2020**

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	POSITION CONTROL NUMBER

EXECUTIVE LIAISON
Public Information Director I (101)
Code: 1800-1

Administrative Clerk (323)
Code: 1358

LOS ANGELES CITY EMPLOYEES' RETIREMENT SYSTEM

PROPOSED RESOLUTION

AUTHORIZATION FOR
DEPARTMENTAL EXEMPLARY STAFF RECOGNITION PROGRAM
FISCAL YEAR 2019-20

WHEREAS, on March 11, 2003, the Board established a departmental Exemplary Staff Recognition Program to provide a framework for team building and recognition throughout the Department;

WHEREAS, the Board endeavors to continue the program in order to recognize employees for their efforts, and to identify role models who communicate the standards established through our guiding principles;

WHEREAS, funds for program-related expenditures during the 2019-20 Fiscal Year have been included in the FY 2019-20 Departmental budget in order to continue the program; and

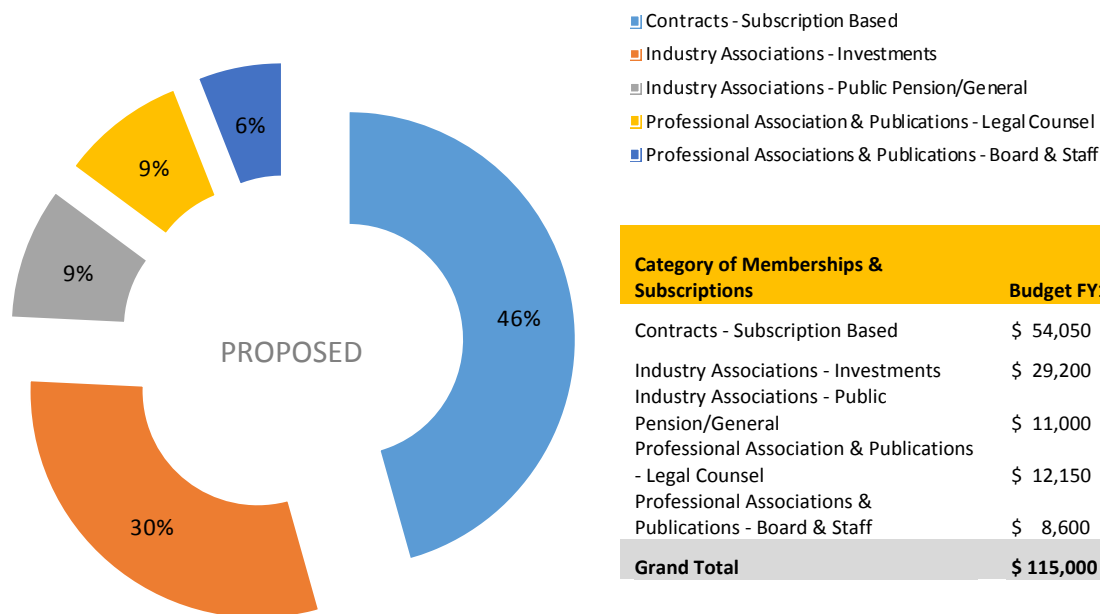
WHEREAS, the Controller's Office requires an annual Board Resolution confirming the establishment of the program in order to process future payments of related expenses;

NOW, THEREFORE, BE IT RESOLVED, that the Board hereby confirms the permanent establishment of the LACERS Exemplary Staff Recognition Program, and authorizes program-related expenditures for Fiscal Year 2019-20 not to exceed \$4,000.

March 26, 2019

Memberships & Subscriptions

2019-20



Category of Memberships & Subscriptions	Budget FY19	Proposed Budget FY20	Change
Contracts - Subscription Based	\$ 54,050	\$ 62,500	\$ 8,450
Industry Associations - Investments	\$ 29,200	\$ 51,225	\$ 22,025
Industry Associations - Public Pension/General	\$ 11,000	\$ 10,730	\$ (270)
Professional Association & Publications - Legal Counsel	\$ 12,150	\$ 12,150	\$ -
Professional Associations & Publications - Board & Staff	\$ 8,600	\$ 10,320	\$ 1,720
Grand Total	\$ 115,000	\$ 146,925	\$ 31,925

CONTRACTS – SUBSCRIPTION BASED

	<u>FY19</u>	<u>FY20</u>	<u>Change</u>
Gartner Subscription (Cyber Security Initiative)	\$ 40,000	\$ 41,200	\$ 1,200
Provides access to reports, conferences, and guidance for developing Cyber security strategies and other technology initiatives. Increase is based on contractual annual escalation.			
Time Warner	\$ 1,800	\$ 5,400	\$ 3,600
Cable and internet services. FY20 proposed budget includes extended services for proposed expanded lease space.			
Annual Callout System Subscription Cost	\$ 5,000	\$ 5,000	\$ 0
Annual subscription for emergency automated call out services to all LACERS' staff and Board.			
Ad-Hoc Subscriptions, Publications, Memberships	\$ 1,250	\$ 4,900	\$ 3,650
FY20 Proposed increase is for expanded Wi-Fi access for public areas.			
I-Contact (E-mail marketing)	\$ 3,000	\$ 3,000	\$ 0
Enables distribution of newsletters and other communications to Active and Retired Members via email.			
Shredding services	\$ 3,000	\$ 3,000	\$ 0
Secure document handling and destruction.			
TOTAL	\$ 54,050	\$ 62,500	\$ 8,450

INDUSTRY ASSOCIATIONS

Educational organizations for public pension plans

INSTITUTIONAL INVESTOR INDUSTRY	<u>FY19</u>	<u>FY20</u>	<u>Change</u>
Council of Institutional Investors [CII]	\$ 18,750	\$ 18,750	\$ 0
Members: Institutional Investors			
Benefits: Education, references, conferences, and advocacy. Goal toward strong governance standards at public companies and strong shareholder rights. Members use their proxy votes, shareowner resolutions, pressure on regulators, discussions with companies and litigation where necessary to effect change.			
<i>Board/Staff non-local conference attendance: FYTD19: 2 FY18: 0 FY17: 1 FY16: 0</i>			
PRI Signatory Membership	\$ 0	\$ 12,000	\$ 12,000
Member: PRI Signatories			
Benefits: PRI Signatories have associated responsibilities and annual reporting with respect to integrating ESG Risk Factors in the decision making toward a more sustainable financial system.			
<i>Board/Staff non-local conference attendance: FYTD19: 2 FY18: - FY17: - FY16: -</i>			
<i>* Annual membership, approved in 2007. Adoption pending.</i>			
Pacific Center for Asset Management	\$ 0	\$ 10,000	\$ 10,000
Members: Asset Owners. Sovereign Wealth Funds, Pension Funds, and Foundations			
Benefits. Research entity at UC San Diego focused on independent, high-quality research needs of asset managers.			
Pacific Pension Institute [PPI]	\$ 6,000	\$ 6,000	\$ 0
Members: Pension and investment professionals			
Benefits: Networking, roundtables, and research.			
<i>Board/Staff non-local conference attendance: FYTD19: 1 FY18: 0 FY17: 2 FY16: 0</i>			
Institutional Limited Partners Association [ILPA]	\$ 4,000	\$ 4,000	\$ 0
Members: Limited Partners			
Benefits: Education, advocacy, resources, and networking.			
<i>Board/Staff non-local conference attendance: FYTD19: 1 FY18: 3 FY17: 1 FY16: 3</i>			
Pension Real Estate Association [PREA]	\$ 350	\$ 350	\$ 0
Members: Institutional real estate investors			
Benefits: Education, research, publications, and networking.			
<i>Board/Staff non-local conference attendance: FYTD19: 1 FY18: 1 FY17: 0 FY16: 2</i>			
Pensions West Membership	\$ 100	\$ 125	\$ 25
Members: Public and corporate pension plans on the West Coast			
Benefits: Investments staff participates in 2-3 quarterly meetings each year to exchange information on pension plan investments, member benefit issues, legislation, and other issues of common interest.			
<i>Board/Staff non-local conference attendance: FYTD19: 1 FY18: 1 FY17: 0 FY16: 0</i>			
TOTAL	\$ 29,200	\$ 51,225	\$ 22,025

PUBLIC PENSION INDUSTRY	<u>FY19</u>	<u>FY20</u>	<u>Change</u>
National Association of State Retirement Administrators (NASRA)	\$ 2,900	\$ 2,900	\$ 0
Members: State public pension systems nationwide			
Benefits: Education, research, networking, industry data and analysis, and conferences.			
<i>Board/Staff non-local conference attendance: FYTD19: 0 FY18: 4 FY17: 3 FY16: 2</i>			
California Association of Public Retirement Systems [CALAPRS]	\$ 2,500	\$ 2,500	\$ 0
Members: Trustees and staff of California public retirement systems			
Benefits: Educational forums, conferences, networking, training, and roundtables.			
<i>Board/Staff non-local conference attendance: FYTD19: 0 FY18: 6 FY17: 10 FY16: 8</i>			
<i>* Extensive use of local conferences and training not reflected above</i>			
National Conference On Public Employees Retirement Systems [NCPERS]	\$ 2,000	\$ 2,000	\$ 0
Members: Public sector pension funds nationwide			
Benefits: Public pension advocacy, education, and research.			
<i>Board/Staff non-local conference attendance: FYTD19: 0 FY18: 2 FY17: 1 FY16: 2</i>			
International Foundation of Employee Benefits Plans [IFEBP]	\$ 1,800	\$ 1,830	\$ 30
Members: Employee benefits community nationwide			
Benefit: Education, research, CEBS certification, conferences, Wharton courses.			
<i>Board/Staff non-local conference attendance: FYTD19: 3 FY18: 3 FY17: 1 FY16: 3</i>			
State Association of County Retirement Systems (SACRS)	\$ 1,500	\$ 1,500	\$ 0
Members: Defined benefit pension plans in California counties			
Benefits: Training, networking, and conferences.			
<i>Board/Staff non-local conference attendance: FYTD19: 2 FY18: 2 FY17: 0 FY16: 1</i>			
Public Retirement Information Systems Management (PRISM)	\$ 300	\$ 0 ¹	\$ -300
Members: IT managers of public retirement funds			
Benefits: Peer information exchange, conferences, RFP hosting.			
<i>Board/Staff non-local conference attendance: FYTD19: 0 FY18: 0 FY17: 0 FY16: 0</i>			
TOTAL	\$ 11,000	\$ 10,730	\$ -270

¹ Removed funding as staff has not attended conferences in a number of years and is not planning to attend in the coming year.

PROFESSIONAL ASSOCIATIONS & PUBLICATIONS

Used by staff members performing in their respective capacity of attorney, human resource professional, internal auditor, financial administrator, investment professional.

CITY ATTORNEY²	<u>FY19</u>	<u>FY20</u>	<u>Change</u>
Mathew Bender (LexisNexis) Legal research, business research, and risk management services. Printed copies of laws, codes, and procedures.	\$ 4,500	\$ 4,500	\$ 0
Continuing Education of the Bar CA Civil Writ Practice Legal publications concerning California Civil Writ petitions.	\$ 500	\$ 2,550 ³	\$ 2050
National Association of Public Pension Attorneys (NAPPA) Members: Attorneys representing public pension funds Benefits: Education, conferences, and information exchange with peers. <i>Board/Staff non-local conference attendance: FYTD19: 0 FY18: 4 FY17: 3 FY16: 2</i>	\$ 2,000	\$ 2,000	\$ 0
West Publishing (Thomson Reuters) Information regarding current court practices and procedures.	\$ 2,000	\$ 2,000	\$ 0
American Law Institute - Restatement of Trusts Legal Publication Reference volume on trust law.	\$ -	\$ 600	\$ 600
Daily Journal Articles and updates on the status of State and Federal legislation, daily appellate reports, and verdicts.	\$ 2,500	\$ 500	\$ - 2,000
Continuing Education of the Bar - Administrative Mandamus Legal publications concerning administrative mandate decisions.	\$ 400	\$ - ⁴	\$ -400
Continuing Education of the Bar Dividing Pensions Legal Publications relating to dissolution of marriage cases.	\$ 250	\$ - ⁵	\$ -250
TOTAL	\$ 12,150	\$ 12,150	\$ 0

LACERS STAFF

Wall Street Journal Digital and/or print subscriptions for Board and Staff. Provides economic and general news.	\$ 3,650	\$ 4,250	\$ 600
Charter Financial Analyst (CFA) LA Society Members: Investment management professionals. Benefits: Membership dues for the CFA professional designation of two Investment staff.	\$ 1,000	\$ 1,075	\$ 75

² Retirement Benefit Office City Attorney expenses are shared between the three City pension systems on a pro-rata basis based on percentage of use of attorneys as determined by the Office of the City Attorney. LACERS bills the other two systems annually.

³ Increase due to consolidation of accounts

⁴ Reduced due to consolidation of accounts

⁵ Reduced due to consolidation of accounts

	<u>FY19</u>	<u>FY20</u>	<u>Change</u>
Charter Alternative Investment Analyst (CAIA)	\$ 1,050	\$ 1,050	\$ 0
Members: Charter Alternative Investment Analysts			
Benefits: Membership dues for the CAIA professional designation of two Investment staff.			
National Notary Association	\$ -	\$ 1,000	\$ 1,000
Members: Notaries			
Benefit: Certification dues, supplies, services, training, information for one on-staff notary.			
Government Finance Officer Association [GFOA]	\$ 600	\$ 1,000	\$ 400
Members: Public finance officials			
Benefits: Education, research, conferences. Membership for two administrative managers.			
<i>Board/Staff Non-local conference attendance: FYTD19: * FY18: 0 FY17: 0 FY16: 0</i>			
<i>* Several staff will attend the Los Angeles conference in May</i>			
Institute of Internal Auditors	\$ 300	\$ 495	\$ 195
Members: International professional association for the internal audit profession			
Benefits: Education, research, professional standards, information exchange with peers. Used by two Internal Audit staff.			
<i>Board/Staff Non-local conference attendance: FYTD19: 0 FY18: 0 FY17: 0 FY16: 0</i>			
SCPMA – HR Southern California Chapter of IPMA-HR	\$ 600	\$ 400	\$ -200
Members: Public sector human resources professionals – Southern California Chapter			
Benefits: Education, conferences, resources, information exchange with peers for four HR staff			
<i>* Attends local conferences only</i>			
Financial Times	\$ -	\$ 400	\$ 400
On-Line Publication. New investment publication requested by the Board office for Commissioners.			
Association of Public Pension Fund Auditors [APPFA]	\$ 350	\$ 350	\$ 0
Members: Public pension fund auditors			
Benefits: Professional development and networking opportunities; and information exchange with peers for two Internal Audit staff.			
<i>Board/Staff Non-local conference attendance: FYTD19: 1 FY18: 0 FY17: 0 FY16: 2</i>			
Assn of Local Government Auditors (ALGA)	\$ 200	\$ 300	\$ 100
Members: Local government auditors			
Benefits: Education, resources, training, publications for two Internal Audit staff.			
<i>Board/Staff Non-local conference attendance: FYTD19: 0 FY18: 0 FY17: 1 FY16: 0</i>			
IPMA – HR	\$ 850	\$ - ⁶	\$ -850
Members: Public sector human resources professionals			
Benefits: Education, conferences, resources, information exchange with peers. Used by four HR staff.			
<i>Board/Staff Non-local conference attendance: FYTD19: 0 FY18: 2 FY17: 2 FY16: 4</i>			
TOTAL	\$ 8,600	\$ 10,320	\$ 1,720
GRAND TOTAL	\$ 115,000	\$ 146,925	\$ 31,925

⁶ City began covering the cost for all Departments.



LACERS

LOS ANGELES CITY EMPLOYEES'
RETIREMENT SYSTEM



Report to Board of Administration

From: *FOR [Signature]*
Neil M. Guglielmo, General Manager

Agenda of: **MARCH 26, 2019**

ITEM: **VII-A**

SUBJECT: TRAVEL AUTHORITY – RODNEY JUNE, CHIEF INVESTMENT OFFICER; CEM INVESTMENT BENCHMARKING CLIENT WORKSHOP, TORONTO, CANADA; APRIL 3-4, 2019 AND POSSIBLE BOARD ACTION

Recommendation

That the Board authorize Rodney June, Chief Investment Officer, to attend the CEM Investment Benchmarking Client Workshop on April 3-4, 2019 (travel dates April 2-4, 2019) in Toronto, Canada; and authorize the reimbursement of up to \$2,000 for Rodney June for reasonable expenses in connection with participation.

Discussion

Pursuant to the Board Education and Travel Policy (Policy), Board approval is necessary for this travel request because this workshop requires international travel to Toronto, Canada.

Strategic Plan Impact Statement

This request to attend the CEM Benchmarking Client Workshop, a professional and educational conference which requires international travel, conforms to the LACERS Strategic Plan Board Governance Goal of upholding good governance practices which affirm transparency, accountability, and fiduciary duty.

This report was prepared by Amy Petrique, Senior Administrative Clerk, Investment Division.

RJ:BF:AP

- Attachments:
- A) Estimate of Reimbursable Expenses
 - B) Tentative Schedule/Agenda
 - C) Proposed Resolution

CITY OF LOS ANGELES
Intra-Departmental Correspondence

DATE: March 15, 2019

TO: Accounting Section, LACERS

FROM: Amy Petrique, Senior Administrative Clerk

SUBJECT: ESTIMATE OF REIMBURSABLE EXPENSES

Name of Attendee Title	Rodney June, Chief Investment Officer	
Event	CEM Benchmarking Client Workshop	
Organization	CEM Benchmarking	
Date(s) of Event	April 3-4, 2019 (Travel Dates April 2-4, 2019)	
Location of Event	Toronto, Ontario, Canada	
ESTIMATED EXPENSES:	Forum Registration	NO FEE
	Hotel: \$375.00/ Night x 2	\$750.00
	Miscellaneous: (\$30 per day) x 3 days	\$90.00
	State Department Per diem (\$107/day) 3 days @ \$107.00 each	\$321
	Airport Parking at LAX	\$60.00
	Taxi (RT) YYZ from/to Hotel	\$125.00
	Airfare (RT) LAX/YYZ (Toronto, Canada)	\$352.00
	TOTAL ESTIMATE:	\$1,698.00

CEM Investment Benchmarking Client Workshop

Draft agenda
 April 3-4th, 2019
 Omni King Edward Hotel
 37 King St. East, Toronto

Wednesday April 3, 2019

8:00 AM 9:00 AM [Breakfast & registration](#)

9:00 AM 9:15 AM [Welcome and opening remarks](#)

9:15 AM 10:00 AM [Managing costs and optimizing outcomes](#)

Lessons learned from benchmarking our defined benefit participants. Which asset classes have contributed to performance, what implementation style has been the most successful?

10:00 AM 10:30 AM [Full time equivalent benchmarking](#)

CEM has been benchmarking staffing levels at large organizations. There are staffing rule of thumbs that will help you staff up properly and plan for future changes in asset size and asset mix.

10:30 AM 11:00 AM [Coffee break](#)

11:00 AM 12:00 PM [The continuing evolution of private equity investing](#)

A detailed overview of the asset class, performance trends, structure of investments, CEM's methodology and position on costs, differences in benchmarks being used, our Limited Partnership report and more. Where do we go from here?

12:00 PM 1:00 PM [Lunch](#)

1:00 PM 1:45 PM [Transaction costs](#)

Pressures to collect, report, and manage transaction costs are increasing for funds internationally. In the Netherlands, UK, and Australia, CEM clients are being mandated to collect and report 'all' transaction costs: commissions on equities and exchange-traded derivatives, bid-ask spreads for fixed income and other derivatives, transaction costs for private assets, and even costs within hedge funds. Join us to learn about our latest transaction cost insights.



- 1:45 PM 2:30 PM [Performance insights: Have fund added value and from where?](#)
The majority of investment costs is spent searching for alpha. Over the past 25+ years, how have funds really performed? In this session, you'll gain insight into the characteristics of funds that added value, see asset classes that added real value, and
- 2:30 PM 3:00 PM [Coffee break](#)
- 3:00 PM 3:30 PM [Learning from around the globe: Differences in performance, costs, styles, etc.](#)
CEM has been collecting data from pension funds outside of North America since 1994. This session will highlight what we have learned from our clients in Europe, Australasia, and Latin America.
- 3:30 PM 4:15 PM [Comparability issues in annual reports and examples of best practice disclosures](#)
CEM compared the annual reports of DB funds around the world. The review indicated large differences in 'investment expense' due to inconsistent treatment of many different expenses and costs. Understand the differences in case you are asked to explain why your costs are higher or lower than XYZ fund. If you must file an annual report, we will show you examples of best practice disclosures.
- 5:45 PM 9:00 PM [Networking dinner](#)
Join your peers in a venue conducive to networking while sampling from a range of food stations.

Thursday April 4, 2019

- 8:00 AM 9:00 AM [Breakfast & registration for those joining us today](#)
- 9:00 AM 9:45 AM [CEM online reporting](#)
CEM is revolutionizing how we deliver our insights and analysis to our clients with online reporting. It has been in the works for many years and is close to being launched! We will demonstrate our online reporting capabilities and would appreciate your feedback.
- 9:45 AM 10:30 AM [Hedge fund reality](#)
Most hedge fund portfolios have tracked a stock-bond mixture closely, while underperforming due to costs. We will examine the implications for investors: Can value be extracted from hedge fund strategies? What investors have outperformed?
- 10:30 AM 11:00 AM [Coffee break](#)



11:00 AM 12:00 PM [Changes/discussion to CEM DB survey and report](#)

We will be soliciting your feedback on a number of items including: treatment of hedge funds, transaction costs, breakdown of asset classes, etc. This is also an opportunity to send us your thoughts and requests for review and discussion together.

12:00 PM 1:00 PM [Lunch](#)

1:00 PM 1:45 PM [Increasing the likelihood of success for your DC plan members](#)

DC plan sponsors have made significant plan design changes that have improved the likelihood of success for plan members. Those with the biggest impact will be discussed as well as others that DC plan sponsors might want to consider implementing.

1:45 PM 2:30 PM [Target date funds: Custom vs. off the shelf?](#)

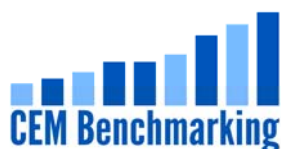
The merits and detractions of custom versus off the shelf target date funds will be discussed along with other target date fund statistics such as differences in glide paths, costs, etc.

2:30 PM 3:00 PM [Coffee break](#)

3:00 PM 4:00 PM [DC survey report and changes and discussion](#)

We will be soliciting your feedback on a number of items including: our new target date section, Sharpe ratios, are there other fees we should be capturing, etc. This is also your opportunity to send us your thoughts and requests for review and discussion together.

4:00 PM 4:05 PM [Conference close/wrap up](#)



**TRAVEL AUTHORITY
CEM BENCHMARKING CLIENT WORKSHOP
APRIL 3-4, 2019
TORONTO, CANADA**

PROPOSED RESOLUTION

WHEREAS, Board approval is required for all international travel requests;

WHEREAS, the CEM Benchmarking Client Workshop in Toronto, Canada is international travel, and therefore requires approval;

WHEREAS, the request to attend the CEM Benchmarking Client Workshop, a professional and educational conference which requires international travel, conforms to the LACERS Strategic Plan Board Governance Goal of upholding good governance practices which affirm transparency, accountability, and fiduciary duty;

THEREFORE, BE IT RESOLVED, that Rodney June, Chief Investment Officer is hereby authorized to attend the CEM Benchmarking Client Workshop on April 3-4, 2019, in Toronto, Canada;

BE IT FURTHER RESOLVED, that the reimbursement of up to \$2,000 for Rodney June, Chief Investment Officer is hereby authorized for reasonable expenses in connection with participation and will be applied to the 2018-19 Fiscal Year budget.

March 26, 2019

ESG in Investment

**Presentation to the Board of the Los Angeles City Employees'
Retirement System**

**Ken Bertsch
Executive Director, Council of Institutional Investors
March 26, 2019**

CII and its Mission

- CII was founded in 1985 by public pension funds concerned that long-term investors needed a voice at U.S. publicly-held companies and with capital market regulators
- CII works to improve capital markets and corporate governance, in support of long-term value creation and effective management of risks
 - CII's member-approved corporate governance policies inform investor expectations for companies that tap U.S. securities markets
 - CII members know from experience that governance failures – including ineffective boards, poorly structured executive compensation and regulatory gaps – can destroy shareholder value
 - CII advocates for financial rules that support vibrant and fair capital markets, long-term returns, effective disclosure and strong shareholder rights
 - CII devotes primary attention to U.S. companies and capital markets, but also advocates for U.S. investor interests with overseas regulators and exchanges

CII Founding Principles

- Investors and markets benefit when:
 - Corporate boards provide robust and effective oversight of management
 - Directors are accountable to owners
 - Appropriate rules and regulations protect investors and ensure that important information gets to the marketplace promptly and transparently
- CII focuses on “big tent” areas of agreement among the voting membership, which is comprised of asset owners
- Investors benefit by understanding a broad range of perspectives on corporate governance and capital markets

CII Membership

- CII member organizations are fiduciaries with significant stakes in U.S. capital markets and long investment horizons
- CII's [General Membership](#) of more than 135 asset owners – public, union and corporate employee benefit plans, other state or local agencies investing public fund assets, endowments and foundations – have \$4 trillion in assets
- CII also has more than 140 non-voting [Associate Members](#), including many of the largest global asset managers, with more than \$35 trillion in AUM

Through the involvement of a diverse mix of market participants, CII takes a balanced, thoughtful approach to corporate governance and investor protection

ESG Programs at U.S. Public Pension Funds

- U.S. public pension funds pursue ESG in investment in various ways
 - Use of proxy vote and company engagement (or advocacy with outside managers) to promote sustainability
 - Integration of sustainability factors in investment decisions, either through advocating or requiring outside managers to take certain steps, and/or in internal investment functions
 - Submission of shareholder proposals to promote best practices and policies, often informally or formally in tandem with other shareholders, facilitated by CII participation and through such groups as the Interfaith Center on Corporate Responsibility
 - Advocacy (including through CII) at regulators, stock exchanges, companies and private sector bodies such as the Sustainability Accounting Standards Board, CDP and the Global Reporting Initiative for effective disclosure regimes, fair market structures, shareholder rights and effective corporate governance
 - Placing investments with activist funds focused on underperforming, poorly-governed companies (with increased focus recently on broader sustainability activism)
 - Oversight of outside managers, including in private equity, venture capital, real estate
 - Careful policy around divestment and other selective investment, impact investing

ESG Programs at U.S. Public Pension Funds

- Signing on to the Principles of Responsible Investment (PRI) is a method for funds to make a public commitment, with accountability to PRI including through annual reporting
- Efforts geared toward ESG can take place with or without becoming a PRI signatory
 - About one-fifth of CII public fund members are PRI signatories
- U.S. public pension fund ESG work is aimed at promoting long-term sustainability and returns, and funds generally justify costs for such work within this framework
 - Conscientious proxy voting generally seen as a plan fiduciary responsibility; the vote has value
 - Proxy advisory firms are widely seen as critical supports for streamlining costs, helping some funds to allocate more resources to value-added work in company engagement, including in some cases through shareholder proposals
 - Investment stewardship program commitment beyond proxy voting varies widely among funds
- Attention tends to center on public equity, but some funds also pursue sustainability work around fixed income and alternative investments

CII and ESG

- Public funds leverage CII membership to promote shareholder rights and effective disclosure, including tools to promote sustainability in investment, including shareholder proposals
- Beyond fair and effective capital market ground rules, CII's advocacy agenda tends to focus on the "G" (Governance)
- CII educational programming covers environmental and social factors (as well as governance and capital markets more broadly)
 - Recent CII educational programming has included (as examples):
 - Climate-related financial disclosure
 - Human capital management
 - How Japan's national pension fund enhances stewardship
 - Corporate responsibility related to the opioid crisis
 - Fixed income perspective on corporate governance and sustainability
- CII also works to foster best practices in shareholder engagement with boards on the broad range of ESG issues

CII and PRI

- CII has no formal relationship with PRI
- That said, CII and PRI frequently attend each others' conferences, and PRI has presented to the CII board
- CII and PRI have significant areas of aligned interests, including in defending shareholder rights; and promoting good disclosure, governance and risk management with respect to E&S matters
- A number of global investor-oriented corporate governance organizations work together in various ways, including PRI, CII, the International Corporate Governance Network, the Asia Corporate Governance Association, Focusing Capital on the Long-term, and many national investor organizations in addition to CII

Research on ESG in Investment

- 2017 MSCI Analysis: [Giese, Lee, Melas, Nagy, Nishikawa](#)
 - ESG performance empirically associated with:
 - Lower cost of capital
 - Higher valuation and profitability
 - Lower exposure to tail risk
 - “Classical” factors (e.g. stock price momentum and low volatility) have short-term impact (months), whereas ESG, though “lower in intensity” relative to classical factors, carries impact lasting several years.
 - *Transmission from ESG to financial value is a multi-channel process, as opposed to factor investing where the transmission mechanism is typically simpler and one dimensional.*
- 2015 Oxford Meta Analysis of Studies: [Clark, Feiner, Viehs](#)
 - 90% of studies show that “sound ESG standards” lower the cost of capital.
 - 88% of studies show “solid ESG practices” result in better operational performance
 - 80% of studies show that stock price performance is positively influenced by “good sustainability practices”

Perspective on Divestment

- CII members come under pressure to divest based on various ESG issues, and most often resist that pressure, on the view that narrowing the investment universe for reasons not directly related to long-term return can reduce returns
 - Many also believe that engagement is more impactful than divestment
- As a general matter, CII members have favored engagement with companies and, to the extent permissible, with other shareholders, rather than divestment
 - Focus on use of the vote and shareholder proposals at company annual meetings
 - Engagement with board members and management on such matters as risk management related to climate change and other environmental matters
 - Improved board governance related to corporate culture (such as risks around sexual harassment)
 - Getting executive incentives right (with attention on CEO pay in particular)
- Limits to engagement on guns, private prisons, tobacco

Outlook on E, S and G

- Relevance, quality and comparability of E&S data to improve
 - Multiple existing frameworks moving toward convergence – look for initial report in 3Q from the [Better Alignment Project](#)
 - Materiality to investment decision-making critically important
 - Longer-term question: Should this information be audited?
- ESG integration likely to trickle down to smaller funds
 - 72% of large funds (>\$20 bn) have incorporated ESG factors into investment decisions; remains a minority practice at smaller funds – see [Callan study](#)
- Communication and co-ordination will strengthen
 - For companies: among board members, C-suite, IR, corporate secretary’s office, CSR teams
 - For institutional investors: among trustees, CIOs, portfolio managers and proxy voting/engagement staff
- Lines will blur between different types of institutional investors, with even passive funds highly engaged, and more “non-activist” holders taking “activist” stances

Key ESG Legislation and Regulation

- U.S. Congressional actions
 - Critical historic role of Sarbanes-Oxley and Dodd-Frank
 - Recent focus on proxy advisory firms, shareholder proposals and governance disclosure
 - IPO debates, and potential for diluting investor protections
- Current legislative initiatives
 - Disclosure on and shareholder oversight of political and charitable contributions
 - Enhanced requirements on company disclosures on sustainability and of climate-related risks
 - Enhanced disclosure of human capital management policies, practices and disclosures
 - Mandated SEC review of certain insider trading regulation
- The interplay between legislation and regulation, particularly by the SEC
 - Role of petitions to the SEC (including recent petitions such as one on human capital management disclosure)
 - CII work with SEC on improving system of share ownership, motivated in part by problems on reliability, transparency of proxy voting
- Stewardship developments overseas
- State legislation

PORTFOLIO PERFORMANCE REVIEW

LOS ANGELES CITY EMPLOYEES' RETIREMENT SYSTEM

Quarter Ending December 31, 2018

March 26, 2019



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

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EXECUTIVE SUMMARY

NEPC, LLC

EXECUTIVE SUMMARY

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
1.1%	13.3	-38 bps	-13.5%	-12.5%	-7.5%	1.6%	-4.5%	-1.2%	-38.0%	7.7%	-6.0%

LACERS Investment 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	\$16,270,764,175	-7.23%	59	-4.84%	71	-3.89%	77	6.66%	59	5.24%	59	8.98%	44	6.78%	47	7.91%	Oct-94
Policy Index		-8.25%	82	-5.39%	80	-5.04%	89	6.50%	71	4.90%	81	9.06%	43	6.54%	59	7.80%	Oct-94
InvestorForce Public DB \$5-50B Gross Median		-6.61%		-4.10%		-3.21%		6.81%		5.46%		8.65%		6.76%		7.91%	Oct-94

- **Global equities sold off during the quarter due to concerns surrounding Fed rate increases, trade disputes and slowing global growth**
 - US equity composite declined 14.9%, while non-US developed (-13.6%) and emerging markets (-7.8%) delivered slightly better results
 - Fourth quarter results in particular dragged US equities into negative territory for 2018
- **Investor risk aversion also spread to fixed income markets, which delivered mixed results**
 - Credit opportunities composite declined 2.8%, while more defensive positioning, such as core bonds (+1.3%), avoid losses
- **Real assets, particularly commodities, also experienced losses as a sharp decline in oil prices weighed on results**



MARKET OUTLOOK

NEPC, LLC

MACRO PERFORMANCE OVERVIEW

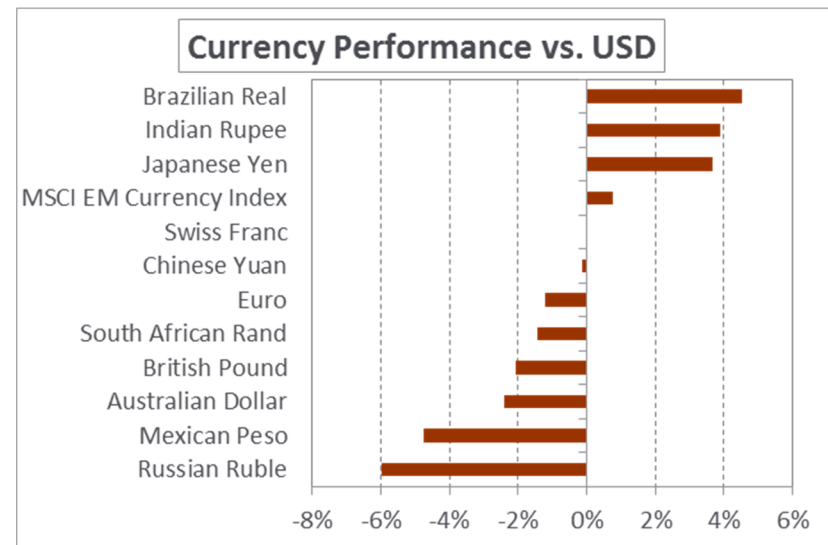
Q4 Macro Market Summary

- **Global growth has been revised lower and the outlook is likely to moderate in 2019**
- **Developed government bond yields decreased as demand for safe haven assets increased**
- **Global liquidity tightened as the Fed raised rates and the ECB ended the expansion of its QE program**

Central Banks	Current Rate	CPI YOY	Notes from the Quarter
Federal Reserve	2.25% - 2.50%	2.2%	The Fed increased its benchmark interest rate 0.25% to 2.25% - 2.50% in December
European Central Bank	0.0%	1.9%	The ECB maintained its current benchmark interest rate, but ended the expansion of its QE bond-buying program
Bank of Japan	-0.1%	0.8%	The BoJ will continue its ultra-easy QE program with inflation remaining well below target

	Yield 09/29/18	Yield 12/31/18	Δ
US 10-Yr	3.06%	2.68%	-0.38%
US 30-Yr	3.21%	3.01%	-0.19%
US Real 10-Yr	0.92%	0.97%	0.05%
German 10-Yr	0.47%	0.24%	-0.23%
Japan 10-Yr	0.13%	0.00%	-0.13%
China 10-Yr	3.63%	3.31%	-0.32%
EM Local Debt	6.62%	6.46%	-0.17%

Source: Bloomberg



Source: Bloomberg



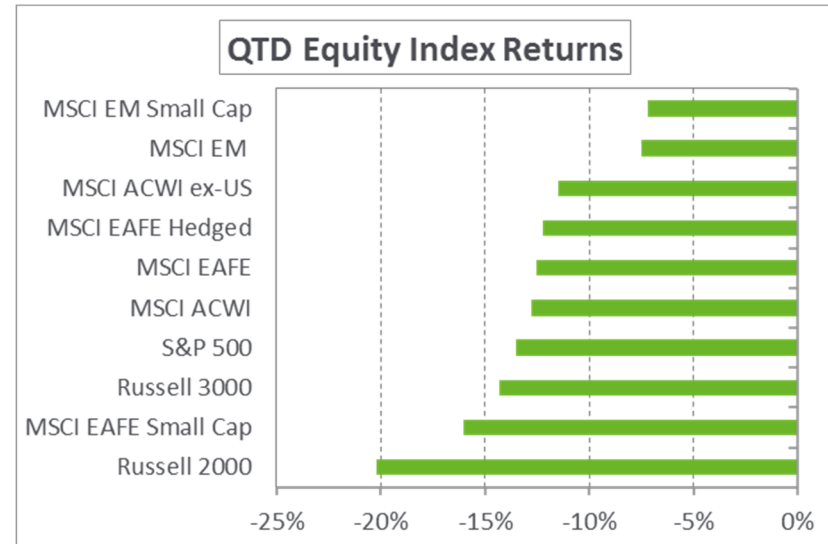
EQUITY PERFORMANCE OVERVIEW

Q4 Equity Market Summary

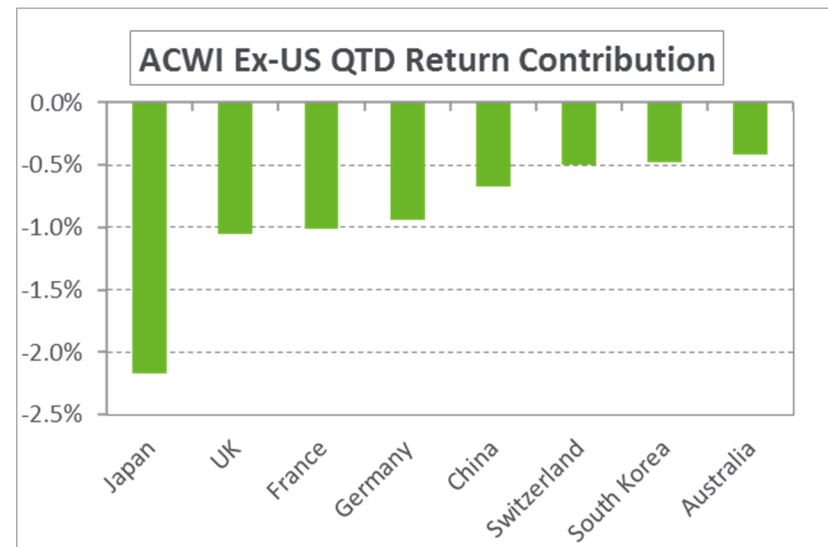
- **US equities led the global equity sell-off and developed market indices moved into a bear market**
- **Equities markets were volatile as ongoing trade concerns and fears of global growth slowdown weighed on investor sentiment**

Russell 3000 QTD Sector Return Contribution	
Information Technology	-3.35%
Consumer Discretionary	-1.80%
Financials	-1.80%
Industrials	-1.82%
Consumer Staples	-0.35%
Energy	-1.42%
Materials	-0.43%
Health Care	-1.52%
Real Estate	-0.22%
Communication Services	-1.64%
Utilities	0.02%

Source: Russell, Bloomberg



Source: MSCI, Russell, S&P, Bloomberg



Source: MSCI, Bloomberg. QTD top country contributors to index return



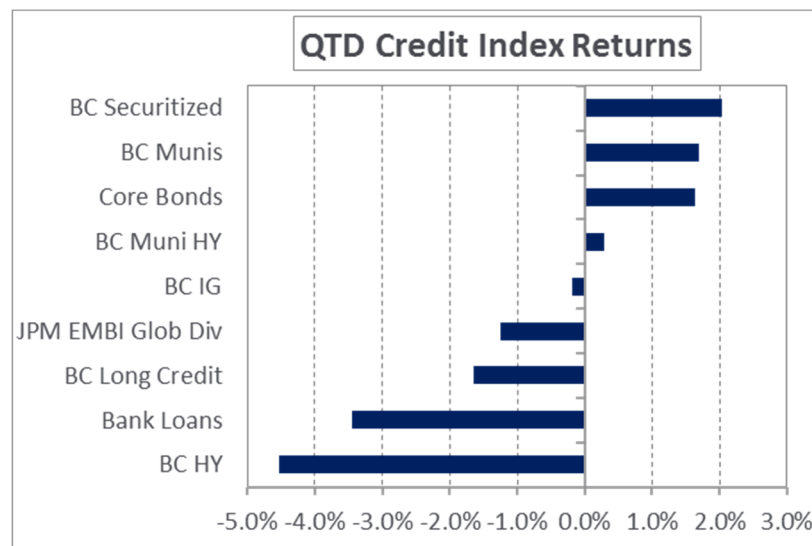
CREDIT PERFORMANCE OVERVIEW

Q4 Credit Market Summary

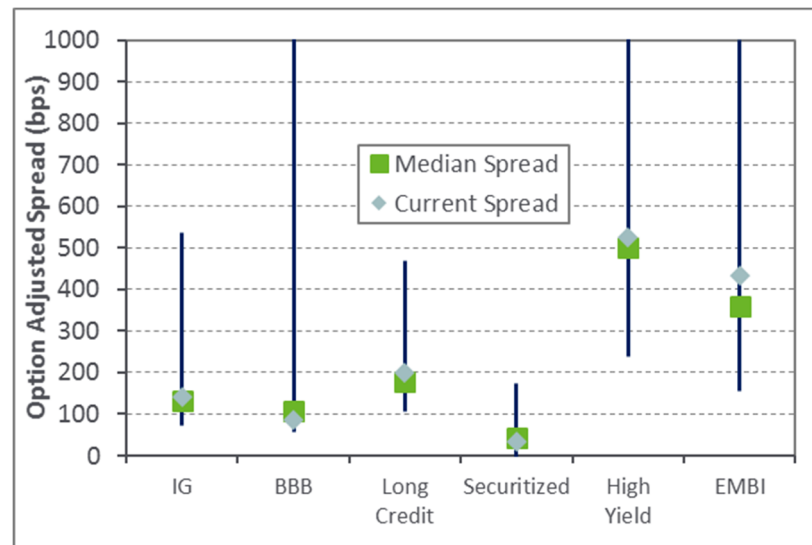
- **Credit spreads broadly increased across most areas of the market**
- **Riskier assets underperformed as demand for high quality and safe-haven assets increased**
- **Bank loans declined by 3.5% as market outflows weighed on asset prices**

Credit Spread (Basis Points)	09/30/18	12/31/18	\u0394
BC IG Credit	100	143	43
BC Long Credit	153	200	47
BC Securitized	28	35	7
BC High Yield	316	526	210
Muni HY	184	236	52
JPM EMBI	362	435	73
Bank Loans - Libor	281	414	133

Source: Barclays, Merrill Lynch, JPM, Bloomberg, NEPC



Source: Barclays, JPM, S&P, Bloomberg



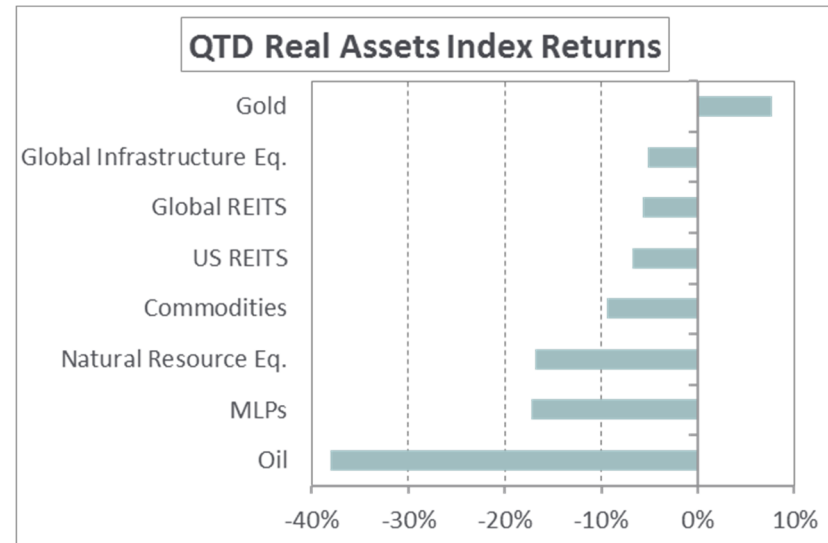
Source: Barclays, JPM, S&P, Bloomberg; as of 01/31/2000



REAL ASSETS PERFORMANCE OVERVIEW

Q4 Real Assets Market Summary

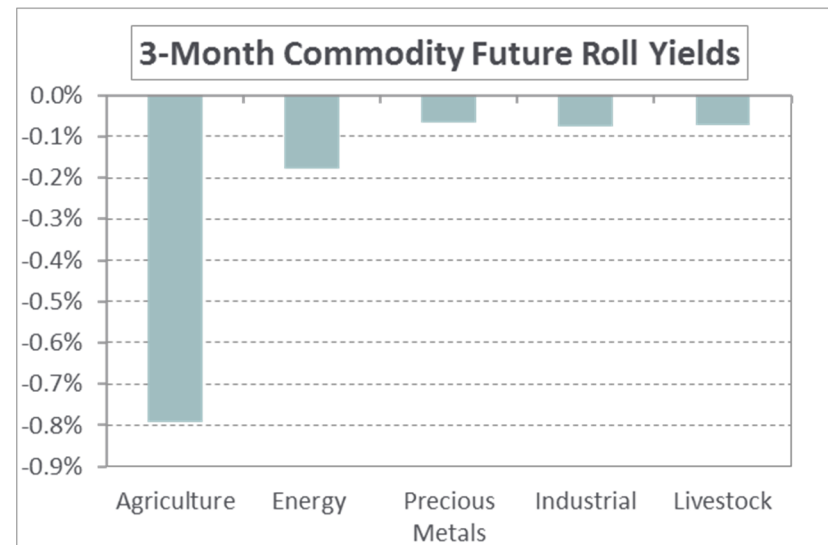
- **Oil declined 38% for the quarter due to an increase in supply led by US shale production**
- **MLPs decreased 17.3% under pressure from falling energy prices and investor outflows**
- **Commodities declined overall due to the substantial decline in oil markets**



Source: S&P, NAREIT, Alerian, Bloomberg

Real Asset Yields	09/30/18	12/31/18
MLPs	8.0%	9.0%
Core Real Estate	4.4%	4.5%
US REITs	4.2%	4.6%
Global REITs	3.7%	3.9%
Global Infrastructure Equities	4.5%	4.6%
Natural Resource Equities	3.5%	4.5%
US 10-Yr Breakeven Inflation	2.1%	1.7%
Commodity Index Roll Yield	-1.2%	-6.1%

Source: NCREIF, Alerian, NAREIT, S&P, Bloomberg



Source: Bloomberg, NEPC Calculated as of 09/28/2018

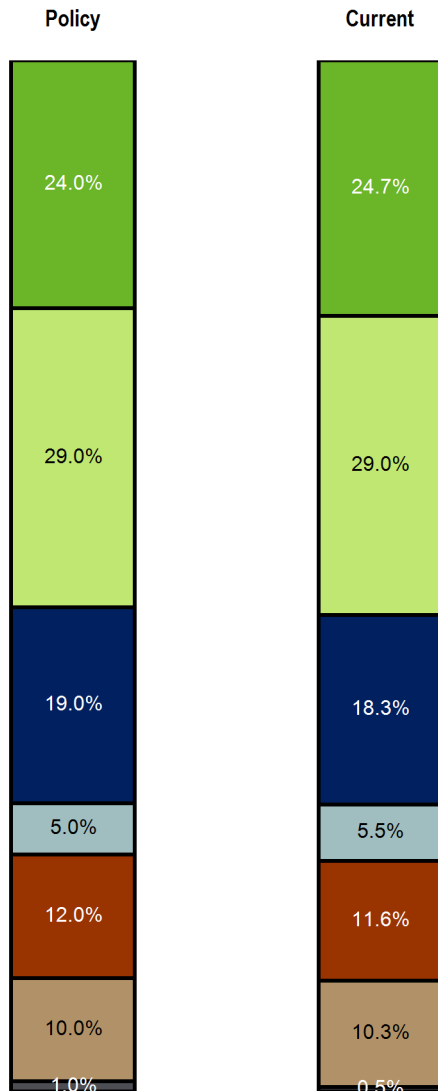


ASSET CLASS POLICY OVERVIEW

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	\$4,022,532,873	24.00%	24.72%	0.72%	19.00% - 29.00%	Yes
Non-US Equity	\$4,724,690,293	29.00%	29.04%	0.04%	24.00% - 34.00%	Yes
Core Fixed Income	\$2,984,471,934	19.00%	18.34%	-0.66%	15.00% - 22.00%	Yes
Credit Opportunities	\$895,136,297	5.00%	5.50%	0.50%	0.00% - 10.00%	Yes
Private Equity	\$1,892,084,100	12.00%	11.63%	-0.37%		Yes
Real Assets	\$1,676,695,740	10.00%	10.30%	0.30%	7.00% - 13.00%	Yes
Cash	\$75,152,938	1.00%	0.46%	-0.54%	0.00% - 2.00%	Yes
Total	\$16,270,764,175	100.00%	100.00%			

*Difference between Policy and Current Allocation

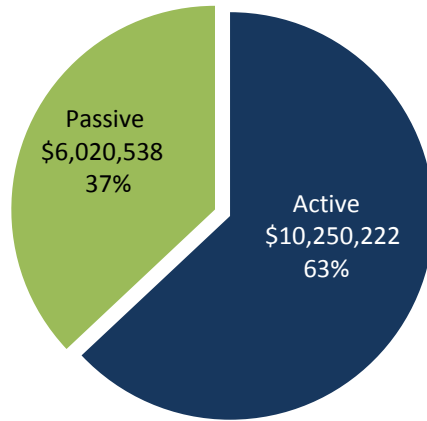
Note: Policy Target Asset Allocation does not reflect the new target asset allocation adopted on April 10, 2018. Implementation of the new asset allocation is currently in progress.



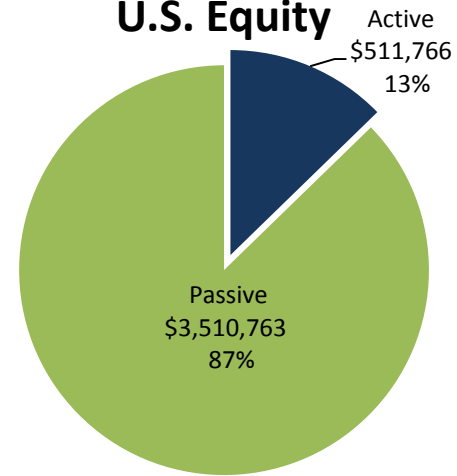
ACTIVE VS. PASSIVE MANAGER BREAKDOWN

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

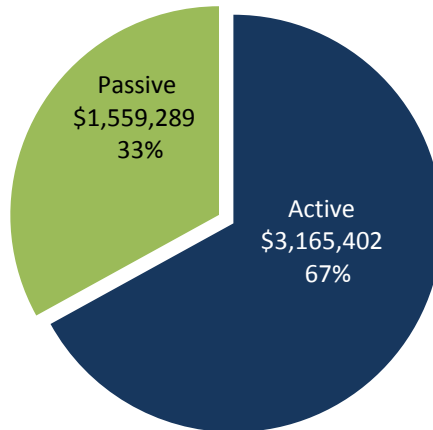
Total Fund



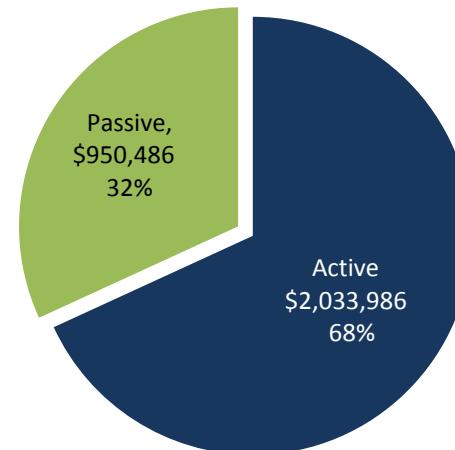
U.S. Equity



Non-U.S. Equity



Core Fixed Income



- Of the Total Fund, LACERS allocated 63% to active managers and 37% 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	\$16,270,764,175	-7.23%	59	-4.84%	71	-3.89%	77	6.66%	59	5.24%	59	8.98%	44	6.78%	47	7.91%	Oct-94
Policy Index		-8.25%	82	-5.39%	80	-5.04%	89	6.50%	71	4.90%	81	9.06%	43	6.54%	59	7.80%	Oct-94
InvestorForce Public DB \$5-50B Gross Median		-6.61%		-4.10%		-3.21%		6.81%		5.46%		8.65%		6.76%		7.91%	Oct-94

Over the past five years, the Fund returned 5.24% per year, outperforming the policy index by 0.34% and ranked in the 59th percentile in the InvestorForce Public Funds \$5 Billion- \$50 Billion universe. The Fund's volatility was 6.50% ranking in the 68th percentile over this period. The Fund's risk-adjusted performance, as measured by the Sharpe Ratio, ranks in the 67th percentile in its peer group.

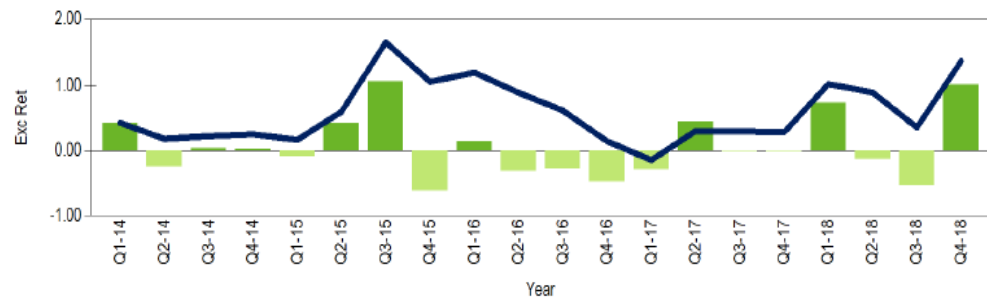
Over the past three years, the Fund returned 6.66% per year, outperforming the policy index by 0.16% and ranked in the 59th percentile in its peer group. The Fund's volatility ranks in the 66th percentile resulting in a three-year Sharpe Ratio of 0.88, ranking in the 73rd percentile.

In the one-year ended December 31, 2018, the Fund experienced a net investment loss of \$661.9 million, which includes a net investment loss of \$1.28 billion during the fourth calendar quarter. Assets decreased from \$17.17 billion twelve months ago to \$16.27 billion on December 31, 2018. The Fund returned -3.89%, outperforming the policy index by 1.15% and ranked in the 77th percentile in its peer group.

All asset classes were within policy range as of December 31, 2018.

The InvestorForce Public Funds \$5 Billion- \$50 Billion Universe contains 18 observations for the period ending December 31, 2018.

Quarterly and Cumulative Excess Performance



5 Years Ending December 31, 2018

	Annualized Return (%)	Rank	Annualized Standard Deviation	Rank	Sharpe Ratio	Rank	Sortino Ratio RF	Rank
LACERS Master Trust	5.24%	59	6.50%	68	0.71	67	0.99	53
Policy Index	4.90%	81	7.23%	92	0.59	86	0.80	79
InvestorForce Public DB \$5-50B Gross Median	5.46%	--	6.17%	--	0.76	--	1.01	--

3 Years Ending December 31, 2018

	Annualized Return (%)	Rank	Annualized Standard Deviation	Rank	Sharpe Ratio	Rank	Sortino Ratio RF	Rank
LACERS Master Trust	6.66%	59	6.37%	66	0.88	73	0.93	65
Policy Index	6.50%	71	7.09%	91	0.77	85	0.80	79
InvestorForce Public DB \$5-50B Gross Median	6.81%	--	6.11%	--	0.94	--	0.98	--



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	16,270,764,175	100.00	-7.23	-4.84	-3.89	6.66	5.24	8.98	7.91	Oct-94
Policy Index			-8.25	-5.39	-5.04	6.50	4.90	9.06	7.80	Oct-94
Over/Under			1.02	0.55	1.15	0.16	0.34	-0.08	0.11	
U.S. Equity	4,022,532,873	24.72	-14.87	-8.90	-5.48	8.79	7.69	13.23	9.93	Oct-94
U.S. Equity Blend			-14.30	-8.20	-5.24	8.97	7.91	13.18	8.85	Oct-94
Over/Under			-0.57	-0.70	-0.24	-0.18	-0.22	0.05	1.08	
Non-U.S. Equity	4,724,690,293	29.04	-12.21	-12.03	-14.12	5.13	1.70	7.79	6.25	Aug-01
MSCI ACWI ex USA			-11.46	-10.84	-14.20	4.48	0.68	6.57	5.43	Aug-01
Over/Under			-0.75	-1.19	0.08	0.65	1.02	1.22	0.82	
Core Fixed Income	2,984,471,934	18.34	1.33	1.52	-0.13	2.48	2.79		2.65	Jul-12
Core Fixed Income Blend			1.64	1.66	0.01	2.06	2.52		2.04	Jul-12
Over/Under			-0.31	-0.14	-0.14	0.42	0.27		0.61	
Credit Opportunities	895,136,297	5.50	-2.77	-0.89	-2.49	6.39	3.80		4.54	Jun-13
Credit Opportunities Blend			-3.39	-1.09	-2.82	6.53	3.98		4.70	Jun-13
Over/Under			0.62	0.20	0.33	-0.14	-0.18		-0.16	
Real Assets	1,676,695,740	10.30	-0.57	-0.15	2.25	5.46	6.71	0.77	6.21	Nov-94
CPI + 5% (Unadjusted)			0.75	2.16	7.00	7.12	6.58	6.88	7.27	Nov-94
Over/Under			-1.32	-2.31	-4.75	-1.66	0.13	-6.11	-1.06	
Public Real Assets	883,521,087	5.43	-2.66	-3.45	-3.36	2.43			0.20	Jun-14
Public Real Assets Blend			-4.53	-4.69	-4.48	1.88			-2.26	Jun-14
Over/Under			1.87	1.24	1.12	0.55			2.46	
Private Real Estate	772,918,895	4.75	1.90	3.76	8.64	8.64	10.29	2.44	6.93	Oct-94
Real Estate Blend			1.96	4.30	9.21	9.10	11.27	8.62	9.95	Oct-94
Over/Under			-0.06	-0.54	-0.57	-0.46	-0.98	-6.18	-3.02	
Private Equity	1,892,084,100	11.63	4.13	9.35	18.35	13.10	12.16	11.12	10.60	Nov-95
Private Equity Blend			-13.63	-6.81	-2.38	12.22	11.13	16.93	12.42	Nov-95
Over/Under			17.76	16.16	20.73	0.88	1.03	-5.81	-1.82	
Cash	75,152,938	0.46								



Note - See appendix for blended benchmark definitions.

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	16,270,764,175	100.00	-7.27	-4.92	-4.07	6.47	5.05	8.78		Oct-94
Policy Index			<u>-8.25</u>	<u>-5.39</u>	<u>-5.04</u>	<u>6.50</u>	<u>4.90</u>	<u>9.06</u>		Oct-94
Over/Under			0.98	0.47	0.97	-0.03	0.15	-0.28		
U.S. Equity	4,022,532,873	24.72	-14.89	-8.93	-5.54	8.72	7.58	13.06		Oct-94
U.S. Equity Blend			<u>-14.30</u>	<u>-8.20</u>	<u>-5.24</u>	<u>8.97</u>	<u>7.91</u>	<u>13.18</u>		Oct-94
Over/Under			-0.59	-0.73	-0.30	-0.25	-0.33	-0.12		
Non-U.S. Equity	4,724,690,293	29.04	-12.30	-12.20	-14.46	4.74	1.35	7.43	5.89	Aug-01
MSCI ACWI ex USA			<u>-11.46</u>	<u>-10.84</u>	<u>-14.20</u>	<u>4.48</u>	<u>0.68</u>	<u>6.57</u>	<u>5.43</u>	Aug-01
Over/Under			-0.84	-1.36	-0.26	0.26	0.67	0.86	0.46	
Core Fixed Income	2,984,471,934	18.34	1.30	1.47	-0.23	2.38	2.68		2.53	Jul-12
Core Fixed Income Blend			<u>1.64</u>	<u>1.66</u>	<u>0.01</u>	<u>2.06</u>	<u>2.52</u>		<u>2.04</u>	Jul-12
Over/Under			-0.34	-0.19	-0.24	0.32	0.16		0.49	
Credit Opportunities	895,136,297	5.50	-2.85	-1.04	-2.81	6.03	3.44		4.19	Jun-13
Credit Opportunities Blend			<u>-3.39</u>	<u>-1.09</u>	<u>-2.82</u>	<u>6.53</u>	<u>3.98</u>		<u>4.70</u>	Jun-13
Over/Under			0.54	0.05	0.01	-0.50	-0.54		-0.51	
Real Assets	1,676,695,740	10.30	-0.61	-0.23	2.09	5.29	6.56	0.63		Nov-94
CPI + 5% (Unadjusted)			<u>0.75</u>	<u>2.16</u>	<u>7.00</u>	<u>7.12</u>	<u>6.58</u>	<u>6.88</u>		Nov-94
Over/Under			-1.36	-2.39	-4.91	-1.83	-0.02	-6.25		
Public Real Assets	883,521,087	5.43	-2.71	-3.56	-3.60	2.16			0.00	Jun-14
Public Real Assets Blend			<u>-4.53</u>	<u>-4.69</u>	<u>-4.48</u>	<u>1.88</u>			<u>-2.26</u>	Jun-14
Over/Under			1.82	1.13	0.88	0.28			2.26	
Private Real Estate	772,918,895	4.75	1.88	3.71	8.56	8.55	10.19	2.33		Oct-94
Real Estate Blend			<u>1.96</u>	<u>4.30</u>	<u>9.21</u>	<u>9.10</u>	<u>11.27</u>	<u>8.62</u>		Oct-94
Over/Under			-0.08	-0.59	-0.65	-0.55	-1.08	-6.29		
Private Equity	1,892,084,100	11.63	4.13	9.35	18.35	13.11	12.18	11.13		Nov-95
Private Equity Blend			<u>-13.63</u>	<u>-6.81</u>	<u>-2.38</u>	<u>12.22</u>	<u>11.13</u>	<u>16.93</u>		Nov-95
Over/Under			17.76	16.16	20.73	0.89	1.05	-5.80		
Cash	75,152,938	0.46								



Note - See appendix for blended benchmark definitions.

Los Angeles City Employees' Retirement System

TOTAL FUND RISK STATISTICS (NET)

3 Years Ending December 31, 2018													
	% 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%	6.47%	76	6.37%	66	0.54%	36	-0.04	--	0.88	72	0.98%	29
U.S. Equity	24.72%	8.72%	40	11.64%	54	-0.45%	37	-0.38	--	0.62	43	0.67%	13
Non-U.S. Equity	29.04%	4.74%	36	11.60%	56	0.27%	43	0.23	25	0.45	36	1.15%	4
Developed ex-U.S.	21.67%	3.44%	--	11.29%	--	0.60%	--	0.36	--	0.28	--	1.56%	--
Emerging Markets	7.37%	9.18%	19	15.10%	95	-0.21%	20	-0.06	--	0.96	20	1.10%	1
Core Fixed Income	18.34%	2.38%	78	2.72%	54	0.39%	75	0.62	48	0.65	79	0.52%	8
Credit Opportunities	5.50%	6.03%	--	4.23%	--	-0.13%	--	-0.47	--	2.33	--	1.05%	--
Real Assets	10.30%	5.29%	--	2.16%	--	-1.08%	--	-0.90	--	3.60	--	2.04%	--
Public Real Assets	5.43%	2.16%	--	4.22%	--	0.46%	--	0.15	--	0.53	--	1.88%	--
Private Real Estate	4.75%	8.55%	20	1.52%	30	9.44%	3	-0.13	--	26.96	37	4.32%	88
Private Equity	11.63%	13.11%	70	3.92%	20	11.74%	23	0.08	46	31.28	16	11.67%	91

5 Years Ending December 31, 2018													
	% 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%	5.05%	74	6.50%	68	0.59%	47	0.14	68	0.93	70	1.00%	29
U.S. Equity	24.72%	7.58%	23	11.33%	47	-0.43%	31	-0.51	--	0.74	32	0.65%	7
Non-U.S. Equity	29.04%	1.35%	52	11.73%	64	0.67%	39	0.52	16	0.10	50	1.29%	9
Developed ex-U.S.	21.67%	1.13%	--	11.46%	--	0.60%	--	0.40	--	0.07	--	1.49%	--
Emerging Markets	7.37%	0.94%	53	15.60%	95	-0.73%	65	-0.41	--	0.03	53	1.74%	7
Core Fixed Income	18.34%	2.68%	65	2.66%	49	0.28%	68	0.31	40	1.18	53	0.53%	13
Real Assets	10.30%	6.56%	--	2.30%	--	3.32%	--	-0.01	--	6.22	--	2.33%	--
Private Real Estate	4.75%	10.19%	32	1.88%	21	11.84%	6	-0.20	--	34.26	27	5.52%	88
Private Equity	11.63%	12.18%	74	4.27%	18	11.36%	31	0.09	51	12.86	44	11.77%	85

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, 2018

Private Equity	10 Year IRR	Since Inception IRR	Since Inception Multiple
Aggregate Portfolio	11.0%	11.3%	1.57x
Core Portfolio	11.6%	11.9%	1.60x
Specialized Portfolio	3.9%	2.1%	1.12x
Russell 3000 + 300 bps	15.0%	12.2%	N/A

Real Estate*	10 Year Return (Net)	Since Inception Return (Net)
Total Portfolio (TWR) ¹	1.79%	5.99%
NFI-ODCE + 80 basis points (TWR)	5.42%	7.16%

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.

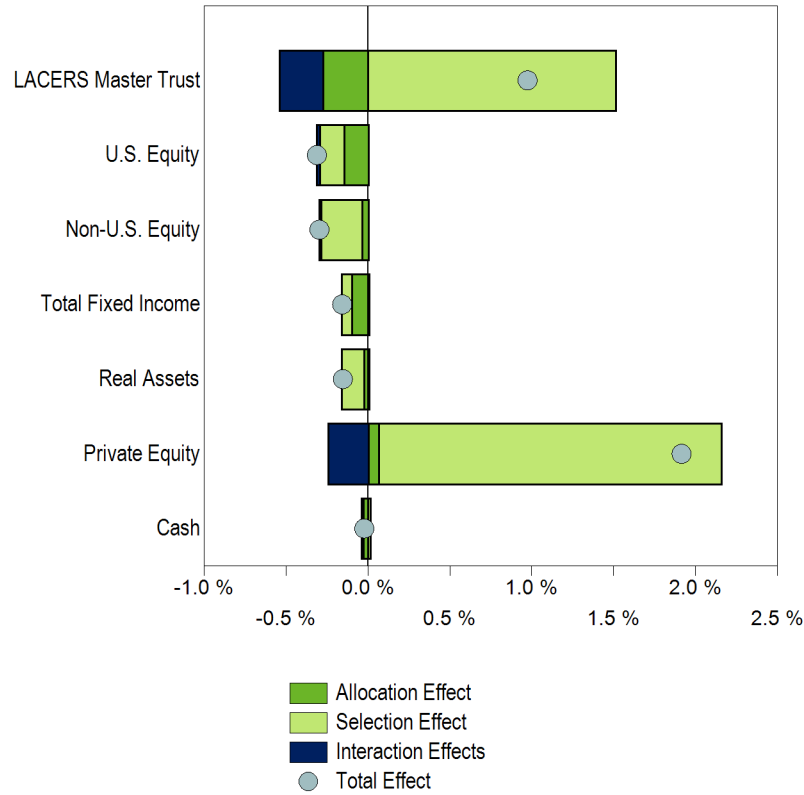
*Data is considered preliminary.



Los Angeles City Employees' Retirement System

TOTAL FUND ATTRIBUTION ANALYSIS (NET)

Attribution Effects
3 Months Ending December 31, 2018



	Policy Weight	Wtd. Actual Return	Wtd. Index Return	Excess Return	Selection Effect	Allocation Effect	Interaction Effects	Total Effects
U.S. Equity	24.00%	-14.89%	-14.30%	-0.59%	-0.15%	-0.15%	-0.02%	-0.31%
Non-U.S. Equity	29.00%	-12.30%	-11.46%	-0.83%	-0.25%	-0.04%	-0.01%	-0.30%
Total Fixed Income	24.00%	0.33%	0.58%	-0.24%	-0.06%	-0.10%	0.00%	-0.16%
Real Assets	10.00%	-0.61%	0.75%	-1.35%	-0.13%	-0.03%	0.00%	-0.15%
Private Equity	12.00%	4.13%	-13.63%	17.77%	2.09%	0.07%	-0.24%	1.92%
Cash	1.00%	1.97%	0.55%	1.43%	0.01%	-0.03%	-0.01%	-0.02%
Total	100.00%	-7.27%	-8.25%	0.97%	1.51%	-0.28%	-0.26%	0.97%

Wtd. = Weighted

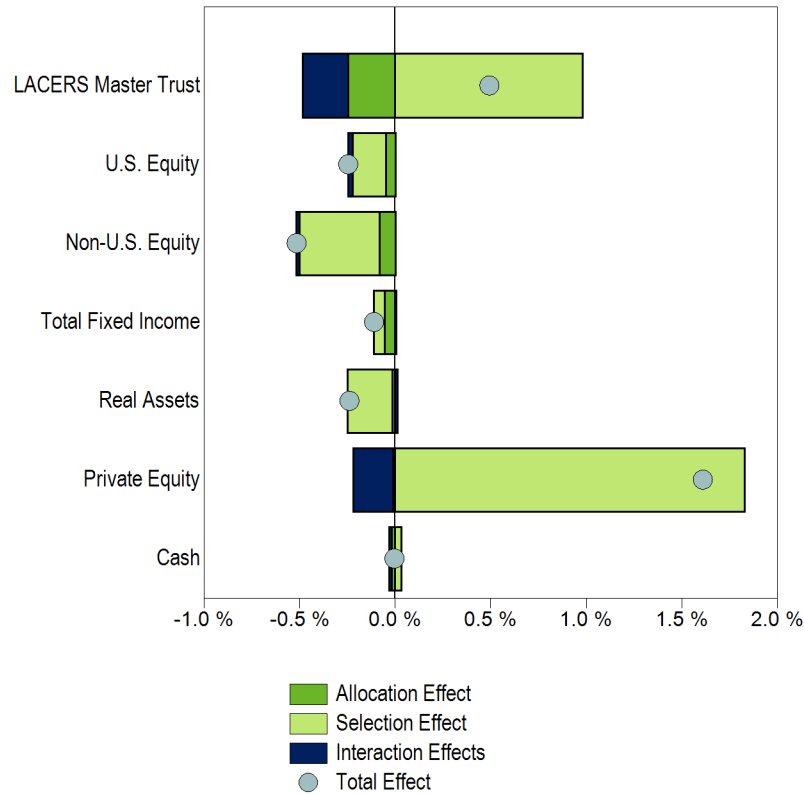
Note: Policy Target Asset Allocation does not reflect the new target asset allocation adopted on April 10, 2018. Implementation of the new asset allocation is currently in progress.



Los Angeles City Employees' Retirement System

TOTAL FUND ATTRIBUTION ANALYSIS (NET)

Attribution Effects FYTD Ending December 31, 2018



Attribution Summary FYTD Ending December 31, 2018								
	Policy Weight	Wtd. Actual Return	Wtd. Index Return	Excess Return	Selection Effect	Allocation Effect	Interaction Effects	Total Effects
U.S. Equity	24.00%	-8.93%	-8.20%	-0.73%	-0.18%	-0.05%	-0.02%	-0.25%
Non-U.S. Equity	29.00%	-12.20%	-10.84%	-1.36%	-0.42%	-0.08%	-0.01%	-0.52%
Total Fixed Income	24.00%	0.87%	1.09%	-0.22%	-0.05%	-0.06%	0.00%	-0.11%
Real Assets	10.00%	-0.23%	2.16%	-2.39%	-0.23%	-0.02%	0.01%	-0.24%
Private Equity	12.00%	9.35%	-6.81%	16.16%	1.83%	-0.02%	-0.20%	1.61%
Cash	1.00%	4.05%	1.04%	3.01%	0.03%	-0.02%	-0.01%	0.00%
Total	100.00%	-4.90%	-5.39%	0.49%	0.98%	-0.25%	-0.24%	0.49%

Wtd. = Weighted

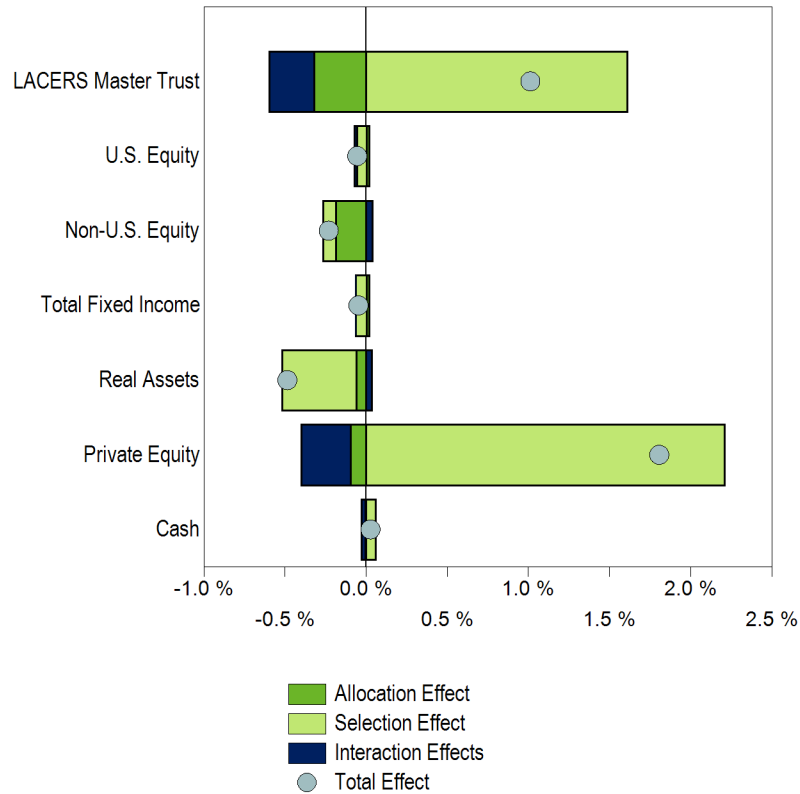
Note: Policy Target Asset Allocation does not reflect the new target asset allocation adopted on April 10, 2018. Implementation of the new asset allocation is currently in progress.



Los Angeles City Employees' Retirement System

TOTAL FUND ATTRIBUTION ANALYSIS (NET)

Attribution Effects 1 Year Ending December 31, 2018



Attribution Summary 1 Year Ending December 31, 2018								
	Policy Weight	Wtd. Actual Return	Wtd. Index Return	Excess Return	Selection Effect	Allocation Effect	Interaction Effects	Total Effects
U.S. Equity	24.00%	-5.54%	-5.24%	-0.30%	-0.06%	0.02%	-0.01%	-0.06%
Non-U.S. Equity	29.00%	-14.46%	-14.20%	-0.26%	-0.08%	-0.19%	0.03%	-0.23%
Total Fixed Income	24.00%	-0.83%	-0.57%	-0.26%	-0.06%	0.02%	0.00%	-0.05%
Real Assets	10.00%	2.09%	7.00%	-4.90%	-0.45%	-0.06%	0.03%	-0.49%
Private Equity	12.00%	18.35%	-2.38%	20.73%	2.21%	-0.10%	-0.30%	1.81%
Cash	1.00%	7.92%	1.89%	6.03%	0.06%	-0.01%	-0.02%	0.03%
Total	100.00%	-4.03%	-5.04%	1.01%	1.61%	-0.32%	-0.27%	1.01%

Wtd. = Weighted

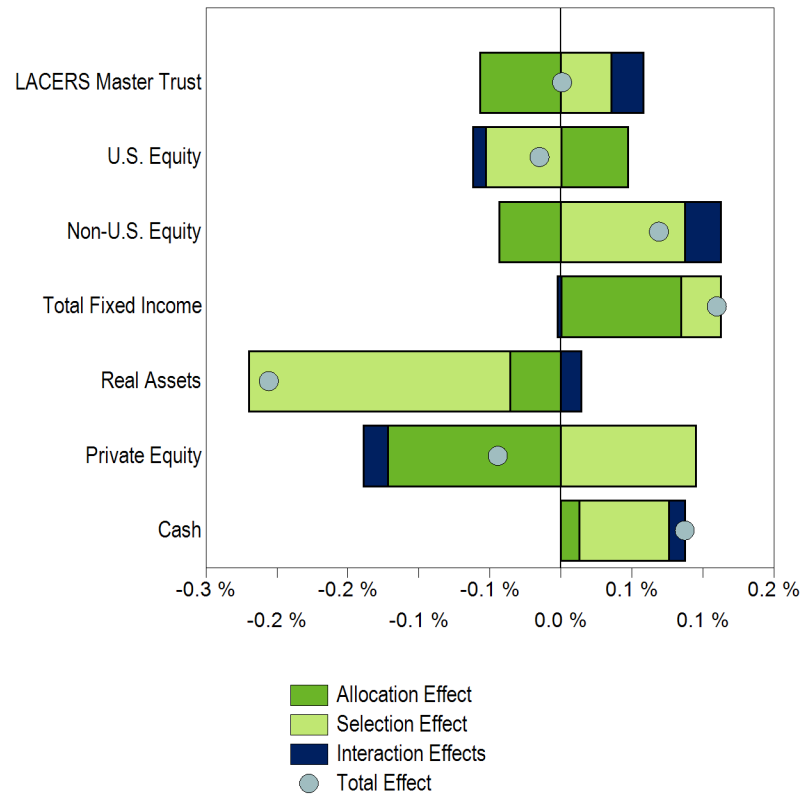
Note: Policy Target Asset Allocation does not reflect the new target asset allocation adopted on April 10, 2018. Implementation of the new asset allocation is currently in progress.



Los Angeles City Employees' Retirement System

TOTAL FUND ATTRIBUTION ANALYSIS (NET)

Attribution Effects 3 Years Ending December 31, 2018



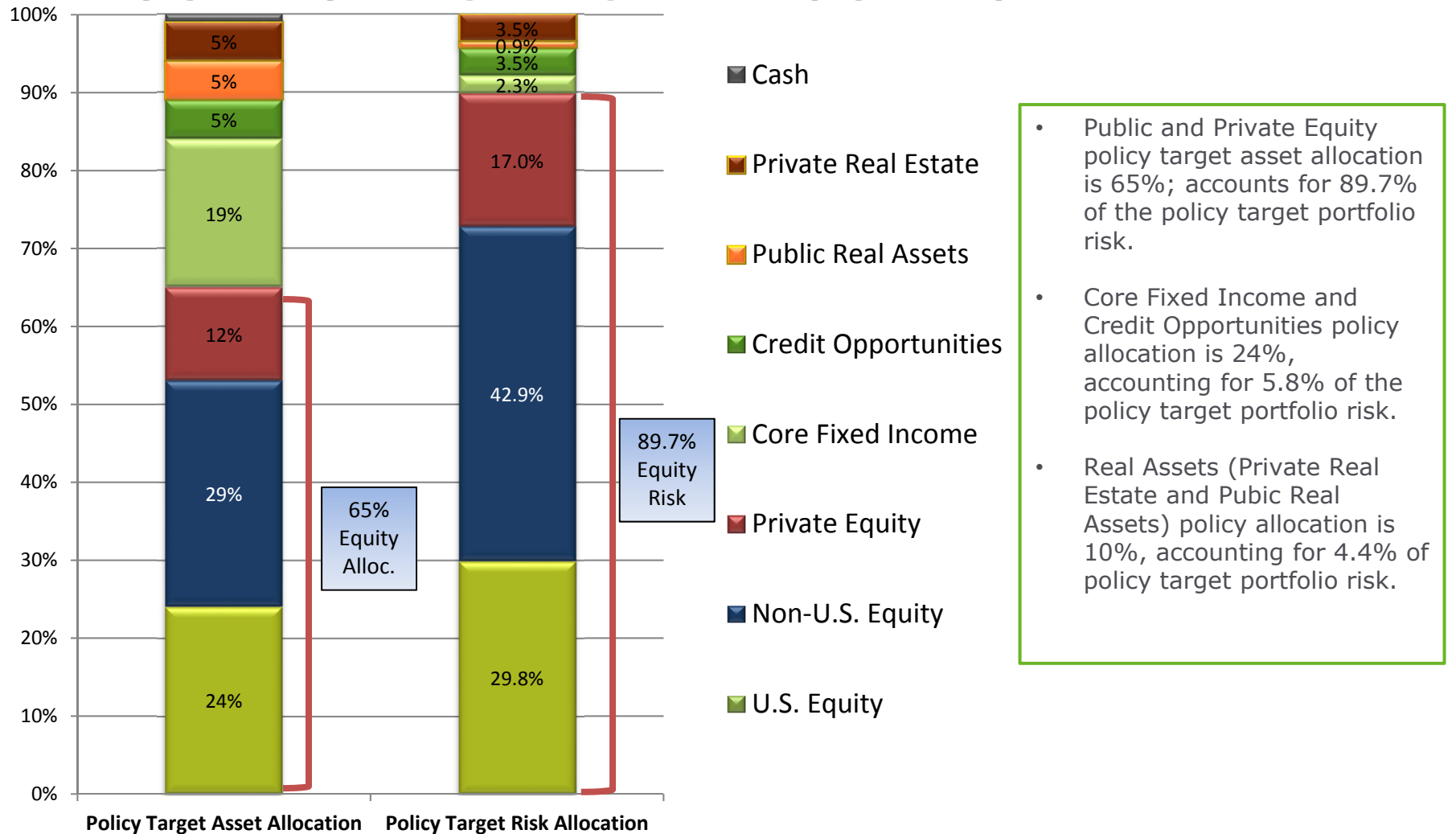
Attribution Summary 3 Years Ending December 31, 2018								
	Policy Weight	Wtd. Actual Return	Wtd. Index Return	Excess Return	Selection Effect	Allocation Effect	Interaction Effects	Total Effects
U.S. Equity	24.00%	8.72%	8.97%	-0.25%	-0.05%	0.05%	-0.01%	-0.02%
Non-U.S. Equity	29.00%	4.74%	4.48%	0.27%	0.09%	-0.04%	0.03%	0.07%
Total Fixed Income	24.00%	3.11%	2.99%	0.12%	0.03%	0.08%	0.00%	0.11%
Real Assets	10.00%	5.29%	7.12%	-1.83%	-0.18%	-0.04%	0.01%	-0.21%
Private Equity	12.00%	13.11%	12.22%	0.89%	0.09%	-0.12%	-0.02%	-0.04%
Cash	1.00%	7.21%	1.04%	6.17%	0.06%	0.01%	0.01%	0.09%
Total	100.00%	6.51%	6.51%	0.00%	0.04%	-0.06%	0.02%	0.00%

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.



TOTAL FUND RISK ALLOCATION – ASSET ALLOCATION VS. RISK 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.



PUBLIC MARKETS RISK BUDGET COMPARISON AS OF DECEMBER 31, 2018

Public Markets Asset Class	Target Risk Budget	Actual 3 Yr Tracking Error
U.S. Equity	0.50%	0.66%
Non-U.S. Equity	1.20%	1.19%
Core Fixed Income	1.00%	0.53%
Credit Opportunities	1.50%	0.95%
Public Real Assets*	3.00%	2.20%

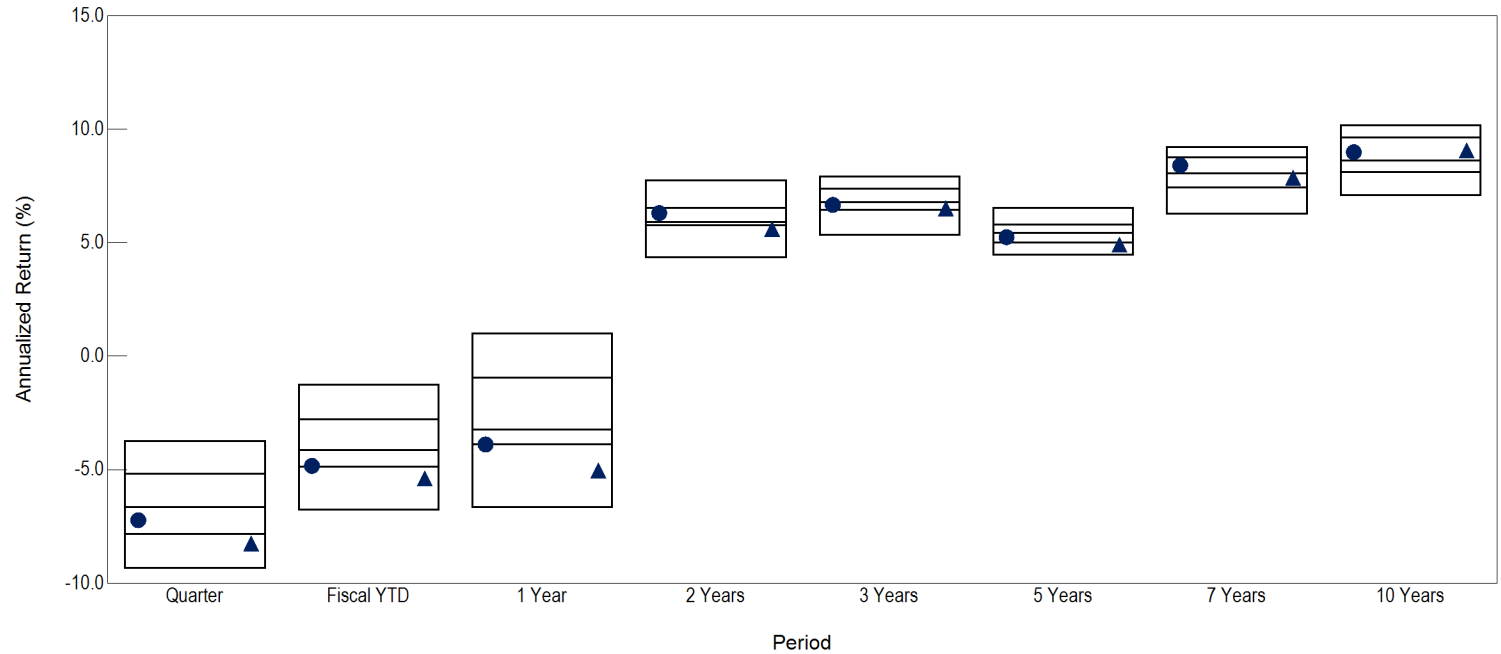
- Current LACERS public market asset class composite tracking error statistics are compared to asset class target risk budgets to ensure active risks are within expectations.
- Risk budgets are to be evaluated over three-year periods, at minimum, to reflect a full market cycle.
- All equity public markets 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 LACERS Public Real Assets composite is not at its target strategy allocation.

* 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.



TOTAL FUND RETURN SUMMARY VS. PEER UNIVERSE

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



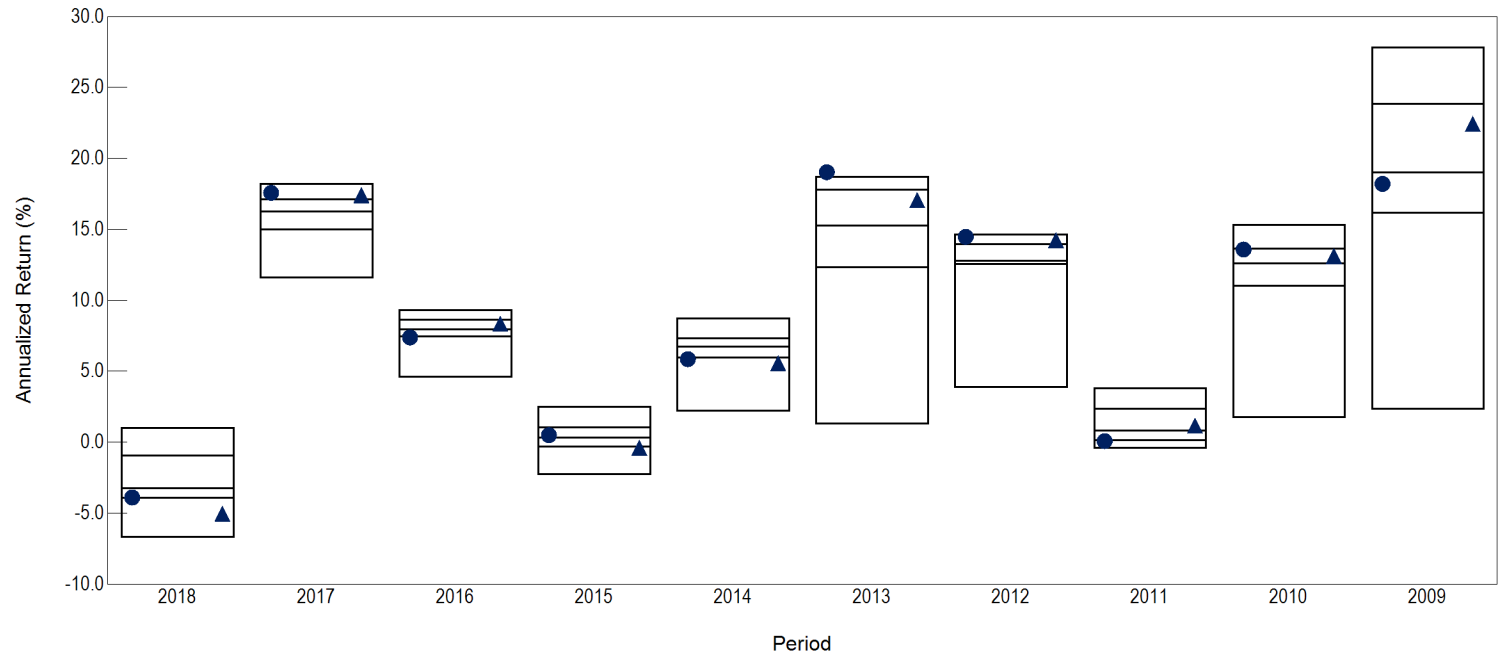
	Return (Rank)															
5th Percentile	-3.75	-1.27	1.00	7.75	7.90	6.54	9.21	10.18								
25th Percentile	-5.17	-2.76	-0.91	6.55	7.40	5.83	8.78	9.64								
Median	-6.61	-4.10	-3.21	5.95	6.81	5.46	8.09	8.65								
75th Percentile	-7.80	-4.85	-3.85	5.78	6.47	5.04	7.45	8.12								
95th Percentile	-9.29	-6.74	-6.61	4.37	5.36	4.50	6.31	7.12								
# of Portfolios	18	18	18	18	18	18	17	17								
● LACERS Master Trust	-7.23	(59)	-4.84	(71)	-3.89	(77)	6.30	(42)	6.66	(59)	5.24	(59)	8.40	(32)	8.98	(44)
▲ Policy Index	-8.25	(82)	-5.39	(80)	-5.04	(89)	5.59	(79)	6.50	(71)	4.90	(81)	7.86	(54)	9.06	(43)



Los Angeles City Employees' Retirement System

TOTAL FUND RETURN SUMMARY VS. PEER UNIVERSE

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



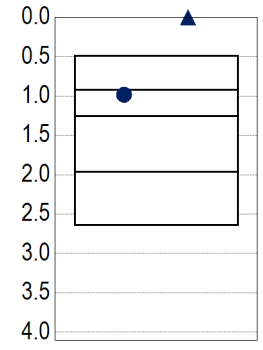
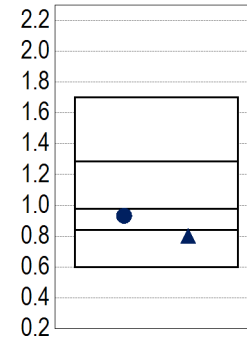
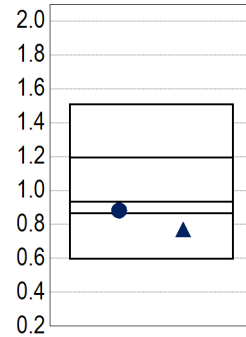
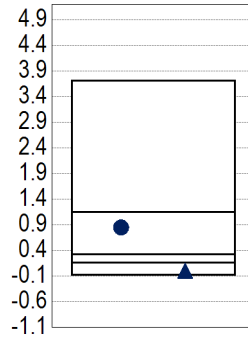
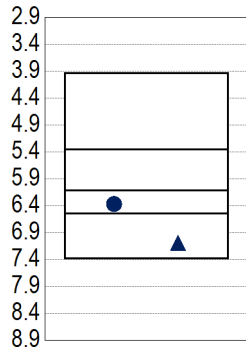
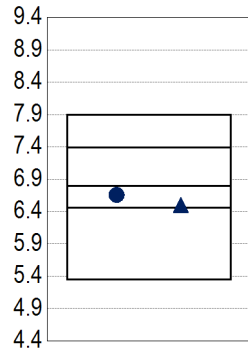
	Return (Rank)																			
5th Percentile	1.00	18.21	9.30	2.50	8.72	18.69	14.65	3.83	15.32	27.83										
25th Percentile	-0.91	17.15	8.68	1.12	7.38	17.86	14.01	2.41	13.67	23.91										
Median	-3.21	16.29	7.99	0.35	6.79	15.31	12.83	0.86	12.66	19.07										
75th Percentile	-3.85	15.05	7.51	-0.24	6.04	12.36	12.58	0.21	11.06	16.24										
95th Percentile	-6.61	11.68	4.65	-2.20	2.25	1.36	3.92	-0.37	1.83	2.42										
# of Portfolios	18	46	30	24	24	23	16	16	15	15										
● LACERS Master Trust	-3.89	(77)	17.57	(12)	7.38	(78)	0.49	(41)	5.85	(81)	19.03	(4)	14.47	(7)	0.08	(89)	13.58	(29)	18.21	(67)
▲ Policy Index	-5.04	(89)	17.41	(14)	8.35	(41)	-0.39	(77)	5.58	(87)	17.06	(31)	14.23	(21)	1.17	(44)	13.11	(34)	22.44	(38)



TOTAL FUND RISK STATISTICS VS. PEER UNIVERSE

LACERS Master Trust vs. InvestorForce Public DB \$5-50B Gross 3 Years

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



● LACERS Master Trust
Value 6.66
Rank 59
▲ Policy Index
Value 6.50
Rank 71

● LACERS Master Trust
Value 6.37
Rank 66
▲ Policy Index
Value 7.09
Rank 91

● LACERS Master Trust
Value 0.84
Rank 29
▲ Policy Index
Value 0.00
Rank 88

● LACERS Master Trust
Value 0.88
Rank 73
▲ Policy Index
Value 0.77
Rank 85

● LACERS Master Trust
Value 0.93
Rank 65
▲ Policy Index
Value 0.80
Rank 79

● LACERS Master Trust
Value 0.98
Rank 29
▲ Policy Index
Value 0.00
Rank 1

Universe
5th %tile 7.90
25th %tile 7.40
Median 6.81
75th %tile 6.47
95th %tile 5.36

Universe
5th %tile 3.94
25th %tile 5.34
Median 6.11
75th %tile 6.54
95th %tile 7.37

Universe
5th %tile 3.71
25th %tile 1.15
Median 0.34
75th %tile 0.17
95th %tile -0.07

Universe
5th %tile 1.51
25th %tile 1.20
Median 0.94
75th %tile 0.87
95th %tile 0.60

Universe
5th %tile 1.70
25th %tile 1.29
Median 0.98
75th %tile 0.84
95th %tile 0.60

Universe
5th %tile 0.49
25th %tile 0.92
Median 1.24
75th %tile 1.96
95th %tile 2.63

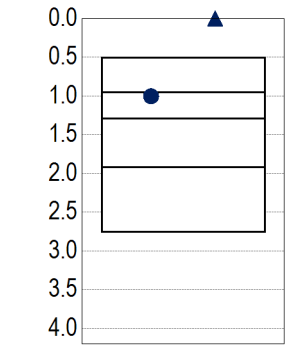
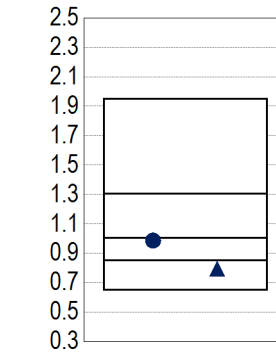
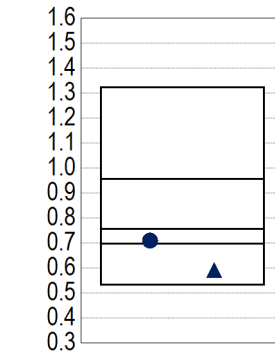
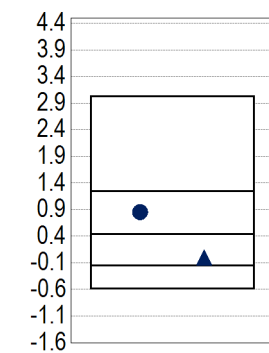
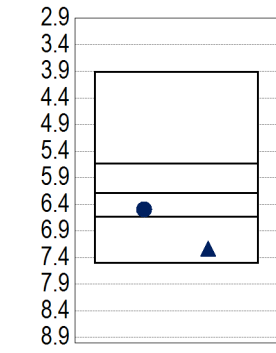
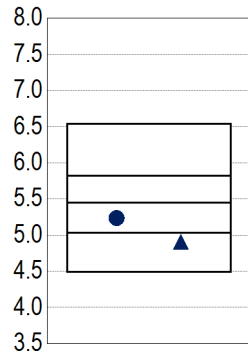
Sortino Ratio RF = Sortino Ratio Risk Free. The risk free rate is the Citi 91 Day T-Bill Index.



TOTAL FUND RISK STATISTICS VS. PEER UNIVERSE

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

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



● LACERS Master Trust
Value 5.24
Rank 59

▲ Policy Index
Value 4.90
Rank 81

● LACERS Master Trust
Value 6.50
Rank 68

▲ Policy Index
Value 7.23
Rank 92

● LACERS Master Trust
Value 0.85
Rank 43

▲ Policy Index
Value 0.00
Rank 64

● LACERS Master Trust
Value 0.71
Rank 67

▲ Policy Index
Value 0.59
Rank 86

● LACERS Master Trust
Value 0.99
Rank 53

▲ Policy Index
Value 0.80
Rank 79

● LACERS Master Trust
Value 1.00
Rank 29

▲ Policy Index
Value 0.00
Rank 1

Universe

5th %tile	6.54
25th %tile	5.83
Median	5.46
75th %tile	5.04
95th %tile	4.50

Universe

5th %tile	3.92
25th %tile	5.62
Median	6.17
75th %tile	6.63
95th %tile	7.49

Universe

5th %tile	3.03
25th %tile	1.26
Median	0.46
75th %tile	-0.13
95th %tile	-0.57

Universe

5th %tile	1.32
25th %tile	0.96
Median	0.76
75th %tile	0.70
95th %tile	0.54

Universe

5th %tile	1.95
25th %tile	1.31
Median	1.01
75th %tile	0.86
95th %tile	0.66

Universe

5th %tile	0.51
25th %tile	0.94
Median	1.28
75th %tile	1.91
95th %tile	2.74

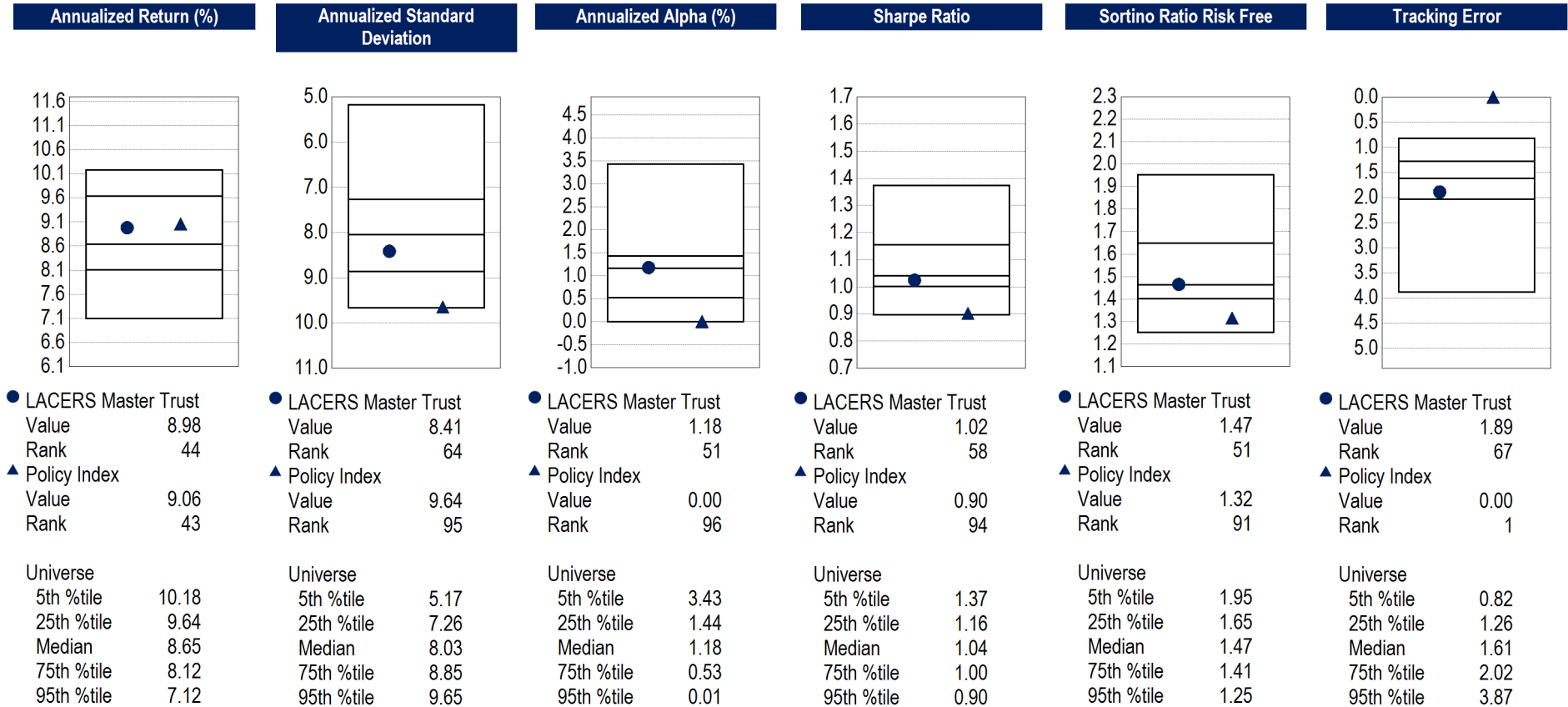
Sortino Ratio RF = Sortino Ratio Risk Free. The risk free rate is the Citi 91 Day T-Bill Index.



Los Angeles City Employees' Retirement System

TOTAL FUND RISK STATISTICS VS. PEER UNIVERSE

LACERS Master Trust vs. InvestorForce Public DB \$5-50B Gross 10 Years



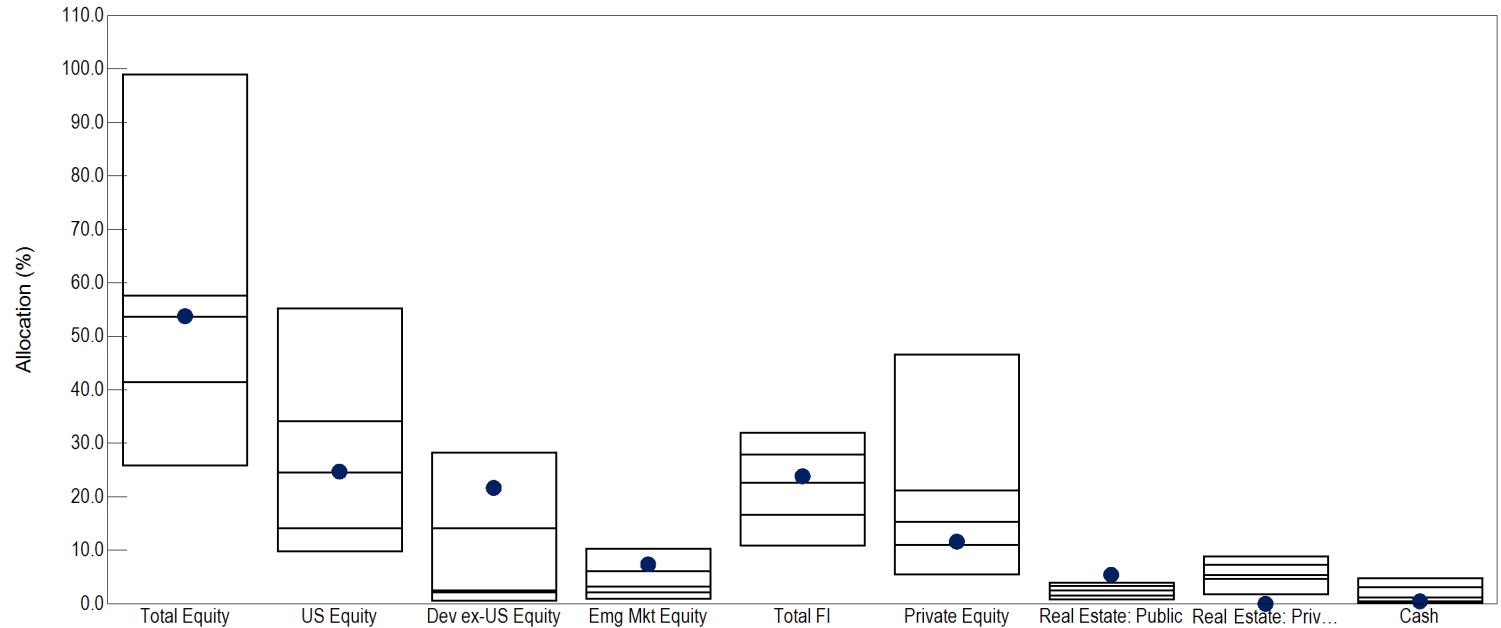
Sortino Ratio RF = Sortino Ratio Risk Free. The risk free rate is the Citi 91 Day T-Bill Index.



Los Angeles City Employees' Retirement System

TOTAL FUND ALLOCATION VS. PEER UNIVERSE

Total Plan Allocation vs. InvestorForce Public DB \$5-50B Gross

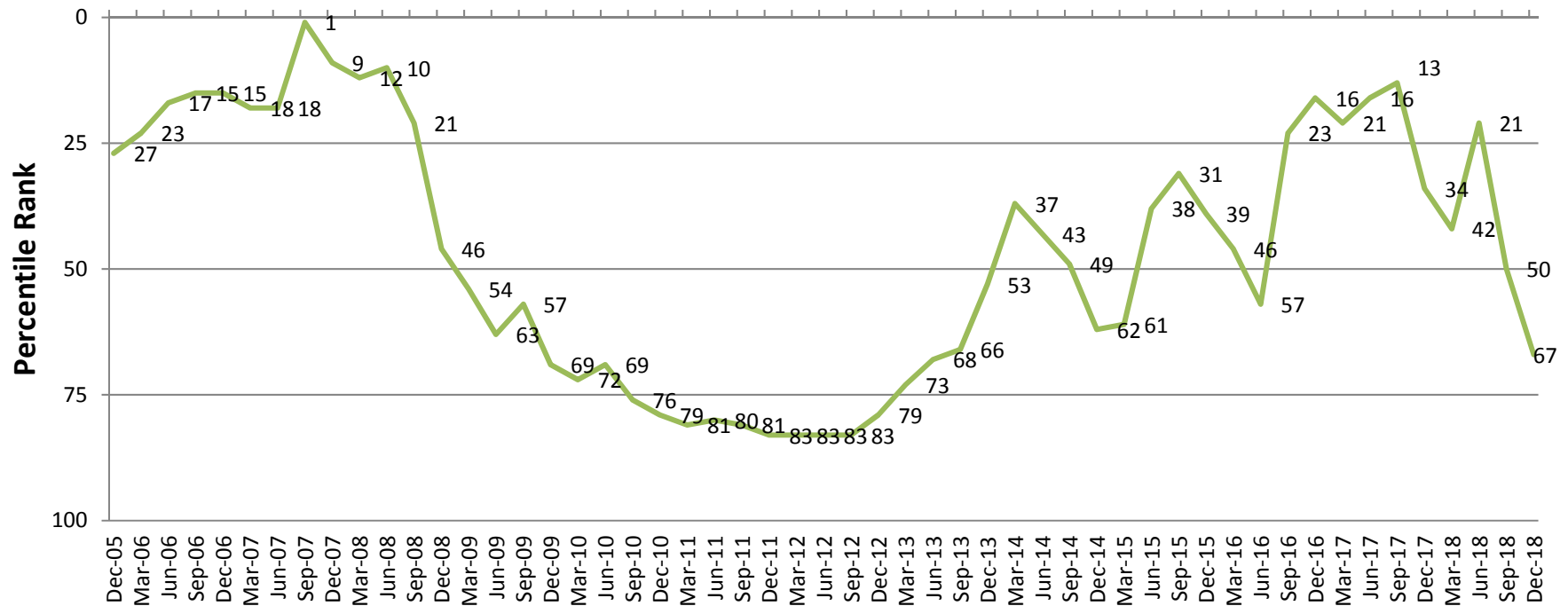


	Allocation (Rank)																	
5th Percentile	98.96	55.18	28.28	10.27	31.98	46.59	3.97	8.86	4.76									
25th Percentile	57.75	34.20	14.24	6.23	27.98	21.31	3.50	7.41	3.22									
Median	53.76	24.72	2.61	3.29	22.77	15.44	2.63	5.51	1.30									
75th Percentile	41.53	14.21	2.31	2.28	16.79	11.11	1.65	4.84	0.60									
95th Percentile	25.96	9.94	0.75	1.02	10.99	5.61	0.91	1.92	0.30									
# of Portfolios	17	15	9	11	17	11	4	10	16									
● LACERS Master Trust	53.76	(50)	24.72	(50)	21.67	(14)	7.37	(20)	23.84	(45)	11.63	(71)	5.43	(1)	0.00	(99)	0.46	(80)



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 67th 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 (\$)	3 Mo (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
U.S. Equity	4,022,532,873	-14.87	-8.90	-5.48	8.79	7.69	13.23	9.93	Oct-94
U.S. Equity Blend		-14.30	-8.20	-5.24	8.97	7.91	13.18	8.85	Oct-94
Over/Under		-0.57	-0.70	-0.24	-0.18	-0.22	0.05	1.08	
Aronson, Johnson & Ortiz	162,059,876	-14.64	-10.75	-11.48	4.31	4.50	10.87	7.79	Oct-01
Russell 1000 Value		-11.72	-6.69	-8.27	6.95	5.95	11.18	7.20	Oct-01
Over/Under		-2.92	-4.06	-3.21	-2.64	-1.45	-0.31	0.59	
Rhumblin Advisors Russell 2000	227,666,270	-20.12	-17.24	-10.90	7.36			3.32	Apr-15
Russell 2000		-20.20	-17.35	-11.01	7.36			3.41	Apr-15
Over/Under		0.08	0.11	0.11	0.00			-0.09	
Rhumblin Advisors Russell 2000 Growth ¹	117,377,737	-21.60	-17.24	-9.23	7.22			4.95	Jan-15
Russell 2000 Growth		-21.65	-17.33	-9.31	7.24			5.02	Jan-15
Over/Under		0.05	0.09	0.08	-0.02			-0.07	
Rhumblin Advisors Russell 2000 Value ¹	92,203,787	-18.55	-17.25	-12.75				10.22	Mar-16
Russell 2000 Value		-18.67	-17.36	-12.86				10.24	Mar-16
Over/Under		0.12	0.11	0.11				-0.02	
EAM Investors	108,024,231	-24.61	-14.43	-0.69	9.02			8.83	Sep-15
Russell 2000 Growth		-21.65	-17.33	-9.31	7.24			8.06	Sep-15
Over/Under		-2.96	2.90	8.62	1.78			0.77	
PanAgora	102,482,953	-18.73	-18.84	-13.92	4.85	3.89	13.32	5.78	Feb-06
Russell 2000 Value		-18.67	-17.36	-12.86	7.37	3.61	10.40	5.41	Feb-06
Over/Under		-0.06	-1.48	-1.06	-2.52	0.28	2.92	0.37	
Principal Global Investors	139,199,147	-12.71	-8.64	-5.19	10.01			9.40	Aug-14
Russell MidCap		-15.37	-11.14	-9.06	7.04			5.83	Aug-14
Over/Under		2.66	2.50	3.87	2.97			3.57	
Rhumblin Advisors S&P 500	2,893,801,354	-13.49	-6.82	-4.32	9.22	8.47	13.17	9.25	Feb-93
S&P 500		-13.52	-6.85	-4.38	9.26	8.49	13.12	9.08	Feb-93
Over/Under		0.03	0.03	0.06	-0.04	-0.02	0.05	0.17	
Rhumblin Advisors Russell 1000 Growth ¹	179,713,535	-15.85	-8.14	-1.48	11.13	10.36		12.95	Jun-13
Russell 1000 Growth		-15.89	-8.17	-1.51	11.15	10.40		13.00	Jun-13
Over/Under		0.04	0.03	0.03	-0.02	-0.04		-0.05	
Escrow Account	3,981								

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	4,022,532,873	100.00	-14.89	46	-8.93	40	-5.54	29	8.72	40	7.58	23	13.06	34		Oct-94
U.S. Equity Blend			<u>-14.30</u>	24	<u>-8.20</u>	21	<u>-5.24</u>	24	<u>8.97</u>	32	<u>7.91</u>	13	<u>13.18</u>	29		Oct-94
Over/Under			-0.59		-0.73		-0.30		-0.25		-0.33		-0.12			
InvestorForce Public DB > \$1 Billion US Equity Net Median			-15.13		-9.43		-6.52		8.50		7.10		12.91			Oct-94
Aronson, Johnson & Ortiz	162,059,876	4.03	-14.71	71	-10.88	76	-11.74	74	4.01	90	4.18	82	10.56	73	7.50	Oct-01
Russell 1000 Value			<u>-11.72</u>	29	<u>-6.69</u>	33	<u>-8.27</u>	43	<u>6.95</u>	47	<u>5.95</u>	41	<u>11.18</u>	50	<u>7.20</u>	Oct-01
Over/Under			-2.99		-4.19		-3.47		-2.94		-1.77		-0.62		0.30	
eV US Large Cap Value Equity Net Median			-13.65		-8.36		-8.94		6.79		5.65		11.16		7.63	Oct-01
Rhumblin Advisors Russell 2000 ¹	227,666,270	5.66	-20.12	55	-17.25	59	-10.90	49	7.36	47					3.31	Apr-15
Russell 2000			<u>-20.20</u>	57	<u>-17.35</u>	60	<u>-11.01</u>	50	<u>7.36</u>	47					<u>3.41</u>	Apr-15
Over/Under			0.08		0.10		0.11		0.00						-0.10	
eV US Small Cap Equity Net Median			-19.87		-16.50		-11.12		7.06						3.44	Apr-15
Rhumblin Advisors Russell 2000 ¹ Growth	117,377,737	2.92	-21.60	63	-17.25	81	-9.24	78	7.22	78					4.95	Jan-15
Russell 2000 Growth			<u>-21.65</u>	65	<u>-17.33</u>	82	<u>-9.31</u>	78	<u>7.24</u>	78					<u>5.02</u>	Jan-15
Over/Under			0.05		0.08		0.07		-0.02						-0.07	
eV US Small Cap Growth Equity Net Median			-20.85		-14.85		-4.01		9.30						6.81	Jan-15
Rhumblin Advisors Russell 2000 Value ¹	92,203,787	2.29	-18.55	40	-17.25	42	-12.75	30							10.22	Mar-16
Russell 2000 Value			<u>-18.67</u>	43	<u>-17.36</u>	43	<u>-12.86</u>	32							<u>10.24</u>	Mar-16
Over/Under			0.12		0.11		0.11								-0.02	
eV US Small Cap Value Equity Net Median			-19.21		-18.25		-14.80								7.82	Mar-16

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
EAM Investors	108,024,231	2.69	-24.78	97	-14.77	35	-1.40	13	8.17	37					8.06	Sep-15
<i>Russell 2000 Growth</i>			<u>-21.65</u>	77	<u>-17.33</u>	59	<u>-9.31</u>	40	<u>7.24</u>	49					<u>8.06</u>	Sep-15
Over/Under			-3.13		2.56		7.91		0.93						0.00	
<i>eV US Small Cap Equity Net Median</i>			-19.87		-16.50		-11.12		7.06						7.45	Sep-15
PanAgora	102,482,953	2.55	-18.89	46	-19.14	65	-14.52	48	4.15	72	3.14	53	12.55	35	5.06	Feb-06
<i>Russell 2000 Value</i>			<u>-18.67</u>	43	<u>-17.36</u>	43	<u>-12.86</u>	32	<u>7.37</u>	25	<u>3.61</u>	41	<u>10.40</u>	79	<u>5.41</u>	Feb-06
Over/Under			-0.22		-1.78		-1.66		-3.22		-0.47		2.15		-0.35	
<i>eV US Small Cap Value Equity Net Median</i>			-19.21		-18.25		-14.80		5.52		3.21		12.06		6.24	Feb-06
Principal Global Investors ¹	139,199,147	3.46	-12.80	6	-8.81	13	-5.56	27	9.58	16					9.00	Aug-14
<i>Russell MidCap</i>			<u>-15.37</u>	29	<u>-11.14</u>	36	<u>-9.06</u>	44	<u>7.04</u>	41					<u>5.83</u>	Aug-14
Over/Under			2.57		2.33		3.50		2.54						3.17	
<i>eV US Mid Cap Equity Net Median</i>			-16.61		-12.55		-10.15		6.20						5.36	Aug-14
Rhumblin Advisors S&P 500	2,893,801,354	71.94	-13.49	41	-6.82	33	-4.32	38	9.21	27	8.46	25	13.16	33		Feb-93
<i>S&P 500</i>			<u>-13.52</u>	41	<u>-6.85</u>	34	<u>-4.38</u>	38	<u>9.26</u>	26	<u>8.49</u>	24	<u>13.12</u>	33		Feb-93
Over/Under			0.03		0.03		0.06		-0.05		-0.03		0.04			
<i>eV US Large Cap Equity Net Median</i>			-14.16		-8.25		-5.82		7.81		7.13		12.30			Feb-93
Rhumblin Advisors Russell 1000 Growth	179,713,535	4.47	-15.86	56	-8.14	41	-1.49	54	11.13	21	10.35	14			12.95	Jun-13
<i>Russell 1000 Growth</i>			<u>-15.89</u>	57	<u>-8.17</u>	41	<u>-1.51</u>	54	<u>11.15</u>	21	<u>10.40</u>	13			<u>13.00</u>	Jun-13
Over/Under			0.03		0.03		0.02		-0.02		-0.05				-0.05	
<i>eV US Large Cap Growth Equity Net Median</i>			-15.54		-8.73		-1.12		9.39		8.79				11.80	Jun-13
Escrow Account	3,981	0.00														

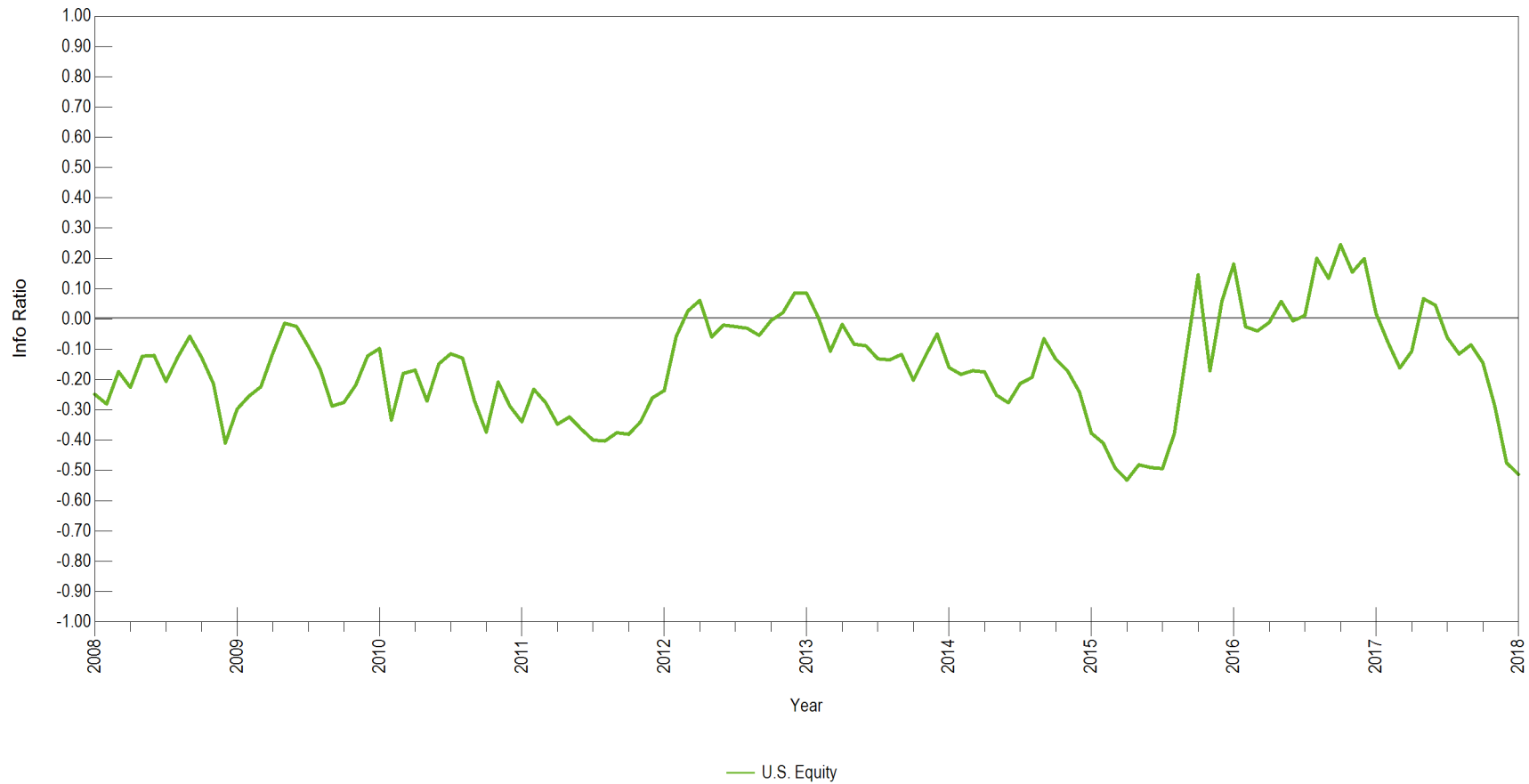
1- Portfolio has a mid-month inception date. Since inception return is calculated from the first full month of performance.

eA = eVestment Alliance



U.S. EQUITY ROLLING 5 YEAR INFORMATION RATIO

Rolling 5 Year Information Ratio



* Information Ratio is calculated using net of fee returns.



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	Index		
AJO	Oct-01	Large Cap Value	x	x	x	x	x	x	x	x	✓	449.7	On Watch since July 2016 due to performance.
Principal Global Investors	Jul-14	Mid Cap	✓	✓	✓	✓	✓	✓	N/A	N/A	✓	563.0	Performance compliant with LACERS' Manager Monitoring Policy
EAM Investors	Sep-15	Small Cap Growth	x	x	✓	✓	✓	✓	N/A	N/A	✓	501.2	Performance compliant with LACERS' Manager Monitoring Policy
PanAgora	Feb-06	Small Cap Value	x	✓	x	✓	x	x	x	x	x	647.8	On Watch since November 2018 due to performance
Rhumblin (Passive)	Feb-93	S&P 500	✓	✓	✓	✓	x	✓	x	✓	✓✓	100.9	Performance compliant with LACERS' Manager Monitoring Policy
Rhumblin (Passive)	Jun-13	R1000 Growth	✓	x	✓	x	x	✓	x	✓	x	8.8	Performance compliant with LACERS' Manager Monitoring Policy
Rhumblin (Passive)	Jun-15	R2000	✓	x	✓	✓	=	✓	N/A	N/A	x	11.9	Performance compliant with LACERS' Manager Monitoring Policy
Rhumblin (Passive)	Jun-15	R2000 Growth	✓	x	✓	x	x	x	N/A	N/A	x	5.9	Performance compliant with LACERS' Manager Monitoring Policy
Rhumblin (Passive)	Feb-16	R2000 Value	✓	✓	✓	✓	N/A	N/A	N/A	N/A	x	2.2	LACERS' Manager Monitoring Policy requires at least 3 years of track record to evaluate performance

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, 2018.
- * Where net of fees performance is not available gross of fee returns are evaluated.

Legend	
✓	Outperformed
x	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	4,724,690,293	100.00	-12.21	-12.03	-14.12	5.13	1.70	7.79	6.25	Aug-01
MSCI ACWI ex USA			<u>-11.46</u>	<u>-10.84</u>	<u>-14.20</u>	<u>4.48</u>	<u>0.68</u>	<u>6.57</u>	<u>5.43</u>	Aug-01
Over/Under			-0.75	-1.19	0.08	0.65	1.02	1.22	0.82	
Developed ex-U.S.	3,525,333,692	74.62	-13.62	-13.11	-14.20	3.77	1.44		6.61	Jun-12
MSCI EAFE			<u>-12.54</u>	<u>-11.35</u>	<u>-13.79</u>	<u>2.87</u>	<u>0.53</u>		<u>5.73</u>	Jun-12
Over/Under			-1.08	-1.76	-0.41	0.90	0.91		0.88	
AQR Capital ¹	312,386,271	6.61	-15.86	-17.31	-19.27	2.65			2.69	Feb-14
MSCI EAFE Small Cap			<u>-16.05</u>	<u>-16.79</u>	<u>-17.89</u>	<u>3.73</u>			<u>2.35</u>	Feb-14
Over/Under			0.19	-0.52	-1.38	-1.08			0.34	
Barrow Hanley ¹	458,046,332	9.69	-15.04	-15.85	-17.70	1.85	-0.47		-0.03	Nov-13
MSCI EAFE Value			<u>-11.70</u>	<u>-10.66</u>	<u>-14.78</u>	<u>2.82</u>	<u>-0.61</u>		<u>-0.34</u>	Nov-13
Over/Under			-3.34	-5.19	-2.92	-0.97	0.14		0.31	
Lazard Asset Management ¹	527,765,799	11.17	-11.68	-10.76	-10.30	3.12	2.12		2.57	Nov-13
MSCI EAFE			<u>-12.54</u>	<u>-11.35</u>	<u>-13.79</u>	<u>2.87</u>	<u>0.53</u>		<u>0.82</u>	Nov-13
Over/Under			0.86	0.59	3.49	0.25	1.59		1.75	
MFS Institutional Advisors	528,684,415	11.19	-11.69	-9.36	-8.45	7.56	4.10		4.36	Oct-13
MSCI World ex USA Growth NR USD			<u>-13.48</u>	<u>-12.22</u>	<u>-13.14</u>	<u>2.84</u>	<u>1.36</u>		<u>1.78</u>	Oct-13
Over/Under			1.79	2.86	4.69	4.72	2.74		2.58	
Oberweis Asset Mgmt ¹	139,162,103	2.95	-22.05	-23.96	-23.06	1.67			3.93	Jan-14
MSCI EAFE Small Cap			<u>-16.05</u>	<u>-16.79</u>	<u>-17.89</u>	<u>3.73</u>			<u>3.43</u>	Jan-14
Over/Under			-6.00	-7.17	-5.17	-2.06			0.50	
SSgA World ex US IMI	1,559,288,773	33.00	-13.19	-12.27	-14.19	3.66	1.01	7.07	5.25	Aug-93
MSCI World ex USA IMI NR USD ²			<u>-13.28</u>	<u>-12.43</u>	<u>-14.68</u>	<u>3.21</u>	<u>0.59</u>	<u>6.68</u>	<u>4.99</u>	Aug-93
Over/Under			0.09	0.16	0.49	0.45	0.42	0.39	0.26	

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	1,199,356,601	25.38	-7.77	-8.91	-14.61	9.74	1.52		2.82	Jun-12
<i>MSCI Emerging Markets</i>			<u>-7.47</u>	<u>-8.49</u>	<u>-14.58</u>	<u>9.25</u>	<u>1.65</u>		<u>2.87</u>	<i>Jun-12</i>
Over/Under			-0.30	-0.42	-0.03	0.49	-0.13		-0.05	
Axiom Emerging Markets	384,536,661	8.14	-8.91	-11.43	-17.06	8.62			2.23	Mar-14
<i>MSCI Emerging Markets Growth NR USD</i>			<u>-8.22</u>	<u>-13.15</u>	<u>-18.26</u>	<u>8.89</u>			<u>2.82</u>	<i>Mar-14</i>
Over/Under			-0.69	1.72	1.20	-0.27			-0.59	
DFA Emerging Markets ¹	414,697,613	8.78	-6.39	-5.19	-12.02	11.51			-0.38	Aug-14
<i>MSCI Emerging Markets Value NR USD</i>			<u>-6.75</u>	<u>-3.54</u>	<u>-10.74</u>	<u>9.52</u>			<u>-1.39</u>	<i>Aug-14</i>
Over/Under			0.36	-1.65	-1.28	1.99			1.01	
QMA Emerging Markets ¹	400,122,327	8.47	-8.07	-10.11	-15.11	9.23			2.21	May-14
<i>MSCI Emerging Markets</i>			<u>-7.47</u>	<u>-8.49</u>	<u>-14.58</u>	<u>9.25</u>			<u>1.79</u>	<i>May-14</i>
Over/Under			-0.60	-1.62	-0.53	-0.02			0.42	

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	4,724,690,293	100.00	-12.30	51	-12.20	57	-14.46	44	4.74	36	1.35	52	7.43	27	5.89	Aug-01
MSCI ACWI ex USA			<u>-11.46</u>	32	<u>-10.84</u>	34	<u>-14.20</u>	38	<u>4.48</u>	52	<u>0.68</u>	82	<u>6.57</u>	64	<u>5.43</u>	Aug-01
Over/Under			-0.84		-1.36		-0.26		0.26		0.67		0.86		0.46	
Developed ex-U.S.	3,525,333,692	74.62	-13.70		-13.26		-14.49		3.44		1.13				6.33	Jun-12
MSCI EAFE			<u>-12.54</u>		<u>-11.35</u>		<u>-13.79</u>		<u>2.87</u>		<u>0.53</u>				<u>5.73</u>	Jun-12
Over/Under			-1.16		-1.91		-0.70		0.57		0.60				0.60	
InvestorForce Public DB > \$1 Billion Dev Mkt ex-US Eq Net Median																Jun-12
AQR Capital ¹	312,386,271	6.61	-16.04	32	-17.65	46	-19.92	45	1.86	71					2.00	Feb-14
MSCI EAFE Small Cap			<u>-16.05</u>	32	<u>-16.79</u>	35	<u>-17.89</u>	27	<u>3.73</u>	44					<u>2.35</u>	Feb-14
Over/Under			0.01		-0.86		-2.03		-1.87						-0.35	
eV EAFE Small Cap Equity Net Median			<u>-17.21</u>		<u>-18.11</u>		<u>-20.20</u>		3.06						2.18	Feb-14
Barrow Hanley ¹	458,046,332	9.69	-15.16	81	-16.07	90	-18.12	71	1.34	74	-0.97	85			-0.52	Nov-13
MSCI EAFE Value			<u>-11.70</u>	34	<u>-10.66</u>	29	<u>-14.78</u>	38	<u>2.82</u>	56	<u>-0.61</u>	79			<u>-0.34</u>	Nov-13
Over/Under			-3.46		-5.41		-3.34		-1.48		-0.36				-0.18	
eV EAFE Value Equity Net Median			<u>-13.62</u>		<u>-12.68</u>		<u>-16.12</u>		3.08		0.18				0.53	Nov-13
Lazard Asset Management ¹	527,765,799	11.17	-11.80	21	-11.00	27	-10.77	15	2.57	53	1.58	41			2.03	Nov-13
MSCI EAFE			<u>-12.54</u>	27	<u>-11.35</u>	30	<u>-13.79</u>	38	<u>2.87</u>	50	<u>0.53</u>	68			<u>0.82</u>	Nov-13
Over/Under			0.74		0.35		3.02		-0.30		1.05				1.21	
eV All EAFE Equity Net Median			<u>-14.02</u>		<u>-13.52</u>		<u>-15.71</u>		2.86		1.18				1.50	Nov-13
MFS Institutional Advisors	528,684,415	11.19	-11.81	2	-9.59	2	-8.91	1	7.02	1	3.58	2			3.86	Oct-13
MSCI World ex USA Growth NR USD			<u>-13.48</u>	8	<u>-12.22</u>	8	<u>-13.14</u>	44	<u>2.84</u>	64	<u>1.36</u>	58			<u>1.78</u>	Oct-13
Over/Under			1.67		2.63		4.23		4.18		2.22				2.08	
eV EAFE All Cap Growth Net Median			<u>-16.08</u>		<u>-15.55</u>		<u>-15.32</u>		3.84		1.42				1.97	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	139,162,103	2.95	-22.25	97	-24.30	97	-23.77	88	0.83	91					3.05	Jan-14
MSCI EAFE Small Cap			-16.05	32	-16.79	35	-17.89	27	3.73	44					3.43	Jan-14
Over/Under			-6.20		-7.51		-5.88		-2.90						-0.38	
eV EAFE Small Cap Equity Net Median			-17.21		-18.11		-20.20		3.06						3.24	Jan-14
SSgA World ex US IMI	1,559,288,773	33.00	-13.19	29	-12.28	29	-14.21	37	3.64	28	0.99	58	7.04	61		Aug-93
MSCI World ex USA IMI NR USD ²			-13.28	30	-12.43	31	-14.68	38	3.21	38	0.59	73	6.68	71		Aug-93
Over/Under			0.09		0.15		0.47		0.43		0.40		0.36			
eV EAFE Core Equity Net Median			-14.19		-13.62		-15.90		2.38		1.23		7.18			Aug-93
Emerging Markets	1,199,356,601	25.38	-7.90	87	-9.14	54	-15.07	46	9.18	19	0.94	53			2.19	Jun-12
MSCI Emerging Markets			-7.47	77	-8.49	45	-14.58	41	9.25	18	1.65	13			2.87	Jun-12
Over/Under			-0.43		-0.65		-0.49		-0.07		-0.71				-0.68	
InvestorForce Public DB > \$1 Billion Emg Mkt Eq Net Median			-6.99		-8.89		-15.38		7.68		1.03				1.93	Jun-12
Axiom Emerging Markets	384,536,661	8.14	-9.08	75	-11.72	67	-17.64	66	7.86	50					1.57	Mar-14
MSCI Emerging Markets Growth NR USD			-8.22	60	-13.15	80	-18.26	74	8.89	29					2.82	Mar-14
Over/Under			-0.86		1.43		0.62		-1.03						-1.25	
eV Emg Mkts Equity Net Median			-7.66		-10.68		-16.21		7.75						1.63	Mar-14
DFA Emerging Markets ¹	414,697,613	8.78	-6.51	33	-5.41	14	-12.46	16	11.01	11					-0.86	Aug-14
MSCI Emerging Markets Value NR USD			-6.75	36	-3.54	6	-10.74	11	9.52	23					-1.39	Aug-14
Over/Under			0.24		-1.87		-1.72		1.49						0.53	
eV Emg Mkts Equity Net Median			-7.66		-10.68		-16.21		7.75						0.11	Aug-14
QMA Emerging Markets ¹	400,122,327	8.47	-8.16	59	-10.28	46	-15.47	41	8.79	30					1.77	May-14
MSCI Emerging Markets			-7.47	46	-8.49	32	-14.58	29	9.25	25					1.79	May-14
Over/Under			-0.69		-1.79		-0.89		-0.46						-0.02	
eV Emg Mkts Equity Net Median			-7.66		-10.68		-16.21		7.75						1.58	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

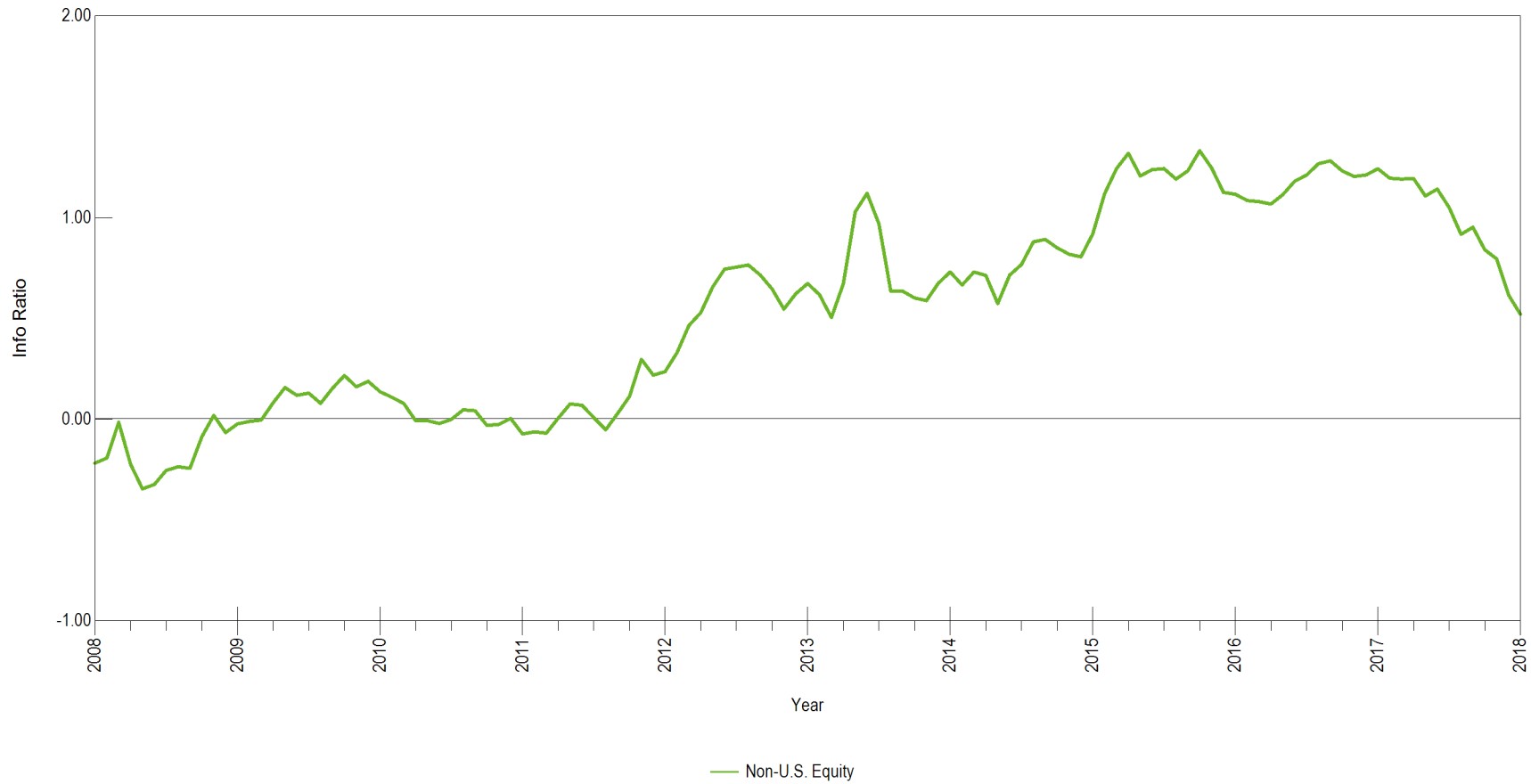
Versus MSCI ACWI ex USA - Quarter Ending December 31, 2018		
	Manager Ending Allocation (USD)	Index Ending Allocation (USD)
Europe		
Austria	0.2%	0.2%
Belgium	0.5%	0.6%
Bulgaria**	0.0%	0.0%
Croatia**	0.0%	0.0%
Czech Republic*	0.1%	0.0%
Denmark	1.3%	1.2%
Estonia**	0.0%	0.0%
Finland	1.1%	0.7%
France	8.3%	7.5%
Germany	5.5%	5.9%
Greece*	0.0%	0.1%
Hungary*	0.1%	0.1%
Ireland	0.6%	0.4%
Italy	1.9%	1.5%
Lithuania**	0.0%	0.0%
Luxembourg	0.2%	0.0%
Netherlands	2.9%	2.3%
Norway	0.8%	0.5%
Poland*	0.4%	0.3%
Portugal	0.1%	0.1%
Romania**	0.0%	0.0%
Russia*	0.8%	0.9%
Serbia**	0.0%	0.0%
Slovenia**	0.0%	0.0%
Spain	1.7%	2.1%
Sweden	1.9%	1.8%
Switzerland	5.4%	5.9%
United Kingdom	9.5%	11.5%
Total-Europe	43.0%	43.6%

Versus MSCI ACWI ex USA - Quarter Ending December 31, 2018		
	Manager Ending Allocation (USD)	Index Ending Allocation (USD)
Americas		
Argentina**	0.0%	0.0%
Brazil*	2.2%	2.0%
Canada	4.3%	6.5%
Chile*	0.2%	0.3%
Colombia*	0.1%	0.1%
Mexico*	0.8%	0.7%
Peru*	0.1%	0.1%
United States	1.4%	0.0%
Total-Americas	9.1%	9.7%
AsiaPacific		
Australia	3.2%	4.7%
China*	4.5%	7.9%
Hong Kong	6.2%	2.6%
India*	3.0%	2.4%
Indonesia*	0.8%	0.6%
Japan	15.7%	16.6%
Korea*	3.5%	3.6%
Malaysia*	0.6%	0.6%
New Zealand	0.2%	0.2%
Philippines*	0.2%	0.3%
Singapore	1.5%	0.9%
Taiwan*	3.3%	3.0%
Thailand*	0.7%	0.6%
Total-AsiaPacific	43.5%	44.1%
Other		
Egypt*	0.1%	0.0%
Israel	0.5%	0.4%
Other Countries	0.5%	0.0%
Qatar*	0.0%	0.3%
South Africa*	1.4%	1.6%
Turkey*	0.3%	0.2%
United Arab Emirates*	0.1%	0.2%
Total-Other	2.8%	2.7%
Totals		
Developed	74.6%	74.0%
Emerging*	23.3%	26.0%
Frontier**	0.0%	0.0%
Other	0.5%	
Cash	1.6%	



NON-U.S. EQUITY ROLLING 5 YEAR INFORMATION

Rolling 5 Year Information Ratio



*Information Ratio is calculated using net of fee returns.



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	Index		
Axiom International	Mar-14	Emerging Markets	✘	✘	✓	✘	✘	=	N/A	N/A	✘	1,866.9	Performance compliant with LACERS' Manager Monitoring Policy
Q.M.A.	Apr-14	Emerging Markets	✘	✘	✘	✓	✘	✓	N/A	N/A	✘	1,219.4	Performance compliant with LACERS' Manager Monitoring Policy
DFA Emerging Markets	Jul-14	Emerging Markets	✓	✓	✘	✓	✓	✓	N/A	N/A	✓	1,188.2	Performance compliant with LACERS' Manager Monitoring Policy
AQR	Feb-14	Non-U.S. Developed	✓	✓	✘	✓	✘	✘	N/A	N/A	✘	2,314.2	Performance compliant with LACERS' Manager Monitoring Policy
Oberweis Asset Mgt.	Jan-14	Non-U.S. Developed	✘	✘	✘	✘	✘	✘	N/A	N/A	✘	568.5	Performance compliant with LACERS' Manager Monitoring Policy
Barrow, Hanley, Mewhinney & Strauss	Nov-13	Non-U.S. Developed	✘	✘	✘	✘	✘	✘	✘	✘	✘	2,097.9	Performance compliant with LACERS' Manager Monitoring Policy
Lazard Asset Mgt.	Nov-13	Non-U.S. Developed	✓	✓	✓	✓	✘	✘	✓	✓	✓	2,467.4	Performance compliant with LACERS' Manager Monitoring Policy
MFS Institutional Advisors	Oct-13	Non-U.S. Developed	✓	✓	✓	✓	✓	✓	✓	✓	✓	2,313.6	Performance compliant with LACERS' Manager Monitoring Policy
SsgA (Passive)	Aug-93	Non-U.S. Developed	✓	✓	✓	✓	✓	✓	✓	✓	✓✓	368.9	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, 2018.
- * 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	2,984,471,934	100.00	1.33	1.52	-0.13	2.48	2.79		2.65	Jul-12
<i>Core Fixed Income Blend</i>			<u>1.64</u>	<u>1.66</u>	<u>0.01</u>	<u>2.06</u>	<u>2.52</u>		<u>2.04</u>	<i>Jul-12</i>
Over/Under			-0.31	-0.14	-0.14	0.42	0.27		0.61	
Baird Advisors	258,565,265	8.66	1.47	1.79	0.91	2.39	2.41	4.22	4.14	Mar-05
<i>BBgBarc US Govt/Credit Int TR</i>			<u>1.65</u>	<u>1.87</u>	<u>0.88</u>	<u>1.70</u>	<u>1.86</u>	<u>2.90</u>	<u>3.49</u>	<i>Mar-05</i>
Over/Under			-0.18	-0.08	0.03	0.69	0.55	1.32	0.65	
LM Capital	300,277,102	10.06	0.22	0.70	-1.27	2.08	2.63	4.48	4.31	Mar-05
<i>Core Fixed Income Blend</i>			<u>1.64</u>	<u>1.66</u>	<u>0.01</u>	<u>2.06</u>	<u>2.52</u>	<u>3.90</u>	<u>4.08</u>	<i>Mar-05</i>
Over/Under			-1.42	-0.96	-1.28	0.02	0.11	0.58	0.23	
Loomis Sayles	740,832,408	24.82	1.41	1.51	0.08	3.46	3.38	5.85	9.02	Jul-80
<i>BC US Agg LACERS custom</i>			<u>1.64</u>	<u>1.66</u>	<u>0.01</u>	<u>2.06</u>	<u>2.52</u>	<u>3.48</u>	<u>7.52</u>	<i>Jul-80</i>
Over/Under			-0.23	-0.15	0.07	1.40	0.86	2.37	1.50	
Neuberger Berman	734,310,802	24.60	1.17	1.54	-0.51	2.18	2.60	5.92	5.52	Sep-01
<i>Core Fixed Income Blend</i>			<u>1.64</u>	<u>1.66</u>	<u>0.01</u>	<u>2.06</u>	<u>2.52</u>	<u>3.90</u>	<u>4.42</u>	<i>Sep-01</i>
Over/Under			-0.47	-0.12	-0.52	0.12	0.08	2.02	1.10	
SSgA U.S. Aggregate Bond ¹	950,486,357	31.85	1.68	1.70	0.06	2.08			2.05	Jul-14
<i>BBgBarc US Aggregate TR</i>			<u>1.64</u>	<u>1.66</u>	<u>0.01</u>	<u>2.06</u>			<u>2.02</u>	<i>Jul-14</i>
Over/Under			0.04	0.04	0.05	0.02			0.03	

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	2,984,471,934	100.00	1.30	20	1.47	13	-0.23	39	2.38	78	2.68	65			2.53	Jul-12
Core Fixed Income Blend			<u>1.64</u>	7	<u>1.66</u>	3	<u>0.01</u>	24	<u>2.06</u>	99	<u>2.52</u>	72			<u>2.04</u>	Jul-12
Over/Under			-0.34		-0.19		-0.24		0.32		0.16				0.49	
InvestorForce Public DB > \$1 Billion US Fixed Income Net Median			0.60		0.99		-0.44		2.88		2.80				2.55	Jul-12
Baird Advisors	258,565,265	8.66	1.44	31	1.73	28	0.79	37	2.26	16	2.28	21	4.08	22	4.00	Mar-05
BBgBarc US Govt/Credit Int TR			<u>1.65</u>	16	<u>1.87</u>	13	<u>0.88</u>	27	<u>1.70</u>	51	<u>1.86</u>	52	<u>2.90</u>	76	<u>3.49</u>	Mar-05
Over/Under			-0.21		-0.14		-0.09		0.56		0.42		1.18		0.51	
eV US Interm Duration Fixed Inc Net Median			1.31		1.63		0.61		1.72		1.88		3.28		3.71	Mar-05
LM Capital	300,277,102	10.06	0.19	96	0.65	96	-1.37	96	1.97	70	2.51	59	4.34	38	4.17	Mar-05
Core Fixed Income Blend			<u>1.64</u>	16	<u>1.66</u>	21	<u>0.01</u>	38	<u>2.06</u>	61	<u>2.52</u>	57	<u>3.90</u>	60	<u>4.08</u>	Mar-05
Over/Under			-1.45		-1.01		-1.38		-0.09		-0.01		0.44		0.09	
eV US Core Fixed Inc Net Median			1.29		1.42		-0.20		2.18		2.55		4.07		4.13	Mar-05
Loomis Sayles	740,832,408	24.82	1.37	40	1.45	46	-0.04	42	3.33	8	3.24	9	5.71	9		Jul-80
BC US Agg LACERS custom			<u>1.64</u>	16	<u>1.66</u>	21	<u>0.01</u>	38	<u>2.06</u>	61	<u>2.52</u>	57	<u>3.48</u>	82		Jul-80
Over/Under			-0.27		-0.21		-0.05		1.27		0.72		2.23			
eV US Core Fixed Inc Net Median			1.29		1.42		-0.20		2.18		2.55		4.07			Jul-80
Neuberger Berman	734,310,802	24.60	1.13	67	1.47	45	-0.65	80	2.03	63	2.45	67	5.74	9	5.36	Sep-01
Core Fixed Income Blend			<u>1.64</u>	16	<u>1.66</u>	21	<u>0.01</u>	38	<u>2.06</u>	61	<u>2.52</u>	57	<u>3.90</u>	60	<u>4.42</u>	Sep-01
Over/Under			-0.51		-0.19		-0.66		-0.03		-0.07		1.84		0.94	
eV US Core Fixed Inc Net Median			1.29		1.42		-0.20		2.18		2.55		4.07		4.38	Sep-01
SSgA U.S. Aggregate Bond ¹	950,486,357	31.85	1.67	15	1.68	20	0.02	37	2.04	62					2.01	Jul-14
BBgBarc US Aggregate TR			<u>1.64</u>	16	<u>1.66</u>	21	<u>0.01</u>	38	<u>2.06</u>	61					<u>2.02</u>	Jul-14
Over/Under			0.03		0.02		0.01		-0.02						-0.01	
eV US Core Fixed Inc Net Median			1.29		1.42		-0.20		2.18						2.03	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

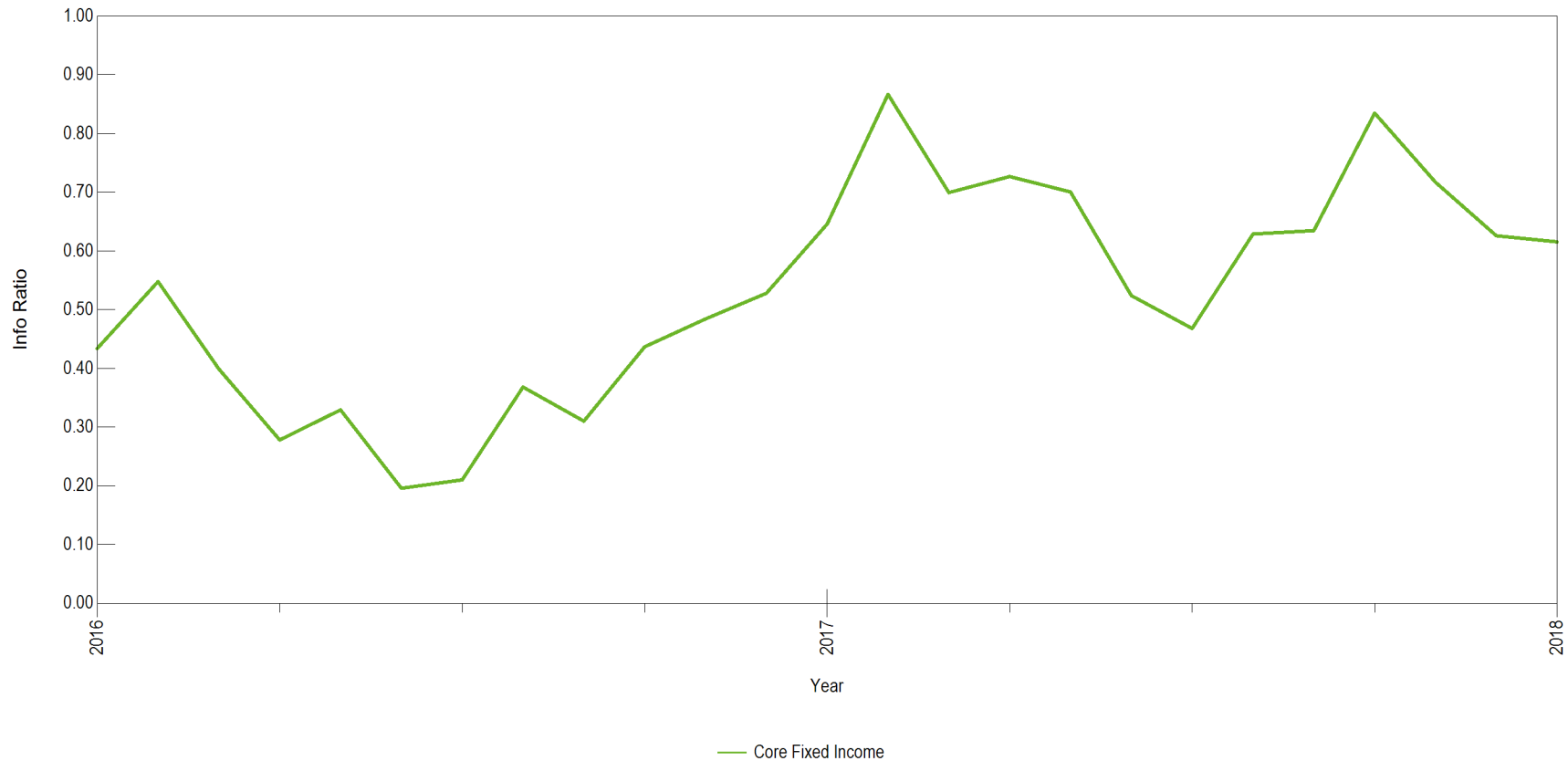
eV = eVestment



Los Angeles City Employees' Retirement System

CORE FIXED INCOME 3 YEAR INFORMATION RATIO

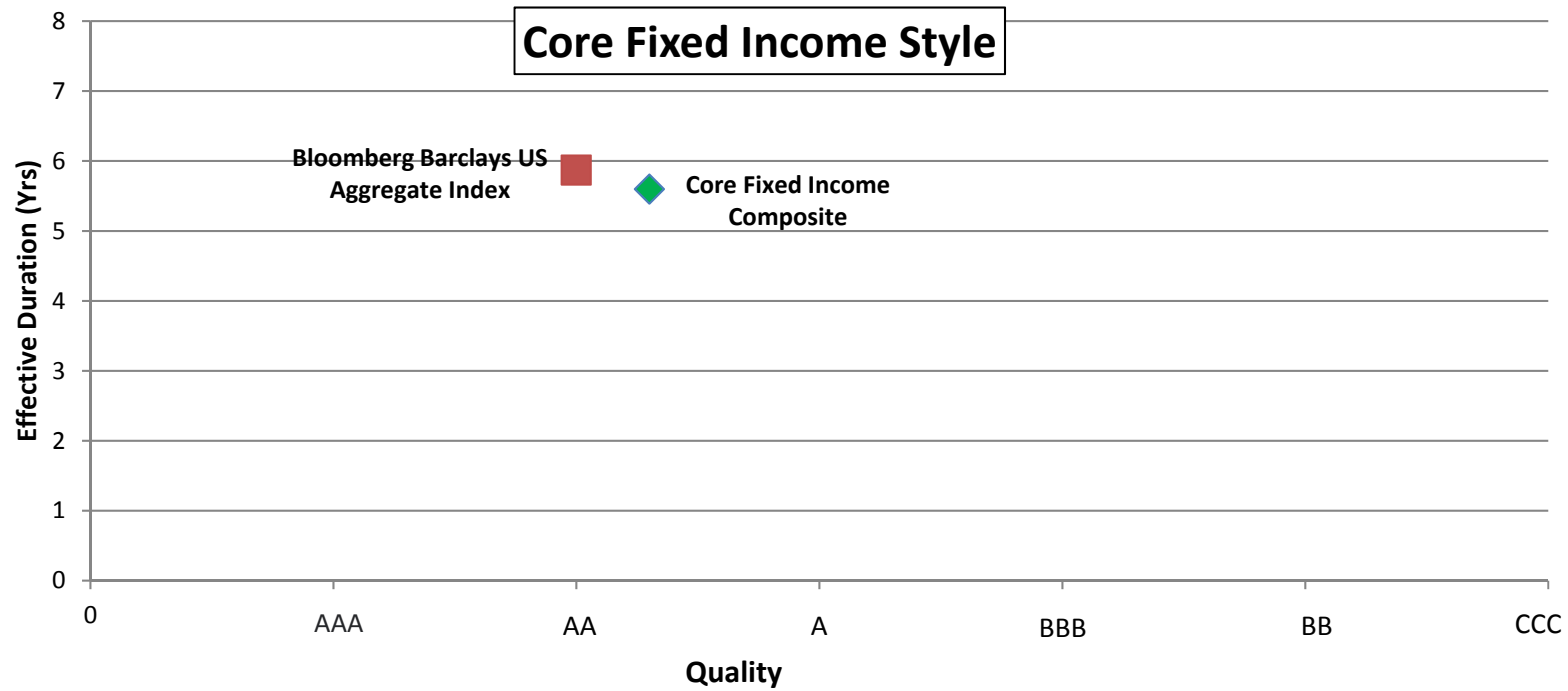
Rolling 3 Year Information Ratio



*Information Ratio is calculated using net of fee returns.



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	x	x	x	x	x	x		
Loomis Sayles	Jul-80	Core	x	✓	x	✓	✓	✓	✓	✓	✓✓	863.0	Performance compliant with LACERS' Manager Monitoring Policy
Baird Advisors	Mar-05	Intermediate	x	✓	x	✓	✓	✓	✓	✓	✓	291.7	Performance compliant with LACERS' Manager Monitoring Policy
LM Capital Group	Mar-05	Core	x	x	x	x	x	x	x	x	✓✓	240.1	Performance compliant with LACERS' Manager Monitoring Policy
SSgA (Passive)	Jul-14	Core	✓	✓	✓	✓	x	x	N/A	N/A	x	369.3	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, 2018.
- * Where net of fees performance is not available gross of fee returns are evaluated.

Legend	
✓	Outperformed
x	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	895,136,297	100.00	-2.77	-0.89	-2.49	6.39	3.80		4.54	Jun-13
<i>Credit Opportunities Blend</i>			<u>-3.39</u>	<u>-1.09</u>	<u>-2.82</u>	<u>6.53</u>	<u>3.98</u>		<u>4.70</u>	<i>Jun-13</i>
Over/Under			0.62	0.20	0.33	-0.14	-0.18		-0.16	
AEGON USA	366,445,273	40.94	-4.35	-2.28	-1.85	7.15	4.40		4.95	Jun-13
<i>BBgBarc US High Yield 2% Issuer Cap TR</i>			<u>-4.54</u>	<u>-2.24</u>	<u>-2.08</u>	<u>7.23</u>	<u>3.84</u>		<u>4.57</u>	<i>Jun-13</i>
Over/Under			0.19	-0.04	0.23	-0.08	0.56		0.38	
Prudential Emerging Markets	350,053,869	39.11	-0.97	0.79	-4.53	6.05			4.02	May-14
<i>JP Morgan EMBI Global Diversified</i>			<u>-1.25</u>	<u>1.02</u>	<u>-4.26</u>	<u>5.15</u>			<u>3.43</u>	<i>May-14</i>
Over/Under			0.28	-0.23	-0.27	0.90			0.59	
Bain Capital Senior Loan Fund, LP*	178,620,284	19.95	-2.93	-1.35	0.68	4.86			3.03	Jun-15
<i>Credit Suisse Leveraged Loans</i>			<u>-3.08</u>	<u>-1.21</u>	<u>1.14</u>	<u>5.03</u>			<u>3.34</u>	<i>Jun-15</i>
Over/Under			0.15	-0.14	-0.46	-0.17			-0.31	

- 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	895,136,297	100.00	-2.85		-1.04		-2.81		6.03		3.44				4.19	Jun-13
<i>Credit Opportunities Blend</i>			<u>-3.39</u>		<u>-1.09</u>		<u>-2.82</u>		<u>6.53</u>		<u>3.98</u>				<u>4.70</u>	<i>Jun-13</i>
Over/Under			0.54		0.05		0.01		-0.50		-0.54				-0.51	
AEGON USA	366,445,273	40.94	-4.44	58	-2.46	64	-2.22	50	6.76	26	4.01	20			4.59	Jun-13
<i>BBgBarc US High Yield 2% Issuer Cap TR</i>			<u>-4.54</u>	59	<u>-2.24</u>	57	<u>-2.08</u>	47	<u>7.23</u>	13	<u>3.84</u>	25			<u>4.57</u>	<i>Jun-13</i>
Over/Under			0.10		-0.22		-0.14		-0.47		0.17				0.02	
<i>eV US High Yield Fixed Inc Net Median</i>			-4.15		-2.05		-2.25		6.02		3.34				3.97	<i>Jun-13</i>
Prudential Emerging Markets	350,053,869	39.11	-1.07	69	0.61	33	-4.90	34	5.64	45					3.63	May-14
<i>JP Morgan EMBI Global Diversified</i>			<u>-1.25</u>	71	<u>1.02</u>	27	<u>-4.26</u>	24	<u>5.15</u>	61					<u>3.43</u>	<i>May-14</i>
Over/Under			0.18		-0.41		-0.64		0.49						0.20	
<i>eV Emg Mkt Fixed Inc Hedged Net Median</i>			-0.67		0.00		-5.96		5.51						1.56	<i>May-14</i>
Bain Capital Senior Loan Fund, LP	178,620,284	19.95	-2.93	25	-1.35	31	0.68	18	4.86	20					3.03	Jun-15
<i>Credit Suisse Leveraged Loans</i>			<u>-3.08</u>	33	<u>-1.21</u>	26	<u>1.14</u>	4	<u>5.03</u>	18					<u>3.34</u>	<i>Jun-15</i>
Over/Under			0.15		-0.14		-0.46		-0.17						-0.31	
<i>eV US Float-Rate Bank Loan Fixed Inc Net Median</i>			-3.38		-1.68		0.20		4.06						2.83	<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

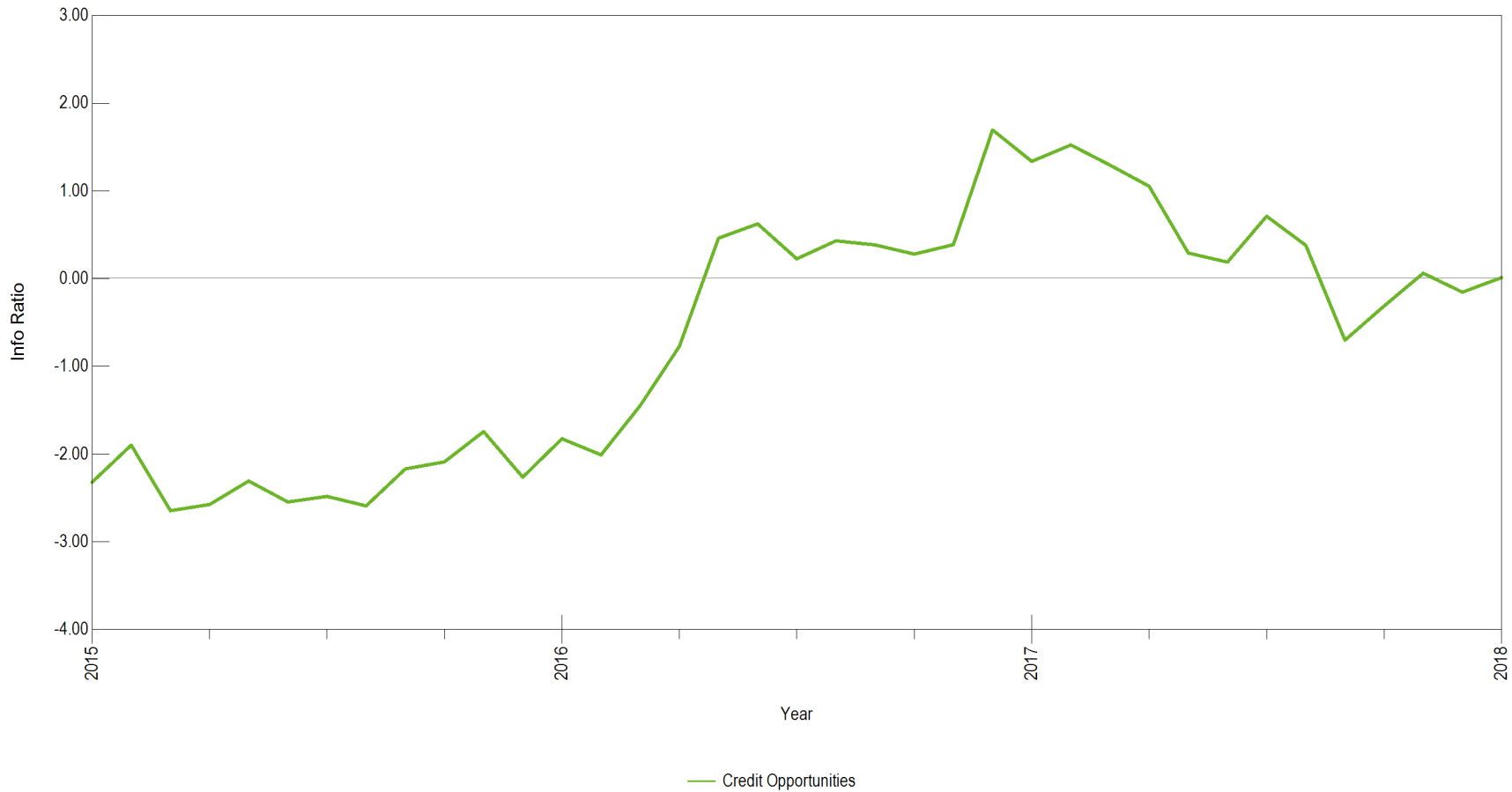
eA = eVestment Alliance

BBgBarc = Bloomberg Barclays



CREDIT OPPORTUNITIES ROLLING 1 YEAR

Rolling 1 Year Information Ratio



*Information Ratio is calculated using net of fee returns.



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	✓	✗	✗	=	✗	✓	✓	✓	✓	781.6	Watch pursuant to LACERS' Manager Monitoring Policy for a period of one year ending October 5, 2019
Prudential	May-14	Emerging Market Debt	✓	✗	✗	✓	✓	✓	N/A	N/A	✓	1230.2	Performance compliant with LACERS' Manager Monitoring Policy
Bain	Jun-15	Bank Loans	✓	✓	✗	✓	✗	✓	N/A	N/A	✗	330.0	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, 2018.
- * 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	1,676,695,740	100.00	-0.57	-0.15	2.25	5.46	6.71	0.77	6.21	Nov-94
<i>CPI + 5% (Unadjusted)</i>			<u>0.75</u>	<u>2.16</u>	<u>7.00</u>	<u>7.12</u>	<u>6.58</u>	<u>6.88</u>	<u>7.27</u>	<i>Nov-94</i>
Over/Under			-1.32	-2.31	-4.75	-1.66	0.13	-6.11	-1.06	
Public Real Assets	883,521,087	52.69	-2.66	-3.45	-3.36	2.43			0.20	Jun-14
<i>Public Real Assets Blend</i>			<u>-4.53</u>	<u>-4.69</u>	<u>-4.48</u>	<u>1.88</u>			<u>-2.26</u>	<i>Jun-14</i>
Over/Under			1.87	1.24	1.12	0.55			2.46	
TIPS	609,514,180	36.35	0.00	-0.93	-1.10	2.22			0.58	Jul-14
<i>BBgBarc US TIPS TR</i>			<u>-0.42</u>	<u>-1.24</u>	<u>-1.26</u>	<u>2.11</u>			<u>0.61</u>	<i>Jul-14</i>
Over/Under			0.42	0.31	0.16	0.11			-0.03	
DFA US TIPS ¹	609,514,180	36.35	0.00	-0.93	-1.10	2.42			0.74	Aug-14
<i>BBgBarc US TIPS TR</i>			<u>-0.42</u>	<u>-1.24</u>	<u>-1.26</u>	<u>2.11</u>			<u>0.61</u>	<i>Aug-14</i>
Over/Under			0.42	0.31	0.16	0.31			0.13	
REITS	118,118,721	7.04	-6.64	-5.58	-4.38	4.50			4.41	Mar-15
<i>FTSE NAREIT All Equity REIT</i>			<u>-6.06</u>	<u>-5.59</u>	<u>-4.39</u>	<u>4.12</u>			<u>2.97</u>	<i>Mar-15</i>
Over/Under			-0.58	0.01	0.01	0.38			1.44	
CenterSquare US Real Estate ¹	118,118,721	7.04	-6.64	-5.58	-4.38	4.50			5.39	May-15
<i>FTSE NAREIT All Equity REIT</i>			<u>-6.06</u>	<u>-5.59</u>	<u>-4.39</u>	<u>4.12</u>			<u>4.48</u>	<i>May-15</i>
Over/Under			-0.58	0.01	0.01	0.38			0.91	
Commodities	155,888,186	9.30	-9.16	-10.65	-10.13	1.41			-6.37	Jun-15
<i>Bloomberg Commodity Index TR USD</i>			<u>-9.41</u>	<u>-11.24</u>	<u>-11.25</u>	<u>0.30</u>			<u>-7.12</u>	<i>Jun-15</i>
Over/Under			0.25	0.59	1.12	1.11			0.75	
CoreCommodity Mgmt ¹	155,888,186	9.30	-9.16	-10.65	-10.13	1.41			-6.37	Jul-15
<i>Bloomberg Commodity Index TR USD</i>			<u>-9.41</u>	<u>-11.24</u>	<u>-11.25</u>	<u>0.30</u>			<u>-7.12</u>	<i>Jul-15</i>
Over/Under			0.25	0.59	1.12	1.11			0.75	
Private Real Estate	772,918,895	46.10	1.90	3.76	8.64	8.64	10.29	2.44	6.93	Oct-94
<i>Real Estate Blend</i>			<u>1.96</u>	<u>4.30</u>	<u>9.21</u>	<u>9.10</u>	<u>11.27</u>	<u>8.62</u>	<u>9.95</u>	<i>Oct-94</i>
Over/Under			-0.06	-0.54	-0.57	-0.46	-0.98	-6.18	-3.02	
Timber	20,255,758	1.21	-0.02	-0.14	1.49	2.71	6.37	4.60	9.48	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	1,676,695,740	100.00	-0.61		-0.23		2.09		5.29		6.56		0.63			Nov-94
<i>CPI + 5% (Unadjusted)</i>			<u>0.75</u>		<u>2.16</u>		<u>7.00</u>		<u>7.12</u>		<u>6.58</u>		<u>6.88</u>			<i>Nov-94</i>
Over/Under			-1.36		-2.39		-4.91		-1.83		-0.02		-6.25			
Public Real Assets	883,521,087	52.69	-2.71		-3.56		-3.60		2.16						0.00	Jun-14
<i>Public Real Assets Blend</i>			<u>-4.53</u>		<u>-4.69</u>		<u>-4.48</u>		<u>1.88</u>				<u>-2.26</u>			<i>Jun-14</i>
Over/Under			1.82		1.13		0.88		0.28				2.26			
TIPS	609,514,180	36.35	-0.01		-0.95		-1.15		2.17						0.53	Jul-14
<i>BBgBarc US TIPS TR</i>			<u>-0.42</u>		<u>-1.24</u>		<u>-1.26</u>		<u>2.11</u>				<u>0.61</u>			<i>Jul-14</i>
Over/Under			0.41		0.29		0.11		0.06				-0.08			
DFA US TIPS¹	609,514,180	36.35	-0.01	4	-0.95	20	-1.15	34	2.36	18			0.69			Aug-14
<i>BBgBarc US TIPS TR</i>			<u>-0.42</u>	31	<u>-1.24</u>	35	<u>-1.26</u>	39	<u>2.11</u>	38			<u>0.61</u>			<i>Aug-14</i>
Over/Under			0.41		0.29		0.11		0.25				0.08			
<i>eV US TIPS / Inflation Fixed Inc Net Median</i>			<u>-0.54</u>		<u>-1.33</u>		<u>-1.42</u>		<u>2.00</u>				<u>0.35</u>			<i>Aug-14</i>
REITS	118,118,721	7.04	-6.75		-5.77		-4.81		4.02						3.96	Mar-15
<i>FTSE NAREIT All Equity REIT</i>			<u>-6.06</u>		<u>-5.59</u>		<u>-4.39</u>		<u>4.12</u>				<u>2.97</u>			<i>Mar-15</i>
Over/Under			-0.69		-0.18		-0.42		-0.10				0.99			
CenterSquare US Real Estate¹	118,118,721	7.04	-6.75	61	-5.77	48	-4.81	40	4.02	12			4.93			May-15
<i>FTSE NAREIT All Equity REIT</i>			<u>-6.06</u>	27	<u>-5.59</u>	44	<u>-4.39</u>	39	<u>4.12</u>	12			<u>4.48</u>			<i>May-15</i>
Over/Under			-0.69		-0.18		-0.42		-0.10				0.45			
<i>eV US REIT Net Median</i>			<u>-6.51</u>		<u>-5.84</u>		<u>-5.19</u>		<u>2.19</u>				<u>3.31</u>			<i>May-15</i>
Commodities	155,888,186	9.30	-9.31		-10.97		-10.82		0.60						-7.07	Jul-15
<i>Bloomberg Commodity Index TR USD</i>			<u>-9.41</u>		<u>-11.24</u>		<u>-11.25</u>		<u>0.30</u>				<u>-7.12</u>			<i>Jul-15</i>
Over/Under			0.10		0.27		0.43		0.30				0.05			
CoreCommodity Mgmt¹	155,888,186	9.30	-9.31		-10.97		-10.82		0.60						-7.07	Jul-15
<i>Bloomberg Commodity Index TR USD</i>			<u>-9.41</u>		<u>-11.24</u>		<u>-11.25</u>		<u>0.30</u>				<u>-7.12</u>			<i>Jul-15</i>
Over/Under			0.10		0.27		0.43		0.30				0.05			

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	772,918,895	46.10	1.88	13	3.71	23	8.56	11	8.55	20	10.19	32	2.33	99		Oct-94
<i>Real Estate Blend</i>			<u>1.96</u>	11	<u>4.30</u>	5	<u>9.21</u>	7	<u>9.10</u>	11	<u>11.27</u>	21	<u>8.62</u>	15		Oct-94
Over/Under			-0.08		-0.59		-0.65		-0.55		-1.08		-6.29			
<i>InvestorForce Public DB Real Estate Priv Net Median</i>			1.22		3.38		7.91		8.23		10.10		5.82			Oct-94
Timber	20,255,758	1.21	-0.02		-0.14		1.49		2.71		4.21		4.20			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	✓	✓	✓	✓	✓	✓	N/A	N/A	✓	194.6	Performance compliant with LACERS' Manager Monitoring Policy
CenterSquare	Apr-15	REITS	✗	✗	✗	✓	✗	✓	N/A	N/A	✓	399.8	Performance compliant with LACERS' Manager Monitoring Policy
CoreCommodity Mgt.	Jul-15	Commodities	✓	N/A	✓	N/A	✓	N/A	N/A	N/A	✓	860.4	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, 2018.
- * Where net of fees performance is not available gross of fee returns are evaluated.

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



APPENDIX

NEPC, LLC

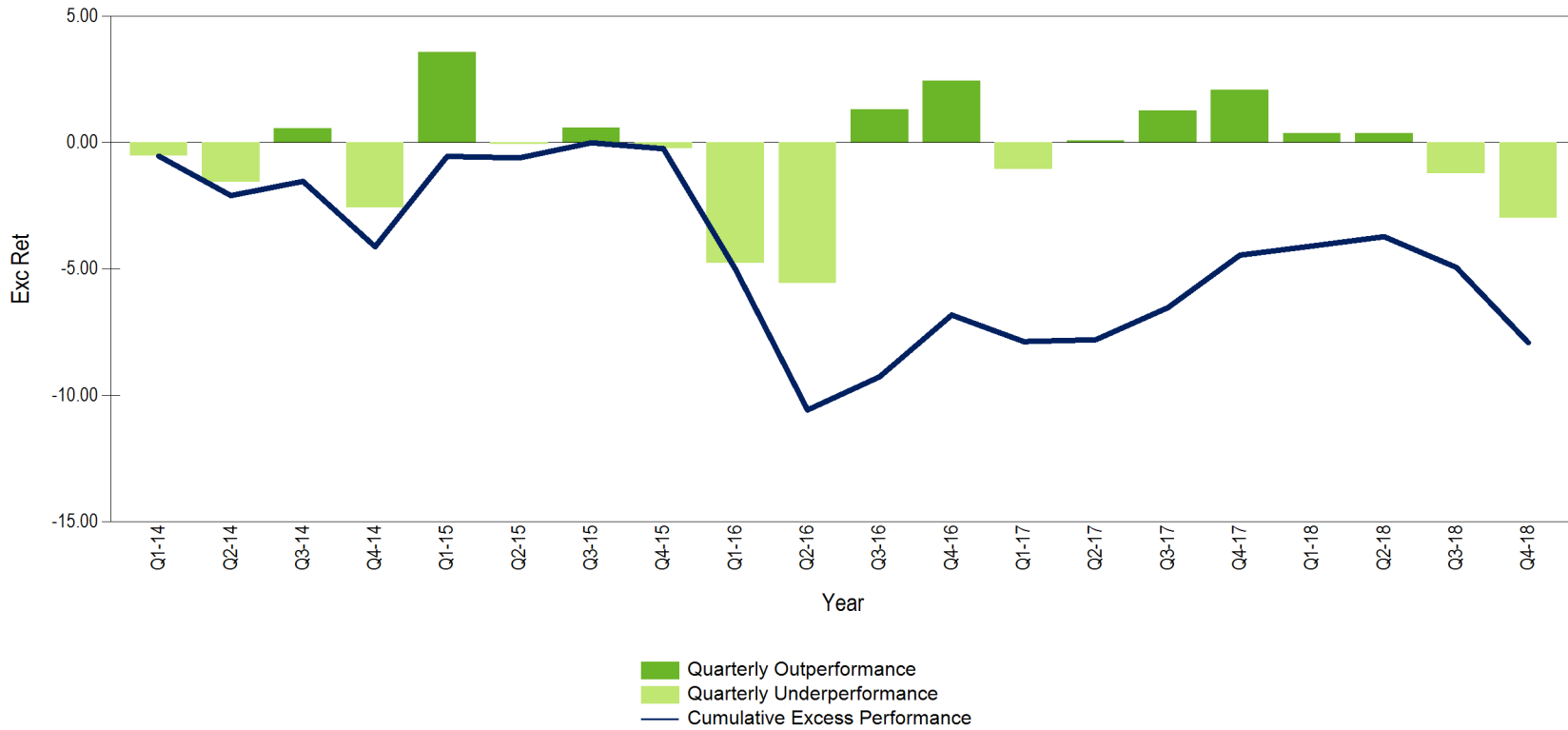
U.S. EQUITY MANAGER PERFORMANCE

NEPC, LLC

Los Angeles City Employees' Retirement System

ARONSON, JOHNSON & ORTIZ

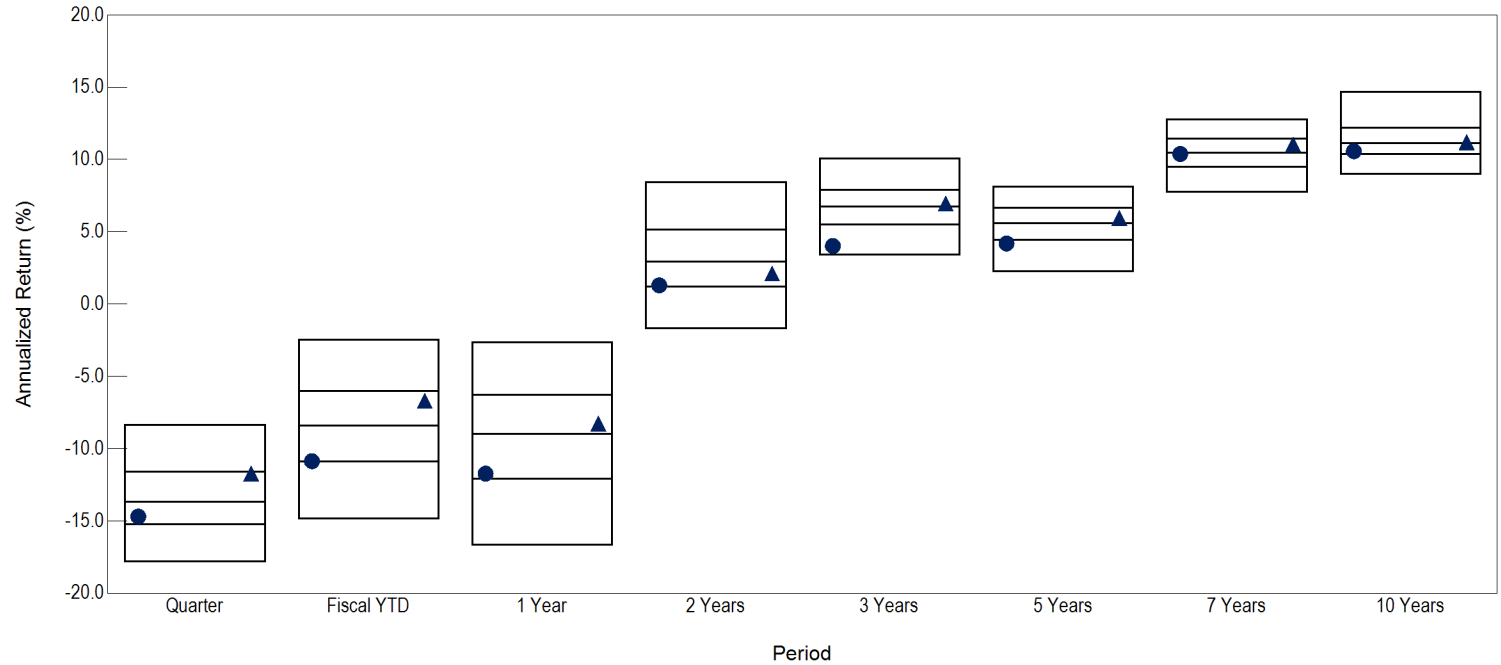
Quarterly and Cumulative Excess Performance



Los Angeles City Employees' Retirement System

ARONSON, JOHNSON & ORTIZ

Aronson, Johnson & Ortiz vs. eV US Large Cap Value Equity Net

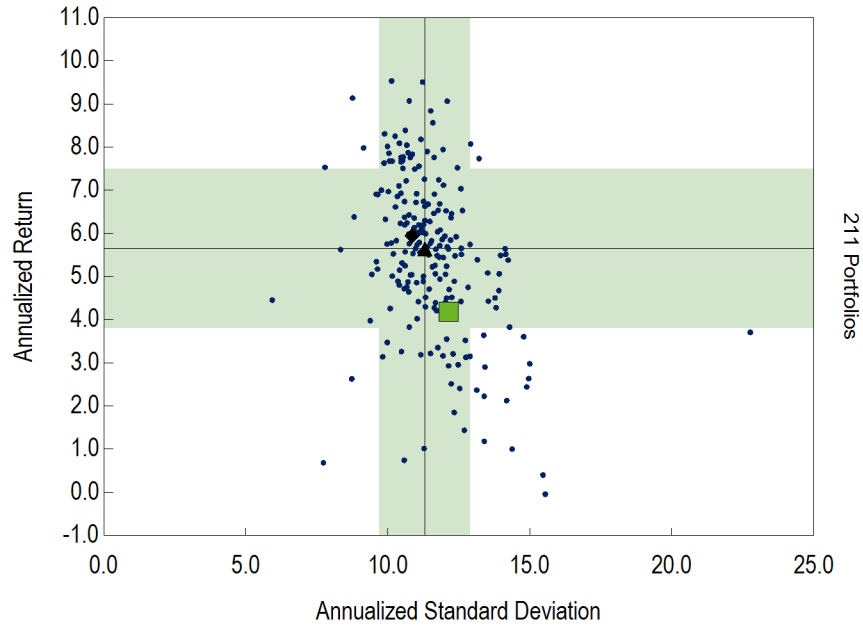


	Quarter		Fiscal YTD		1 Year		2 Years		3 Years		5 Years		7 Years		10 Years	
5th Percentile	-8.39		-2.48		-2.66		8.42		10.07		8.13		12.78		14.67	
25th Percentile	-11.54		-5.99		-6.23		5.20		7.93		6.70		11.47		12.25	
Median	-13.65		-8.36		-8.94		2.98		6.79		5.65		10.50		11.16	
75th Percentile	-15.17		-10.84		-12.03		1.25		5.54		4.50		9.51		10.40	
95th Percentile	-17.75		-14.81		-16.63		-1.64		3.46		2.30		7.82		9.06	
# of Portfolios	225		225		224		222		220		211		191		171	
● Aronson, Johnson & Ortiz	-14.71	(71)	-10.88	(76)	-11.74	(74)	1.28	(75)	4.01	(90)	4.18	(82)	10.37	(54)	10.56	(73)
▲ Russell 1000 Value	-11.72	(29)	-6.69	(33)	-8.27	(43)	2.11	(61)	6.95	(47)	5.95	(41)	11.02	(42)	11.18	(50)

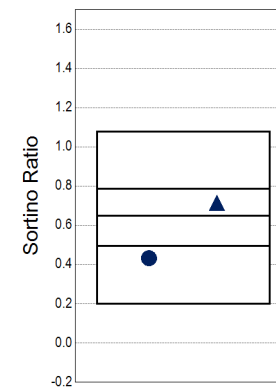
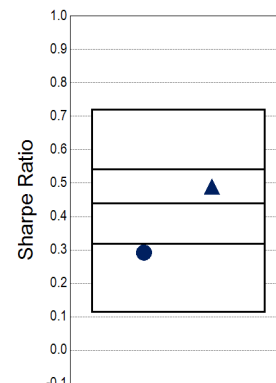
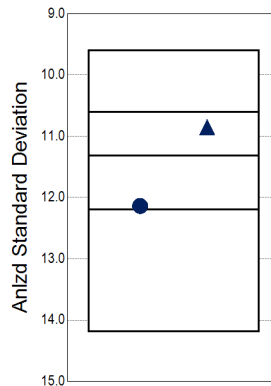
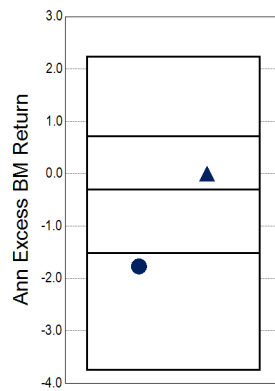
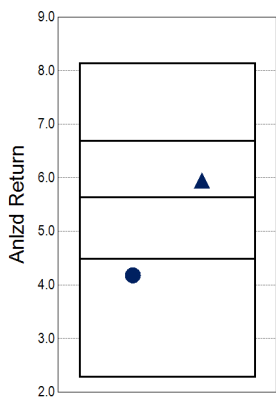
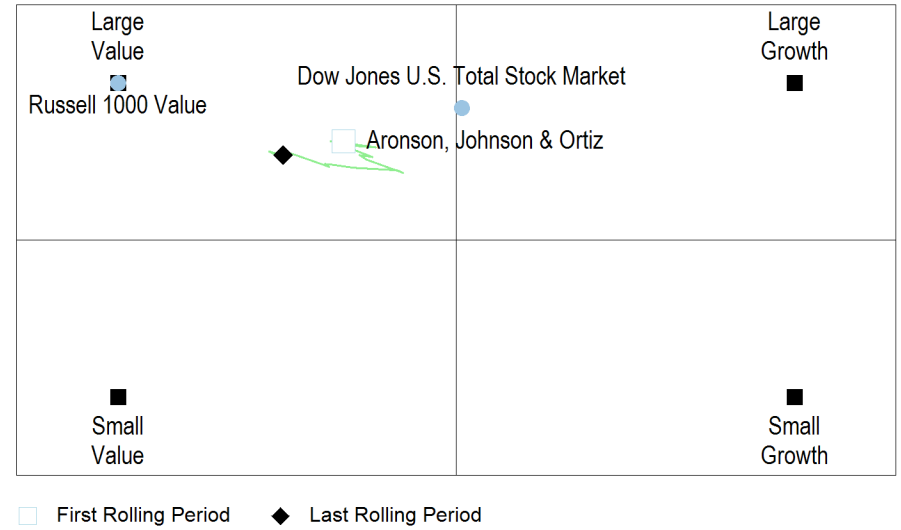


ARONSON, JOHNSON & ORTIZ

5 Year Risk Return



5 Year Style Map



- Aronson, Johnson & Ortiz
- ▲ Russell 1000 Value
- 5th to 25th Percentile
- 25th to Median
- Median to 75th Percentile
- 75th to 95th Percentile



Los Angeles City Employees' Retirement System

EAM INVESTORS

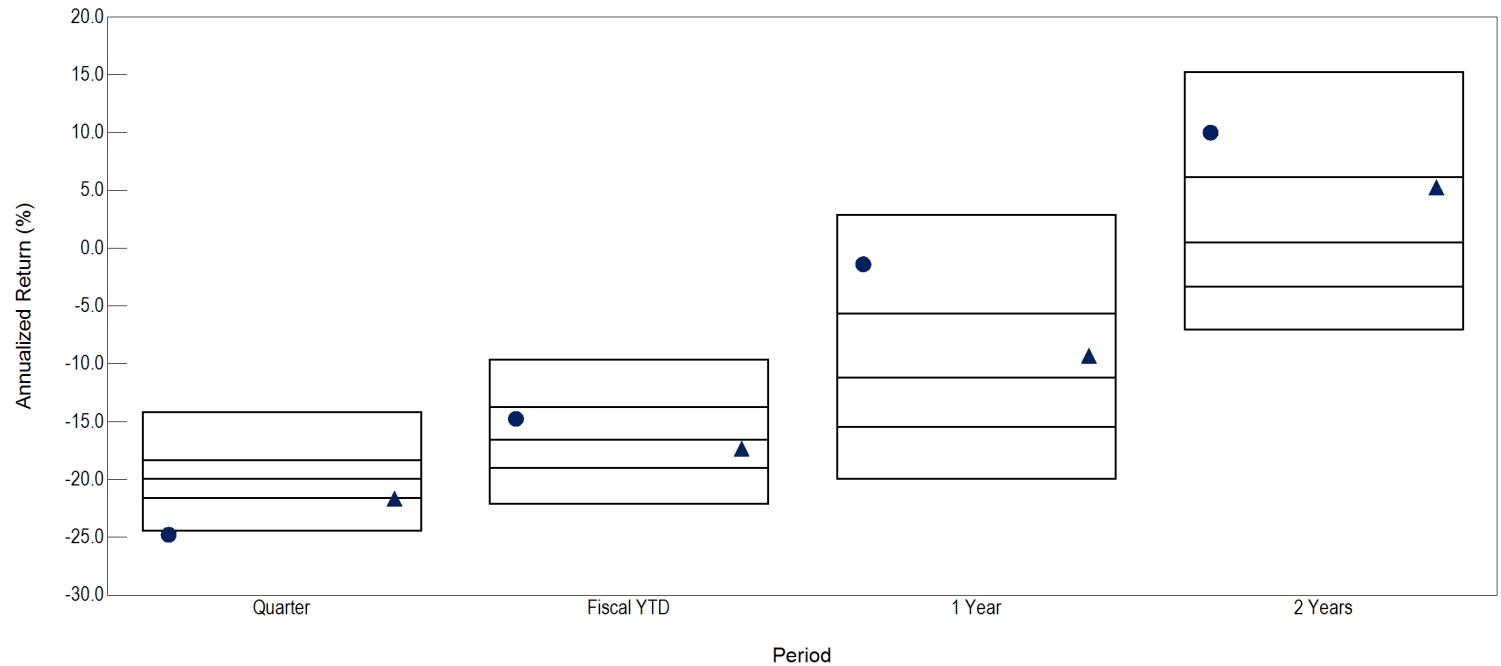
Quarterly and Cumulative Excess Performance



Los Angeles City Employees' Retirement System

EAM INVESTORS

EAM Investors vs. eV US Small Cap Equity Net



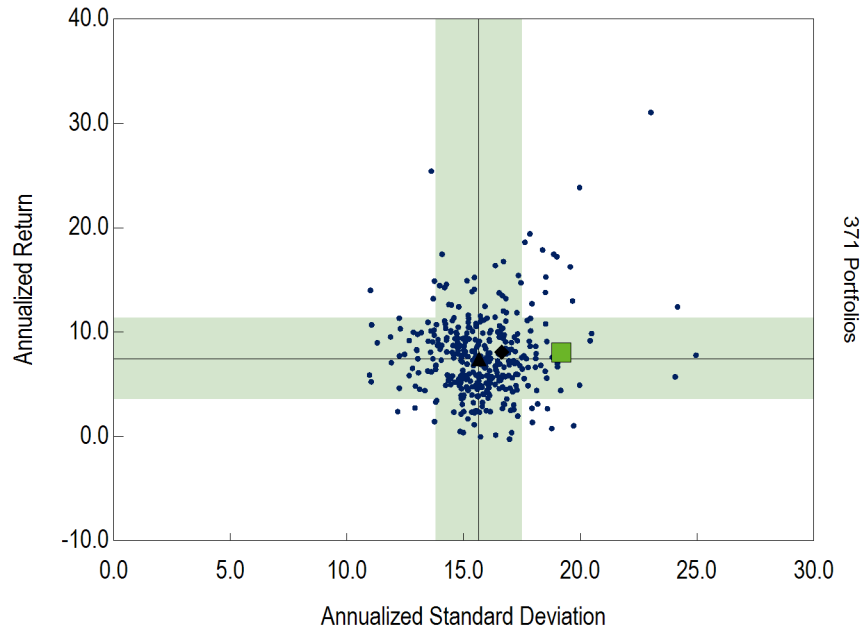
	Return (Rank)							
5th Percentile	-14.16		-9.62		2.88		15.22	
25th Percentile	-18.26		-13.70		-5.62		6.19	
Median	-19.87		-16.50		-11.12		0.56	
75th Percentile	-21.53		-18.96		-15.42		-3.26	
95th Percentile	-24.39		-22.06		-19.88		-6.99	
# of Portfolios	392		392		392		385	
● EAM Investors	-24.78	(97)	-14.77	(35)	-1.40	(13)	9.98	(15)
▲ Russell 2000 Growth	-21.65	(77)	-17.33	(59)	-9.31	(40)	5.26	(29)



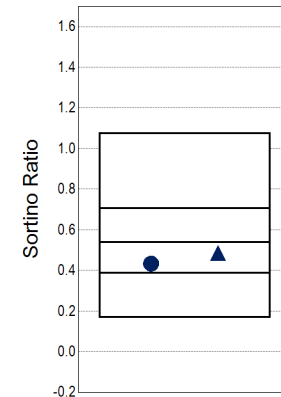
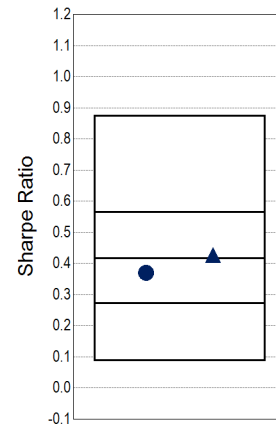
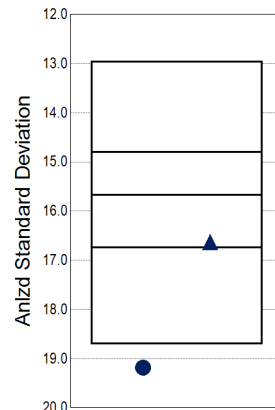
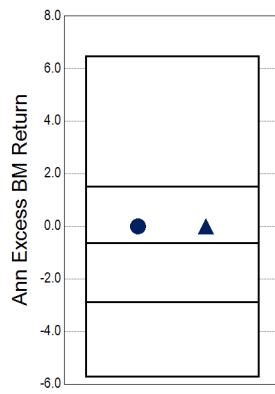
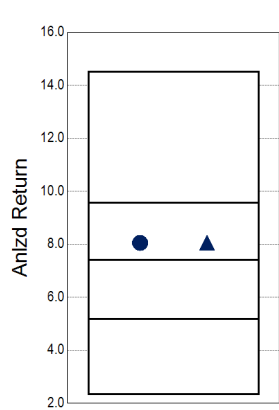
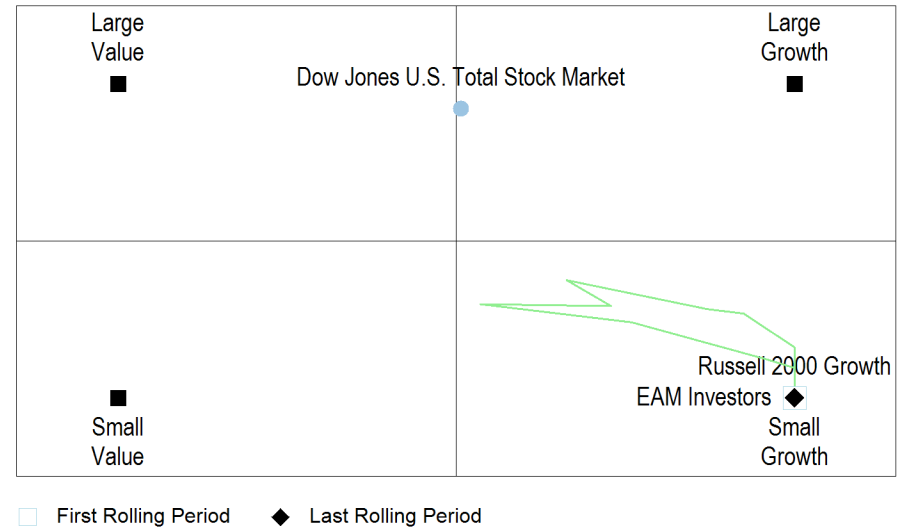
Los Angeles City Employees' Retirement System

EAM INVESTORS

Since Inception Risk Return



Since Inception Style Map



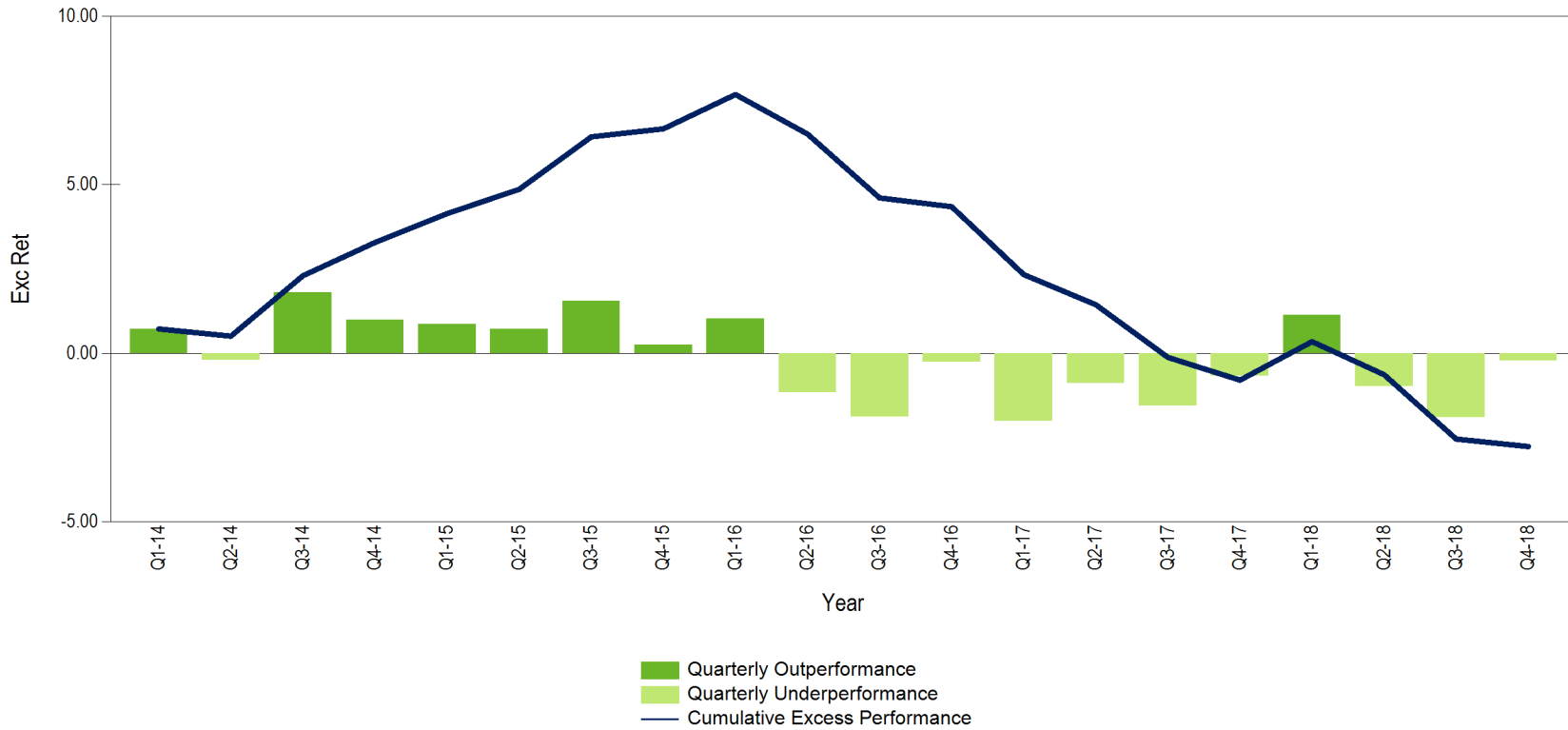
- EAM Investors
- ▲ Russell 2000 Growth
- 5th to 25th Percentile
- 25th to Median
- Median to 75th Percentile
- 75th to 95th Percentile



Los Angeles City Employees' Retirement System

PANAGORA

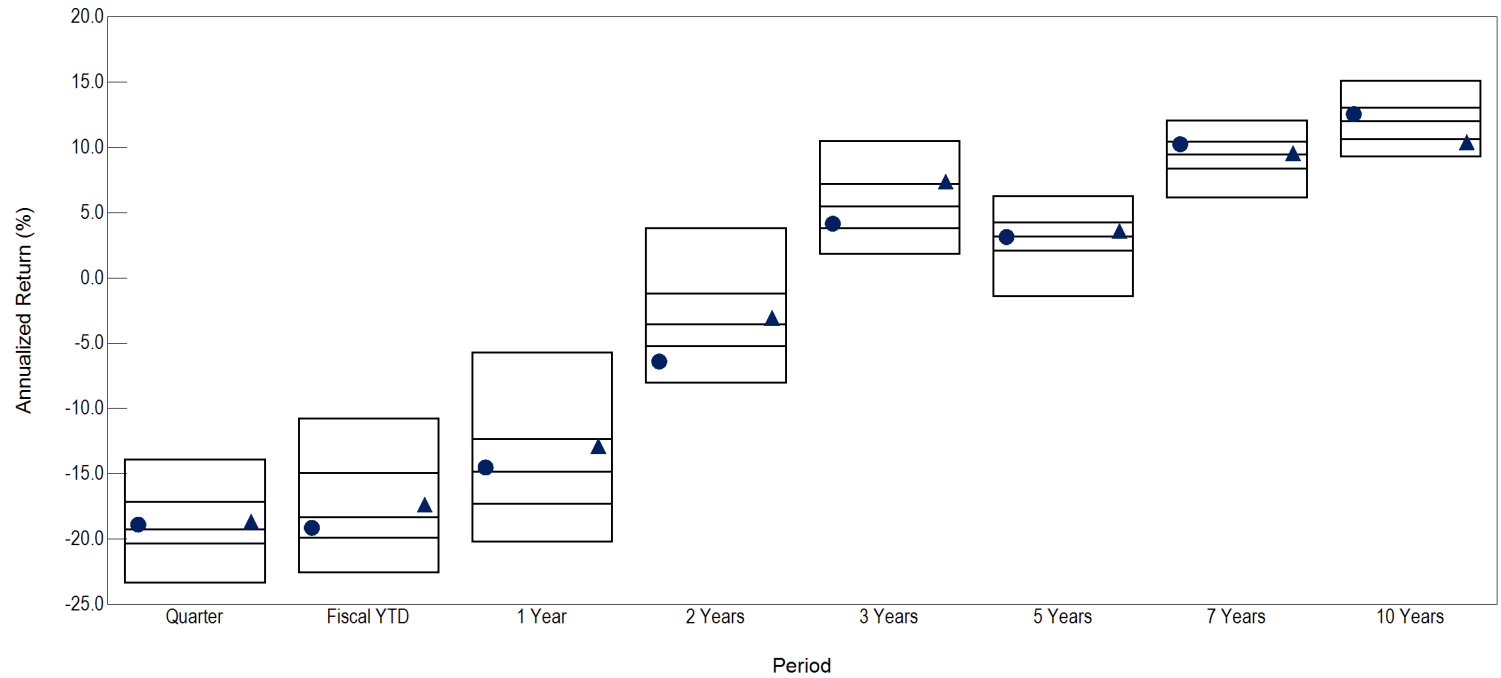
Quarterly and Cumulative Excess Performance



Los Angeles City Employees' Retirement System

PANAGORA

PanAgora vs. eV US Small Cap Value Equity Net



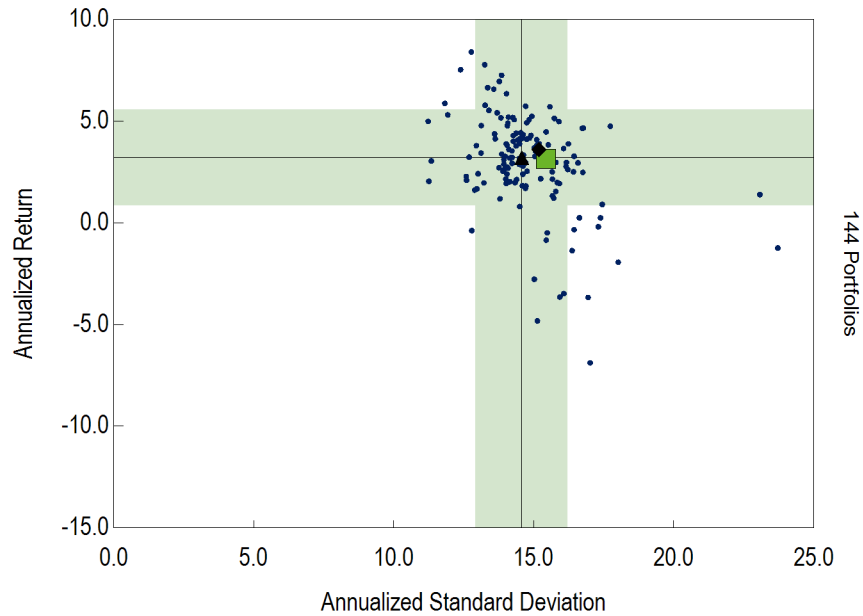
	Return (Rank)															
5th Percentile	-13.92	(46)	-10.76	(65)	-5.71	(48)	3.82	(85)	10.47	(72)	6.28	(53)	12.08	(32)	15.12	(35)
25th Percentile	-17.08	(43)	-14.87	(43)	-12.29	(32)	-1.13	(44)	7.27	(25)	4.31	(41)	10.51	(50)	13.10	(79)
Median	-19.21	-18.25	-14.80	-3.51	5.52	3.21	9.52	12.06								
75th Percentile	-20.29	-19.83	-17.26	-5.15	3.85	2.12	8.45	10.69								
95th Percentile	-23.31	-22.51	-20.15	-7.96	1.89	-1.34	6.22	9.34								
# of Portfolios	160	160	160	159	154	144	131	118								
● PanAgora	-18.89	(46)	-19.14	(65)	-14.52	(48)	-6.40	(85)	4.15	(72)	3.14	(53)	10.24	(32)	12.55	(35)
▲ Russell 2000 Value	-18.67	(43)	-17.36	(43)	-12.86	(32)	-3.06	(44)	7.37	(25)	3.61	(41)	9.57	(50)	10.40	(79)



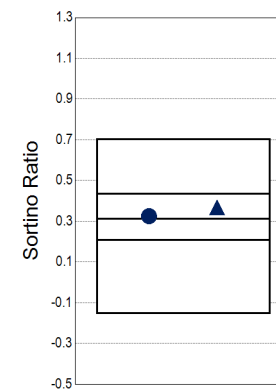
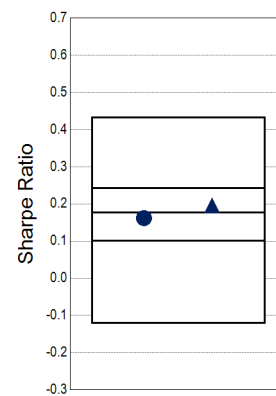
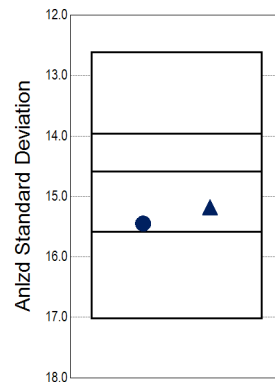
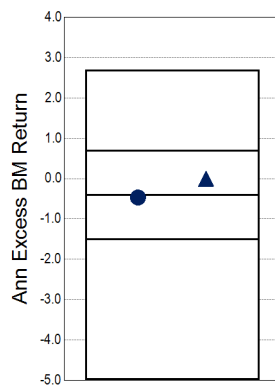
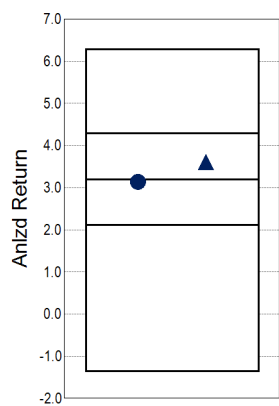
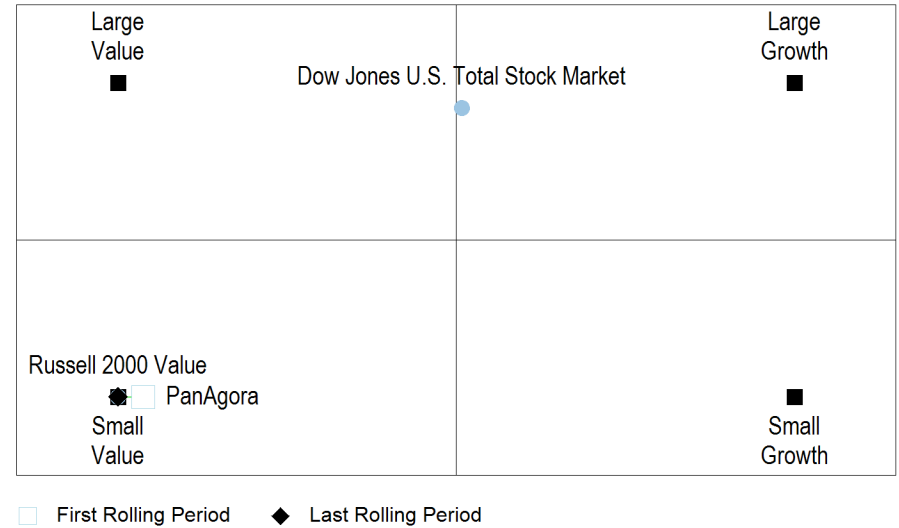
Los Angeles City Employees' Retirement System

PANAGORA

5 Year Risk Return



5 Year Style Map

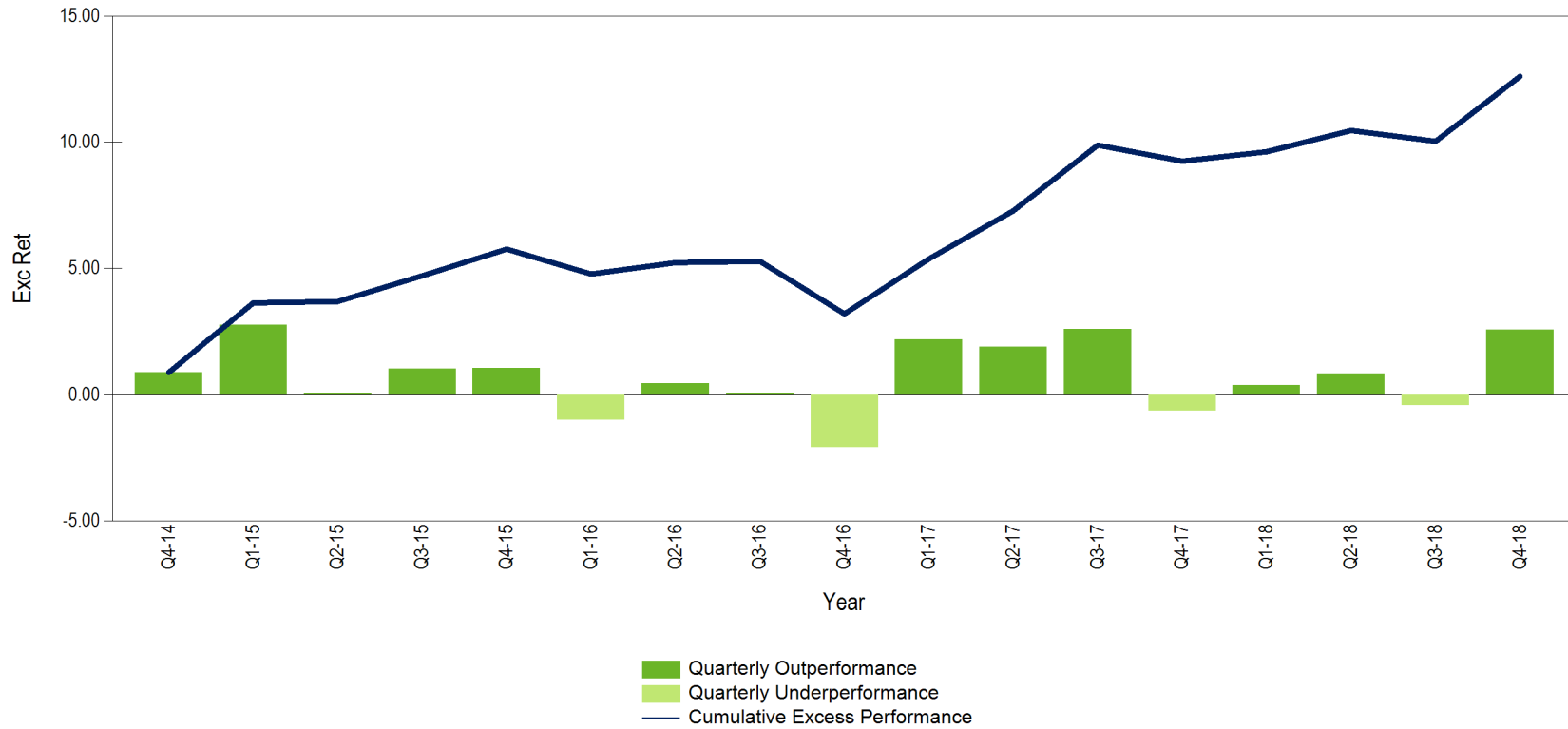


- PanAgora
- ▲ Russell 2000 Value
- 5th to 25th Percentile
- 25th to Median
- Median to 75th Percentile
- 75th to 95th Percentile



PRINCIPAL GLOBAL INVESTORS

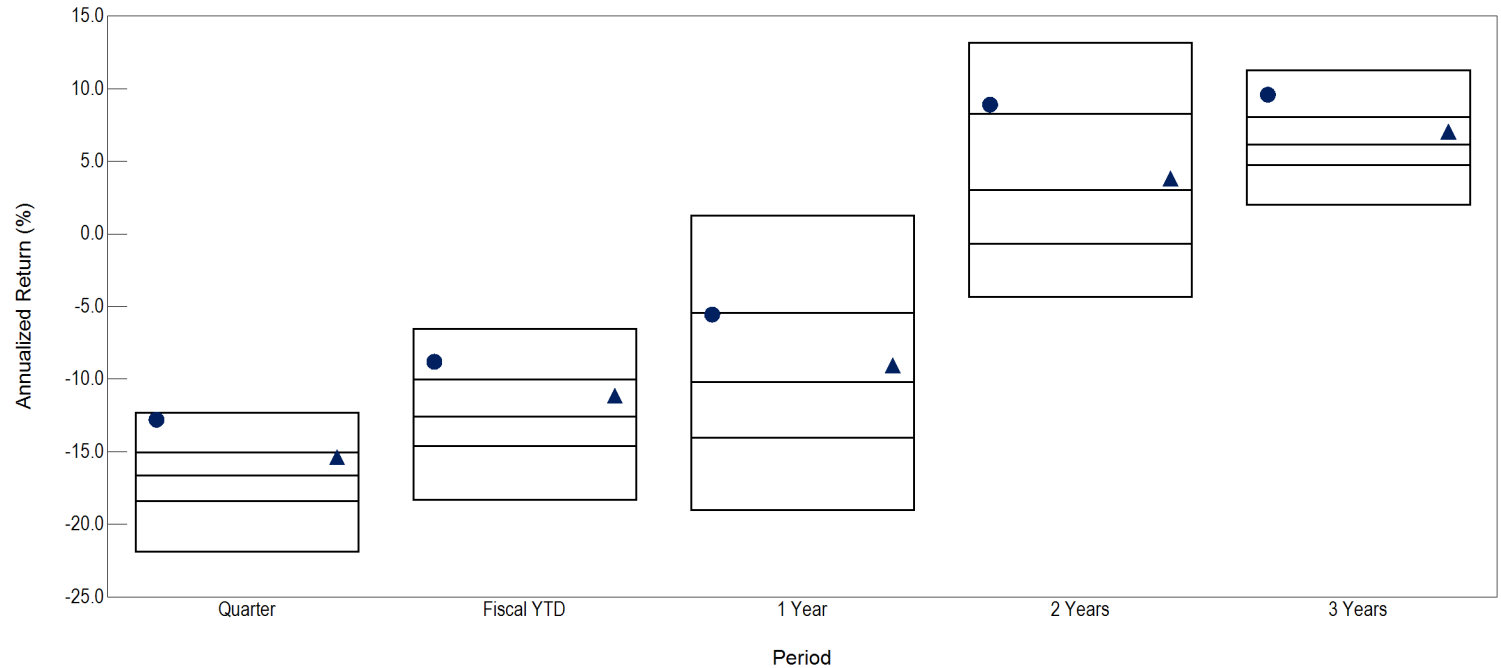
Quarterly and Cumulative Excess Performance



Los Angeles City Employees' Retirement System

PRINCIPAL GLOBAL INVESTORS

Principal Global Investors vs. eV US Mid Cap Equity Net

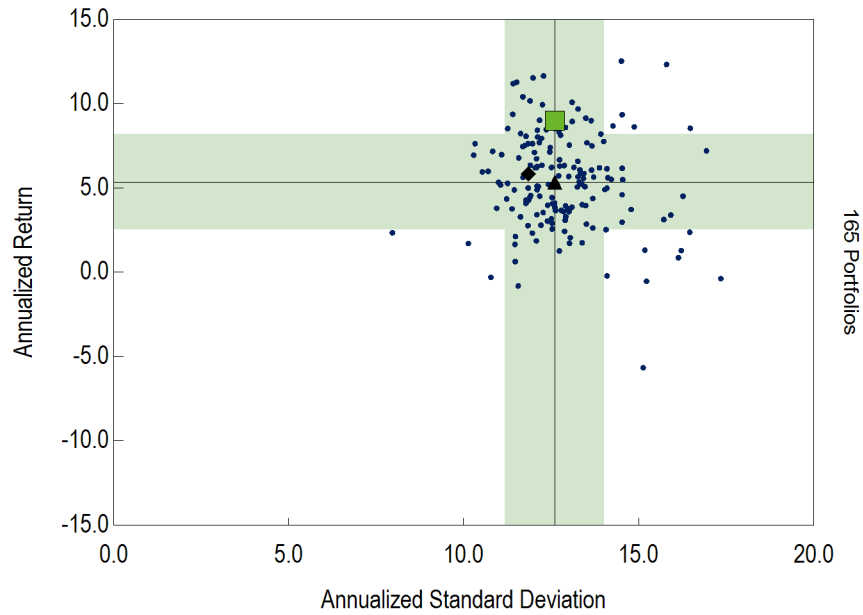


	Quarter		Fiscal YTD		1 Year		2 Years		3 Years	
Return (Rank)										
5th Percentile	-12.30		-6.56		1.24		13.17		11.26	
25th Percentile	-15.03		-9.97		-5.39		8.30		8.07	
Median	-16.61		-12.55		-10.15		3.04		6.20	
75th Percentile	-18.38		-14.55		-14.01		-0.62		4.76	
95th Percentile	-21.84		-18.26		-18.96		-4.28		2.06	
# of Portfolios	172		172		171		170		170	
● Principal Global Investors	-12.80	(6)	-8.81	(13)	-5.56	(27)	8.90	(20)	9.58	(16)
▲ Russell MidCap	-15.37	(29)	-11.14	(36)	-9.06	(44)	3.82	(47)	7.04	(41)

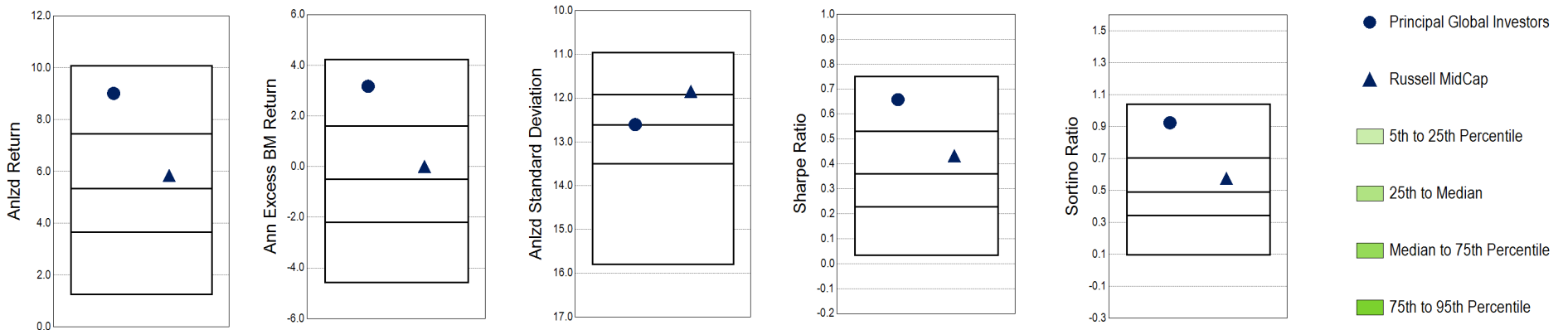
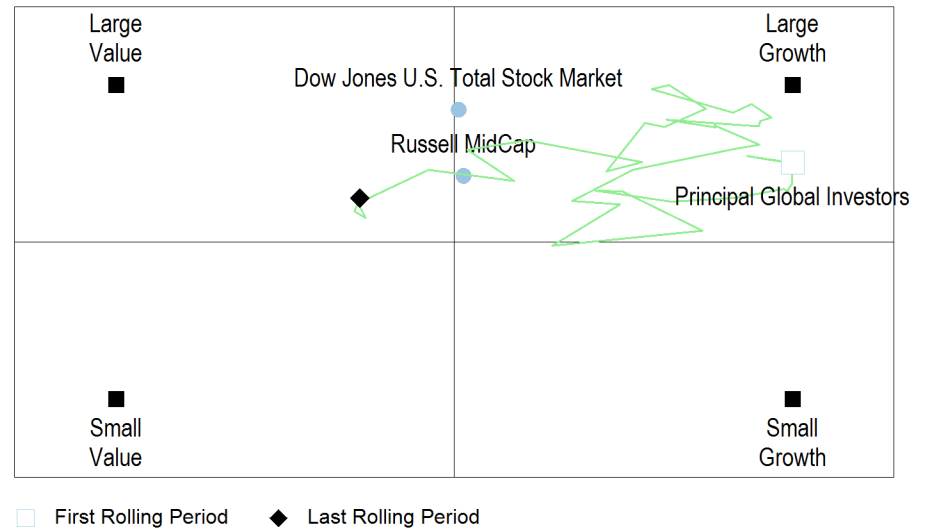


PRINCIPAL GLOBAL INVESTORS

Since Inception Risk Return



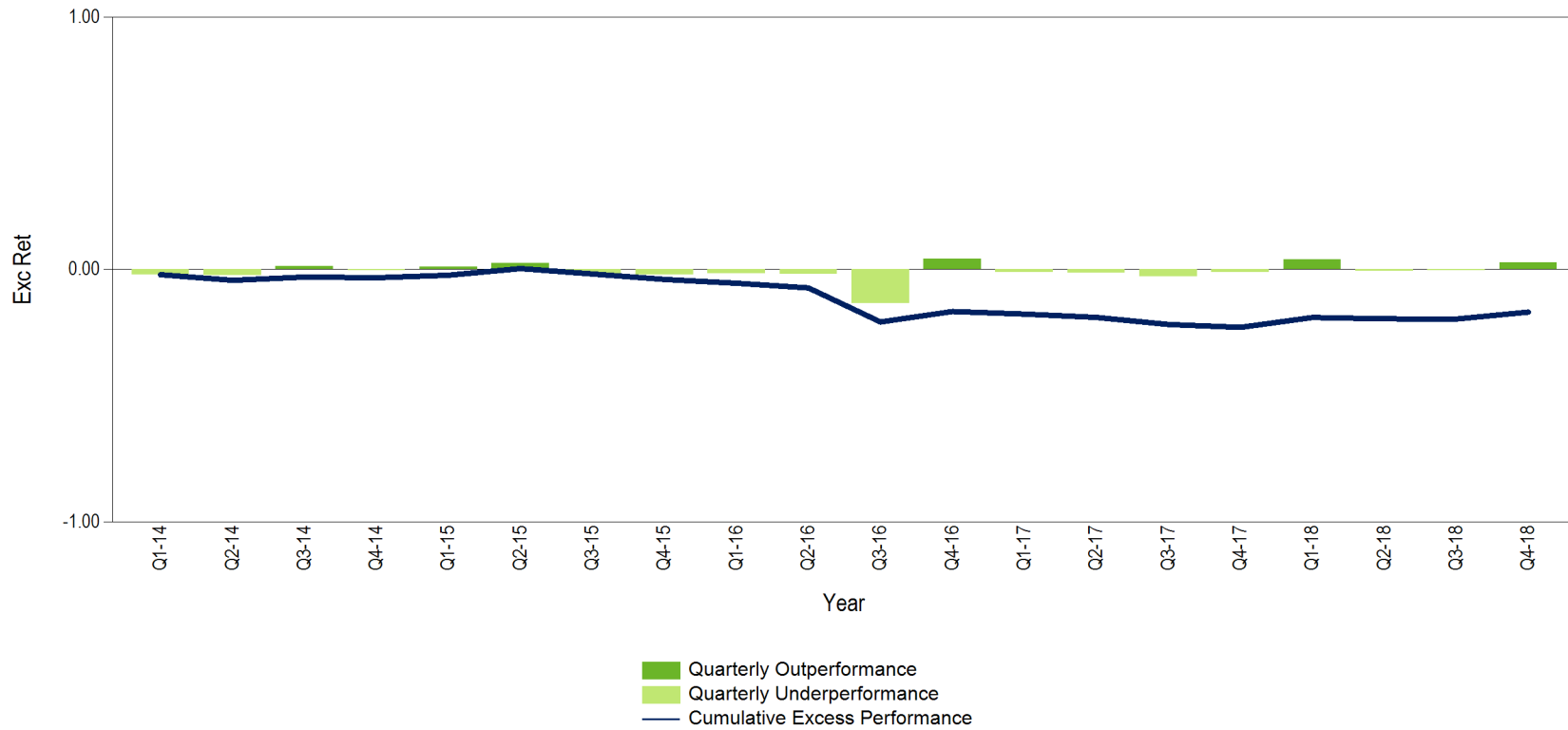
Since Inception Style Map



Los Angeles City Employees' Retirement System

RHUMBLINE ADVISORS S&P 500

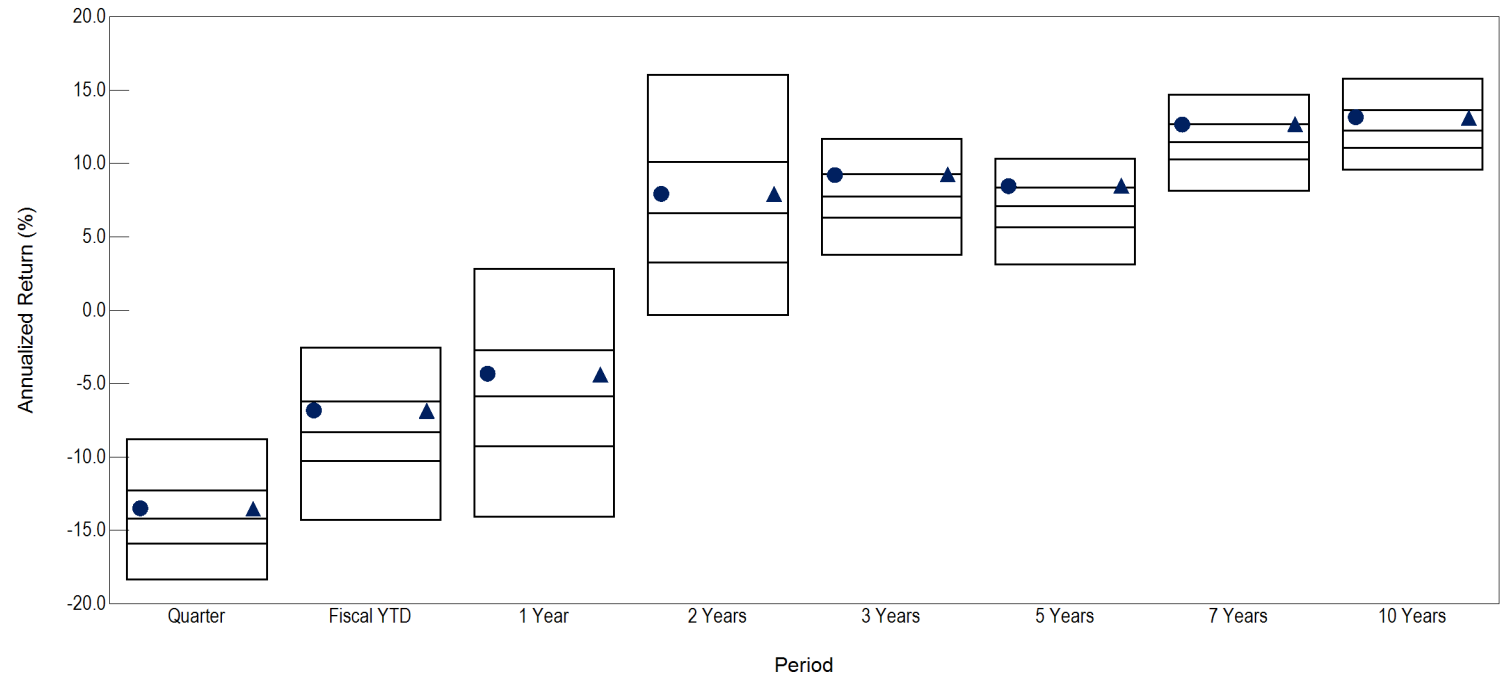
Quarterly and Cumulative Excess Performance



Los Angeles City Employees' Retirement System

RHUMBLINE ADVISORS S&P 500

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

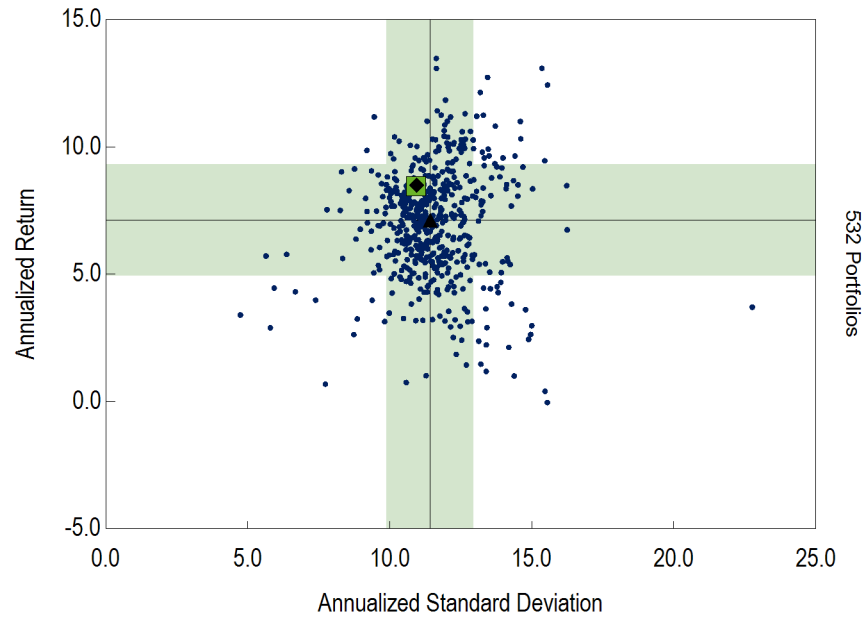


	Return (Rank)															
5th Percentile	-8.80	(41)	-2.56	(33)	2.84	(38)	16.04	(37)	11.68	(27)	10.31	(25)	14.68	(27)	15.79	(33)
25th Percentile	-12.22	(41)	-6.18	(34)	-2.70	(38)	10.14	(37)	9.32	(27)	8.39	(24)	12.72	(26)	13.67	(33)
Median	-14.16	(41)	-8.25	(34)	-5.82	(38)	6.68	(37)	7.81	(27)	7.13	(24)	11.52	(26)	12.30	(33)
75th Percentile	-15.88	(41)	-10.23	(34)	-9.20	(38)	3.30	(37)	6.34	(27)	5.68	(24)	10.35	(26)	11.13	(33)
95th Percentile	-18.32	(41)	-14.23	(34)	-14.03	(38)	-0.27	(37)	3.81	(27)	3.17	(24)	8.20	(26)	9.64	(33)
# of Portfolios	574		574		573		566		555		532		479		428	
● Rhumbline Advisors S&P 500	-13.49	(41)	-6.82	(33)	-4.32	(38)	7.93	(37)	9.21	(27)	8.46	(25)	12.66	(27)	13.16	(33)
▲ S&P 500	-13.52	(41)	-6.85	(34)	-4.38	(38)	7.93	(37)	9.26	(26)	8.49	(24)	12.70	(26)	13.12	(33)

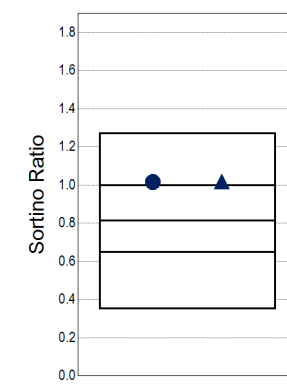
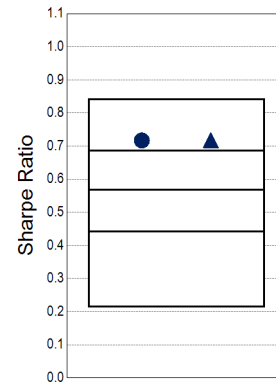
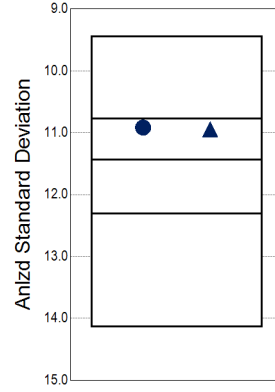
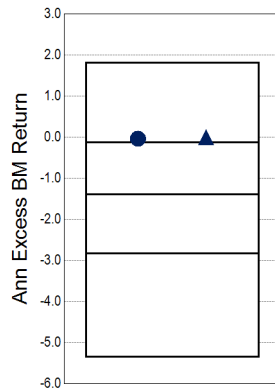
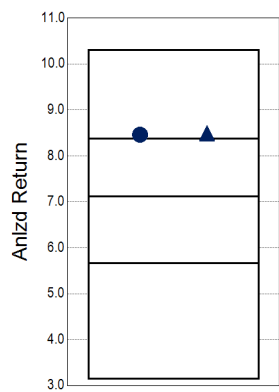
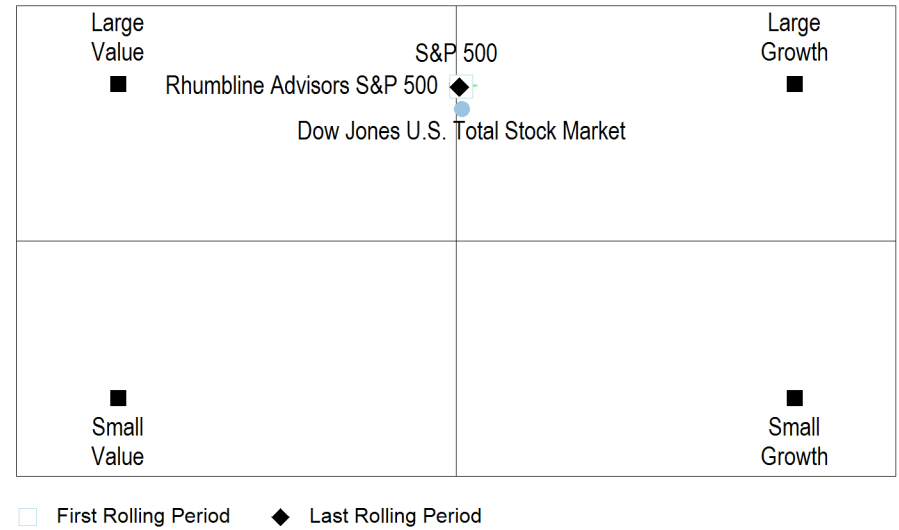


RHUMBLINE ADVISORS S&P 500

5 Year Risk Return



5 Year Style Map

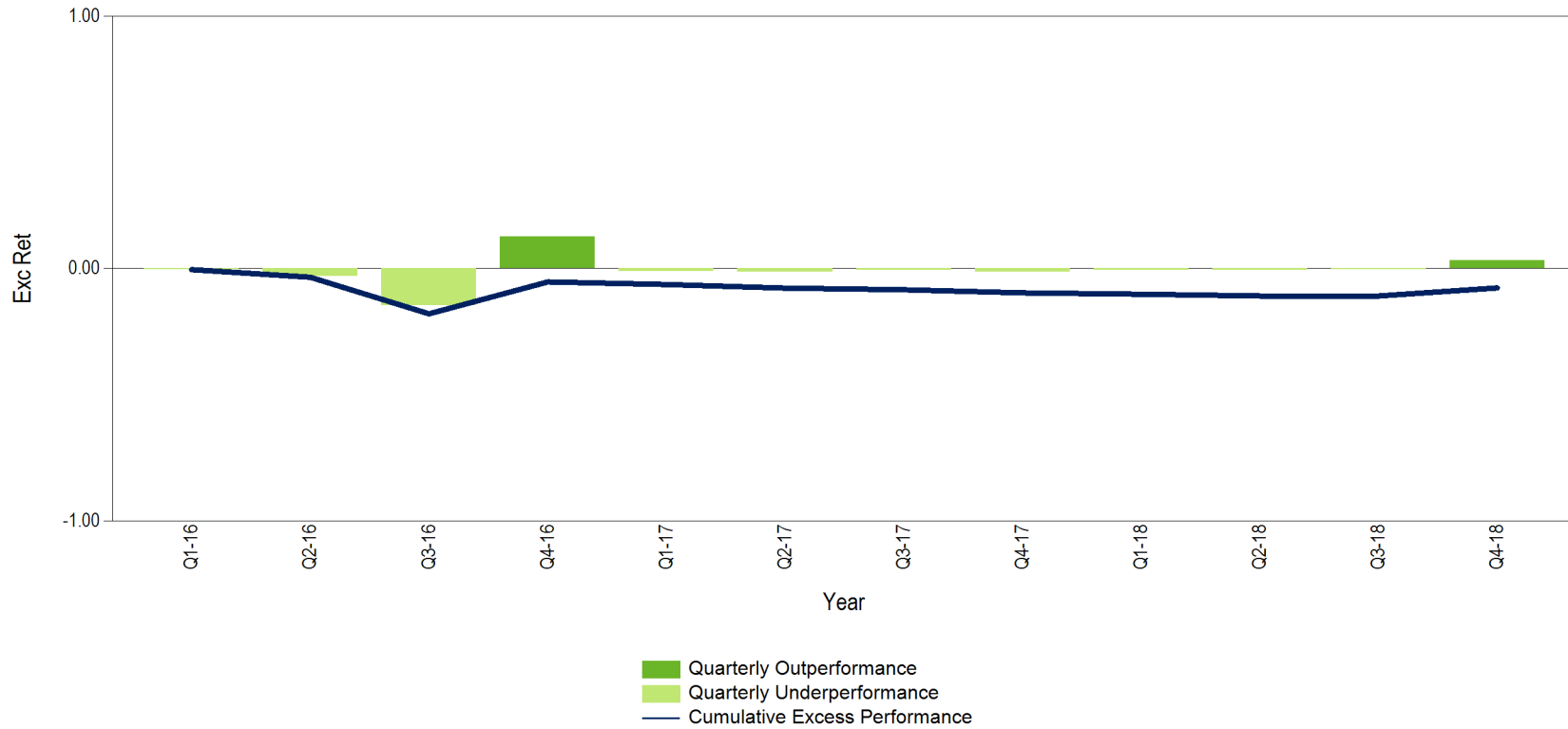


- Rhumbline Advisors S&P 500
- ▲ S&P 500
- 5th to 25th Percentile
- 25th to Median
- Median to 75th Percentile
- 75th to 95th Percentile



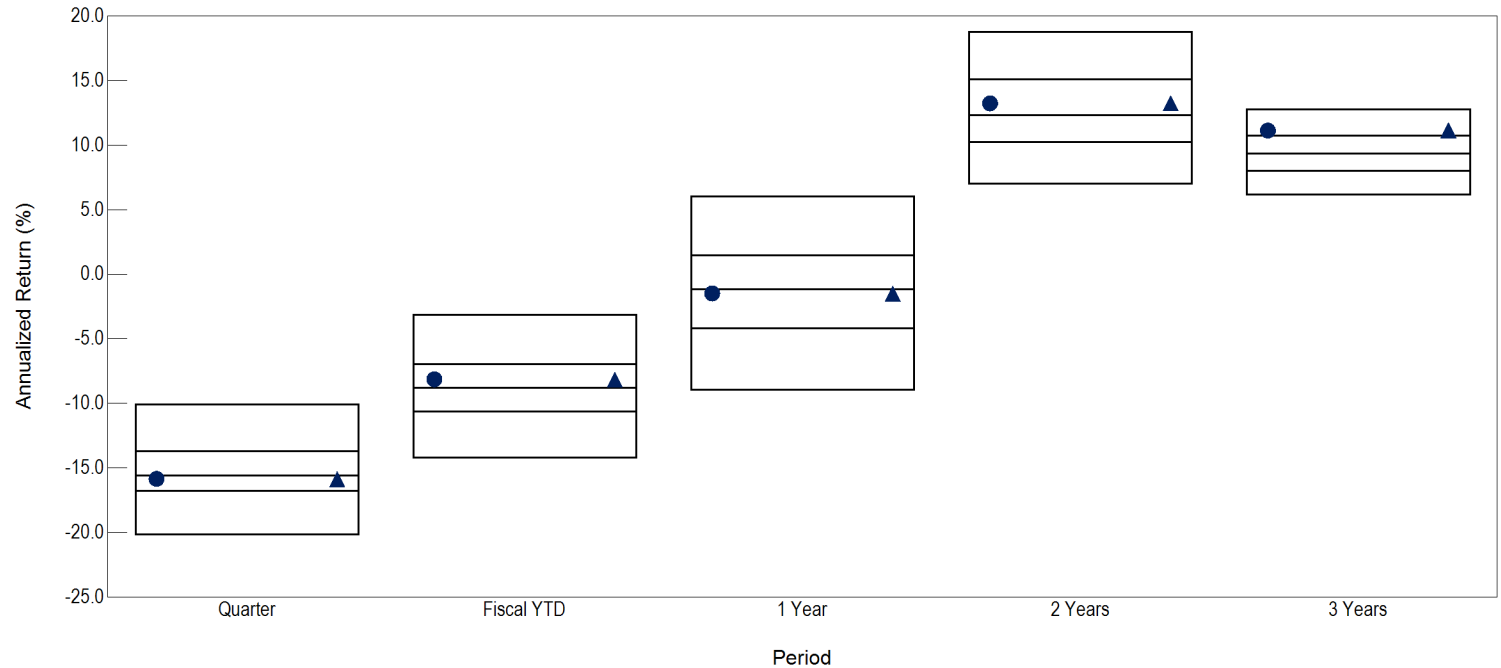
RHUMBLINE ADVISORS RUSSELL 1000 GROWTH

Quarterly and Cumulative Excess Performance



RHUMBLINE ADVISORS RUSSELL 1000 GROWTH

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

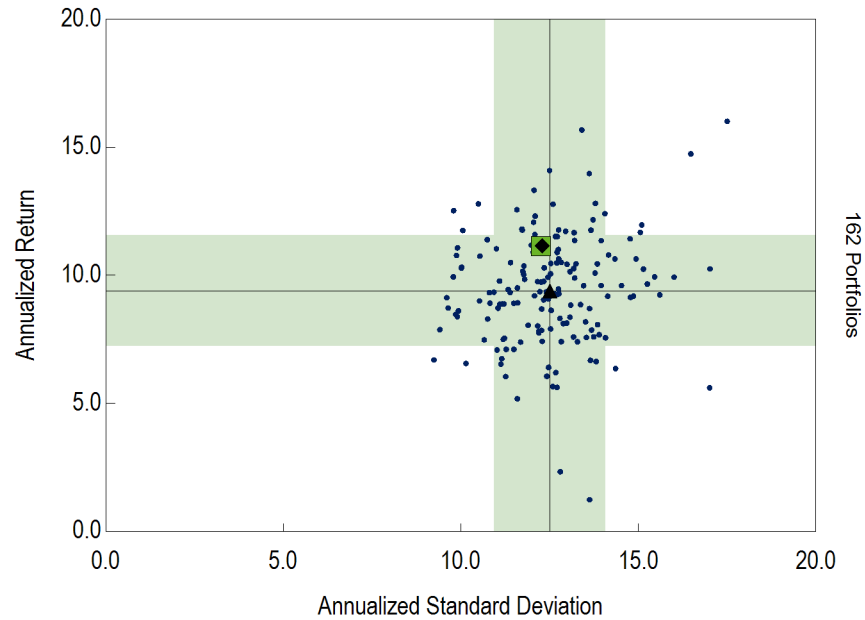


	Return (Rank)									
5th Percentile	-10.10		-3.16		6.04		18.75		12.76	
25th Percentile	-13.67		-6.90		1.52		15.16		10.76	
Median	-15.54		-8.73		-1.12		12.40		9.39	
75th Percentile	-16.76		-10.61		-4.15		10.30		8.08	
95th Percentile	-20.11		-14.17		-8.90		7.06		6.20	
# of Portfolios	170		170		170		168		162	
● Rhumbline Advisors Russell 1000 Growth	-15.86	(56)	-8.14	(41)	-1.49	(54)	13.24	(43)	11.13	(21)
▲ Russell 1000 Growth	-15.89	(57)	-8.17	(41)	-1.51	(54)	13.24	(43)	11.15	(21)

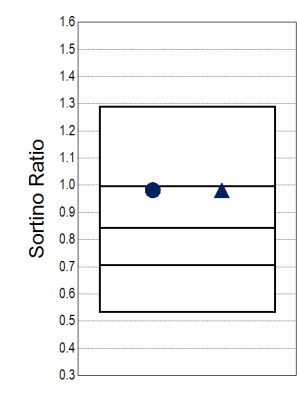
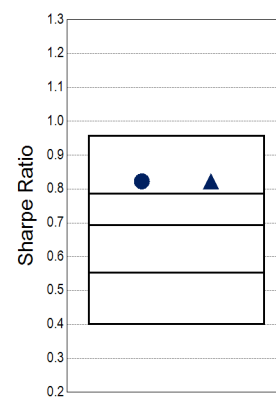
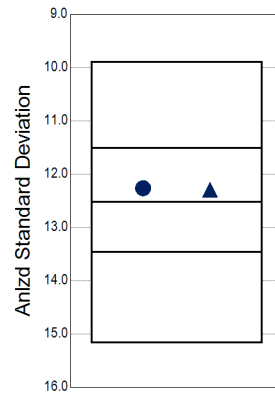
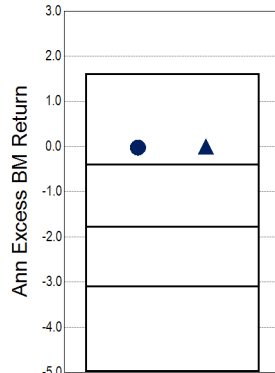
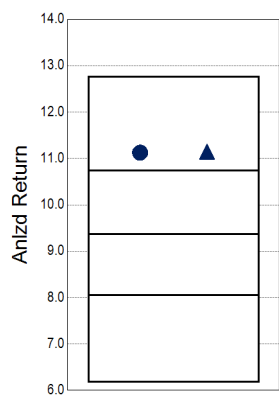
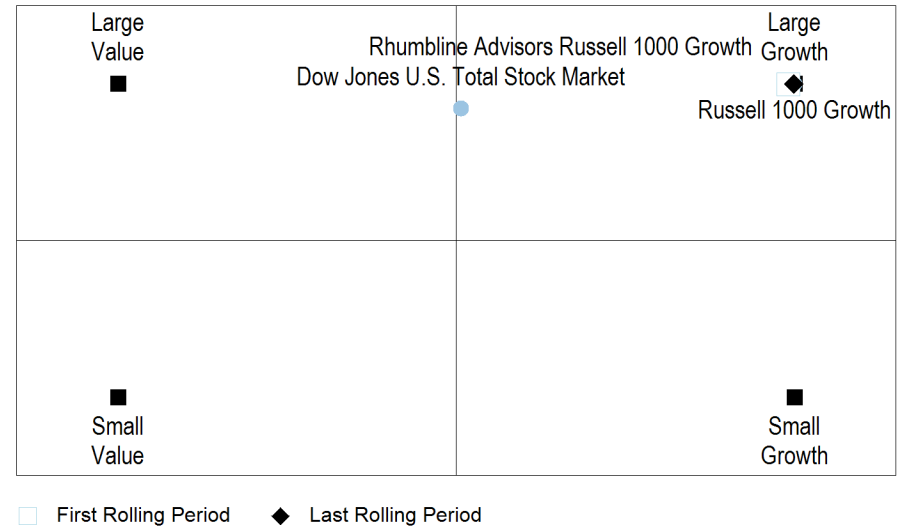


RHUMBLINE ADVISORS RUSSELL 1000 GROWTH

3 Year Risk Return



3 Year Style Map

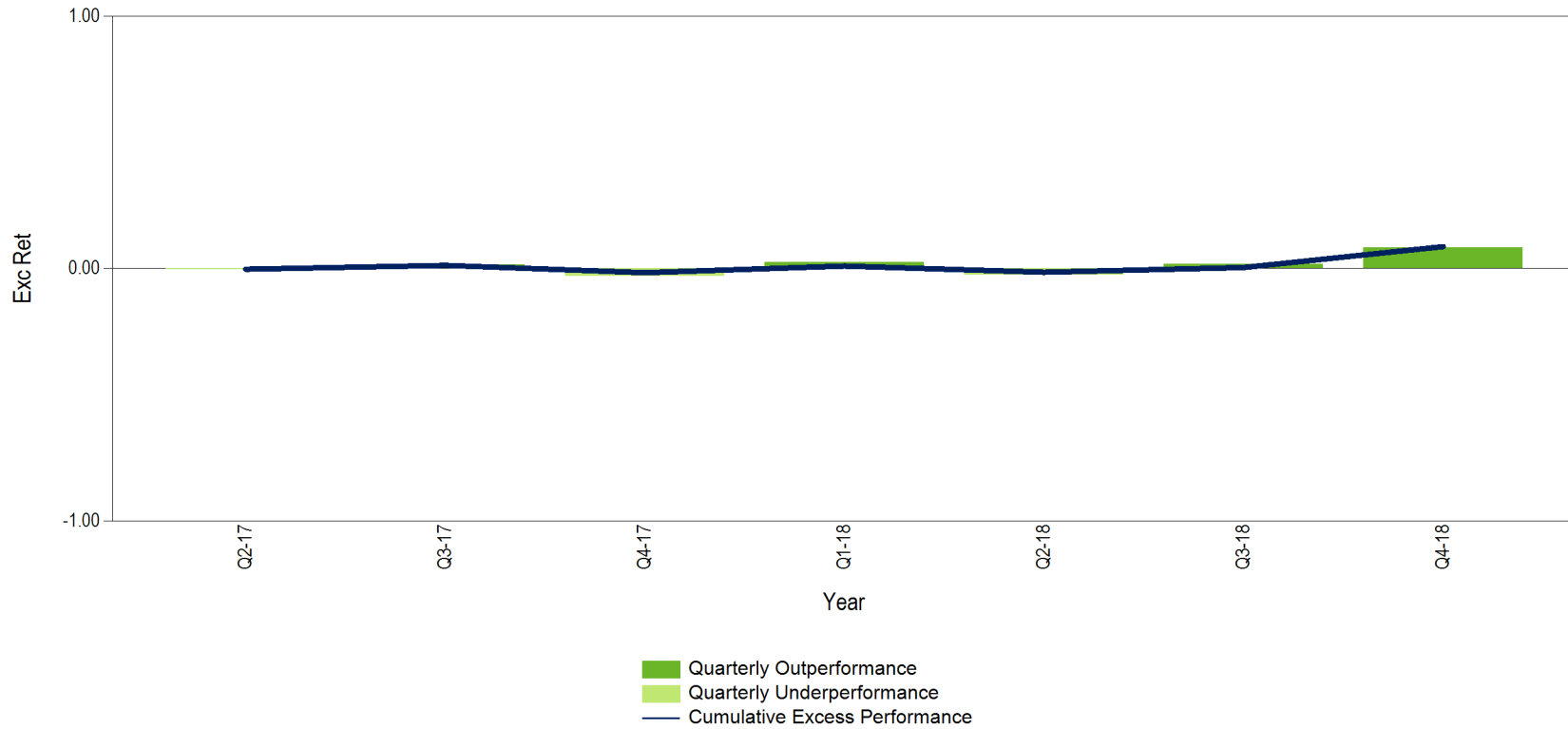


- Rhumbline Advisors Russell 1000 Growth
- ▲ Russell 1000 Growth
- 5th to 25th Percentile
- 25th to Median
- Median to 75th Percentile
- 75th to 95th Percentile



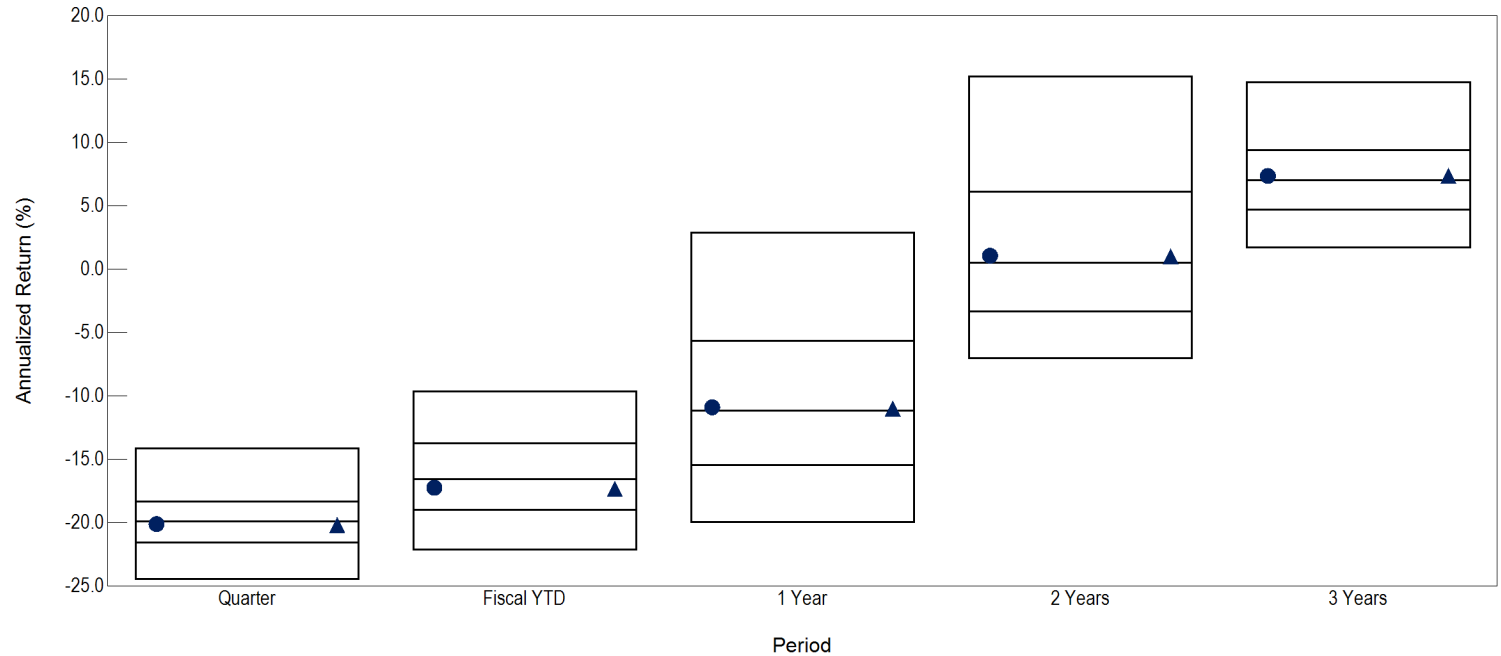
RHUMBLINE ADVISORS RUSSELL 2000

Quarterly and Cumulative Excess Performance



RHUMBLINE ADVISORS RUSSELL 2000

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

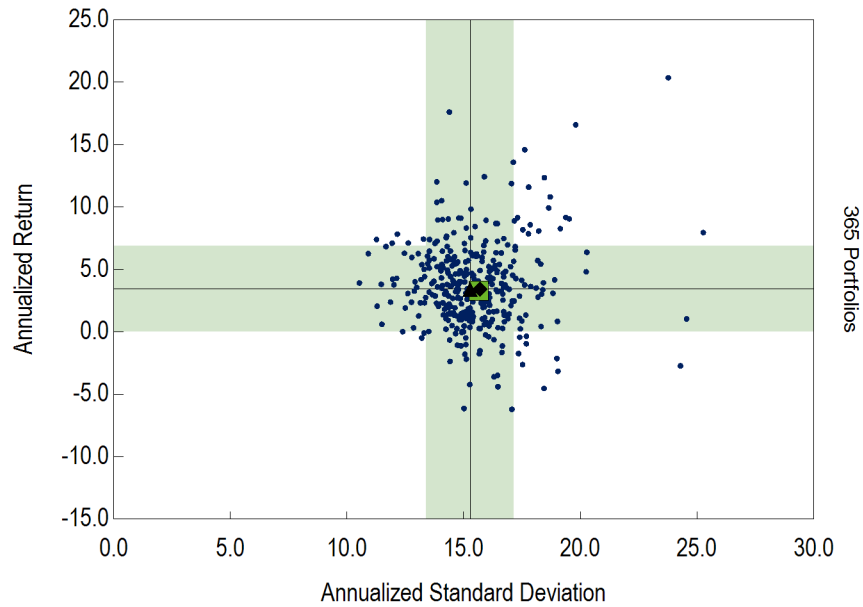


	Return (Rank)									
5th Percentile	-14.16		-9.62		2.88		15.22		14.74	
25th Percentile	-18.26		-13.70		-5.62		6.19		9.47	
Median	-19.87		-16.50		-11.12		0.56		7.06	
75th Percentile	-21.53		-18.96		-15.42		-3.26		4.77	
95th Percentile	-24.39		-22.06		-19.88		-6.99		1.77	
# of Portfolios	392		392		392		385		376	
● Rhumbline Advisors Russell 2000	-20.12	(55)	-17.25	(59)	-10.90	(49)	1.06	(46)	7.36	(47)
▲ Russell 2000	-20.20	(57)	-17.35	(60)	-11.01	(50)	1.00	(47)	7.36	(47)

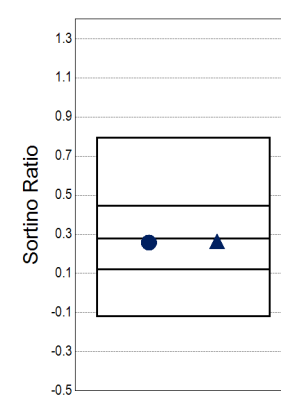
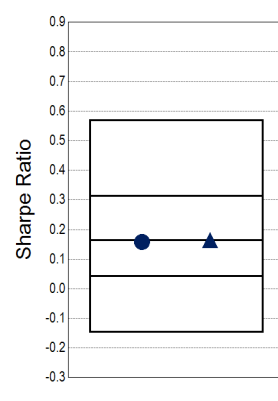
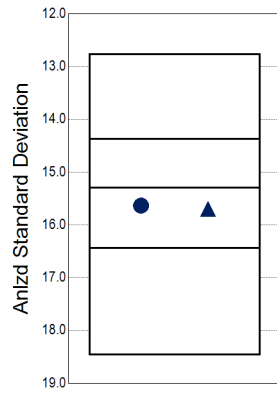
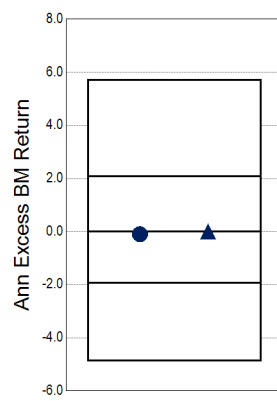
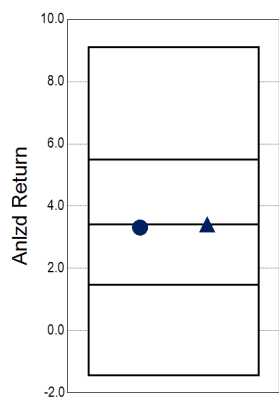
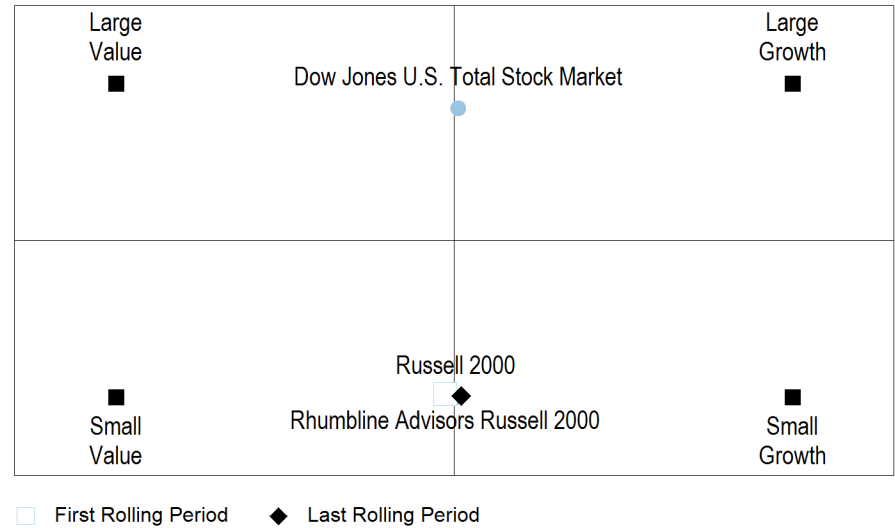


RHUMBLINE ADVISORS RUSSELL 2000

Since Inception Risk Return



Since Inception Style Map

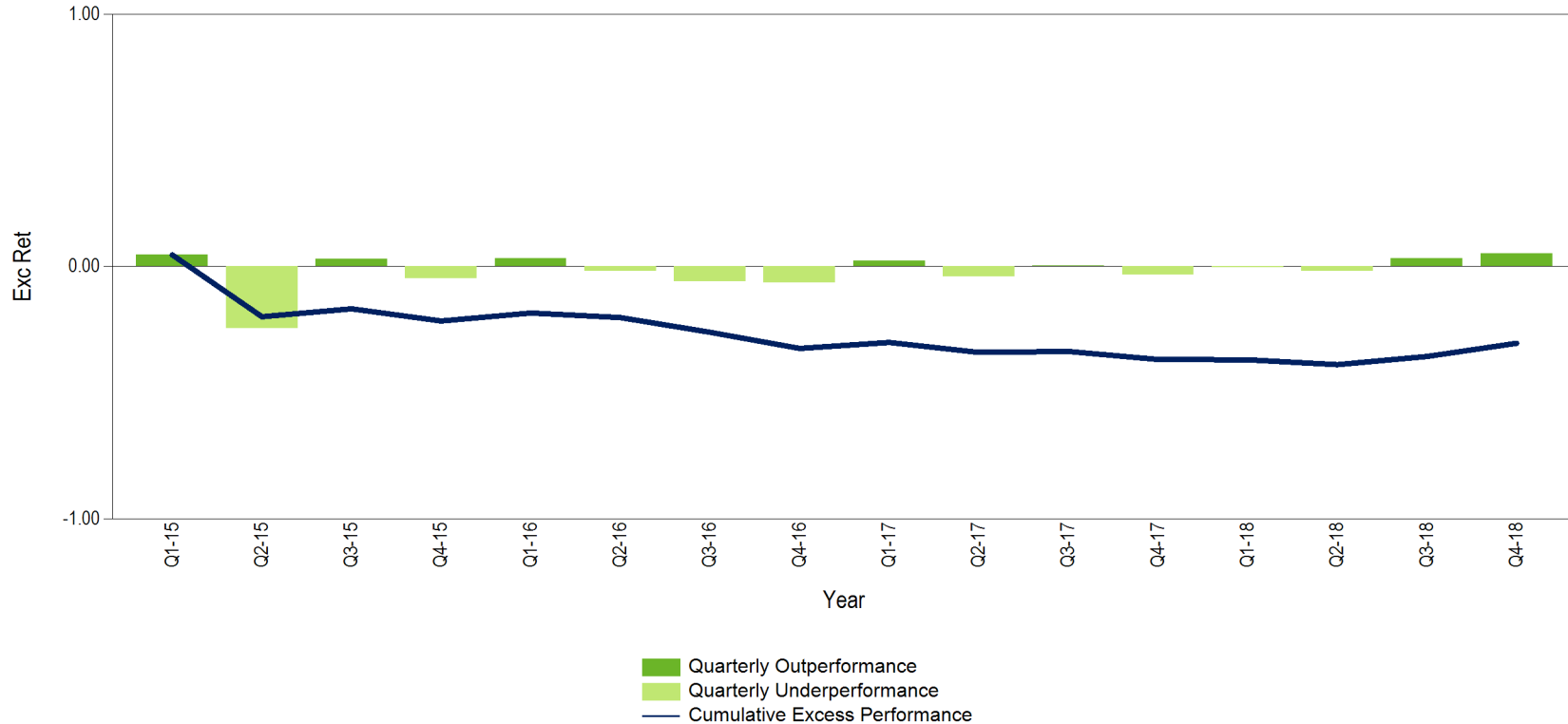


- Rhumbline Advisors Russell 2000
- ▲ Russell 2000
- 5th to 25th Percentile
- 25th to Median
- Median to 75th Percentile
- 75th to 95th Percentile



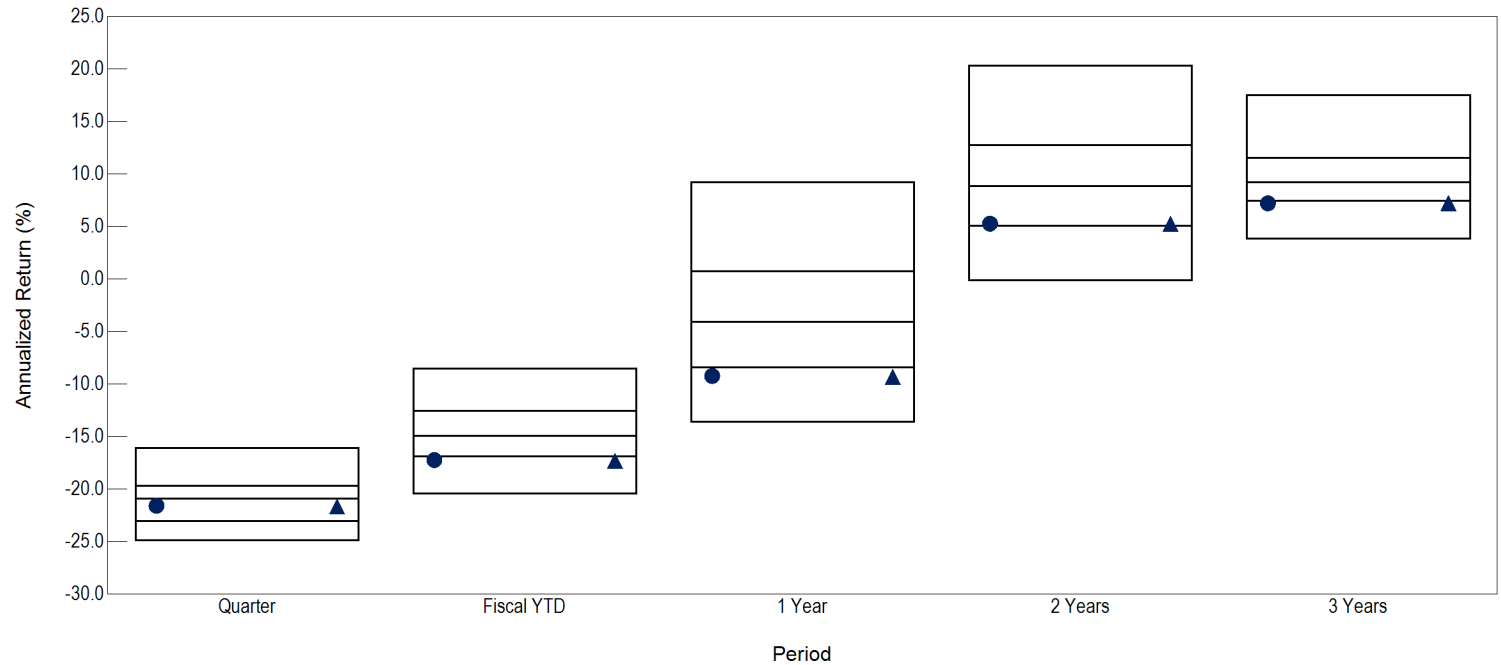
RHUMBLINE ADVISORS RUSSELL 2000 GROWTH

Quarterly and Cumulative Excess Performance



RHUMBLINE ADVISORS RUSSELL 2000 GROWTH

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

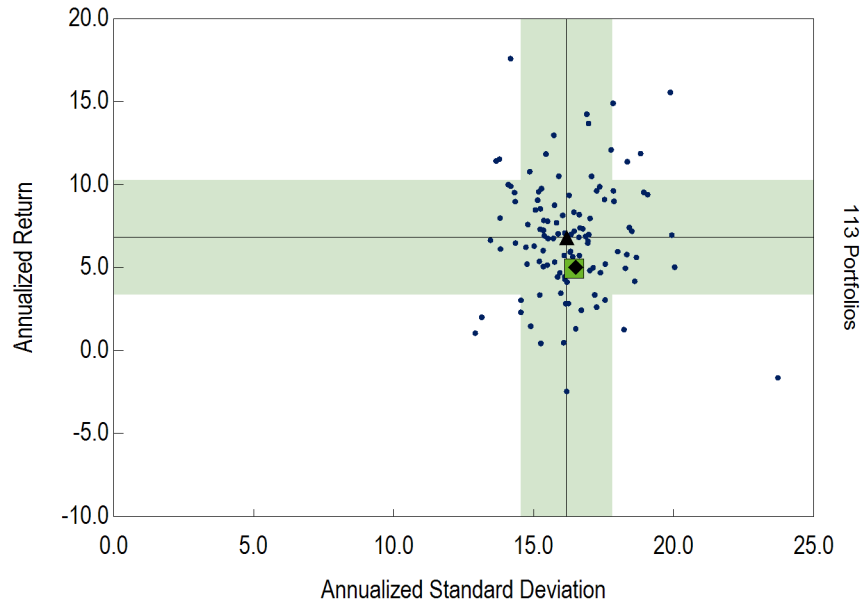


	Return (Rank)									
5th Percentile	-16.11		-8.51		9.21		20.30		17.52	
25th Percentile	-19.61		-12.50		0.80		12.84		11.63	
Median	-20.85		-14.85		-4.01		8.91		9.30	
75th Percentile	-22.97		-16.81		-8.37		5.15		7.50	
95th Percentile	-24.80		-20.35		-13.51		-0.06		3.90	
# of Portfolios	123		123		123		122		121	
● Rhumbline Advisors Russell 2000 Growth	-21.60	(63)	-17.25	(81)	-9.24	(78)	5.28	(75)	7.22	(78)
▲ Russell 2000 Growth	-21.65	(65)	-17.33	(82)	-9.31	(78)	5.26	(75)	7.24	(78)

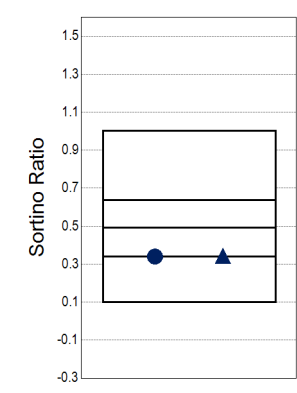
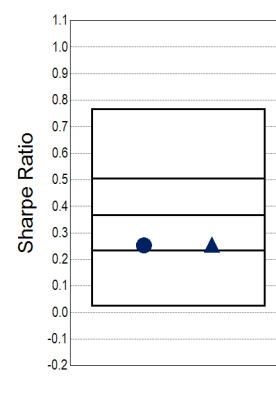
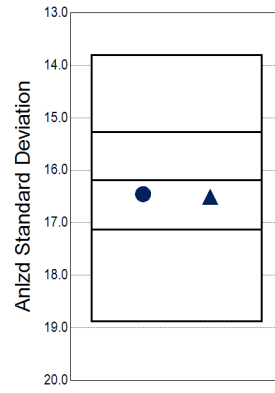
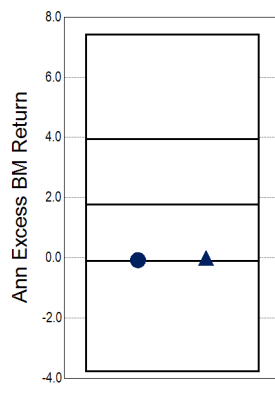
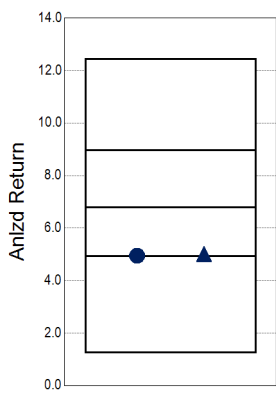
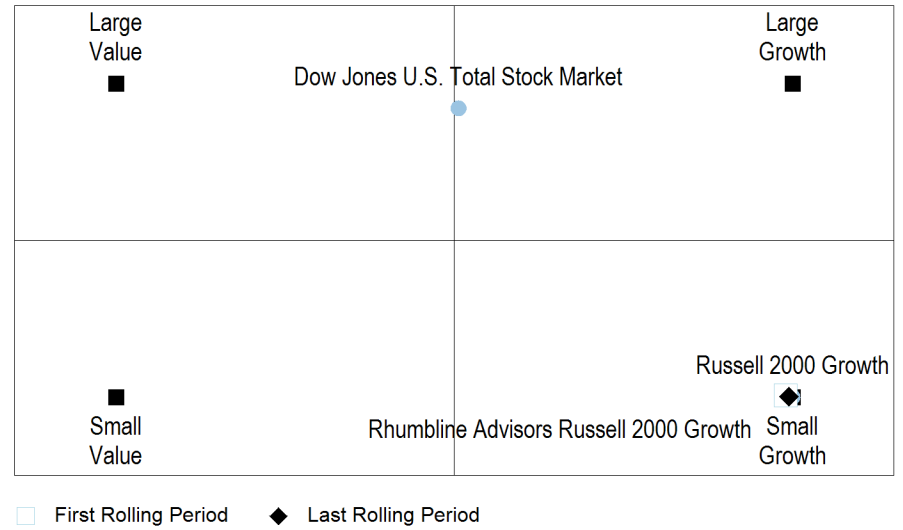


RHUMBLINE ADVISORS RUSSELL 2000 GROWTH

Since Inception Risk Return



Since Inception Style Map

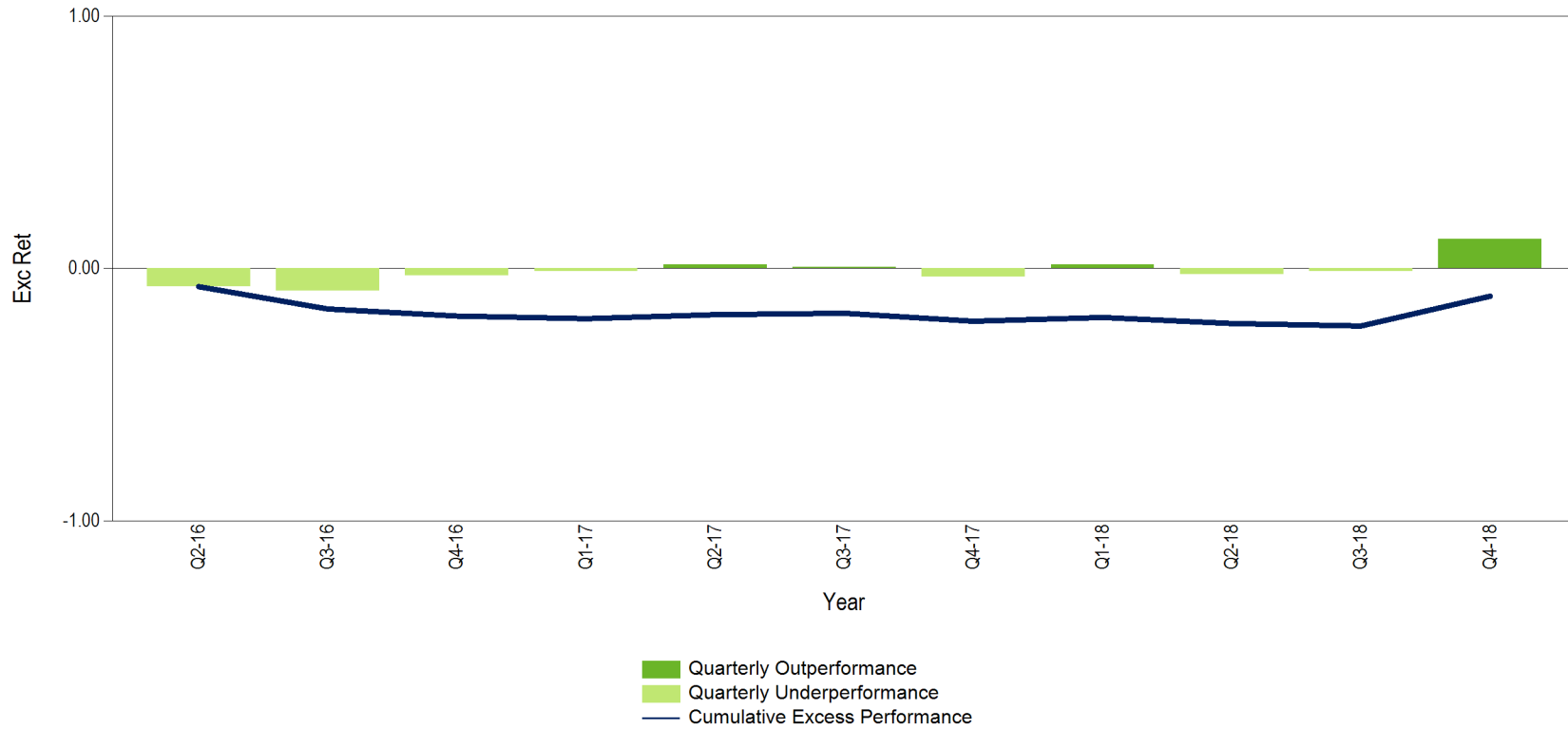


- Rhumbline Advisors Russell 2000 Growth
- ▲ Russell 2000 Growth
- 5th to 25th Percentile
- 25th to Median
- Median to 75th Percentile
- 75th to 95th Percentile



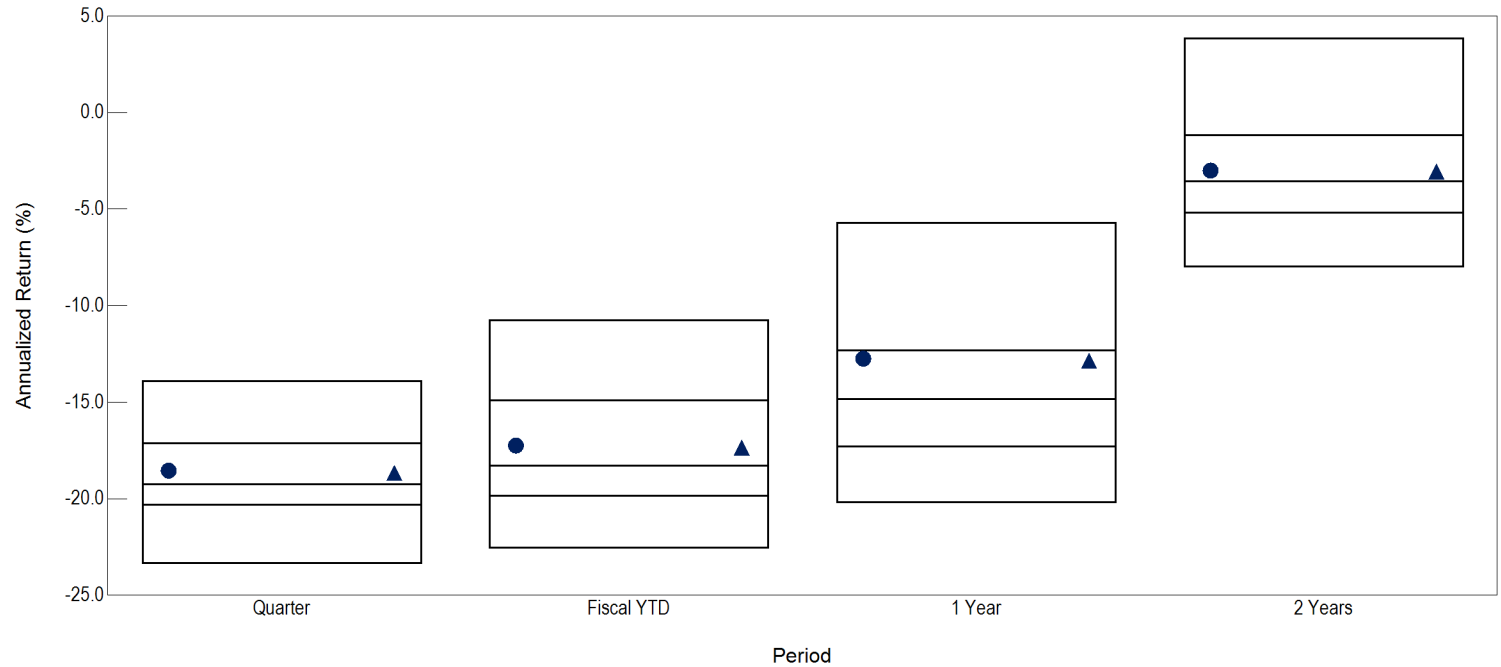
RHUMBLINE ADVISORS RUSSELL 2000 VALUE

Quarterly and Cumulative Excess Performance



RHUMBLINE ADVISORS RUSSELL 2000 VALUE

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

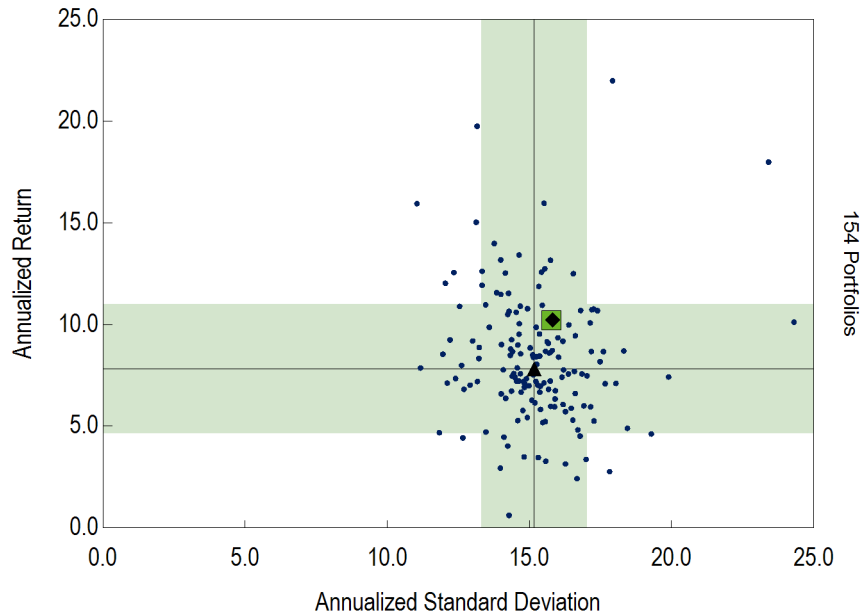


	Return (Rank)							
5th Percentile	-13.92		-10.76		-5.71		3.82	
25th Percentile	-17.08		-14.87		-12.29		-1.13	
Median	-19.21		-18.25		-14.80		-3.51	
75th Percentile	-20.29		-19.83		-17.26		-5.15	
95th Percentile	-23.31		-22.51		-20.15		-7.96	
# of Portfolios	160		160		160		159	
● Rhumbline Advisors Russell 2000 Value	-18.55	(40)	-17.25	(42)	-12.75	(30)	-3.01	(44)
▲ Russell 2000 Value	-18.67	(43)	-17.36	(43)	-12.86	(32)	-3.06	(44)

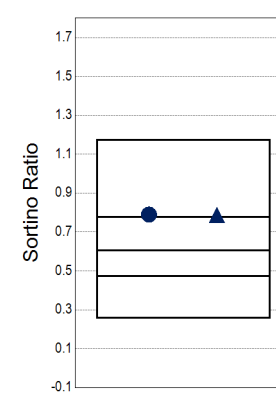
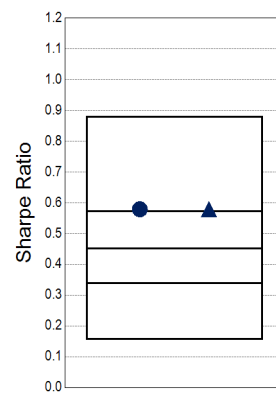
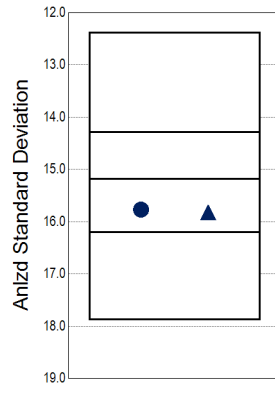
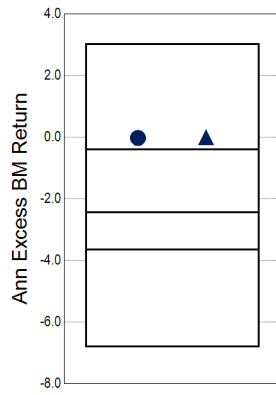
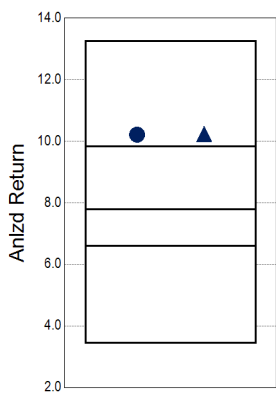
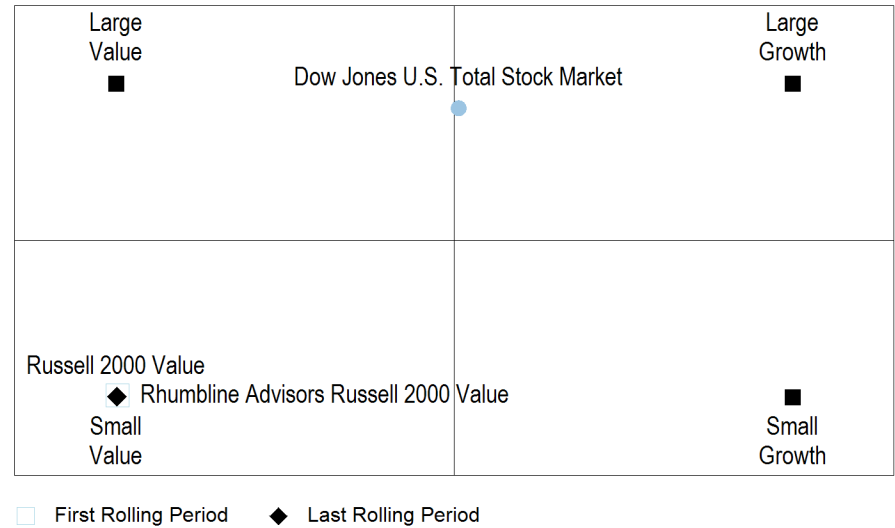


RHUMBLINE ADVISORS RUSSELL 2000 VALUE

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

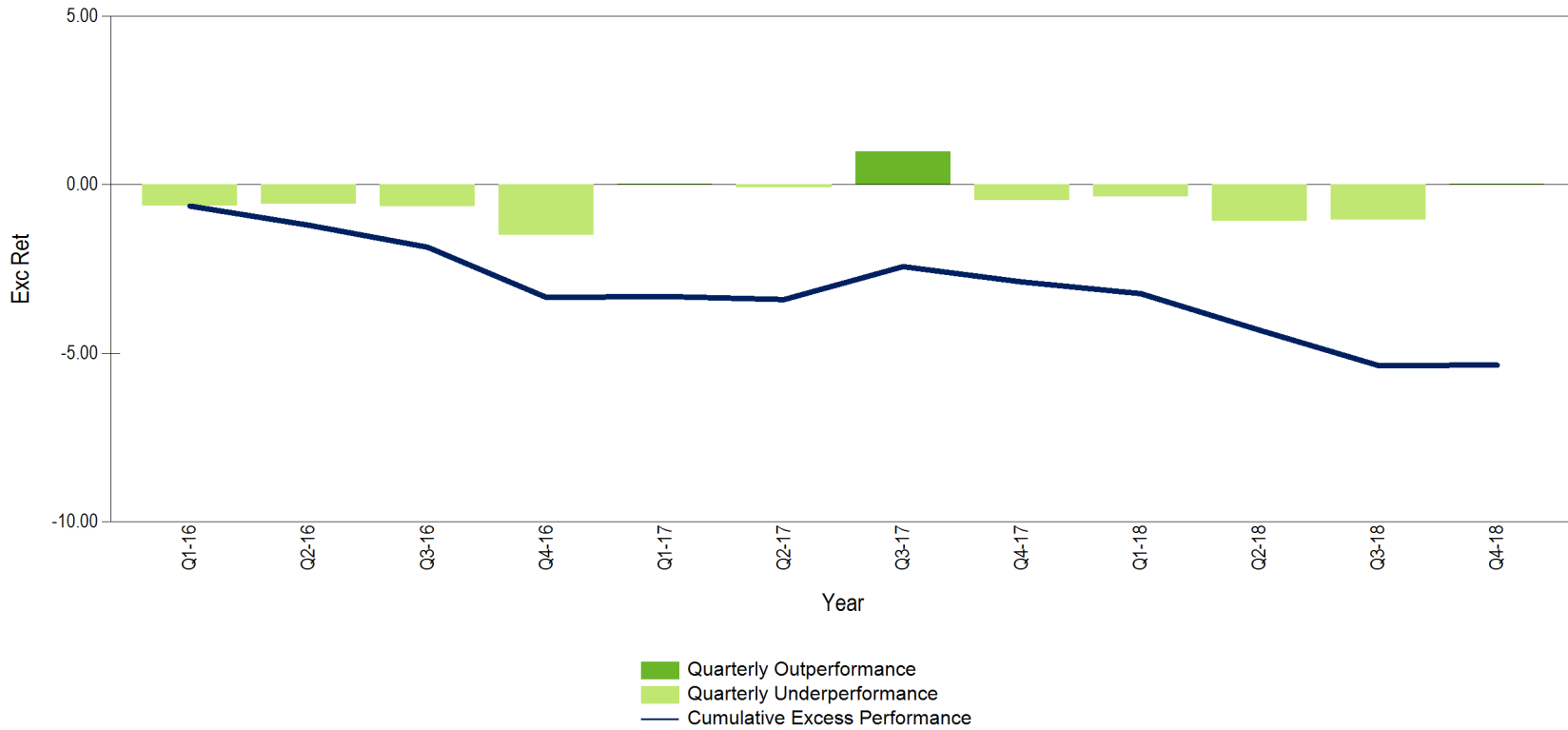


NON-U.S. EQUITY MANAGER PERFORMANCE

NEPC, LLC

AQR CAPITAL

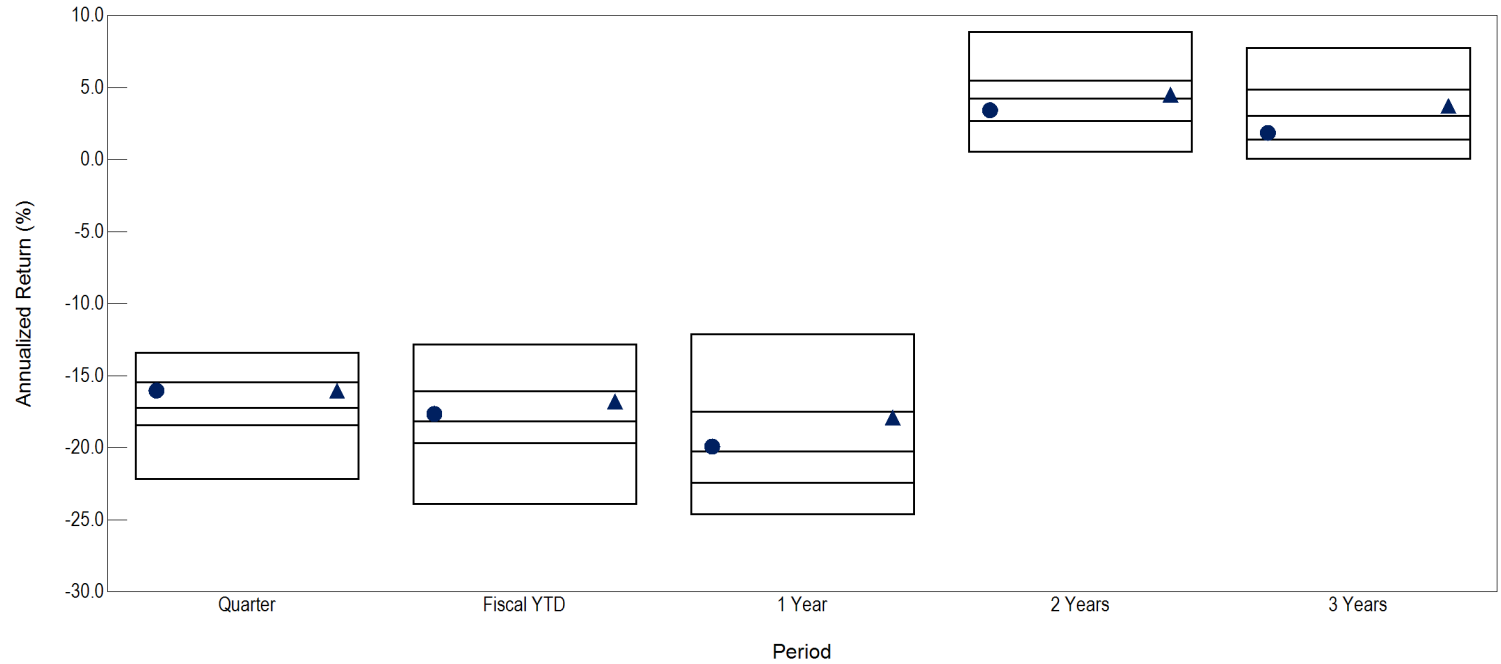
Quarterly and Cumulative Excess Performance



Los Angeles City Employees' Retirement System

AQR CAPITAL

AQR Capital vs. eV EAFE Small Cap Equity Net



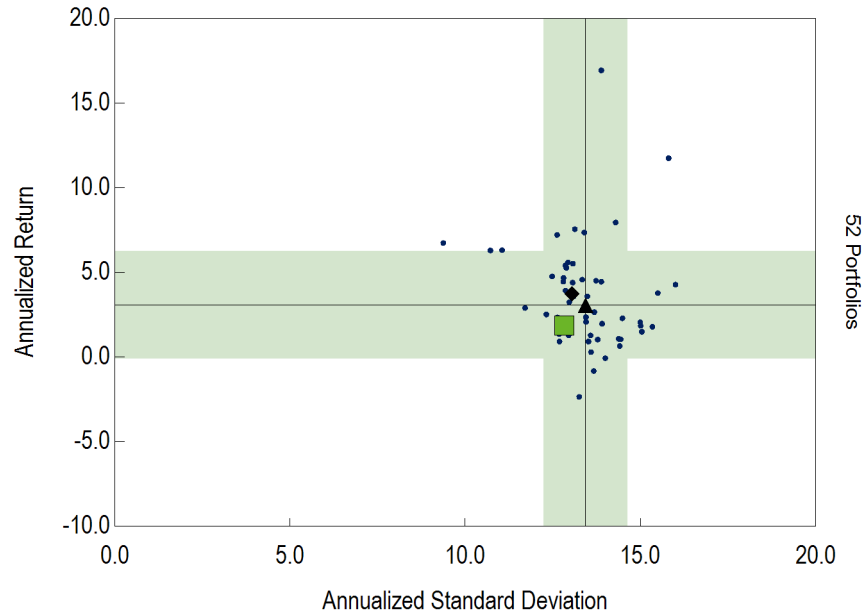
	Return (Rank)									
5th Percentile	-13.41		-12.82		-12.11		8.86		7.73	
25th Percentile	-15.42		-16.04		-17.44		5.53		4.88	
Median	-17.21		-18.11		-20.20		4.26		3.06	
75th Percentile	-18.41		-19.65		-22.38		2.73		1.45	
95th Percentile	-22.11		-23.84		-24.58		0.57		0.12	
# of Portfolios	55		55		55		55		52	
● AQR Capital	-16.04	(32)	-17.65	(46)	-19.92	(45)	3.42	(57)	1.86	(71)
▲ MSCI EAFE Small Cap	-16.05	(32)	-16.79	(35)	-17.89	(27)	4.51	(47)	3.73	(44)



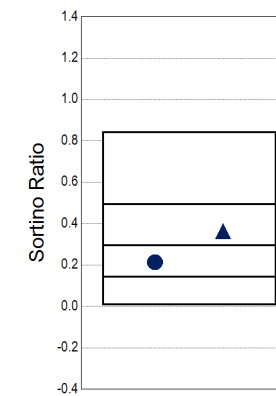
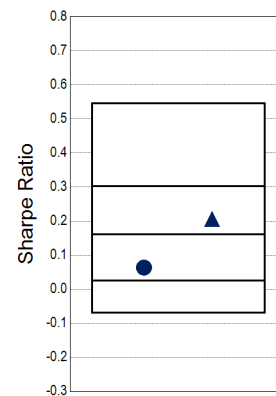
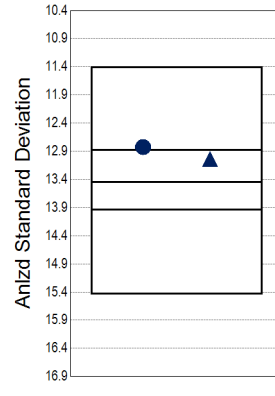
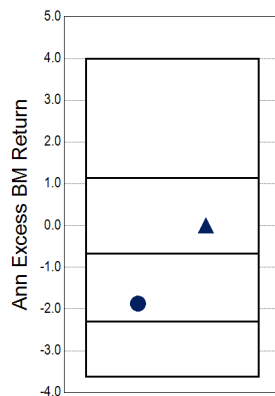
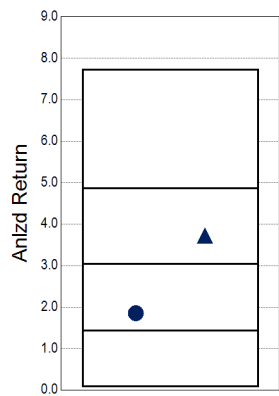
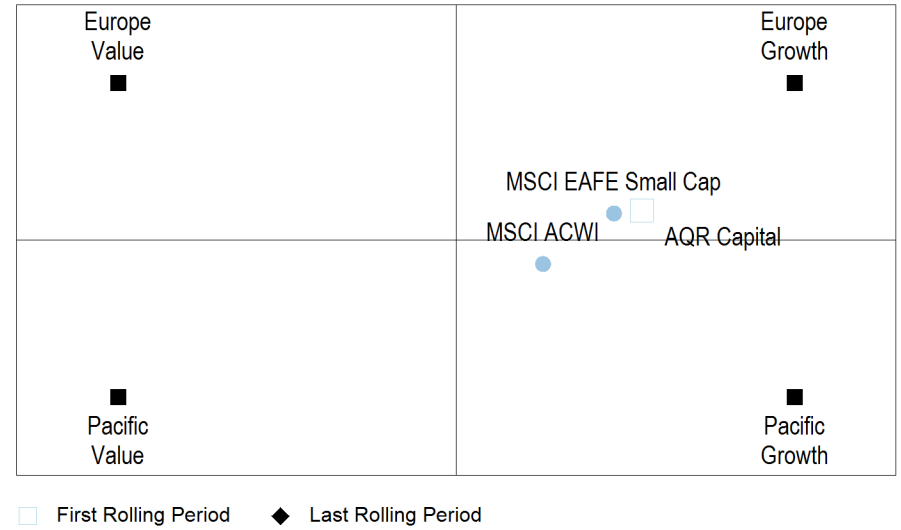
Los Angeles City Employees' Retirement System

AQR CAPITAL

3 Year Risk Return



3 Year Style Map

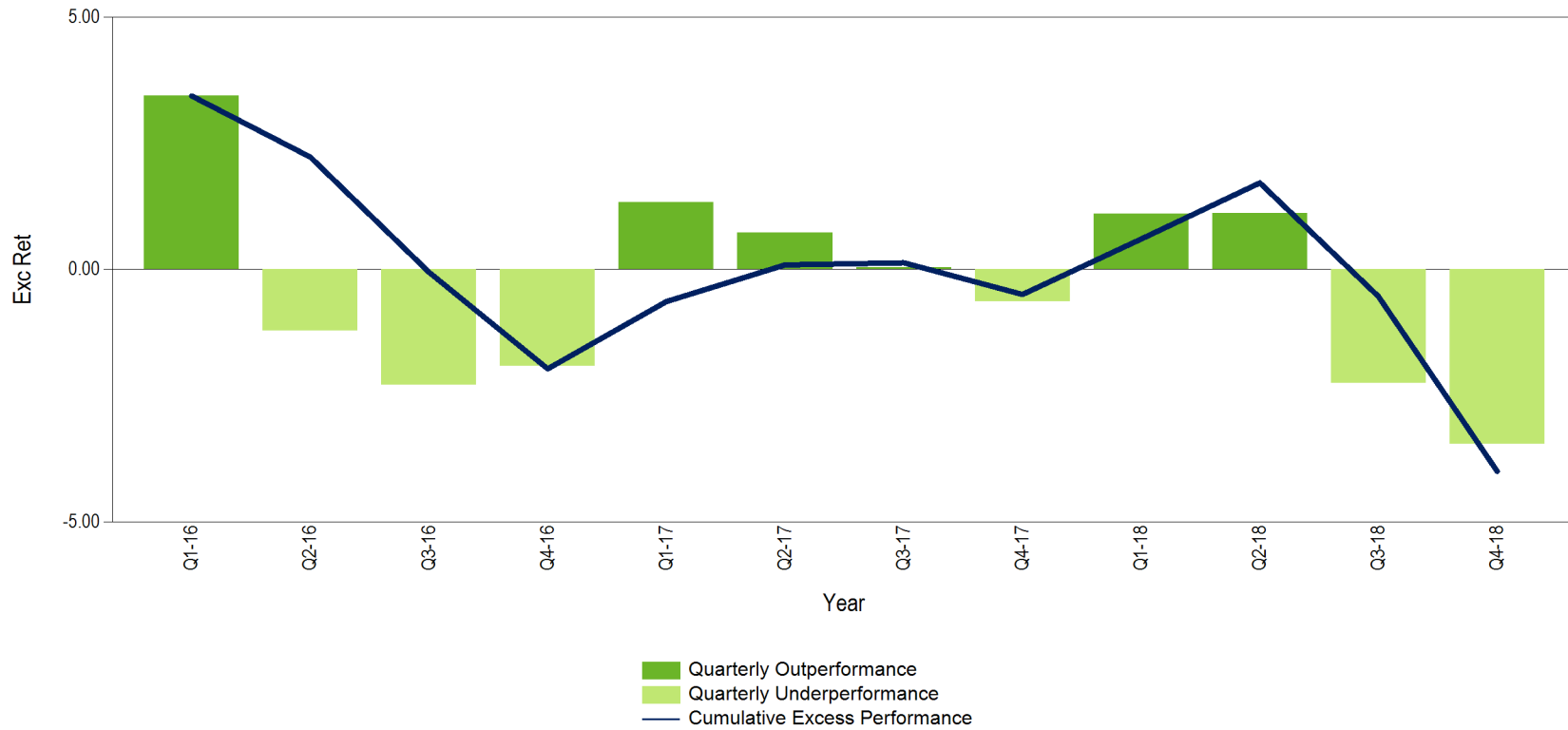


- AQR Capital
- ▲ MSCI EAFE Small Cap
- 5th to 25th Percentile
- 25th to Median
- Median to 75th Percentile
- 75th to 95th Percentile



BARROW HANLEY

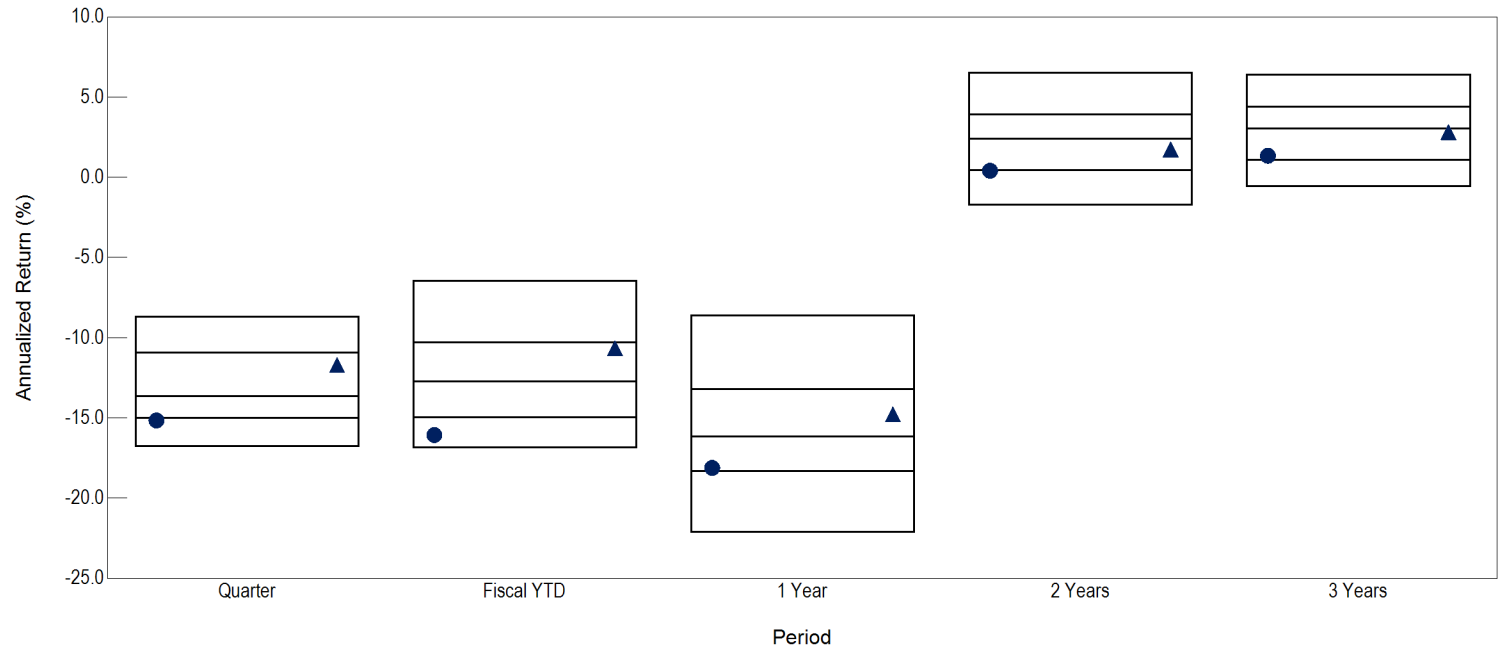
Quarterly and Cumulative Excess Performance



Los Angeles City Employees' Retirement System

BARROW HANLEY

Barrow Hanley vs. eV EAFE Value Equity Net



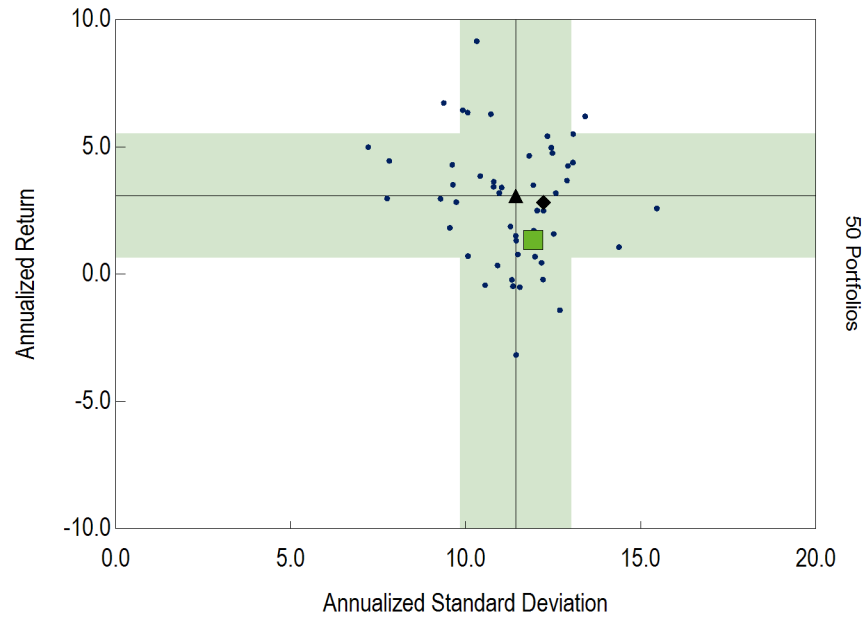
	Return (Rank)									
5th Percentile	-8.71	(81)	-6.47	(90)	-8.63	(71)	6.51	(76)	6.40	(74)
25th Percentile	-10.88	(34)	-10.24	(29)	-13.15	(38)	3.94	(64)	4.44	(56)
Median	-13.62		-12.68		-16.12		2.43		3.08	
75th Percentile	-14.97		-14.91		-18.29		0.47		1.13	
95th Percentile	-16.72		-16.80		-22.07		-1.69		-0.49	
# of Portfolios	52		52		52		52		50	
● Barrow Hanley	-15.16	(81)	-16.07	(90)	-18.12	(71)	0.40	(76)	1.34	(74)
▲ MSCI EAFE Value	-11.70	(34)	-10.66	(29)	-14.78	(38)	1.73	(64)	2.82	(56)



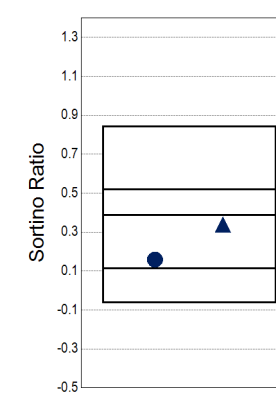
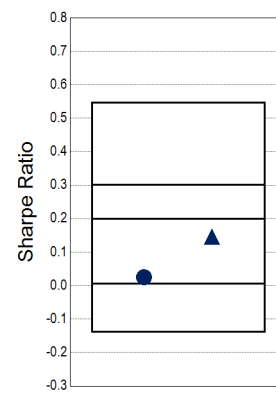
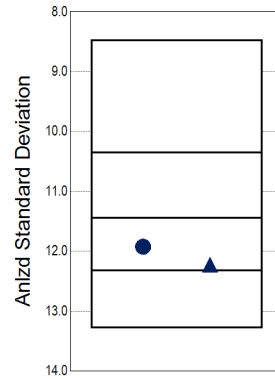
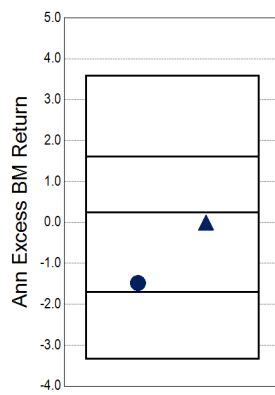
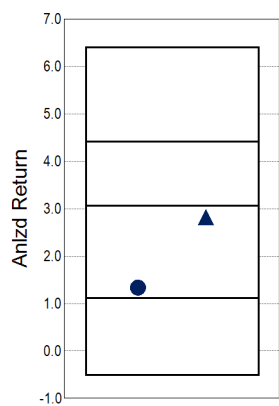
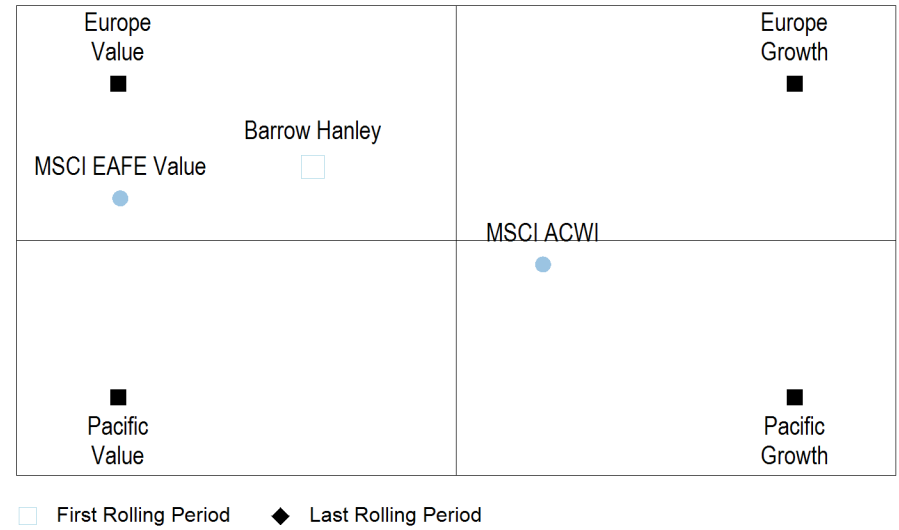
Los Angeles City Employees' Retirement System

BARROW HANLEY

3 Year Risk Return



3 Year Style Map

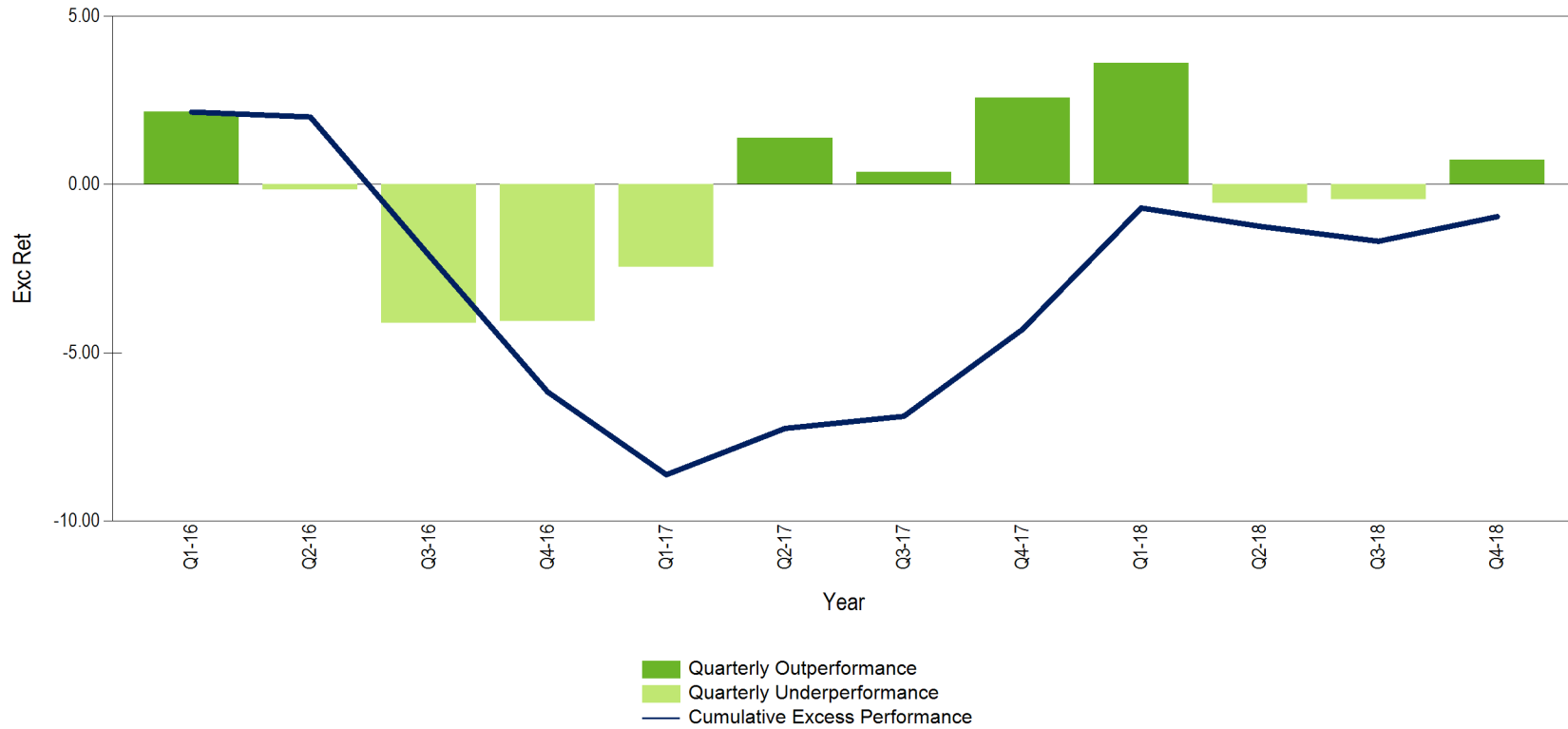


- Barrow Hanley
- ▲ MSCI EAFE Value
- 5th to 25th Percentile
- 25th to Median
- Median to 75th Percentile
- 75th to 95th Percentile



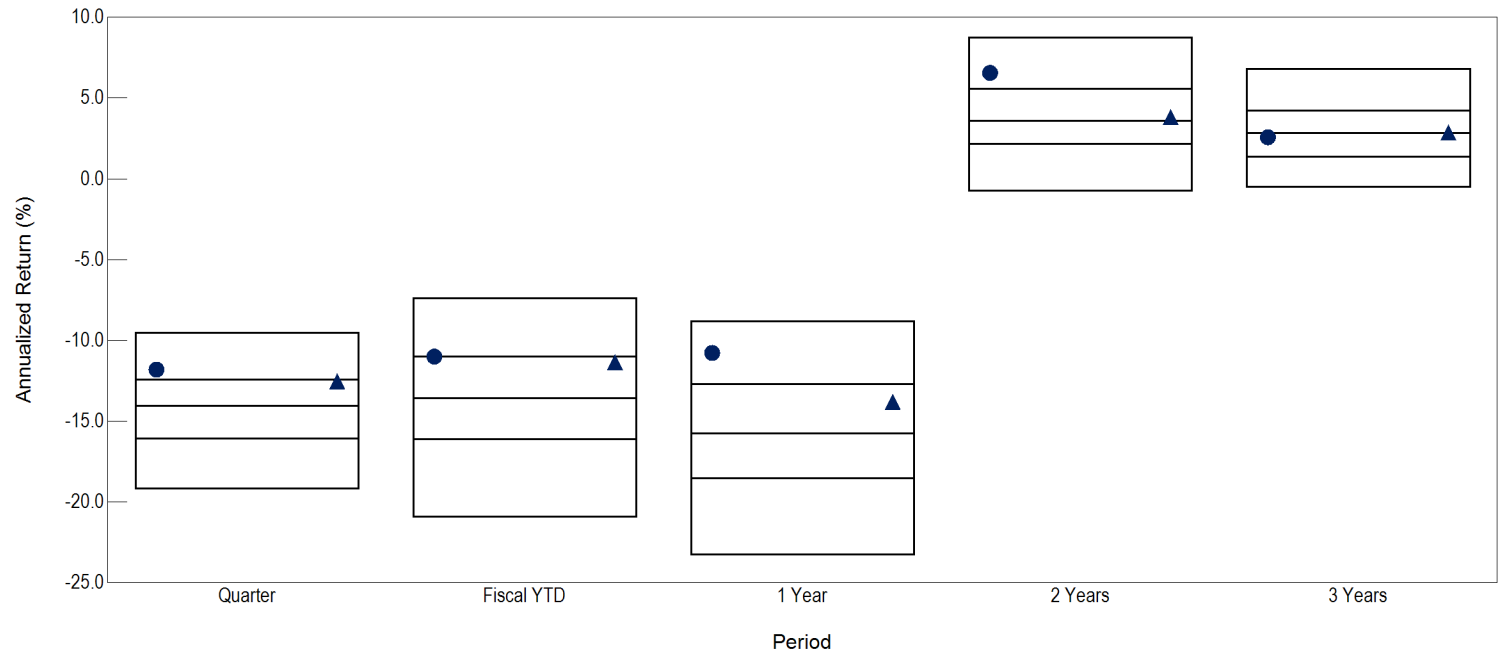
LAZARD ASSET MANAGEMENT

Quarterly and Cumulative Excess Performance



LAZARD ASSET MANAGEMENT

Lazard Asset Management vs. eV All EAFE Equity Net

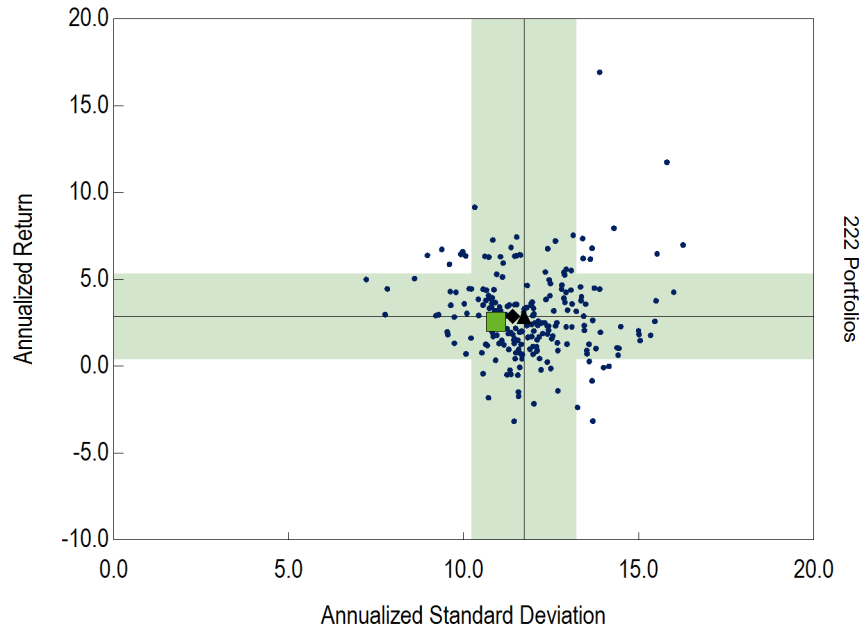


	Quarter		Fiscal YTD		1 Year		2 Years		3 Years	
	Return	(Rank)	Return	(Rank)	Return	(Rank)	Return	(Rank)	Return	(Rank)
5th Percentile	-9.52		-7.40		-8.81		8.75		6.80	
25th Percentile	-12.40		-10.95		-12.67		5.61		4.26	
Median	-14.02		-13.52		-15.71		3.62		2.86	
75th Percentile	-16.02		-16.09		-18.50		2.19		1.40	
95th Percentile	-19.12		-20.85		-23.19		-0.67		-0.47	
# of Portfolios	233		233		233		230		222	
● Lazard Asset Management	-11.80	(21)	-11.00	(27)	-10.77	(15)	6.56	(16)	2.57	(53)
▲ MSCI EAFE	-12.54	(27)	-11.35	(30)	-13.79	(38)	3.82	(49)	2.87	(50)

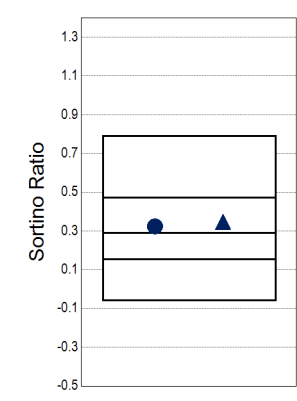
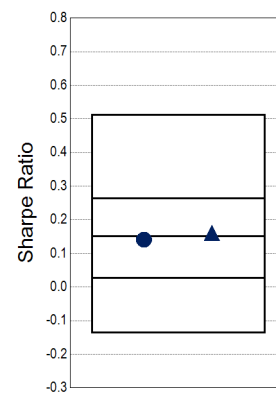
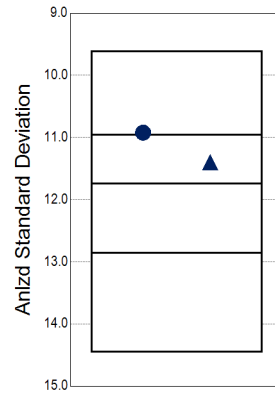
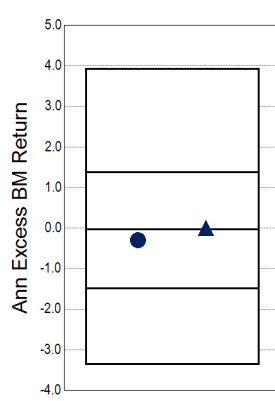
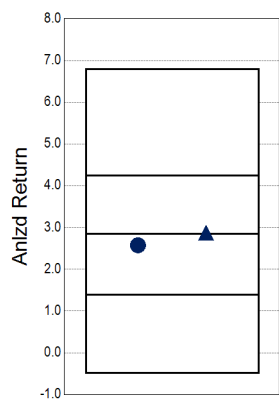
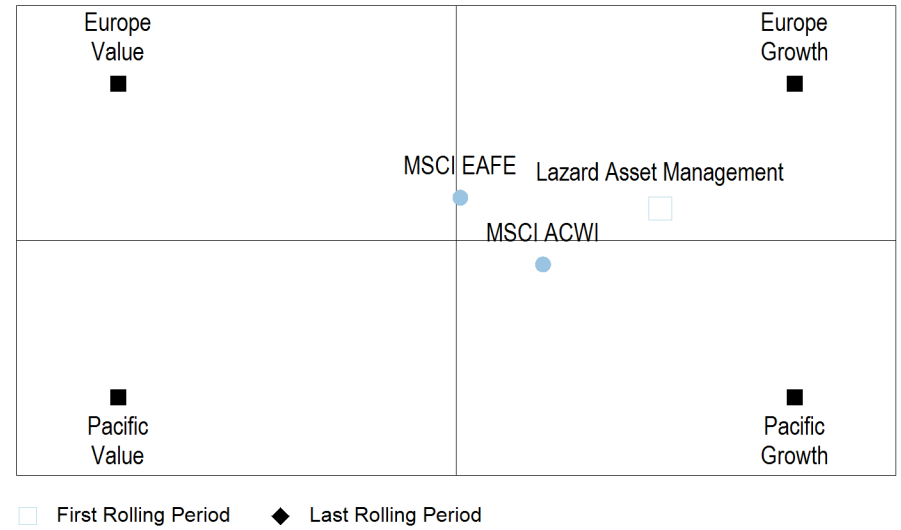


LAZARD ASSET MANAGEMENT

3 Year Risk Return



3 Year Style Map



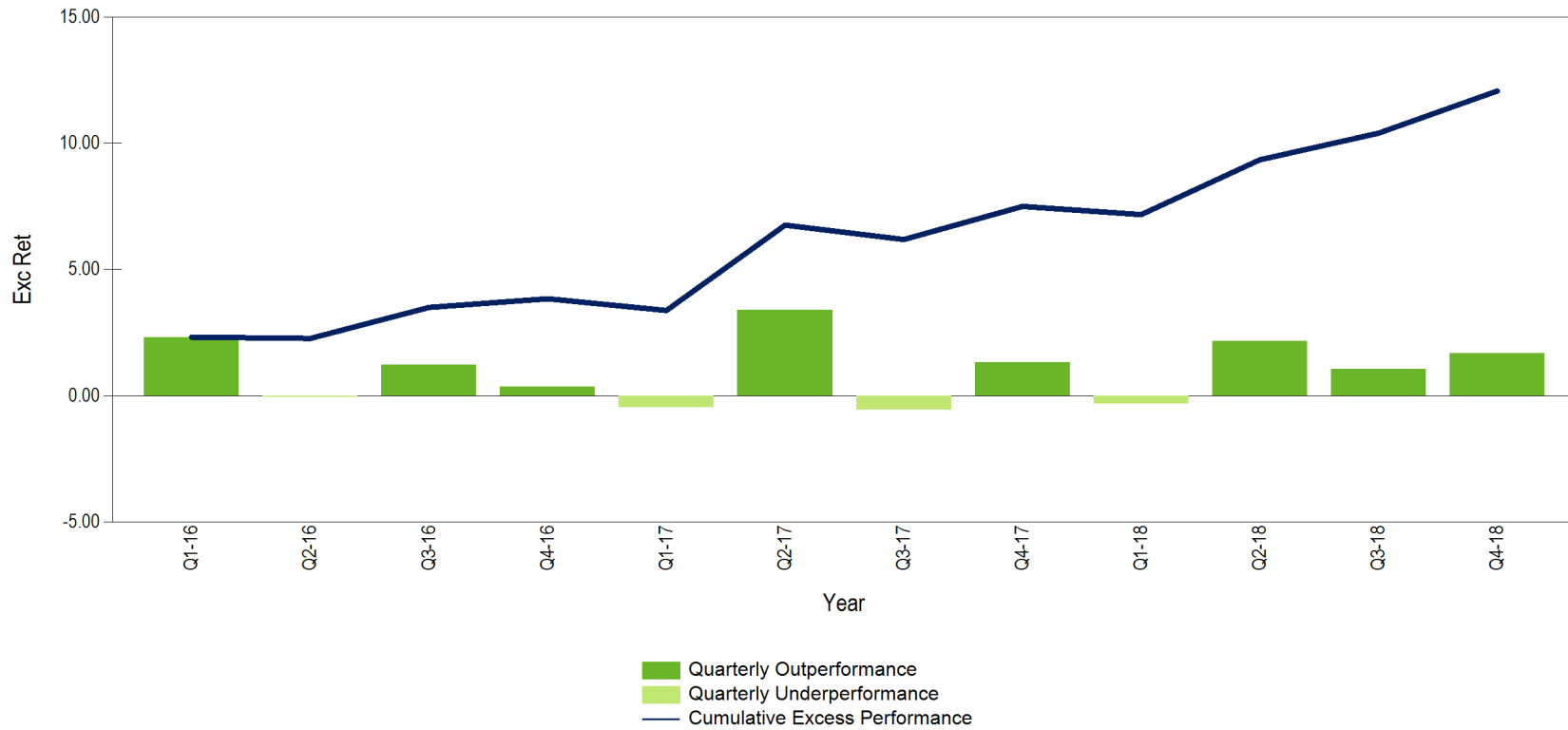
- Lazard Asset Management
- ▲ MSCI EAFE
- 5th to 25th Percentile
- 25th to Median
- Median to 75th Percentile
- 75th to 95th Percentile



Los Angeles City Employees' Retirement System

MFS INSTITUTIONAL ADVISORS

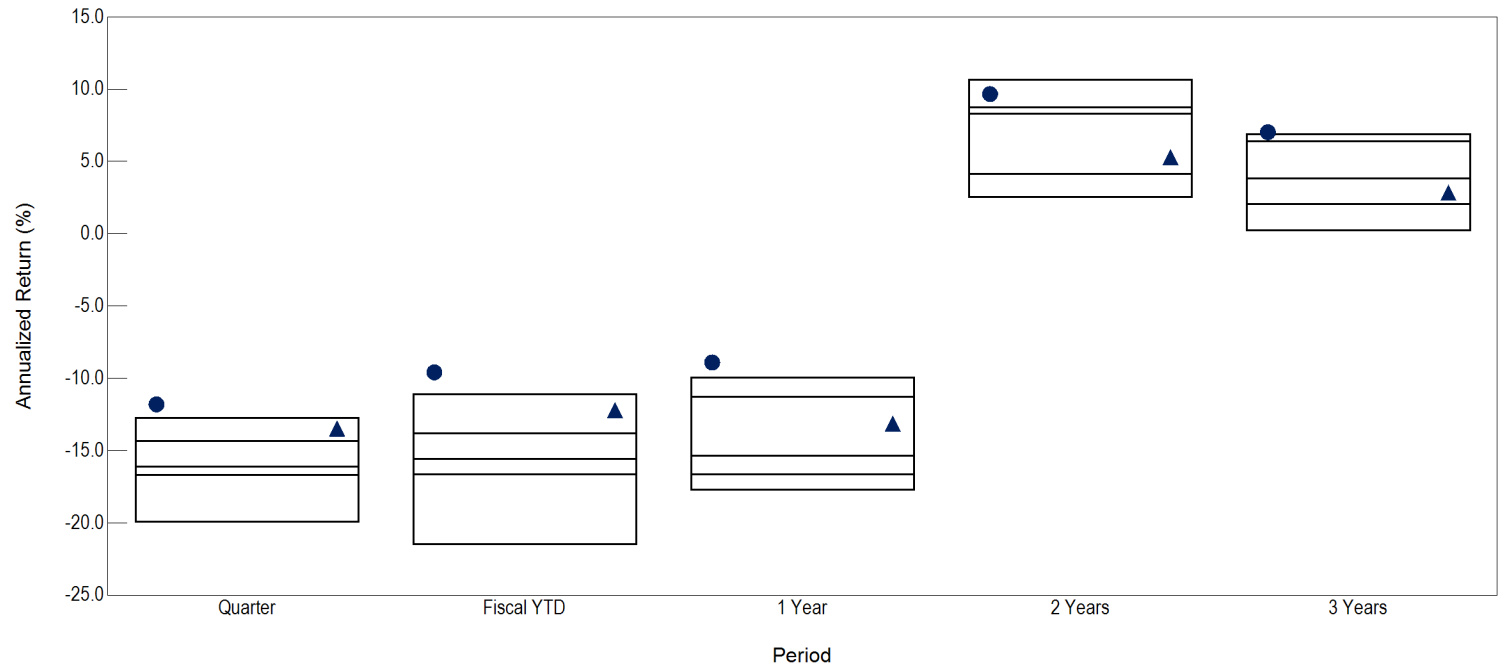
Quarterly and Cumulative Excess Performance



Los Angeles City Employees' Retirement System

MFS INSTITUTIONAL ADVISORS

MFS Institutional Advisors vs. eV EAFE All Cap Growth Net

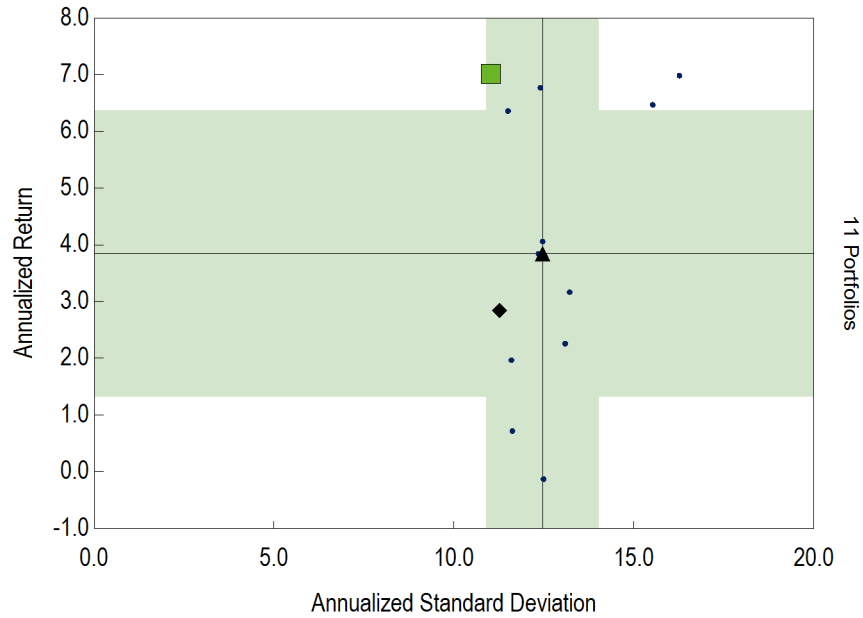


	Quarter		Fiscal YTD		1 Year		2 Years		3 Years	
Return (Rank)										
5th Percentile	-12.74		-11.09		-9.96		10.64		6.88	
25th Percentile	-14.29		-13.78		-11.25		8.79		6.41	
Median	-16.08		-15.55		-15.32		8.36		3.84	
75th Percentile	-16.64		-16.59		-16.61		4.17		2.11	
95th Percentile	-19.87		-21.41		-17.66		2.57		0.29	
# of Portfolios	11		11		11		11		11	
● MFS Institutional Advisors	-11.81	(2)	-9.59	(2)	-8.91	(1)	9.65	(13)	7.02	(1)
▲ MSCI World ex USA Growth NR USD	-13.48	(8)	-12.22	(8)	-13.14	(44)	5.28	(66)	2.84	(64)

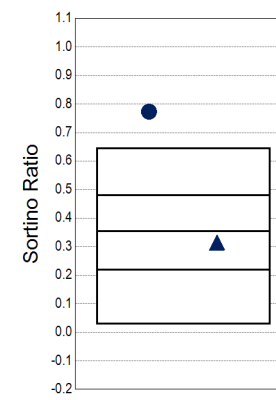
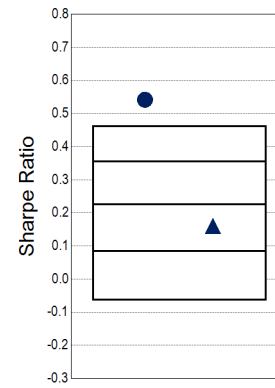
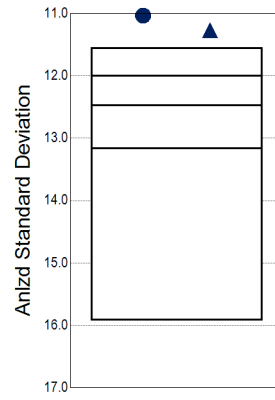
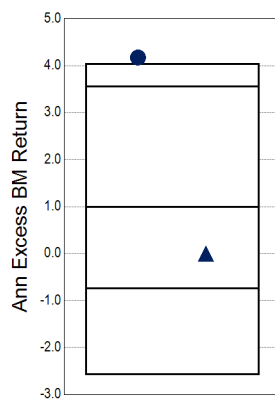
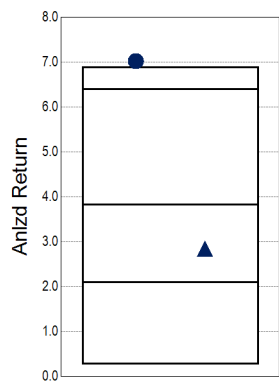
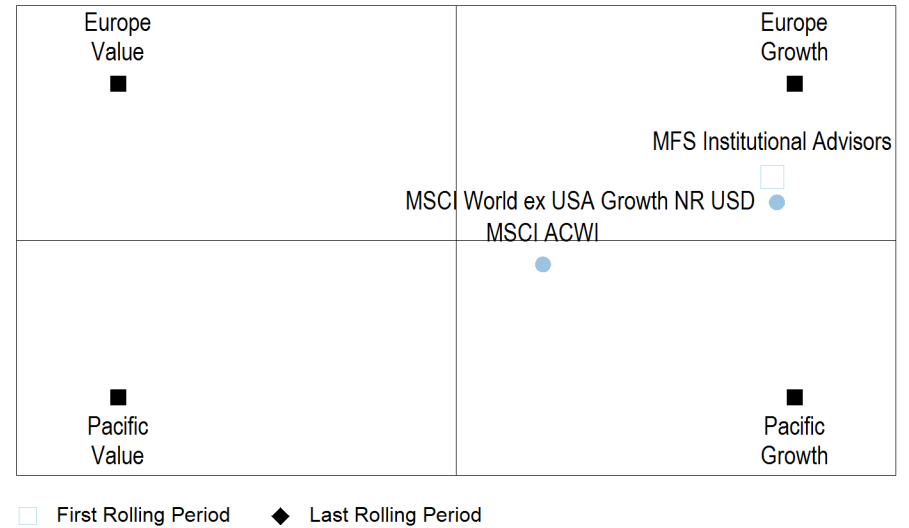


MFS INSTITUTIONAL ADVISORS

3 Year Risk Return



3 Year Style Map



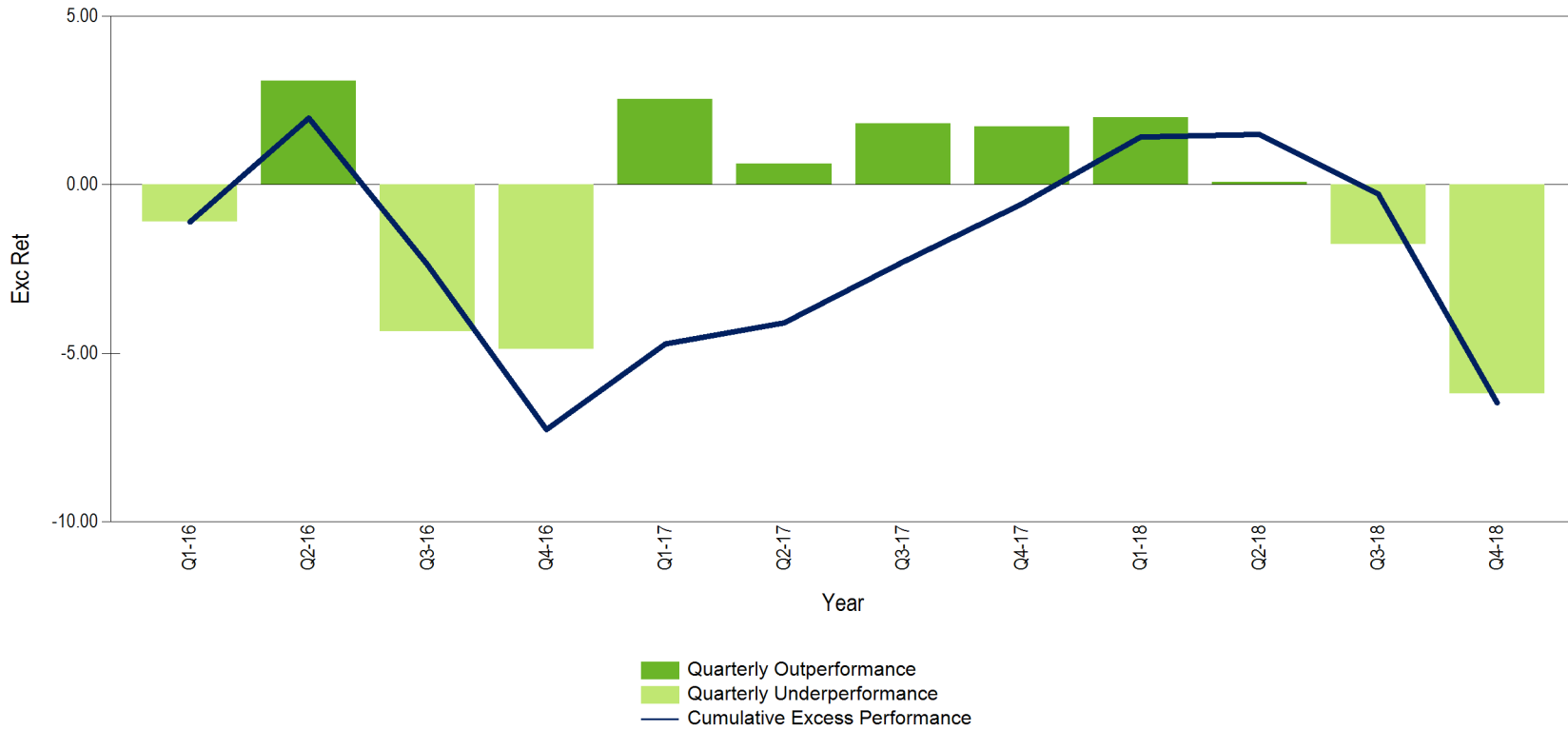
- MFS Institutional Advisors
- ▲ MSCI World ex USA Growth NR USD
- 5th to 25th Percentile
- 25th to Median
- Median to 75th Percentile
- 75th to 95th Percentile



Los Angeles City Employees' Retirement System

OBERWEIS ASSET MGMT

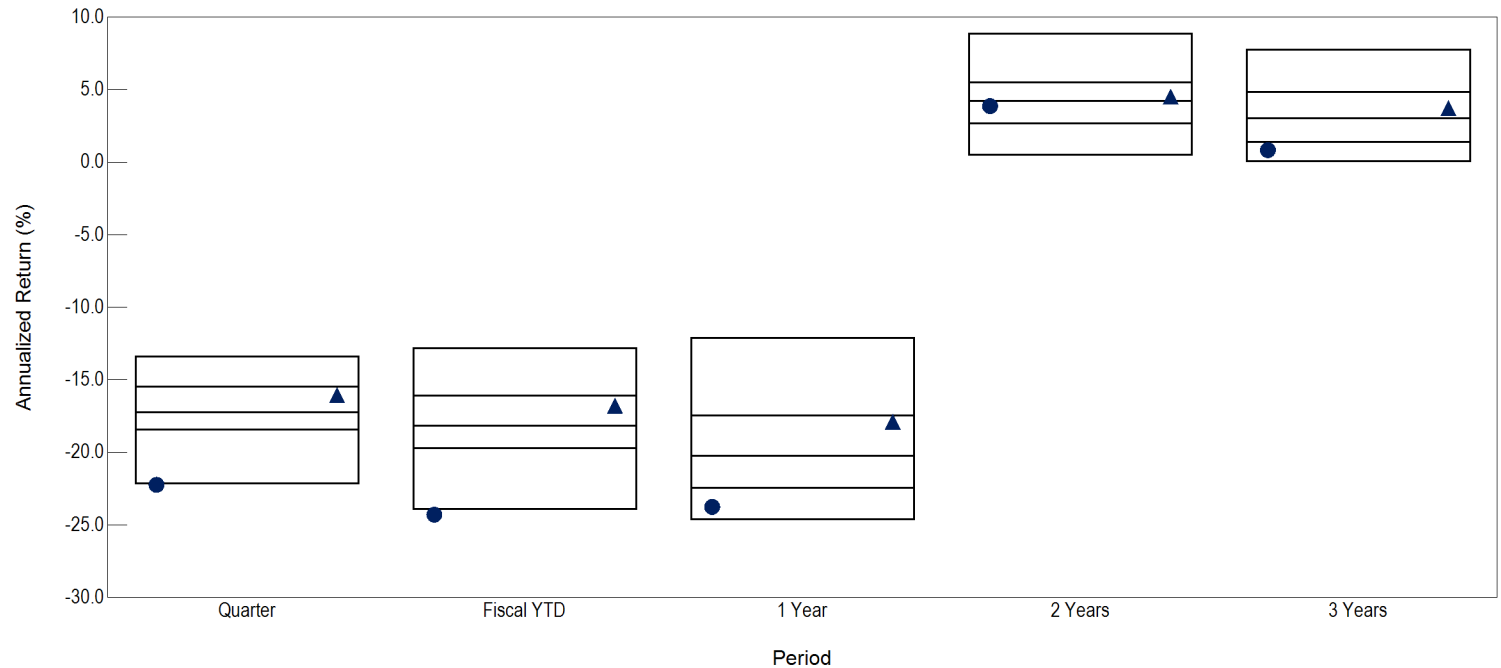
Quarterly and Cumulative Excess Performance



Los Angeles City Employees' Retirement System

OBERWEIS ASSET MGMT

Oberweis Asset Mgmt vs. eV EAFE Small Cap Equity Net



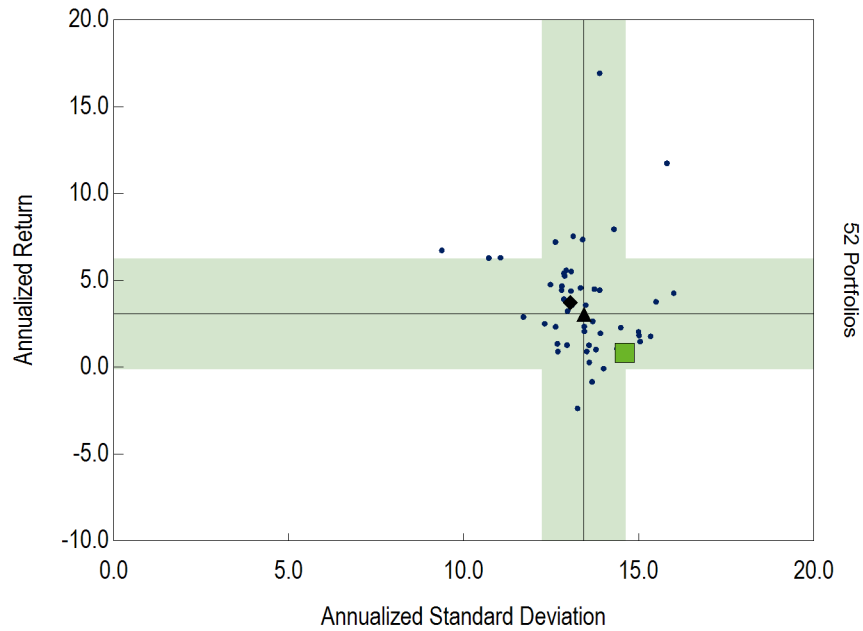
	Return (Rank)									
5th Percentile	-13.41		-12.82		-12.11		8.86		7.73	
25th Percentile	-15.42		-16.04		-17.44		5.53		4.88	
Median	-17.21		-18.11		-20.20		4.26		3.06	
75th Percentile	-18.41		-19.65		-22.38		2.73		1.45	
95th Percentile	-22.11		-23.84		-24.58		0.57		0.12	
# of Portfolios	55		55		55		55		52	
● Oberweis Asset Mgmt	-22.25	(97)	-24.30	(97)	-23.77	(88)	3.86	(54)	0.83	(91)
▲ MSCI EAFE Small Cap	-16.05	(32)	-16.79	(35)	-17.89	(27)	4.51	(47)	3.73	(44)



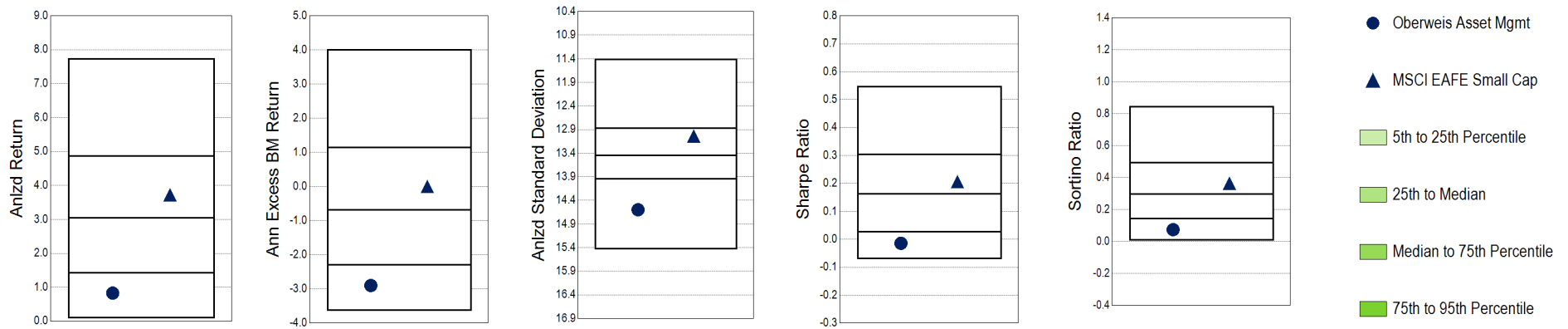
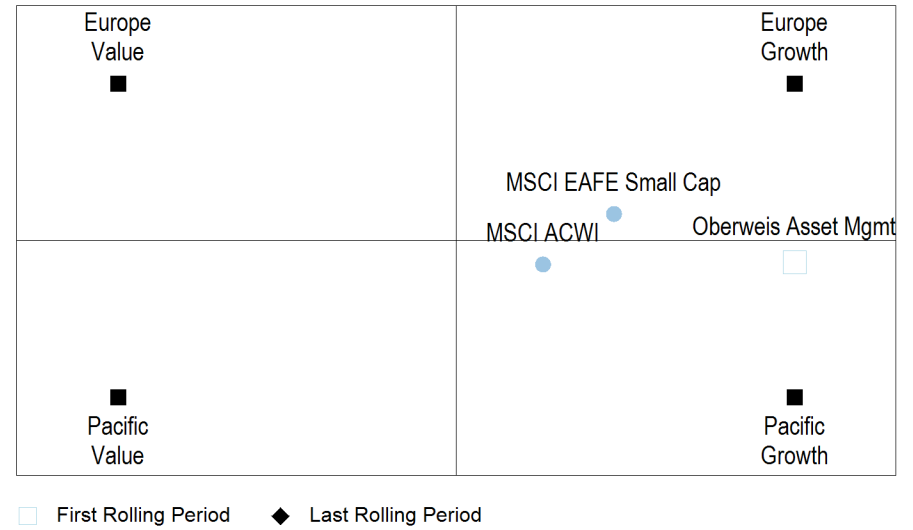
Los Angeles City Employees' Retirement System

OBERWEIS ASSET MGMT

3 Year Risk Return



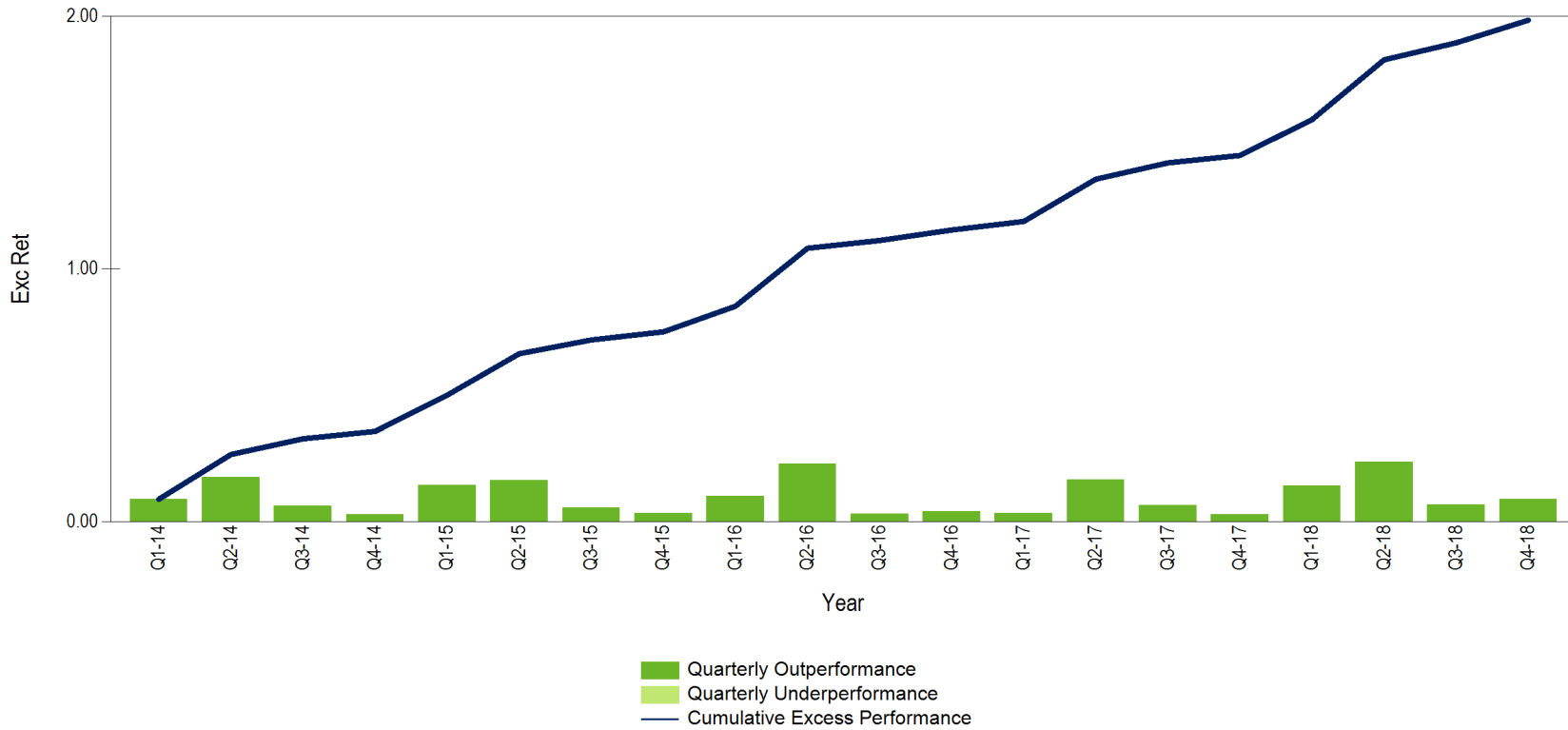
3 Year Style Map



Los Angeles City Employees' Retirement System

SSGA WORLD EX US IMI

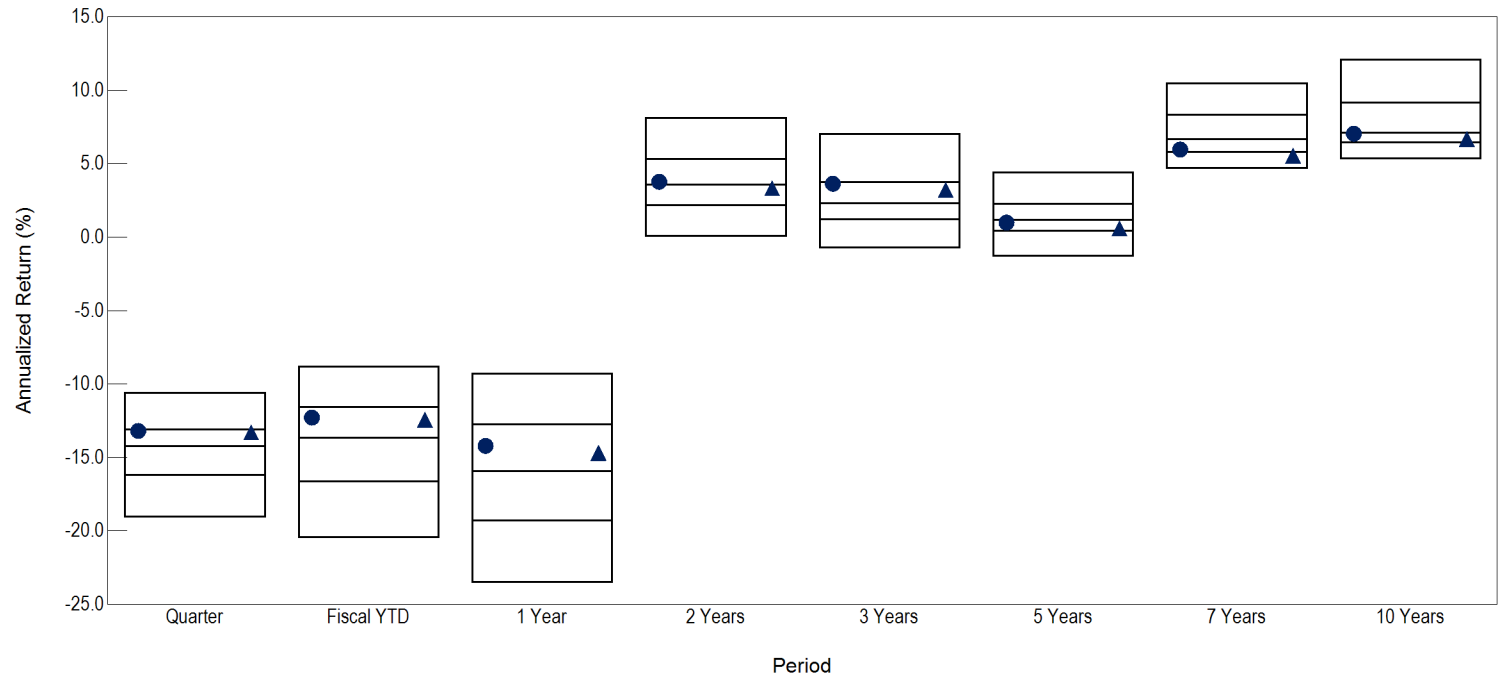
Quarterly and Cumulative Excess Performance



Los Angeles City Employees' Retirement System

SSGA WORLD EX US IMI

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



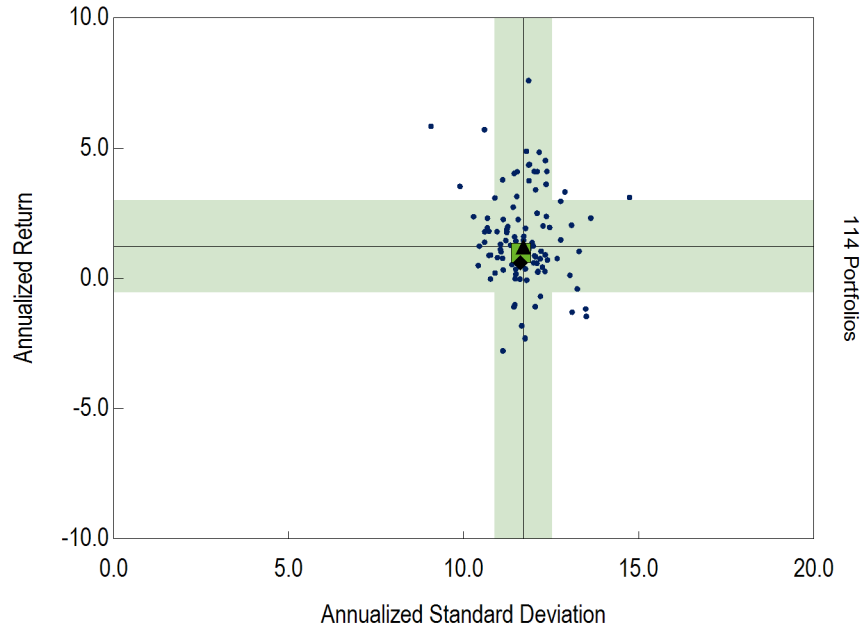
	Return (Rank)															
5th Percentile	-10.60	-8.82	-9.28	8.14	7.01	4.43	10.47	12.07								
25th Percentile	-13.03	-11.50	-12.71	5.36	3.78	2.30	8.39	9.22								
Median	-14.19	-13.62	-15.90	3.62	2.38	1.23	6.70	7.18								
75th Percentile	-16.15	-16.56	-19.22	2.21	1.27	0.50	5.84	6.52								
95th Percentile	-18.99	-20.37	-23.45	0.14	-0.65	-1.22	4.77	5.42								
# of Portfolios	138	138	138	136	132	114	94	78								
● SSGA World ex US IMI	-13.19	(29)	-12.28	(29)	-14.21	(37)	3.77	(48)	3.64	(28)	0.99	(58)	5.97	(72)	7.04	(61)
▲ MSCI World ex USA IMI NR USD	-13.28	(30)	-12.43	(31)	-14.68	(38)	3.34	(57)	3.21	(38)	0.59	(73)	5.55	(79)	6.68	(71)



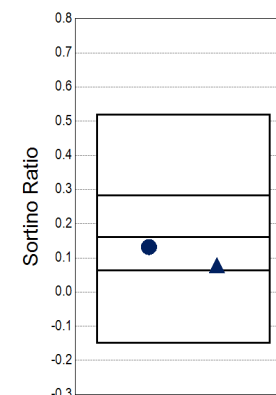
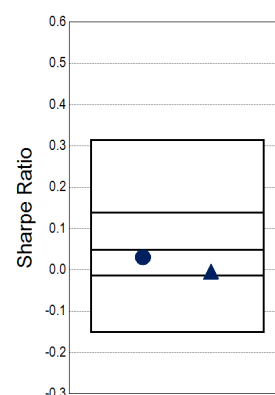
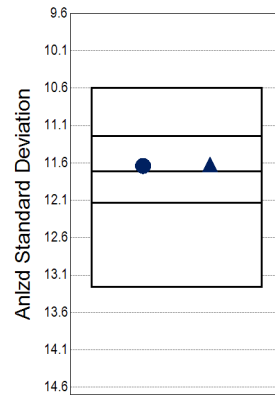
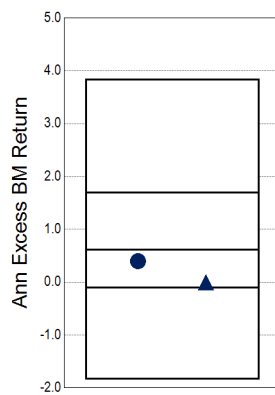
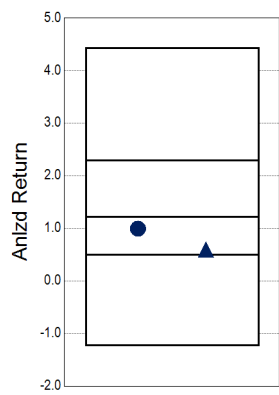
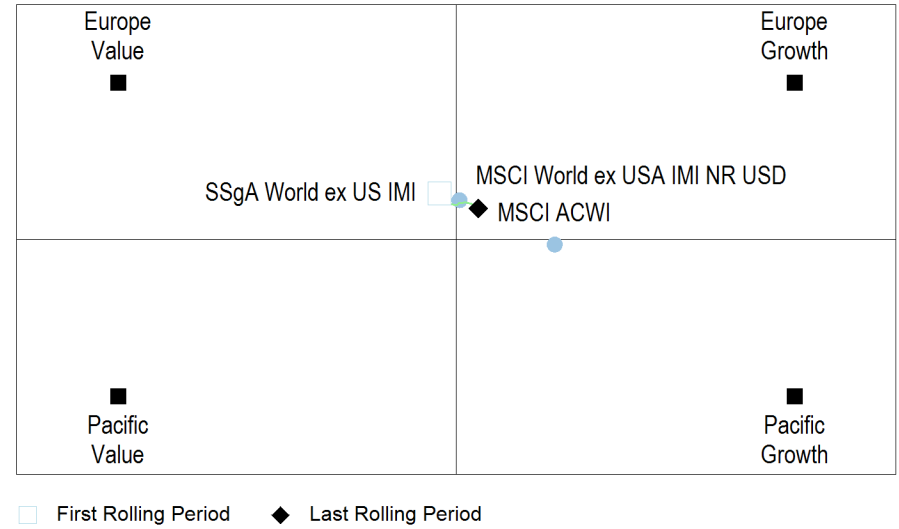
Los Angeles City Employees' Retirement System

SSGA WORLD EX US IMI

5 Year Risk Return



5 Year Style Map

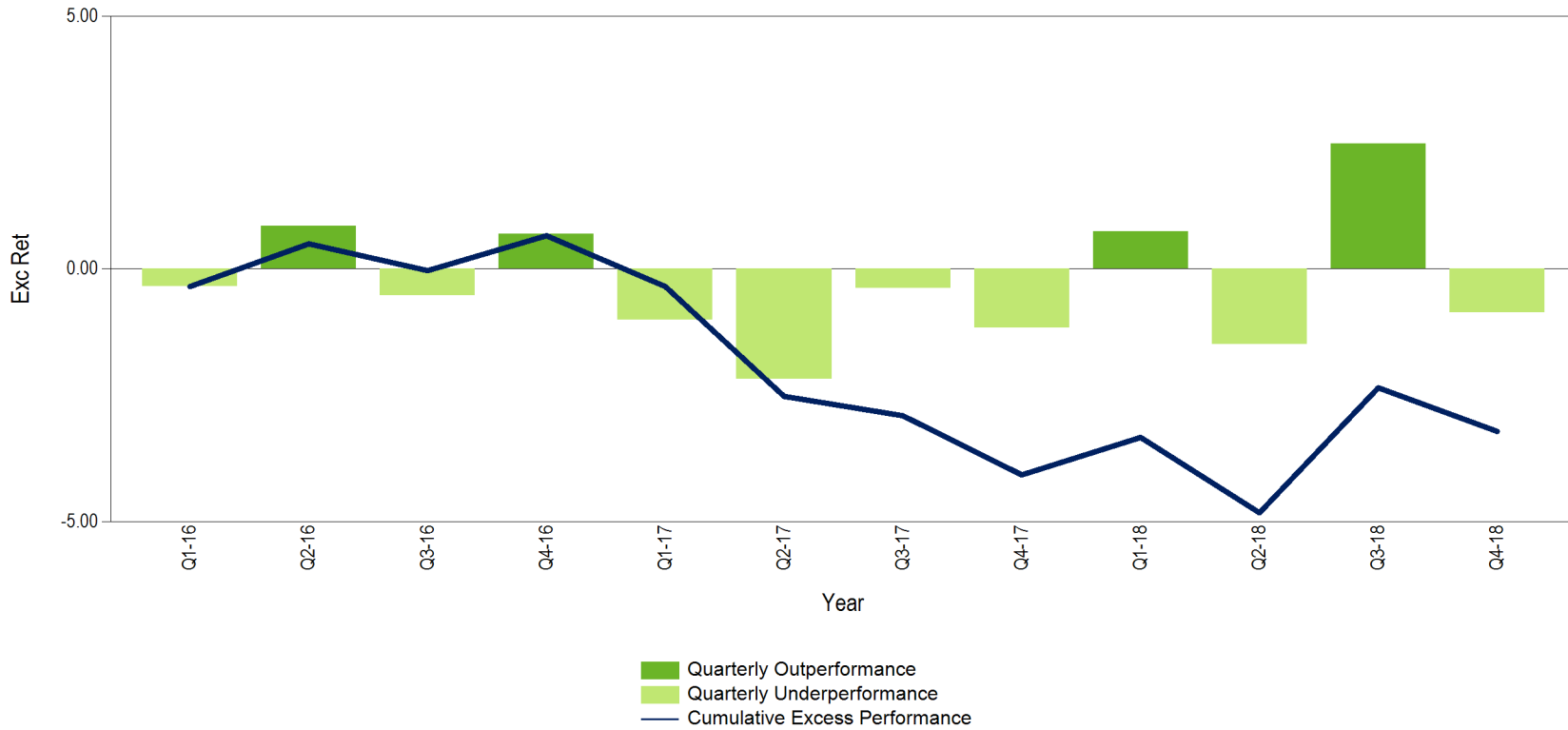


- SSGA World ex US IMI
- ▲ MSCI World ex USA IMI NR USD
- 5th to 25th Percentile
- 25th to Median
- Median to 75th Percentile
- 75th to 95th Percentile



AXIOM EMERGING MARKETS

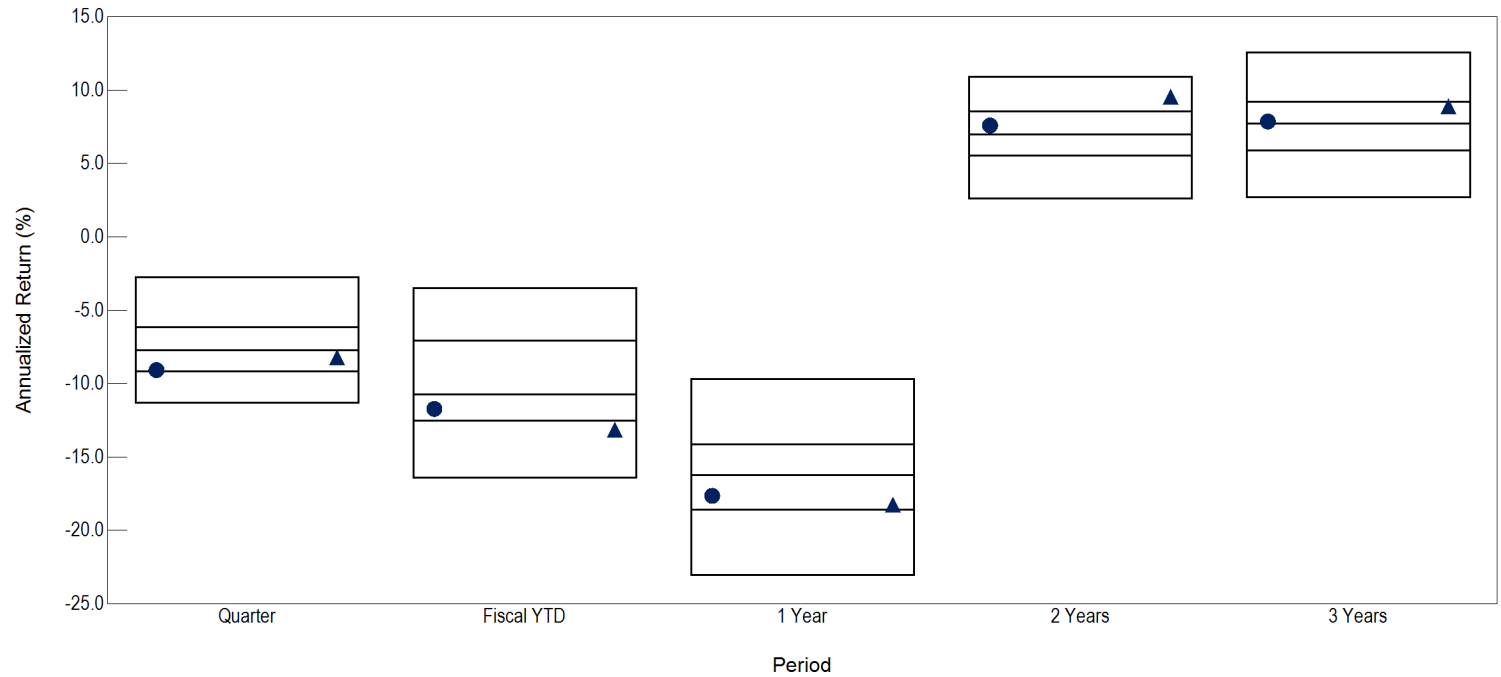
Quarterly and Cumulative Excess Performance



Los Angeles City Employees' Retirement System

AXIOM EMERGING MARKETS

Axiom Emerging Markets vs. eV Emg Mkts Equity Net

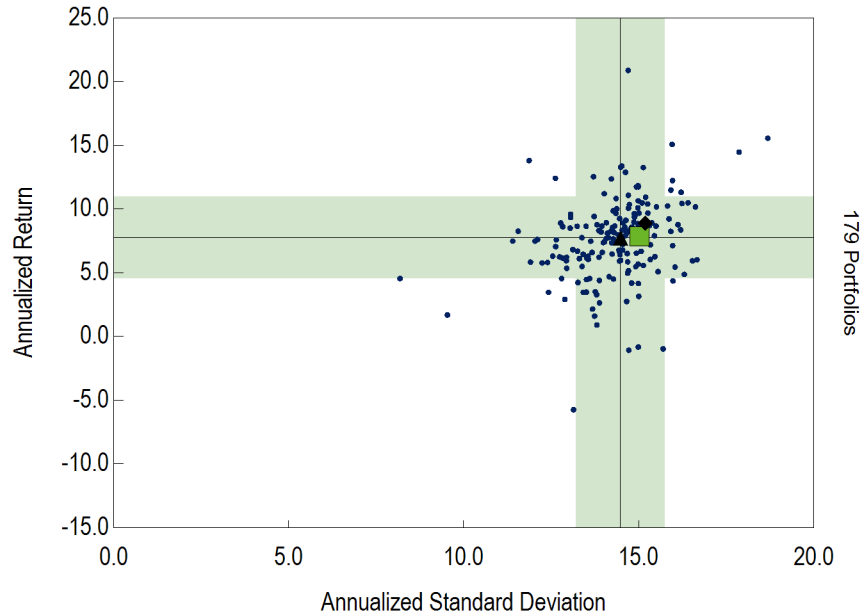


	Return (Rank)									
5th Percentile	-2.74	(75)	-3.47	(67)	-9.67	(66)	10.90	(41)	12.57	(50)
25th Percentile	-6.12	(60)	-7.01	(80)	-14.11	(74)	8.58	(14)	9.23	(29)
Median	-7.66		-10.68		-16.21		7.04		7.75	
75th Percentile	-9.12		-12.46		-18.56		5.58		5.95	
95th Percentile	-11.28		-16.36		-22.99		2.66		2.73	
# of Portfolios	197		196		194		186		179	
● Axiom Emerging Markets	-9.08	(75)	-11.72	(67)	-17.64	(66)	7.59	(41)	7.86	(50)
▲ MSCI Emerging Markets Growth NR USD	-8.22	(60)	-13.15	(80)	-18.26	(74)	9.54	(14)	8.89	(29)

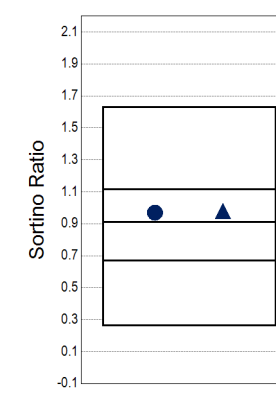
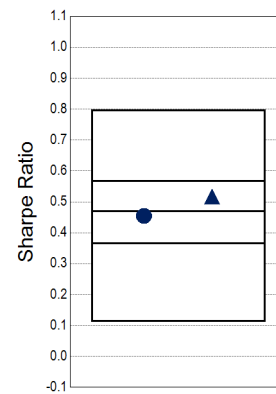
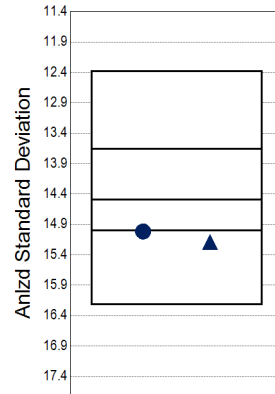
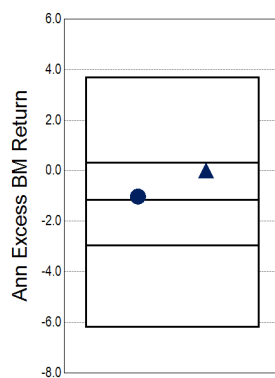
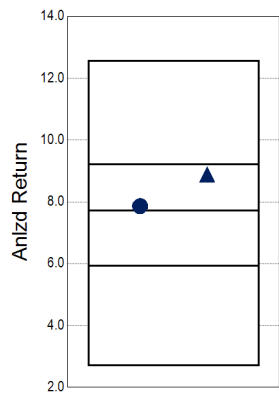
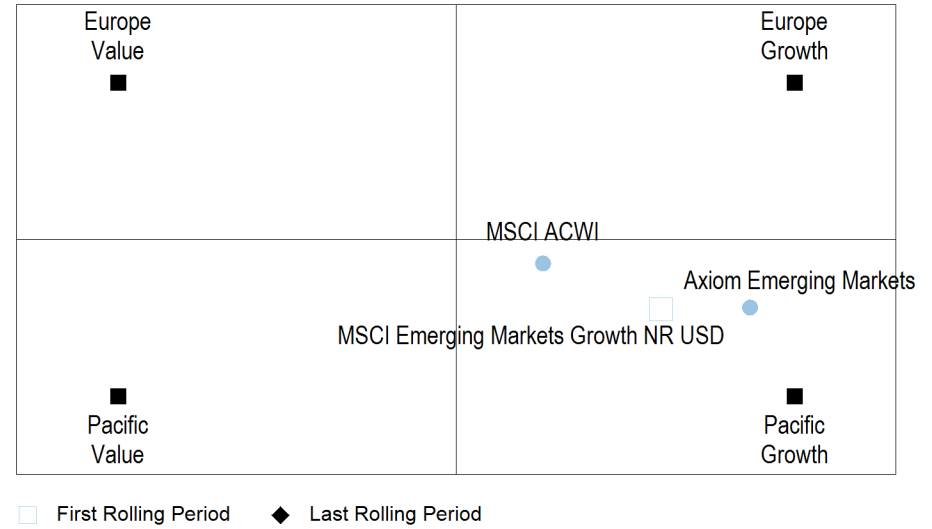


AXIOM EMERGING MARKETS

3 Year Risk Return



3 Year Style Map



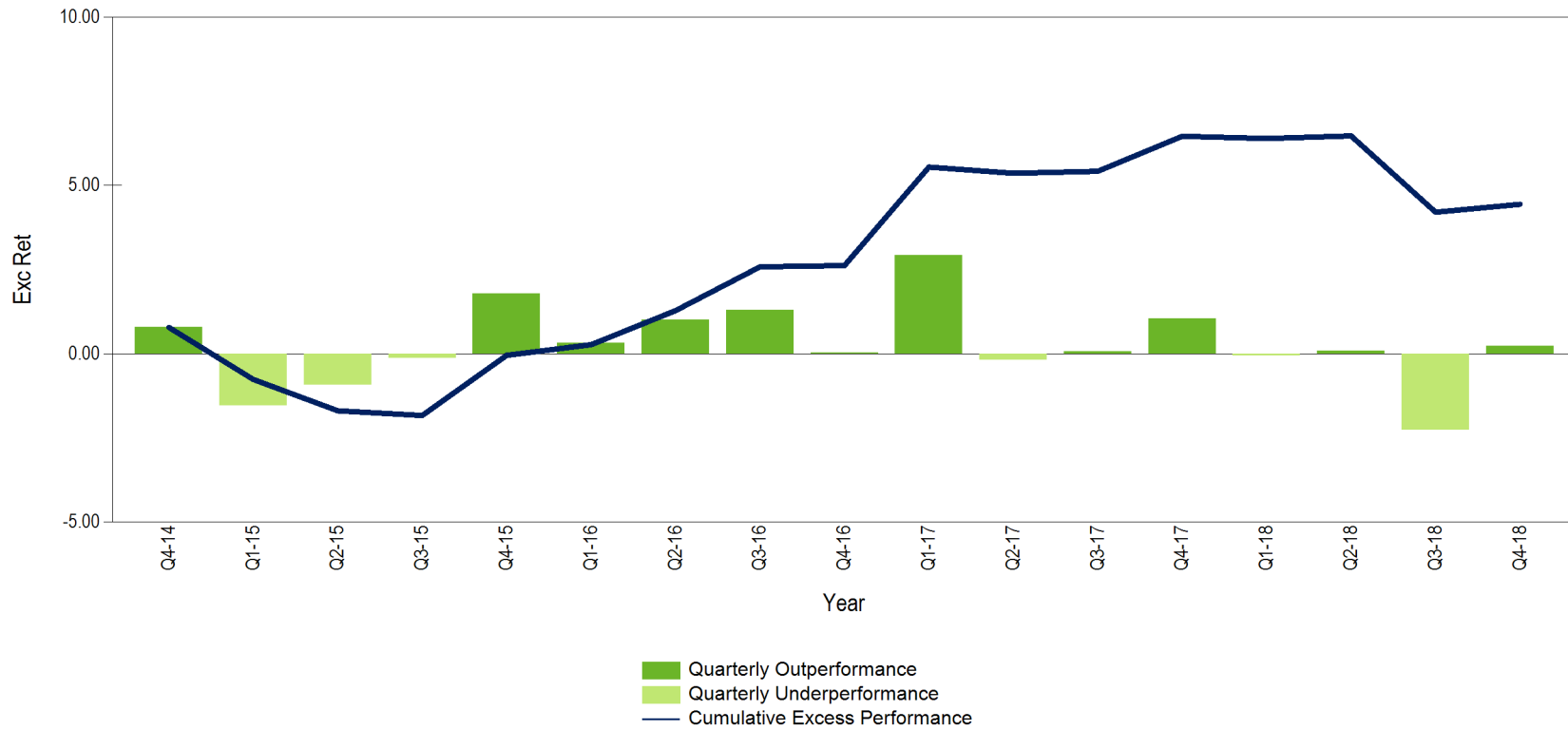
- Axiom Emerging Markets
- ▲ MSCI Emerging Markets Growth...
- 5th to 25th Percentile
- 25th to Median
- Median to 75th Percentile
- 75th to 95th Percentile



Los Angeles City Employees' Retirement System

DFA EMERGING MARKETS

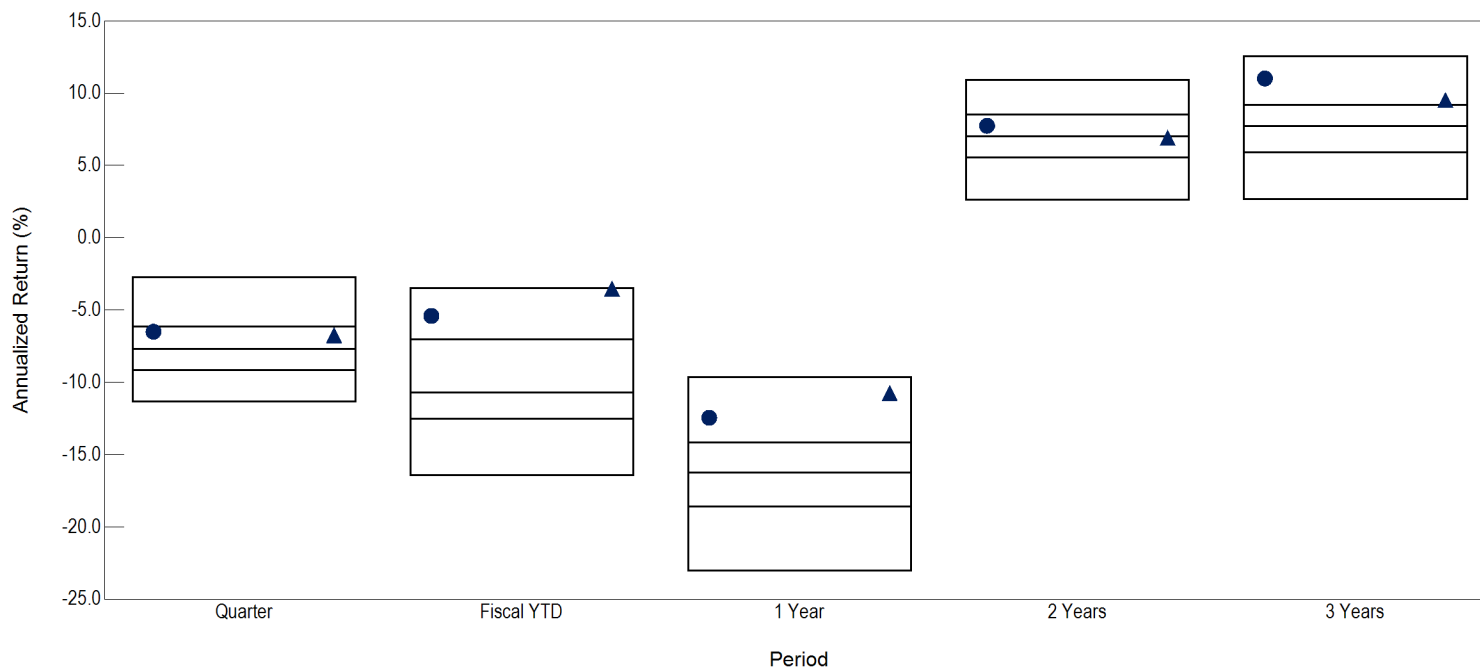
Quarterly and Cumulative Excess Performance



Los Angeles City Employees' Retirement System

DFA EMERGING MARKETS

DFA Emerging Markets vs. eV Emg Mkts Equity Net



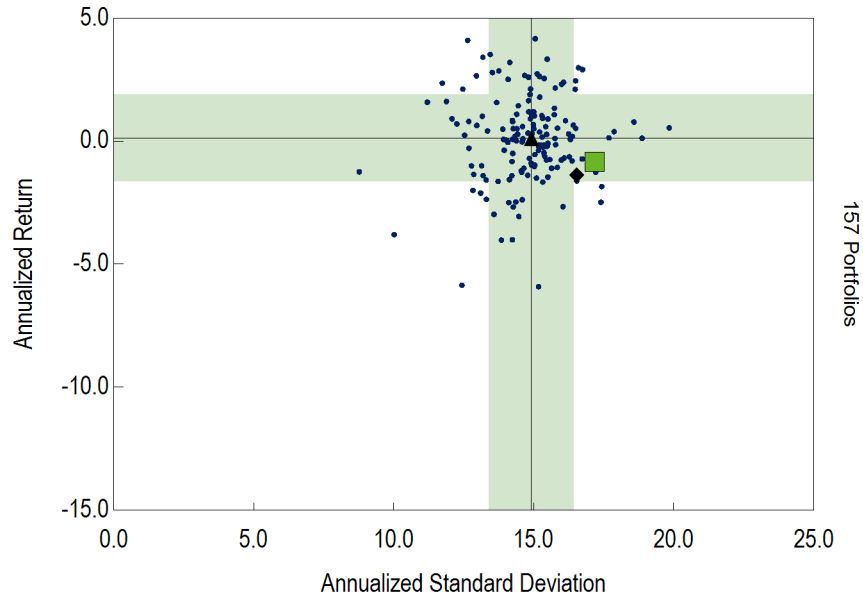
	Return (Rank)									
	Quarter	Fiscal YTD	1 Year	2 Years	3 Years	Quarter	Fiscal YTD	1 Year	2 Years	3 Years
5th Percentile	-2.74	-3.47	-9.67	10.90	12.57	-2.74	-3.47	-9.67	10.90	12.57
25th Percentile	-6.12	-7.01	-14.11	8.58	9.23	-6.12	-7.01	-14.11	8.58	9.23
Median	-7.66	-10.68	-16.21	7.04	7.75	-7.66	-10.68	-16.21	7.04	7.75
75th Percentile	-9.12	-12.46	-18.56	5.58	5.95	-9.12	-12.46	-18.56	5.58	5.95
95th Percentile	-11.28	-16.36	-22.99	2.66	2.73	-11.28	-16.36	-22.99	2.66	2.73
# of Portfolios	197	196	194	186	179	197	196	194	186	179
● DFA Emerging Markets	-6.51	(33)	-5.41	(14)	-12.46	(16)	7.74	(38)	11.01	(11)
▲ MSCI Emerging Markets Value NR USD	-6.75	(36)	-3.54	(6)	-10.74	(11)	6.92	(52)	9.52	(23)



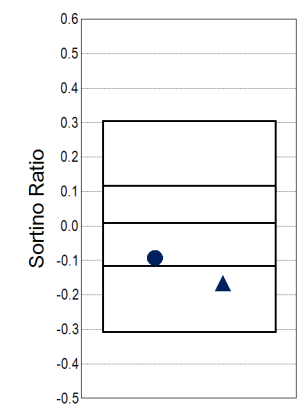
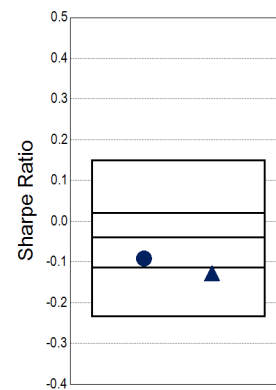
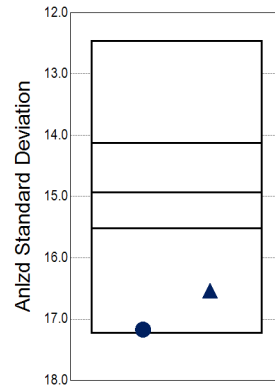
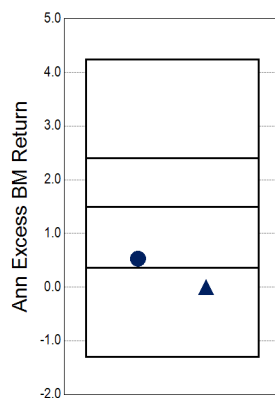
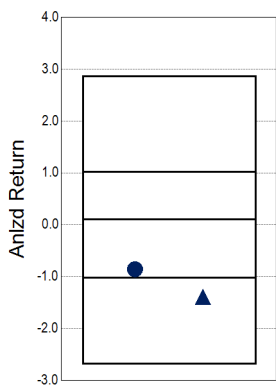
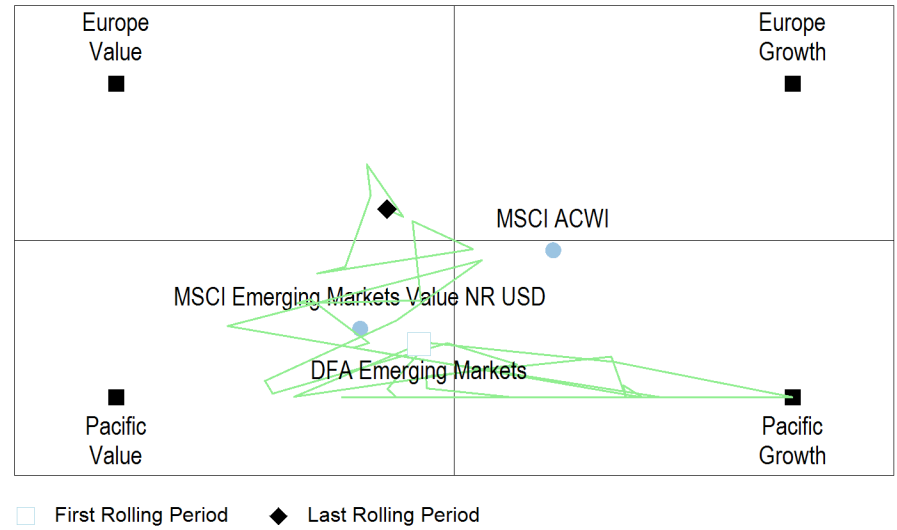
Los Angeles City Employees' Retirement System

DFA EMERGING MARKETS

Since Inception Risk Return



Since Inception Style Map



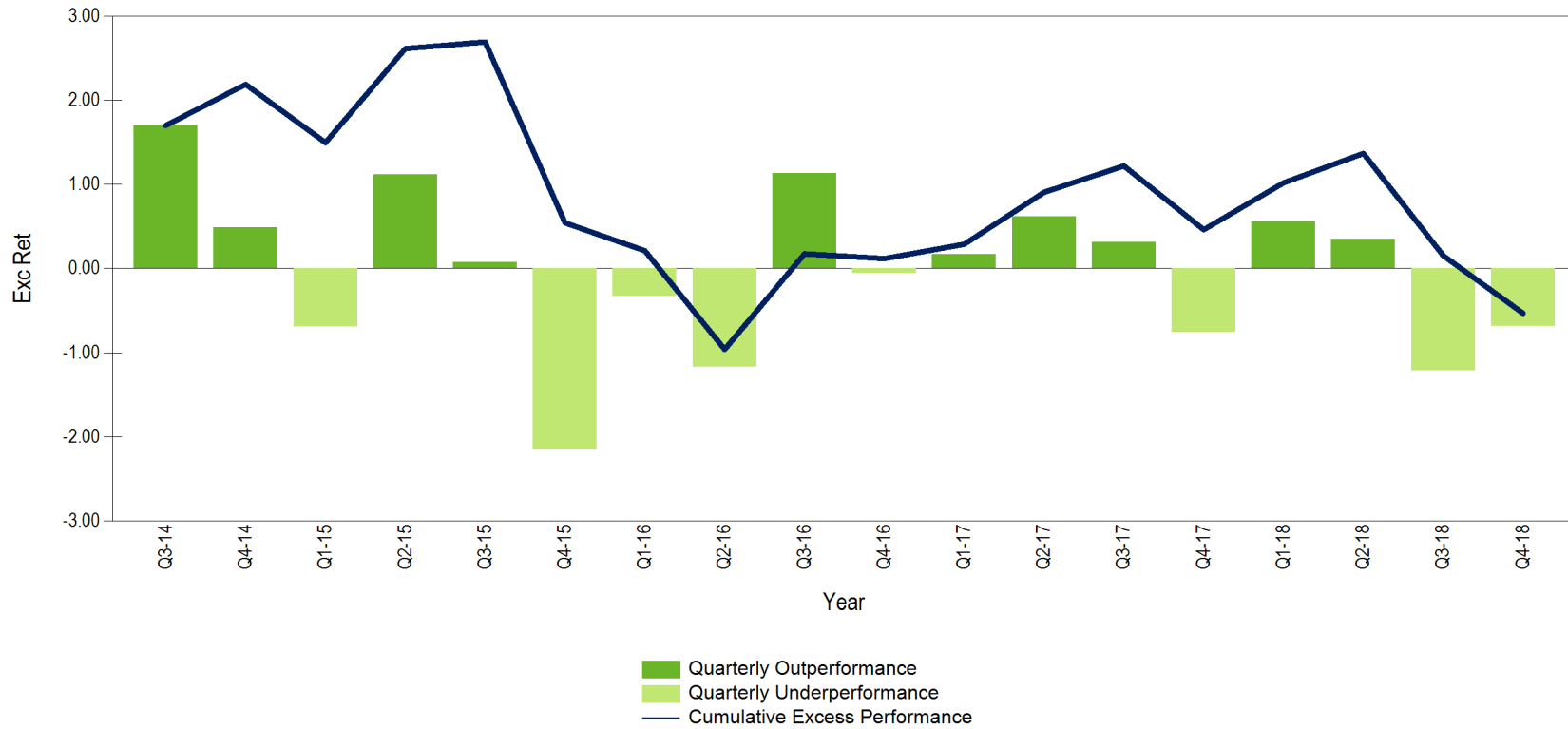
- DFA Emerging Markets
- ▲ MSCI Emerging Markets Value NR USD
- 5th to 25th Percentile
- 25th to Median
- Median to 75th Percentile
- 75th to 95th Percentile



Los Angeles City Employees' Retirement System

QMA EMERGING MARKETS

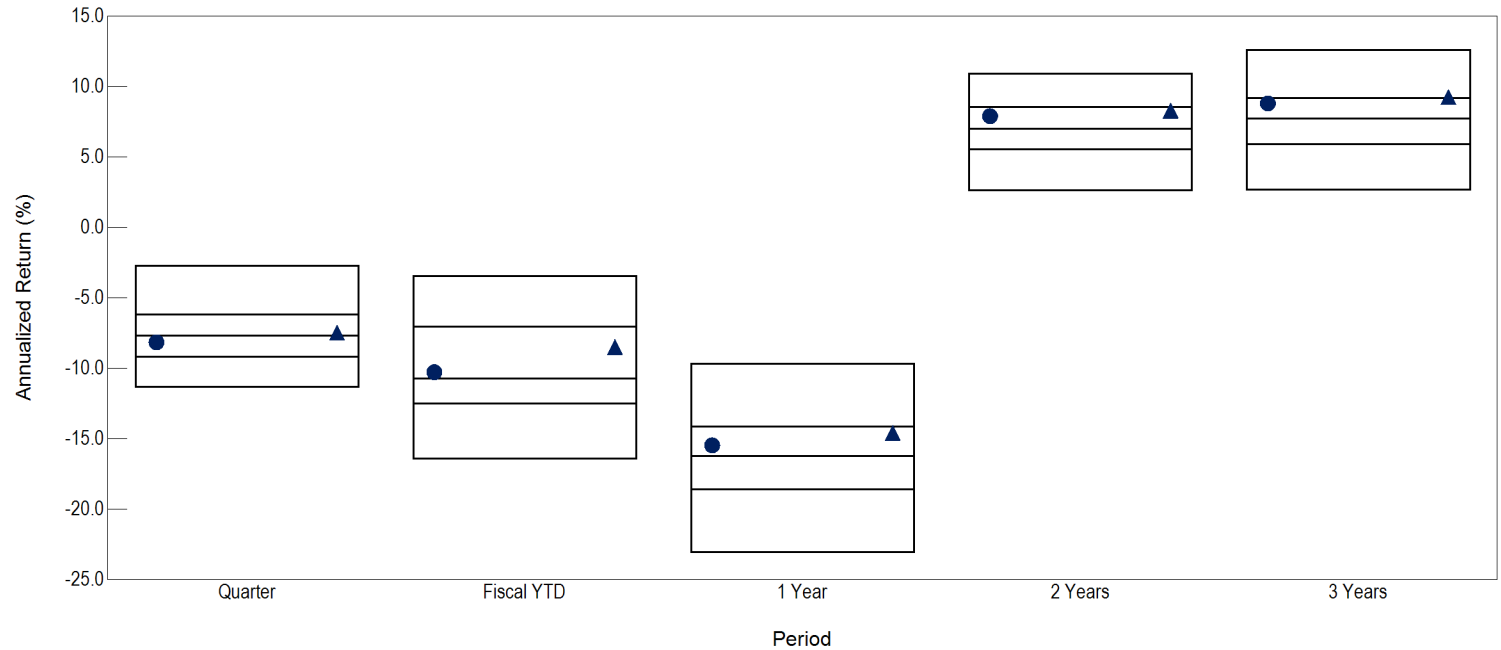
Quarterly and Cumulative Excess Performance



Los Angeles City Employees' Retirement System

QMA EMERGING MARKETS

QMA Emerging Markets vs. eV Emg Mkts Equity Net



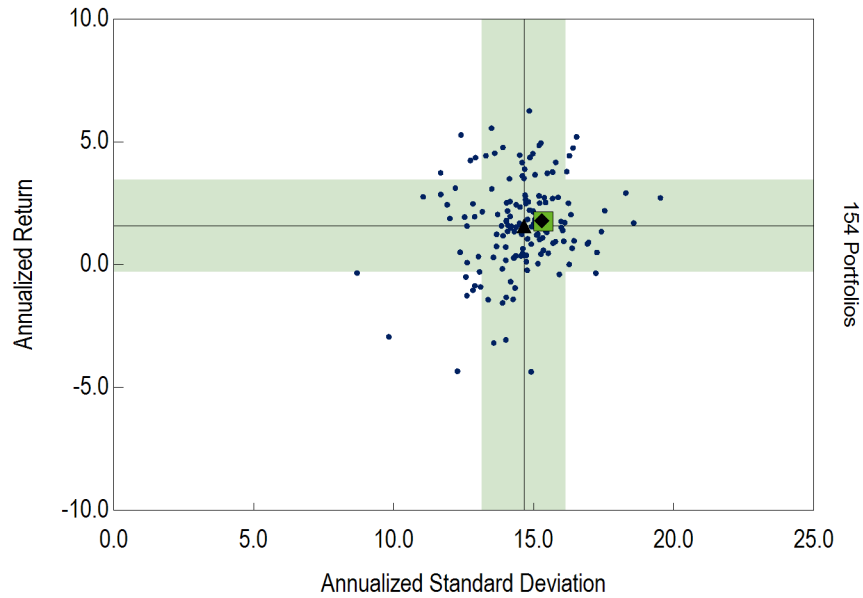
	Return (Rank)									
5th Percentile	-2.74		-3.47		-9.67		10.90		12.57	
25th Percentile	-6.12		-7.01		-14.11		8.58		9.23	
Median	-7.66		-10.68		-16.21		7.04		7.75	
75th Percentile	-9.12		-12.46		-18.56		5.58		5.95	
95th Percentile	-11.28		-16.36		-22.99		2.66		2.73	
# of Portfolios	197		196		194		186		179	
● QMA Emerging Markets	-8.16	(59)	-10.28	(46)	-15.47	(41)	7.89	(36)	8.79	(30)
▲ MSCI Emerging Markets	-7.47	(46)	-8.49	(32)	-14.58	(29)	8.29	(30)	9.25	(25)



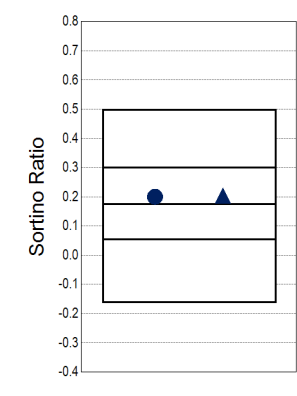
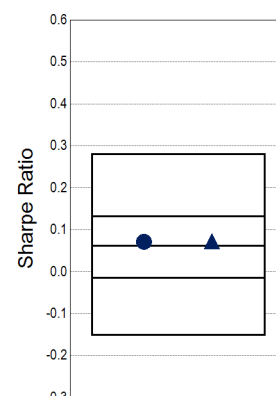
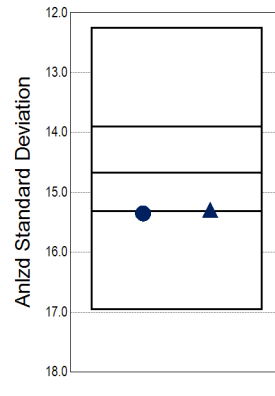
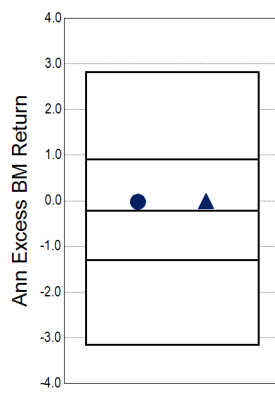
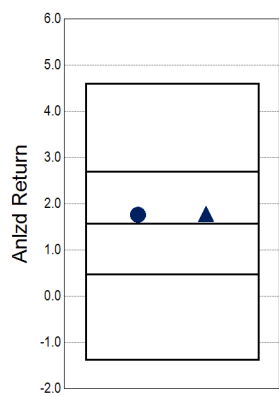
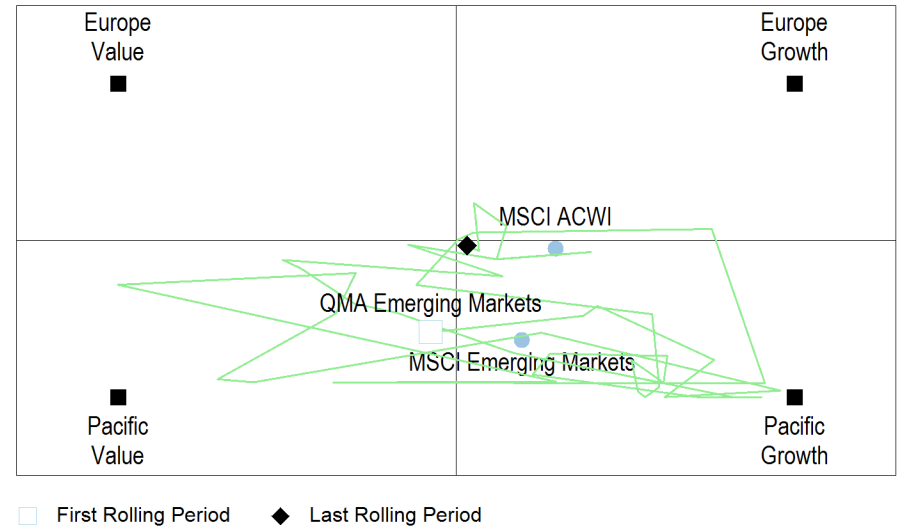
Los Angeles City Employees' Retirement System

QMA EMERGING MARKETS

Since Inception Risk Return



Since Inception Style Map



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



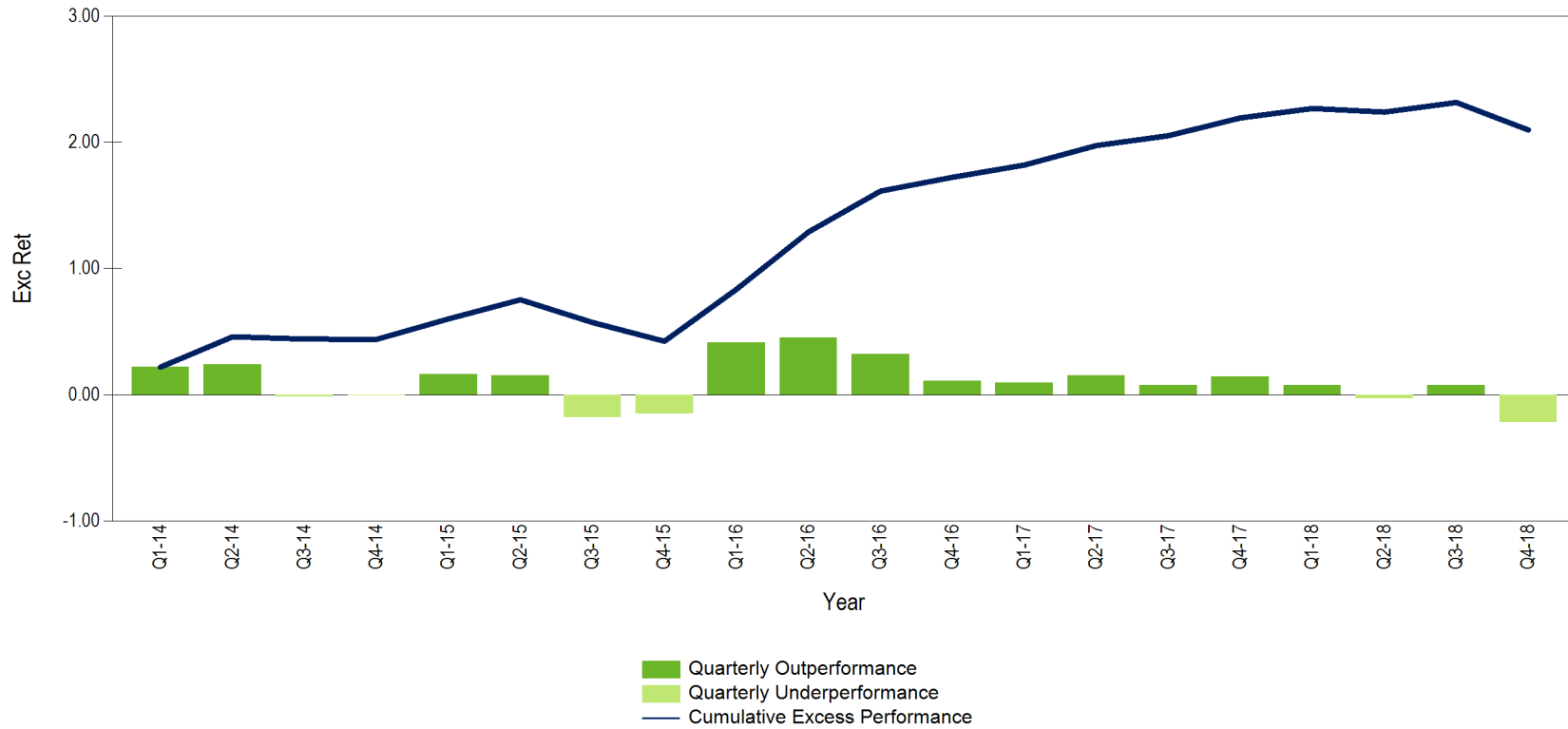
CORE FIXED INCOME MANAGER PERFORMANCE

NEPC, LLC

Los Angeles City Employees' Retirement System

BAIRD ADVISORS

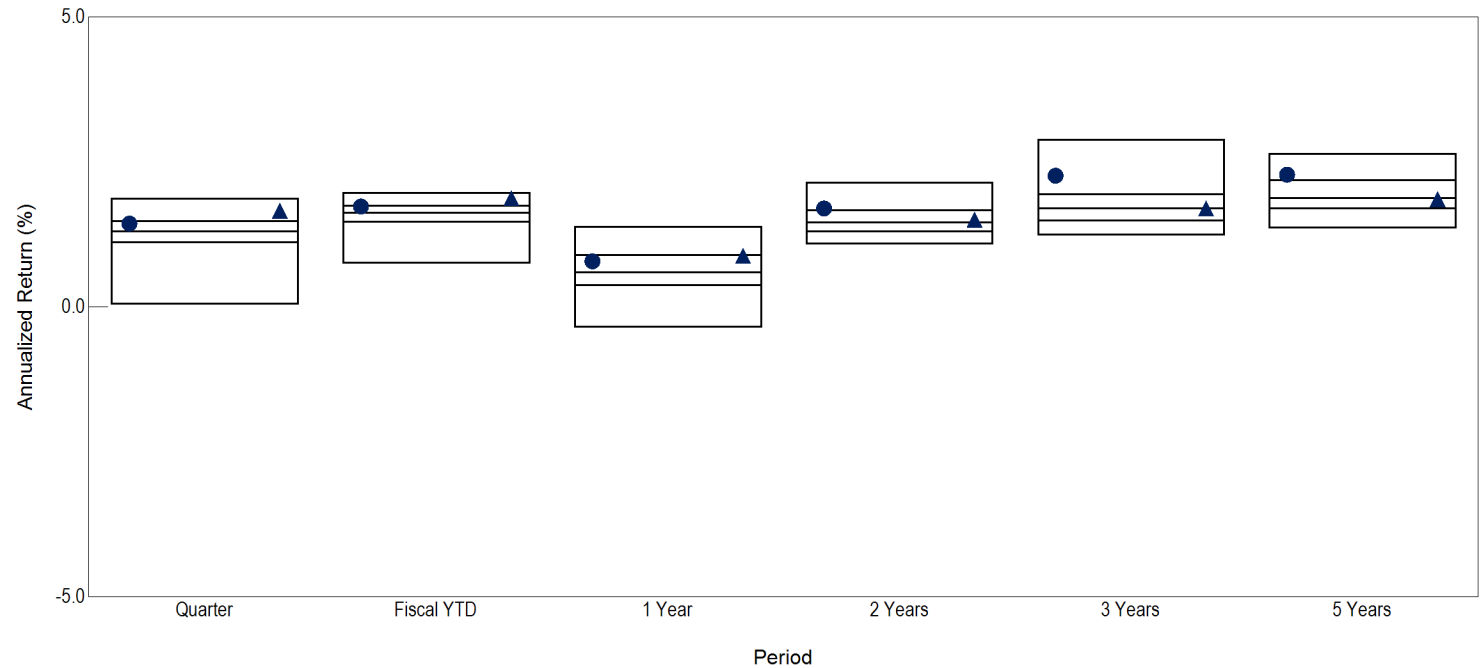
Quarterly and Cumulative Excess Performance



Los Angeles City Employees' Retirement System

BAIRD ADVISORS

Baird Advisors vs. eV US Interm Duration Fixed Inc Net



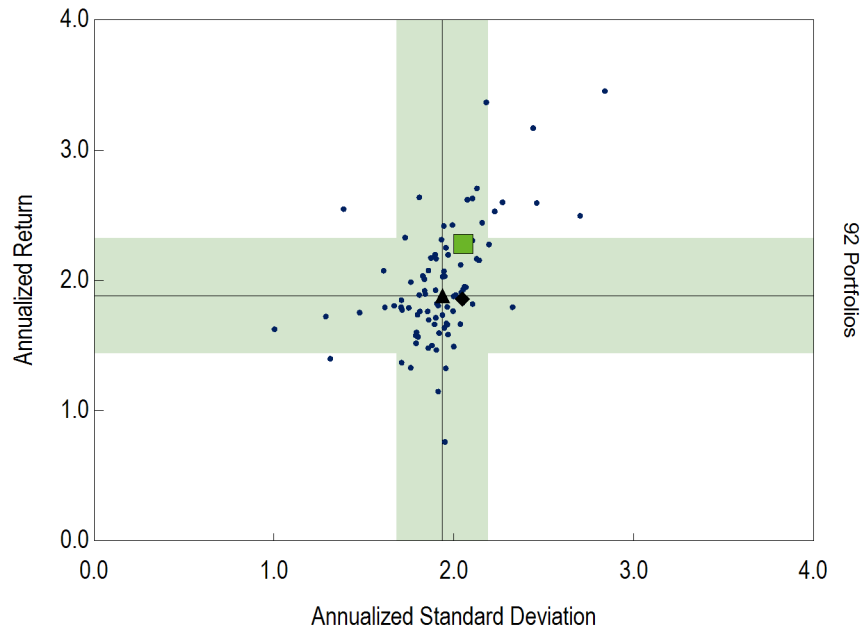
	Return (Rank)											
5th Percentile	1.86		1.97		1.38		2.15		2.88		2.63	
25th Percentile	1.50		1.75		0.90		1.68		1.96		2.20	
Median	1.31		1.63		0.61		1.46		1.72		1.88	
75th Percentile	1.12		1.48		0.39		1.32		1.50		1.71	
95th Percentile	0.06		0.77		-0.33		1.10		1.26		1.38	
# of Portfolios	97		97		97		96		96		92	
● Baird Advisors	1.44	(31)	1.73	(28)	0.79	(37)	1.70	(22)	2.26	(16)	2.28	(21)
▲ BBgBarc US Govt/Credit Int TR	1.65	(16)	1.87	(13)	0.88	(27)	1.51	(48)	1.70	(51)	1.86	(52)



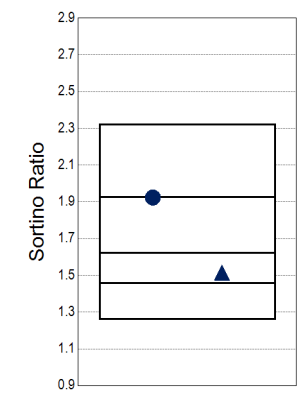
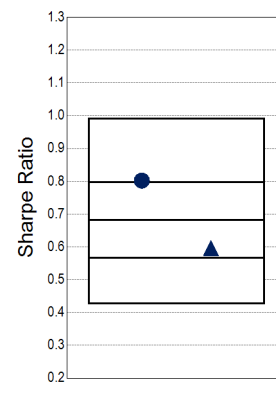
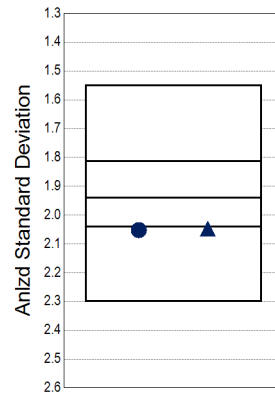
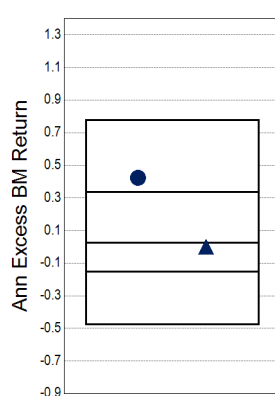
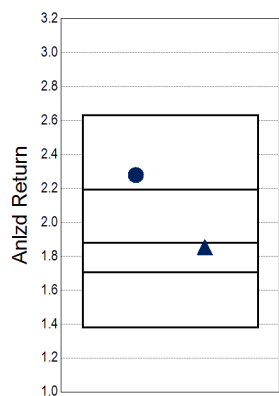
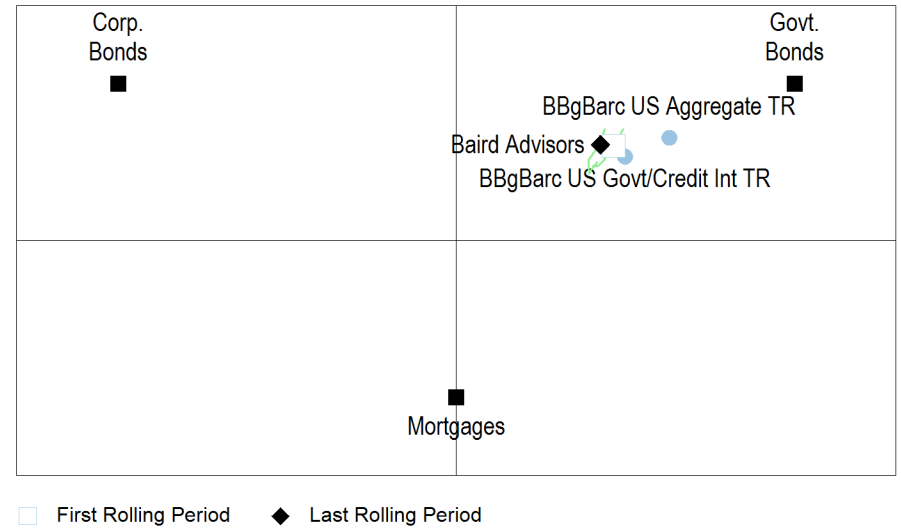
Los Angeles City Employees' Retirement System

BAIRD ADVISORS

5 Year Risk Return



5 Year Style Map



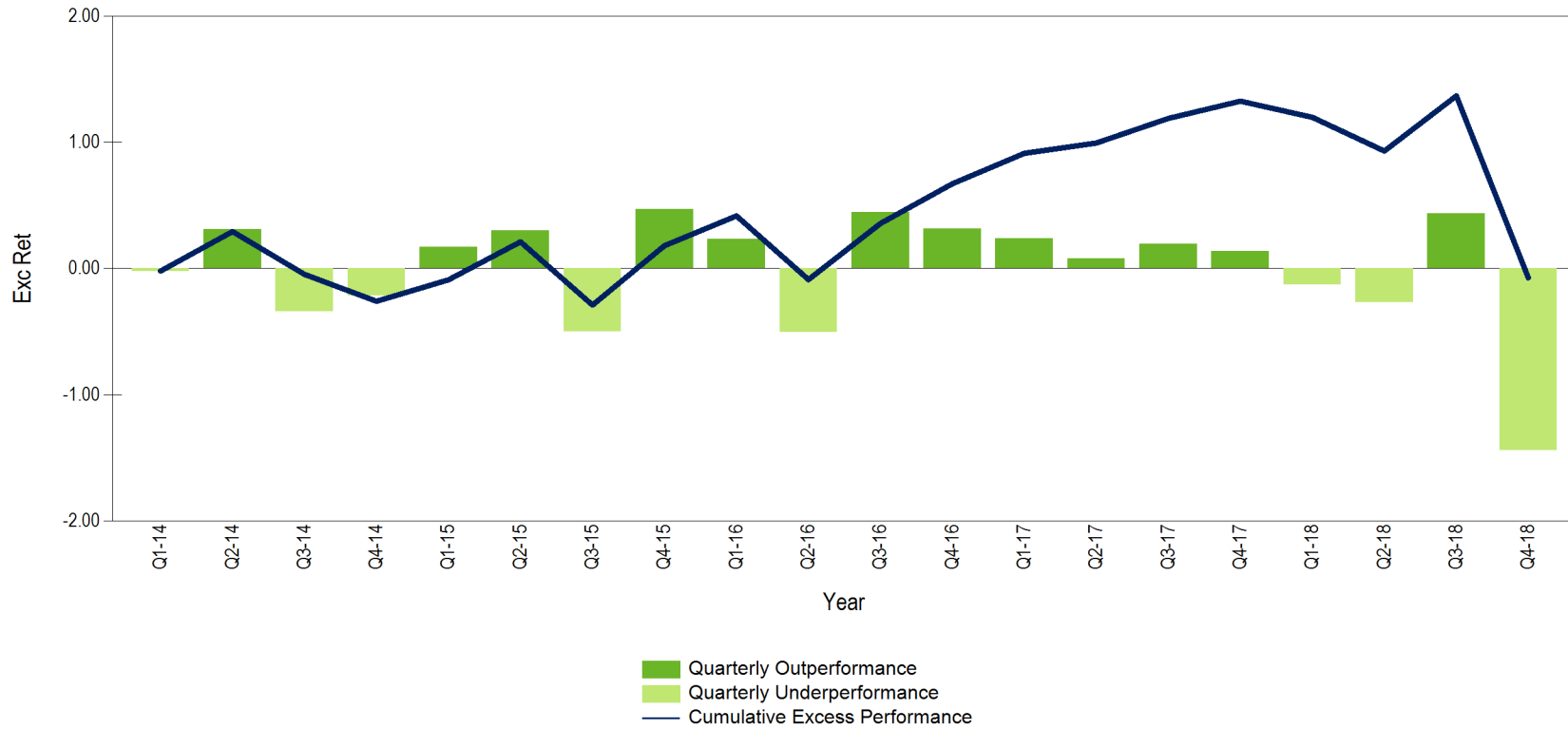
- Baird Advisors
- ▲ BgBarc US Govt/Credit Int TR
- 5th to 25th Percentile
- 25th to Median
- Median to 75th Percentile
- 75th to 95th Percentile



Los Angeles City Employees' Retirement System

LM CAPITAL

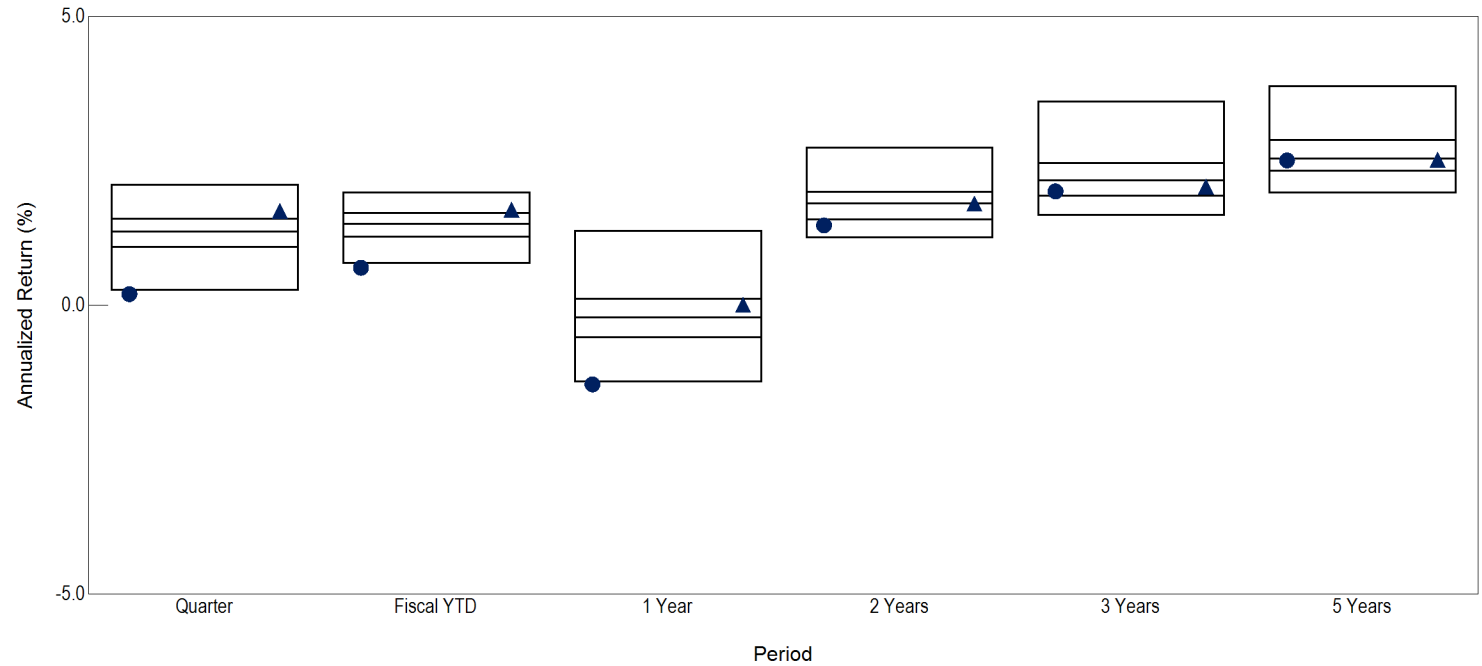
Quarterly and Cumulative Excess Performance



Los Angeles City Employees' Retirement System

LM CAPITAL

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



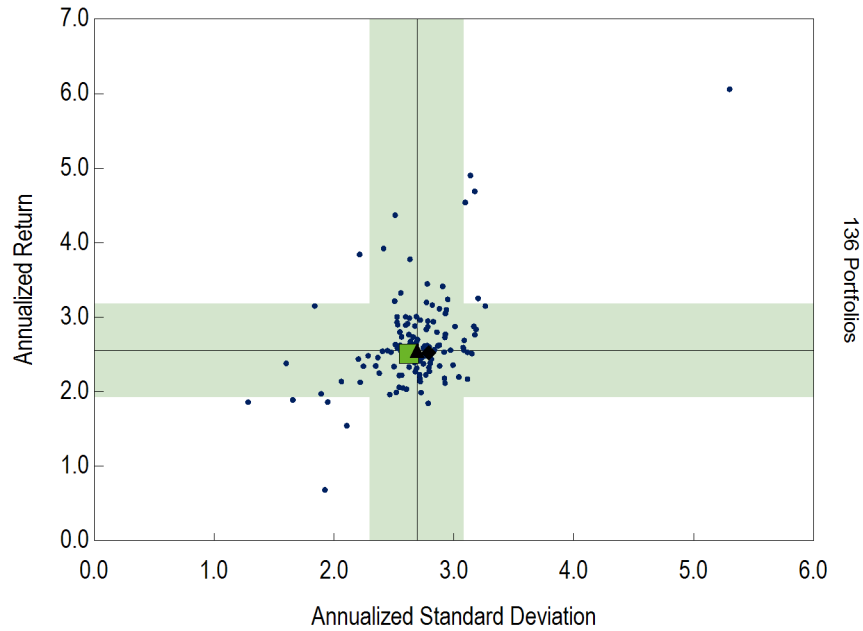
	Return (Rank)											
5th Percentile	2.08		1.96		1.28		2.73		3.53		3.79	
25th Percentile	1.51		1.61		0.13		1.98		2.48		2.88	
Median	1.29		1.42		-0.20		1.77		2.18		2.55	
75th Percentile	1.02		1.20		-0.54		1.50		1.91		2.35	
95th Percentile	0.28		0.74		-1.31		1.19		1.58		1.97	
# of Portfolios	144		144		143		143		140		136	
● LM Capital	0.19	(96)	0.65	(96)	-1.37	(96)	1.38	(88)	1.97	(70)	2.51	(59)
▲ Core Fixed Income Blend	1.64	(16)	1.66	(21)	0.01	(38)	1.76	(52)	2.06	(61)	2.52	(57)



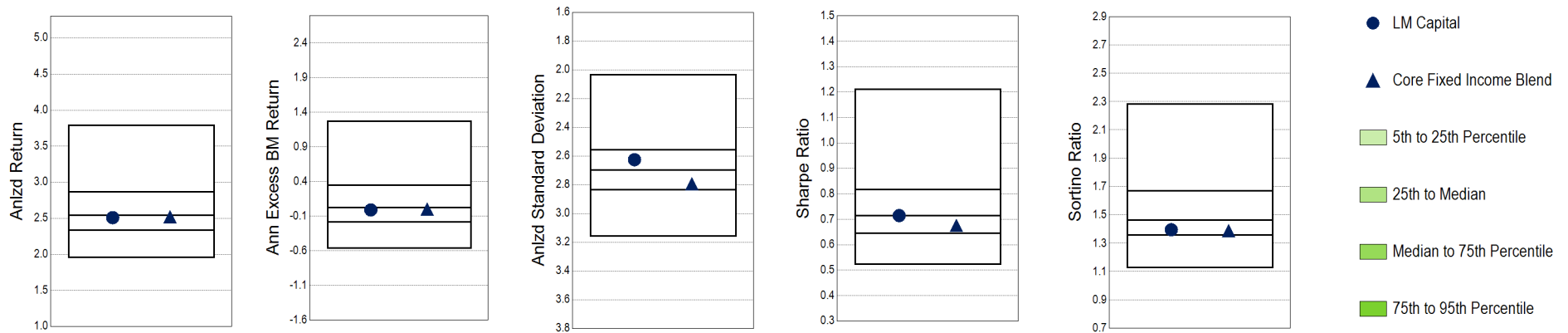
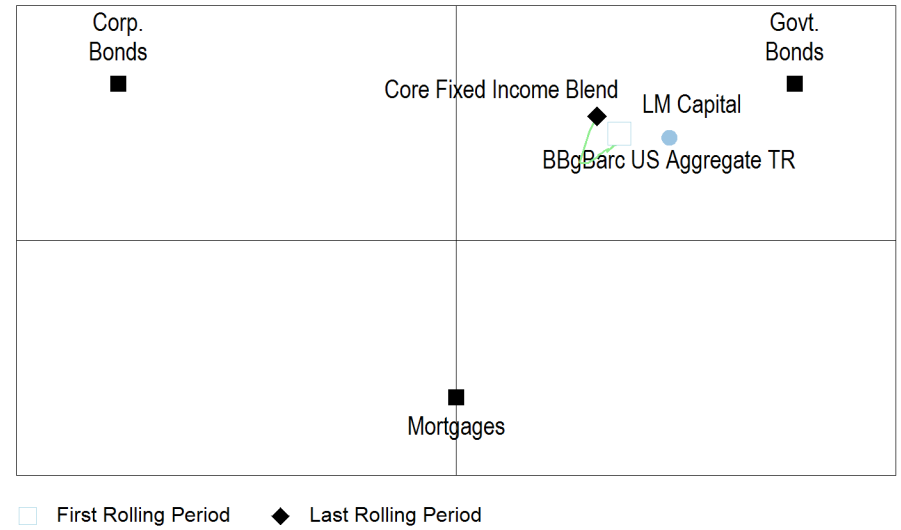
Los Angeles City Employees' Retirement System

LM CAPITAL

5 Year Risk Return



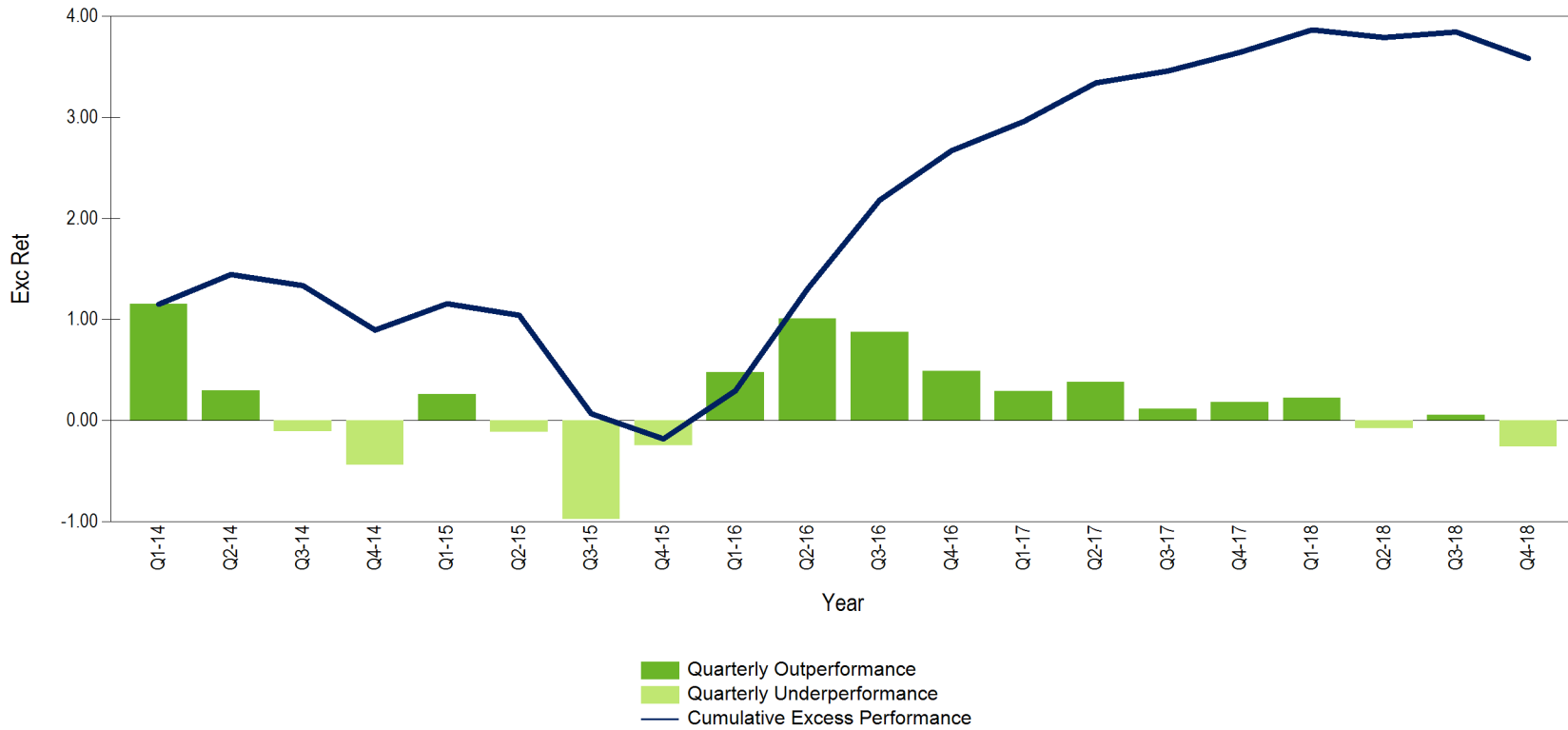
5 Year Style Map



Los Angeles City Employees' Retirement System

LOOMIS SAYLES

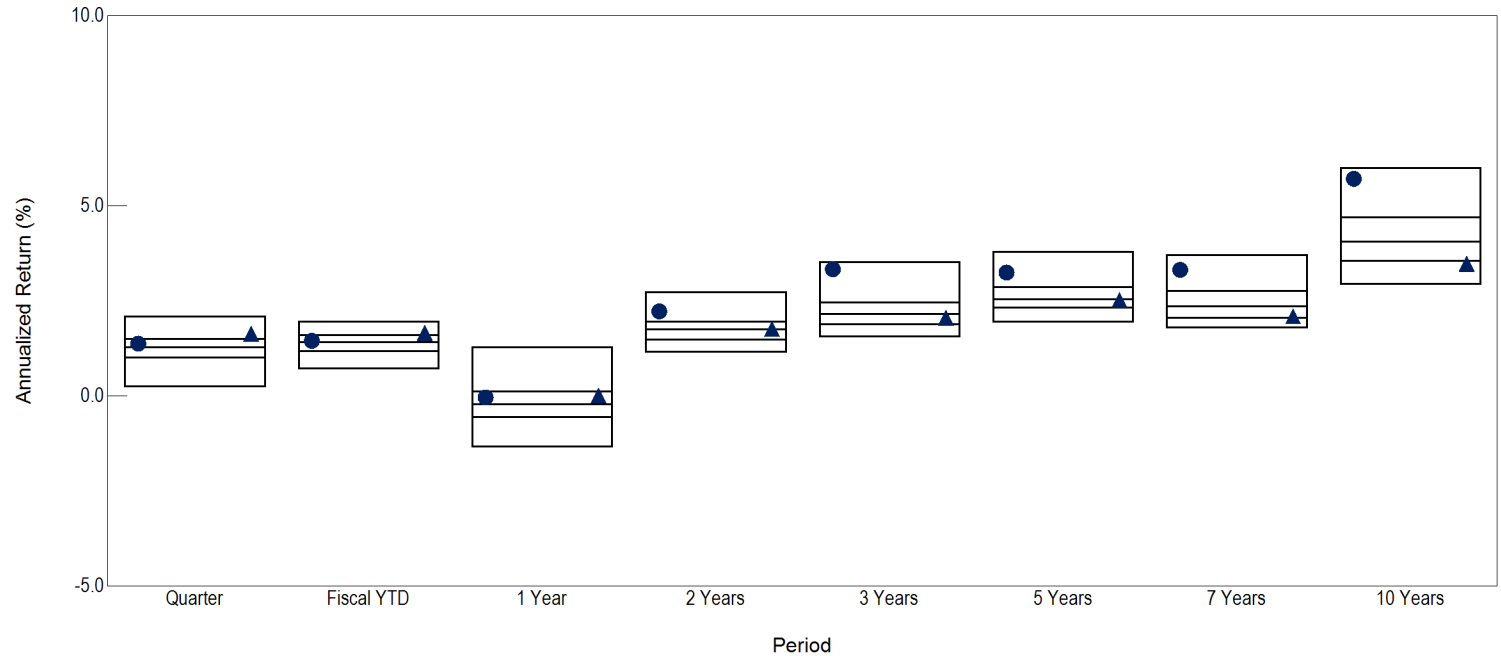
Quarterly and Cumulative Excess Performance



Los Angeles City Employees' Retirement System

LOOMIS SAYLES

Loomis Sayles vs. eV US Core Fixed Inc Net



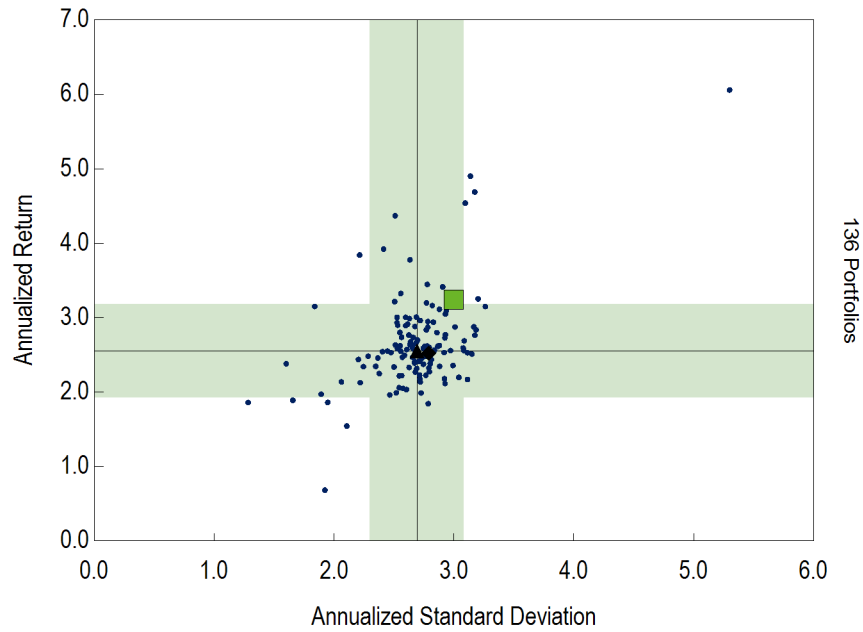
	Return (Rank)															
5th Percentile	2.08	1.96	1.28	2.73	3.53	3.79	3.71	5.99								
25th Percentile	1.51	1.61	0.13	1.98	2.48	2.88	2.79	4.72								
Median	1.29	1.42	-0.20	1.77	2.18	2.55	2.38	4.07								
75th Percentile	1.02	1.20	-0.54	1.50	1.91	2.35	2.07	3.58								
95th Percentile	0.28	0.74	-1.31	1.19	1.58	1.97	1.82	2.97								
# of Portfolios	144	144	143	143	140	136	131	119								
● Loomis Sayles	1.37	(40)	1.45	(46)	-0.04	(42)	2.22	(11)	3.33	(8)	3.24	(9)	3.32	(10)	5.71	(9)
▲ BC US Agg LACERS custom	1.64	(16)	1.66	(21)	0.01	(38)	1.76	(52)	2.06	(61)	2.52	(57)	2.10	(73)	3.48	(82)



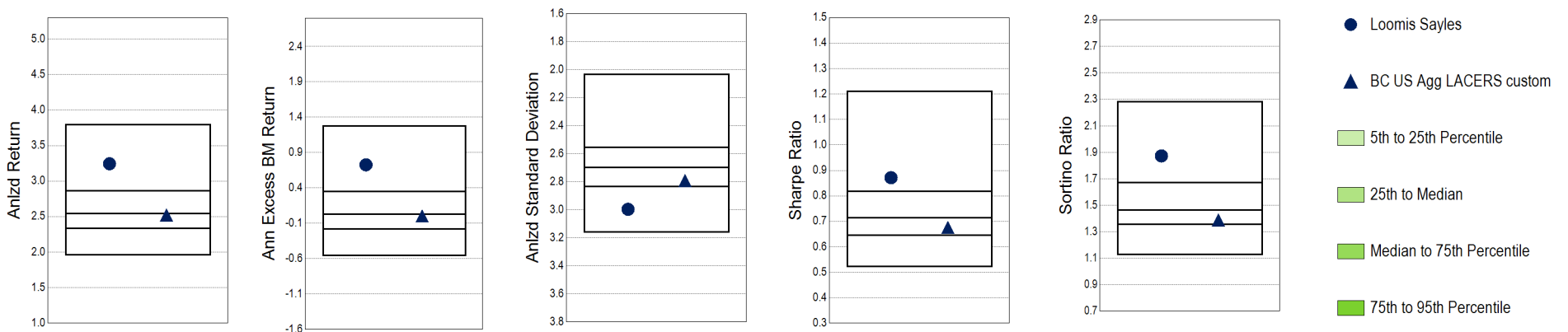
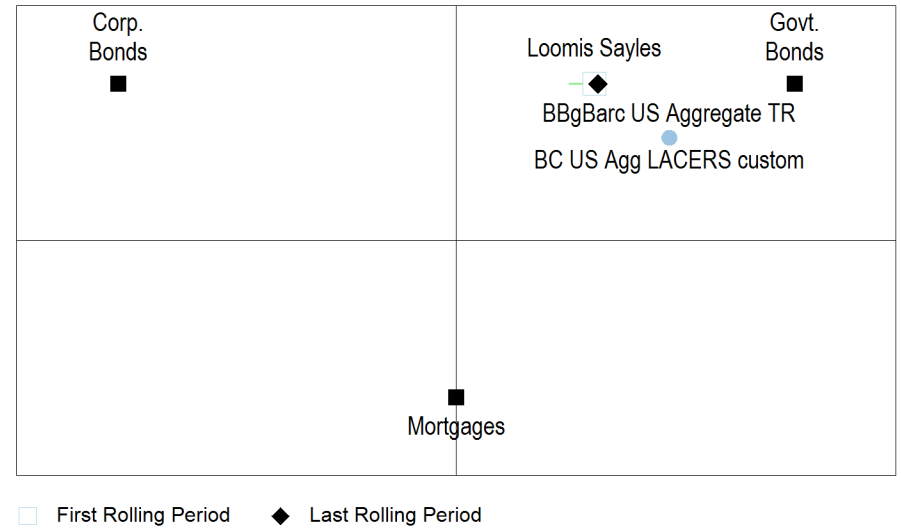
Los Angeles City Employees' Retirement System

LOOMIS SAYLES

5 Year Risk Return



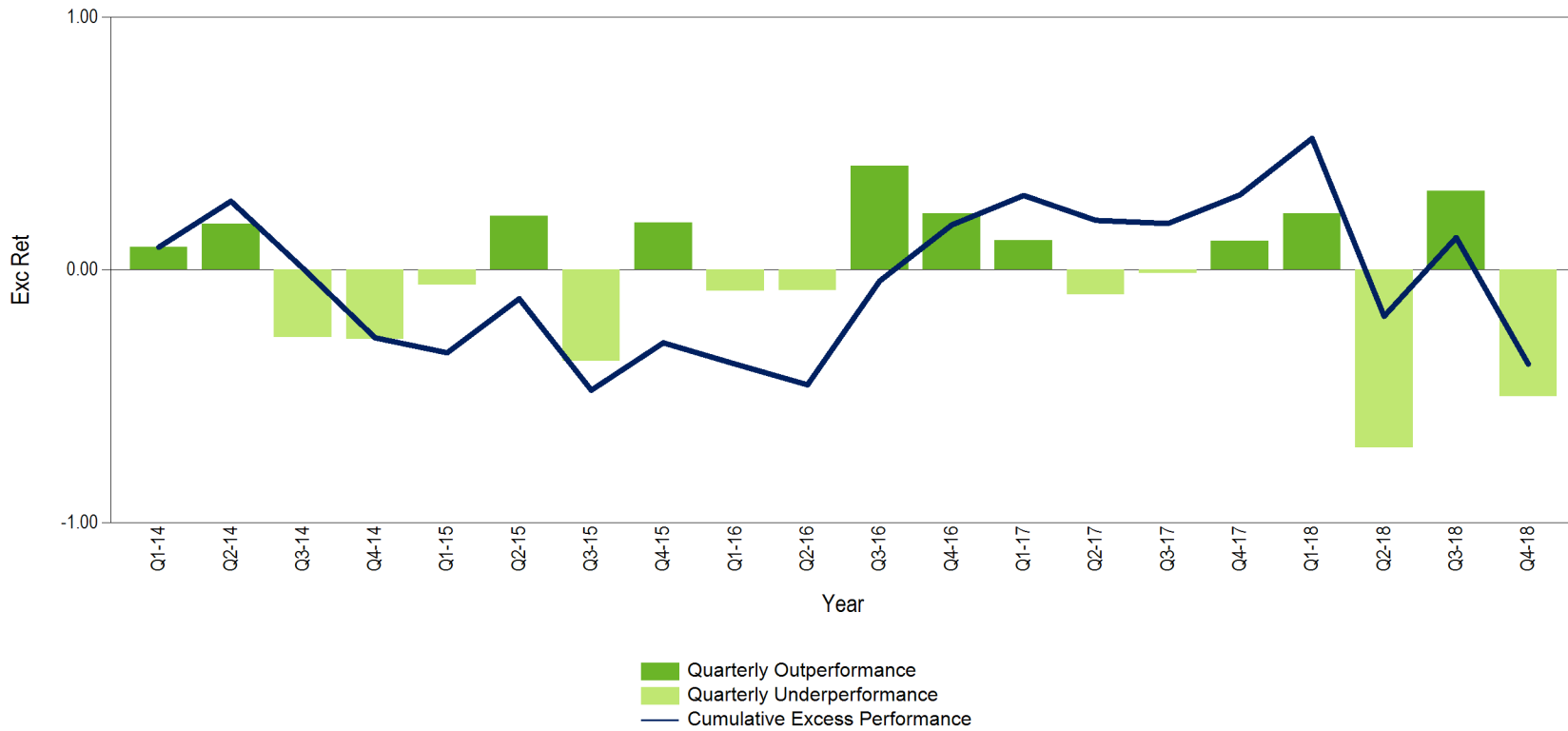
5 Year Style Map



Los Angeles City Employees' Retirement System

NEUBERGER BERMAN

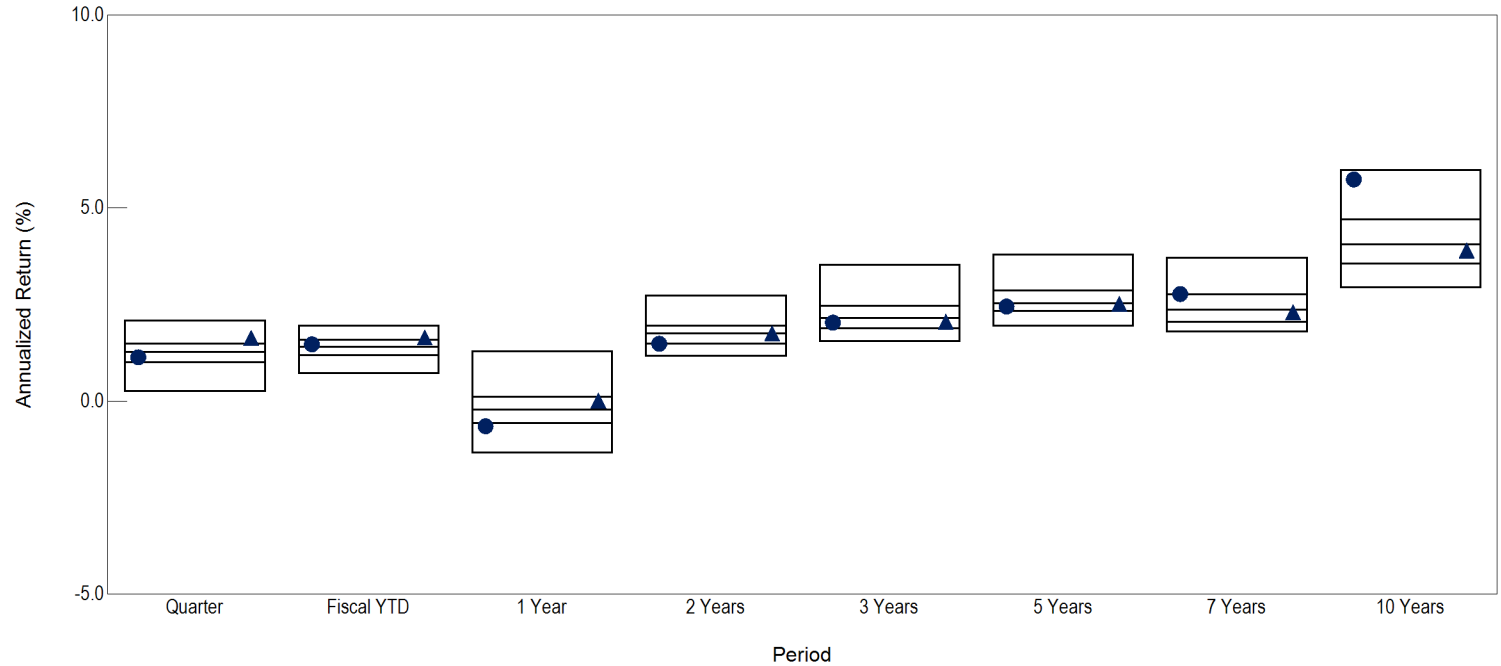
Quarterly and Cumulative Excess Performance



Los Angeles City Employees' Retirement System

NEUBERGER BERMAN

Neuberger Berman vs. eV US Core Fixed Inc Net



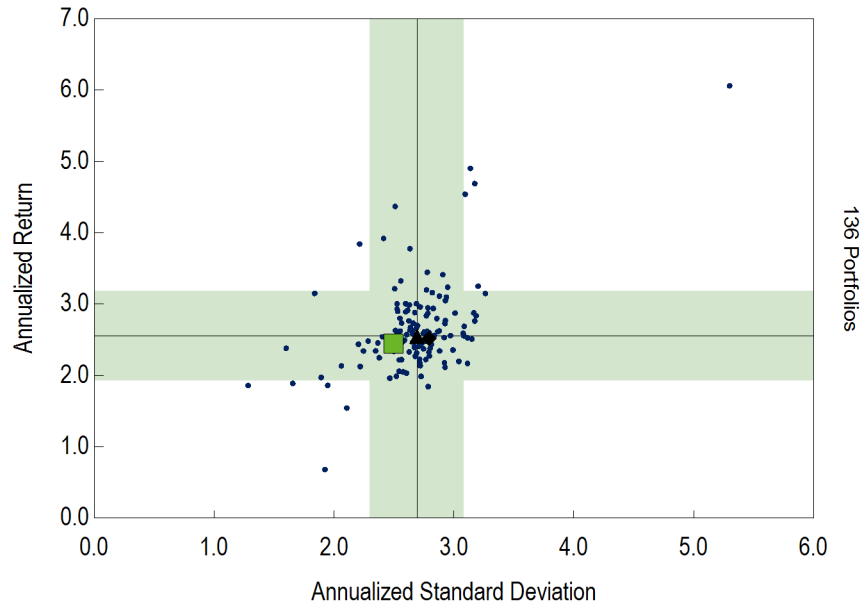
	Return (Rank)									
	Quarter	Fiscal YTD	1 Year	2 Years	3 Years	5 Years	7 Years	10 Years		
5th Percentile	2.08	1.96	1.28	2.73	3.53	3.79	3.71	5.99		
25th Percentile	1.51	1.61	0.13	1.98	2.48	2.88	2.79	4.72		
Median	1.29	1.42	-0.20	1.77	2.18	2.55	2.38	4.07		
75th Percentile	1.02	1.20	-0.54	1.50	1.91	2.35	2.07	3.58		
95th Percentile	0.28	0.74	-1.31	1.19	1.58	1.97	1.82	2.97		
# of Portfolios	144	144	143	143	140	136	131	119		
● Neuberger Berman	1.13	1.47	-0.65	1.48	2.03	2.45	2.77	5.74	(67)	(9)
▲ Core Fixed Income Blend	1.64	1.66	0.01	1.76	2.06	2.52	2.30	3.90	(16)	(60)



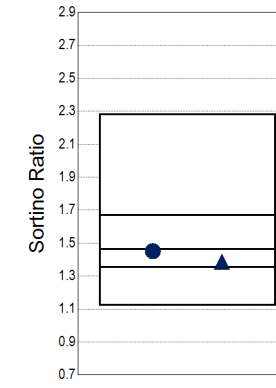
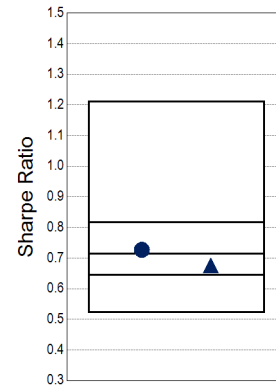
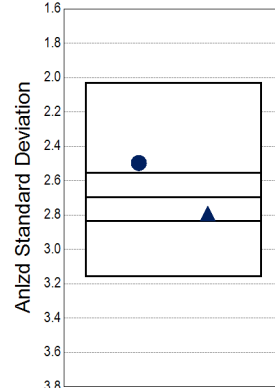
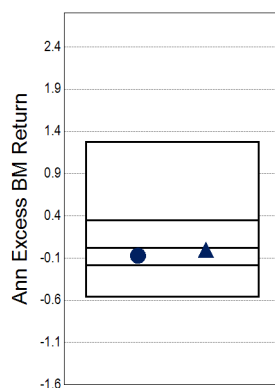
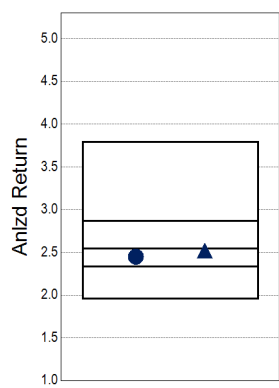
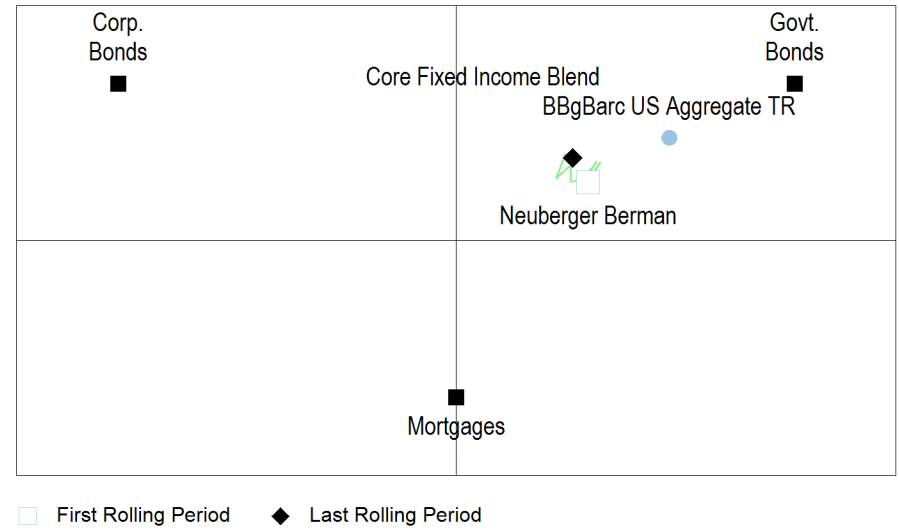
Los Angeles City Employees' Retirement System

NEUBERGER BERMAN

5 Year Risk Return



5 Year Style Map



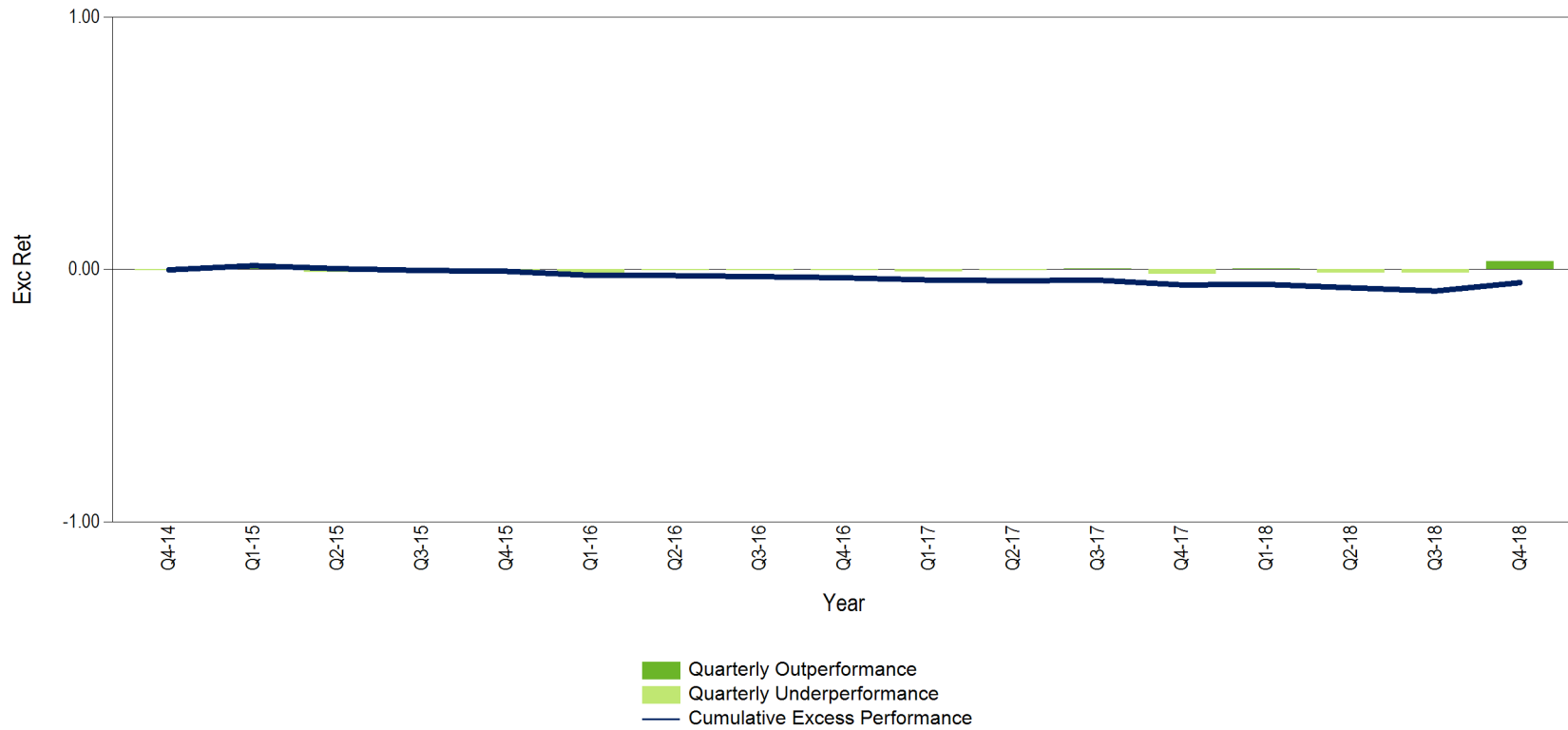
- Neuberger Berman
- ▲ Core Fixed Income Blend
- 5th to 25th Percentile
- 25th to Median
- Median to 75th Percentile
- 75th to 95th Percentile



Los Angeles City Employees' Retirement System

SSGA U.S. AGGREGATE BOND

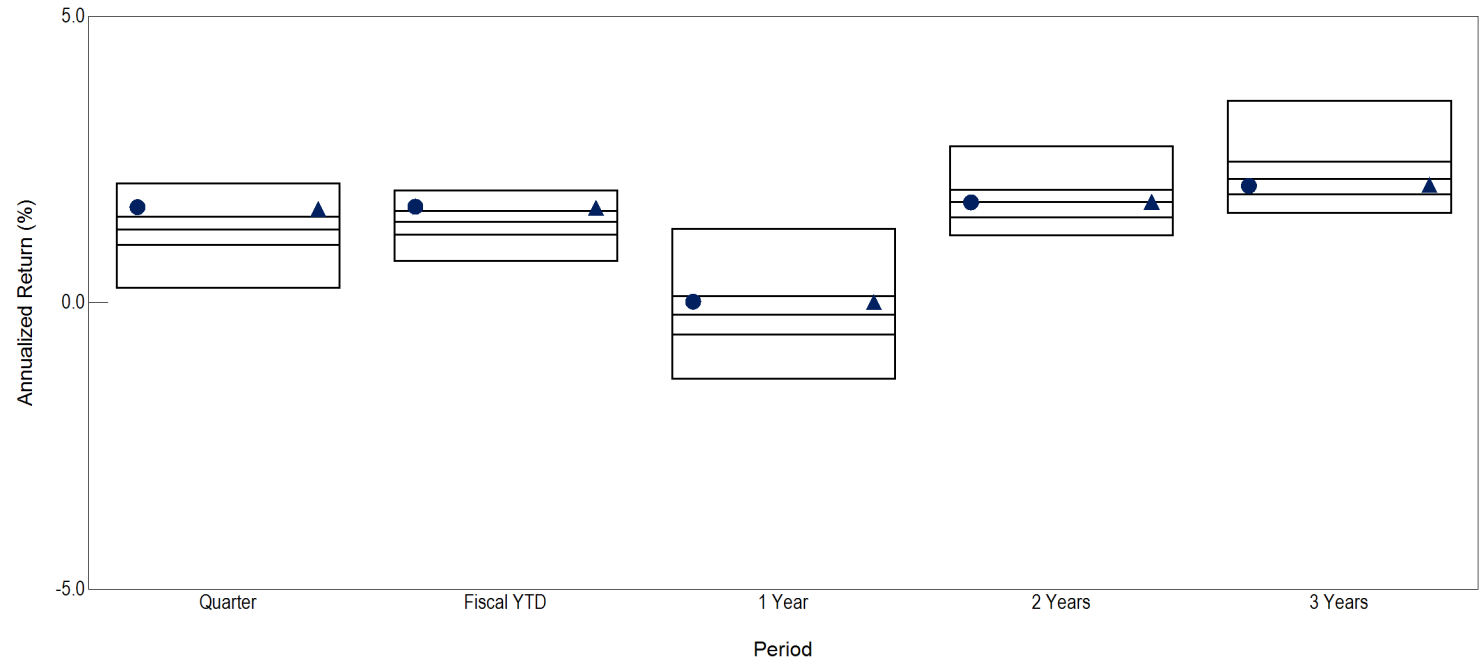
Quarterly and Cumulative Excess Performance



Los Angeles City Employees' Retirement System

SSGA U.S. AGGREGATE BOND

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



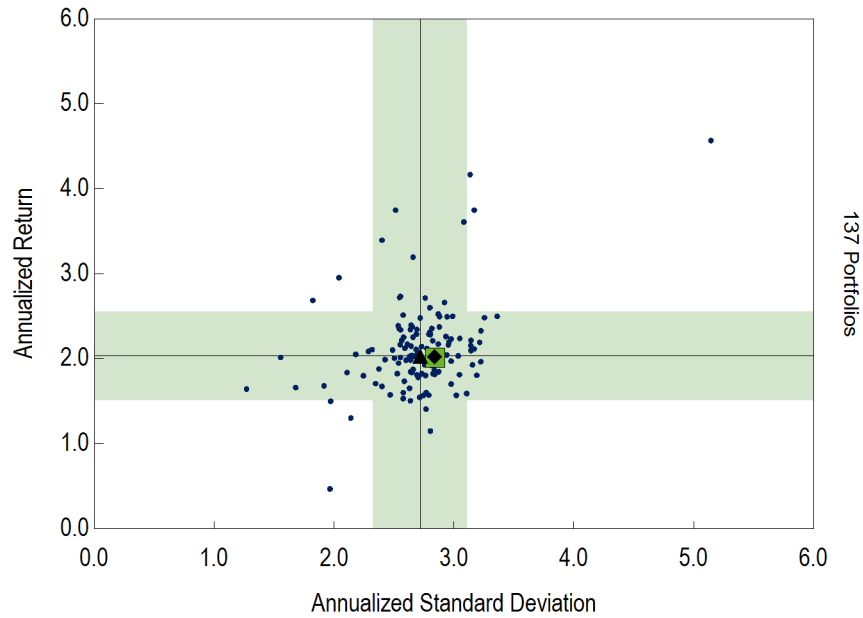
	Return (Rank)									
5th Percentile	2.08		1.96		1.28		2.73		3.53	
25th Percentile	1.51		1.61		0.13		1.98		2.48	
Median	1.29		1.42		-0.20		1.77		2.18	
75th Percentile	1.02		1.20		-0.54		1.50		1.91	
95th Percentile	0.28		0.74		-1.31		1.19		1.58	
# of Portfolios	144		144		143		143		140	
● SSGA U.S. Aggregate Bond	1.67	(15)	1.68	(20)	0.02	(37)	1.75	(53)	2.04	(62)
▲ BBgBarc US Aggregate TR	1.64	(16)	1.66	(21)	0.01	(38)	1.76	(52)	2.06	(61)



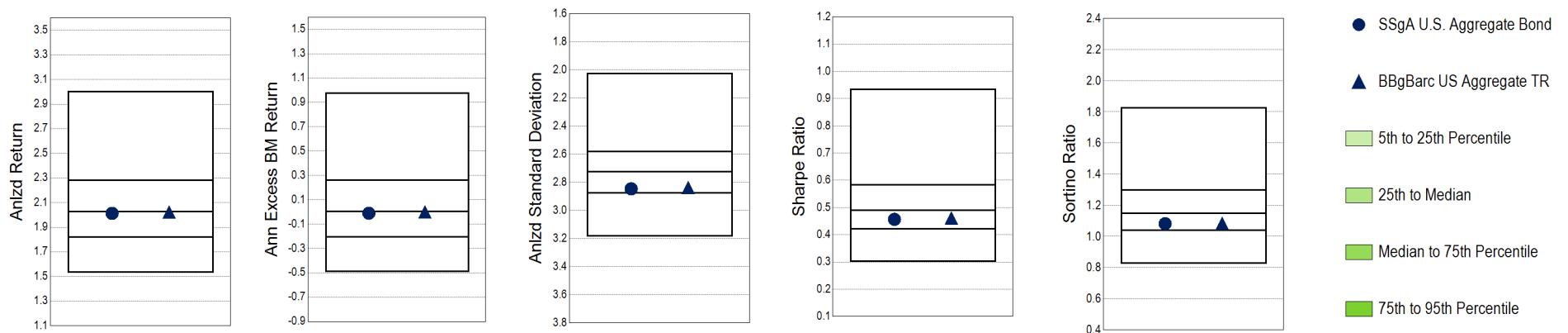
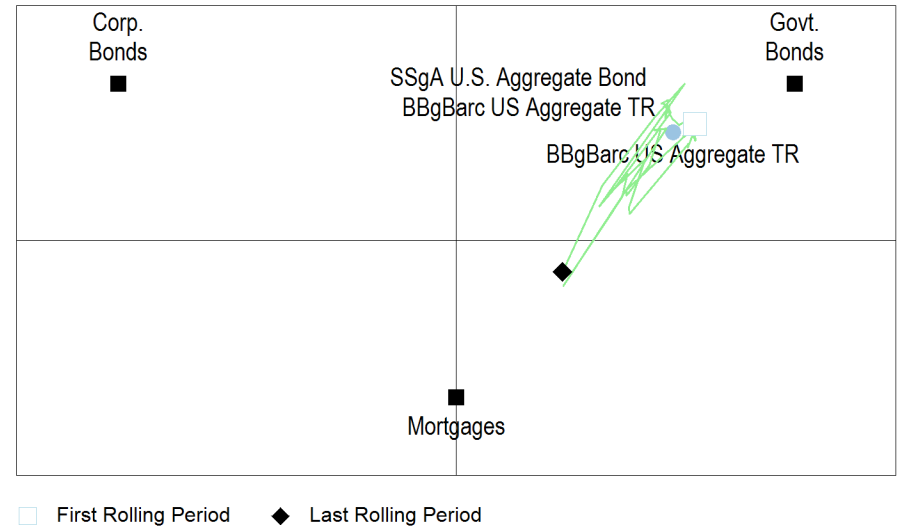
Los Angeles City Employees' Retirement System

SSGA U.S. AGGREGATE BOND

Since Inception Risk Return



Since Inception Style Map



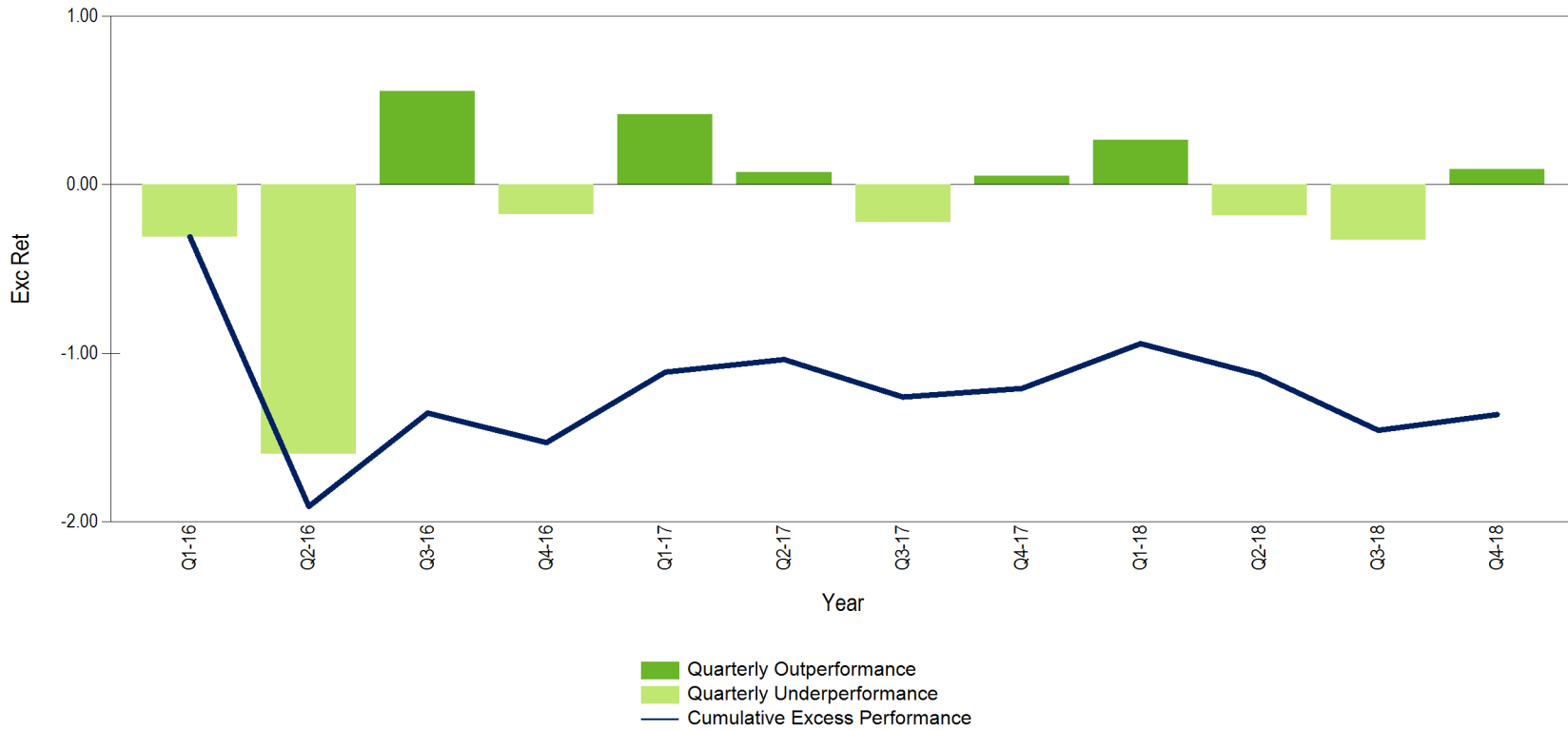
CREDIT OPPORTUNITIES MANAGER PERFORMANCE

NEPC, LLC

Los Angeles City Employees' Retirement System

AEGON USA

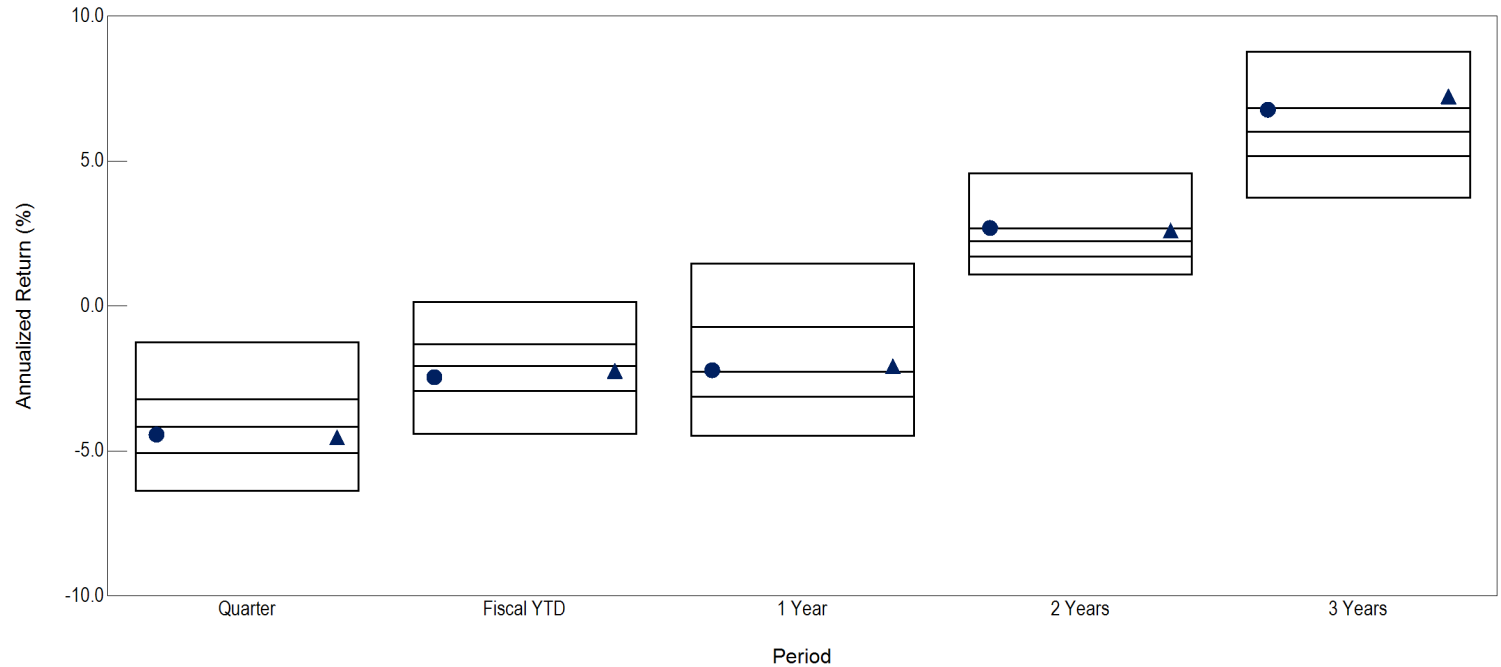
Quarterly and Cumulative Excess Performance



Los Angeles City Employees' Retirement System

AEGON USA

AEGON USA vs. eV US High Yield Fixed Inc Net



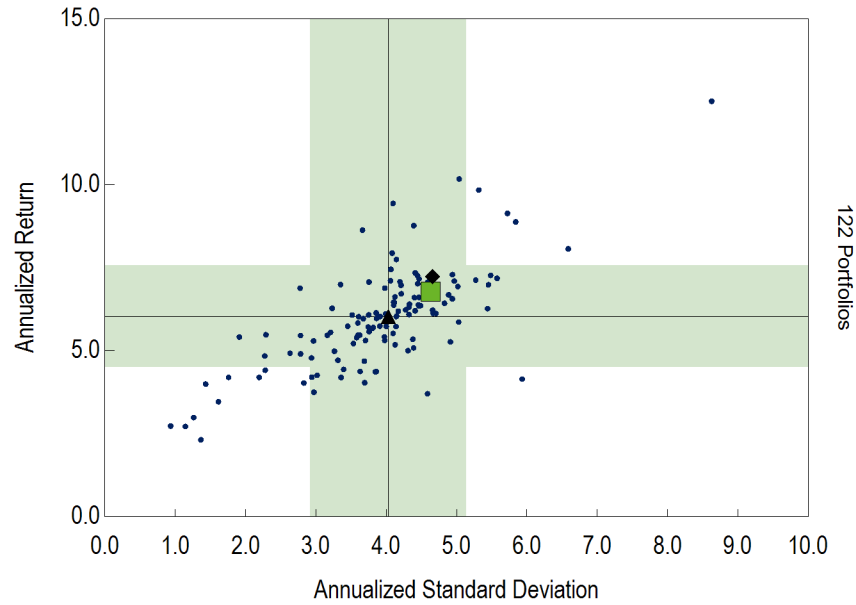
	Return (Rank)		Return (Rank)		Return (Rank)		Return (Rank)		Return (Rank)	
5th Percentile	-1.27		0.14		1.45		4.58		8.76	
25th Percentile	-3.19		-1.30		-0.71		2.70		6.83	
Median	-4.15		-2.05		-2.25		2.24		6.02	
75th Percentile	-5.05		-2.91		-3.12		1.73		5.18	
95th Percentile	-6.37		-4.40		-4.45		1.11		3.75	
# of Portfolios	132		132		131		128		122	
● AEGON USA	-4.44	(58)	-2.46	(64)	-2.22	(50)	2.69	(26)	6.76	(26)
▲ BBgBarc US High Yield 2% Issuer Cap TR	-4.54	(59)	-2.24	(57)	-2.08	(47)	2.60	(29)	7.23	(13)



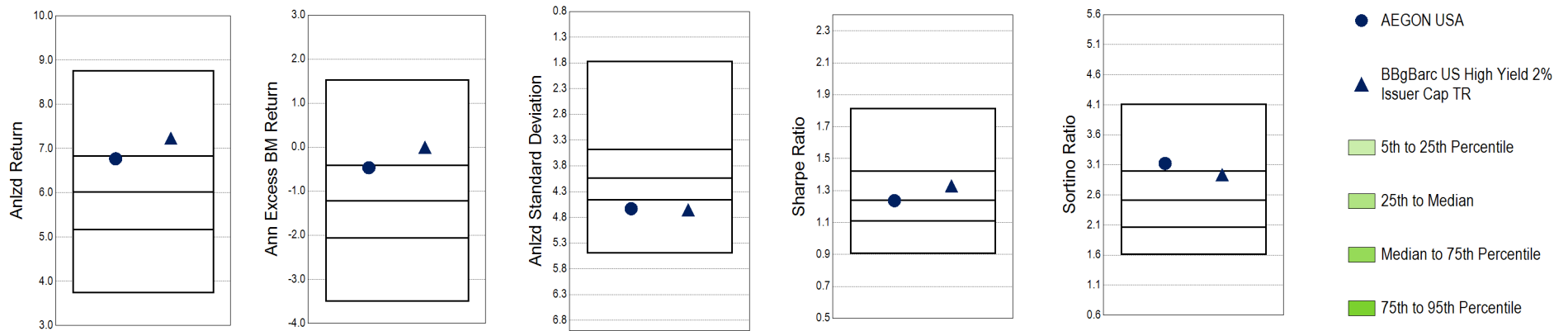
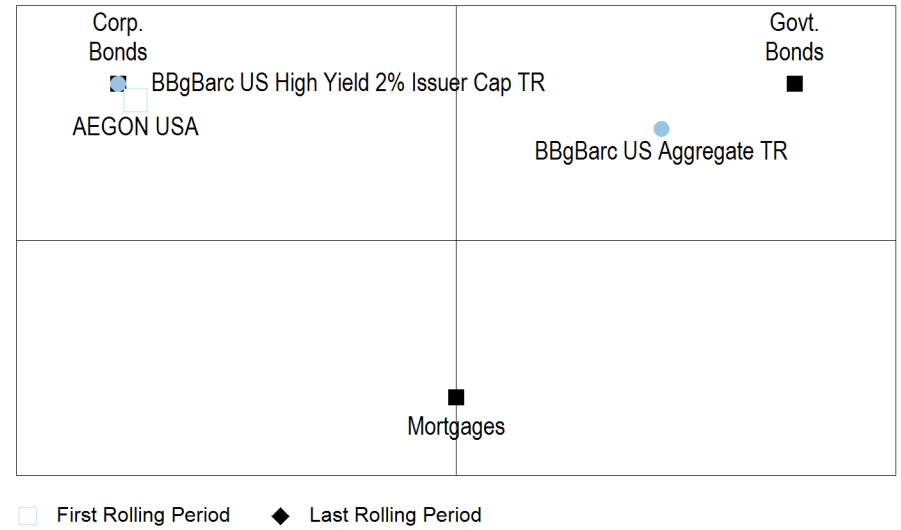
Los Angeles City Employees' Retirement System

AEGON USA

3 Year Risk Return

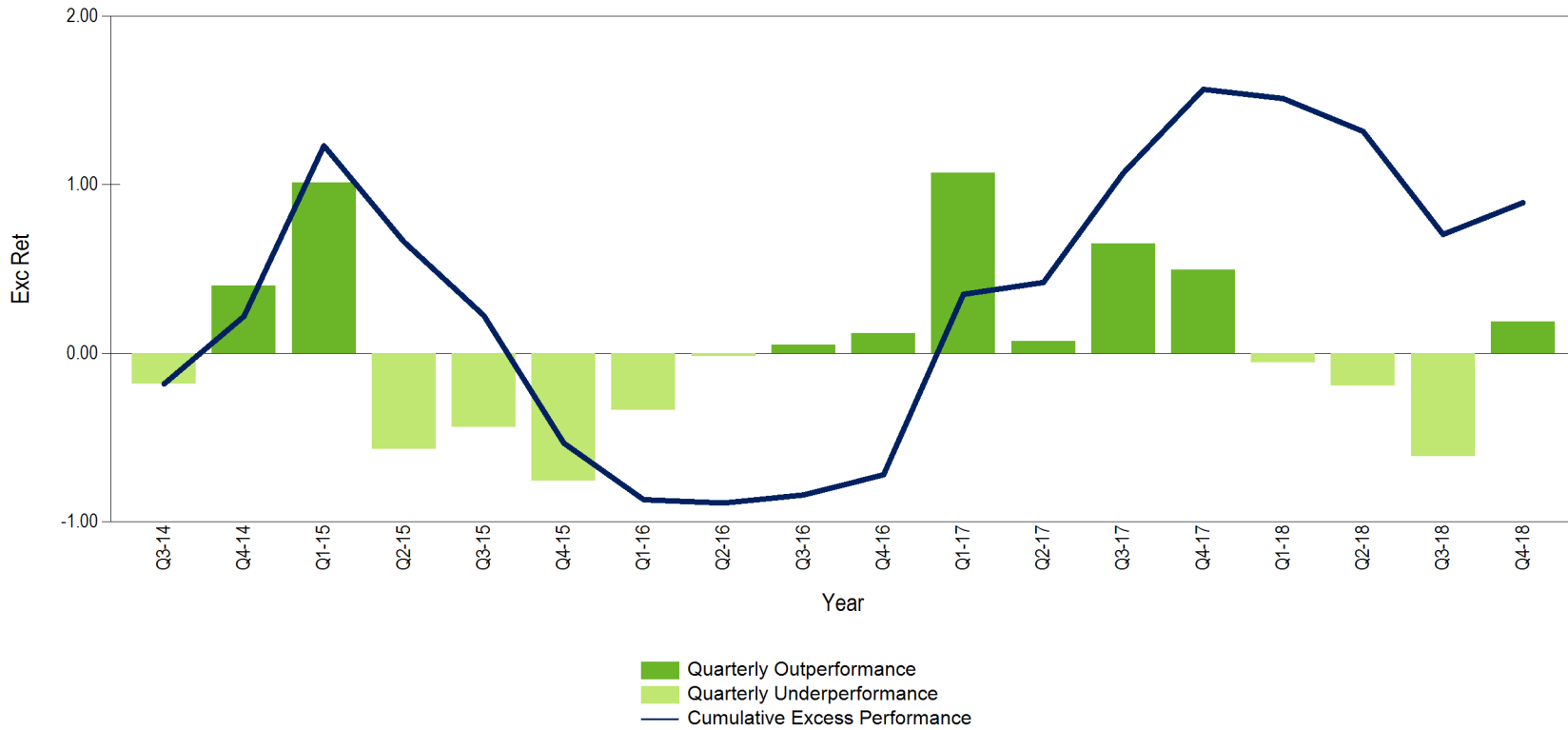


3 Year Style Map



PRUDENTIAL EMERGING MARKETS

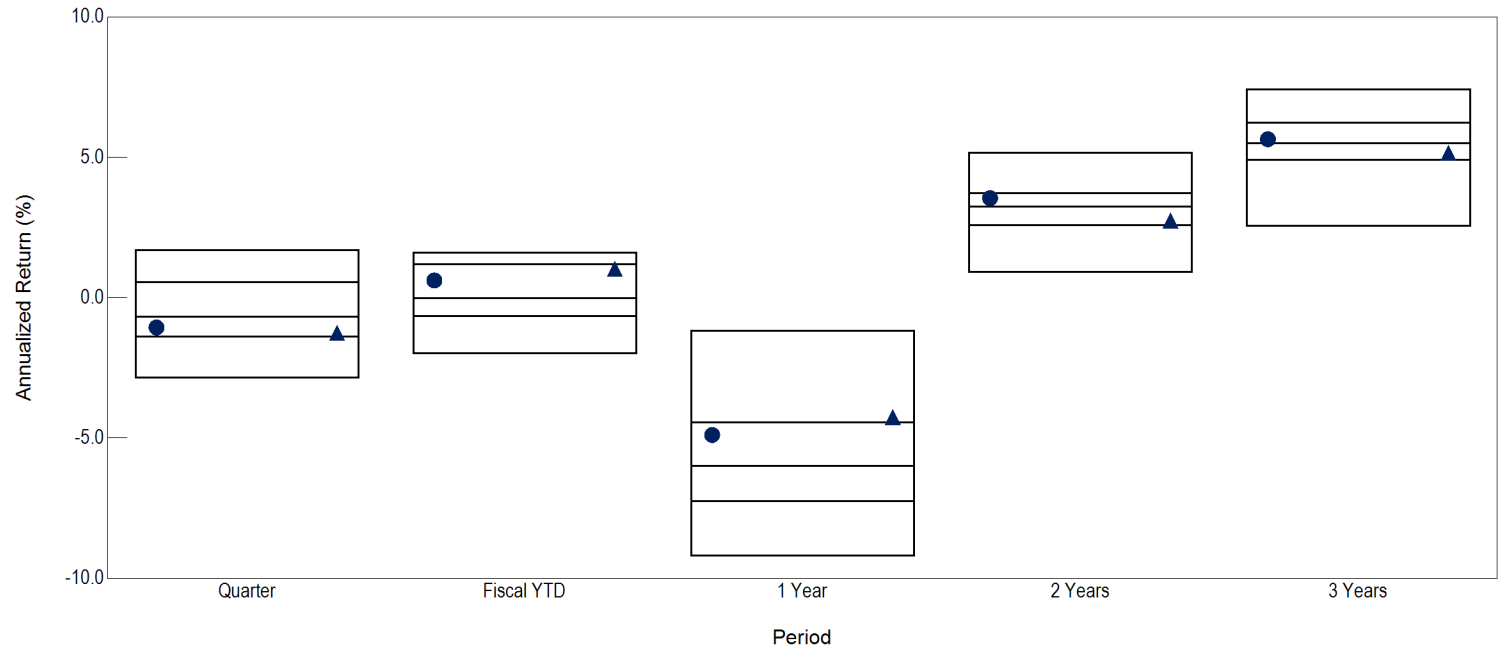
Quarterly and Cumulative Excess Performance



Los Angeles City Employees' Retirement System

PRUDENTIAL EMERGING MARKETS

Prudential Emerging Markets vs. eV Emg Mkt Fixed Inc Hedged Net

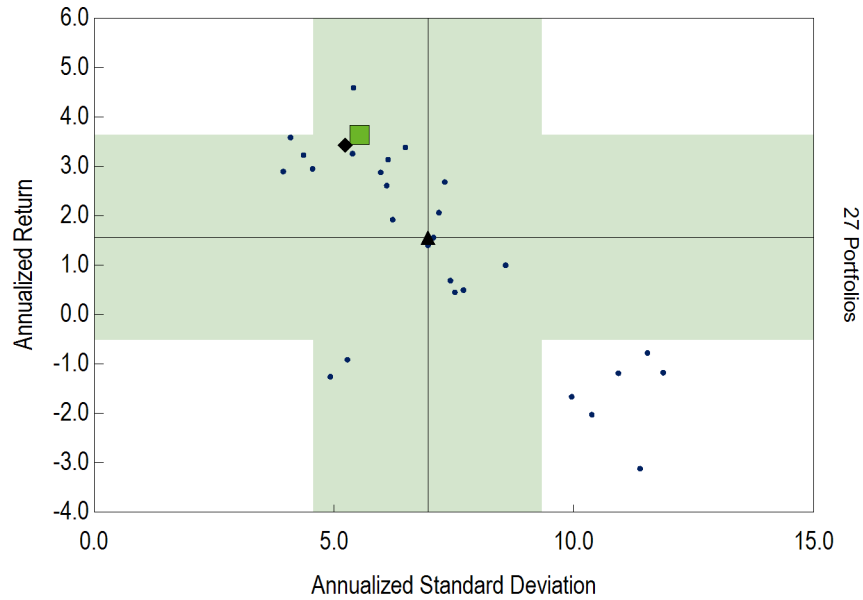


	Return (Rank)									
5th Percentile	1.69		1.60		-1.18		5.16		7.41	
25th Percentile	0.56		1.21		-4.43		3.73		6.25	
Median	-0.67		0.00		-5.96		3.25		5.51	
75th Percentile	-1.36		-0.63		-7.22		2.60		4.93	
95th Percentile	-2.82		-1.96		-9.17		0.94		2.57	
# of Portfolios	36		36		36		36		35	
● Prudential Emerging Markets	-1.07	(69)	0.61	(33)	-4.90	(34)	3.54	(37)	5.64	(45)
▲ JP Morgan EMBI Global Diversified	-1.25	(71)	1.02	(27)	-4.26	(24)	2.74	(68)	5.15	(61)

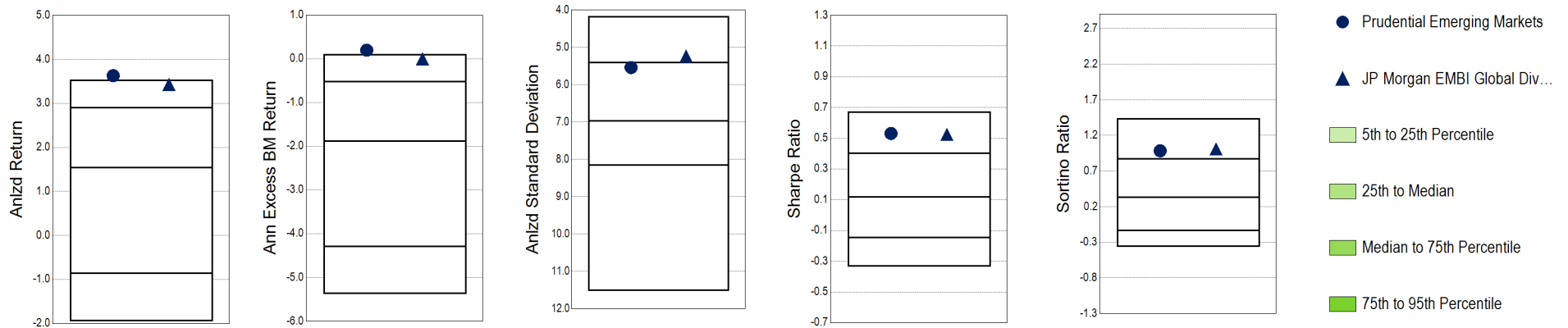
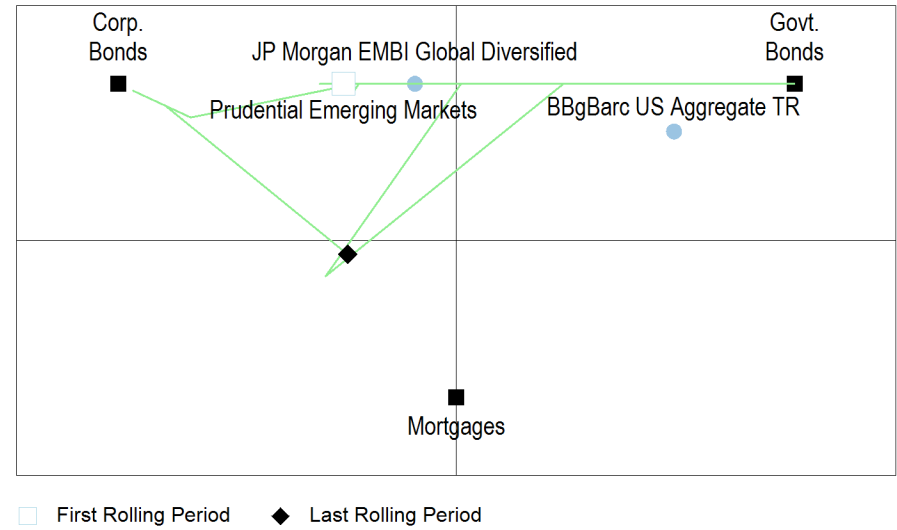


PRUDENTIAL EMERGING MARKETS

Since Inception Risk Return



Since Inception Style Map



BAIN CAPITAL SENIOR LOAN FUND, LP

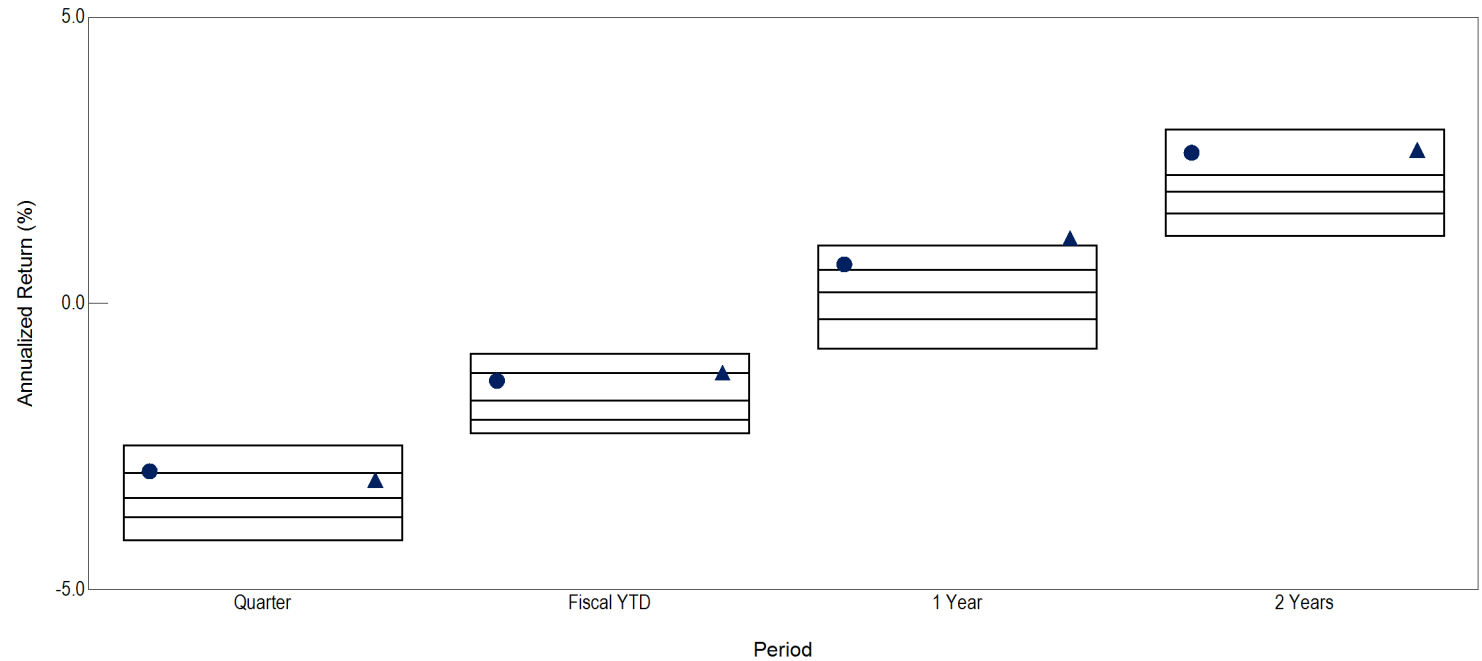
Quarterly and Cumulative Excess Performance



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

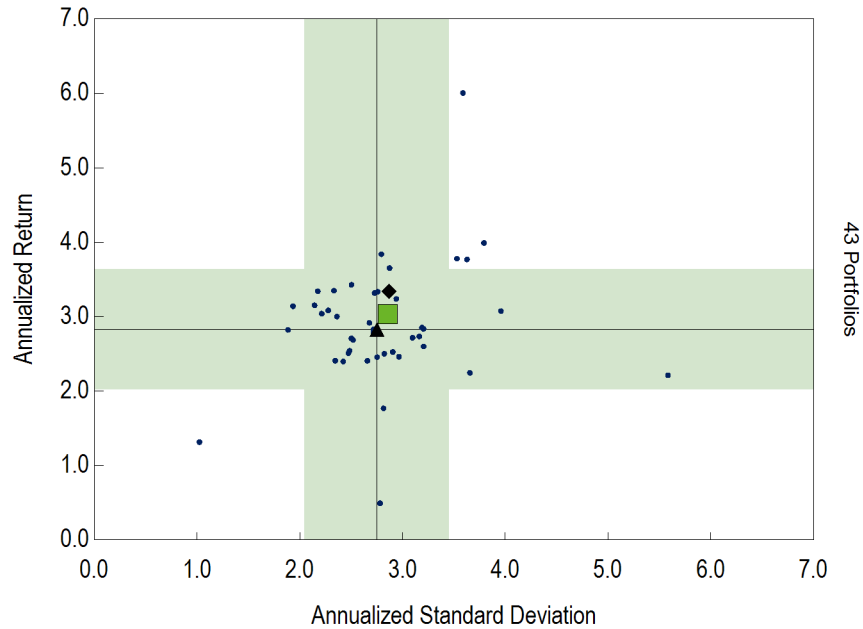


	Return (Rank)							
5th Percentile	-2.48	-0.87	1.01	3.04				
25th Percentile	-2.95	-1.20	0.60	2.26				
Median	-3.38	-1.68	0.20	1.97				
75th Percentile	-3.72	-2.01	-0.26	1.58				
95th Percentile	-4.12	-2.26	-0.78	1.19				
# of Portfolios	46	46	45	44				
● Bain Capital Senior Loan Fund, LP	-2.93	(25)	-1.35	(31)	0.68	(18)	2.63	(11)
▲ Credit Suisse Leveraged Loans	-3.08	(33)	-1.21	(26)	1.14	(4)	2.68	(10)

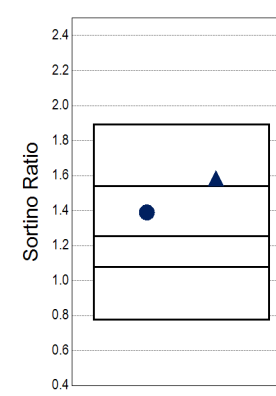
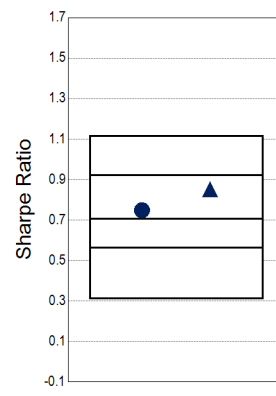
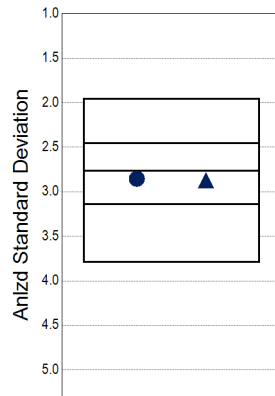
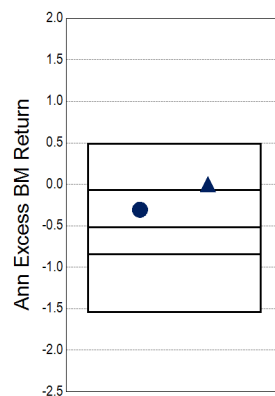
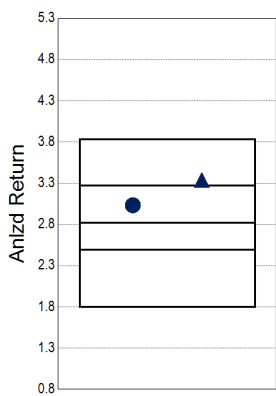
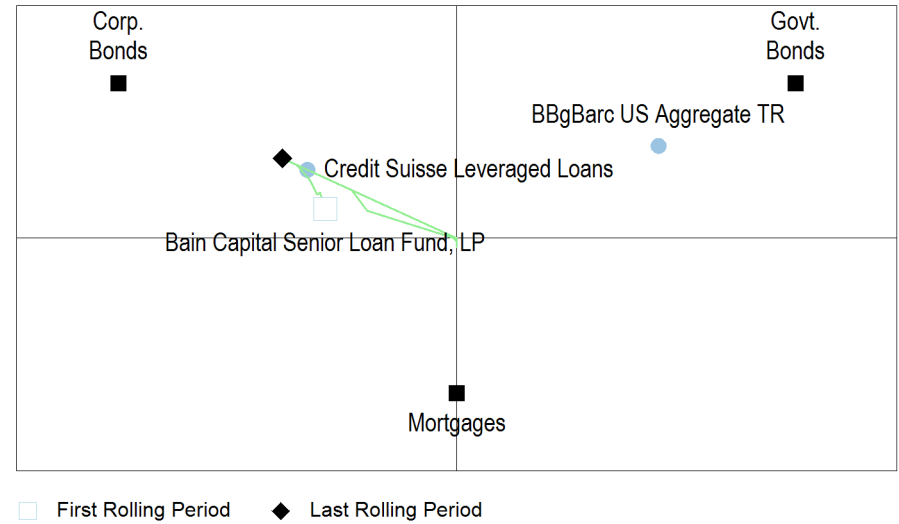


BAIN CAPITAL SENIOR LOAN FUND, LP

Since Inception Risk Return



Since Inception Style Map



- Bain Capital Senior Loan Fund, LP
- ▲ Credit Suisse Leveraged Lo...
- 5th to 25th Percentile
- 25th to Median
- Median to 75th Percentile
- 75th to 95th Percentile



REAL ASSETS MANAGER PERFORMANCE

NEPC, LLC

Los Angeles City Employees' Retirement System

DFA US TIPS

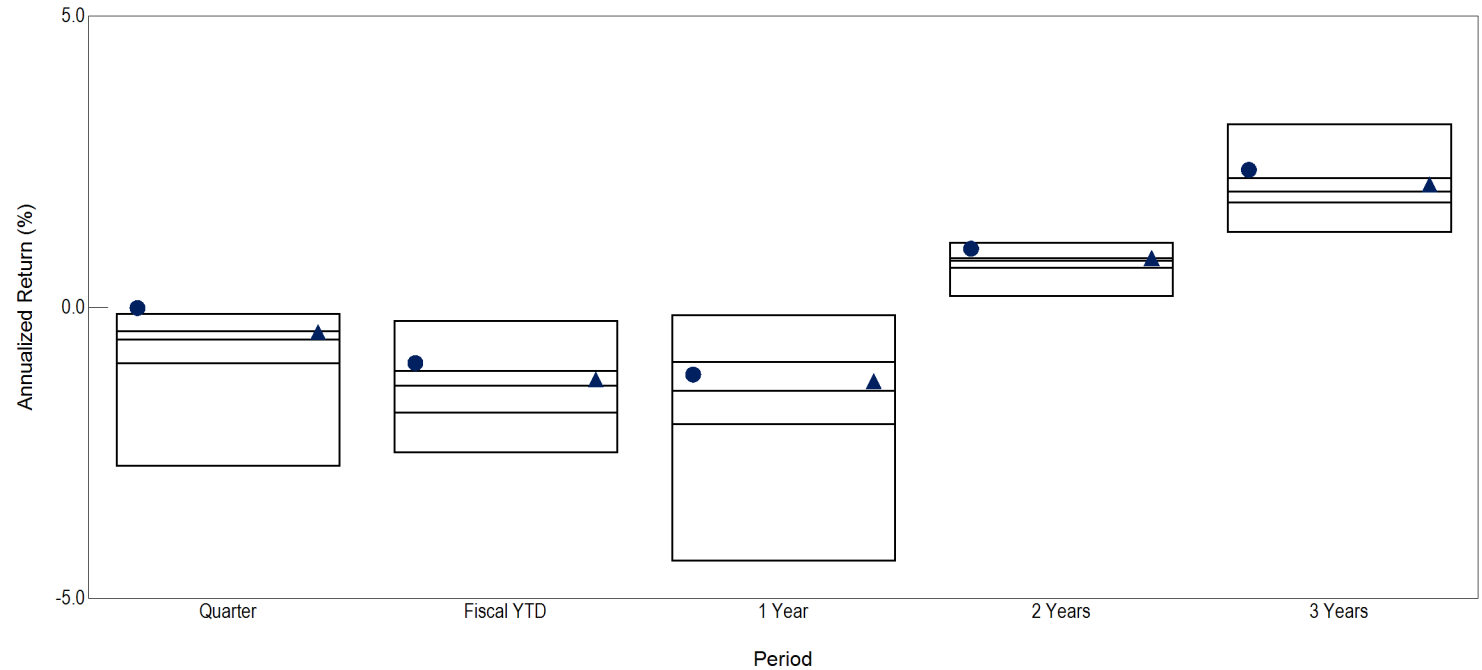
Quarterly and Cumulative Excess Performance



Los Angeles City Employees' Retirement System

DFA US TIPS

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



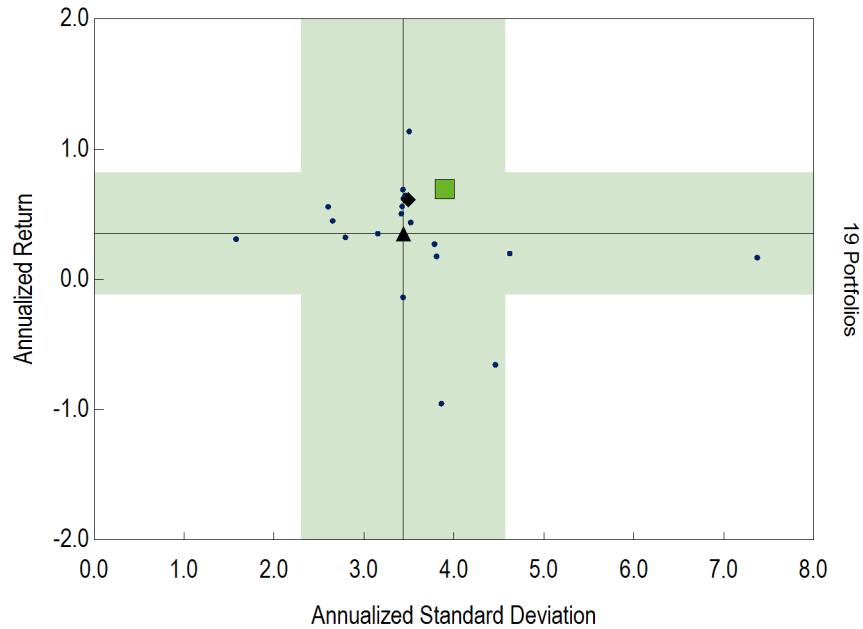
	Return (Rank)									
5th Percentile	-0.11		-0.23		-0.13		1.11		3.15	
25th Percentile	-0.40		-1.08		-0.92		0.86		2.23	
Median	-0.54		-1.33		-1.42		0.81		2.00	
75th Percentile	-0.95		-1.80		-1.99		0.69		1.81	
95th Percentile	-2.71		-2.48		-4.34		0.21		1.31	
# of Portfolios	22		22		21		21		21	
● DFA US TIPS	-0.01	(4)	-0.95	(20)	-1.15	(34)	1.01	(11)	2.36	(18)
▲ BbgBarc US TIPS TR	-0.42	(31)	-1.24	(35)	-1.26	(39)	0.85	(34)	2.11	(38)



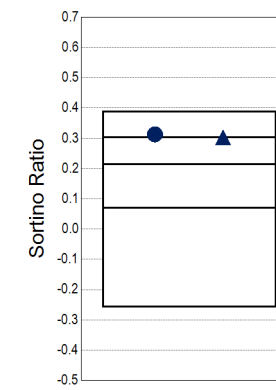
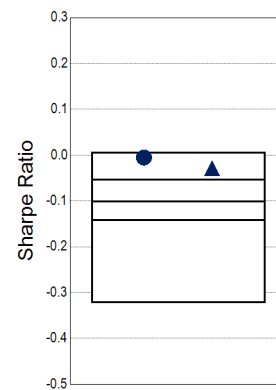
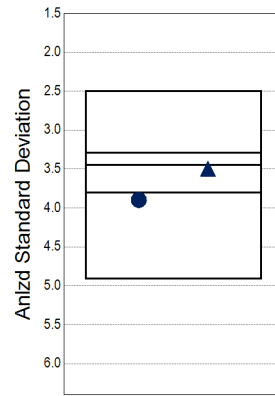
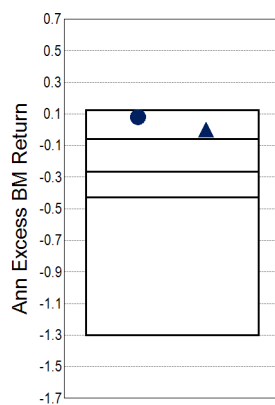
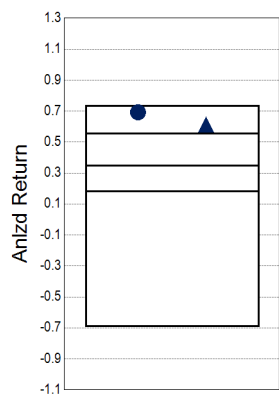
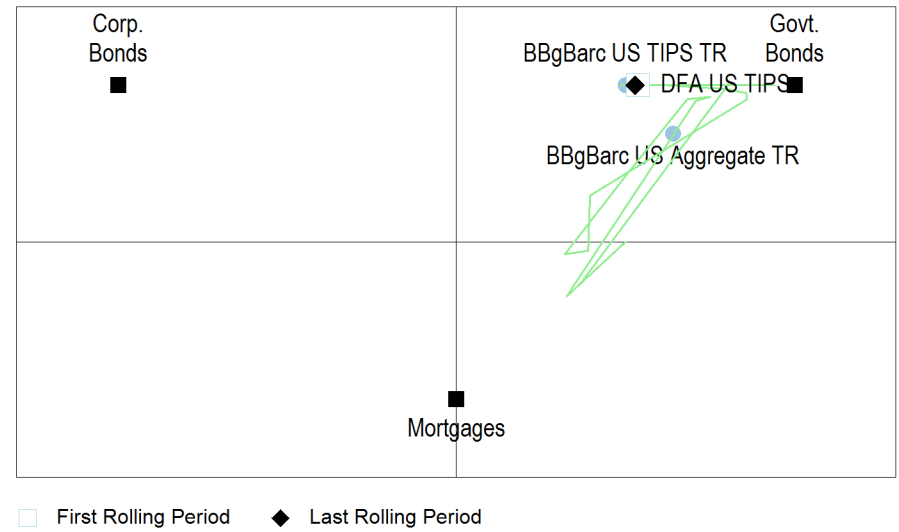
Los Angeles City Employees' Retirement System

DFA US TIPS

Since Inception Risk Return



Since Inception Style Map

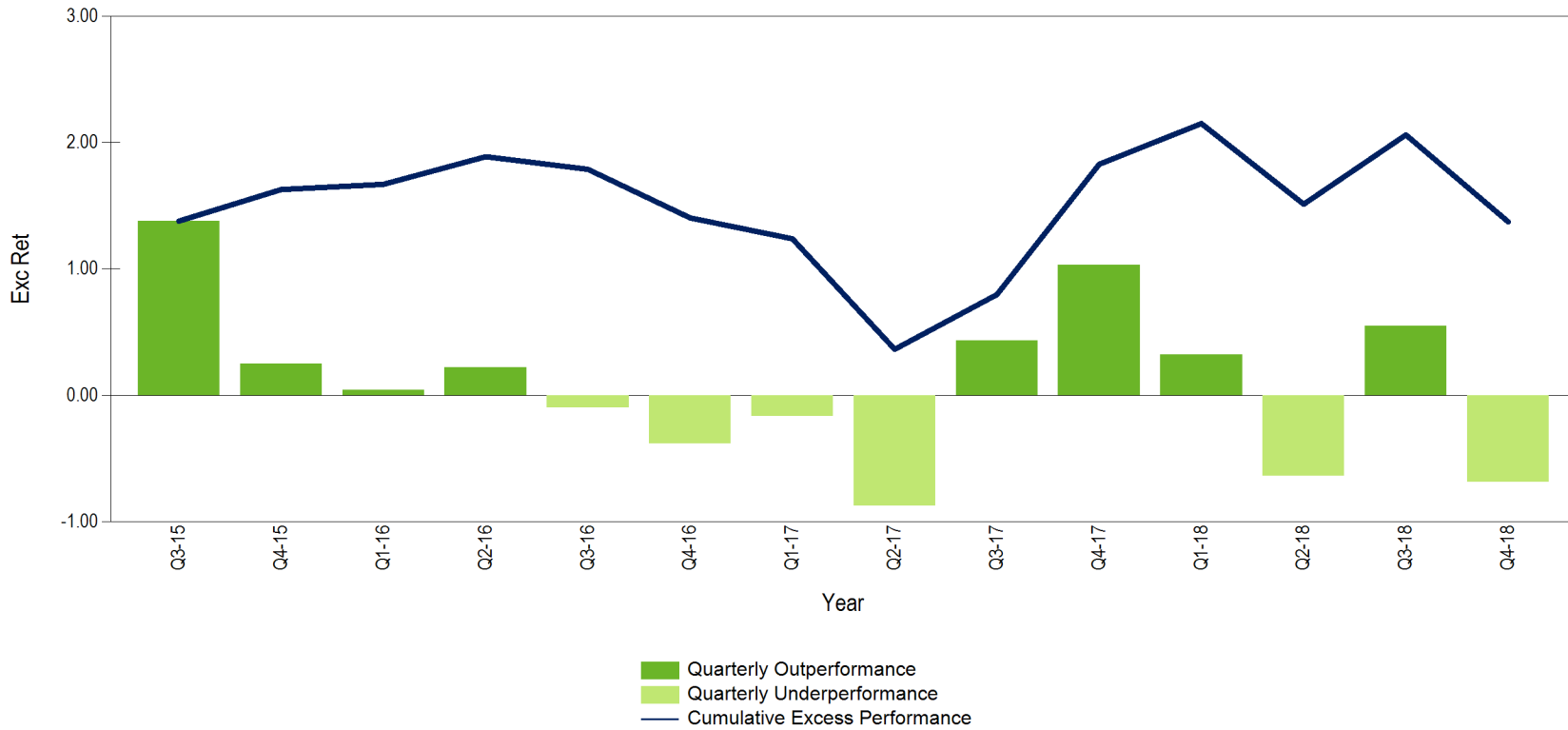


- DFA US TIPS
- ▲ BgBarc US TIPS TR
- 5th to 25th Percentile
- 25th to Median
- Median to 75th Percentile
- 75th to 95th Percentile



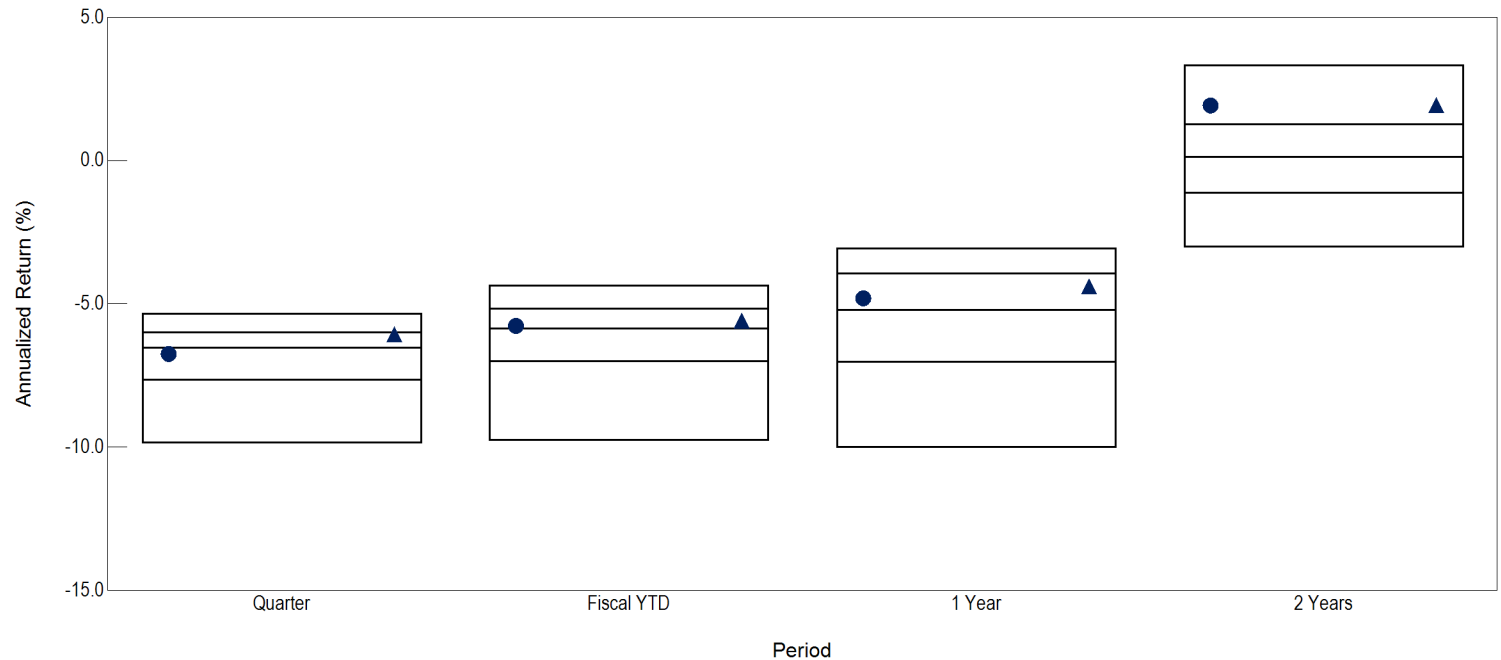
CENTERSQUARE US REAL ESTATE

Quarterly and Cumulative Excess Performance



CENTERSQUARE US REAL ESTATE

CenterSquare US Real Estate vs. eV US REIT Net

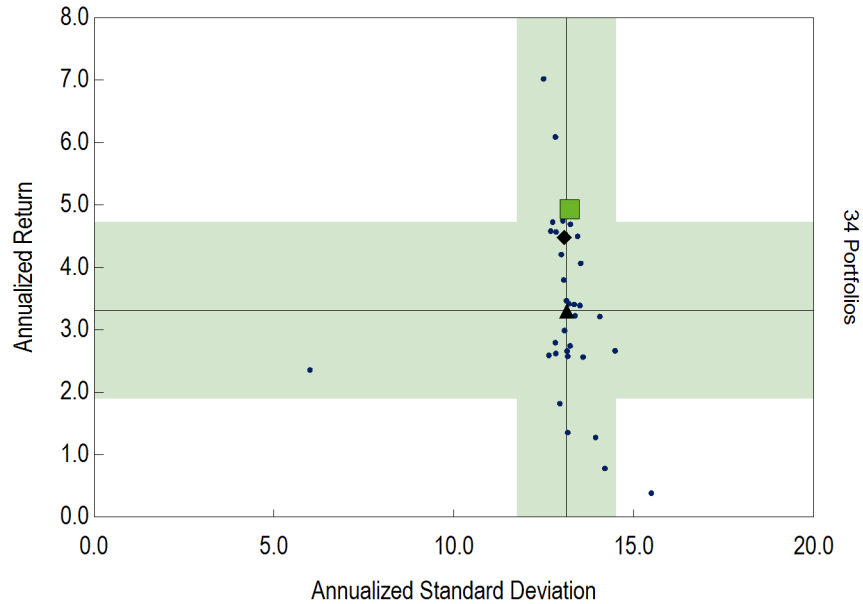


	Return (Rank)			
	Quarter	Fiscal YTD	1 Year	2 Years
5th Percentile	-5.35	-4.37	-3.07	3.32
25th Percentile	-5.98	-5.16	-3.91	1.29
Median	-6.51	-5.84	-5.19	0.14
75th Percentile	-7.63	-6.97	-7.00	-1.10
95th Percentile	-9.81	-9.72	-9.98	-2.98
# of Portfolios	36	36	36	35
● CenterSquare US Real Estate	-6.75 (61)	-5.77 (48)	-4.81 (40)	1.92 (15)
▲ FTSE NAREIT All Equity REIT	-6.06 (27)	-5.59 (44)	-4.39 (39)	1.93 (15)

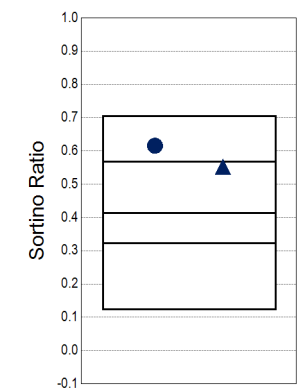
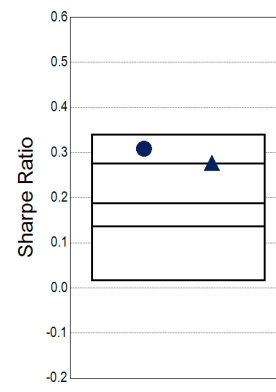
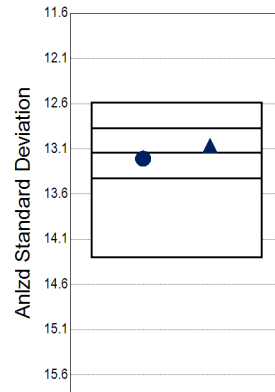
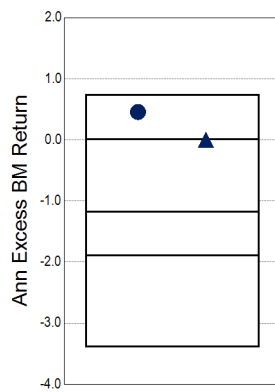
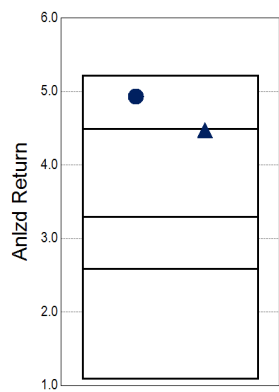
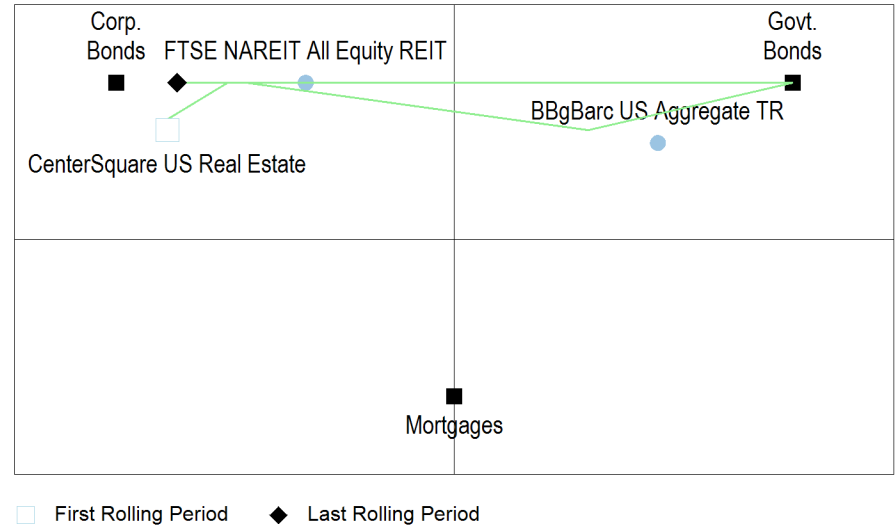


CENTERSQUARE US REAL ESTATE

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.
- This report is provided as a management aid for the client's internal use only. Information contained in this report does not constitute a recommendation by NEPC.
- This report may contain confidential or proprietary information and may not be copied or redistributed to any party not legally entitled to receive it.

Reporting Methodology

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





Report to Board of Administration

From: Investment Committee
Sung Won Sohn, Chairperson
Elizabeth Lee
Nilza R. Serrano

Agenda of: **MARCH 26, 2019**

ITEM: **VIII-D**

SUBJECT: REAL ESTATE FISCAL YEAR 2019-20 STRATEGIC PLAN AND POSSIBLE BOARD ACTION

Recommendation

That the Board adopt the Real Estate Fiscal Year 2019-20 Strategic Plan.

Discussion

On March 12, 2019, the Committee considered the attached report regarding the Real Estate Fiscal Year 2019-20 Strategic Plan. The Committee heard a presentation from Jennifer Stevens and Storm Klyve-Underkofler of The Townsend Group (Townsend), LACERS' Real Estate Consultant. The plan, developed by Townsend with input from staff, establishes strategic objectives and investment plan recommendations for the 2019-20 Fiscal Year. Townsend will be present at the Board meeting of March 26, 2019, should the Board desire to hear a presentation of the proposed plan.

Strategic Plan Impact Statement

The annual real estate strategic plan assists the Board in building a diversified real estate portfolio to optimize the long-term risk-adjusted return profile (Goal IV). Development and adoption of such a plan also promotes good governance practices (Goal V).

This report was prepared by Eduardo Park, Investment Officer I, Investment Division.

RJ:BF:EP

Attachment: A) Investment Committee Recommendation Report dated March 12, 2019



Report to Investment Committee

Agenda of: **MARCH 12, 2019**

From: Neil M. Guglielmo, General Manager

ITEM: **V**

SUBJECT: REAL ESTATE FISCAL YEAR 2019-20 STRATEGIC PLAN AND POSSIBLE COMMITTEE ACTION

Recommendation

That the Committee recommend to the Board the adoption of the Real Estate Fiscal Year 2019-20 Strategic Plan.

Discussion

The Townsend Group (Townsend), LACERS' Real Estate Consultant, with input from staff, has developed the proposed Real Estate Fiscal Year 2019-20 Strategic Plan, which considers strategic objectives and investment plan recommendations for the next fiscal year. Staff has reviewed the plan and recommends its adoption. Townsend will present the proposed plan.

Strategic Plan Impact Statement

The annual real estate strategic plan assists the Board in building a diversified real estate to optimize long-term risk-adjusted return profile (Goal IV). Development and adoption of such a plan also promotes good governance practices (Goal V).

This report was prepared by Eduardo Park, Investment Officer I, Investment Division.

RJ:BF:EP

Attachment: A) Proposed Real Estate Portfolio Strategic Plan – The Townsend Group

MEMORANDUM

TO: The Board of Los Angeles City Employees' Retirement System

DATE: March 2019

SUBJECT: Real Estate Strategic & Investment Plan for Fiscal Year 2019-2020 – Executive Summary

FROM: The Townsend Group

Executive Summary

The purpose of this report is to review the Los Angeles City Employees' Retirement System ("LACERS" or the "System") Real Estate Strategic Plan ("Strategic Plan") and outline the corresponding Real Estate Investment Plan ("Investment Plan"). The Investment Plan includes actions which will help LACERS to capitalize on current market opportunities while still meeting the guidelines set forth in the proposed Strategic Plan.

Townsend was re-engaged by LACERS's Board in 2014 to serve as its real estate consultant. Since that time, Townsend has worked with LACERS Staff to successfully transition the Portfolio to reflect a more conservative risk profile. The investment strategy from 2014 to-date has emphasized \$255 million of investment into Core funds, \$130 million into tactical Non-Core funds and close monitoring of pre-GFC underperforming investments which have begun to mature and liquidate.

In April 2018, LACERS Board adopted changes to its Asset Allocation targets, as advised by its general consultant. The impact to real estate was to increase capital from 5.0% of Total Plan Assets to 7.0% of Total Plan Assets.

Townsend has no recommended changes to the Strategic Plan. Investment Plan recommendations are summarized below. A Strategic Plan is provided for reference as **Attachment A**.

2019-2023 Investment Recommendations

The LACERS Program (the "Program") now has a 7.0% allocation target (with an allowable range of \pm 2.0%). As of September 30, 2018, the market value of the Portfolio was \$888 million on a committed and funded basis (5.0% of Total Plan Assets). With the combination of the recently approved increased allocation to real estate, and planned liquidations, LACERS will need to deploy significant capital in order to reach its 7.0% allocation target over the coming years.

The following table depicts a range of capital shortfalls between 2019 and 2023 under three different scenarios:

Portfolio Growth Scenario	Core Growth Assumption	Non-Core Growth Assumption	Total Capital Needed until 2023	Capital per Annum until 2023
Conservative	0%	4%	\$975 million	\$195 million
Baseline	2%	6%	\$850 million	\$170 million
Aggressive	4%	8%	\$725 million	\$145 million

According to the Baseline Scenario, LACERS has capacity to make cumulative commitments of approximately \$850 million over five years in order to reach its 7.0% allocation to Real Estate (targeting approximately \$170 million per year).

Townsend recommends the following 2019-2020 Goals to LACERS for consideration:

LACERS Annual Investment Plan FY 2019-2020	
Core	
Capital	\$40 M - \$60 M
Number of Funds	1-2
Target Average Commitment per Fund	\$50 M
Non-Core	
Capital	\$100 M - \$110 M
Number of Funds	2-3
Target Average Commitment per Fund	\$50 M
Total Annual Commitments	\$140 M - \$170 M

Overall Portfolio Goals

- Refrain from over-committing in peak market vintage years, simply due to the increase in allocation
- For compelling opportunities, consider increasing average commitment size to reflect the new real estate allocation

Core Portfolio Goals

- Evaluate existing Open-End Core fund portfolio and consider rebalancing portfolio to improve diversification and returns, as necessary.

- Maintain relative weightings to Core v. Non-Core to maintain an appropriate level of defensiveness.

Non-Core Portfolio Goals

- Focus on up to three incremental commitments in Non-Core (ranging from \$35 to \$50 million per investment), emphasizing current income and pre-specified portfolios to mitigate J-curve.
- Target commitments to preferred property types and regions based on LACERS Portfolio exposures:
 - **Industrial:** consider increasing and diversifying Industrial exposure through commitments to strategies that focus on different asset sizes and different markets (in the US and abroad) than current investments. LACERS is currently slightly overweight by 80 basis points, and Townsend recommends increasing that overweight further.
 - **US Apartments:** rebalance existing Apartment exposure to optimize returns, and increase exposure to a neutral weight. LACERS is currently underweight by 390 basis points.
 - Consider Core commitments to diversified funds with Apartment overweight.
 - **US Office:** consider tactical investments in high growth markets benefiting from technology, advertising, media, internet, science and technology drivers. LACERS is currently underweight compared to NFI-ODCE by 380 basis points.
- Actively source opportunities from the Emerging Manager universe as available.
- Emphasize current income and pre-specified portfolios to mitigate J-curve.

END OF INVESTMENT RECOMMENDATIONS



TOWNSEND[®]
GROUP
an Aon company

Real Estate Portfolio

Fiscal Year 2019-2020 Investment Plan





Table of Contents

- A. LACERS Real Estate Program Overview
- B. LACERS Commitment History
- C. LACERS 2019-2023 Objectives and Investment Plan
- D. Sourcing and Deal Flow

A. LACERS Real Estate Program Overview



LACERS Real Estate Program Overview

- LACERS began investing in Real Estate in 1989.
- In April 2018, LACERS' Board elected to increase its real estate allocation from 5.0% to 7.0% of Total Plan Assets (with an allowable range of $\pm 2.0\%$).
- As of September 30, 2018, the market value of the Portfolio was \$787 million (4.4% of Total Plan Assets).
- Forecasts show that several investments will be liquidating from the Portfolio over the next three-year period.

	3Q18 Market Value (\$ millions)*	% LACERS Plan
LACERS Total Plan Assets	17,773	
Real Estate Target	1,244	7.0%
RE Market Value:		
Core	545	
Non-Core	222	
Timber	20	
Total RE Market Value	787	4.4%
Unfunded Commitments	101	0.6%
RE Market Value + Unfunded Commitments	888	5.0%
Remaining Allocation	356	2.0%

*Figures may not add due to rounding. Unfunded commitments exclude commitments made after 9/30/18.

LACERS Real Estate Program Overview (continued)

	<i>Strategic Targets</i>		<i>Portfolio Composition (9/30/2018)*</i>	
	Target Allocation	Tactical Range	Funded	Funded & Committed
Core	60%	40% - 80%	69.2%	61.3%
Non-Core	40%	20% - 60%	28.2%	36.4%
<i>Value Add Portfolio</i>	<i>N/A</i>	<i>N/A</i>	<i>13.1%</i>	<i>19.7%</i>
<i>Opportunistic Portfolio</i>	<i>N/A</i>	<i>N/A</i>	<i>15.1%</i>	<i>16.7%</i>
Timber	N/A	N/A	2.6%	2.3%

- In May 2014, the Board approved the strategic targets displayed above in order to reflect a more conservative risk profile going-forward. At the time, the Portfolio had 30% exposure to Core and 70% exposure to Non-Core.
- Since 2014, in an effort to transition the Portfolio, the LACERS Board has approved \$255 million in Core commitments, which have all been funded to date with the exception of a \$35 million commitment to Kayne Anderson Core Real Estate Fund approved subsequent to quarter-end.
- The LACERS Board approved \$130 million in Non-Core investments since 2014. These investments mainly focused on Value Add strategies with pre-specified portfolios, embedded value and/or an element of current income.
- On a funded and committed basis, the LACERS Core and Non-Core allocations are in line with the strategic targets.
- The Core Portfolio utilizes 25.7% leverage, measured on a loan-to-value (LTV) basis, well below the 40.0% constraint.
- The Non-Core Portfolio has a 55.2% LTV ratio, well below the 75.0% constraint.

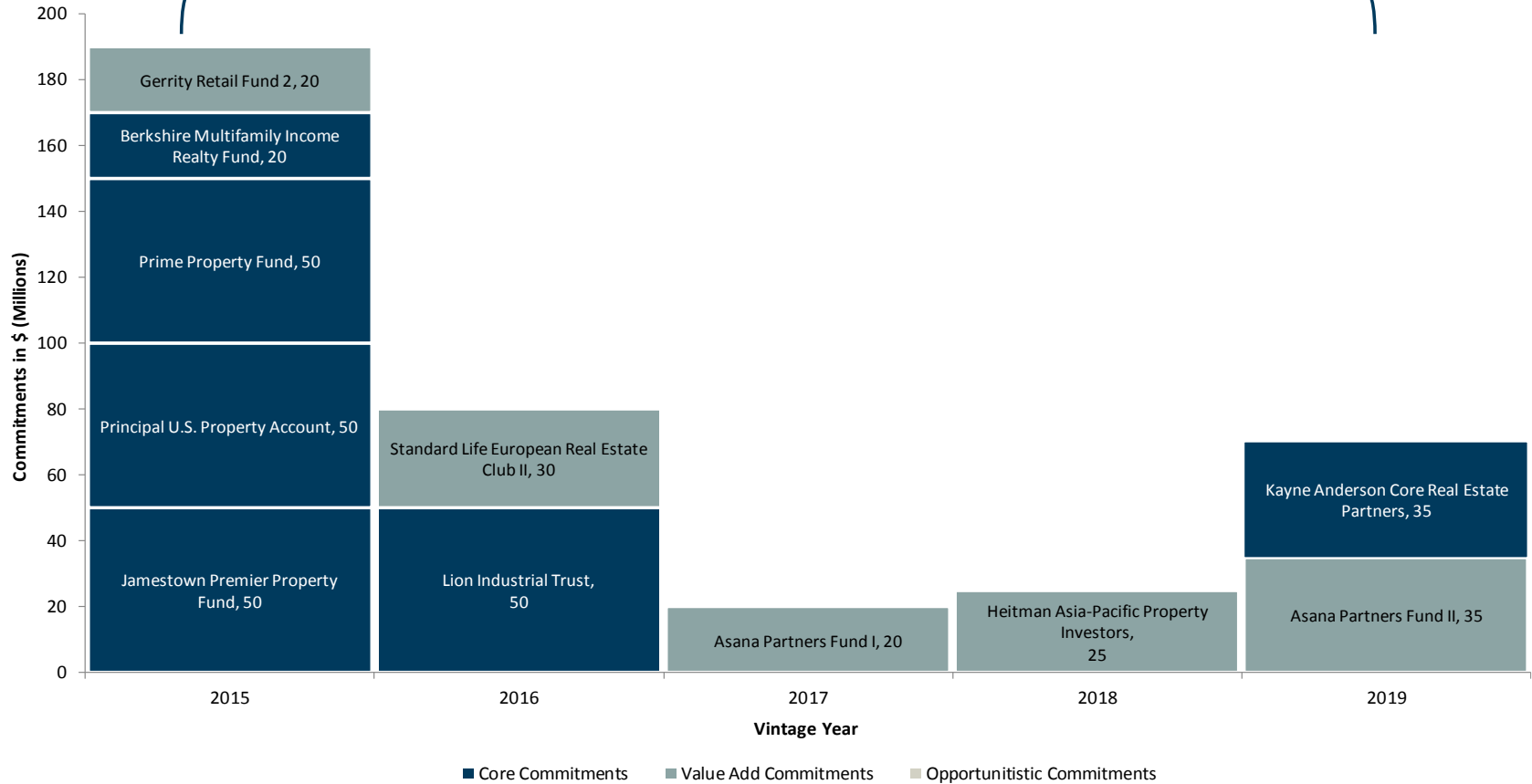
*Figures may not add due to rounding. Funded & Committed figures exclude commitments made after 9/30/18.

B. LACERS Commitment History



LACERS Commitment History – Last Five Years

Under Townsend Advisory



- LACERS has committed \$505 million since 2012, of which \$315 million (~60%) have been Townsend-initiated activities since 2015 .
- 42% of Non-Core commitments since 2015 (Gerrity and Asana) met LACERS Emerging Manager guidelines. In the Core open-end fund space, there are currently no managers meeting these guidelines.
- Vintage year classifications are based on LACERS’ first capital call (or expected capital call), though commitments may have been approved in prior years.

C. LACERS 2019-2023 Objectives and Investment Plan



LACERS Investment Plan Summary – Fiscal Year 2019-2020

LACERS Annual Investment Plan FY 2019-2020	
Core	
Capital	\$40 M - \$60 M
Number of Funds	1-2
Target Average Commitment per Fund	\$50 M
Non-Core	
Capital	\$100 M - \$110 M
Number of Funds	2-3
Target Average Commitment per Fund	\$50 M
<i>Total Annual Commitments</i>	<i>\$140 M - \$170 M</i>

LACERS 2019-2023 Objectives

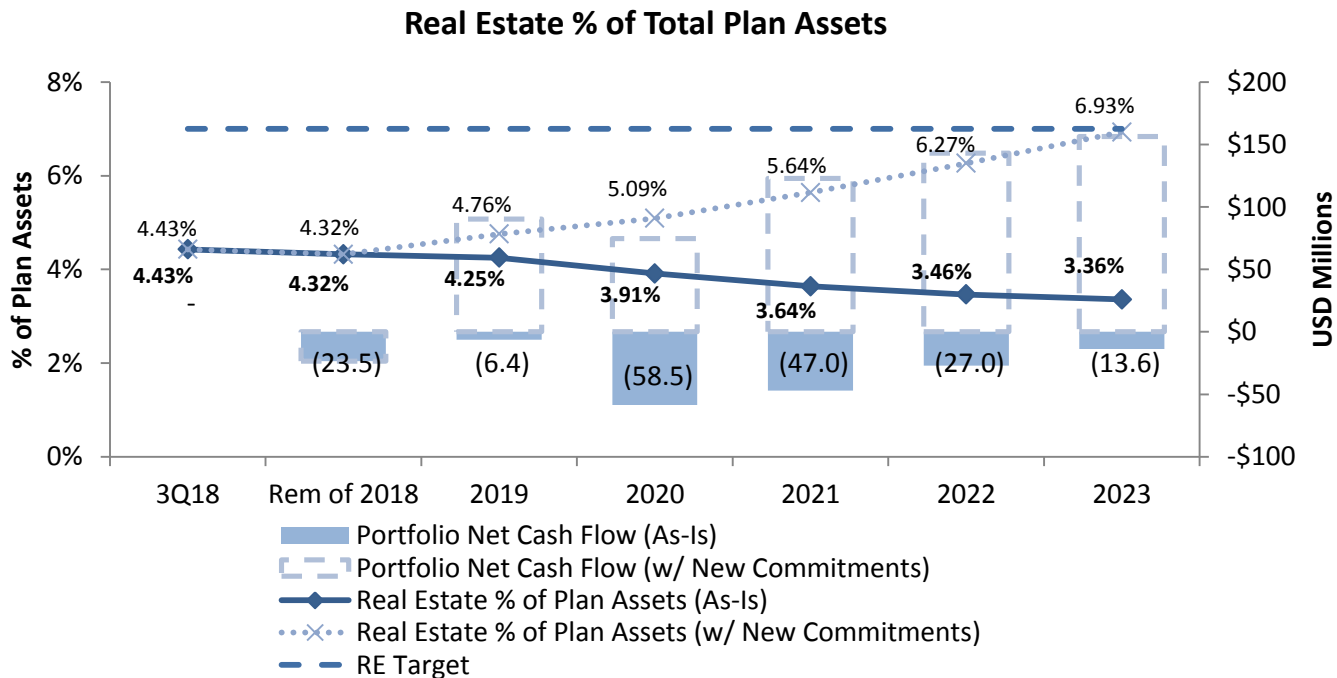
- Townsend ran three scenarios to model real estate capital pacing between 2019 and 2023. All three scenarios assume a Total Plan Growth Rate of 4.0% per annum.
- LACERS has capacity to commit an additional \$725-\$975 million between now and 2023 in order to increase its Real Estate allocation to 7.0% of Total Plan Assets (targeting \$145-\$195 million per year over the next five years).
- Capital pacing was determined based upon LACERS existing manager input, along with various forward-looking return assumptions which may or may not materialize according to plan.
- Townsend will work with LACERS Staff to prudently allocate capital over the next five years, and will exercise discretion in preserving capacity for future out-year investments.

Portfolio Growth Scenario	Core Growth Assumption	Non-Core Growth Assumption	Total Capital Needed until 2023	Capital per Annum until 2023
Conservative	0%	4%	\$975 million	\$195 million
Baseline	2%	6%	\$850 million	\$170 million
Aggressive	4%	8%	\$725 million	\$145 million

LACERS 2019-2023 Objectives

Base Case Growth

- The Base Case Model assumes a 2.0% annual growth rate for Core returns and 6.0% annual growth rate for Non-Core returns, which we view as moderately conservative return assumptions.
- According to Base Case Capital Projections, LACERS has approximately \$850 million of additional private real estate investment capacity in order to grow its allocation to 7.0% of Plan Assets by 2023 (±\$170 million per annum over five years).
- Townsend will work with Staff to carefully manage LACERS investment exposure.
 - Preserve investment capacity to allow LACERS take advantage of opportunities during all market cycles (not all capital needs to be deployed at once).
 - Monitor contribution and distribution/withdrawal activities, and forecasts provided by LACERS' managers.
 - Consider Non-Core investments, which may include one or more Emerging Manager commitments.

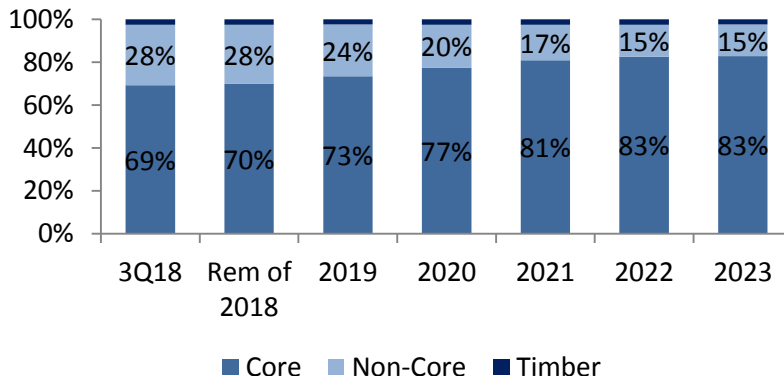


LACERS 2019-2023 Investment Plan

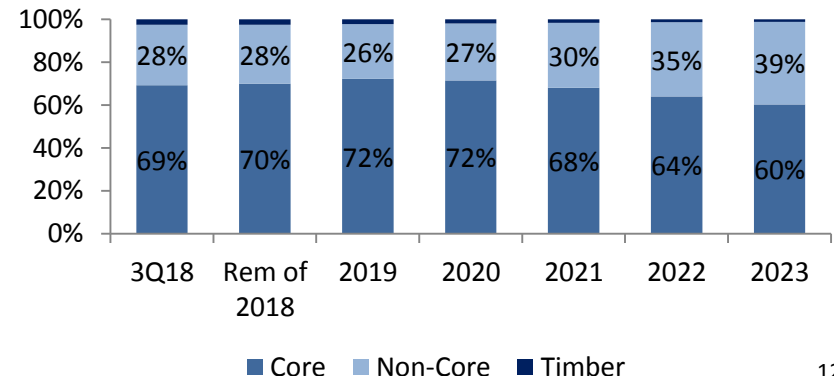
Real Estate Program Proposed Plan

- Vintage year diversification is a tool to control risk by reducing exposure to market cycles.
 - Tactical adjustments to overweight or underweight a particular vintage are based on market views and portfolio exposure relative to the 7.0% allocation target and benchmark.
 - Adjustments may be made based upon specific opportunities presented.
- As the cycle matures, consider a conservation of capital that is available to deploy in later years.
 - This may result in fewer commitments in 2019-2020.
- Identify opportunities to improve the quality and income component of the Portfolio.
 - Target specialist operators to reduce fees and exploit niche expertise and sourcing capabilities.
- Remain mindful of the strategic targets of 60% Core/40% Non-Core, and of the Total Real Estate Benchmark (ODCE+80bps).
 - Currently the portfolio is trending towards the higher end of the Core allocation target range (left chart), which will lead to difficulty outperforming the Benchmark. New proposed annual commitments of approximately \$60M to Core and \$110M to Non-Core strategies would bring the portfolio closer to its target (right chart).

Risk Sector Allocation Change



Risk Sector Allocation Change



LACERS 2019-2023 Investment Plan

2019-2020 Overall Portfolio Activity

- Refrain from over-committing in peak market vintage years, simply due to the increase in allocation
- For compelling opportunities, consider increasing average commitment size to reflect the new real estate allocation

2019-2020 Core Activity

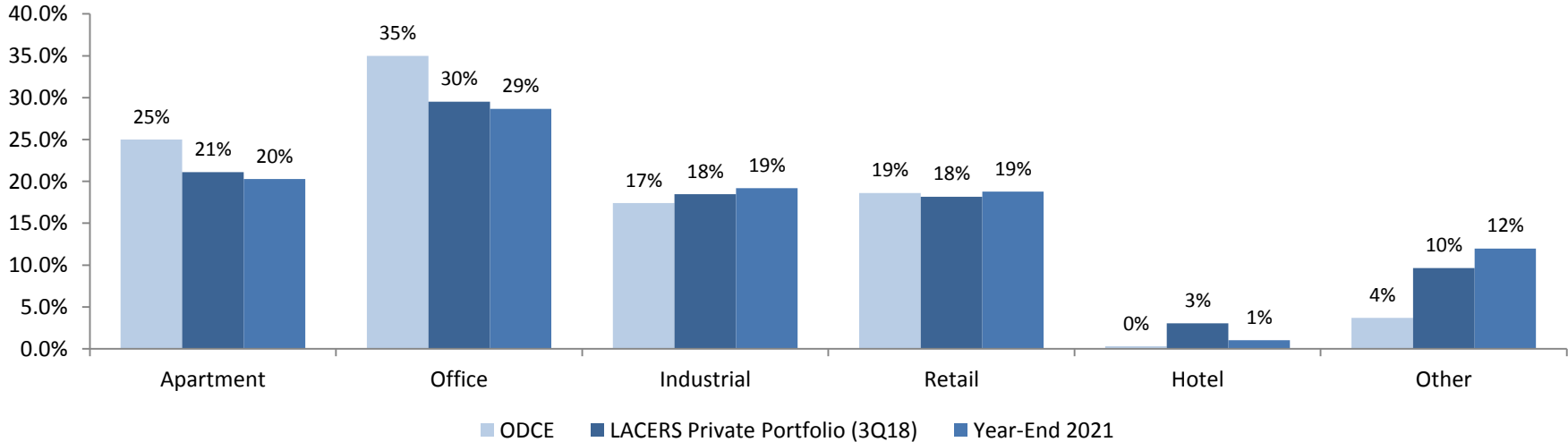
- Evaluate existing Open-End Core fund portfolio and consider rebalancing portfolio to improve diversification and returns, as necessary.
- Maintain relative weightings to Core v. Non-Core to maintain an appropriate level of defensiveness.

2019-2020 Non-Core Activity

- Focus on up to three incremental commitments in Non-Core (ranging from \$35 to \$50 million per investment), emphasizing current income and pre-specified portfolios to mitigate J-curve.
- Target commitments to preferred property types and regions based on LACERS Portfolio exposures:
 - **Industrial:** consider increasing and diversifying Industrial exposure through commitments to strategies that focus on different asset sizes and different markets (in the US and abroad) than current investments. LACERS is currently slightly overweight by 80 basis points, and Townsend recommends increasing that overweight further.
 - **US Apartments:** rebalance existing Apartment exposure to optimize returns, and increase exposure to a neutral weight. LACERS is currently underweight by 390 basis points.
 - Consider Core commitments to diversified funds with Apartment overweight.
 - **US Office:** consider tactical investments in high growth markets benefiting from technology, advertising, media, internet, science and technology drivers. LACERS is currently underweight compared to NFI-ODCE by 380 basis points.
- Actively source opportunities from the Emerging Manager universe as available.

LACERS Diversification Projections

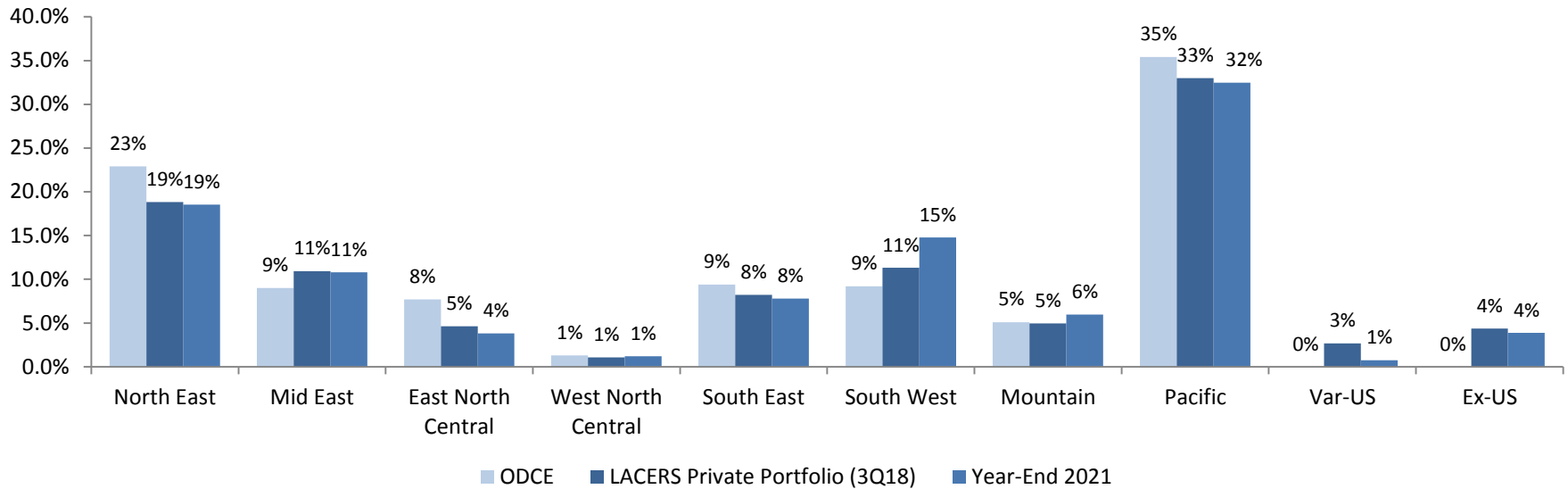
Private Real Estate Portfolio - Property Type Diversification



- LACERS continues to be underweight to Office and Apartment.
 - An Office underweight is supported by Townsend’s View of the World, due to the sector’s correlation to the economic cycle.
 - An increase in Apartment exposure should be targeted due to the sector’s defensive nature.
- LACERS may consider tactically increasing Industrial exposure in the US and consider Ex-US Industrial options as well for further diversification.
- LACERS may also consider small tactical investments into urban office in high growth markets whereby technology, advertising, media, internet, science and technology drivers continue to absorb available space.

LACERS Diversification Projections

Private Real Estate Portfolio - Geographic Diversification



- LACERS continues to be underweight to the North East, East North Central and the Pacific regions. Pacific, in particular, is a market that has been outperforming and is expected to continue to do so.
 - Continue to seek exposure to the Pacific region.
 - Consider modest tactical opportunities in the North East.
 - Maintain relative underweight to the East North Central region.
- Consider additional Ex-US opportunities to enhance geographic diversification and returns, for example through a commitment to a European Industrial strategy.

D. Sourcing and Deal Flow

ATTACHMENT A

TOWNSEND[®]
GROUP
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Manager Sourcing & Due Diligence

Core and Core Plus Fund Sourcing and Selection

- Townsend's dedicated open-end fund team reviews and monitors the open-end universe on a monthly and quarterly basis.
- As of December 31, 2018, the statistics for the existing open-end fund universe were as follows:
 - 26 Core Diversified Funds,
 - 10 Core Plus Funds,
 - 13 Specialty Funds (Property Type Specific and Debt Funds).
- Townsend also evaluates Core closed-end funds, though fewer exist.
- Comprehensive review, evaluation and selection process:
 - Sourcing and evaluation of new fund launches,
 - Quarterly data collection and analysis,
 - On-site meetings and quarterly reviews,
 - Advisory board participation ,
 - Ongoing platform assessment,
 - Continual due diligence.

Manager Sourcing & Due Diligence

Non-Core Fund Sourcing and Selection

- In addition to the work completed for open-end commingled funds (evaluation process outlined on the previous page), Townsend is continuously analyzing the universe of Non-Core closed-end funds available for investment.
- As of December 31, 2018, Townsend's statistics for the Non-Core fund universe were as follows:
 - 310 funds screened.
 - 112 funds in initial due diligence.
 - 71 funds approved for client investment.
 - 61% North America/Global, 18% Europe, 13% Asia, and 8% Rest of the World.
- Detailed due diligence follows a three-phase due diligence process:
 - Sourcing and evaluation of new fund launches.
 - On-site due diligence meetings.
 - Evaluation of investment characteristics includes, but is not limited to the following:
 - *Executive Summary*: Strategy Overview, Comparative Advantages, Potential Issues and Concerns.
 - *Strategy*: Overview, Leverage, Investment Guidelines, Pipeline.
 - *Sponsor*: Organizational Background/History, Turnover, Compensation, and Retention.
 - *Investment Process*: Overview, Investment Committee, Affiliate Transactions, Limited Partner Advisory Committee, Exclusivity and Allocations, Valuations.
 - *Fund Structure*: Key Terms, Fees and Distributions, Analysis of Fees.
 - *Performance*: Detailed Summary of Prior Vehicles, Vintage Year Comparison, Dispersion of Returns, Investment Highlights.
- Ongoing due diligence includes fund coverage, investment monitoring, reporting, advisory board representation and client advocacy.

Emerging Manager Sourcing Process

Emerging Manager Sourcing

- Townsend focuses on identifying emerging managers during its sourcing and monitoring process.
 - Network and establish new relationships through regular sourcing channels, outreach and conference attendance.
 - Seek new and unique opportunities that align with Townsend View of the World.
 - Uncover experienced niche operating partners interested in raising third-party capital.
 - Oversight and management of dedicated Emerging Manager programs across the firm.
 - Maintain active pipeline of Emerging Manager candidates.
 - Actively vetting new owner/operators as potential Emerging Manager candidates.

LACERS Emerging Manager Efforts

- LACERS has been focused on de-risking the Portfolio over the past four years, resulting in more Core search activity.
- Majority of Emerging Manager opportunity set is in the Non-Core segment:
 - 2014-2015: 50% of LACERS Non-Core commitments qualified under the LACERS Emerging Manager Program.
 - 2016: In 2H2016, Townsend conducted a LACERS-specific Emerging Manager search resulting in the recommendation of a \$20 million Non-Core commitment to Asana Partners I, which was approved by the Board in August 2016.
 - 2019: One Emerging Manager opportunity to be recommended to the Board (Broadview Real Estate Partners).
- In 2019, LACERS updated its Emerging Manager Policy to the following:
 - The General Partner will have no more than \$2 billion in firm-wide assets.
 - First- or second-time institutional fund for a given General Partner.
 - The Fund shall have a minimum size of \$150 million in committed capital inclusive of LACERS pending commitment.
 - The firm must have been in existence for a minimum of one year.
 - The team must have a minimum track record of five years.
 - No person or entity, other than the principals and/or employees of the firm, shall own more than forty-nine percent (49%) interest of the firm.
 - No client can represent more than 30% of the total Fund's capital.
 - LACERS commitment in the strategy being considered shall not exceed 10% of the projected final closing fund size or \$30 million, whichever is lower.