LACERS
LOS ANGELES CITY EMPLOYEES' RETIREMENT SYSTEM

Board of Administration Agenda

REGULAR MEETING

TUESDAY, JUNE 9, 2020

TIME: 10:00 A.M.

MEETING LOCATION:

In conformity with the Governor's Executive Order N-29-20 (March 17, 2020) and due to the concerns over COVID-19, the LACERS Board of Administration's June 9, 2020, meeting will be conducted via telephone and/or videoconferencing.

Important Message to the Public

Information to call-in to participate:
Dial: (669) 900-6833 or (253) 215-8782
Meeting ID# 918 8647 4424

Instructions for call-in participants:

1- Dial in and enter Meeting ID
2- Automatically enter virtual "Waiting Room"
3- Automatically enter Meeting
4- During Public Comment, **press *9** to raise hand
5- Staff will call out the last 3-digits of your phone number to make your comment

Information to listen only: 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).

Disclaimer to participants

Please be advised that all LACERS Board and Committee Meeting proceedings are audio recorded.

Notice to Paid Representatives

If you are compensated to monitor, attend, or speak at this meeting, City law may require you to register as a lobbyist and report your activity. See Los Angeles Municipal Code §§ 48.01 *et seq*. More information is available at ethics.lacity.org/lobbying. For assistance, please contact the Ethics Commission at (213) 978-1960 or ethics.commission@lacity.org.

Request for services

As a covered entity under Title II of the Americans with Disabilities Act, the City of Los Angeles does not discriminate on the basis of disability and, upon request, will provide reasonable accommodation to ensure equal access to its programs, services and activities.

Sign Language Interpreters, Communication Access Real-Time Transcription, Assistive Listening Devices, Telecommunication Relay Services (TRS), 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) 855-9348*** and/or email at ***ani.ghoukassian@lacers.org***.

CLICK HERE TO ACCESS BOARD REPORTS

I. PUBLIC COMMENTS AND GENERAL PUBLIC COMMENTS ON MATTERS WITHIN THE BOARD'S JURISDICTION AND COMMENTS ON ANY SPECIFIC MATTERS ON THE AGENDA – *THIS WILL BE THE ONLY OPPORTUNITY FOR PUBLIC COMMENT* - **PRESS *9 TO RAISE HAND DURING PUBLIC COMMENT PERIOD**

II. APPROVAL OF MINUTES FOR REGULAR BOARD MEETING OF MAY 26, 2020 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. MARKETING CESSATION REPORT NOTIFICATION TO THE BOARD

B. BENEFITS PAYMENTS APPROVED BY GENERAL MANAGER

C. EDUCATION AND TRAVEL EXPENDITURE REPORT FOR THE QUARTER ENDING MARCH 31, 2020

VI. COMMITTEE REPORT(S)

A. GOVERNANCE COMMITTEE VERBAL REPORT ON THE REGULAR MEETING OF MAY 26, 2020

B. BENEFITS ADMINISTRATION COMMITTEE VERBAL REPORT ON THE REGULAR MEETING OF JUNE 9, 2020

VII. BOARD/DEPARTMENT ADMINISTRATION

A. PROPOSED LACERS CITY ATTORNEY CONFLICT OF INTEREST POLICY AND POSSIBLE BOARD ACTION

B. CAPITAL, OPERATING, AND ADMINISTRATIVE BUDGETS RELATING TO PROPERTY AT 977 NORTH BROADWAY AND POSSIBLE BOARD ACTION

C. BOARD PROCEDURES ON OFFICER ELECTIONS AND POSSIBLE BOARD ACTION

D. TRANSMITTAL TO THE BOARD OF THE COMMISSION ON REVENUE GENERATION FINAL REPORT TO CITY COUNCIL

VIII. INVESTMENTS

A. CHIEF INVESTMENT OFFICER VERBAL REPORT

B. PRIVATE REAL ESTATE PORTFOLIO PERFORMANCE REVIEW FOR THE PERIOD ENDING DECEMBER 31, 2019

C. PRESENTATION BY NEPC, LLC OF THE PORTFOLIO PERFORMANCE REVIEW REPORT FOR THE QUARTER ENDING MARCH 31, 2020

D. NOTIFICATION OF COMMITMENT OF UP TO $50 MILLION IN WATERTON RESIDENTIAL PROPERTY VENTURE XIV, L.P.

IX. OTHER BUSINESS

X. NEXT MEETING: The next Regular meeting of the Board is scheduled for Tuesday, June 23, 2020 at 10:00 a.m. in the LACERS Ken Spiker Boardroom, 202 West First Street, Suite 500, Los Angeles, CA 90012-4401 and/or via telephone and/or videoconferencing. Please continue to view the LACERS website for updated information on public access to Board meetings while public health concerns relating to the novel coronavirus continue.

XI. ADJOURNMENT

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

In conformity with the Governor's Executive Order N-29-20 (March 17, 2020)
and due to the concerns over COVID-19, the
LACERS Board of Administration's
May 26, 2020, meeting was conducted
via telephone and/or videoconferencing.

Agenda of: June 9, 2020

Item No: II

May 26, 2020

10:04 a.m.

PRESENT via Zoom Meeting:	President:	Cynthia M. Ruiz
	Vice President:	Michael R. Wilkinson
	Commissioners:	Annie Chao Elizabeth Lee Sandra Lee Nilza R. Serrano Sung Won Sohn
	Manager-Secretary:	Neil M. Guglielmo
	Legal Counselor:	Anya Freedman
PRESENT at LACERS offices:	Executive Assistant:	Ani Ghoukassian

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

II

APPROVAL OF MINUTES FOR THE REGULAR BOARD MEETING OF MAY 12, 2020 AND POSSIBLE BOARD ACTION – Commissioner Serrano moved approval of the minutes for the Regular Meeting of May 12, 2020, seconded by Commissioner Wilkinson and was adopted by the following vote: Ayes, Commissioners Chao, Elizabeth Lee, Sandra Lee, Serrano, Sohn, Vice President Wilkinson, and President Ruiz -7; Nays, None.

Item I was taken out of order.

I

PUBLIC COMMENTS AND GENERAL PUBLIC COMMENTS ON MATTERS WITHIN THE BOARD'S JURISDICTION AND COMMENTS ON ANY SPECIFIC MATTERS ON THE AGENDA – *THIS WILL BE THE ONLY OPPORTUNITY FOR PUBLIC COMMENT* – **PRESS *9 TO RAISE HAND DURING**

PUBLIC COMMENT PERIOD – President Ruiz asked if any persons wished to speak on matters within the Board's jurisdiction, to which there was one response: Call from Mr. Lawrence Nash, member of the public, asked the Board about the information given at the prior Board meeting regarding the launch date of a LACERS virtual call center and about the status of direct deposits as the last day of May, 2020 falls on a Sunday. Assistant General Manager Todd Bouey fielded the response and shared that LACERS is looking into the software that is needed to provide a virtual call center at this time and no date has been set. General Manger Neil Guglielmo shared that at the top of the LACERS website there is a link for direct deposit that has date mailed and date of direct deposit for Members.

III

BOARD PRESIDENT VERBAL REPORT – President Ruiz thanked all staff who work on the Zoom Board meeting process.

IV

GENERAL MANAGER VERBAL REPORT

A. REPORT ON DEPARTMENT OPERATIONS – Neil M. Guglielmo, General Manager, advised the Board of the following items:

- LACERS partnership with US Department of Aging Mastery Program and City Department of Aging begins
- Financial Resilience Zoom Workshops
- LAWA SIP
- LACERS All Staff Meeting

B. UPCOMING AGENDA ITEMS – Neil M. Guglielmo, General Manager, advised the Board on the following upcoming agenda items:

- Benefits Administration Committee Meeting
    - Introduce New Wellness Program Manager
    - Preliminary 2021 health plan year premiums and Rates
    - Retiree health wellness and financial dashboards
- FY21 Capital, Operating and Administrative Budget for the 977 Broadway Building

V

RECEIVE AND FILE ITEMS

A. MONTHLY REPORT ON SEMINARS AND CONFERENCES FOR APRIL 2020 – This report was received by the Board and filed.

VI

COMMITTEE REPORT(S)

A. INVESTMENT COMMITTEE VERBAL REPORT ON THE REGULAR MEETING OF MAY 12, 2020 – Investment Committee Chair Sohn reported out the successful discussion of two items brought before the Investment Committee that were forwarded to the Board of Administration for consideration. The items discussed and approved were the Investment Manager Contract with Dimensional Fund Advisors LP and the Private Credit Mandate Update.

VII

BOARD/DEPARTMENT ADMINISTRATION

A. PROPOSED BUDGET, PERSONNEL, AND ANNUAL RESOLUTIONS FOR FISCAL YEAR 2020-21 AND POSSIBLE BOARD ACTION – Neil Guglielmo, General Manager, Todd Bouey, Assistant General Manager, and Dale Wong Nguyen, Chief Benefits Analyst, and Rod June, Chief Investment Officer, presented this item to the Board. After an hour of robust discussion, Commissioner Elizabeth Lee moved approval, seconded by Commissioner Chao and was adopted by the following vote: Ayes, Commissioners Chao, Elizabeth Lee, Sandra Lee, Serrano, Sohn, Vice President Wilkinson, and President Ruiz -7; Nays, None.

B. EMERGENCY PURCHASES AND EXPENDITURES REPORT FOR COVID – 19 AND POSSIBLE BOARD ACTION - Commissioner Elizabeth Lee moved approval, seconded by Commissioner Serrano and was adopted by the following vote: Ayes, Commissioners Chao, Elizabeth Lee, Sandra Lee, Serrano, Sohn, Vice President Wilkinson, and President Ruiz -7; Nays, None.

VIII

INVESTMENTS

A. CHIEF INVESTMENT OFFICER VERBAL REPORT – Rod June, Chief Investment Officer, reported on the portfolio value, $17.2 billion as of May 22, 2020. Mr. June discussed the following items:

- Market significantly up today
- $300 million held in cash reserves or 1.7% of total fund
- Security lending proposal close to finalization
- Verbal update on value investing compared to growth investing
- Upcoming Agenda Items: Total Fund Portfolio Performance Review – ending March 31, 2020, Real Estate Portfolio Performance Review – ending December 31, 2019, and Active Emerging Managers Small Cap Manager Finalists

B. INVESTMENT MANAGER CONTRACT WITH DIMENSIONAL FUND ADVISORS LP REGARDING THE MANAGEMENT OF A U.S. TREASURY INFLATION PROTECTED SECURITIES (TIPS) PORTFOLIO AND POSSIBLE BOARD ACTION – Rod June, Chief Investment Officer presented this item to Board and discussed this item for 15 minutes. Commissioner Elizabeth Lee moved approval of the following Resolution:

CONTRACT EXTENSION
DIMENSIONAL FUND ADVISORS LP
ACTIVE U.S. TREASURY INFLATION PROTECTED SECURITIES (TIPS)

PORTFOLIO MANAGEMENT

RESOLUTION 200526-B

WHEREAS, LACERS' current three-year contract with Dimensional Fund Advisors LP (DFA) for active U.S. TIPS portfolio management expires on June 30, 2020; and,

WHEREAS, DFA is in compliance with the LACERS Manager Monitoring Policy; and,

WHEREAS, a contract extension with DFA will allow the fund to maintain a diversified exposure to the public real asset markets; and,

WHEREAS, on May 26, 2020, the Board approved the Investment Committee's recommendation to approve a one-year contract extension with DFA.

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 consistent with the following services and terms:

Company Name:	Dimensional Fund Advisors LP
Service Provided:	Active U.S. TIPS Portfolio Management
Effective Dates:	July 1, 2020 through June 30, 2021
Duration:	One year
Benchmark:	Bloomberg Barclays U.S. TIPS Index
Allocation as of April 30, 2020:	$793 million

Which motion was seconded by Commissioner Serrano, and adopted by the following vote: Ayes, Commissioners Elizabeth Lee, Sandra Lee, Serrano, Sohn, and President Ruiz -5; Nays, Commissioner Chao and Vice President Wilkinson -2.

C. PRIVATE CREDIT MANDATE UPDATE AND POSSIBLE BOARD ACTION – This item was presented to the Board by Rod June, Chief Investment Officer and Clark Hoover and Robert King, Investment Officers. Vice President Wilkinson moved approval of the following Resolution:

RESCISSION OF CONTRACT AWARD TO ALCENTRA LIMITED FOR THE PRIVATE CREDIT MANDATE SEARCH

RESOLUTION 200526-C

WHEREAS, on July 23, 2019, the Board authorized contract awards to four finalists in the Private Credit Mandate search: Benefit Street Partners L.L.C. and Monroe Capital LLC for the U.S. portion of the search; and Alcentra Limited (Alcentra) and Crescent Capital Group LP (Crescent) for the non-U.S. portion; and,

WHEREAS, on July 23, 2019, the Board approved initial funding of $100 million to Alcentra; and,

WHEREAS, during the contracting process, staff and NEPC, LLC, LACERS' General Fund Consultant, were notified of significant and unexpected turnover of senior Alcentra personnel; and

WHEREAS, on May 12, 2020, the Investment Committee reviewed staff's and NEPC's assessment of Alcentra's organizational changes, concurred with the staff recommendation to terminate the contracting process with Alcentra and redeploy the $100 million funding to Crescent, and referred the recommendation to the Board for consideration; and

WHEREAS, on May 26, 2020, the Board reviewed and approved the Investment Committee's recommendation to terminate the contracting process with Alcentra and redeploy the $100 million funding to Crescent.

NOW, THEREFORE, BE IT RESOLVED, that the Board hereby rescinds the contract award to Alcentra and authorizes LACERS staff to redeploy Alcentra's initial funding of $100 million to Crescent.

Which motion was seconded by Commissioner Serrano, and adopted by the following vote: Ayes, Commissioners Chao, Elizabeth Lee, Sandra Lee, Serrano, Sohn, Vice President Wilkinson, and President Ruiz -7; Nays, None.

Commissioner Sandra Lee left the Regular Meeting at 12:20 p.m.

D. PRIVATE EQUITY PORTFOLIO PERFORMANCE REVIEW FOR THE PERIOD ENDING DECEMBER 31, 2019 – This item was introduced by Rod June, Chief Investment Officer, and presented to the Board by David Fann, President, Heidi Poon, Managing Director, and Jeff Goldberger, Managing Director, with Aksia LLC. The Commissioners and staff discussed this item for 42 minutes.

E. NOTIFICATION OF COMMITMENT OF UP TO $40 MILLION IN MBK PARTNERS FUND V, L.P. – This report was received by the Board and filed.

F. NOTIFICATION OF COMMITMENT OF UP TO $30 MILLION IN VISTA FOUNDATION FUND IV, L.P. – This report was received by the Board and filed.

G. NOTIFICATION OF COMMITMENT OF UP TO €17.5 MILLION (APPROXIMATELY $19.0 MILLION) IN HG GENESIS 9 A L.P. – This report was received by the Board and filed.

H. NOTIFICATION OF COMMITMENT OF UP TO $20 MILLION IN HG SATURN 2 A L.P. – This report was received by the Board and filed.

I. NOTIFICATION OF COMMITMENT OF UP TO $10 MILLION IN GENERAL CATALYST GROUP X - EARLY VENTURE, L.P. – This report was received by the Board and filed.

J. NOTIFICATION OF COMMITMENT OF UP TO $11.7 MILLION IN GENERAL CATALYST GROUP X - ENDURANCE, L.P. – This report was received by the Board and filed.

K. NOTIFICATION OF COMMITMENT OF UP TO $16.7 MILLION IN GENERAL CATALYST GROUP X - GROWTH VENTURE, L.P. – This report was received by the Board and filed.

L. NOTIFICATION OF PURCHASE OF PARTNERSHIP INTEREST OF UP TO $50 MILLION IN SLC MANAGEMENT TALF PARTNERS FUND 2, LP – This report was received by the Board and filed.

President Ruiz recessed the Regular Meeting at 12:47 p.m. to convene in Closed Session.

M. CLOSED SESSION PURSUANT TO GOVERNMENT CODE SECTION 54956.81 TO CONSIDER A COMMITMENT TO WATERTON RESIDENTIAL PROPERTY VENTURE XIV, L.P. AND POSSIBLE BOARD ACTION

President Ruiz reconvened the Regular Meeting at 12:53 p.m.

IX

OTHER BUSINESS – Commissioner Elizabeth Lee asked staff about a document that was sent to the Commissioners. Rod June, Chief Investment Officer, stated the document was in regards to a private market investment.

X

NEXT MEETING: The next Regular meeting of the Board is scheduled for Tuesday, June 9, 2020 at 10:00 a.m. in the LACERS Ken Spiker Boardroom, 202 West First Street, Suite 500, Los Angeles, CA 90012-4401 and/or via telephone and/or videoconferencing. Please continue to view the LACERS website for updated information on public access to Board meetings while public health concerns relating to the novel coronavirus continue.

XI

ADJOURNMENT – There being no further business before the Board, President Ruiz adjourned the Meeting at 12:54 p.m.

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Cynthia M. Ruiz
President

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Neil M. Guglielmo
Manager-Secretary

Agenda of:	**JUNE 9, 2020**
Item No:	**V-A**

MARKETING CESSATION REPORT
NOTIFICATION TO THE BOARD

The Board's Marketing Cessation Policy was adopted in order to prevent and avoid the appearance of undue influence on the Board or any of its Members in the award of investment-related and other service contracts. Pursuant to this Policy, this notification procedure has been developed to ensure that Board Members and staff are regularly apprised of firms for which there shall be no direct marketing discussions about the contract or the process to award it; or for contracts in consideration of renewal, no discussions regarding the renewal of the existing contract.

Firms listed in Attachments 1 and 2 are subject to limited communications with Board Members and staff pursuant to the Policy and will appear and remain on the list, along with the status, from the first publicized intention to contract for services through the award of the contract. Lists of current LACERS' contracts are on file in the Board office and are available upon request.

Attachments: 1) Contracts Under Consideration for Renewal
2) Active RFPs and RFQs

ATTACHMENT 1

LOS ANGELES CITY EMPLOYEES' RETIREMENT SYSTEM CONTRACTS LIST
FOR THE JUNE 9, 2020 BOARD MEETING

CONTRACTS UNDER CONSIDERATION FOR RENEWAL

NO.	VENDOR / CONSULTANT	DESCRIPTION	INCEPTION DATE	EXPIRATION DATE	MARKETING CESSATION STATUS	RESTRICTED PERIOD*	
						START	END
CITY ATTORNEY							
1.	Hogan Marren Babbo & Rose, Ltd	Legal Services - Health & Data Privacy Law	Pending	Pending	Board Approved on 8/27/2019; contract under review for execution.	9/27/2019	9/27/2020
2.	Orrick, Herrington & Sutcliff, LLP	Legal Services - Health & Data Privacy Law	Pending	Pending	Board Approved on 8/27/2019; contract under review for execution.	9/27/2019	9/27/2020
HEALTH BENEFITS ADMINISTRATION							
3.	Anthem 2020	Medical HMO & PPO	1/1/2020	12/31/2020	Board Approved on 8/27/2019; contract under review for execution.	1/1/2020	12/31/2020
4.	Anthem Blue View Vision 2020	Vision Services Contract	1/1/2020	12/31/2020	Board Approved on 8/27/2019; contract under review for execution.	1/1/2020	12/31/2020

ATTACHMENT 1

LOS ANGELES CITY EMPLOYEES' RETIREMENT SYSTEM CONTRACTS LIST
FOR THE JUNE 9, 2020 BOARD MEETING

CONTRACTS UNDER CONSIDERATION FOR RENEWAL

NO.	VENDOR / CONSULTANT	DESCRIPTION	INCEPTION DATE	EXPIRATION DATE	MARKETING CESSATION STATUS	RESTRICTED PERIOD*	
						START	END
5.	Delta Dental 2020	Dental PPO and HMO	1/1/2020	12/31/2020	Board Approved on 8/27/2019; contract under review for execution.	1/1/2020	12/31/2020
6.	Kaiser 2020	Medical HMO	1/1/2020	12/31/2020	Board Approved on 8/27/2019; contract under review for execution.	1/1/2020	12/31/2020
7.	SCAN 2020	Medical HMO	1/1/2020	12/31/2020	Board Approved on 8/27/2019; contract under review for execution.	1/1/2020	12/31/2020
8.	United Healthcare 2020	Medical HMO	1/1/2020	12/31/2020	Board Approved on 8/27/2019; contract under review for execution.	1/1/2020	12/31/2020
INVESTMENTS							
9.	BlackRock Institutional Trust, N.A.	Multi Passive Index	6/1/2013	5/31/2020	Board approved contract extension on 3/24/2020; negotiations in progress.	3/6/2020	8/31/2020

ATTACHMENT 1

LOS ANGELES CITY EMPLOYEES' RETIREMENT SYSTEM CONTRACTS LIST
FOR THE JUNE 9, 2020 BOARD MEETING

CONTRACTS UNDER CONSIDERATION FOR RENEWAL

NO.	VENDOR / CONSULTANT	DESCRIPTION	INCEPTION DATE	EXPIRATION DATE	MARKETING CESSATION STATUS	RESTRICTED PERIOD*	
						START	END
10.	Dimensional Fund Advisors, LP	Active U.S. Treasury Inflation Protected Securities ("TIPS")	7/1/2014	6/30/2020	Board approved contract extension on 5/26/2020; negotiations in progress.	1/10/2020	9/30/2020
11.	Barrow, Hanley, Mewhinney & Strauss, LLC	Active Non-U.S. Equities Developed Markets Value	10/1/2013	9/30/2020	Investment Committee to consider contract on 6/9/2020.	6/5/2020	12/31/2020

Start Date - The estimated start date of the restricted period is three (3) months prior to the expiration date of the current contract. No entertainment or gifts of any kind should be accepted from the restricted source as of this date. Firms intending to participate in the Request for Proposal process are also subject to restricted marketing and communications.

End Date - The estimated end date of the restricted period is three (3) months following the expiration date of the current contract. For investment-related contracts, the estimated end date is normally six (6) months following the expiration of the current contract. For health carrier contracts, the estimated end date is normally one (1) year following the expiration of the current contract. Estimated dates are based on contract negotiation periods from prior years.

ATTACHMENT 2

LOS ANGELES CITY EMPLOYEES' RETIREMENT SYSTEM
CONTRACTS LIST FOR THE JUNE 9, 2020 BOARD MEETING

ACTIVE RFPs AND RFQs

NO.	DESCRIPTION	MARKETING CESSATION STATUS AND VENDOR RESPONSES
		CITY ATTORNEY
1	Outside Fiduciary Counsel	**RFP Release Date:** February 7, 2020 **Submission Deadline:** February 28, 2020 **Status:** In progress. Expected to conclude July 2020. **List of Respondents:** Barnes & Thornburg LLP, Foley & Lardner LLP, Kutak Rock LLP, Olson Remcho LLP, Reed Smith LLP, Nossaman LLP, Hanson Bridgett LLP, Encore Law Group LLP
		INTERNAL AUDIT
2	External Auditor	**RFP Release Date:** March 2, 2020 **Submission Deadline:** April 17, 2020 **Status:** Clifton Larson Allen LLP, Eide Bailey LLP, and Moss Adams were selected as finalists. Final selection pending; to be presented to Board for approval at the June 9, 2020 Board meeting. **List of Respondents:** BDO USA, Brown Armstrong, CPA, Clifton Larson Allen LLP, Eide Bailey LLP, Macias, Ginni, and O'Connell, LLP, Moss Adams, Williams, Adley, and Company
		INVESTMENTS
3	Core Fixed Income Mandate Search	**RFP Release Date:** August 19, 2019 **Submission Deadline:** October 4, 2019 **Status:** In progress **List of Respondents:** Amundi Pioneer Institutional Asset Management, Inc., Baird Advisors, BlackRock, Inc., BMO Global Asset Management, Brown Brothers Harriman & Co., C.S. McKee, L. P., Calvert Research and Management (Calvert or CRM),Conning, Dimensional Fund Advisors LP, Dodge & Cox, EARNEST Partners, LLC, FIAM LLC, Galliard Capital Management, Garcia Hamilton & Associates, L.P., Goldman Sachs Asset Management L.P., Guggenheim Partners Investment Management, LLC, Income Research & Management, Integrity Fixed Income, Management, LLC, Invesco Advisers, Inc., J.P. Morgan Asset Management, Jennison Associates LLC, Lazard Asset Management LLC, LM Capital Group, LLC, Longfellow Investment Management Co., LLC, Loomis, Sayles & Company, L.P, Manulife Investment Management, MFS Institutional Advisors, Inc., Morgan Stanley Investment Management, National Investment Services, Neuberger Berman, Nuveen, LLC, Payden & Rygel, PGIM Fixed Income, Piedmont Investment Advisors, Inc., PIMCO, Princeton Asset Management, LLC, Progress Investment Management Company, LLC, Pugh Capital Management, Inc,. Quadratic Capital Management LLC, Ramirez Asset Management, Schroder Investment Management North America Inc., Securian Asset Management, Inc., Segall Bryant & Hamill, Sit Investment Associates, Inc. (Sit), SLC Management, Smith Graham & Co., Investment Advisors, L.P., Sterling Capital Management LLC, T. Rowe Price Associates, Inc., TCW Group, Inc., The Capital Group Companies,Inc., Voya Investment Management (Voya IM), Wellington Management Company LLP, Wells Fargo Asset Management, Western Asset Management Company, LLC

ATTACHMENT 2

LOS ANGELES CITY EMPLOYEES' RETIREMENT SYSTEM
CONTRACTS LIST FOR THE JUNE 9, 2020 BOARD MEETING

ACTIVE RFPs AND RFQs

NO.	DESCRIPTION	MARKETING CESSATION STATUS AND VENDOR RESPONSES
4	Emerging Market Debt Mandate Search	**RFP Release Date:** June 19, 2019 **Submission Deadline:** July 22, 2019 **Status:** On February 11, 2020, the Investment Committee advanced four firms as semi-finalists: Ashmore Investment Management; Wellington Management Company LLP; PGIM Fixed Income; Schroder Investment Management North America Inc. **List of Respondents:** Eaton Vance Management, Ashmore Investment Management, Capital Group, Fidelity Institutional Asset Management, GAM USA, INC., Northwest Passage Capital Advisors LLC, Payden & Rygel, PGIM Fixed Income, Schroder Investment Management North America Inc., Stone Harbor Investment Partners LP, LM Capital Group, Wellington Management Company LLP, Manulife Investment Management, Global Evolution USA LLC, GoldenTree Asset Management LP, Goldman Sachs Asset Management L.P., Investec Asset Management, Nuveen, A TIAA Company
5	Emerging Market Small Cap Equities Mandate Search	**RFP Release Date:** June 10, 2019 **Submission Deadline:** July 22, 2019 **Status:** On January 14, 2020, the Investment Committee advanced four firms as semi-finalists: Copper Rock Capital Partners, LLC; Macquarie Investment Management; RBC Global Management; Wasatch Advisors, Inc. **List of Respondents:** LMCG Investments, LLC, AQR Capital Management, LLC, Dimensional Fund Advisors LP, EAM Investors, LLC, Ashmore, Cedar Street Asset Management LLC, Copper Rock Capital Partners, LLC, FIAM LLC, Macquarie Investment Management, RBC Global Management, Inc., Capital, River and Mercantile LLC, Schroder Investment Management North America Inc., Somerset Capital Management LLP, Wasatch Advisors, Inc., Kayne Anderson Rudnick Investment Management, Franklin Templeton Investments, Globeflex Capital, LP, Quantitative Management Associates, LLC, State Street Global Advisors Distributor, LLC

LOS ANGELES CITY EMPLOYEES' RETIREMENT SYSTEM
CONTRACTS LIST FOR THE JUNE 9, 2020 BOARD MEETING

ACTIVE RFPs AND RFQs

NO.	DESCRIPTION	MARKETING CESSATION STATUS AND VENDOR RESPONSES
6	High Yield Fixed Income and Hybrid High Yield Fixed Income / U.S. Floating Rate Bank Loan Mandate Search	**RFP Release Date:** February 25, 2019 **Submission Deadline:** April 12, 2019 **Status:** On February 11, 2020, the Board awarded contracts to: High Yield Fixed Income - Loomis, Sayles & Company, L.P. Hybrid Fixed Income/Bank Loans - DDJ Capital Management, LLC Negotiations in progress. **List of Respondents:** Ares Management LLC, Arena Capital Advisors, LLC, Guggenheim Partners Investment Management, LLC, Aegon Asset Management US, MacKay Shields LLC, Post Advisory Group, LLC, Diamond Hill Capital Management, Inc., AXA Investment Managers, Pacific Asset Management, Mesirow Financial Investment Management, Inc., DDJ Capital Management, LLC, Par-Four Investment Management, LLC, PGIM Fixed Income, Beach Point Capital Management LP, KKR Credit, Barrings LLC, Eaton Vance Management, Brigade Capital Management, LP, Morgan Stanley Investment Management, Lord, Abbett & Co. LLC, BlackRock, Inc., L & S Advisors, Inc., Mellon Investments Corporation, Seix Investment Advisors LLC, Legal & General Investment Management, Principal Global, Bain Capital Credit, LP, Princeton Asset Management, LLC, Symphony Asset Management, LLC, PIMCO, The Capital Group Companies, Inc., Loomis, Sayles & Company, L.P., Credit Suisse Asset Management, LLC, J.P. Morgan Asset Management, Hotchkis and Wiley Capital Management, LLC, Northern Trust, CVC Credit Partners, LLC
7	U.S. Small Cap Equities Mandate Search	**RFP Release Date:** February 25, 2019 **Submission Deadline:** April 12, 2019 **Status:** On January 28, 2019, the Board awarded contracts to the following five firms: Core - Copeland Capital Management, LLC Growth - EAM Investors, LLC; Granahan Investment Management Value - Bernzott Capital Advisors; Segall Bryant & Hamill Negotiations in progress. **List of Respondents:** 361 Capital, LLC, Aberdeen Standard Investments Inc., Acuitas Investments, LLC, Alliance Bernstein AB, Allianz Global Investors AllianzGI, AltraVue Capital, LLC , American Century Investment Management, Inc., AMI Asset Management Corporation, Anchor Capital Advisors LLC, Ariel Investments, LLC, Aristotle Capital Boston, LLC, Axiom Investors , Baron Capital, Barrow, Hanley, Mewhinney, Strauss, LLC, Bernzott Capital Advisors, Bivium Capital Partners, LLC, BlackRock, Inc., BMO Global Asset Management, BNP Paribas Asset Management USA Inc., Boston Advisors, LLC, Boston Partners Global Investors, Inc., Bridge City Capital, LLC, Cadence Capital Management LLC, Capital Impact Advisors, LLC, Capital Prospects LLC, Ceredex Value Advisors LLC, ClearBridge Investments, LLC, Copeland Capital Management, LLC, Dimensional Fund Advisors LP, Driehaus Capital Management LLC, Eagle Asset Management, EAM Investors, LLC, EARNEST Partners, LLC, Eastern Shore Capital Management, a Division of Moody Aldrich Partners, LLC, Eaton Vance Management, Elk Creek Partners LLC, Falcon Point Capital, LLC, Federated MDTA, LLC, FIAM LLC, Fisher Investments, Franklin Advisers, Inc., Frontier Capital Management Company, LLC, Goldman Sachs Asset Management, Granahan Investment Management , Granite Investment Partners, LLC, Great Lakes Advisors, LLC, GW&K Investment Management, LLC

ATTACHMENT 2

LOS ANGELES CITY EMPLOYEES' RETIREMENT SYSTEM
CONTRACTS LIST FOR THE JUNE 9, 2020 BOARD MEETING

ACTIVE RFPs AND RFQs

NO.	DESCRIPTION	MARKETING CESSATION STATUS AND VENDOR RESPONSES
8	Private Credit Mandate Search	**RFP Release Date:** December 10, 2018 **Submission Deadline:** January 18, 2019 **Status:** On July 23, 2019, Board awarded contracts to Alcentra Limited, Benefit Street Partners L.L.C., Crescent Capital Group LP, and Monroe Capital LLC. On May 26, 2020, the Board rescinded the contract award to Alcentra Limited. Negotiations in progress. **List of Respondents:** Alcentra Limited, Barings LLC, MB Global Partners, LLC, Backcast Partners Management LLC, BlackRock, Inc., CLSA Capital Partners (HK) Limited, Cross Ocean Adviser LLP, Clearwater Capital Partners (Fiera Capital Corporation), Guggenheim Partners, LLC, Goldman Sachs Asset Management, L.P., Pemberton Capital Advisors LLP, Kayne Anderson Capital Advisors, L.P., Maranon Capital, L.P., Bain Capital Credit, LP, Breakwater Management LP, Carlyle Global Credit Investment Management L.L.C., Crescent Capital Group LP, MV Credit Partners LLP, New Mountain Capital, LLC, Park Square Capital USA LLC, Tor Investment Management (Hong Kong) Limited, AlbaCore Capital LLP, Muzinich & Co., Inc., Kartesia Management S.A., Medalist Partners, LP, NXT Capital Investment Advisers, LLC, Owl Rock Capital Partners, PennantPark Investment Advisers, PIMCO Investments LLC, Deerpath Capital Management, LP, Brightwood Capital Advisors, Magnetar Capital LLC, MC Credit Partners LP, Oaktree Capital Management, L.P., THL Credit Advisors LLC, White Oak Global Advisors, LLC, Benefit Street Partners L.L.C., EntrustPermal / Blue Ocean GP LLC, Willow Tree Credit Partners LP, Monroe Capital LLC, Runway Growth Capital LLC, Stellus Capital Management, LLC

***RESTRICTED PERIOD FOR REQUEST FOR PROPOSAL OR REQUEST FOR QUALIFICATIONS:**

Start Date - The restricted period commences on the day the Request for Proposal is released.

End Date - The restricted period ends on the day the contract is executed.

BENEFIT PAYMENTS APPROVED BY GENERAL MANAGER: ITEM V-B

Pursuant to the authority delegated to the General Manager under Board Rule GMA 1, General Manager Authorization, adopted by the Board of Administration on June 14, 2016, the following benefit payments have been approved by the General Manager:

SERVICE RETIREMENTS

Member Name	Service	Department	Classification
Ahlander, Laurie	30	Zoo Dept.	Animal Keeper
Almanza, David E	25	Dept. of Airports	Build Operating Engr
Alvarado, Frank L	32	GSD - Bldg. Svcs.	Roofer Supvr
Awakuni, Kit N	30	City Planning Dept.	City Planner
Bagheri, Mahmoud	22	Dept. of Transportation	Trans Engineer
Barksdale, Barry W	16	Dept. of Rec. & Parks	Electrician
Burnett, Fred W	36	PW - Engineering	Engrg Geologist
Campos, Mary Helen	34	Police Dept. - Civilian	Exec Admin Asst
Chic, Aldous L	30	Dept. of Bldg. & Safety	Structrl Engrg Assc
Chu, Judy	16	GSD - Public Bldgs.	Parking Attendant
Chung, Sherry	31	Information Technology Agency	Systems Programmer
Collins, Jay M	14	Dept. of Airports	Airport Police Sgt
Cortez, Jesus A	35	Dept. of Airports	Gardener Caretaker
Dai Core, Yan	30	PW - Engineering	Civil Engrg Assoc
De Guzman, Elizardo	21	Dept. of Airports	Commun Electrician
Decker, Eileen Maura	20	Mayor's Office	Deputy Mayor
Diaz, Myrna C	32	Harbor Dept.	Pr Accountant
Dinu, Valentin F	32	City Attorney's Office	Asst City Attorney
Farkas, Deborah	23	City Attorney's Office	Law Librarian
Felix, Elaine A	38	GSD - Materials Mgmt.	Storekeeper
Fletcher, David Eugene	31	PW - St. Maint.	St Svcs Supvr
Fox, Mitchell J	34	City Attorney's Office	Deputy City Atty
Friedman, Aaron R	30	City Attorney's Office	Deputy City Atty
Fu, Timothy T	33	PW - Engineering	Structrl Engrg Assc
Gilani, Cyrous A	27	PW - Sanitation	Sr Civil Engineer
Gomez, Manuel	30	PW - Sanitation	Solid Wste Disp Supt
Gregos, Gordon	12	GSD - Fleet Services	Equipmnt Mechanic
Harms, John R M	31	PW - St. Maint.	Motor Sweeper Operator
Hernandez, Nora B	31	Police Dept. - Civilian	Police Service Rep
Holme, Robert N	28	Harbor Dept.	Survey Party Chief
Howard, Beatrice J	35	Police Dept. - Civilian	Sr Administrative Clerk
Jones, Robert A	16	PW - Contract Administration	Constr Inspector
Keehn, Maryanne Teresa	22	Personnel Dept.	Ch Mgmt Analyst
Lao, Julius Mendoza	36	Police Dept. - Civilian	Sr Administrative Clerk
Law, Helen	34	PW - Sanitation	Sr Chemist
Lee, Jimmy	30	EWDD	Sr Systems Analyst

Liberman, Adi Eddie	6	COUNCIL	Council Aide
Marashi, Shokoufe	30	PW - Engineering	Environmental Supvr
Mattera, Georgia A	25	Controller's Office	Ch Deputy Controller
Mcneil, Helenia Renell	35	PW - Engineering	Administrative Clerk
Mejia, Samuel	14	GSD - Bldg. Svcs.	Carpenter
Minton, Juliette T	33	Library Dept.	Library Asst
Nakata, Mark Nobu	30	PW - Engineering	Sr Mgmt Analyst
Nguyen, Minh M	26	PW - Sanitation	Sr Systems Analyst
Niebla, Juan M	20	Dept. of Rec. & Parks	Gardener Caretaker
Onyejiji, Catherine	20	Personnel Dept.	Correctional Nurse
Pham, Cindy H	27	PW - Engineering	Sr Civil Engineer
Police, Ganise A	35	Police Dept. - Civilian	Management Analyst
Rodriguez, Guadalupe	15	Personnel Dept.	Administrative Clerk
Rosolowski, Karen C	2	Dept. of Rec. & Parks	Recreation Instructor
Royal, Kathleen Susan	26	Police Dept. - Civilian	Polygraph Examiner
Rubio, Angel E	32	PW - Sanitation	Maintenance Laborer
Sarno, Lisa W	22	El Pueblo	Asst Gm El Pueblo Hist
Siedorf, Debra	34	City Attorney's Office	Deputy City Atty
Sison, Nemesia T	30	PW - Admin Div.	Accounting Clerk
Smith, Keith A	23	Dept. of Airports	Airports Mtce Supvr
Spain, Bryan A	5	Dept. of Bldg. & Safety	Structural Eng Assoc
Stedman, Bryan E	35	Fire Dept. - Civilian	Commun Electrician Supv
Stepp, Karen L	18	Dept. of Animal Svcs.	Sr Animal Cont Ofcr
Tabares, Diego Romo	30	Police Dept. - Civilian	Forensic Prnt Spec
Tam, Esther	31	City Planning Dept.	Systems Programmer
Valenzuela, Richard J	28	PW - Sanitation	Ref Coll Truck Oper
Verger, Paul	35	City Planning Dept.	Systems Analyst
Virgo, Mark R	21	Dept. of Airports	Security Officer
Wang, Jenny M	33	GSD - Public Bldgs.	Management Analyst
Weng, Winston Vernhaur	25	Office of Finance	Systems Analyst
Wilson, Phillip M	30	PW - Engineering	Civil Engrg Assoc
Wong, Nathan Danyo	15	PW - Sanitation	Electrician
Yeomans, Donald A	30	GSD - Fleet Services	Welder Supervisor
Yew, Edmond	35	PW - Engineering	Pr Civil Engineer

BENEFIT PAYMENTS APPROVED BY GENERAL MANAGER: ITEM V-B

Pursuant to the authority delegated to the General Manager under Board Rule GMA 1, General Manager Authorization, adopted by the Board of Administration on June 14, 2016, the following benefit payments have been approved by the General Manager:

Approved Death Benefit Payments

Deceased	Beneficiary/Payee
TIER 1	
Aker, Bruce C	Brenda Kathleen Aker for the payment of the Accrued But Unpaid Service Retirement Allowance Burial Allowance
Bowlin, Marilyn	Christine Ann Hauser for the payment of the Accrued But Unpaid Service Retirement Allowance Burial Allowance
	Richard James Bowlin for the payment of the Accrued But Unpaid Service Retirement Allowance Burial Allowance
Christian, Carolyn J	Mark E Christian for the payment of the Accrued But Unpaid Continuance Allowance
Ciccarelli, Steven A	Clyde Anthony Ciccarelli for the payment of the Accrued But Unpaid Service Retirement Allowance Burial Allowance
Croft, David W	Gay A Croft for the payment of the Accrued But Unpaid Service Retirement Allowance Burial Allowance

Culling, Keith A W	Gregory Nevin Culling for the payment of the Burial Allowance
Daniel, Antonio H	Ernest Anthony Baca for the payment of the Burial Allowance Michael Joaquin Escarcega for the payment of the Burial Allowance
Davis, Icle J	Meschelle C Fleetwood for the payment of the Accrued But Unpaid Service Retirement Allowance
Deal, Glenn F	Sherry L Deal for the payment of the Accrued But Unpaid Service Retirement Allowance Burial Allowance
Eisenberg, Nancy A	Tristan Hall Eisenberg for the payment of the Accrued But Unpaid Continuance Allowance Unused Contributions
Figueroa, Jose L	Norman Michael Figueroa for the payment of the Accrued But Unpaid Service Retirement Allowance Burial Allowance
Gamero, Jorge	Adrian Jorge Gamero for the payment of the Accrued But Unpaid Vested Retirement Allowance Burial Allowance Unused Contributions Linda Virginia Gamero for the payment of the Accrued But Unpaid Vested Retirement Allowance Burial Allowance Unused Contributions

Glasgow, Lou Ann M	Cynthia Susan Glasgow for the payment of the Accrued But Unpaid Continuance Allowance
Gomez, Damian D	Maria Gomez for the payment of the Accrued But Unpaid Service Retirement Allowance Burial Allowance
Gordon, Willie R	Audrey Gordon for the payment of the Burial Allowance
Griffith, Lydia	Harry Joseph Griffith for the payment of the Accrued But Unpaid Continuance Allowance
Gutierrez, Esther S	Juanita Marie Gutierrez for the payment of the Accrued But Unpaid Continuance Allowance
Harris, John C	Deborah A Harris for the payment of the Accrued But Unpaid Service Retirement Allowance Burial Allowance
Harris, Matthew D	Michael Anthony Harris for the payment of the Accrued But Unpaid Service Retirement Allowance Burial Allowance
Headland, Joan L	Carol Ann Osborne for the payment of the Accrued But Unpaid Vested Retirement Allowance Burial Allowance

Heming, Douglas	Joyce H Jeavons for the payment of the Accrued But Unpaid Service Retirement Allowance Burial Allowance
Hughes, Duncan	Delcine Lavonne Hughes for the payment of the Burial Allowance
Jones, Alcue	Al Frederick Jones for the payment of the Accrued But Unpaid Service Retirement Allowance Burial Allowance
Kamps, Edward Joseph	Linda S Emry for the payment of the Accrued But Unpaid Disability Retirement Allowance Burial Allowance
Kidd, Felcie Leon	Cheryl Alesia Kidd for the payment of the Accrued But Unpaid Service Retirement Allowance Burial Allowance
Kinloch, James C	Leticia Ann Kinloch for the payment of the Accrued But Unpaid Service Retirement Allowance Burial Allowance
Langston, Drue E	Loyce E Langston for the payment of the Accrued But Unpaid Service Retirement Allowance Burial Allowance
Lewis, Edward Z	Agnes E Lewis for the payment of the Accrued But Unpaid Service Retirement Allowance Burial Allowance

Lindenauer, Alvin A	Patricia Ann Lindenauer for the payment of the Accrued But Unpaid Service Retirement Allowance Burial Allowance
Locke, Wauphis J	Barney Joseph Locke for the payment of the Accrued But Unpaid Service Retirement Allowance Burial Allowance
Mc Kenna, Dixon N	Marcia Maria Mc Kenna Patten for the payment of the Accrued But Unpaid Service Retirement Allowance Burial Allowance
Mcintyre, Robert	Delia J Williams for the payment of the Accrued But Unpaid Service Retirement Allowance
Molina, Valentine	Atilana G Molina for the payment of the Accrued But Unpaid Service Retirement Allowance Burial Allowance
Montavon, Dorothy M	Richard Lauren Beckman for the payment of the Accrued But Unpaid Continuance Allowance
Morales, Hortensia G	Yvonne Alarcon for the payment of the Accrued But Unpaid Continuance Allowance
Norton, Betty	Karen Sue Chaix for the payment of the Accrued But Unpaid Continuance Allowance

O Connor, Maureen Janice	Charles P O Connor for the payment of the Accrued But Unpaid Service Retirement Allowance Burial Allowance
	Victoria M O Connor for the payment of the Accrued But Unpaid Service Retirement Allowance Burial Allowance
Ortiz, Joel D	Margaret Ortiz for the payment of the Accrued But Unpaid Disability Retirement Allowance Burial Allowance
Pacificar, Teresita Villocino (Deceased Active)	Kevin O Obembe for the payment of the Accumulated Contributions
Palmetier, Audrey J	Rhonda Lynn Bohannan for the payment of the Accrued But Unpaid Vested Retirement Allowance Burial Allowance
Purser, David W	June E Purser for the payment of the Accrued But Unpaid Service Retirement Allowance
Remy, Raymond	Sandra Phyllis Remy for the payment of the Accrued But Unpaid Vested Retirement Allowance
Reynolds, Mary Lillian	Joseph Lee Broussard for the payment of the Accrued But Unpaid Service Retirement Allowance Burial Allowance Unused Contributions

Roney, Marjorie N	Rose Marie Hocker for the payment of the Accrued But Unpaid Continuance Allowance
Ross, Edward S	Jeff D Ross for the payment of the Accrued But Unpaid Vested Retirement Allowance Burial Allowance
Sanchez, Edward	Katherine Marie Soto for the payment of the Accrued But Unpaid Service Retirement Allowance Burial Allowance
Santiso, P E	Lili Marlene Carroll for the payment of the Accrued But Unpaid Vested Retirement Allowance Burial Allowance Michael Shayne Carroll for the payment of the Accrued But Unpaid Vested Retirement Allowance Burial Allowance
Schartau, Martin R	Shelly Renee Schartau for the payment of the Burial Allowance
Shon, Helen L	Marshall Young Lyou for the payment of the Accrued But Unpaid Continuance Allowance
Smith, Bernice	Crystal Louise Cooper-Smith for the payment of the Accrued But Unpaid Continuance Allowance Ronald Smith for the payment of the Accrued But Unpaid Continuance Allowance

Smith, Paul R	Sallye J Smith for the payment of the Accrued But Unpaid Service Retirement Allowance Burial Allowance
Sugar, Vincent	Diane Marie Aguilar for the payment of the Accrued But Unpaid Service Retirement Allowance Burial Allowance Kathleen Lucille Reeb for the payment of the Accrued But Unpaid Service Retirement Allowance Burial Allowance
Sison, Nemesia T	Emi T Vishoot for the payment of the Accrued But Unpaid Continuance Allowance
Testa, Barbara	Catherine Sue Schaller for the payment of the Accrued But Unpaid Service Retirement Allowance Burial Allowance
Vail, Candace Faye	Kristine M Olsen for the payment of the Accrued But Unpaid Service Retirement Allowance Burial Allowance
Walton, Nancy J	Idalis Dawn Walton for the payment of the Accrued But Unpaid Service Retirement Allowance Jeffrey Michael Walton for the payment of the Burial Allowance Joshwa Michael Walton for the payment of the Accrued But Unpaid Service Retirement Allowance

Watts, Leonard F	Maria E Watts for the payment of the Accrued But Unpaid Service Retirement Allowance Burial Allowance Unused Contributions
Williams, Keith L	Ellen Teresa Williams for the payment of the Accrued But Unpaid Service Retirement Allowance Burial Allowance
Wolfberg, George S	Diane Wolfberg for the payment of the Accrued But Unpaid Service Retirement Allowance Burial Allowance
Yoshino, Helen S	Gail Yuriko Gee for the payment of the Accrued But Unpaid Continuance Allowance

TIER 3
NONE

LACERS
LOS ANGELES CITY EMPLOYEES' RETIREMENT SYSTEM

REPORT TO BOARD OF ADMINISTRATION **MEETING: JUNE 9, 2020**
From: Neil M. Guglielmo, General Manager **ITEM: V-C**

SUBJECT: **EDUCATION AND TRAVEL EXPENDITURE REPORT FOR THE QUARTER ENDING MARCH 31, 2020**

ACTION: ☐ CLOSED: ☐ CONSENT: ☐ RECEIVE & FILE: ☒

Recommendation

That the Board receive and file this report.

Executive Summary

A report of Board and staff travel expenditures is provided to the Board on a quarterly basis pursuant to the Board Education and Travel Policy. The total travel expenditure for the quarter ending March 31, 2020 was $97,217.25 or 39.5% of the $245,845.00 total budget for Fiscal Year 2019-20.

	FY 2019-20 Budget	Quarter Ending 03/31/20		Year-to-Date	
		Amount	Budget %	Amount	Budget %
Board	$ 30,000.00	$ 1,589.29	5.3%	$ 14,265.75	47.6%
Staff	$126,695.00	$ 5,267.51	4.2%	$ 47,876.04	37.8%
Investment Administration	$ 89,150.00	$ 11,630.87	13.0%	$ 35,075.46	39.3%
Total	$245,845.00	$ 18,487.67	7.5%	$ 97,217.25	39.5%

Discussion

The attached report details the travel expenses for educational conferences attended by Board Members; investment due diligence visits conducted by Investment Division staff; and educational conferences and training courses attended by Los Angeles City Employees' Retirement System (LACERS) staff during the Fiscal Year 2019-20. The reported costs include registration and airfare expenditures paid directly by LACERS, as well as the amount reimbursed to Board Members and staff.

This report was prepared by Mikyong Jang, Departmental Chief Accountant IV.

NM:TB:MJ:LB

Attachment: 1) LACERS Board and Staff Education, Training, Investment Administration and Related Travel Quarterly Expenditure Report

LOS ANGELES CITY EMPLOYEES' RETIREMENT SYSTEM
BOARD MEMBERS' EDUCATION AND RELATED TRAVEL REPORT
FOR THE PERIOD JULY 1, 2019 TO MARCH 31, 2020

BOARD MEMBER	TRAVEL EXPENDITURES QE 03/31/20	TRAVEL EXPENDITURES YTD AS OF 03/31/20	ANNUAL MAX. AMT./TRUSTEE[1]	BALANCE TO ANNUAL MAX. LIMIT
CYNTHIA RUIZ	$ -	$ 4,722.26	$ 10,000.00	$ 5,277.74
ANNIE CHAO	468.65	3,006.44	10,000.00	6,993.56
ELIZABETH LEE	-	4,064.11	10,000.00	5,935.89
SANDRA LEE	-	12.00	10,000.00	9,988.00
NILZA SERRANO	-	-	10,000.00	10,000.00
SUNG WON SOHN	1,120.64	1,120.64	10,000.00	8,879.36
MICHAEL WILKINSON	-	1,340.30	10,000.00	8,659.70
TOTAL BOARD MEMBERS' TRAVEL EXP. & ANNUAL LIMIT	**$ 1,589.29**	**$ 14,265.75**	**$ 70,000.00**	**N/A**
TOTAL BOARD MEMBERS' TRAVEL EXPENSE BUDGET (%)[2]	**5.3%**	**47.6%**		

[1] Annual maximum travel expenditures limit per trustee is set at $10,000.
[2] Calculated as a percentage of the $30,000 FY20 budget allocation for Board travel.

LOS ANGELES CITY EMPLOYEES' RETIREMENT SYSTEM
BOARD MEMBERS' EDUCATION AND RELATED TRAVEL EXPENDITURE REPORT
FOR THE PERIOD JULY 1, 2019 TO MARCH 31, 2020

NAME	ORGANIZATION	CONFERENCE TITLE	LOCATION	START DATE	END DATE	REGISTRATION	AIRFARE	LODGING	OTHER TRAVEL EXP.	TOTAL EXPENSE
ELIZABETH LEE	STATE ASSOCIATION OF COUNTY RETIREMENT SYSTEMS (SACRS)	MODERN INVESTMENT THEORY & PRACTICE FOR RETIREMENT SYSTEMS	BERKELEY, CA	07/21/19	07/24/19	$ 2,500.00	$ 186.96	$ 1,093.74	$ 283.41	$ 4,064.11
CYNTHIA RUIZ	PRINCIPLES FOR RESPONSIBLE INVESTMENT (PRI) ASSOCIATION	PRI IN PERSON 2019	PARIS, FRANCE	09/08/19	09/13/19	1,302.45	1,449.03	1,343.90	626.88	4,722.26
ANNIE CHAO	NATIONAL CONFERENCE ON PUBLIC EMPLOYEE RETIREMENT SYSTEMS (NCPERS)	2019 PUBLIC PENSION FUNDING FORUM	NEW YORK, NY	09/10/19	09/13/19	685.00	296.60	1,177.47	378.72	2,537.79
SANDRA LEE[1]	COUNCIL OF INSTITUTIONAL INVESTORS (CII)	PENSION FUND TRUSTEE TRAINING - FIDUCIARY FITNESS	BERKELEY, CA	10/03/19	10/04/19	-	12.00	-	-	12.00
MICHAEL WILKINSON[2]	STATE ASSOCIATION OF COUNTY RETIREMENT SYSTEMS (SACRS)	SACRS FALL 2019 CONFERENCE	MONTEREY, CA	11/12/19	11/15/19	120.00	136.08	673.74	410.48	1,340.30
ANNIE CHAO	CALIFORNIA ASSOCIATION OF PUBLIC RETIREMENT SYSTEMS (CALAPRS)	CALAPRS GENERAL ASSEMBLY 2020	RANCHO MIRAGE, CA	03/08/20	03/09/20	-	-	271.15	197.50	468.65
SUNG WON SOHN	CALIFORNIA ASSOCIATION OF PUBLIC RETIREMENT SYSTEMS (CALAPRS)	CALAPRS GENERAL ASSEMBLY 2020	RANCHO MIRAGE, CA	03/08/20	03/10/20	-	-	403.88	236.76	640.64
SUNG WON SOHN[3]	INTERNATIONAL ATLANTIC ECONOMIC SOCIETY (IAES)	89TH INTERNATIONAL ATLANTIC ECONOMIC CONFERENCE	ROME, ITALY	03/24/20	03/29/20	480.00	-	-	-	480.00
BOARD MEMBERS' EDUCATION AND RELATED TRAVEL EXPENDITURES FOR THE 1ST QUARTER ENDING 09/30/19:						**$ 4,487.45**	**$ 1,932.59**	**$ 3,615.11**	**$ 1,289.01**	**$ 11,324.16**
BOARD MEMBERS' EDUCATION AND RELATED TRAVEL EXPENDITURES FOR THE 2ND QUARTER ENDING 12/31/19:						**$ 120.00**	**$ 148.08**	**$ 673.74**	**$ 410.48**	**$ 1,352.30**
BOARD MEMBERS' EDUCATION AND RELATED TRAVEL EXPENDITURES FOR THE 3RD QUARTER ENDING 03/31/20:						**$ 480.00**	**$ -**	**$ 675.03**	**$ 434.26**	**$ 1,589.29**
YTD TRAVEL EXPENDITURES / ANNUAL BUDGET FOR BOARD EDUCATION AND TRAVEL (AMOUNT & %):						**$14,265.75**		**$30,000.00**		**47.6%**
YTD BOARD MEMBERS' TRAVEL EXPENDITURES / ANNUAL BUDGET FOR ALL DEPARTMENT TRAVEL (AMOUNT & %):						**$14,265.75**		**$245,845.00**		**5.8%**

[1] Event and airfare were cancelled. Only $12 booking fee was charged.
[2] Registration excluded $10 Fun Run fee paid back to LACERS by the traveller.
[3] Event was cancelled. Staff has been working on Refund request with the organization for the Registration fee of $480.

LOS ANGELES CITY EMPLOYEES' RETIREMENT SYSTEM
STAFF EDUCATION AND RELATED TRAVEL EXPENDITURE REPORT
FOR THE PERIOD JULY 1, 2019 TO MARCH 31, 2020

NAME	ORGANIZATION	CONFERENCE TITLE	LOCATION	START DATE	END DATE	REGISTRATION	AIRFARE	LODGING	OTHER TRAVEL EXP.	TOTAL EXPENSE
MIGUEL BAHAMON[1]	INSTITUTIONAL LIMITED PARTNERS ASSOCIATION (ILPA)	THE ILPA INSTITUTE LEVEL II MODULE 1	CHICAGO, IL	07/14/19	07/16/19	$ 1,499.00	$ 487.60	$ 467.26	$ 235.85	$ 2,689.71
BRIAN CHA[1]	INTERNATIONAL FOUNDATION OF EMPLOYEE BENEFIT PLANS (IFEBP)	FRAUD PREVENTION INSTITUTE FOR EMPLOYEE BENEFIT PLANS	CHICAGO, IL	07/14/19	07/16/19	-	462.60	97.78	244.34	804.72
JULIE GUAN	HYLAND	HYLAND COMMUNITY LIVE	CLEVELAND, OH	09/14/19	09/19/19	2,395.00	420.60	1,042.70	454.56	4,312.86
LAURIE TRAN[2]	HYLAND	HYLAND COMMUNITY LIVE	CLEVELAND, OH	09/14/19	09/20/19	2,395.00	440.60	1,251.24	383.96	4,470.80
BRIAN CHA	LRS RETIREMENT SOLUTIONS	PENSIONGOLD TEAMING CONFERENCE 2019	SPRINGFIELD, IL	09/16/19	09/19/19	-	495.83	369.51	265.75	1,131.09
TODD BOUEY	LRS RETIREMENT SOLUTIONS	PENSIONGOLD TEAMING CONFERENCE 2019	SPRINGFIELD, IL	09/16/19	09/19/19	-	671.04	369.51	416.78	1,457.33
LIN LIN	INTERNATIONAL PUBLIC MANAGEMENT ASSOCIATION FOR HUMAN RESOURCES (IPMA-HR)	2019 IPMA-HR INTERNATIONAL TRAINING CONFERENCE & EXPO	MIAMI, FL	09/22/19	09/25/19	669.00	537.00	505.11	213.33	1,924.44
CHARLENA FREEMAN	INTERNATIONAL PUBLIC MANAGEMENT ASSOCIATION FOR HUMAN RESOURCES (IPMA-HR)	2019 IPMA-HR INTERNATIONAL TRAINING CONFERENCE & EXPO	MIAMI, FL	09/22/19	09/25/19	669.00	537.00	-	199.00	1,405.00
JOHN KOONTZ	DISASTER RECOVERY JOURNAL (DRJ)	DRJ FALL 2019	PHOENIX, AZ	09/29/19	10/02/19	1,345.50	-	790.23	533.13	2,668.86
TODD BOUEY	BOXWORKS	BOXWORKS 2019	SAN FRANCISCO, CA	10/02/19	10/04/19	100.00	197.64	608.58	235.76	1,141.98
ALELI CAPATI	BOXWORKS	BOXWORKS 2019	SAN FRANCISCO, CA	10/02/19	10/04/19	100.00	176.60	649.14	197.13	1,122.87
ISAIAS CANTU	BOXWORKS	BOXWORKS 2019	SAN FRANCISCO, CA	10/02/19	10/04/19	100.00	216.52	792.94	263.98	1,373.44
LITA PAYNE[3]	CALIFORNIA ASSOCIATION OF PUBLIC RETIREMENT SYSTEMS (CALAPRS)	CALAPRS INTERMEDIATE COURSE IN RETIREMENT PLAN ADMINISTRATION	SAN JOSE, CA	10/16/19	10/17/19	-	12.00	280.67	101.79	394.46
TODD BOUEY	CALIFORNIA ASSOCIATION OF PUBLIC RETIREMENT SYSTEMS (CALAPRS)	CALAPRS INTERMEDIATE COURSE IN RETIREMENT PLAN ADMINISTRATION	SAN JOSE, CA	10/16/19	10/18/19	-	334.55	616.30	147.00	1,097.85

LOS ANGELES CITY EMPLOYEES' RETIREMENT SYSTEM
STAFF EDUCATION AND RELATED TRAVEL EXPENDITURE REPORT
FOR THE PERIOD JULY 1, 2019 TO MARCH 31, 2020

NAME	ORGANIZATION	CONFERENCE TITLE	LOCATION	START DATE	END DATE	REGISTRATION	AIRFARE	LODGING	OTHER TRAVEL EXP.	TOTAL EXPENSE
LADY SMITH	INTERNATIONAL FOUNDATION OF EMPLOYEE BENEFIT PLANS (IFEBP)	65TH ANNUAL EMPLOYEE BENEFITS CONFERENCE	SAN DIEGO, CA	10/19/19	10/23/19	1,595.00	-	1,077.40	437.88	3,110.28
BRUCE BERNAL	INTERNATIONAL FOUNDATION OF EMPLOYEE BENEFIT PLANS (IFEBP)	65TH ANNUAL EMPLOYEE BENEFITS CONFERENCE	SAN DIEGO, CA	10/20/19	10/23/19	1,595.00	-	808.05	370.88	2,773.93
DELIA HERNANDEZ[4]	NATIONAL CONFERENCE ON PUBLIC EMPLOYEE RETIREMENT SYSTEMS (NCPERS)	2019 PUBLIC SAFETY CONFERENCE	NEW ORLEANS, LA	10/26/19	10/26/19	-	322.18	-	-	322.18
ANNA INGRAM[4]	NATIONAL CONFERENCE ON PUBLIC EMPLOYEE RETIREMENT SYSTEMS (NCPERS)	2019 PUBLIC SAFETY CONFERENCE	NEW ORLEANS, LA	10/26/19	10/26/19	-	322.18	-	-	322.18
FERRALYN SNEED	NATIONAL CONFERENCE ON PUBLIC EMPLOYEE RETIREMENT SYSTEMS (NCPERS)	2019 PUBLIC SAFETY CONFERENCE	NEW ORLEANS, LA	10/27/19	10/30/19	715.00	322.18	839.16	268.50	2,144.84
ANN SEALES	NATIONAL CONFERENCE ON PUBLIC EMPLOYEE RETIREMENT SYSTEMS (NCPERS)	2019 PUBLIC SAFETY CONFERENCE	NEW ORLEANS, LA	10/27/19	10/30/19	715.00	322.18	839.16	269.00	2,145.34
MARIA REJUSO	ASSOCIATION OF PUBLIC PENSION FUND AUDITORS (APPFA)	PROFESSIONAL DEVELOPMENT CONFERENCE	LAKE TAHOE, CA	10/27/19	10/30/19	425.00	279.60	338.96	381.68	1,425.24
TIFFANY OBEMBE	LACERS	2020 OPEN ENROLLMENT MEETING	LAS VEGAS, NV	11/06/19	11/07/19	-	156.60	79.09	168.26	403.95
GABRIEL PEREZ	LACERS	2020 OPEN ENROLLMENT MEETING	LAS VEGAS, NV	11/06/19	11/07/19	-	207.96	79.09	144.91	431.96
HEATHER RAMIREZ	LACERS	2020 OPEN ENROLLMENT MEETING	LAS VEGAS, NV	11/06/19	11/07/19	-	-	79.09	375.74	454.83
JESUS NAVARRO	LACERS	2020 OPEN ENROLLMENT MEETING	LAS VEGAS, NV	11/06/19	11/07/19	-	187.56	79.09	151.34	417.99
KRISTAL BALDWIN	LACERS	2020 OPEN ENROLLMENT MEETING	LAS VEGAS, NV	11/06/19	11/07/19	-	303.96	79.09	145.50	528.55
BRUCE BERNAL	LACERS	2020 OPEN ENROLLMENT MEETING	LAS VEGAS, NV	11/06/19	11/07/19	-	-	79.09	367.73	446.82
VIKRAM JADHAV	MSE PARTNERS, LLC	EXPERIENCE AND LOYALTY FORUM	TAMPA, FL	11/13/19	11/16/19	-	274.00	483.64	348.78	1,106.42

LOS ANGELES CITY EMPLOYEES' RETIREMENT SYSTEM
STAFF EDUCATION AND RELATED TRAVEL EXPENDITURE REPORT
FOR THE PERIOD JULY 1, 2019 TO MARCH 31, 2020

NAME	ORGANIZATION	CONFERENCE TITLE	LOCATION	START DATE	END DATE	REGISTRATION	AIRFARE	LODGING	OTHER TRAVEL EXP.	TOTAL EXPENSE
NEIL GUGLIELMO[5]	SAHAR GLOBAL SUMMITS	3RD ANNUAL PRIVATE EQUITY INVESTOR SUMMIT	NEW YORK, NY	12/02/19	12/04/19	-	578.61	-	-	578.61
ANYA FREEDMAN	NATIONAL ASSOCIATION OF PUBLIC PENSION ATTORNEYS (NAPPA)	2020 WINTER SEMINAR	TEMPE, AZ	02/18/20	02/20/20	485.00	189.96	522.44	186.95	1,384.35
MIGUEL BAHAMON	NATIONAL ASSOCIATION OF PUBLIC PENSION ATTORNEYS (NAPPA)	2020 WINTER SEMINAR	TEMPE, AZ	02/18/20	02/20/20	585.00	233.03	564.65	182.21	1,564.89
JAMES NAPIER	NATIONAL ASSOCIATION OF PUBLIC PENSION ATTORNEYS (NAPPA)	2020 WINTER SEMINAR	TEMPE, AZ	02/18/20	02/21/20	555.00	241.45	783.66	274.36	1,854.47
TODD BOUEY[6]	C40 CITIES	C40 DIVEST/INVEST FORUM WORKSHOP	NEW YORK, NY	03/15/20	03/18/20	-	463.80	-	-	463.80
TOTAL STAFF TRAVEL EXPENDITURES FOR THE 1ST QUARTER ENDING 09/30/19:						**$ 8,972.50**	**$ 4,052.27**	**$ 4,893.34**	**$ 2,946.70**	**$ 20,864.81**
TOTAL STAFF TRAVEL EXPENDITURES FOR THE 2ND QUARTER ENDING 12/31/19:						**$ 5,345.00**	**$ 4,214.32**	**$ 7,808.54**	**$ 4,375.86**	**$ 21,743.72**
TOTAL STAFF TRAVEL EXPENDITURES FOR THE 3RD QUARTER ENDING 03/31/20:						**$ 1,625.00**	**$ 1,128.24**	**$ 1,870.75**	**$ 643.52**	**$ 5,267.51**
YTD TRAVEL EXPENDITURES / ANNUAL BUDGET FOR STAFF TRAVEL (AMOUNT & %):						**$47,876.04**		**$126,695.00**		**37.8%**
YTD STAFF TRAVEL EXPENDITURES / ANNUAL BUDGET FOR ALL DEPARTMENT TRAVEL (AMOUNT & %):						**$47,876.04**		**$245,845.00**		**19.5%**

[1] Funded by the Travel Budget of Fiscal Year 2018-19.
[2] Includes $12 service fees erroneously charged by the travel agency which was credited later.
[3] Airfare credit of $107.96 was applied for this travel.
[4] Travel was cancelled. Southwest airline credits with expiration date of 08/10/20, were received for the airfare paid excluding the $12 service fees.
[5] Travel was cancelled. United Airlines credit with expiration date of 08/08/20, was received for the airfare paid excluding the $12 service fee.
[6] Travel was cancelled. Jet Blue Airways credit with expiration date of 02/13/21, was received for the airfare paid excluding the $12 service fee.

LOS ANGELES CITY EMPLOYEES' RETIREMENT SYSTEM
INVESTMENT ADMINISTRATION AND RELATED TRAVEL EXPENDITURE REPORT
FOR THE PERIOD JULY 1, 2019 TO MARCH 31, 2020

NAME	ORGANIZATION	CONFERENCE TITLE	LOCATION	START DATE	END DATE	REGISTRATION	AIRFARE	LODGING	OTHER TRAVEL EXP.	TOTAL EXPENSE
EDUARDO PARK	THE PENSION BRIDGE	THE PRIVATE EQUITY EXCLUSIVE	CHICAGO, IL	07/22/19	07/24/19	$ -	$ 438.61	$ 716.16	$ 229.12	$ 1,383.89
RODNEY JUNE	THE ASSOCIATION OF ASIAN AMERICAN INVESTMENT MANAGERS (AAAIM)	AAAIM NATIONAL CONFERENCE 2019	NEW YORK, NY	09/03/19	09/05/19	-	461.60	299.90	227.00	988.50
WILKIN LY	NOSSAMAN LLP / INSTITUTIONAL LIMITED PARTNERS ASSOCIATION (ILPA)	NOSSAMAN'S 2019 PUBLIC PENSIONS AND INVESTMENTS FIDUCIARIES' FORUM / ILPA MEETING	BERKELEY, CA / OAKLAND, CA	09/04/19	09/06/19	395.00	206.60	359.34	219.78	1,180.72
BARBARA SANDOVAL	EAM INVESTORS, LLC	DUE DILIGENCE	CARDIFF-BY-THE-SEA, CA	09/11/19	09/11/19	-	-	-	78.50	78.50
BRYAN FUJITA	EAM INVESTORS, LLC	DUE DILIGENCE	CARDIFF-BY-THE-SEA, CA	09/11/19	09/11/19	-	-	-	60.67	60.67
ROBERT KING	EAM INVESTORS, LLC	DUE DILIGENCE	CARDIFF-BY-THE-SEA, CA	09/11/19	09/11/19	-	-	-	85.25	85.25
BARBARA SANDOVAL	WILLIAM BLAIR INVESTMENT MANAGEMENT / SEGALL BRYANT & HAMILL	DUE DILIGENCE	CHICAGO, IL	09/23/19	09/25/19	-	358.61	990.91	257.89	1,607.41
RODNEY JUNE	INSTITUTIONAL LIMITED PARTNERS ASSOCIATION (ILPA)	3RD ANNUAL CIO SYMPOSIUM	CAMBRIDGE, MA	09/24/19	09/25/19	-	315.30	-	195.77	511.07
EDUARDO PARK[1]	ASANA PARTNERS	2019 ASANA PARTNERS ANNUAL MEETING	DALLAS, TX	09/25/19	09/26/19	-	393.61	356.15	165.87	915.63
EDUARDO PARK	INVESTMENT COUNSELORS OF MARYLAND, LLC, CLEARBRIDGE INVESTMENTS, LLC, AND COPELAND CAPITAL MGT, LLC	DUE DILIGENCE	BALTIMORE, MD AND CONSHOHOCKEN, PA	10/01/19	10/03/19	-	479.30	212.53	434.80	1,126.63
EDUARDO PARK	GRANAHAN INVESTMENT MGT., WESTFIELD CAPITAL MGT, LISANTI CAPITAL GROWTH, LLC, AND QMA LLC	DUE DILIGENCE	WALTHAM, MA; BOSTON, MA; NEW YORK, NY; NEWARK, NJ	10/07/19	10/11/19	-	682.60	1,397.35	634.66	2,714.61
ROBERT KING	TORREYCOVE CAPITAL PARTNERS, LLC	DUE DILIGENCE	SAN DIEGO, CA	10/10/19	10/10/19	-	-	-	118.09	118.09
RODNEY JUNE	PACIFIC CENTER FOR ASSET MANAGEMENT (PCAM)	DUE DILIGENCE	LA JOLLA, CA	10/11/19	10/11/19	-	-	-	49.00	49.00
EDUARDO PARK	PENSION REAL ESTATE ASSOCIATION (PREA)	29TH ANNUAL INSTITUTIONAL INVESTOR CONFERENCE	WASHINGTON, DC	10/15/19	10/18/19	150.00	609.60	827.64	387.32	1,974.56
RODNEY JUNE	CALIFORNIA ASSOCIATION OF PUBLIC RETIREMENT SYSTEMS (CALAPRS)	CALAPRS INTERMEDIATE COURSE IN RETIREMENT PLAN ADMINISTRATION	SAN JOSE, CA	10/17/19	10/17/19	-	87.96	-	73.91	161.87

LOS ANGELES CITY EMPLOYEES' RETIREMENT SYSTEM
INVESTMENT ADMINISTRATION AND RELATED TRAVEL EXPENDITURE REPORT
FOR THE PERIOD JULY 1, 2019 TO MARCH 31, 2020

NAME	ORGANIZATION	CONFERENCE TITLE	LOCATION	START DATE	END DATE	REGISTRATION	AIRFARE	LODGING	OTHER TRAVEL EXP.	TOTAL EXPENSE
WILKIN LY	VISTA EQUITY PARTNERS	2019 VISTA ANNUAL GENERAL MEETING	NEW YORK, NEW YORK	10/23/19	10/24/19	-	540.59	-	158.60	699.19
BRYAN FUJITA	KKR CREDIT	DUE DILIGENCE	SAN FRANCISCO, CA	10/28/19	10/28/19	-	410.60	-	44.30	454.90
ROBERT KING	KKR CREDIT AND MARKETS GROUP	DUE DILIGENCE & 3RD ANNUAL PRIVATE EQUITY FALL FORUM	SAN FRANCISCO, CA	10/28/19	10/30/19	-	309.60	392.68	262.09	964.37
BRYAN FUJITA	MORGAN STANLEY	DUE DILIGENCE	NEW YORK, NY	11/04/19	11/05/19	-	476.60	308.94	195.50	981.04
ROBERT KING	LOOMIS SAYLES & CO; RHUMBLINE; DDJ CAPITAL MGT., LLC	DUE DILIGENCE	BOSTON, MA	11/04/19	11/07/19	-	452.60	943.79	393.38	1,789.77
EDUARDO PARK	INVESCO CORE REAL ESTATE	2019 INVESCO CORE REAL ESTATE GLOBAL CLIENT CONFERENCE	LA JOLLA, CA	11/05/19	11/07/19	-	82.20	-	136.50	218.70
RODNEY JUNE	KPS CAPITAL PARTNERS, LP	DUE DILIGENCE	MIAMI, FL	11/05/19	11/08/19	-	411.00	-	195.18	606.18
ROBERT KING	GROSVENOR CAPITAL MANAGEMENT (GCM)	GCM GROSVENOR SMALL & EMERGING MANAGERS CONFERENCE	CHICAGO, IL	11/13/19	11/15/19	-	408.60	523.62	265.24	1,197.46
RODNEY JUNE	GROSVENOR CAPITAL MANAGEMENT (GCM)	GCM GROSVENOR SMALL & EMERGING MANAGERS CONFERENCE	CHICAGO, IL	11/14/19	11/15/19	-	350.60	362.77	176.50	889.87
ROBERT KING	AEGON ASSET MANAGEMENT	DUE DILIGENCE	CEDAR RAPIDS, IA	11/18/19	11/19/19	-	904.00	97.58	187.15	1,188.73
RODNEY JUNE	SAHAR GLOBAL SUMMIT	3RD ANNUAL PRIVATE EQUITY INVESTOR SUMMIT	NEW YORK, NY	12/02/19	12/04/19	-	541.60	690.92	265.46	1,497.98
BARBARA SANDOVAL	OPAL GROUP	PUBLIC FUNDS SUMMIT	SCOTTSDALE, AZ	01/06/20	01/08/20	-	356.00	495.99	221.75	1,073.74
RODNEY JUNE	NATIONAL ASSOCIATION OF SECURITIES PROFESSIONALS (NASP)	DIVERSE & EMERGING MANAGER FORUM & KICK OFF RECEPTION	CHICAGO, IL	01/15/20	01/17/20	-	317.60	174.93	200.50	693.03
RODNEY JUNE	NEPC, LLC	2020 PUBLIC FUNDS WORKSHOP	TEMPE, AZ	02/03/20	02/05/20	-	157.96	563.40	125.25	846.61
EDUARDO PARK	MACQUARIE CAPITAL	DUE DILIGENCE	SAN DIEGO, CA	02/10/20	02/10/20	-	-	-	94.07	94.07

LOS ANGELES CITY EMPLOYEES' RETIREMENT SYSTEM
INVESTMENT ADMINISTRATION AND RELATED TRAVEL EXPENDITURE REPORT
FOR THE PERIOD JULY 1, 2019 TO MARCH 31, 2020

NAME	ORGANIZATION	CONFERENCE TITLE	LOCATION	START DATE	END DATE	REGISTRATION	AIRFARE	LODGING	OTHER TRAVEL EXP.	TOTAL EXPENSE
BRYAN FUJITA	MACQUARIE CAPITAL	DUE DILIGENCE	SAN DIEGO, CA	02/10/20	02/10/20	-	-	-	68.66	68.66
ELLEN CHEN	PENSION BRIDGE	PENSION BRIDGE ESG SUMMIT 2020	SAN DIEGO, CA	02/10/20	02/11/20	-	-	350.63	252.14	602.77
BRYAN FUJITA	AKSIA & MACQUARIE CAPITAL	DUE DILIGENCE	NEW YORK, NY & PHILADELPHIA, PA	02/11/20	02/13/20	-	805.60	376.07	508.35	1,690.02
WILKIN LY	TEACHER RETIREMENT SYSTEM OF TEXAS (TRST); EMPLOYEES RETIREMENT SYSTEM OF TEXAS (ERST); DIMENSIONAL FUND ADVISORS (DFA)	2020 EMERGING MANAGER CONFERENCE; DUE DILIGENCE - DFA	AUSTIN, TEXAS	02/25/20	02/27/20	-	367.79	351.00	262.91	981.70
RODNEY JUNE	ENVIRONMENTAL, SOCIAL AND GOVERNANCE (ESG)	DUE DILIGENCE / ESG IQ FORUM	NEW YORK, NY	02/25/20	02/27/20	-	266.80	109.81	246.50	623.11
EDUARDO PARK	COPPER ROCK CAPITAL PARTNERS LLC	DUE DILIGENCE	BOSTON, MA	02/26/20	02/27/20	-	468.80	257.60	244.27	970.67
EDUARDO PARK	WASATCH ADVISORS INC	DUE DILIGENCE	SALT LAKE CITY, UT	03/01/20	03/02/20	-	268.81	163.90	188.28	620.99
ROBERT KING	THOMA BRAVO	DUE DILIGENCE	SAN FRANCISCO, CA	03/02/20	03/03/20	-	200.80	295.96	133.30	630.06
RODNEY JUNE	SEIZING EVERY OPPORTUNITY (SEO)	11TH ANNUAL SEO ALTERNATIVE INVESTMENTS CONFERENCE	NEW YORK, NY	03/03/20	03/04/20	-	306.80	170.29	185.50	662.59
EDUARDO PARK[2]	RBC GLOBAL ASSET MANAGEMENT; LAZARD ASSET MANAGEMENT; ASHMORE INVESTMENT MANAGEMENT	DUE DILIGENCE	LONDON, ENGLAND, UK	03/07/20	03/12/20	-	2,060.85	-	-	2,060.85
CLARK HOOVER[3]	DEFY PARTNERS	DUE DILIGENCE	WOODSIDE, CA	03/09/20	03/10/20	-	12.00	-	-	12.00

LOS ANGELES CITY EMPLOYEES' RETIREMENT SYSTEM
INVESTMENT ADMINISTRATION AND RELATED TRAVEL EXPENDITURE REPORT
FOR THE PERIOD JULY 1, 2019 TO MARCH 31, 2020

NAME	ORGANIZATION	CONFERENCE TITLE	LOCATION	START DATE	END DATE	REGISTRATION	AIRFARE	LODGING	OTHER TRAVEL EXP.	TOTAL EXPENSE
INVESTMENT ADMINISTRATION TRAVEL EXPENDITURES FOR THE 1ST QUARTER ENDING 09/30/19:						$ 395.00	$ 2,174.33	$ 2,722.46	$ 1,519.85	$ 6,811.64
INVESTMENT ADMINISTRATION TRAVEL EXPENDITURES FOR THE 2ND QUARTER ENDING 12/31/19:						$ 150.00	$ 6,747.45	$ 5,757.82	$ 3,977.68	$ 16,632.95
INVESTMENT ADMINISTRATION TRAVEL EXPENDITURES FOR THE 3RD QUARTER ENDING 03/31/20:						$ -	$ 5,589.81	$ 3,309.58	$ 2,731.48	$ 11,630.87
YTD TRAVEL EXPENDITURES / ANNUAL BUDGET FOR INVESTMENT ADMINISTRATION TRAVEL EXPENDITURES (AMOUNT & %):						$35,075.46		$89,150.00		39.3%
YTD INVESTMENT ADMIN. TRAVEL EXPENDITURES / ANNUAL BUDGET FOR ALL DEPARTMENT TRAVEL (AMOUNT & %):						$35,075.46		$245,845.00		14.3%

[1] Airfare, lodging, and ground transportation costs for $828.63 was reimbursed by Asana Partners on 01/06/20.
[2] Travel was cancelled. British Airways credit with expiration date of 02/25/21, was received for the airfare paid excluding the $12 service fee.
[3] Travel was cancelled. Airfare cost was fully refunded excluding the $12 service fee.

LACERS
LOS ANGELES CITY EMPLOYEES' RETIREMENT SYSTEM

REPORT TO BOARD OF ADMINISTRATION

From: Governance Committee
Nilza R. Serrano, Chair
Cynthia M. Ruiz
Annie Chao

MEETING: JUNE 9, 2020
ITEM: VII-A

SUBJECT: **PROPOSED LACERS CITY ATTORNEY CONFLICT OF INTEREST POLICY AND POSSIBLE BOARD ACTION**

ACTION: ☒ CLOSED: ☐ CONSENT: ☐ RECEIVE & FILE: ☐

Recommendation

That the Board approve the attached proposed City Attorney Conflict of Interest Policy for inclusion in the LACERS Board Administrative Policies.

Executive Summary

The Governance Committee is in support of staff's proposal to include the City Attorney Conflict of Interest Policy in the LACERS Board Administrative Policies. This policy establishes protocols to follow upon determination that a City Attorney conflict of interest exists.

Discussion

On May 26, 2020, the Governance Committee considered the proposed City Attorney Conflict of Interest Policy. The Committee is in agreement with staff's recommendation to add the City Attorney Conflict of Interest Policy to the LACERS Board Administrative Policies as a best practice recommended by the Office of the City Attorney. On occasion, the City Attorney may determine based on applicable professional and ethical obligations, including Rule 3-310 of the California Rules of Professional Conduct, that the City Attorney's representation of the Board may not be prudent in a specific matter. The policy provides a process for addressing any potential City Attorney conflict of interest that may arise.

For conflicts of interest identified by the Office of the City Attorney, pursuant to the proposed policy, the City Attorney shall present their determination to the LACERS Board of Administration with the basis for and scope of the perceived conflict. If in agreement with the City Attorney's conflict determination, the Board shall select a law firm to serve as the independent conflict counsel to represent the Board in the matter. This law firm shall be chosen from the bench of firms pre-selected by the City Attorney's Office and approved by the Board to provide fiduciary law services. All written and verbal communications shall be deemed confidential attorney-client privileged communications between the Board and its outside conflict counsel upon engagement with the selected law firm. This privilege may be waived only by a majority vote of the Board.

For conflicts of interest identified by the Board, pursuant to the proposed policy, the Board President and the General Manager may engage with the City Attorney to discuss the basis of the Board's perceived conflict of interest. If the City Attorney is not in agreement, the Board may request the City Attorney to seek guidance and an opinion from an outside fiduciary counsel regarding the perceived conflict to make a determination. This opinion may be publicly released only by a majority vote of the Board and with written consent from the City Attorney.

The language contained in the proposed LACERS City Attorney Conflict of Interest Policy mirrors the language used by Los Angeles Fire and Police Pensions (LAFPP) for their adopted City Attorney conflict of interest policy which was updated in 2018. The City Attorney strongly recommends the use of identical policy language for both LACERS and LAFPP for consistency. Once approved by the LACERS Board, this policy will be incorporated by the City Attorney as an exhibit in the Board's new outside fiduciary counsel contracts.

Strategic Plan Impact Statement

The establishment of new Board Administrative Policies as part of the LACERS Board Manual conforms to the LACERS Strategic Plan Board Governance Goal to uphold good governance practices which affirm transparency, accountability, and fiduciary duty.

Prepared By: Edeliza Fang, Senior Management Analyst II

NG/TB:DWN:EF

Attachment: Report to Governance Committee Report dated May 26, 2020

LACERS
LOS ANGELES CITY EMPLOYEES'
RETIREMENT SYSTEM

BOARD Meeting: 06/09/20
Item VII - A
Attachment 1

REPORT TO GOVERNANCE COMMITTEE **MEETING: MAY 26, 2020**
From: Neil M. Guglielmo, General Manager **ITEM: III**

SUBJECT: **PROPOSED LACERS CITY ATTORNEY CONFLICT OF INTEREST POLICY AND POSSIBLE COMMITTEE ACTION**

ACTION: ☒ CLOSED: ☐ CONSENT: ☐ RECEIVE & FILE: ☐

Recommendation

That the Committee consider the addition of the proposed LACERS City Attorney Conflict of Interest Policy to the LACERS Board Administrative Policies.

Executive Summary

Staff proposes the inclusion of the LACERS City Attorney Conflict of Interest Policy in the LACERS Board Administrative Policies. This policy establishes protocols to follow upon determination that a City Attorney conflict of interest exists.

Discussion

Staff proposes, as a best practice recommended by the Office of the City Attorney, the addition of the City Attorney Conflict of Interest Policy to the LACERS Board Administrative Policies. This is to ensure that any potential City Attorney conflict of interest that arises is addressed accordingly. On occasion, the City Attorney may determine based on applicable professional and ethical obligations, including Rule 3-310 of the California Rules of Professional Conduct, that the City Attorney's representation of the Board may not be prudent in a specific matter. The City Attorney shall present such conflict determinations to the LACERS Board of Administration with the basis for and scope of the perceived conflict.

Pursuant to the proposed policy, upon notice of the City Attorney's conflict of interest determination, the Board shall select a law firm to serve as the independent conflict counsel to represent the Board in the matter identified by the Office of the City Attorney. This law firm shall be chosen from the bench of firms pre-selected by the City Attorney's Office and approved by the Board to provide fiduciary law services. Once the independent conflict counsel is engaged, all written and verbal communications shall be deemed confidential attorney-client privileged communications between the Board and its outside conflict counsel. This privilege may be waived only by a majority vote of the Board.

The proposed policy also addresses situations wherein the Board believes a conflict of interest exists that the City Attorney has not identified. In such instances, the Board President and the General Manager may engage with the City Attorney to discuss the basis of the Board's perceived conflict of interest. If a difference of opinion remains, the Board may request the City Attorney to seek guidance and an opinion from an outside fiduciary counsel regarding the perceived conflict to make a determination. This opinion may be publicly released only by a majority vote of the Board and with written consent from the City Attorney.

Attached is the proposed LACERS City Attorney Conflict of Interest Policy which contains the same language used by Los Angeles Fire and Police Pensions (LAFPP) for their adopted City Attorney conflict of interest policy that was most recently updated in 2018. The City Attorney strongly recommends the use of identical policy language for both LACERS and LAFPP for consistency. Once approved by the LACERS Board, this policy will be incorporated by the City Attorney as an exhibit in the Board's new outside fiduciary counsel contracts.

Strategic Plan Impact Statement

The establishment of new Board Administrative Policies as part of the LACERS Board Manual conforms to the LACERS Strategic Plan Board Governance Goal to uphold good governance practices which affirm transparency, accountability, and fiduciary duty.

Prepared By: Edeliza Fang, Senior Management Analyst II

NG/TB:DWN:EF

Attachment: Proposed LACERS City Attorney Conflict of Interest Policy

Proposed LACERS City Attorney Conflict of Interest Policy

1.1 CONFLICT GOVERNANCE POLICY

II. Potential City Attorney Conflicts of Interest

From time to time, pursuant to the City Attorney's professional and ethical obligations under California Law, including Rule 3-310 of the California Rules of Professional Conduct, the City Attorney may determine that it would be prudent for it to avoid representation of the Board in a particular matter. In those situations, the City Attorney shall make a conflict determination, specifying the basis for and the scope of that conflict, and notify the Board of that determination.

A. In the event the City Attorney believes a conflict exists, the Board, by a majority vote, shall select a law firm to serve as independent conflict counsel in the matter identified by the City Attorney's Office. Such independent conflict counsel shall be selected from those firms currently under a three-year contract with the City Attorney's Office for fiduciary law services who have the requisite professional expertise to handle the matter. As the Board shall select as conflict counsel a law firm currently under contract with the City Attorney's Office for Fiduciary law services, no additional consent from the City Attorney shall be required.

Once conflict counsel is engaged, all communications with and legal opinions from such independent conflict counsel will be handled as confidential attorney-client privileged communications between the Board and its independent conflict counsel. Only the Board may waive this privilege, by a majority vote.

B. In the event the City Attorney does not believe a conflict exists, then the Board President and the General Manager may meet with the City Attorney to discuss the circumstances and reasoning of the Board's perceived conflict. After meeting with the City Attorney, if the City Attorney still does not believe a conflict exists, the Board may request the City Attorney to seek an opinion from outside fiduciary counsel regarding the perceived conflict. The outside counsel opinion may only be publicly released by a majority vote of the Board and the written consent of the City Attorney.

LACERS
LOS ANGELES CITY EMPLOYEES'
RETIREMENT SYSTEM

REPORT TO BOARD OF ADMINISTRATION **MEETING: JUNE 9, 2020**
From: Neil M. Guglielmo, General Manager **ITEM: VII-B**

SUBJECT: **CAPITAL, OPERATING, AND ADMINISTRATIVE BUDGETS RELATING TO PROPERTY AT 977 NORTH BROADWAY AND POSSIBLE BOARD ACTION**

ACTION: ☒ CLOSED: ☐ CONSENT: ☐ RECEIVE & FILE: ☐

Recommendation

That the Board:

1) Approve the Capital Budget of $17,086,432 and Operating Expense Budget of $1,478,793 for the Real Estate Asset at 977 N. Broadway;
2) Approve the Administrative Budget of $3,954,752 for costs associated with the relocation to the new Headquarters Building at 977 N. Broadway;
3) Authorize the General Manager to approve funding requests for the Capital and Operating Budgets; to approve transactions and execute documents as necessary to implement the Broadway Building Annual Plan; and to correct typographical or technical errors in the Budget; and,
4) Instruct staff to report back to the Board quarterly, or as needed.

Executive Summary

In October 2019, the Board authorized and completed the purchase of an office building and underground parking structure located at 977 N. Broadway ("HQ Building"), Los Angeles, California, at the final negotiated purchase price of $33,750,000. The Broadway Building, built in 1984, is a five-story building totaling 64,585 square feet with a 131-space subterranean parking structure. The property will serve a dual purpose as the headquarters for LACERS' offices, and as a separate account holding in the Investment Trust Fund.

In March 2020, LACERS completed the relocation of the Investment and Member Engagement groups to the new HQ Building (Phase 1) which currently occupy the second floor. LACERS has begun planning the necessary property and tenant improvements with the goal of fully occupying the HQ Building in 2021 (Phase 2).

The COVID-19 Pandemic has changed how business is carried out across all sectors of the economy. LACERS has an opportunity to invest in the building in a way that promotes a safe working environment for both employees and Members. For the last few months, staff has been working diligently with Invesco and its consultants to determine the Phase 2 scope of work which focuses primarily on:

- Incorporating health and safety best practices in our work environment post-COVID-19;
- Providing a safe and welcoming environment for LACERS Members;
- Providing a secure flexible computing environment; and,
- Carrying out vital long-term building improvements prior to LACERS' occupancy.

The Board's approval is sought for the cumulative HQ Building budget totaling $22.5 Million to prepare the property for LACERS' full occupancy in 2021. This report discusses the work plan and the overall projected costs for Fiscal Year 2020-21. The HQ Building budget expenditures are segmented into the three expense categories of Capital, Operating, and Administrative (addressed in the following sections), corresponding to LACERS' role as investor, owner, and occupier, respectively.

Discussion

Capital Expense Budget – $17,086,432

Along with our Asset Management Advisor, Invesco, and our Construction Project Management Consultant, PacShore, LACERS has been working on prioritizing the capital projects for Fiscal Year 2020-21, and refining the scope of work. The Proposed Capital Budget reflects LACERS' intent to aggressively address capital needs prior to moving into the building in order to reduce future workplace interruptions and to provide the safest workplace and Member service environment from the open of the building. Kristina Lewison, Asset Management Director from Invesco will be at the Board Meeting to present the report on the goals for the HQ Building and obtain approval for the Proposed Capital Budget of $17.1 million (including 10% contingency). Construction related costs are estimates that will be further informed by the consulting firms to be hired for construction assessment.

Highlights of the major projects for the year are as follows:

Structural Enhancements
Various structural improvements and building code upgrades were identified during the due diligence process. The most significant projects to complete prior to move-in are seismic strengthening to increase the building's resiliency to withstand earthquake magnitudes greater than 6.0, improvements to the façade, upgrading the emergency generator, renovating the parking garage, and replacement of the roof. Tackling these issues now, while the building is largely vacant, would be an efficient construction approach that will eliminate potential disruption to LACERS' operations. Advisors with expertise in these areas will assist in developing the scope of work and prepare a request for bid to complete the work.

Interior Design
The Building Capital budget includes tenant improvements to all five floors and the parking garage that will provide LACERS' employees with a modern facility. LACERS will implement best practice strategies for a new office environment that protects the health of employees, our Members, and visitors. This includes reimagined workspace with touchless features; advanced air ventilation; physically reconfigured work stations with greater spacing; space which supports a mobile workforce; and other emerging innovations in office design in this new era. The Headquarters Executive Team consisting of

LACERS, Invesco, and PacShore project members conducted a competitive bid process and selected HOK, the fourth largest U.S.-based interior design firm for design services. The City's furniture supplier, Unisource, is also engaged for this project.

LACERS will seek construction and tenant-improvements that satisfy both the U.S. Green Building Council's "Leadership in Energy & Environmental Design" (LEED) Certification, and WELL Certification from the International WELL Building Institute (IWBI) – a public benefit corporation whose mission is to improve human health and wellbeing through the built environment. The new HQ Building will meet LEED standards for overall reductions in water, energy, and waste. The building will also incorporate electric vehicle charging stations to further reduce LACERS' carbon footprint. By focusing on WELL Certification standards for indoor air quality, natural lighting, clean water, and effective physical spaces through human design, LACERS will be a leader among City departments for a safe work environment that supports employee health and well-being.

With the ever-evolving public health concerns, these two certifications will demonstrate to employees and the City at-large, LACERS' commitment to both environmental sustainability design and fostering employee wellness.

<u>Technology Improvements</u>

LACERS also seeks to make significant technological improvements that thrust the department into a future work environment with increased productivity tools and workplace flexibility. The new HQ Building will be defined by innovation in two fronts: technology and office space. Together, these two aspects will work hand-in-hand to transform collaborative spaces and allow employees to engage in their work regardless of their physical location in the office, building, or remote location.

Thomas Ma, Information Systems Manager II, has established objectives for LACERS' technological infrastructure that:

- Incorporates video conferencing technology and live streaming capabilities;
- Strengthens LACERS' cyber protection infrastructure to reduce attacks and disruptions;
- Builds a robust network infrastructure and utilizes equipment that leverages the latest technology inclusive of automation for a mobile workforce;
- Integrates mobile technologies that maximize employee productivity and flexibility;
- Promotes the health and safety of employees by encouraging physical distancing;
- Allows for Business Continuity of Operations; and
- Contributes to the reduction of LACERS' carbon footprint.

ARC Engineering (ARC) has been selected to design and implement LACERS' technological objectives. The firm was selected due to its long history of working on projects in Southern California designed to increase technological innovation and collaboration across sectors in offices, education, retail, entertainment, and corporate headquarters. ARC will provide the technology design and engineering plans, assist in the backup generator replacement, and design of the server room.

Funding for an additional technology consultant has been included in the Proposed Capital Budget to provide LACERS with project management and oversight of the technology implementation. The consultant will also provide consultation services which include carrier services, data cabling, data center, and network infrastructure.

CAPITAL EXPENSE BUDGET – July 2020 – June 2021	Estimated Expense
SOFT COSTS	
ARC Engineering (Engineering Plans, Server Room Design)	$149,600
HOK (Interior Architecture Services, LEED, WELL, etc.)	$1,035,755
MHP (Structural Engineering, Evaluation, and Design)	$364,100
PacShore (Construction Project Management)	$145,200
Permit & Fees (Los Angeles Department of Building and Safety "LADBS", LEED/WELL)	$104,500
Wiss Janney Elstner Associates (Roof Consulting, Cladding Feasibility Study)	$192,500
Contractors To-Be-Determined (Signage, Technology, Security, Project Management, etc.)	$768,980
Soft Costs Subtotal:	**$2,760,635**
HARD COSTS	
Tenant/Owner Improvements (All Five Floors)	$4,486,482
LEED/WELL Construction	$224,324
Technology	$1,511,335
Roof Replacement	$726,000
Interior and Exterior Wet Seal Replacement	$310,200
Interior Water Damage Repairs	$143,000
Signage	$55,000
Emergency Generator Upgrade	$385,000
Seismic Upgrade - Viscous Isolation Dampers	$2,750,000
Power Protection Equipment	$67,001
Art (1% LADBS) Allowance	$189,200
Security Upgrades	$192,500
Exterior Renovation	$1,650,000
Exterior Patio Improvement	$275,000
Garage Renovation	$302,500
Public Address System	$137,500
Electric Vehicle Charging Stations	$165,000
Vault - Fiscal & Systems Programs	$55,000
Miscellaneous Capital Expenditures	$700,755
Hard Costs Subtotal	**$14,325,797**
TOTAL COSTS	**$17,086,432**

Building Operating Budget – $1,478,793

Invesco has prepared for LACERS' approval a *Building Operating Budget* which includes all expenses relating to daily operation of the building including service contracts (property manager, security, janitorial, building engineers, parking, maintenance, and repairs), taxes, and insurance. The total Building Operating Expenses for the Fiscal Year 2020-21 are $1,478,793.

BUILDING OPERATING BUDGET – July 2020 – June 2021	Estimated Expense
Payroll	$125,580
General & Administration	$38,060
Management Fees	$180,000
Garage Expense	$94,332
Landscaping/Grounds	$2,060
General Repair and Maintenance	$97,392
Janitorial	$112,636
Security	$206,516
Utilities	$141,849
Insurance	$193,324
Taxes	$171,224
Real Estate & Other Tax Prep - LL	$47,820
Non-Reimbursable Expenses - LL	$68,000
TOTAL	**$1,478,793**

Once the Building Operating Budget is approved by the Board, Invesco has the authority to execute building operations within the approved amount, unless costs exceed 10% of the approved Budget. Invesco will submit a draw request to LACERS to fund the Building Operating Account as needed within the approved budget. Funds will be transferred from the LACERS Investment Trust Fund to the asset account established for 977 Broadway.

Administrative Expense Budget – $3,954,752

The Proposed Administrative Budget captures primarily one-time expenses associated with establishing LACERS' new network and communication infrastructure, building furniture, and staff relocation to the new building. In order to fully occupy the new building, the building must have the technological infrastructure and furniture needed to support LACERS' operations. Included in the Proposed Administrative Budget are the following items crucial for establishing this work environment.

<u>Salaries As-Needed & Overtime</u>
Overtime funding for Systems employees who will periodically work extended hours during phase migration. Funding for As-Needed staff for the Administrative Division is also included to provide daily support services for employees relocated to the HQ Building.

<u>Legal</u>
Legal costs associated with ownership of the HQ Building. This allocated expense will satisfy services for external legal counsel in specialized areas of real estate and tax if needed.

<u>Computer Hardware</u>
Technology for the Board Room such as video conferencing and live streaming technology. This also includes funding for the replacement of the call attendant system used in our Member Service Center, email security upgrades, and infrastructure costs such as power protection and cabling. Lastly, expenses for upgrades to our overall Network Infrastructure, Enterprise Storage systems, Cyber Security, and Disaster Recovery services are included.

Computer Maintenance and Support

Business Internet Service Provider costs associated with setting up the fiber-optic infrastructure for internet services and telephone lines. Additionally, this budget expense includes cable media services for access to investment and local government broadcasts.

Outside Computer Consulting

Data Cabling services which includes fiber, coax, Ethernet, and Wireless Access Points. Project management and installation costs for technology implementation is also included. The consultation services are inclusive of carrier, data cabling, data center, small server rooms, and overall network infrastructure.

Printing

Costs associated with printing of new employee business cards and envelopes with our new address.

Telephone and Utilities

Voice over Internet Protocol (VoIP) services and long-distance telephone services.

Furniture and Other Equipment

Furnishings for employee workplaces, conference rooms, and the Board Room. Costs include the purchase of sit-stand desks, ergonomic equipment, and furniture for common areas and collaborative spaces. Furniture will comply with new workplace requirements that addresses health and safety concerns and allow for physical distancing.

Office Space

Expenses allocated for surrendering of existing office space at the Onni LA Times building which may include existing technology removal, painting, furniture salvage/disposal, and move vendors.

Membership Dues and Subscription

Additional shredding services for confidential documents in preparation for the move, and additional shredding bins needed at the HQ building.

Staff is requesting that the Board approve the Proposed Administrative Budget of $3,954,752 for the administrative expenses for Fiscal Year 2020-21:

ADMINISTRATIVE BUDGET REQUEST – July 2020 – June 2021	AMOUNT
Salaries As-Needed	$19,980
Overtime	$18,238
Legal	$45,000
Computer Hardware	$831,000
Computer Maintenance & Support	$18,541
Outside Computer Consulting	$775,500
Printing	$8,000
Telephone and Utilities	$12,000
Furniture and Other Equipment	$2,131,305
Office Space	$92,188
Membership & Subscription	$3,000
TOTAL	**$3,954,752**

Next Steps

LACERS will continue to work with Invesco on the priorities for the HQ Building and will return to the Board with quarterly operational and construction progress reports and as requested.

Strategic Plan Impact Statement

Ownership in 977 N. Broadway advances the Board Governance Goal and Organization Goal by being a cost effective investment in the long-term as compared to leasing, and provides LACERS with complete control over its administrative facilities adding to the organization’s efficiency, effectiveness, and resiliency.

Prepared By: Horacio Arroyo, Senior Management Analyst I, Administration Division

NMG/TB/DWN/HA

Attachments: 1. Invesco Presentation of the Fiscal Year 2020-21 Budget for the 977 N. Broadway Project
2. Cumulative 977 N. Broadway Capital, Operating, and Administrative Budgets
3. Proposed Board Resolution

BOARD Meeting: 06/09/20
Item VII - B
Attachment 1

Invesco

INVESCO PRESENTATION OF THE FISCAL YEAR 2020-21 BUDGET FOR THE 977 N. BROADWAY PROJECT

For Los Angeles City Employees' Retirement System

June 9, 2020

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- Property Goals
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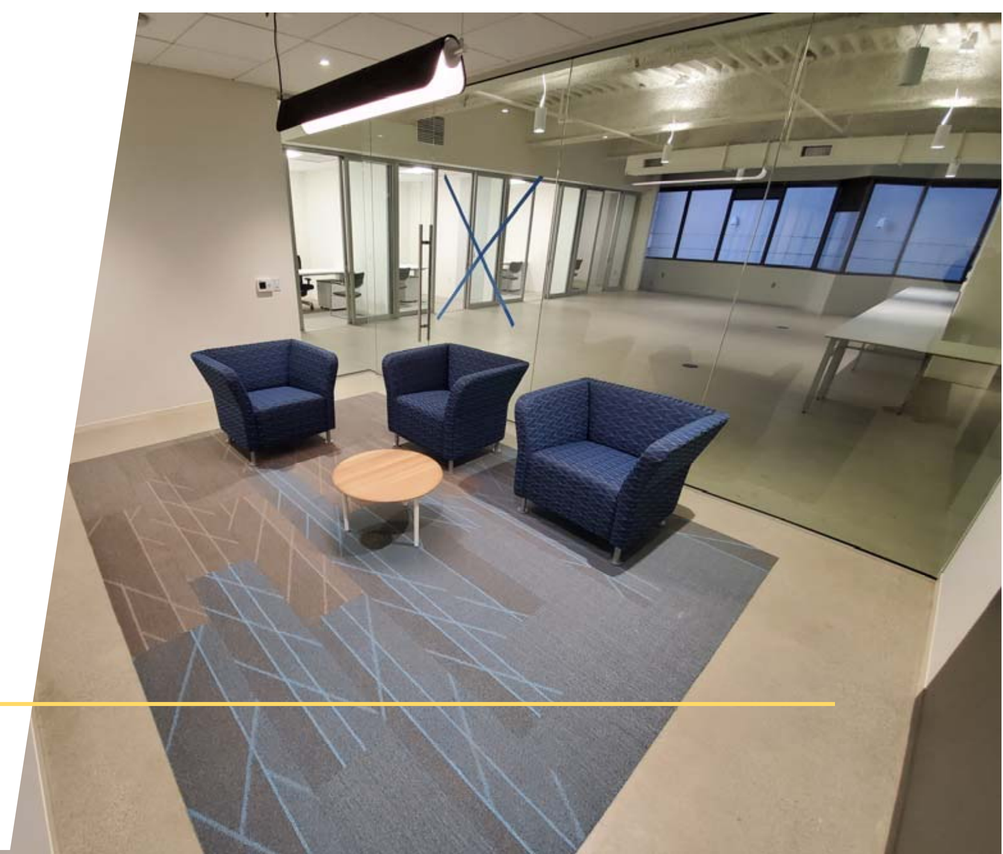
- Capital Projects Overview



Budget Summary

The Property budget for the fiscal year 2020/2021 is as follows:

	2020/2021 Budget
Rent Income	$490,922
Expense Reimbursement	$228,491
Parking	$19,500
Total Revenue	**$738,913**
Payroll	$125,580
General & Admin.	$38,060
Management Fees	$180,000
Garage Expense	$94,332
Landscaping/Grounds	$2,060
General Repairs & Maintenance	$97,392
Janitorial	$112,636
Security	$206,516
Utilities	$141,849
Insurance	$193,324
Real Estate Taxes	$171,224
Subtotal Escalatable	**$1,362,973**
Non-Esc Expenses (1)	$115,820
Total Expenses	**$1,478,793**
Net Operating Income	**($739,880)**
Debt Service (P&I)	$
Capital Improvements	$17,086,432
Tenant Improvements	$
Leasing Costs	$
Net Cash Flow	**($17,826,312)**

(1)"Non-Esc" or Non-Escalatable expenses are those charges that are not customarily passed back to tenants. For the purposes of this budget, they include LACERS audit fees, historic accounting expenses, legal fees and furniture rental for 5th floor.

Property Summary:

The five-story office building was built in 1984 and encompasses 64,585 square feet with a 110-space subterranean parking structure.

The property will serve as LACERS' headquarters for the foreseeable future. LACERS engaged Invesco as Advisor to facilitate the management oversight, capital and occupier programs as well as submit quarterly reports and asset level budgets.

Operational Goals:

- The following service contracts will be evaluated to determine if competitive bidding is required:
  - Security
  - Janitorial
  - Landscaping

- Repair & Maintenance: special projects scheduled for 2020/2021 include
  - Infrared testing
  - Replacement of existing water source heat pumps
  - Exterior painting
  - Interior/exterior window cleaning
  - Reg IV testing & repairs.

- LEED Certification – Cushman & Wakefield as property management, will work closely with Consultant to achieve certification and on-going compliance requirements.

- Implement weekly inspections for the common areas, back-of house, HVAC equipment, and mechanical/electrical areas, restrooms, stairwells and exterior grounds.

- Implement monthly meetings with all service providers to ensure work is being performed in accordance with executed contract.

- COVID-19 - Property Re-Occupancy is currently being planned and a presentation will be prepared for LACERS review and approval prior to implementation. This plan will be focused on property operations under the responsibility of property management.
  - Supplies
  - Signage
  - Entry Protocol
  - Maintaining Social Distancing in common areas

Parking

Engaged parking vendor to establish parking policies and manage the parking garage as occupancy and related visitors increase.

2020-2021 Capital Goals

The team will be focusing on the critical paths to both the capital projects as well as LACERS gradual occupancy of the building.

- HOK has been engaged to provide Occupier Services & common area improvements.
- Engage Architectural firm for programming process;
- Engage City furniture and space planning contractor to develop workspace layout;
- Engage seismic consultant to design specifications and proposals for seismic work;
- Engage curtain wall/roofing consultant to develop specifications for building envelope renovations;

Capital Projects

In order to achieve a timely occupancy for LACERS, the team will be actively engaging the various consultants and contractors to sequence the capital projects anticipated in the upcoming fiscal year.

Soft Costs/Consultants	Scope	Fee	Contingency	10%	Total
ARC Engineering	Interior MEP Services	$104,000	$10,400		$114,400
ARC Engineering	Server Room MEP Design	$20,000	$2,000		$22,000
ARC Engineering	Backup Generator Replacement	$12,000	$1,200		$13,200
HOK	Interior Architecture Services	$242,030	$24,203		$266,233
HOK	Furniture Support	$16,860	$1,686		$18,546
HOK	Exterior / Garage Architecture Services - Design - CA	$94,950	$9,495		$104,445
HOK	LEED Certification (Silver)	$58,000	$5,800		$63,800
HOK	Well Building Certification (Gold)	$84,000	$8,400		$92,400
HOK	Lighting - Interior, Exterior, Parking, LEED, WELL	$55,000	$5,500		$60,500
HOK	Landscape (Patio)	$85,200	$8,520		$93,720
HOK	Acoustics - LEED/WELL	$26,180	$2,618		$28,798
HOK	Experience Design - Signage + Branding	$59,475	$5,948		$65,423
HOK	Workplace Strategy & Brief	$60,700	$6,070		$66,770
HOK	Change Management	$39,000	$3,900		$42,900
HOK	Plant Program	$8,000	$800		$8,800
HOK	Photo Realistic Renderings (4 total)	$10,000	$1,000		$11,000
HOK	Artwork and Accessories	$12,200	$1,220		$13,420
HOK	Electronic Conference Room Management	$90,000	$9,000		$99,000
MHP	Structural Engineering - Interior Design Support	$25,000	$2,500		$27,500
MHP	Structural Evaluation - Seismic Strengthening	$36,000	$3,600		$39,600
MHP	Structural Design - Damper Strengthening	$270,000	$27,000		$297,000
Pacshore	Project Management	$132,000	$13,200		$145,200
Permits, Fees, Etc.	Building & Safety Department	$75,000	$7,500		$82,500
	LEED/WELL - Certification Fees	$20,000	$2,000		$22,000
Wiss Janney Elstner Associates	Cladding Feasibility Study	$55,000	$5,500		$60,500
Wiss Janney Elstner Associates	Façade Access Consulting	$55,000	$5,500		$60,500
Wiss Janney Elstner Associates	Roof Consulting	$30,000	$3,000		$33,000
Wiss Janney Elstner Associates	Construction Administration	$35,000	$3,500		$38,500
TBD	Art Consultant	$30,000	$0		$30,000
TBD	Signage Consultant	$25,000	$2,500		$27,500
TBD	Technology Consultant	$374,000	$37,400		$411,400
TBD	Security Consultant	$25,000	$2,500		$27,500
	Storage Area Network	$22,800	$2,280		$25,080
TBD	Project Management - Third Party (estimated)	$225,000	$22,500		$247,500
	Subtotal	**$2,512,395**	**$248,240**		**$2,760,635**

Project Costs		Expense	Contingency	10%	Total
Owner Improvements	5th Floor- $25 / RSF	$340,725	$34,073		$374,798
	4th Floor - $85 / RSF - Vacant; $25 / RSF - Suite 420	$1,017,245	$101,725		$1,118,970
	3rd Floor - $85 / RSF	$1,158,125	$115,813		$1,273,938
	2nd Floor - $25 / RSF	$341,525	$34,153		$375,678
	1st Floor - $125 / RSF	$1,221,000	$122,100		$1,343,100
	LEED/WELL Certification - Construction Cost Increase -	$203,931	$20,393		$224,324
Owner Technology		$1,373,941	$137,394		$1,511,335
Roof System Replacement		$660,000	$66,000		$726,000
Exterior Wet Seal Replacement		$250,000	$25,000		$275,000
Interior Wet Seal Replacement		$32,000	$3,200		$35,200
Interior Water Damage Repairs		$130,000	$13,000		$143,000
Signage		$50,000	$5,000		$55,000
Emergency Generator Upgrade		$350,000	$35,000		$385,000
Seismic Upgrade - Viscous Isolation Dampers		$2,500,000	$250,000		$2,750,000
Power Protection Equipment		$60,910	$6,091		$67,001
Art (1% LADBS) Allowance		$172,000	$17,200		$189,200
Security Upgrades		$175,000	$17,500		$192,500
Exterior Renovation		$1,500,000	$150,000		$1,650,000
Exterior Patio Improvement		$250,000	$25,000		$275,000
Garage Renovation		$275,000	$27,500		$302,500
Public Address System		$125,000	$12,500		$137,500
Electric Vehicle Charging Stations		$150,000	$15,000		$165,000
Vault		$50,000	$5,000		$55,000
Misc. Capex		$637,050	$63,705		$700,755
	Subtotal	$13,023,452	$1,302,345		$14,325,797
	Total	**$15,535,847**	**$1,550,585**		**$17,086,432**

Capital Discussion/Narrative

Exterior Improvements:

Development of design concepts to improve the existing exterior improvements to properly align the building as the headquarters of LACERS. Potential concepts include cladding the existing stone panels with light weight metal, enclosing the existing Breezeway to secure additional space for LACERS and improving the back Courtyard to employee benefit.

Structural Improvements:

LACERS is directing a comprehensive seismic analysis of the current structural performance of the building to improve its performance during a significant seismic event, and therefore remain operational post-event.

An analysis will include three-dimensional modeling when the building is subjected to strong ground motion. There are generally two different seismic upgrade approaches:

A) Moment Frame reinforcements
B) Design & install viscous damper installation

With a complete analysis, a recommendation along with cost estimates will be provided to LACERS for evaluation.

Tenant Improvements:

Design, develop and execute the construction of new office space for the future headquarters of LACERS.

Design program to include:

- Client analysis and program orientation
- Schematic design including adjacency + space requirements
- Space Planning
- Preliminary construction cost estimating
- Detailed design development including technical coordination of documents
- Construction documents submission for plan check and corrections
- Construction observation including shop drawing review, meeting support and project document close-out

Construction of new tenant improvements will be conducted based on agreed upon design program. Construction will include a new Board Room, conference and meeting rooms, offices and workstations and common areas for LACERS employee use.

LEED/WELL Certification Initiative:

Design and construction program to successfully certify the building with the US Green Building Council (USGBC) for LEED and registration of the building as having met the standards of the International WELL Building Institute (WBI).

LEED is a third-party green building certification program for the design, construction and operation of high-performance green buildings.

WELL is a performance-based system for measuring, certifying, and monitoring features of the built environment that impact human health, and well-being, through air, water, nourishment, light fitness, comfort and mind.

Curtain Wall/Roofing Work:

Exterior sealants and gaskets at curtain wall are deteriorated due to exposure and normal aging. Gaskets will be removed and a wet silicone sealant installed between glass, window frames and panels.

The roof system has exceeded its useful life. Replace roof assembly with new, more energy efficient system to provide long term protection.

Life & Safety Equipment:

The existing building generator is not compliant with current code. The budget contemplates replacement with a diesel emergency generator with expanded capacity. The upgraded system will allow the property and LACERS to operate for extended periods of time when normal power to the property has been interrupted.

BOARD Meeting: 06/09/20
Item VII - B
Attachment 2

Los Angeles City Employees' Retirement System

Cumulative 977 N. Broadway
Capital, Operating, and Administrative Budgets

Fiscal Year 2020-21

Item		Amount
INCOME		
Rent Income	$	490,923
Expense Reimbursement	$	228,491
Other Income	$	19,500
Total Income	**$**	**738,914**
ADMINISTRATIVE EXPENSES		
Salaries as Needed	$	19,980
Overtime	$	18,238
Legal	$	45,000
Computer Hardware	$	831,000
Computer Maintenance & Support	$	18,541
Outside Computer Consulting	$	775,500
Printing	$	8,000
Telephone and Utilities	$	12,000
Furniture and Other Equipment	$	2,131,305
Office Space	$	92,188
Membership & Subscription	$	3,000
Administrative Expenses Subtotal	**$**	**3,954,752**
OPERATING EXPENSES		
Payroll	$	125,580
General & Administration	$	38,060
Management Fees	$	180,000
Garage Expense	$	94,332
Landscaping/Grounds	$	2,060
General Repair and Maintenance	$	97,392
Janitorial	$	112,636
Security	$	206,516
Utilities	$	141,849
Insurance	$	193,324
Taxes	$	171,224
Real Estate and Other Tax Prep - LL	$	47,820
Non-Reimb Expenses - LL	$	68,000
Operating Expenses Subtotal	**$**	**1,478,793**
CAPITAL		
Soft Costs	$	2,760,635
Hard Costs	$	14,325,797
Capital Subtotal	**$**	**17,086,432**
TOTAL EXPENSES	**$**	**22,519,976**

Los Angeles City Employees' Retirement System

Asset Income

Fiscal Year 2020-21

Line Item #	Description	Total	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20	Jan-21	Feb-21	Mar-21	Apr-21	May-21	Jun-21	Total
INCOME															
Rent Income															
5010-0000	Base Rent Income	$ 490,923	$ 54,717	$ 54,717	$ 54,717	$ 54,717	$ 54,717	$ 54,717	$ 54,717	$ 33,908	$ 33,908	$ 33,908	$ 3,090	$ 3,090	$ 490,923
	Total Rent Income	$ 490,923	$ 54,717	$ 54,717	$ 54,717	$ 54,717	$ 54,717	$ 54,717	$ 54,717	$ 33,908	$ 33,908	$ 33,908	$ 3,090	$ 3,090	$ 490,923
Expense Reimbursement															
5055-0000	Insurance Reimbursement - Current Year	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
5060-0000	Tax Reimbursement - Current Year	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
5070-0000	CAM Reimbursement - Current Year	$ 228,491	$ 23,837	$ 23,837	$ 23,837	$ 23,837	$ 23,836	$ 23,836	$ 23,836	$ 20,545	$ 20,545	$ 20,545	$ -	$ -	$ 228,491
5085-0000	Sewer/Water Reimbursement	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
	Total Expense Reimbursement	$ 228,491	$ 23,837	$ 23,837	$ 23,837	$ 23,837	$ 23,836	$ 23,836	$ 23,836	$ 20,545	$ 20,545	$ 20,545	$ -	$ -	$ 228,491
Other Income															
5310-0000	Parking Income - Monthly	$ 19,500	$ 1,950	$ 1,950	$ 1,950	$ 1,950	$ 1,950	$ 1,950	$ 1,950	$ 1,950	$ 1,950	$ 1,950	$ -	$ -	$ 19,500
	Total Other Income	$ 19,500	$ 1,950	$ 1,950	$ 1,950	$ 1,950	$ 1,950	$ 1,950	$ 1,950	$ 1,950	$ 1,950	$ 1,950	$ -	$ -	$ 19,500
	TOTAL INCOME	**$ 738,914**	**$ 80,504**	**$ 80,504**	**$ 80,504**	**$ 80,504**	**$ 80,503**	**$ 80,503**	**$ 80,503**	**$ 56,403**	**$ 56,403**	**$ 56,403**	**$ 3,090**	**$ 3,090**	**$ 738,914**

Los Angeles City Employees' Retirement System

Administrative Budget

Fiscal Year 2020-21

Line Item #	Description	Total	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20	Jan-21	Feb-21	Mar-21	Apr-21	May-21	Jun-21	Total
601 Salaries As Needed															
	Part-Time Staff for ASO	$ 19,980	$ 1,665	$ 1,665	$ 1,665	$ 1,665	$ 1,665	$ 1,665	$ 1,665	$ 1,665	$ 1,665	$ 1,665	$ 1,665	$ 1,665	$ 19,980
	Total Salaries As Needed	$ 19,980	$ 1,665	$ 1,665	$ 1,665	$ 1,665	$ 1,665	$ 1,665	$ 1,665	$ 1,665	$ 1,665	$ 1,665	$ 1,665	$ 1,665	$ 19,980
602 Overtime															
ADM272	OT - ASO	$ 3,000	$ 250	$ 250	$ 250	$ 250	$ 250	$ 250	$ 250	$ 250	$ 250	$ 250	$ 250	$ 250	$ 3,000
ADM338	OT - Systems	$ 15,238	$ 1,270	$ 1,270	$ 1,270	$ 1,270	$ 1,270	$ 1,270	$ 1,270	$ 1,270	$ 1,270	$ 1,270	$ 1,270	$ 1,268	$ 15,238
	Total Overtime	$ 18,238	$ 1,520	$ 1,520	$ 1,520	$ 1,520	$ 1,520	$ 1,520	$ 1,520	$ 1,520	$ 1,520	$ 1,520	$ 1,520	$ 1,518	$ 18,238
613 Legal															
	Building Ownership	$ 45,000	$ -	$ -	$ 5,625	$ 5,625	$ 5,625	$ 5,625	$ 5,625	$ 5,625	$ 5,625	$ 5,625	$ -	$ -	$ 45,000
	Total Legal	$ 45,000	$ -	$ -	$ 5,625	$ 5,625	$ 5,625	$ 5,625	$ 5,625	$ 5,625	$ 5,625	$ 5,625	$ -	$ -	$ 45,000
623 Computer Hardware															
	Board AV	$ 74,000	$ 12,333	$ 12,333	$ 12,333	$ 12,333	$ 12,333	$ 12,335	$ -	$ -	$ -	$ -	$ -	$ -	$ 74,000
	Call Attendant	$ 56,000	$ 4,667	$ 4,667	$ 4,667	$ 4,667	$ 4,667	$ 4,667	$ 4,667	$ 4,667	$ 4,667	$ 4,667	$ 4,667	$ 4,667	$ 56,000
	Data Center Equipment Upgrade	$ 200,000	$ 33,333	$ 33,333	$ 33,333	$ 33,333	$ 33,333	$ 33,335	$ -	$ -	$ -	$ -	$ -	$ -	$ 200,000
	Storage Area Network - hardware	$ 95,000	$ 95,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 95,000
	Surveillance Alert System	$ 42,000	$ 42,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 42,000
	Network Infrastructure	$ 364,000	$ 45,500	$ 45,500	$ 45,500	$ 45,500	$ 45,500	$ 45,500	$ 45,500	$ 45,500	$ -	$ -	$ -	$ -	$ 364,000
	Total Computer Hardware	$ 831,000	$ 232,833	$ 95,833	$ 95,833	$ 95,833	$ 95,833	$ 95,837	$ 50,167	$ 50,167	$ 4,667	$ 4,667	$ 4,667	$ 4,667	$ 831,000
625 Computer Maintenance & Support															
	AT&T Internet - Business ISP & CO Lines	$ 15,241	$ 1,270	$ 1,270	$ 1,270	$ 1,270	$ 1,270	$ 1,270	$ 1,270	$ 1,270	$ 1,270	$ 1,270	$ 1,270	$ 1,271	$ 15,241
	AT&T U-Verse	$ 3,300	$ 275	$ 275	$ 275	$ 275	$ 275	$ 275	$ 275	$ 275	$ 275	$ 275	$ 275	$ 275	$ 3,300
	Total Computer Maintenance & Support	$ 18,541	$ 1,545	$ 1,545	$ 1,545	$ 1,545	$ 1,545	$ 1,545	$ 1,545	$ 1,545	$ 1,545	$ 1,545	$ 1,545	$ 1,546	$ 18,541
626 Outside Computer Consulting															
	Data Cabling & Patch Panel	$ 378,500	$ 47,313	$ 47,313	$ 47,313	$ 47,313	$ 47,313	$ 47,313	$ 47,313	$ 47,309					$ 378,500
	Data Center M&S	$ 23,000	$ 23,000	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 23,000
	Project Management & Installation Services	$ 374,000	$ 31,167	$ 31,167	$ 31,167	$ 31,167	$ 31,167	$ 31,167	$ 31,167	$ 31,167	$ 31,166	$ 31,166	$ 31,166	$ 31,166	$ 374,000
	Total Outside Computer Consulting	$ 775,500	$ 101,480	$ 78,480	$ 78,480	$ 78,480	$ 78,480	$ 78,480	$ 78,480	$ 78,476	$ 31,166	$ 31,166	$ 31,166	$ 31,166	$ 775,500
631 Printing															
ADM55	Printing New Business Cards, Envelopes, Misc.	$ 8,000	$ -	$ -	$ -	$ -	$ -	$ -	$ 1,333	$ 1,333	$ 1,333	$ 1,333	$ 1,333	$ 1,335	$ 8,000
	Total Printing	$ 8,000	$ -	$ -	$ -	$ -	$ -	$ -	$ 1,333	$ 1,333	$ 1,333	$ 1,333	$ 1,333	$ 1,335	$ 8,000
633 Telephone and Utilities															
	VOIP - Data Center - AT&T Long Distance	$ 12,000	$ 1,000	$ 1,000	$ 1,000	$ 1,000	$ 1,000	$ 1,000	$ 1,000	$ 1,000	$ 1,000	$ 1,000	$ 1,000	$ 1,000	$ 12,000
	Total Telephone and Utilities	$ 12,000	$ 1,000	$ 1,000	$ 1,000	$ 1,000	$ 1,000	$ 1,000	$ 1,000	$ 1,000	$ 1,000	$ 1,000	$ 1,000	$ 1,000	$ 12,000
7300 Furniture and Other Equipment															
	Building Furniture ($30/sqft)	$ 2,131,305	$ -	$ -	$ -	$ -	$ -	$ -	$ 355,218	$ 355,218	$ 355,218	$ 355,218	$ 355,218	$ 355,218	$ 2,131,305
	Total Furniture and Other Equipment	$ 2,131,305	$ -	$ -	$ -	$ -	$ -	$ -	$ 355,218	$ 355,218	$ 355,218	$ 355,218	$ 355,218	$ 355,218	$ 2,131,305
635 Office Space															
	Existing Space Restoration & Close Out	$ 42,188	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 14,063	$ 9,375	$ 9,375	$ 9,375	$ 42,188
	Moving Staff From LA Times to 977	$ 50,000	$ -	$ -	$ -	$ -	$ -	$ -	$ 8,333	$ 8,333	$ 8,333	$ 8,333	$ 8,333	$ 8,335	$ 50,000
	Total Office Space	$ 92,188	$ -	$ -	$ -	$ -	$ -	$ -	$ 8,333	$ 8,333	$ 22,396	$ 17,708	$ 17,708	$ 17,710	$ 92,188
656 Membership Dues and Subscription															
ADM63	Shredding Services	$ 3,000	$ 250	$ 250	$ 250	$ 250	$ 250	$ 250	$ 250	$ 250	$ 250	$ 250	$ 250	$ 250	$ 3,000
	Total Membership Dues and Subscription	$ 3,000	$ 250	$ 250	$ 250	$ 250	$ 250	$ 250	$ 250	$ 250	$ 250	$ 250	$ 250	$ 250	$ 3,000
	TOTAL ADMINISTRATIVE EXPENSES	**$ 3,954,752**	**$ 340,293**	**$ 180,293**	**$ 185,918**	**$ 185,918**	**$ 185,918**	**$ 185,922**	**$ 505,135**	**$ 505,131**	**$ 426,384**	**$ 421,696**	**$ 416,071**	**$ 416,074**	**$ 3,954,752**

Los Angeles City Employees' Retirement System

Asset Operating Budget

Fiscal Year 2020-21

Line Item #	Description	Total	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20	Jan-21	Feb-21	Mar-21	Apr-21	May-21	Jun-21	Total
Payroll															
7025-0000	Maintenance Supervisor	$ 125,580	$ 10,465	$ 10,465	$ 10,465	$ 10,465	$ 10,465	$ 10,465	$ 10,465	$ 10,465	$ 10,465	$ 10,465	$ 10,465	$ 10,465	$ 125,580
	Total Payroll	$ 125,580	$ 10,465	$ 10,465	$ 10,465	$ 10,465	$ 10,465	$ 10,465	$ 10,465	$ 10,465	$ 10,465	$ 10,465	$ 10,465	$ 10,465	$ 125,580
General Administration															
7205-0000	Telephone	$ 28,800	$ 2,400	$ 2,400	$ 2,400	$ 2,400	$ 2,400	$ 2,400	$ 2,400	$ 2,400	$ 2,400	$ 2,400	$ 2,400	$ 2,400	$ 28,800
7230-0000	Office Supplies	$ 3,000	$ 250	$ 250	$ 250	$ 250	$ 250	$ 250	$ 250	$ 250	$ 250	$ 250	$ 250	$ 250	$ 3,000
7235-0000	Postage	$ 200	$ 50	$ -	$ -	$ 50	$ -	$ -	$ 50	$ -	$ -	$ 50	$ -	$ -	$ 200
7274-0000	Computer Equipment, Rep	$ 2,160	$ 180	$ 180	$ 180	$ 180	$ 180	$ 180	$ 180	$ 180	$ 180	$ 180	$ 180	$ 180	$ 2,160
7308-0000	Other Professional Fees	$ 2,400	$ 200	$ 200	$ 200	$ 200	$ 200	$ 200	$ 200	$ 200	$ 200	$ 200	$ 200	$ 200	$ 2,400
7320-0000	Governmental License / Fees	$ 1,200	$ -	$ -	$ -	$ -	$ 600	$ -	$ -	$ -	$ 600				$ 1,200
7325-0000	Bank Charges	$ 300	$ 25	$ 25	$ 25	$ 25	$ 25	$ 25	$ 25	$ 25	$ 25	$ 25	$ 25	$ 25	$ 300
7330-0000	Miscellaneous General	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
	Total General Administration	$ 38,060	$ 3,105	$ 3,055	$ 3,055	$ 3,105	$ 3,655	$ 3,055	$ 3,105	$ 3,055	$ 3,655	$ 3,105	$ 3,055	$ 3,055	$ 38,060
Management Fees															
7380-0000	Management Fees	$ 180,000	$ 15,000	$ 15,000	$ 15,000	$ 15,000	$ 15,000	$ 15,000	$ 15,000	$ 15,000	$ 15,000	$ 15,000	$ 15,000	$ 15,000	$ 180,000
	Total Management Fees	$ 180,000	$ 15,000	$ 15,000	$ 15,000	$ 15,000	$ 15,000	$ 15,000	$ 15,000	$ 15,000	$ 15,000	$ 15,000	$ 15,000	$ 15,000	$ 180,000
Garage Expense															
7401-0000	Garage/Parking Lot - Equip	$ 4,800	$ 400	$ 400	$ 400	$ 400	$ 400	$ 400	$ 400	$ 400	$ 400	$ 400	$ 400	$ 400	$ 4,800
7430-0000	Garage Operations Expense	$ 89,532	$ 7,461	$ 7,461	$ 7,461	$ 7,461	$ 7,461	$ 7,461	$ 7,461	$ 7,461	$ 7,461	$ 7,461	$ 7,461	$ 7,461	$ 89,532
	Total Garage Expense	$ 94,332	$ 7,861	$ 7,861	$ 7,861	$ 7,861	$ 7,861	$ 7,861	$ 7,861	$ 7,861	$ 7,861	$ 7,861	$ 7,861	$ 7,861	$ 94,332
Landscaping/Grounds															
7600-0000	Landscaping	$ 1,560	$ 130	$ 130	$ 130	$ 130	$ 130	$ 130	$ 130	$ 130	$ 130	$ 130	$ 130	$ 130	$ 1,560
7430-0000	Landscaping R&M Exterior	$ 500	$ -	$ -	$ -	$ -	$ -	$ -	$ 500	$ -	$ -	$ -	$ -	$ -	$ 500
	Total Landscaping/Grounds	$ 2,060	$ 130	$ 130	$ 130	$ 130	$ 130	$ 130	$ 630	$ 130	$ 130	$ 130	$ 130	$ 130	$ 2,060
General Repair and Maintenance															
7800-0000	Plumbing	$ 4,800	$ 400	$ 400	$ 400	$ 400	$ 400	$ 400	$ 400	$ 400	$ 400	$ 400	$ 400	$ 400	$ 4,800
7805-0000	Fire Extinguisher Recharge	$ 600	$ -	$ -	$ 600	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 600
7809-0000	Water Treatment	$ 8,232	$ 686	$ 686	$ 686	$ 686	$ 686	$ 686	$ 686	$ 686	$ 686	$ 686	$ 686	$ 686	$ 8,232
7810-0000	Electrical	$ 5,500	$ 500	$ -	$ -	$ 500	$ -	$ -	$ 500	$ 1,500	$ 2,000	$ 500	$ -	$ -	$ 5,500
7816-0000	HVAC Contracted - Interior	$ 24,000	$ 6,000	$ -	$ -	$ 6,000	$ -	$ -	$ 6,000	$ -	$ -	$ 6,000	$ -	$ -	$ 24,000
7824-0000	Supplies	$ 5,100	$ 425	$ 425	$ 425.00	$ 425	$ 425	$ 425	$ 425	$ 425	$ 425	$ 425	$ 425	$ 425	$ 5,100
7828-0000	Painting	$ 4,000	$ 1,000	$ -	$ -	$ 1,000	$ -	$ -	$ 1,000	$ -	$ -	$ 1,000	$ -	$ -	$ 4,000
7839-0000	Repairs/Labor	$ 28,600	$ 12,600	$ 500	$ 500	$ 4,000	$ 500	$ 500	$ 4,000	$ 500	$ 500	$ 4,000	$ 500	$ 500	$ 28,600
7845-0000	Exterminating	$ 1,500	$ 125	$ 125	$ 125	$ 125	$ 125	$ 125	$ 125	$ 125	$ 125	$ 125	$ 125	$ 125	$ 1,500
7850-0000	Elevator/Escalator Maint C	$ 8,100	$ 675	$ 675	$ 675	$ 675	$ 675	$ 675	$ 675	$ 675	$ 675	$ 675	$ 675	$ 675	$ 8,100
7851-0000	Elevator/Escalator Repair and Maintenance	$ 2,400	$ 200	$ 200	$ 200	$ 200	$ 200	$ 200	$ 200	$ 200	$ 200	$ 200	$ 200	$ 200	$ 2,400
7853-0000	Elevator Inspection Fees	$ 1,200	$ 300	$ -	$ -	$ 300	$ -	$ -	$ 300	$ -	$ -	$ 300	$ -	$ -	$ 1,200
7870-0000	Parking Lot Sweeping	$ 960	$ 80	$ 80	$ 80	$ 80	$ 80	$ 80	$ 80	$ 80	$ 80	$ 80	$ 80	$ 80	$ 960
7897-0000	Locks & Keys	$ 2,400	$ 200	$ 200	$ 200	$ 200	$ 200	$ 200	$ 200	$ 200	$ 200	$ 200	$ 200	$ 200	$ 2,400
	Total General Repair and Maintenance	$ 97,392	$ 23,191	$ 3,291	$ 3,891	$ 14,591	$ 3,291	$ 3,291	$ 14,591	$ 4,791	$ 5,291	$ 14,591	$ 3,291	$ 3,291	$ 97,392
Janitorial															
7900-0000	Janitorial Contract	$ 49,584	$ 3,303	$ 3,303	$ 3,303	$ 3,303	$ 3,303	$ 3,303	$ 3,303	$ 5,633	$ 5,633	$ 5,633	$ 4,782	$ 4,782	$ 49,584
7910-0000	Cleaning Supplies	$ 8,500	$ 500	$ 500	$ 500	$ 500	$ 500	$ 500	$ 500	$ 1,000	$ 1,000	$ 1,000	$ 1,000	$ 1,000	$ 8,500
7930-0000	Trash Removal	$ 9,600	$ 800	$ 800	$ 800	$ 800	$ 800	$ 800	$ 800	$ 800	$ 800	$ 800	$ 800	$ 800	$ 9,600
7940-0000	Window Washing	$ 7,200	$ -	$ -	$ -	$ -	$ -	$ -	$ 7,200	$ -	$ -	$ -	$ -	$ -	$ 7,200
7945-0000	Janitorial - Other	$ 37,752	$ 1,986	$ 1,986	$ 1,986	$ 1,986	$ 1,986	$ 1,986	$ 1,986	$ 4,770	$ 4,770	$ 4,770	$ 4,770	$ 4,770	$ 37,752
	Total Janitorial	$ 112,636	$ 6,589	$ 6,589	$ 6,589	$ 6,589	$ 6,589	$ 6,589	$ 13,789	$ 12,203	$ 12,203	$ 12,203	$ 11,352	$ 11,352	$ 112,636

Security														
8000-0000	Security Fire Alarm Monitor	$ 960	$ 80	$ 80	$ 80	$ 80	$ 80	$ 80	$ 80	$ 80	$ 80	$ 80	$ 80	$ 80	$ 960
8001-0000	Security - Guard Service	$ 198,056	$ 16,881	$ 16,615	$ 16,350	$ 16,615	$ 16,350	$ 16,881	$ 16,881	$ 15,819	$ 16,615	$ 16,084	$ 16,881	$ 16,084	$ 198,056
8002-0000	Security - Equipment	$ 500	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 500	$ -	$ -	$ 500
8020-0000	Fire Alarm & Sprinkler	$ 7,000	$ 500	$ -	$ -	$ 500	$ 5,000	$ -	$ 500	$ -	$ -	$ 500	$ -	$ -	$ 7,000
	Total Security	$ 206,516	$ 17,461	$ 16,695	$ 16,430	$ 17,195	$ 21,430	$ 16,961	$ 17,461	$ 15,899	$ 16,695	$ 17,164	$ 16,961	$ 16,164	$ 206,516
Utilities														
8110-0000	Electricity - Common Area	$ 131,735	$ 10,270	$ 10,104	$ 8,170	$ 9,137	$ 8,096	$ 7,398	$ 7,050	$ 13,111	$ 13,455	$ 16,573	$ 14,179	$ 14,192	$ 131,735
8130-0000	Gas - Common Area	$ 1,228	$ 103	$ 113	$ 105	$ 87	$ 85	$ 127	$ 117	$ 106	$ 100	$ 126	$ 94	$ 65	$ 1,228
8141-0000	Water - Building	$ 7,350	$ 450	$ 600	$ 800	$ 500	$ 400	$ 300	$ 300	$ 800	$ 800	$ 800	$ 800	$ 800	$ 7,350
8149-0000	Water & Sewer	$ 1,536	$ 128	$ 128	$ 128	$ 128	$ 128	$ 128	$ 128	$ 128	$ 128	$ 128	$ 128	$ 128	$ 1,536
	Total Utilities	$ 141,849	$ 10,951	$ 10,945	$ 9,203	$ 9,852	$ 8,709	$ 7,953	$ 7,595	$ 14,145	$ 14,483	$ 17,627	$ 15,201	$ 15,185	$ 141,849
Insurance														
8203-0000	Ins Prem - General Liability	$ 193,324	$ 15,127	$ 15,127	$ 15,127	$ 15,127	$ 15,127	$ 15,127	$ 15,127	$ 15,127	$ 18,077	$ 18,077	$ 18,077	$ 18,077	$ 193,324
	Total Insurance	$ 193,324	$ 15,127	$ 15,127	$ 15,127	$ 15,127	$ 15,127	$ 15,127	$ 15,127	$ 15,127	$ 18,077	$ 18,077	$ 18,077	$ 18,077	$ 193,324
Taxes														
8310-0000	Chinatown BID	$ 23,406	$ -	$ -	$ -	$ -	$ 11,703	$ -	$ -	$ -	$ -	$ 11,703	$ -	$ -	$ 23,406
8310-0000	Property Taxes	$ 147,818	$ -	$ -	$ -	$ -	$ 73,909	$ -	$ -	$ -	$ -	$ 73,909	$ -	$ -	$ 147,818
	Total Taxes	$ 171,224	$ -	$ -	$ -	$ -	$ 85,612	$ -	$ -	$ -	$ -	$ 85,612	$ -	$ -	$ 171,224
Real Estate & Other Tax Prep - LL														
8403-0000	Accounting Auditing Tax Prep - LL	$ 47,820	$ -	$ -	$ 940	$ -	$ -	$ 940	$ -	$ -	$ 940	$ -	$ -	$ 45,000	$ 47,820
	Total Real Estate & Other Tax Prep - LL	$ 47,820	$ -	$ -	$ 940	$ -	$ -	$ 940	$ -	$ -	$ 940	$ -	$ -	$ 45,000	$ 47,820
Non-Reimb Expenses LL														
8451-0000	Miscellaneous LL	$ 68,000	$ 1,500	$ 1,500	$ 1,500	$ 1,500	$ 1,500	$ 1,500	$ 51,500	$ 1,500	$ 1,500	$ 1,500	$ 1,500	$ 1,500	$ 68,000
	Total Non-Reimb Expenses LL	$ 68,000	$ 1,500	$ 1,500	$ 1,500	$ 1,500	$ 1,500	$ 1,500	$ 51,500	$ 1,500	$ 1,500	$ 1,500	$ 1,500	$ 1,500	$ 68,000
	TOTAL OPERATING EXPENSES	**$ 1,478,793**	**$ 111,380**	**$ 90,658**	**$ 90,191**	**$ 101,415**	**$ 179,369**	**$ 88,872**	**$ 157,124**	**$ 100,176**	**$ 106,300**	**$ 203,335**	**$ 102,893**	**$ 147,080**	**$ 1,478,793**

Los Angeles City Employees' Retirement System

Capital Budget

Fiscal Year 2020-21

Line Item #	Description	Cost	Contingency (10%)	Total
SOFT COSTS				
ARC Engineering				
	Interior MEP Services - Engineering Plans to Design Services	$ 104,000	$ 10,400	$ 114,400
	Server Room MEP Design - Engineering Fee	$ 20,000	$ 2,000	$ 22,000
	Backup Generator Replacement - Engineering Fee	$ 12,000	$ 1,200	$ 13,200
	Total ARC Engineering	$ 136,000	$ 13,600	$ 149,600
HOK				
	Interior Architecture Services	$ 242,030	$ 24,203	$ 266,233
	Furniture Support	$ 16,860	$ 1,686	$ 18,546
	Exterior / Garage Architecture Services - Design - CA	$ 94,950	$ 9,495	$ 104,445
	LEED Certification (Silver)	$ 58,000	$ 5,800	$ 63,800
	Well Building Certification (Gold)	$ 84,000	$ 8,400	$ 92,400
	Lighting - Interior, Exterior, Parking, LEED, WELL	$ 55,000	$ 5,500	$ 60,500
	Landscape (Patio)	$ 85,200	$ 8,520	$ 93,720
	Acoustics - LEED/WELL	$ 26,180	$ 2,618	$ 28,798
	Experience Design - Signage + Branding	$ 59,475	$ 5,948	$ 65,423
	Workplace Strategy & Brief	$ 60,700	$ 6,070	$ 66,770
	Change Management	$ 39,000	$ 3,900	$ 42,900
	Plant Program	$ 8,000	$ 800	$ 8,800
	Photo Realistic Renderings (4 total)	$ 10,000	$ 1,000	$ 11,000
	Artwork and Accessories	$ 12,200	$ 1,220	$ 13,420
	Electronic Conference Room Management System	$ 90,000	$ 9,000	$ 99,000
	Total HOK	$ 941,595	$ 94,160	$ 1,035,755
MHP				
	Structural Engineering - Interior Design Support	$ 25,000	$ 2,500	$ 27,500
	Structural Evaluation - Seismic Strengthening	$ 36,000	$ 3,600	$ 39,600
	Structural Design - Damper Strengthening	$ 270,000	$ 27,000	$ 297,000
	Total MHP	$ 331,000	$ 33,100	$ 364,100
PacShore				
	Project Management	$ 132,000	$ 13,200	$ 145,200
	Total PacShore	$ 132,000	$ 13,200	$ 145,200
Permits & Fees				
	Department of Building & Safety	$ 75,000	$ 7,500	$ 82,500
	LEED/WELL - Certification Fees	$ 20,000	$ 2,000	$ 22,000
	Total MHP	$ 95,000	$ 9,500	$ 104,500
Wiss Janney Elstner Associates				
	Cladding Feasibility Study	$ 55,000	$ 5,500	$ 60,500
	Façade Access Consulting	$ 55,000	$ 5,500	$ 60,500
	Roof Consulting	$ 30,000	$ 3,000	$ 33,000
	Construction Administration	$ 35,000	$ 3,500	$ 38,500
	Total Wiss Janney Elstner Associates	$ 175,000	$ 17,500	$ 192,500
Contractor To Be Determined				
	Art Consultant	$ 30,000	-	$ 30,000
	Signage Consultant	$ 25,000	$ 2,500	$ 27,500
	Technology Consultant	$ 374,000	$ 37,400	$ 411,400
	Security Consultant	$ 25,000	$ 2,500	$ 27,500
	Storage Area Network Contractual Services	$ 22,800	$ 2,280	$ 25,080
	Project Management - Third Party	$ 225,000	$ 22,500	$ 247,500
	Total Contractor To Be Determined	$ 701,800	$ 67,180	$ 768,980
	TOTAL SOFT COSTS	**$ 2,512,395**	**$ 248,240**	**$ 2,760,635**

Los Angeles City Employees' Retirement System

Capital Budget

Fiscal Year 2020-21

Line Item #	Description	Cost	Contingency (10%)	Total
HARD COSTS				
	Owner Improvement - 5th Floor- $25 / RSF	$ 340,725	$ 34,073	$ 374,798
	Owner Improvement - 4th Floor - $85 / RSF - Vacant; $25 / RSF - Suite 420	$ 1,017,245	$ 101,725	$ 1,118,970
	Owner Improvement - 3rd Floor - $85 / RSF	$ 1,158,125	$ 115,813	$ 1,273,938
	Owner Improvement - 2nd Floor - $25 / RSF	$ 341,525	$ 34,153	$ 375,678
	Owner Improvement - 1st Floor - $125 / RSF	$ 1,221,000	$ 122,100	$ 1,343,100
	Owner Improvement - LEED/WELL Certification - Construction Cost Increase - 5%	$ 203,931	$ 20,393	$ 224,324
	Owner Technology	$ 1,373,941	$ 137,394	$ 1,511,335
	Roof System Replacement	$ 660,000	$ 66,000	$ 726,000
	Exterior Wet Seal Replacement	$ 250,000	$ 25,000	$ 275,000
	Interior Wet Seal Replacement	$ 32,000	$ 3,200	$ 35,200
	Interior Water Damage Repairs	$ 130,000	$ 13,000	$ 143,000
	Signage	$ 50,000	$ 5,000	$ 55,000
	Emergency Generator Upgrade	$ 350,000	$ 35,000	$ 385,000
	Seismic Upgrade - Viscous Isolation Dampers	$ 2,500,000	$ 250,000	$ 2,750,000
	Power Protection Equipment	$ 60,910	$ 6,091	$ 67,001
	Art (1% LADBS) Allowance	$ 172,000	$ 17,200	$ 189,200
	Security Upgrades	$ 175,000	$ 17,500	$ 192,500
	Exterior Renovation	$ 1,500,000	$ 150,000	$ 1,650,000
	Exterior Patio Improvement	$ 250,000	$ 25,000	$ 275,000
	Garage Renovation	$ 275,000	$ 27,500	$ 302,500
	Public Address System	$ 125,000	$ 12,500	$ 137,500
	Electric Vehicle Charging Stations	$ 150,000	$ 15,000	$ 165,000
	Vault - Fiscal & Systems Programs	$ 50,000	$ 5,000	$ 55,000
	Misc. Capex	$ 637,050	$ 63,705	$ 700,755
	TOTAL HARD COSTS	**$ 13,023,452**	**$ 1,302,345**	**$ 14,325,797**

977 NORTH BROADWAY
APPROVAL OF THE CAPITAL, OPERATING, AND ADMINISTRATIVE BUDGETS
TOTALING $22,519,976 FOR FISCAL YEAR 2020-21 (FY21) EXPENSES
AND
DELEGATION OF AUTHORITY TO THE GENERAL MANAGER TO APPROVE FUNDING
REQUESTS AND DOCUMENTS RELATED TO THE IMPLEMENTATION OF THE
FY21 BUILDING ANNUAL PLAN

PROPOSED RESOLUTION

Whereas, on October 23, 2019, LACERS closed escrow on a purchase of an office building at 977 North Broadway (“Broadway Building”), Los Angeles California; the property is a real estate asset held in a separate account in the LACERS Trust Fund, and the LACERS Board of Administration has sole and exclusive plenary authority over the assets of the trust fund, including engaging an Asset Advisor to develop an Asset Annual Plan and Budget; to manage the asset; and select, engage, and oversee third-party service providers to execute the Plan; and to report to the Board, as necessary;

Whereas, Invesco Advisers, Inc. (“Invesco”) began performing Asset Services on October 31, 2019 and obtained Board approval on March 10, 2020 for Capital Projects and Expenses, Operating Expenses and Administrative Expenses for the partial year from October 2019 through June 2020;

Whereas, property expenditures for capital expenses, operating expenses, and administrative expenses have been prepared by Invesco in collaboration with LACERS staff, for the period of July 1, 2020 to June 30, 2021; and such expenditure are reasonable and consistent with LACERS’ objectives for the management of the asset;

Whereas, the Capital and Operating Budgets for the Broadway Building will be funded by the LACERS Trust Fund to the external bank account in LACERS’ name, administered by Invesco; while funding for the Building Administrative Budget will come from our Department Administrative Budget;

NOW, THEREFORE, BE IT RESOLVED, that the Board:

1. Approve the Capital Expense Budget of $17,086,432, and Operating Budget of $1,478,793 for the implementation of the Broadway Building Annual Plan.
2. Authorize the General Manager to approve funding requests for the Capital and Operating Budgets; to approve transactions and execute documents as necessary to implement the Broadway Building Annual Plan; and to correct typographical or technical errors in the Budget.
3. Approve a Supplemental Appropriation of $3,954,752 to Fund 800, LACERS Administrative Budget, as follows:

FISCAL YEAR 2020-21 – SUPPLEMENTAL BUDGET APPROPRIATION FOR THE HEADQUARTERS BUILDING MOVE

LACERS FUND 800

	Supplemental Budget Appropriation 2020-21
SALARIES	
As Needed	$ 19,980
Overtime	18,238
Total Salaries	$ 38,218
EXPENSE	
Printing and Binding	$ 8,000
Contracts	912,688
Office and Administrative.	33,541
Total Expense	$ 954,229
EQUIPMENT	
Furniture, Office and Technical Equipment	$ 2,962,305
Total Equipment	$ 2,962,305
Total Administrative Expense	**$ 3,954,752**

LACERS
LOS ANGELES CITY EMPLOYEES' RETIREMENT SYSTEM

REPORT TO BOARD OF ADMINISTRATION

From: Governance Committee
Nilza R. Serrano, Chair
Cynthia M. Ruiz
Annie Chao

MEETING: JUNE 9, 2020
ITEM: VII-C

SUBJECT: **BOARD PROCEDURES ON OFFICER ELECTIONS AND POSSIBLE BOARD ACTION**

ACTION: ☒ CLOSED: ☐ CONSENT: ☐ RECEIVE & FILE: ☐

Recommendation

That the Board approve the attached proposed updates to the Board Administrative Policies of the LACERS Board Manual, Section 4.4: Board Procedures – Election.

Executive Summary

The Governance Committee reviewed the Board Procedure on the election of President and Vice-President of the Board and supports staff recommendation to align the procedure with the Los Angeles City Charter ("Charter"). The Committee, the City Attorney, and staff agree upon the recommended language.

Discussion

On May 26, 2020, the Committee considered the proposed revisions to *Section 4.4: Board Procedures – Election* (report attached). The Committee reviewed LACERS' Board Officer Election Procedure against the Charter requirements and policies of six peer pension systems in California. The Committee discussed staff's recommendation to revise the language regarding the date of the annual officer election. The policy states that the election "is *generally* held on the second meeting of July each year, or when a Board Officer seat becomes vacant" while the Charter language is definitive, stating "Elections *shall be* held during its last meeting in July of each year." The change is reflected in the attached redline.

The Committee also directed staff to research Board Officer term limit policies of other similar public pension systems and report back to the Committee as time permits.

Strategic Plan Impact Statement

The update of the Board Administrative Policies of the LACERS Board Manual conforms to the Strategic Plan Board Governance Goal to uphold good governance practices which affirm transparency, accountability, and fiduciary duty.

Prepared By: Dale Wong-Nguyen, Chief Benefits Analyst, Administration Division

NG/TB/DWN

Attachments: 1) Report to Governance Committee dated May 26, 2020
2) Redline to the Board Administrative Policies, Board Procedures, Section 4.4 Election

LACERS
LOS ANGELES CITY EMPLOYEES' RETIREMENT SYSTEM

REPORT TO GOVERNANCE COMMITTEE **MEETING: MAY 26, 2020**
From: Neil M. Guglielmo, General Manager **ITEM: IV**

SUBJECT: **REVIEW OF BOARD PROCEDURES ON OFFICER ELECTIONS AND POSSIBLE COMMITTEE ACTION**

ACTION: ☒ CLOSED: ☐ CONSENT: ☐ RECEIVE & FILE: ☐

Recommendation

That the Committee discuss the Board Procedures on Officer Elections and direct staff accordingly.

Executive Summary

Following the Board officer election last July, a request was made for the Governance Committee to review the policies and procedures on the election of Board President and Vice President.

Discussion

Election of Board President and Vice President is codified in the Board Governance Policies, Board Procedures Section 4.4, last reviewed on September 11, 2018. The policy states:

4.4 ELECTION

The Election of Board Officers for the then current fiscal year is generally held on the second meeting of July each year, or when a Board Officer seat becomes vacant. The Board shall elect one of its members to the office of President, and one to the office of Vice President. The Board Officers shall hold office for one year and until replaced by the election of a successor or reelected at the next Election, unless their membership on the Board expires sooner.

At the appointed time, the General Manager/Manager-Secretary shall call for nominations for the office of President. After nominations have concluded, the General Manager/Manager-Secretary shall call for the Ayes and Nays from among the Members of the Board for each candidate nominated. Upon one candidate securing a majority vote, the General Manager/Manager-Secretary shall announce that the office of President is filled until the newly elected Member is replaced or re-elected at the next election.

The General Manager/Manager-Secretary shall then call for nominations for the office of Vice President and repeat the election procedure described above until one candidate secures a majority vote, at which time the office of Vice President may be deemed filled.

Staff consulted with the Assistant City Attorney to confirm that the Board has the broad authority to adopt any Board procedural rules they deem necessary so long as the rules do not conflict with the Los Angeles City Charter, Section 503(a) and there is a majority vote of the Board to adopt said policies.

LOS ANGELES CITY CHARTER, SECTION 503 (a). ORGANIZATION OF THE BOARD.

(a) Officers. Each of the boards created in the Charter shall elect one of its members President and one Vice-President. Officers shall hold office for one year and until their successors are elected, unless their membership on the board expires sooner. Elections shall be held during its last meeting in July of each year, but the board may fill the unexpired term of any vacancy occurring in the office of President or Vice-President at any meeting.

LACERS Board Policy is consistent with policies of six California peer retirement systems (see Attachment). The policies all specify the election to be conducted at a specified meeting annually, and upon a vacancy of the President or Vice President.

Differences in policies exist, with some unique characteristics listed below:

- Limitation that an officer may not serve more than one term consecutively as President or Vice President
- Intervening elections made be called by 2/3rd majority vote
- Run-off vote by secret ballot
- Election of the Vice Chair who automatically succeeds to Chair the next calendar year
- An aspirational statement to elect one officer that is an elected trustee and one that is an appointed trustee
- LACERS' policy is unique in that it provides a procedure for nominations

Staff recommends one change to the first sentence of the Board Procedure to align it with the Los Angeles City Charter, as indicated below:

*The Election of Board Officers for the then current fiscal year is ~~generally~~ held on the ~~second meeting~~ **fourth Tuesday** of July each year, or when a Board Officer seat becomes vacant.*

Strategic Plan Impact Statement

The review of Board Policies conforms to the LACERS Strategic Plan Board Governance Goal to uphold good governance practices which affirm transparency, accountability, and fiduciary duty.

Prepared By: Dale Wong-Nguyen, Chief Benefits Analyst

NG/TB:DWN

Attachment: Sample Board Officer Election Policies

SAMPLE BOARD OFFICER ELECTION POLICIES

LOS ANGELES FIRE AND POLICE PENSIONS (LAFPP)

https://www.lafpp.com/sites/default/files/file-attachments/section_i_-_board_governance_policies.pdf?1585336589

Duties and Responsibilities of the President

Consistent with the City Charter, the Board shall elect one of its members President and that member shall hold office for a term of one year or until a successor has been elected. Elections shall be held during the Board's last meeting in July of each year, but the Board shall, by election, fill the unexpired term of any vacancy occurring in the office of President within 30 days of the date the vacancy occurs. In addition to the Charter requirement, members of the Board of Fire and Police Pension Commissioners:

A. Shall not serve more than one term consecutively as President or Vice President;
B. The President is prohibited from being elected to the Office of Vice President immediately upon completion of their term as President; and C. Shall decide those positions by majority vote.

The term limit provision is added to ensure that no one individual member have undue influence over, or be perceived as having control over, the entire Board. (Revised 12/19/13; 09/20/18; and 11/21/19)

Duties and Responsibilities of the Vice President

Consistent with the City Charter, the Board shall elect one of its members Vice-President and that member shall hold office for a term of one year or until a successor has been elected. Elections shall be held during the Board's last meeting in July of each year, but the Board shall, by election, fill the unexpired term of any vacancy occurring in the office of Vice-President within 30 days of the date the vacancy occurs. In addition to the Charter requirement, members of the Board of Fire and Police Pension Commissioners:

A. Shall not serve more than one term consecutively as President or Vice President;
B. The President is prohibited from being elected to the Office of Vice President immediately upon completion of their term as President; and C. Shall decide those positions by majority vote.

The term limit provision is added to ensure that no one individual member have undue influence over, or be perceived as having control over, the entire Board. (Revised 12/19/13; 09/20/18; and 11/21/19)

CALIFORNIA PUBLIC EMPLOYEES RETIREMENT SYSTEM (CALPRS)
https://www.calpers.ca.gov/docs/board-governance-policy.pdf

The Board President and Vice President will be elected annually by members of the Board in open session at the January meeting of the Board for the term of one calendar year.

CALIFORINA STATE TEACHERS RETIREMENT SYSTEM (CALSTRS)
https://www.calstrs.com/sites/main/files/file-attachments/trb_policy_manual.pdf

Election of Officers

1. The election of the Board Chair and Vice-chair shall be held at the regularly scheduled Board meeting in May of each calendar year as the first agenda item. Intervening elections may be called by a 2/3rd majority of the Board. In determining the 2/3rd majority, vacant positions on the Board shall not be considered.
2. The election of the Chair and Vice-chair shall be by majority vote of the Board with a run-off to be held in the event that no candidate receives a majority of the first ballot. Where there is more than one candidate, the vote is to be conducted by secret ballot. The election shall be run by the Chief Executive Officer.

LOS ANGELES COUNTY EMPLOYEES RETIREMENT ASSOCIATION (LACERA)
https://www.lacera.com/about_lacera/bor/BOR_Regulations.pdf

Election of Chair
At the first regular meeting in January, the Board of Retirement shall elect one of its members chair for a term of one year or until his or her successor is duly elected and qualified.

Election of Vice Chair
At the first regular meeting in January, the Board of Retirement shall elect one of its members vice chair for a term of one year or until his or her successor is duly elected and qualified.

Filling of Vacancy in Office
In the event of a vacancy in the office of chair, vice chair or secretary, the Board of Retirement shall, at its next regular meeting, elect one of its members to fill such vacancy for the remainder of the term.

ORANGE COUNTY EMPLOYEES RETIREMENT SYSTEM (OCERS)

https://www.ocers.org/sites/main/files/file-attachments/boardofretirementcharter_0.pdf?1554486536

During the last regularly scheduled meeting of the Board for each calendar year elect a Vice Chair for a term beginning on the first day of the following calendar year, and in the event of a vacancy in the position of the Vice Chair during the year, elect a new Vice Chair at the next regularly scheduled meeting of the Board following such vacancy. The person holding the office of Vice Chair as of the last day of the calendar year will automatically succeed to the office of Chair effective the first day of the following calendar year;

In any election of the Vice Chair, strive to elect a Vice Chair that is (1) an elected Board member when the Chair is an appointed Board member; and (2) an appointed Board member when the Chair is an elected Board member;

SAN BERNADINO COUNTY EMPLOYEES RETIREMENT ASSOCIATION (SBCERA)

https://www.sbcera.org/sites/main/files/file-attachments/2019-04-16-amended_by-laws.pdf?1587064262

Appointment of Chair and Vice Chair

Annually at its first regular meeting in January the Board of Retirement ("Board") of the San Bernardino County Employees' Retirement Association ("SBCERA" or "the Association"), shall elect one of its members Chair and one of its members Vice Chair.

The Chair and Vice Chair shall each hold office for a term of one year, but such term May be extended into the next succeeding term pending a successor being duly elected and qualified. If the Chair, for any reason, fails to complete the term, the Vice Chair shall succeed to the position of Chair for the remainder of the unexpired term and the Board shall elect a Successor Vice Chair for the balance of the unexpired term. In the case of the temporary incapacity or unavailability of the Chair, the Vice Chair shall have all of the powers of the Chair for the duration of the incapacity or unavailability. Either office may be filled by any Board member.

ARTICLE I. BOARD GOVERNANCE STATEMENT

Section 4.0 BOARD PROCEDURES

4.4 ELECTION

The Election of Board Officers for the then current fiscal year ~~is generally held on the second meeting of~~ ***shall be*** **held during its last meeting in** July each year, or when a Board Officer seat becomes vacant. The Board shall elect one of its members to the office of President, and one to the office of Vice President. The Board Officers shall hold office for one year and until replaced by the election of a successor or re- elected at the next Election, unless their membership on the Board expires sooner.

At the appointed time, the General Manager/Manager-Secretary shall call for nominations for the office of President. After nominations have concluded, the General Manager/Manager-Secretary shall call for the Ayes and Nays from among the Members of the Board for each candidate nominated. Upon one candidate securing a majority vote, the General Manager/Manager- Secretary shall announce that the office of President is filled until the newly elected Member is replaced or re-elected at the next election.

The General Manager/Manager-Secretary shall then call for nominations for the office of Vice President and repeat the election procedure described above until one candidate secures a majority vote, at which time the office of Vice President may be deemed filled.

LACERS
LOS ANGELES CITY EMPLOYEES' RETIREMENT SYSTEM

REPORT TO BOARD OF ADMINISTRATION **MEETING: JUNE 9, 2020**
From: Neil M. Guglielmo, General Manager **ITEM: VII-D**

SUBJECT: **TRANSMITTAL TO THE BOARD OF THE COMMISSION ON REVENUE GENERATION FINAL REPORT TO CITY COUNCIL**

ACTION: ☐ CLOSED: ☐ CONSENT: ☐ RECEIVE & FILE: ☒

Recommendation

That the Board receive and file this transmittal as LACERS' staff will report back with actions to be taken in conjunction with findings from the upcoming City management audit of the retirement systems.

Executive Summary

The Commission on Revenue Generation (Commission) was formed by a Letter of Agreement between the Coalition of City Unions and the City to develop recommendations and maximize revenue to the City's general and special funds. The Commission met over a two year period on various potential strategies for increasing City revenues or reducing costs, including analysis of the City retirement systems. LACERS' staff worked with the Commission, providing and reviewing significant information and materials in support of their review.

On May 8, 2020, the Commission transmitted their final report to the Mayor and City Council, including recommendations pertaining to LACERS as outlined below.

Discussion

In preparing their report, the Commission procured consulting services to research and recommend best practices for LACERS and Los Angeles Fire and Police Pensions (LAFPP). In summary, the Commission recommends that LACERS and LAFPP:

1. Utilize the Asset Management Cost and Forecasting Tool developed for the Commission by a consultant and report back on the efficacy of the Forecasting Tool as part of our asset management strategies, and
2. Adopt the five best practices strategies and timelines outlined by the Commission and analyzed by a consultant.
3. Submit an annual report to Mayor and City Council on both the Asset Management Tool and the five strategies, with a full report submitted by the beginning of Fiscal Year 2025-26.

The full Commission report (Attachment 1) and the relevant Appendices (Attachment 2) are included herein for reference. LACERS staff intends to review these recommendations and report back to the Board in conjunction with findings from the upcoming City management audit of the retirement systems.

Prepared By: Todd Bouey, Assistant General Manager

NG/TB

Attachments: 1. Commission on Revenue Generation Final Report - May 8, 2020
2. Appendices

BOARD Meeting: 06/09/20
Item VII - D
Attachment 1

City of Los Angeles

May 8, 2020

CITY HALL
LOS ANGELES, CALIFORNIA 90012

Honorable Mayor Eric Garcetti
Honorable Paul Krekorian, Chair of Budget and Finance Committee
c/o Office of the City Clerk

Re: Commission on Revenue Generation Final Report

Dear Mayor and City Councilmembers:

The Commission on Revenue Generation (Commission) was formed by a Letter of Agreement (LOA) between the Coalition of City Unions and the City of Los Angeles (City) to develop recommendations and maximize revenue to the City's general and special funds sufficient to provide: high quality City services that are consistent across the City; to ensure equity in the City budget for underserved communities; and to ensure a high quality of life in our neighborhoods. To ensure the Commission has sufficient resources to accomplish its mission, the City provided $500,000 to fund administrative expenditures such as staff costs and consultant studies through the Commission's two-year tenure.

The Commission considered numerous revenue generating policies and programs, including the implementation of a vacant property tax and increased data coordination between the City Office of Finance and the County of Los Angeles Assessor's Office. The Commission also procured consulting services to research the feasibility of implementing a payment-in-lieu-of taxes program, windfall rent tax, and best practices for the City's Los Angeles City Employees' Retirement System (LACERS) and Los Angeles Fire and Police Pensions (LAFPP) pension funds. On February 19, 2020, the Commission held its final meeting and approved the final report outlining its recommendations on these measures. The following is a summary of these recommendations made by the Commission:

- Implement LAFPP and LACERS Pension Management Cost Reduction Strategies: The Commission recommends the Mayor request the LACERS and LAFPP Boards of Administration to adopt plans that may reduce their combined costs of investments by: 1) utilizing the Asset Management Cost and Forecasting Tool developed for the Commission by Moss Adams and reporting on the efficacy of the Forecasting Tool as part of their asset management strategies; and, 2) adopting the five best practices strategies and timelines that were outlined by the Commission and analyzed by Navigant consulting. The LACERS and LAFPP Boards of Administration would submit an annual report on both the Asset Management Cost and Forecasting Tool and the five strategies that should be provided to the Mayor and City Council with a full report submitted by the beginning of fiscal year 2025-26.

- Implement a proportional across-the-board tax increase above the current business tax rate for landlords: The Commission hired BAE Urban Economics to study the feasibility of implementing a Windfall Rent Tax. For the purposes of the BAE Urban Economics study, “windfall” is rental income to a landlord that exceeds a specific threshold. BAE’s study outlined three Windfall Rent tax scenarios, of which the Commission recommends an across-the-board tax increase on gross receipts for dwelling units. In this scenario outlined in the report, potential revenue generated ranges from $18.8 million to $83.6 million in gross receipts taxes.

- Improve coordination between the City Office of Finance and the County of Los Angeles Assessor’s Office regarding the collection of unsecured business property tax: The Commission facilitated the addition of a business personal property question to the City’s Business License Application, which will improve the County’s ability to identify taxable business property in the City and should lead to increased revenue. The Office of Finance agreed to work with the County Assessor’s Office in identifying and notifying City-licensed businesses that might owe taxes on unsecured business property.

- Implement the City Controller’s audit report, “In the Balance: Financial Report on the City’s Special Funds,” dated February 3, 2019: The Commission submitted a letter to the Los Angeles City Council Budget and Finance Committee to endorse and accept Los Angeles City Controller Ron Galperin’s Audit Report (C.F. no. 17-0786), including the Special Purpose Funds Management Policy. The Controller’s report detailed 705 special purpose funds totaling $4.1 billion as of June 2018. As of February 2019, there were no uniform policies or procedures for creating, using, reviewing, repurposing, or closing these accounts. The Controller’s report included recommendations to reform the special funds policy.

- Implement City Controller’s recommendations in the audit, “Tax Breaks and Subvention Deals,” dated August 10, 2018: The Commission submitted a letter to the Budget and Finance Committee to endorse and accept City Controller Ron Galperin’s report on the efficacy of the Incentive Agreements entered into by the City and his recommendations for the development of standards. The City Controller’s Office reviewed five incentive agreements approved between

2005 and 2015 - $654 million in tax refunds or abatement. Incentive agreements between 2016 and 2018 totaled $345 million. The Commission reviewed and endorsed the Controller's recommendations.

- Implement a Billboard Policy Program: After reviewing staff reports on the development of citywide sign regulations (including billboards), the Commission sent a letter to the Planning and Land Use Management (PLUM) Committee urging it to continue working on this issue to develop a billboard program that would be approved by the City Council.

The Commission looks forward to the consideration and implementation of these recommendations that will maximize revenue for the City. We thank our staff, our consultants, and the City departments that supported us as we identified ways of increasing revenue. Thank you for your support and for making this Commission possible, as we worked together toward providing high quality, equitable services across the City.

Best Regards,

Jan Breidenbach
Chair, Commission on Revenue Generation

Peter Dreier, Commissioner
Rudy Espinoza, Commissioner
Jack Humphreville, Commissioner
Jonathan Klein, Commissioner
Tim McDaniel, Vice Chair
Wayne Moore, Commissioner
Barbara Ringuette, Commissioner
William Smart, Commissioner
Jake Stevens, Commissioner

MCK:DHC:RM:03200060

Final Report 2020

COMMISSION ON REVENUE GENERATION

Jan Breidenbach
Chair, Commission on Revenue Generation

Peter Dreier, Commissioner
Rudy Espinoza, Commissioner
Jack Humphreville, Commissioner
Jonathan Klein, Commissioner
Timothy McDaniel, Jr., Vice Chair
Wayne Moore, Commissioner
Barbara Ringuette, Commissioner
William D. Smart, Jr., Commissioner
Jake Stevens, Commissioner

A MESSAGE FROM THE COMMISSION ON REVENUE GENERATION

After 24 months of research and extensive deliberation, we are excited to present our recommendations and considerations to maximize revenue to the City's general and special funds.

The Commission is a diverse group of individuals with a wide range of experience from community and social activism to academia, faith leadership, public policy and pension fund management. With all our disparate backgrounds, we have one thing in common: our dedication to making the City of Los Angeles a better place for all Angelenos to live, work and play.

As we conducted research, commissioned studies, and listened to presentations, forefront in our minds was the mandate given to us to seek new revenue sources that would maximize revenue, to ensure high quality services that are consistent across the city, to ensure equity in the City budget for underserved communities and to ensure a high quality of life in all neighborhoods. This was the goal with each recommendation and consideration we put forth.

We would like to thank the staff of the Office of the City Administrative Officer for their assistance and guidance during this process. Their knowledge and direction allowed us to remain on track and made it possible to do as much research as possible during our tenure.

The total estimated revenue stemming from the Commission's research is approximately $194 million. The actual revenue generated will vary depending on how the recommendations and considerations are implemented.

Top Rov L - R- Jack Humphreville, Timothy McDaniel, Jr. (Vice Chair), Peter Dreier, William D. Smart, Jr., Rudy Espinoza 2nd Row L -R- Wayne Moore, Jan Breidenbach (Chair), Barbara Ringuette, Jake Stevens. Not pictured - Jonathan Klein.

It is our hope that both the Mayor's Office and City Council find these recommendations and considerations useful in supporting the ongoing work of ensuring that all residents in the City of Los Angeles receive equal benefits from city services.

Best Regards,

Jan Breidenbach

Jan Breidenbach
Chair, Commission on Revenue Generation

Peter Dreier, Commissioner
Rudy Espinoza, Commissioner
Jack Humphreville, Commissioner
Jonathan Klein, Commissioner
Timothy McDaniel, Jr., Vice Chair
Wayne Moore, Commissioner
Barbara Ringuette, Commissioner
William D. Smart. Jr., Commissioner
Jake Stevens, Commissioner

COMMISSIONERS

JAN BREIDENBACH, CHAIR

Jan Breidenbach started her career as an organizer in the movements of the 1960s and 1970s, leading to 10 years as a union organizer for Local 535 of the Service Employees International Union (SEIU). In the mid-1980s, she founded the nonprofit Coalition for Women's Economic Development, working with low-income women wanting to start micro-businesses. In 1991, she became the executive director of the Southern California Association of Nonprofit Housing (SCANPH). During her tenure at SCANPH, she led policy campaigns to increase funding and update land use policies that prevent the construction of affordable housing. She taught housing and community development at the Price School of Public Policy at the University of Southern California and now continues her involvement in housing and community development as an instructor at Occidental College.

PETER DREIER

Peter Dreier is a professor of Politics and chair of the Urban & Environmental Policy Institute at Occidental College. Prior to joining the Occidental faculty in 1993, he served for eight years as Boston's director of housing policy under Mayor Ray Flynn. Among his six books are: *The Next Los Angeles: The Struggle for a Livable City and Place Matters: Metropolitics for the 21st Century.* His research focuses on housing, community economic development, and inequality. He has served on several city-sponsored task forces, served on the advisory board of the federal Resolution Trust Corporations (created to address the savings-and-loans crisis in the 1990s), was a member of the board of the Southern California Association for Nonprofit Housing (SCANPH), and currently serves on the board of the Los Angeles Alliance for a New Economy.

RUDY ESPINOZA

Rudy Espinoza is a community development practitioner with experience designing place-based initiatives for major financial institutions and philanthropic organizations, establishing innovative private-nonprofit partnerships and providing business assistance to entrepreneurs. Mr. Espinoza designed and managed an initiative that provided business assistance and microloans to street vendors and entrepreneurs. In the informal economy, including the development of a new microloan fund to finance Health Department-certified food carts for street vendors, he was responsible for the development of a unique micro-equity program that invests in businesses in low-income neighborhoods in exchange for a minority share of the respective businesses.

COMMISSIONERS

JACK HUMPHREVILLE

Jack Humphreville is a Neighborhood Council Budget Advocate. He is also a long-time contributor to CityWatch where he comments on the finances of the City and the Department of Water and Power. He is concerned about the City's ever increasing water and power rates, the City's need for transparency in its budget process and labor negotiations, the state of the City's streets and infrastructure, the City's current budget deficit, its structural deficit, its service deficit, and the transfer of pension and infrastructure liabilities to the next generations of Angelenos.

JONATHAN KLEIN

A UCLA grad and nearly lifelong Angeleno, Rabbi Jonathan Klein served as the Executive Director for Clergy & Laity United for Economic Justice (CLUE) from 2009 to 2018. Prior to ordination in 1997 from Hebrew Union College, Rabbi Klein served congregations in Flagstaff, Arizona, and Rye, New York. Upon receiving his rabbinical degree, he served three years as director of KESHER, the Reform Jewish Movement's college outreach program and then eight years as the Allen and Ruth Ziegler Rabbinic Director of USC Hillel at the University of Southern California. Prior to his role at CLUE, Rabbi Klein served on the staff of the Progressive Jewish Alliance (now Bend the Arc) and is particularly proud of his first job there as a community organizer.

TIMOTHY MCDANIEL, JR., VICE CHAIR

Timothy McDaniel, Jr. was born and raised in Los Angeles and received his B.A. in Communication Studies with a minor In Political Science from San Jose State University. He currently serves full-time as Owner and CEO of Section 8 Managers, a nonprofit helping low income households with rental subsidies with obtaining safe and stable housing in the Greater Los Angeles region for almost two years. Tim also serves as the Vice-Chair on the Revenue Commission for the City of Los Angeles as a champion for a more robust and transparent revenue-generating city. Tim has individually housed hundreds of homeless veterans and thousands of individuals and families. Timothy is a Certified Fair Housing Manager and Housing Placement Specialist who has been a California licensed real estate professional for over seven years.

COMMISSIONERS

WAYNE MOORE

Wayne Moore was appointed as a trustee of the Los Angeles County Employees Retirement Association Board of Investment in February 2017. He currently serves as Board Secretary and chairs the Credit and Risk Mitigation Committee. Wayne was also appointed a Commissioner of the City of Los Angeles Fire and Police Pension Board in February 2010 and served through December 2014. He retired from public service employment in December 2012 having been an executive public administrator in Los Angeles County for over 25 years as Director, Office of Management and Budget for the Metropolitan Transportation Authority, CFO of the City of Los Angeles Department of Public Works, Assistant General Manager of the City Department of Transportation, and CFO of the Southern California Association of Governments.

BARBARA RINGUETTE

Barbara Ringuette is Vice Chair for Development of the Neighborhood Council Budget Advocates, an Alliance of the Los Angeles Neighborhood Councils addressing the City Budget and services provided to neighborhoods. Ringuette has 10 years of experience in the Neighborhood Council system serving on the Governing Board of the Silver Lake Neighborhood Council and tackling land use issues and homelessness. She also serves on the Board of the Silver Lake Improvement Association. She is a former Assistant Regional Administrator for the Los Angeles County Department of Children and Family Services.

WILLIAM D. SMART, JR.

William Smart has served as the president and CEO of the Southern Christian Leadership of Southern California (SCLC) since 2018 where he directs budget activities to fund operations and maximize investments. He also directs all SCLC fundraising activities. Prior to joining SCLC, he was the program director for the Los Angeles Alliance for a new economy where he led a team of professionals to implement comprehensive campaigns to meet organizational needs. As an ordained minister, Pastor Smart has served at churches around the country.

JAKE STEVENS

Jake Stevens is a former Deputy to West Hollywood Mayor Jeffrey Prang, served as Capitol Hill staffer for Congressman Xavier Becerra and was a National Surrogate Director on President Barack Obama's 2012 re-election campaign. He served as an Eagle Rock Neighborhood Councilmember and graduated magna cum laude from Occidental College. Mr. Stevens serves on the City of Los Angeles East Area Planning Commission and lives in Highland Park.

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EXECUTIVE SUMMARY

In 2016, as a part of its negotiations with the City of Los Angeles, the Coalition of City Unions ("Coalition") invited community organizations to participate in discussions regarding the need for equitable services throughout the City of Los Angeles. Deliberations between the City and the Coalition led to a joint decision to create a Commission on Revenue Generation to explore revenue-generating possibilities that would bring new monies to the City's general fund that could be used to provide services equally across the City.

The Commission on Revenue Generation received numerous presentations and recommendations from industry specific consultants, Union representatives, the City Controller, the Chief Legislative Analyst, the County Assessor and other City officials, administrators and subject matter experts. Based on the studies, presentations and research, the commission narrowed its focus for recommendation to the following:

- Proposals that would increase the City's share of property taxes through volunteer payments by large non-profits with property and potentially through changes in how private golf courses are taxed.
- Proposals that would raise taxes to be used for affordable housing (new taxes)
- Proposals that would improve financial management of the City's two pension funds (LACERS – Los Angeles City Employees System and LAFPP – Los Angeles Fire and Policy Pensions)
- Proposal to better coordinate with the County Assessor's Office regarding the Collection of property taxes
- Support the recommendations of the City Controller regarding the City's Incentive Tax Abatements and Guidelines, as well as Special Purpose Funds
- Establishing a Citywide Signage Regulation program

The Commission concluded its work with six recommendations and four considerations. **Recommendations** are specific policies with the greatest potential of maximizing revenue and can be implemented within a reasonable timeframe. **Considerations** are policies that have definite potential for increasing revenue, but require additional research and entail extensive effort for implementation.

All ten recommendations and considerations in this report have the potential of either substantially increasing revenue to the City or, in some cases, saving funds through cost reductions. **The total estimated revenue stemming from the Commission's research is approximately $194 million annually.** However, actually receiving this revenue depends on leadership from the Mayor and City Council to explore the necessary policy changes and initiatives to realize it, including determination of tax rates, implementation costs, ballot measures, etc. The recommendations and considerations that do not have estimated income still have the potential of substantial increased funds, but require changes in legislation or deeper historical research to determine the approximate revenue.

RECOMMENDATION: Implement LAFPP and LACERS Pension Management Cost Reduction Strategies.

- Reduce pension fund management costs for Los Angeles City Employees Retirement System (LACERS) and Los Angeles Fire & Police Pension (LAFPP) to lower the Unfunded Actuarial Accrued Liabilities (UAAL) through a number of different strategies.
- Potential Cost Savings: Depending on different variables, total savings could be substantial.

RECOMMENDATION: Implement an across-the-board Gross Receipts Tax (Windfall Tax)

- Increase revenue to the General Fund through an across-the- board increase in the Gross Receipts. Initial research by the Commission identified the tax as a "Windfall Rent Tax."
- Potential Cost Savings: Depending on the percentage of increase, up to $84 million annually.

RECOMMENDATION: Improve coordination between Los Angeles Office of Finance and Los Angeles County regarding the collection of unsecured business personal property taxes and data sharing. (Implemented)

- Engage in data sharing with the Los Angeles County Tax Assessor's office to improve the collection of Unsecured Business Personal Property Tax, resulting in increased property tax revenue to the City. This recommendation was implemented during the Commission's tenure.
- The potential range of annual revenue: Not known at this time.

RECOMMENDATION: Implement City Controller recommendations from: "In the Balance: Financial Report on the City's Special Funds." (Special Management Policy)

- Review un or under-utilized special funds throughout the City, either repurposing or closing them.
- Potential range of annual revenue: There is no increased revenue from this change. However, there is the potential of moving unused funds back into the general fund. As of June 2018, there were 705 special purpose funds totaling $4.1 billion. Almost 200 of these, with more than $31 million, were dormant with no expenditures. As of the date of the Controller's report, nine funds had been closed, releasing $1.2 million.

EXECUTIVE SUMMARY

RECOMMENDATION: Implement City Controller recommendations from the audit, "Incentive Agreements: Tax Breaks and Subvention Deals."

- Assess the financial assistance to the City's Incentive Agreements and recommend development of standards consistent with recently approved Governmental Accounting Standards Board (GASB) Statement 77 reported requirements.
- The potential range of annual revenue: Audit did not estimate revenue going forward.

RECOMMENDATION: Complete internal departmental review, hold hearings and implement a citywide billboard (signage) policy.

- Complete the review conducted over the past number of years and finalize an equitable billboard policy for electronic and material billboards across the City.
- The potential range of annual revenue: Unknown at this time.

CONSIDERATION: Implement a Vacant Property Tax in the City of Los Angeles.

- Increase revenue to the City of Los Angeles' general fund through a tax on vacant property or buildings.
- The potential range of annual revenue: The amount of revenue collected from a vacancy tax would depend on the definition of the tax base, the tax rate and exemptions. The expected range is $127.9 million the first year and $100.2 million each year thereafter.

CONSIDERATION: Adopt a City of Los Angeles Payment In Lieu Of Taxes (PILOT) Program.

- To increase revenue to the City's General Fund through a program whereby larger, property-owning non-profit organizations exempt from paying property taxes voluntarily agree to a payment that, at least in part, reimburses the City for services it provides to the organization but are not paid for by property taxes.
- The potential range of annual revenue: According to research by Blue Sky Consulting, the City of Los Angeles could collect between $2.5 million and $12.4 million in revenue. The administrative costs would likely be between 1.7% and 17% of revenues.

EXECUTIVE SUMMARY

CONSIDERATION: Increase property taxes from privately owned golf courses in the City of Los Angeles

- Increase property tax revenue to the City of Los Angeles from updated assessment of property taxes owed by privately-owned golf courses in the City. These taxes are kept artificially low due to passage of Proposition 6 (1964) that prevents golf courses from being assessed compared to nearby properties.
- The potential range of annual revenue: If golf courses were assessed and paid property taxes at the average rate per acre in their zip codes, the assessed values would be $2.7 billion, the increase to the City would be about $1.8 million.

CONSIDERATION: Implement legislative changes regarding the composition of the County Assessment Appeals Boards

- Update present state law to raise the professional standards for County Assessment Appeals Boards.
- The potential range of increased annual revenue: Revenue accruing to the City of Los Angeles would come from more efficient AAB process and better qualified AAB members. An estimation of this increase is not feasible at this point.

The Commission concludes that the six recommendations and four considerations outlined in this report are viable options for the City of Los Angeles to realize substantial funds from untapped revenue sources, along with savings that can be redirected. The recommendations and considerations are based on sound and verified research. We urge the Mayor, the City Council, the Coalition and other interested parties to use this report as a blueprint for revenue generation.

INTRODUCTION

In 2016, as a part of its negotiations with the City of Los Angeles, the Coalition of City Unions ("Coalition") invited community organizations to participate in discussions regarding the need for equitable services throughout the City of Los Angeles. Streets and sidewalks across the City were in dire need of repair and, in certain communities, garbage piled up on sidewalks and alleyways. The Coalition's research into the city's employment records revealed thousands of jobs – jobs needed to assist with city maintenance - were left unfilled. The City needed new or additional revenue sources to fund these resources. Deliberations between the City and the Coalition led to a joint decision to create a commission that would explore revenue-generating possibilities that would bring new monies to the City's general fund that could be used to provide services across the City.

The Coalition and the Office of the Mayor identified qualified candidates with a wide range of expertise and backgrounds including: public finance experts, academics, business leaders, community-based organizers, and City bargaining unit representatives. These individuals would participate on a commission to develop recommendations to maximize revenue to the City's general and special funds sufficient to provide: high quality City services that are consistent across the City; equity in the City budget for underserved communities; and ensure a high quality of life for all Angelenos.

In February 2018, the Mayor appointed 15 members to the Commission on Revenue Generation ("Commission"), 10 of whom completed the full term of their appointments. The Commission was staffed by and served under the direction of the Inspector General for Revenue. The Commission convened its first public meeting on March 16, 2018, and continued the third Wednesday of every month, unless otherwise noticed. Quarterly reports were submitted to the Mayor and the Chair of the Budget and Finance Committee to provide an update on Commission activities and spending. Professional services needed to assist the Commission in its efforts were obtained using established contracts for on-call consulting services administered by the Offices of the City Administrative Officer and the Controller, and new contracts were solicited through the City's Business Assistance Virtual Network. As set forth in the Letter of Agreement between the Coalition and the City, a budget of $500,000 was provided to the Commission to support its administrative expenses, which includes expenditures that produced this final report as well as the economic and policy studies discussed within it.

INTRODUCTION

In March 2018, the Commission on Revenue Generation ("Commission") convened for the first time and reviewed the Letter of Agreement outlining its scope of work. At its April meeting, the Commission established its mission statement:

> *The Commission on Revenue Generation will develop recommendations to maximize revenue to the City's general and special funds sufficient to provide high quality City services that are consistent across the City to ensure equity in the City budget for unserved communities and to ensure a high quality of life in our neighborhoods.*

The Commission considered over fifty issues for revenue generation or cost savings. The field of options was narrowed based on several factors, including:

- Does the revenue opportunity present a significant opportunity to generate revenue for the City?
- What is the timeframe to realize revenue or cost savings?
- Will the proposed recommendation require action by another scale of government or a vote?
- What are the challenges/opportunities for implementation?
- How long will it take to implement the proposed recommendation?
- What is the experience of other jurisdictions that have adopted similar policies?

The Commission received numerous presentations and recommendations from industry specific consultants, Union representatives, the City Controller, the Chief Legislative Analyst, the County Assessor and other city officials, administrators and subject matter experts. It authorized five studies, reviewed both an audit and report from the City Controller's office and engaged in dialogue with the Los Angeles County Assessor's office. Based on the studies, presentations and research, the commission narrowed its focus for recommendation to the following:

- Proposals that would increase the City's share of property taxes through volunteer payments by large nonprofits with property and potentially through changes in how private golf courses are taxed.
- Proposals that would raise taxes to be used for affordable housing (new taxes)
- Proposal that would improve financial management of the City's two pension funds

(LACERS – city employees and LAFPP – police and fire department)

- Proposal to better coordinate with the County Assessor's Office regarding the Collection of property taxes.
- Review of a report from the City Controller's office regarding Special Purpose funds and review of an audit from the City Controller's office regarding Tax abatements and Subvention deals.
- Establishing a Citywide Signage Regulation program

AT-A-GLANCE
Recommendations and Considerations

RECOMMENDATION: Implement LAFPP and LACERS Pension Asset Management Cost Reduction Strategies	
Goal:	Reduce pension fund management costs for the Los Angeles City Employees Retirement System (LACERS) and the Los Angeles Fire & Police Pension (LAFPP) to lower the Unfunded Actuarial Accrued Liabilities (UAAL) through a number of different strategies.
Potential cost savings:	Depending on different variables, potential cost total savings could be substantial. .
City agencies and departments responsible for carrying out the recommendations:	The two City pension funds: the Los Angeles City Employees Retirement System, the Los Angeles Fire & Police Pension.
Implementation Opportunities/Challenges:	Implementation of any of the strategies requires agreement among the Boards of both the City pension funds as well as the Mayor and City Council. In some cases, changes may have to be addressed through the City's labor contract negotiations.
Summary of reasoning for recommendation:	By reducing the costs of investment, net investment returns increase, which helps close the gap between low return expectations and required actuarial return objectives. This may also reduce the need for some portfolio risk taking on the margins. Furthermore, reducing investment costs increases fund balances in the long term, decreasing the City's UAAL and the annual cost of fully amortizing it.
Action required by another scale of government:	The LACERS and LAFPP Boards of Administration should submit an annual report on both the Asset Management Cost & Forecasting Tool and the five strategies should be provided to the Mayor and City Council with a full report submitted by the beginning of fiscal year 2025-2026.

AT-A-GLANCE
Recommendations and Considerations

RECOMMENDATION: Implement an across-the-board increase in the Gross Receipts Tax (Windfall Rent Tax)	
Goal:	Increase revenue to the General Fund through an across-the- board increase in the Gross Receipts Tax. Initial research by the Commission identified the tax as a "Windfall Rent Tax."
Potential range of annual revenue:	Depending on percentage of increase, up to $84 million annually. The implementation costs are estimated to be 15 percent of the tax collected.
Experiences of other jurisdictions that have adopted similar policies (if available)	Cities that have implemented gross receipts taxes: Berkeley, East Palo Alto, City/County of San Francisco, and Mountain View, California, as well as New York City and Seattle. A 2018 vacancy tax passed in Oakland has not yet been implemented. To bypass the 2/3 supermajority required to raise local taxes, the cities cited above generally included an understanding that the tax revenue would be directed to housing through appointed Commissions or other vehicles.
City agencies and departments responsible for carrying out the recommendations	Housing & Community Investment Department and the Office of Finance.
Implementation Opportunities/Challenges	Tax is passed through ballot initiative.
Summary of reasoning for recommendation	Of various options for increased taxes for housing, increasing an across-the-board gross revenue tax does not require a new tax and is not difficult to implement. With fewer administrative costs, revenue would possibly be the same as from a Vacant Property Tax.
Action required by another scale of government:	No

AT-A-GLANCE
Recommendations and Considerations

RECOMMENDATION:	**Improve coordination between the Los Angeles Office of Finance and Los Angeles County regarding collection of unsecured business personal property tax and data sharing (Implemented)**
Goal:	Engage in data sharing with the Los Angeles County Tax Assessor's office to improve the collection of Unsecured Business Personal Property Tax, resulting in increased property tax revenue to the City. This recommendation was implemented during the Commission's tenure.
The potential range of annual revenue:	Not known at this time.
City agencies and departments responsible for carrying out the recommendations:	Los Angeles City Office of Finance
Implementation Opportunities/Challenges:	None, the policy has been implemented.
Summary of reasoning for recommendation	The addition of a question regarding unsecured personal property on the City's annual business license application will capture unknown business property, leading to additional revenue through property taxes. Having this question on the application saves resources that can be used for other revenue-generating work.
Action required by another scale of government	The Los Angeles County Tax Assessor's office.

AT-A-GLANCE
Recommendations and Considerations

RECOMMENDATION:	Implement City Controller recommendations from: "In the Balance: Financial Report on the City's Special Funds," dated February 3, 2019 (Special Fund Management Policy)
Goal:	Review un- or under-utilized special funds throughout the City, either repurposing or closing them.
Potential range of annual revenue:	There is no increased revenue from this change. However, there is the potential of moving unused funds back into the general fund. As of June 2018, there were 705 special purpose funds totaling $4.1 billion. Almost 200 of these, with more than $31 million, were dormant with no expenditures. As of the date of the Controller's report, nine funds had been closed, releasing $1.2 million.
City agencies and departments responsible for carrying out the recommendations:	Departments with special funds, the Office of Finance.
Implementation Opportunities/Challenges:	None identified. Further, as noted, a number of funds have already been closed.
Summary of reasoning for recommendation:	As of February 2019, there were no uniform policies or procedures for creating, using, reviewing, repurposing or closing these accounts. Having policies and procedures in place would increase efficiency in budget management.
Action required by another scale of government:	No.

AT-A-GLANCE
Recommendations and Considerations

RECOMMENDATION:	**Implement the City Controller recommendations from the audit: "Incentive Agreements: Tax Breaks and Subvention Deals," dated August 10, 2018.**
Goal:	Assess the financial assistance to the City's Incentive Agreements and recommend development of standards consistent with recently approved Governmental Accounting Standards Board (GASB) Statement 77 reported requirements.
The potential range of annual revenue:	Audit did not estimate revenue going forward.
City agencies and departments responsible for carrying out the recommendations:	Mayor and City Council and the Office of the Chief Legislative Analyst.
Implementation Opportunities/Challenges:	Incentive Agreements that provide better benefits to the City's budget. Challenges include the complexity of these agreements and the balance of providing financial assistance while assuring financial gain to the City.
Summary of reasoning for recommendation:	The City Controller's recommendations have the potential to assist the City in negotiating more favorable Incentive Agreements.
Action required by another scale of government:	No.

AT-A-GLANCE
Recommendations and Considerations

RECOMMENDATION:	Complete internal departmental review, hold hearings and implement a Citywide Billboard (Signage) Policy
Goal:	Complete the review conducted over the past number of years and finalize an equitable billboard policy for electronic and material billboards across the City.
The potential range of annual revenue based on research:	Unknown at this time.
City agencies and departments responsible for carrying out the recommendations:	Mayor; City Council; Planning and Land Use Management Committee (PLUM); L.A. Department of Planning
Implementation Opportunities/Challenges:	Billboard policy has been contentious for a number of years; there are important parties with completely opposing views. Implementing a policy will take research and compromise.
Summary of reasoning for recommendation:	While recognizing the serious challenges in coming to an agreement, the Commission recommends addressing it with all urgency.
Action required by another scale of government:	No

AT-A-GLANCE
Recommendations and Considerations

CONSIDERATION: Implement a Vacant Property Tax in the City of Los Angeles	
Goal:	Increase revenue to the City of Los Angeles' general fund through a tax on vacant properties or buildings.
Experiences of other jurisdictions that have adopted similar policies (if available):	Cities that have implemented a vacant property tax include Oakland, CA (passed 2018 but not yet implemented), Washington, D.C., and Vancouver, BC. It is under consideration in San Jose. Although passed as general taxes (majority vote), tax increases in California generally require a super majority (2/3 vote). The California cities that have passed or are considering the tax included an understanding that the tax revenue would be directed to housing through appointed commissions or other vehicles.
The potential range of annual revenue based on research:	The amount of revenue collected from a vacancy tax would depend on the definition of the tax base, the tax rate and exemptions. The expected range is $127.9 million the first year and $100.2 million each year thereafter. There would be an estimated $2.9 million start-up cost followed by an annual implementation cost of $5.6 million.
City agencies and departments responsible for carrying out the recommendations:	The Housing & Community Investment Department and the Office of Finance.
Implementation Opportunities/Challenges:	The tax is imposed through a ballot measure. There is the potential of it being passed with a majority vote (rather than 2/3), depending on whether it is placed on the ballot by the City Council or citizen initiative, but this is being determined by the California Supreme Court. If passed, the new tax would require a system for verifying vacancies and additional staff to administer it as a new function.
Summary of reasoning for recommendation:	The City is experiencing a serious housing crisis and needs more funds to address it. It is important that all potential revenue sources be examined. Given that this tax has been, or is being, implemented in other cities provides a potential model for implementing it in Los Angeles.
Action required by another scale of government:	No

AT-A-GLANCE
Recommendations and Considerations

CONSIDERATION: Adopt a City of Los Angeles Payment In Lieu Of Taxes (PILOT) Program	
Goal:	To increase revenue to the City's General Fund through a program whereby larger, property -owning non-profit organizations exempt from paying property taxes voluntarily agree to a payment that, at least in part, reimburses the City for services it provides to the organization but are not paid for by property taxes.
Potential range of annual revenue based on research:	According to research by Blue Sky Consulting, the City of Los Angeles could collect between $2.5 million and $12.4 million in revenue. The administrative costs would likely be between 1.7% and 17% of revenue collected.
City agencies and departments responsible for carrying out the recommendations:	The Mayor and City Council would be responsible for establishing the program through outreach to the large property-owning non-profit institutions. The Office of Finance would be responsible for collecting the revenue.
Implementation Opportunities/Challenges:	A PILOT payment would be voluntary, requiring it to be developed in a manner that maintains and enhances good relations and partnerships between the City and its large nonprofits. Additionally, the potential revenue to Los Angeles is small compared to the effort to establish and maintain it on an ongoing basis.
Summary of reasoning for recommendation:	PILOTs have been successful in other cities, specifically Boston, where it has operated for a number of years and deepened relationships between Boston city government and large non-profits. It could be a unique opportunity for new partnerships.
Action required by another scale of government:	No.

AT-A-GLANCE
Recommendations and Considerations

CONSIDERATION: Increase property taxes from privately-owned golf courses in the City of Los Angeles	
Goal:	Increase property tax revenue to the City of Los Angeles from the updated assessment of property taxes owed by privately-owned golf courses in the City. These are presently assessed at approximately $257 million, generating approximately $680,000/year to the City. The City could negotiate a type of PILOT with these organizations to increase property tax revenue to the City.
The potential range of annual revenue based on research:	If golf courses were assessed and paid property taxes at the average rate per acre in their zip codes, the assessed values would be $2.7 billion, the increase to the City would be about $1.8 million.
City agencies and departments responsible for carrying out the recommendations:	To determine the amount, the Office of Finance would calculate the increase in property tax revenue if Proposition 6 had not been adopted. If sufficient, the Mayor and City Council would approach the golf courses and negotiate a form of PILOT to have them voluntarily pay all or a percentage of these taxes.
Implementation Opportunities/Challenges:	There are two courses for implementation: 1) through negotiations noted above; or 2) a change in the California constitution that reverses Proposition 6.
Summary of reasoning for recommendation:	The City of Los Angeles' General Fund suffers due to the forgone tax revenue through the Bob Hope Exemption. No other form of sport or entertainment enjoys this exemption, nor is the general public allowed to use these golf courses or their amenities, yet the City provides the public services that all other private entities receive.
Action required by another scale of government:	In the absence of a negotiated agreement, Proposition 6 would have to be overturned through a new constitutional amendment or a constitutional challenge through the courts.

AT-A-GLANCE
Recommendations and Considerations

CONSIDERATON: Implement legislative changes regarding the composition of County Assessment Appeals Boards	
Goal:	Replace the current structure with full-time independent administrative hearing officers to review and update the appeals hearing procedure.
The potential range of increased annual revenue:	Revenue accruing to the City of Los Angeles would come from a more efficient AAB process and better qualified AAB members. An estimation of this increase is not feasible at this point.
City agencies and departments responsible for implementation:	The increased funding would come through the existing channels for receiving property tax revenues and be overseen by the Office of Finance.
Implementation Opportunities/Challenges:	While improved efficiency would lower overall, long-term costs by reducing the amount of interest to be paid on refunds for cases that go unresolved for several years, this proposal requires state legislation.
Summary of reasoning for recommendation:	The Los Angeles County Assessor's office estimates approximately $20 million and $25 million in property tax revenues are lost due to approved assessment appeals. Raising the professional standards for board members and hearing officers would reduce the amount of unwarranted reductions, which in turn would likely decrease the amount refunded.
Action required by another scale of government:	California State Legislature

RESEARCH BACKGROUND, RECOMMENDATIONS AND CONSIDERATONS

Based on extensive research over the past two years, the Commission presents these recommendations and considerations. The recommendations are specific policies with the greatest potential of maximizing revenue and can be implemented within a reasonable timeframe of a 12-month period. The considerations are policies that have definite potential for increasing revenue but require changes through the State of California legislature. The Mayor and City Council may wish to engage this work, or the City Unions and community organizations may determine that the benefits warrant such a campaign.

RECOMMENDATIONS

I. LACERS and LAFPP Pension management cost reduction strategies

The Revenue Commission recommends the Mayor request the LACERS and LAFPP Boards of Administration adopt plans to reduce their combined costs of investments by: 1) utilizing the Asset Management Cost and Forecasting Tool and reporting on the efficacy of the Tool as part of their asset management strategies; and 2) adopting five best practices strategies and timelines that were outlined by the Commission and analyzed by Navigant Consulting. The LACERS and LAFPP Boards of Administration would submit an annual report on both the Asset Management Cost & Forecasting Tool and the five strategies should be provided to the Mayor and City Council with a full report submitted by the beginning of fiscal year 2025-2026.

BACKGROUND

The City of Los Angeles sponsors two pension funds: LAFPP and LACERS. The City has an interest in reducing the unfunded liabilities of these two pensions systems as the City funds the amortized costs of the Unfunded Actuarial Accrued Liabilities (UAAL) for both systems. The 2018 actuarial valuation of LACERS included a UAAL of $5.9 billion and $1.5 billion for LAFPP. According to research conducted by Commission member Wayne Moore, the 2019 City budget included $398 billion for LACERS and $225 billion to amortize the LAFPP UAAL.

Commission Moore reported that reducing the costs of investment increases net investment returns which helps close the gap between low return expectations and the required actuarial return objective. This also reduces the need for overall portfolio investment risk trading. Furthermore, reducing investment costs increases fund balances in the long term, decreasing the City's unfunded accrued actuarial pension liabilities (UAAL) and the annual cost of fully amortizing them.

The Commission started its discussion of reducing pension costs with presentations from both LACERS and LAFPP. Further, the Commission heard presentations from Lisa Cody, Researcher for Service Employees International Union (SEIU), Local 721 and Ted Rohrlich, an independent researcher, as well research and presentations from Commission members with expertise in pension management.

Continuing with its investigation, the Commission hired two consulting firms: Moss Adams, to assess the accuracy of the formulae in an "Asset Management Cost Forecasting and Analytical Tool" and Navigant Consulting, to research specific strategies.

Asset Management Cost Forecasting and Analytical Tool

Reducing the costs of investments made by the City's two pension funds can potentially increase total fund assets by a substantial amount and reduce unfunded liabilities, thus increasing the general fund by equivalent amount.

The Commission hired the consulting firm Moss Adams to provide data on an analytical tool, the Asset Management Cost Forecasting and Analytical Tool, which allows users to assess the costs of various asset allocation schemes and measure the impact on overall investment portfolio returns and projected fund balances. The Tool can be used during the asset allocation process to test the impact that investment costs have on expected portfolio returns.

Navigant Report and Recommendations

Navigant conducted peer research on the requested topics, a literature review, and an assessment of strategies to reduce pension costs. Overall, they found that, in general, LACERS and LAFPP align with their peers' practices. However, both funds can adjust their asset allocations, enhance procurement policies and reporting and transparency to further educate external stakeholders and manage external manager costs. The strategies examined were:

- **Bringing some management in-house**. Navigant found that this is feasible only in very large funds; Los Angeles' funds are too small to have this reduce costs.
- **Establishing separate accounts for indexed fixed-income and equities investment**. Navigant found that these are an industry best practice and both LACERS and LAFPP already use separate accounts for their indexed fixed-income and equities investments.
- **Co-investing**. Navigant found that there is a potential for significant cost savings that preserve access to the high returns generally offered by private equity

investment but that both funds need to conduct additional research about how these strategies align with their current investment policies. LACERS has already begun looking at these.

- **Implementing a cash overlay program**. Navigant found that LACERS and LAFPP may achieve benefits of over $8 - $10 million annually, by investing 0.5 percent - 2.0 percent of its total assets in an externally managed cash overlay program.
- **Increasing Manager diversity**. Navigant reports that while it could not quantify returns from increasing manager diversity, it is considered a best practice in the field and recommends it as policy.
- **Peer reviews and research**. Navigant found that there is little data quantifying returns from ongoing review and research and notes that LACERS and LAFPP already invest in research and considers this a best practice policy.

The report includes specific timelines near term: six months to two years; medium-term three to five years; and long-term, over five years.

II. Implement a proportional across-the-board tax increase above the current gross receipts for landlords (Windfall Tax).

The Commission hired BAE Urban Economics to study the feasibility of implementing a Windfall Rent Tax Study. For the purposes of this study, "Windfall," is rental income to a landlord that exceeds a specific, determined threshold. BAE's study outlined three Windfall Rent tax scenarios for revenue generation: (A) Proportional, across-the-board increase in the Gross Receipts Tax, (B) Progressive increase in the Gross Receipts Tax and (C) A new "High Rent" Tax on actual rents above a specified baseline. Based on the ease of implementation and the amount of potential revenue generated $18.9 million to $83.6 million annually, the Commission recommends Scenario A, an across the board tax increase above the current gross receipts for landlords.

RESEARCH BACKGROUND, RECOMMENDATIONS AND CONSIDERATONS

BACKGROUND

Housing affordability has been a persistent issue in Los Angeles. The City has the widest gap between wages and housing costs compared to other large metropolitan areas. Renters make up just over 60 percent of all Angelenos. Of these, over half are rent burdened (paying over 30 percent of income for rent), and 30 percent of these households are severely rent burdened (paying over 50 percent of income for rent). Additionally, less than 30 percent of households could afford to purchase a median priced home in Los Angeles.

The City has a number of programs to fund and encourage the construction and preservation of affordable housing. The City also has a Rent Stabilization Ordinance (RSO) which, for buildings constructed prior to 1978, places a cap on annual rent increases during the tenure of the buildings' occupants.

The City currently requires owners of four or more rental units to pay a gross receipts tax of $1.27 per $1,000 for rental income of $100,000. This tax revenue is deposited in the City's General Fund and is expended according to Mayor and City Council priorities.

The Commission requested an analysis to determine whether a "windfall" rent tax program is a viable means to generate new revenue for the City; how the tax program would impact the market of rental residential units in the City; and how the program could be structured to alleviate the current housing affordability crisis.

Summary of BAE Urban Economics report

BAE conducted a rental market study to determine the extent to which rents in Los Angeles have been rising both over time as well as compared to other large cities. Based in part on the findings from this data, the study explored possible definitions for quantifying any structural "windfall rent." The analysis considered factors such as whether reported rents have outpaced inflation as well as the level of aggregate rent paid by tenants above various thresholds.

The study outlined the process by which the City's Office of Finance (OOF) currently collects gross receipts taxes on eligible dwelling units, exploring:

- The current universe of taxpayers who might be subject to an updated gross receipts tax on eligible rental units, and

- The estimated baseline gross receipts tax currently attributable to dwelling units alone, and not other types of commercial property such as commercial and/or self-storage.

RESEARCH BACKGROUND, RECOMMENDATIONS AND CONSIDERATONS

Based on these findings, BAE outlined some key items for the Commission to consider, as well as suggestions for any new procedures that might need to be put in place to provide for enhanced gross receipts tax program.

BAE reviewed the efforts of other jurisdictions in California and beyond who have recently enacted changes to their tax code in an effort to raise additional funding for affordable housing, in addition to outlining potential considerations for the City of Los Angeles, including possible exemptions from the gross receipts tax, phase-in periods, and income thresholds by which a jurisdiction might define a progressive tax rate. BAE provided the Commission with three alternative “scenarios” of how Los Angeles might structure this new tax:

- Scenario A would represent a proportional, “across-the-board” tax increase above the current gross receipts rate for lessors of dwelling units. Potential revenue generated ranges from $18.8 to $83.6 million in gross receipt taxes (GRT).

- Scenario B would represent a “progressive” tax structure, whereby taxpayers with income from dwelling units exceeding a certain threshold (e.g., $1 million) could be charged a higher tax rate than those whose income below the threshold. Potential revenue generated ranges from $3.5 to $11.5 million in gross receipt taxes (GRT).

- Scenario C would represent a “high rent” tax structure, in which landlords with income from individual dwelling units exceeding a certain threshold (e.g., $2,500 per unit per month) would be charged a separate “high rent” tax on any increment above that threshold amount. Potential revenue generated is $50.1 million in gross receipt taxes (GRT) based on the example of 8 percent after $2,500 rent threshold, but the actual revenue generated depends on the implementation rates. Additionally, in determining the actual base, rents it above would be proportional to the number of bedrooms and any other differentiating characteristic.

The implementation costs for all three scenarios are estimated to be 15 percent of the tax collected.

For each of these scenarios, BAE explored the likelihood of voter approval based on past history and existing legal precedent; the level of administrative oversight required beyond what is currently in place; and estimated projections for annual revenue.

III. Improve Coordination between the City Office of Finance and the County of Los Angeles Assessor's Office regarding the collection of unsecured business personal property tax

The Commission successfully facilitated the addition of a business personal property question to the City's Business License Application which will improve the County's ability to identify taxable business property in the City and should lead to increased revenue. This process is currently underway.

BACKGROUND

At the Commission's request, Los Angeles County Assessor Jeffrey Prang gave a presentation on the operations of the County Assessor's office. The assessor identified areas where additional revenue could be generated or a loss of revenue could be prevented.

First, the addition of a question regarding business property on the business license application could capture unknown business properties and lead to additional revenue. Having this question on the application saves resources that can be used for other revenue-generating work.

The Office of Finance agreed to work with the County Assessor's Office in identifying and notifying City-licensed businesses that might owe taxes on unsecured business property.

Chief Tax Compliance Officer Robert Lee from the Office of Finance presented an update to the Commission on the progress of the collaboration between Finance and the County Assessor's Office to identify and notify City-licensed businesses that might owe taxes on unsecured business property and identified changes they would make in their e-filing process to provide additional information and data collection regarding the County's personal property tax. Additionally, both agencies discussed methods to improve data exchanges regarding business enrollments and discoveries.

These changes will be implemented before the upcoming 2020 business tax renewal season.

IV. Implement the City Controller's Audit Report "In the Balance: Financial Report on the City's Special Funds," dated February 3, 2019.

The Commission submitted a letter to the Los Angeles City Council Budget and Finance Committee to endorse and accept Los Angeles City Controller Ron Galperin's report "In the Balance: Financial Report on the City's Special Funds" (C.F. no. 17-0786), including the Special Purpose Funds Management Policy.

The Controller's report detailed 705 special purpose funds (special funds) totaling $4.1 billion as of June 2018. As of February 2019, there were no uniform policies or procedures for creating, using, reviewing, repurposing or closing these accounts. The Controller's report included recommendations to reform the special funds policy.

BACKGROUND

In February 2019, L.A. Controller Ron Galperin released a report calling for reforms of the way the City handles 705 special purpose funds which totaled $4.1 billion as of June 30, 2018. The number of Special Funds is greater than in any other American city.

Each fund is governed by rules limiting how the funds may be spent. Controller Galperin has said, "L.A.'s many special funds need to be better managed by departments and more fully integrated into the City's public budgeting process."

Special Funds make up roughly half of the City's treasury, yet nearly 600 special funds are "off-budget," that is, not included in the annual adopted budget. There are currently no uniform policies or procedures for creating, using, reviewing, repurposing or closing them – resulting in millions going unspent that could otherwise be put to good use on City services.

Some City departments administer many Special Funds while other departments administer few. The City Clerk administers 105 special Funds; Economic and Workforce Development has 77; Personnel has six; Animal Services has three.

Attachments in the Controller's 93-page report and, also, a dashboard on the Controller's website -lacontroller.org/special funds - detail the functions of these funds, the City department administering them and each fund's cash balance.

On June 30, 2018, of the top 10 funds by both revenue and expenditures three were sewer related funds, administered by the Department of Public Works, totaling over one billion dollars. Recreation and Parks, Building & Safety and Library Departments were also among the department's top 10 revenue and expenditures funds. A number of funds saw their cash balances increase by large amounts - GO Bonds for HHH from new bond issuance, federal grants for Sixth Street Viaduct Improvement, Wastewater System Construction from new debt issuance, and Measure M Local Return from new sales tax receipts.

Three problem areas were identified: 1) Fund creation; 2) Management, accounting and oversight policies contributing to underspending inefficiencies and risk; and 3) Closing zero dollar and idle funds represents a great deal of work for little benefit from a Departmental point of view.

The Controller's report urges the City to adopt a comprehensive, multi-pronged policy (Attachments A and B) including:

- Apply standard procedures when creating new funds with review by the Controller's office
- Create funds with "sunset" clauses that require funds to justify their continued existence after a certain period or be closed
- Eliminate old and outdated encumbrances and appropriations
- Mandate annual revenue and expenditure plans for each fund
- Adopt new procedures and timelines to close out idle funds

The Commission submitted a letter of endorsement for the City Controller's report on August 22, 2019 .

V. Implement City Controller's Recommendations in the Audit "Tax Breaks and Subvention Deals," dated August 10, 2018

The Commission submitted a letter to the Los Angeles City Council Budget and Finance Committee to endorse and accept City Controller Ron Galperin's report on the efficacy of the Incentive Agreements entered into by the City of Los Angeles and his recommendations for the development of standards.

The City Controller's Office reviewed five incentive agreements approved between 2005 and 2015 - $654 million in tax refunds or abatement. Incentive agreements between 2016 and 2018 totaled $345 million.
The Commission reviewed and endorses the Controller's recommendations.

RESEARCH BACKGROUND, RECOMMENDATIONS AND CONSIDERATONS

BACKGROUND

The City provides financial assistance to developers of hotels in the form of Incentive Agreements that either waive or reduce payment of the Transient Occupancy Tax (TOT). In these agreements, a maximum amount is waived or reduced taxes continue for a specified time period or until the maximum amount outlined in the Incentive Agreement is reached. The City is the direct recipient of the TOT and can track and quantify the amount of TOT generated by a developer.

The current TOT rate is 14 percent in the City and is applicable to all properties rented to transients, short-term renters (who exercise occupancy or are entitled to occupancy for 30 days or less). The operator of a hotel with an associated tax Incentive Agreement actually pays the TOT it collects from its guests to the City, but the City remits these amounts to the developer of the project per the Incentive Agreement.

The Controller’s office investigated up to $1 billion in tax incentives the City offers for large-scale real estate developments. This includes: tax refunds or abatements totaling $654 million over a 25-year period for five projects, and $345 million in tax incentives approved for three more projects that are currently in progress.

The incentives are to make up for what developers claim to be a “feasibility gap” that prevents projects from coming to fruition. Another four projects that could receive tax incentives are being considered by City Council.

Controller recommendations

Framework for incentive agreements to ensure clear and measurable goals and opportunities for economic and fiscal optimization.

- Plans must include clear goals for industry specific growth, job creation, maximization of tax revenue, and developing specific neighborhoods that usually lack development.
- The City should consider an overall limitation on tax incentives that it might want to establish over a one- to five-year period.
- Include follow-up, enforcement and incentive adjustment provisions in any incentive agreements.

Revised scope of evaluations and consultant studies to require a more thorough evaluation of "feasibility gaps," encourage development with fewer public dollars, and more rigorous analysis of future economic and fiscal benefits.

- Alternative project analyses
- Broader evaluation of "feasibility gaps": Currently accepted definition is the difference between the cost of a project (including developer fees) and the warranted value (what an investor would likely pay for the project upon completion).
- Alternative methods could mitigate or even eliminate the "feasibility gap."
- More rigorous analysis of future economic and fiscal benefits:
    - Including tax revenues, construction-related jobs, ongoing project-related employment, public improvements
    - Analysis of net new revenue does not account for the impact to existing revenue as a consequence of incentivized development, such as the loss of tax revenue from an older hotel when a new one develops nearby.

Conduct a Post-completion analysis to compare the actual versus the projected costs. Appraise the post-completion cost to determine whether incentive amounts should be reduced.

Prepare an Annual report to identify how goals, job creation, and tax revenue meet within the parameters claimed of current projects.

- Require submission by "project developer, or successor in interest," to assess performances of these Incentive Agreements.
- Based on the submitting reports by project developers/owners, the CLA, or some designated entity, should prepare an annual report identifying the actual outcomes

Strengthen Room Block Agreements for the CLA and CAO to work with the Los Angeles Tourism and Convention Board.

VI. Implement a Billboard Policy Program

After reviewing staff reports on the development of Citywide Sign Regulations (including billboards), the Commission sent a letter to the Planning and Land Use Management (PLUM) Committee, urging it to continue working on this issue to develop a billboard program that would be approved by the City Council.

BACKGROUND

The City Council has been discussing a billboard policy for a number of years. The primary issue has been how many and where as well as how to regulate electronic billboards. During the Commission's tenure, there were no changes to policy. The Planning and Land Use Management (PLUM) Committee continues to deliberate on the issue.

Recognizing that this is an important issue with long-term financial, legal and community impacts, the Commission reviewed the most recent planning reports on the various policy options and sent a letter to the PLUM Committee, encouraging it to continue to consider, deliberate and debate the best outcomes for the City as a whole and finalize a policy as soon as it is feasible.

CONSIDERATIONS

I. Vacant Property Tax

The Commission contracted Blue Sky Consulting Group (Blue Sky) to determine the feasibility and potential of implementing a vacant/underutilized property tax or fee in the City.

According to Blue Sky's report, the vacancy they tax proposed would initially generate an annual revenue of $128 million upon implementation; then, $100 million annually after full implementation. There would be an estimated $2.9 million start-up cost followed by an annual implementation cost of $5.6 million. Due to the fact that estimated revenue from a vacant property tax would be significant, the Commission recommends that Blue Sky's study be taken into consideration along with additional research to make a final determination on whether to place a vacant property tax on the ballot.

RESEARCH BACKGROUND, RECOMMENDATIONS AND CONSIDERATONS

BACKGROUND

Overview of Vacancy Taxes

Although many jurisdictions around the country have established fees or charges on vacant or blighted property in order to incentivize property maintenance and upkeep, vacancy taxes designed primarily to raise revenue and encourage property owners to use, occupy, rent or develop their property are a relatively new phenomenon.

The most prominent example of such a vacancy tax comes from the City of Vancouver in Canada. Vancouver began implementing an "Empty Homes Tax" on vacant residential units beginning in 2017. In addition to Vancouver, voters in Oakland, California, approved a vacancy tax in November 2018. The tax applies to residential structures (similar to Vancouver's tax) as well as to empty ground floor commercial space and vacant land. A property is deemed vacant if it is not used for at least 50 days during the year. The city has approved plans to levy the tax on properties determined to be vacant during calendar year 2019.

In addition to Vancouver, voters in Oakland, California, approved a vacancy tax in November 2018. The tax applies to residential structures (similar to Vancouver's tax) as well as to empty ground floor commercial space and vacant land. A property is deemed vacant if it is not used for at least 50 days during the year. The city has approved plans to levy the tax on properties determined to be vacant during calendar year 2019.

These two recent examples highlight the range of potential options for a vacancy tax. While Vancouver applies its tax solely to residential units, Oakland applies its tax to a full range of parcels. And, while Vancouver's tax applies only to properties vacant for at least six months, Oakland's tax applies to parcels vacant for more than ten months. Beyond the definition of the tax base and defined vacancy period, each jurisdiction has identified various exemptions, such as for properties actively under construction or where the imposition of the tax would produce a "demonstrable hardship" for the taxpayer. Development of any vacancy tax proposal for the City of Los Angeles would also need to include careful consideration of the various types of possible exemptions.

Beyond the structure of the tax itself, policy makers (and voters who will have the final say about whether the City imposes a vacancy tax) will need to consider the potential impacts of any vacancy tax program. Vacancy taxes can encourage property owners to rent unoccupied units or develop vacant land, thereby, increasing the available supply of housing and commercial space. The potential benefits of a vacancy tax (in addition to the revenue raised) must be weighed against the potential costs. Specifically, to the

extent properties are vacant or unoccupied due to economic conditions such as during a recession or as a result of circumstances beyond a property owner's control, or a delay in obtaining a business license or building permit, taxing vacancies could impose additional hardships on property owners actively, but unsuccessfully, seeking tenants or buyers for their properties.

Potential Vacancy Tax Revenue for the City of Los Angeles

The amount of revenue collected from a vacancy tax would depend on the definition of the tax base (i.e. whether it applies to residential units, commercial structures, vacant land, or all three), the tax rate (i.e. the amount each property owner would be asked to pay for a vacant or unoccupied parcel), and any exemptions specified.

A vacancy tax that covered residential units, ground floor commercial space, and vacant land could include exemptions for parcels under construction, those adjacent to another parcel owned by the same owner, or where the parcel could not be developed due to legal obstacles or an inability to get a building permit would generate approximately $128 million annually at a tax rate of $5,000 per unit or parcel (with larger parcels paying proportionately more). As properties are placed in use, become available for rent, or are developed, the amount of revenue collected from a vacancy tax would be expected to decline over time to approximately $100 million annually.

Administering a vacancy tax would require the City to hire additional staff and develop a system for verifying vacancies. These additional functions would cost approximately $5.6 million annually.

II. Adopt a Payment In Lieu Of Taxes (PILOT) Program

The Commission contracted with the consulting firm Blue Sky to analyze the feasibility and cost-benefit of implementing a Payment In Lieu of Taxes (PILOT) program, where large, property-owning nonprofits would voluntarily contribute some portion of what they would pay if they did not have tax-exempt status. Estimated revenue ranges from $2.5 million to $12.4 million per year based on various scenarios. This would equal about 0.02 percent to 0.12 percent of total projected City revenues for 2019-2020 and 0.1 percent to 0.6 percent of projected property tax revenues. The revenue generation is less substantial than other recommendations, especially when the cost of effort – both political will and staff time – are factored into the equation. However, it is a viable way to recoup taxpayer dollars and generate revenue.

RESEARCH BACKGROUND, RECOMMENDATIONS AND CONSIDERATONS

BACKGROUND

In California, nonprofit organizations qualify for favorable tax treatment of real property, including a tax exemption and reduction in the assessed value. A PILOT is a voluntary payment made by nonprofit organizations to local governments to compensate for the reduced property tax revenue from the tax-exempt ownership or use of real property. In Los Angeles, property tax revenue represents over 30 percent of the City's General Fund budget and funds crucial programs such as: police, fire and emergency medical services; transportation and traffic control; and infrastructure construction, maintenance and repair. PILOT payments would ensure that exempt nonprofits contribute to the cost of the City services that benefit their organizations and their stakeholders.

A PILOT program simply consists of requested voluntary contributions to a municipality from selected nonprofit organizations. Although requesting PILOT payments from affordable housing developments is explicitly prohibited by state law, there are no other statutory prohibitions on establishing a PILOT program. And, although a requested PILOT payment is based on the amount of a nonprofit's property tax bill, any amounts requested are not property tax payments; as such, the program can be implemented by the City of Los Angeles directly and need not be run through the county assessor's office (although publicly available assessed value data would be required).

In 2012, the most recent year for which national data are available, approximately 800 localities received PILOT payments totaling about $110 million. Most revenue is concentrated in a few cities and is paid by a few large nonprofits. Boston has the oldest and largest PILOT program in the country, collecting about $34 million in 2018.

PILOTs are typically justified based on the fact that nonprofits benefit from public services and impose costs on host cities for those services. In addition, interest in PILOTs may reflect a shift in public attitudes regarding what constitutes a charitable mission and whether nonprofits provide direct benefits to residents of their host cities. On the other hand, nonprofit organizations have argued that government grants nonprofits a tax exemption because they work for the public good and give up their rights to profit, privacy, and political activism. The Commission contracted with Blue Sky Consulting to assess the feasibility of a PILOT program in Los Angeles.

The study found that 4,746 parcels are fully or partially exempt from property taxes. The exempt assessed value of these parcels is $17.24 billion, which is about 2.7 percent of the $630 billion in the total assessed value of property in the City of Los

Angeles. If these parcels paid property tax in the same way as non- exempt parcels, about $172 million would be collected, of which about 26 percent, or $45 million, would go to the City of Los Angeles. However, review of other programs found that negotiations with large nonprofits in other cities result in only a portion of the estimated full tax actually being paid.

Property tax exemption data for the City of Los Angeles shows that most of the exempt property, by assessed value, is concentrated in a small number of organizations. If, following Boston's example, Los Angeles were to use a $15 million assessed value threshold for including nonprofit organizations in the PILOT program, 96 organizations representing 84 percent of the total assessed value of exempt organizations would be included in the program.

Most PILOT programs ask for a contribution that is substantially less than the amount that these organizations would pay if they were not exempt from property taxes. This reflects a recognition that these exempt organizations provide important services for the local community (and the reality that most organizations would be unlikely to look favorably on a request to pay the full amount of taxes they would owe without their property tax exemption).

One important factor in successful PILOTs is the emphasis on partnership rather than confrontation, between the city and its nonprofits, which includes the possibility of providing community services rather than cash payments. PILOT programs that have been more confrontational have also been less successful. Further, full transparency is necessary to maintain the support of a PILOT by the nonprofits.

A PILOT program can provide modest additions to municipal revenues by encouraging voluntary financial contributions from large nonprofits. Because participation is voluntary, the most challenging part of a PILOT program is the political process of gaining support from key stakeholders. City leaders need to be supportive of and engaged in the PILOT development process in order to lay the groundwork for a program that will provide an ongoing revenue stream over the long term, while maintaining and enhancing collaborative relationships between the City and its major nonprofits. However, once a PILOT program structure is agreed upon and enacted, the program is relatively straightforward to administer.

III. Increase Property Taxes from Privately-owned Golf Courses

Taxpayers carry a greater tax burden due to the forgone tax revenue by the "Bob Hope Exemption" - a property tax exemption passed as Proposition 6 in 1964 that prevents using surrounding property values as comparable land uses, thus reducing all golf course assessments. The general public is not allowed to use these golf courses or their amenities. At the Commission's request, Blue Sky added an analysis of the challenges involved with changing this exemption.

Addressing this problem requires a change in the State Constitution. While daunting, the Commission recommends consideration and further exploration by interested parties: The City, the Coalition of City Unions and/or concerned community organizations.

One option for the City is to estimate what golf courses' property taxes would be if Proposition 6 had not been adopted and ask them to pay a percentage of this amount, thus creating a PILOT program for increasing property taxes from non-exempt private institutions.

BACKGROUND

Private, nonprofit golf courses in California are not exempt from property taxes. However, Proposition 6 (1960) amended the California Constitution to require that county assessors assess the value of private, nonprofit golf course properties based only on their value when used as a golf course rather than nearby properties. This resulted in golf courses having much lower assessed values per acre than surrounding land used for housing or commercial buildings. Over time, the assessed values of nonprofit golf courses, therefore, did not increase along with the value of the surrounding land. As a result, private golf courses in the City of Los Angeles have assessed values per acre that are 1.0 percent to 46 percent of the average assessed value per acre for other properties in their zip codes. Property taxes were further kept very low through Proposition 13 (1978) which reduced property taxes to what they were in 1975 and allowed increases of only 2.0 percent per year.

The total assessed value of the dozen private golf courses in the City of Los Angeles is $257 million, which generates about $680,000 per year in property tax revenue for the City. If golf courses were assessed and paid property taxes at the average rate per acre in their zip codes, these values would be, respectively, $2.7 billion and $7.1 million. However, changing assessment practices for nonprofit golf courses would require amending California's Constitution.

The City could explore requesting voluntary payments from golf courses in addition to the property taxes they already pay. The City could estimate what golf courses' property taxes would be if Proposition 6 had not been adopted and ask them to pay a percentage, or all, of this amount.

The "split roll" property tax initiative measure that may be on the ballot in 2020 would treat golf courses as commercial property that would be subject to reassessment. However, they would still be assessed only for their value as golf courses.

"Bob Hope" Proposition 6 (1960)
Golf courses pay lower property taxes due to the adoption of "Bob Hope" Proposition 6 (amending the California Constitution) in 1960, which exempted private golf courses from the "highest and best use" standard of property tax—ultimately lowering the value at which officials were allowed to assess these golf courses especially those located in the City of Los Angeles, one of the most expensive and densely populated cities.

Proposition 13 (1978)
In 1978, Proposition 13 (Prop 13) limited the property tax rate to one percent of a property's sale price and limited increases in assessed values to two percent or less until that property is re-sold or changes more than 50 percent of its ownership.

Country Club Loophole Regarding Proposition 13
In 2010, the Los Angeles County Assessor requested advice from the California Board of Equalization about whether changes of membership in a golf club constituted changes in ownership. The California Board of Equalization stated that country clubs have not changed hands if there are no transfers where more than 50 percent of ownership transferred to one member; individual changes and transfers in membership are not a change of ownership on their own. Therefore, even if membership turnover has exceeded 50 percent over time, it has not triggered reassessment.

The forgone tax revenue by this property tax loophole exercised by country clubs provides no public benefit because the general public is not allowed to use these golf courses or their other amenities. In order to alleviate this burden, the City can potentially request payments in lieu of taxes from these golf courses.

IV. Change Composition of the Los Angeles County Assessment Appeals Board

Although many appeals for property tax reassessment are valid, the City loses revenue each year from property tax appeals to the Los Angeles County Assessment Appeals Board from: 1) claims that could possibly be denied because they are frivolous; and 2) the current structure/composition of the Board of Appeals members.

The Commission urges consideration by the City, the Coalition of City Unions and/or community organizations to support the implementation of: 1) a hearing attendance confirmation program; 2) an assessment appeal filing fee; and 3) changes in the structure of the Board of Assessment Appeals from part-time volunteers to full-time, independent administrative hearing officers. The third recommendation requires a change in state legislation.

BACKGROUND

County Assessor Jeffrey Prang made a presentation to the Commission outlining the challenges of the assessment appeals process and where a loss of revenue could potentially be prevented. The presentation stated that between $20 million and $25 million in property tax revenues are lost due to approved assessment appeals. In 2016 to 2017, more appeals were filed for the City of Los Angeles than in all of Orange County. Los Angeles County received three times as many appeals as any other county in California.

The Assessment Appeals Board is a body, independent of the Assessor's Office, where taxpayers can appeal the Assessor's valuations. The taxpayer must always pay taxes first then file an appeal. If the taxpayer is successful in the appeal, then he or she will receive a refund with interest. The Appeals Board's decision can be appealed in Superior Court. Currently, there is a large backlog of assessment appeals. Mass filings by tax agents and no-shows for hearings leads to a loss of revenue from the additional costs, including interest to taxpayers with successful appeals.

Assessor Prang reported on three solutions and alternatives: (1) implement a hearing attendance confirmation program, (2) implement an assessment appeal filing fee and (3) enhance professional standards for board members and hearing officers. Raising the professional standards for board members and hearing officers would result in more equitable case outcomes. This would reduce the amount of unwarranted reductions, which, in turn, would likely decrease the amount refunded.

According to Assessor Prang, as the backlog in the appeals process is reduced, there may be an initial increase in the number of refunds issued due to the acceleration in case resolution. However, improved efficiency would lower overall, long-term costs by reducing the amount of interest to be paid on refunds for cases that go unresolved for several years. An estimation of the impact is not feasible.

CONCLUSION

The City of Los Angeles and the Coalition of City Unions developed the Commission on Revenue Generation to research new and innovative sources of funds to maximize revenue to the City's general and special funds, as well as to identify potential areas of savings to ensure equity in the City budget for under-served communities and a high quality of life in our neighborhoods.

The Commission concludes that the six recommendations and four considerations outlined in this report are viable options for the City of Los Angeles to realize substantial funds from untapped revenue, along with savings that can be redirected. The recommendations and considerations are based on sound and verified research. We urge the Mayor, the City Council, the Coalition and other interested parties to use this report as a blueprint for revenue generation.

BOARD Meeting: 06/09/20
Item VII-D
Attachment 2

APPENDIX – STUDIES AND REVIEWS

1 – Asset Management Forecast Model Report – Moss Adams

1.1 City of Los Angeles Pension Model User Guide

1.2 Power point presentation

City Of Los Angeles
Office Of The City Administrative Officer

ASSET MANAGEMENT EXPENSE MODEL

PURPOSE

To provide the City of Los Angeles (the City) with a functioning asset management expense forecasting model supported by the most recent, verifiable, and defendable financial data and assumptions available.

SCOPE

The scope of this project was to review and update the Retirement Asset Management Expense Model (the Model) for two of the City's pension funds; the Los Angeles Fire and Police Pension (LAFPP) and the Los Angeles City Employee's Retirement System (LACERS). The focus of the project was to deliver accurate financial data, calculations, and expanded forecasting capabilities by performing the following steps:

1. Review the provided asset management expense model's calculations, assumptions, and data for accuracy.
2. Update the Model to include historical, traceable, and verifiable financial data from 2018; audited pension financial statements; 2018 actuarial reports; and 2019 budget documents
3. Insert additional capabilities into the Model, including:
    - Adjustable variables:
        - Forecasted asset class allocation
        - Forecasted asset class growth rate
        - Forecasted management fees; global and by asset class
        - Forecast internal administration cost; global and by pension
        - Adjustable discount rate for net present value
        - Effective year of forecasted changes
    - Expanded Outputs:
        - Forecasted asset growth over baseline, net of expenses
        - Summary compounded asset growth, compared to baseline historic projections
        - Summary forecasted reduction of the unfunded liability, compared to baseline historic projections
        - Thirty-year forward looking detail forecast data by year, compared to baseline historic projections
        - Sensitivity analysis to show both a favorable and adverse scenario
4. Finalize Model as a protected Excel workbook, which functions as a tool for the City to forecast asset management expenses based on adjustable inputs within the overall retirement asset financial framework.

USER GUIDE

The purpose of the Model is to compare historical baseline pension growth assumptions to adjustable forecast assumptions. The **Detail Summary** tab includes all of the Model's assumptions for baseline and forecasted calculations, including:

- Inputs for a global reduction in management fees and administrative costs, which are located in cells B3:C4. Beginning year input (cell B5) sets the date at which the model will implement the forecasted fee changes.
- Variables are located in columns I through M under the yellow "inputs" heading and outlined with bold borders. The totals of the variable summaries (excluding Forecast Internal Administration Cost) auto-calculate and are locked for work paper protection. See Financial Sources, Assumptions, and Calculations for further detail.

  Forecast Management Fees and Forecast Internal Administrative Cost cells are locked in the Model to ensure global inputs are protected. Cells K16, K28, L10:L15, and L22:27 can be unlocked and used for detail adjustment of forecast management fees by asset class and administration cost by pension.
- All locked cells are colored grey, and are not editable for work paper and calculation protection.
- Informational and baseline assumptions are locked to ensure forecast modeling consistency. All information and baseline assumptions have been sourced from the best available and verifiable financial information. See Financial Sources, Assumptions, and Calculations for further detail.
- The output summary begins on Row 39. See Financial Sources, Assumptions, and Calculations for further detail.

Tabs 2 through 4 include all Model calculation detailed for granular forecasting detail review. Each tab simulates the Model under favorable, base, and moderately stressed market environments. See Financial Sources, Assumptions, and Calculations for further detail. Model calculation detail tabs are locked for work paper protection.

NOTE: This model is based on specific historical financial information and assumptions outlined in the Financial Sources, Assumptions, and Calculations section; therefore, it is limited to those assumptions defined therein. For instance, the baseline management fee expense by asset class utilized in this model was limited to 2018-2019 budgetary fund expense information and applied to actual 2018 management fees incurred. As such, the baseline management fee percentage by asset class is an assumption based on the most verifiable and traceable financial detail available, reconciling to total actual 2018 management fees incurred according to the pension systems' audited financial statements. See the Financial Sources, Assumptions, and Calculations for further information.

FINANCIAL SOURCES, ASSUMPTIONS, AND CALCULATIONS

The Asset Management Expense Forecasting Model was developed to include the best available and verifiable financial information; however, to increase functionality for detail forecasting parameters, certain assumptions had to be included within the calculations. The following defines the financial sources, assumptions, and calculations presented and used in the forecasting model.

Locked Historical Forecasting Data and Assumptions

General Definitions

- **Asset Classes.** Asset classes are segmented and categorized to be consistent with pension and CAFR reporting for LAFPP and LACERS, respectively.

Locked Informational Detail (intended for informational purposes – no impact on Model calculations)

- **2018 Asset Class Allocation** – The 2018 summarized asset class allocation, as a percentage of the total assets under management, is consistent with pension and CAFR reporting for LAFPP and LACERS, respectively.
- **2018 Growth Rate.** The 2018 growth rate, reported by summarized asset class, is consistent with pension and CAFR reporting for LAFPP and LACERS, respectively. Summarized equities growth rate amount is calculated based on the 2018 domestic and international equities asset ratio. The "by asset class" rate is reported net of management fees due to a lack of financial detail available within reports. However, the total growth rate amount is reported prior to fees and expenses and calculated as percentage of total investment income reported within the 2018 Statement of Changes in Net Position for each pension system.
- **2018 Management Fee.** The management fees are reported as a percentage of each category's assets under management. These "by asset class" rates are an assumption based upon the 2018-2019 estimated expenses reported within 2019-2020 final budget board reports and are categorized according to the summarized asset classes for consistency. No actual management fee "by asset class" breakdown appeared to be available within either pension system's audited financial statements or actuarial reports. However, we calculated management fees "by asset class" based on total management fees reported within the 2018 Statement of Changes in Net Position for each pension system. As a result, we have the best available projection of management fee rate "by asset class," while still calculating based upon the total audited management fee amounts for 2018. See 2018 Management Fees Applied to Investment Policy Allocation (cells F16 and F28).

Locked Baseline Detail (included in Model calculations)

- **Average Retirement Assets Under Management.** Average assets under management by category were calculated based on the total average assets under management (Total Average AUM) amounts reported within the 2018 Statement of Changes in Net Position for each pension system, multiplied by the 2018 Asset Class Allocation. The "by asset class" numbers are informational and are not utilized for the Model's calculations. Only the Total Average AUM amount is used in the Model's calculation.
- **2018 Internal Administration Cost by Asset Class.** Internal administration costs by category were estimated based on the total administrative expenses reported within the 2018 Statement of Changes in Net Position for each pension system, multiplied by the 2018 Asset Class Allocation. The "by asset class" numbers are informational and are not utilized for the Model's calculations. Only the total internal administration cost rate amount is used in the Model's calculation.
- **Investment Policy Target Allocation.** Allocation amounts used in the analysis are consistent with pension and CAFR reporting for LAFPP and LACERS, respectively. The target allocation policy was also confirmed and consistent with each pension system's actuarial reports. Allocation amounts were then categorized into summarized asset classes for consistency and used in the calculations within the Model. These amounts were used as the baseline assumption for asset

class mix within the Model's calculations. See 2018 Management Fees Applied to Investment Policy Allocation.

- **2018 Management Fees Applied to Investment Policy Allocation.** Applies the 2018 Management Fees to the Investment Policy Target Allocation percentages to create a total weighted blend of estimated management fee expenses that would be incurred under the target policy allocation. This allows a consistent look forward comparison and calculation. These amounts are used as the baseline assumption for management fee expenses within the Model's calculations.
- **Arithmetic Long Term Expected Real Rate of Return, Including inflation.** Expected return rates were pulled and are consistent with reported actuarial expected rates of return for each pension system. Expected return rates were then categorized into summarized asset classes for consistency and calculations within the Model. These amounts were used as the baseline assumption for the expected rate of return on assets within the Model's calculations.

Average Retirement Assets Under Management	2018 Asset Class Allocation	2018 Growth Rate*	2018 Internal Administration Cost by Asset Class	2018 Management Fee (Percent of Assets)**	Investment Policy Target Allocation	Arithmetic Long Term Expected Real Rate of Return, Including inflation
10,462,460,397	53.0%	12.9%	0.053%	0.242%	50.0%	9.5%
3,855,317,954	19.5%	1.2%	0.020%	0.195%	22.0%	4.5%
1,954,308,640	9.9%	18.7%	0.010%	1.731%	12.0%	10.500%
1,652,279,123	8.4%	5.5%	0.008%	1.038%	10.0%	7.4%
917,932,846	4.7%	13.0%	0.005%	0.324%	5.0%	6.8%
898,192,355	4.6%	-0.2%	0.005%	0.083%	1.0%	2.8%
19,740,491,315	**100.0%**	**10.398%**	**0.101%**	**0.443%**	**100.0%**	**8.107%**
					0.492%	**2018 Management Fees a**

See Arithmetic Long Term Expected Real Rate of Return, Including Inflation under Column H of Model

Adjustable Forecasting Model Variables

- **Forecast Internal Administration Cost.** This variable allows the customization of total forecasted internal administration expenses as a global percentage reduction and can also be adjusted as a percentage of retirement assets. Forecasted Internal Administration Cost "by asset class" is informational and calculated based on the Forecast Allocation percentages. Only the total by pension system is adjustable.
- **Forecast Management Fees.** These variables allow the customization of forecasted management fee expenses by asset class, as a percentage of assets under management. This variable is directed by a global variable as percentage reduction and can also be adjusted at the detail level by asset class. The total is weighted by the forecasted management fees according to the inputted Forecast Allocation percentages.
- **Global Reduction in Pension Fee – Beginning in Year.** – This input allows the customization of which year the global reduction inputs will be effective. For instance, if you would like to forecast the total savings of a 5% reduction in administrative expenses beginning in year 2022, the Model will not calculate any reduction in cost until 2022.

Global Reduction in Pension Fee	% Reduction in Management Fees	% Reduction in Administrative Costs
LAFPP Reduction	0.00%	0.00%
LACERS Reduction	0.00%	0.00%
Beginning in Year	2019	

- **Forecast Allocation.** These variables allow the customization of forecasted asset class allocation blend. If the blend does not equal 100%, the total cells will highlight red.
- **Forecast Growth Rate.** This variable allows the customization of forecasted growth rate by asset class. The cells weight the total forecasted growth rate according to the inputted Forecast Allocation percentages. The forecast asset growth inputted is used for both baseline and forecast model scenarios to ensure a comparative analysis.

Inputs			
Forecast Allocation	Forecast Growth Rate	Forecast Internal Administration Cost	Forecast Management Fees
50.00%	9.5%	0.050%	0.242%
22.00%	4.5%	0.022%	0.195%
12.00%	10.5%	0.012%	1.731%
10.00%	7.4%	0.010%	1.038%
5.00%	6.8%	0.005%	0.324%
1.00%	2.8%	0.001%	0.083%
100.00%	**8.107%**	**0.101%**	**0.492%**
pplied to Investment Policy			

- **Discount Rate (NPV).** This variable allows for the customization of the discount rate used for the net present value calculation utilized to estimate the forecasted reduction in unfunded liability. As of 2018, the City's actuaries utilized a discount rate of 7.25% for both pension systems.

Locked Input Summary				Input
Forecast Allocation	Forecast Growth Rate	Forecast Internal Administration Cost	Forecast Management Fees	Discount Rate (NPV)
100%	8.216%	0.108%	0.563%	7.25%

Forecasted Output/Results

- **15 Year Compound Asset Growth with Fee Reduction** – This output summarizes the total expected growth difference between total compounded asset growth for the baseline and forecasted models, looking forward 15 years. This assumes the reinvestment of all forecasted savings in asset management cost reductions (management fee and internal expenses). The output includes a comparison in favorable (forecast growth rate + 1%), base (forecast growth rate), and moderately stressed (forecast growth rate – 1%) scenarios.
- **15 Year Forecasted Reduction in Unfunded Liability** – This output summarizes the expected reduction in unfunded liability under the forecasted model, compared to the baseline model, looking forward 15 years. The reduction is measured as the net present value of forecasted increase in growth, compared to baseline, by year for 15 years. However, this calculation has not been vetted or reconciled with the City's actuarial calculations. As such, the reported amount is an estimated reduction based on the net present value of savings applied to asset growth. The output includes a comparison in favorable, base, and moderately stressed scenarios.
- **30 Year Compound Asset Growth with Fee Reduction** – This output summarizes the total expected growth difference between total compounded asset growth for the baseline and

forecasted models, looking forward 30 years. This assumes the reinvestment of all forecasted savings in asset management cost reductions (management fee and internal expenses). The output includes a comparison in favorable, base, and moderately stressed scenarios.

- **30 Year Forecasted Reduction in Unfunded Liability** – This output summarizes the expected reduction in unfunded liability under the forecasted model, compared to the baseline model, looking forward 30 years. The reduction is measured as the net present value of forecasted increase in growth, compared to baseline, by year, for 30 years. However, this calculation has not been vetted or reconciled with the City's actuarial calculations. As such, the reported amount is an estimated reduction based on the net present value of savings applied to asset growth. The output includes a comparison in favorable, base, and moderately stressed scenarios.

	+1% Forecast Growth	+0% Forecast Growth	-1% Forecast Growth
Outputs:	**Favorable**	**Base**	**Mod. Stressed**
Baseline Asset Growth, Net of Expenses	8.544%	7.544%	6.544%
Forecasted Asset Growth Rate, Net of Forecast Expens	8.544%	7.544%	6.544%
Annual Forecasted Net Growth over Baseline	**0.000%**	**0.000%**	**0.000%**
15 Year Compound Asset Growth with Fee Reduction	-	-	-
30 Year Compound Asset Growth with Fee Reduction	-	-	-
15 Year Expected reduction in Unfunded Liability	-	-	-
30 Year Expected reduction in Unfunded Liability	-	-	-

- **Model Detail by Year** – See Excel tabs 2, 3, and 4 for Model detail by year under favorable, base, and moderately stressed environments, respectively. Detail tables show all Model detail calculations, modeled to look similar to the City's original model. Columns L and M show compound asset growth and annual savings by year, respectively.

Detail Summary	Favorable Forecast	Base Input Forecast	Moderately Stressed Forecast

MOSSADAMS

City of Los Angeles
Office Of The City Administrative Officer
Asset Management Expense Model
Exit Meeting – Wednesday, Sep 18th

Robert Loffink – Director, Financial Services Consulting
Lawrence Stepovich, CPA – Manager, Business Consulting Services

Agenda

- Project Overview
- Scope
- The Forecast Model and
  Its individual components
- How It Works

Project Overview

PURPOSE

To provide the City of Los Angeles with a functioning asset management expense forecasting tool supported by the most recent, verifiable, and defendable financial data and assumptions available.

SCOPE

The Commission on Revenue Generation is tasked with developing recommendations to the Mayor and City Council that will provide a level of revenue sufficient to provide high quality services to the residents of Los Angeles.

As a part of this engagement, Moss Adams, LLP reviewed a spreadsheet provided by the Revenue Commission and performed a complete analysis of the inputs, calculations, and output of the spreadsheet. Further, we converted the spreadsheet into a analytical tool that can be used to model various scenarios and potential cost saving opportunities.

Detailed Scope

The scope of this project was to review and update the retirement asset management expense model (the Model) for two of the City's pension funds; the Los Angeles Fire and Police Pension (LAFPP) and the Los Angeles City Employee's Retirement System (LACERS). The focus of the project was to deliver accurate financial data, calculations, and expanded forecasting capabilities performing the following steps:

1. Reviewed the provided asset management expense model's calculations, assumptions, and data for accuracy.
2. Updated the Model to include historical, traceable, and verifiable financial data from 2018; audited pension financial statements; 2018 actuarial reports; and 2019 budget documents
3. Inserted additional capabilities into the Model, including:
    - **ADJUSTABLE VARIABLES:**
        - Forecasted asset class allocation
        - Forecasted asset class growth rate

Detailed Scope (Cont.)

- Forecasted management fees; global and by asset class
- Forecast internal administration cost; global and by pension
- Adjustable discount rate for net present value
- Effective year of forecasted changes

- **EXPANDED OUTPUTS:**
  - Forecasted asset growth over baseline, net of expenses
  - Summary compounded asset growth, compared to baseline historic projections
  - Summary forecasted reduction of the unfunded liability, compared to baseline historic projections
  - Thirty-year forward looking detail forecast data by year, compared to baseline historic projections
  - Sensitivity analysis to show both a favorable and adverse scenario

4. Finalized model as a protected Excel workbook that functions as a tool for the City of LA to forecast asset management expenses based on adjustable inputs within the overall retirement asset financial framework.

The Forecast Model

Global Expense Reduction Inputs	Percent Reduction in Management Fees	Percent Reduction in Administrative Costs
LAFPP Reduction	0.00%	0.00%
LACERS Reduction	0.00%	0.00%
Beginning in Year	2019	

LAFPP

	Locked Historical							Adjustable Variables			
Asset Classes	Average Retirement Assets Under Management	2018 Asset Class Allocation	2018 Growth Rate*	2018 Internal Administration Cost by Asset Class	2018 Management Fee (Percent of Assets)**	Investment Policy Target Allocation	Arithmetic Long Term Expected Real Rate of Return, Including inflation	Forecast Allocation	Forecast Growth Rate	Forecast Internal Administration Cost	Forecast Management Fees
Stocks	10,462,460,397	53.0%	12.9%	0.053%	0.242%	50.0%	9.5%	50.00%	9.5%	0.050%	0.242%
Bonds	3,855,317,954	19.5%	1.2%	0.020%	0.195%	22.0%	4.5%	22.00%	4.5%	0.022%	0.195%
Private Equity	1,954,308,640	9.9%	18.7%	0.010%	1.731%	12.0%	10.500%	12.00%	10.5%	0.012%	1.731%
Real Estate	1,652,279,123	8.4%	5.5%	0.008%	1.038%	10.0%	7.4%	10.00%	7.4%	0.010%	1.038%
Commodities	917,932,846	4.7%	13.0%	0.005%	0.324%	5.0%	6.8%	5.00%	6.8%	0.005%	0.324%
Cash Equivalents	898,192,355	4.6%	-0.2%	0.005%	0.083%	1.0%	2.8%	1.00%	2.8%	0.001%	0.083%
Total Average AUM	**19,740,491,315**	**100.0%**	**10.398%**	**0.101%**	**0.443%**	**100.0%**	**8.107%**	**100.00%**	**8.107%**	**0.101%**	**0.492%**
						0.492%	**2018 Management Fees applied to Investment Policy**				

LACERS

	Locked Historical							Adjustable Variables			
Asset Classes	Average Retirement Assets Under Management	2018 Asset Class Allocation	2018 Growth Rate*	2018 Internal Administration Cost by Asset Class	2018 Management Fee (Percent of Assets)**	Investment Policy Target Allocation	Arithmetic Long Term Expected Real Rate of Return, Including inflation	Forecast Allocation	Forecast Growth Rate	Forecast Internal Administration Cost	Forecast Management Fees
Domestic and International Equities	8,173,375,567	59.3%	12.8%	0.071%	0.240%	46.0%	9.6%	46.00%	9.6%	0.055%	0.240%
Domestic and International Bonds	1,865,898,191	13.5%	-0.3%	0.016%	0.140%	13.8%	4.0%	13.75%	4.0%	0.016%	0.140%
Private Equity	1,396,428,567	10.1%	13.9%	0.012%	1.968%	14.0%	12.0%	14.00%	12.0%	0.017%	1.968%
Real Assets	627,247,743	4.6%	5.9%	0.005%	1.835%	13.0%	6.6%	13.00%	6.6%	0.015%	1.835%
Short-Term Investments	363,444,437	2.6%	0.0%	0.003%	0.033%	1.0%	3.0%	1.00%	3.0%	0.001%	0.033%
Credit Opportunities	1,355,581,995	9.8%	1.8%	0.012%	0.169%	12.3%	6.9%	12.25%	6.9%	0.015%	0.169%
Total Average AUM	**13,781,976,500.0**	**100.0%**	**9.920%**	**0.119%**	**0.462%**	**100.0%**	**8.371%**	**100.00%**	**8.371%**	**0.119%**	**0.665%**
						0.665%	**2018 Management Fees applied to Investment Policy**				

Locked Historic Summary								Locked Input Summary				Input
Combined Summary	Average Retirement Assets Under Management	2018 Asset Class Allocation	2018 Growth Rate	2018 Internal Administration Cost by Asset Class	2018 Management Fee Applied to Investment Policy Allocation (Percent of Assets)**	Investment Policy Target Allocation	Arithmetic Long Term Expected Real Rate of Return, Including inflation	Forecast Allocation	Forecast Growth Rate	Forecast Internal Administration Cost	Forecast Management Fees	Discount Rate (NPV)
Total Combined	33,522,467,815	100.0%	10.202%	0.108%	0.563%	100%	8.216%	100%	8.216%	0.108%	0.563%	7.25%

	+1% Forecast Growth	+0% Forecast Growth	-1% Forecast Growth
Output Results:	Favorable	Base	Mod. Stressed
Baseline Asset Growth, Net of Expenses	8.544%	7.544%	6.544%
Forecasted Asset Growth Rate, Net of Forecast Expenses:	8.544%	7.544%	6.544%
Annual Forecasted Net Growth over Baseline	**0.000%**	**0.000%**	**0.000%**
15 Year Compound Asset Growth with Fee Reduction	-	-	-
30 Year Compound Asset Growth with Fee Reduction	-	-	-
15 Year Expected reduction in Unfunded Liability	-	-	-
30 Year Expected reduction in Unfunded Liability	-	-	-

Net Pension Liability as of 6/30/2018		
LAFPP Unfunded Pension Liability	$	1,254,270,000
LACERS Unfunded Pension Liability	$	5,709,348,000
Total Unfunded Pension Liability	$	**6,963,618,000**

*Individual growth rate net of fees, total percentage prior to fees, due to lack of financial detail

**Applied fee rates projections based on reported Budget management fee detail.

Global Input Criteria

- Global Input fields were created to allow for overall fee changes on a percentage basis.
- Here we have broken out both management fees and internal administrative costs.
- Further we have added a beginning year to show what year the anticipated savings are expected to start.

Global Expense Reduction Inputs	Percent Reduction in Management Fees	Percent Reduction in Administrative Costs
LAFPP Reduction	0.00%	0.00%
LACERS Reduction	0.00%	0.00%
Beginning in Year	2019	

Historical Data

We show the key historical data that serves as the basis for the forecast for each pension.

LAFPP		Locked Historical					
Asset Classes	**Average Retirement Assets Under Management**	**2018 Asset Class Allocation**	**2018 Growth Rate***	**2018 Internal Administration Cost by Asset Class**	**2018 Management Fee (Percent of Assets)****	**Investment Policy Target Allocation**	**Arithmetic Long Term Expected Real Rate of Return, Including inflation**
Stocks	10,462,460,397	53.0%	12.9%	0.053%	0.242%	50.0%	9.5%
Bonds	3,855,317,954	19.5%	1.2%	0.020%	0.195%	22.0%	4.5%
Private Equity	1,954,308,640	9.9%	18.7%	0.010%	1.731%	12.0%	10.500%
Real Estate	1,652,279,123	8.4%	5.5%	0.008%	1.038%	10.0%	7.4%
Commodities	917,932,846	4.7%	13.0%	0.005%	0.324%	5.0%	6.8%
Cash Equivalents	898,192,355	4.6%	-0.2%	0.005%	0.083%	1.0%	2.8%
Total Average AUM	**19,740,491,315**	**100.0%**	**10.398%**	**0.101%**	**0.443%**	**100.0%**	**8.107%**

LACERS		Locked Historical					
Asset Classes	**Average Retirement Assets Under Management**	**2018 Asset Class Allocation**	**2018 Growth Rate***	**2018 Internal Administration Cost by Asset Class**	**2018 Management Fee (Percent of Assets)****	**Investment Policy Target Allocation**	**Arithmetic Long Term Expected Real Rate of Return, Including inflation**
Domestic and International Equities	8,173,375,567	59.3%	12.8%	0.071%	0.240%	46.0%	9.6%
Domestic and International Bonds	1,865,898,191	13.5%	-0.3%	0.016%	0.140%	13.8%	4.0%
Private Equity	1,396,428,567	10.1%	13.9%	0.012%	1.968%	14.0%	12.0%
Real Assets	627,247,743	4.6%	5.9%	0.005%	1.835%	13.0%	6.6%
Short-Term Investments	363,444,437	2.6%	0.0%	0.003%	0.033%	1.0%	3.0%
Credit Opportunities	1,355,581,995	9.8%	1.8%	0.012%	0.169%	12.3%	6.9%
Total Average AUM	**13,781,976,500.0**	**100.0%**	**9.920%**	**0.119%**	**0.462%**	**100.0%**	**8.371%**

Additional Variables

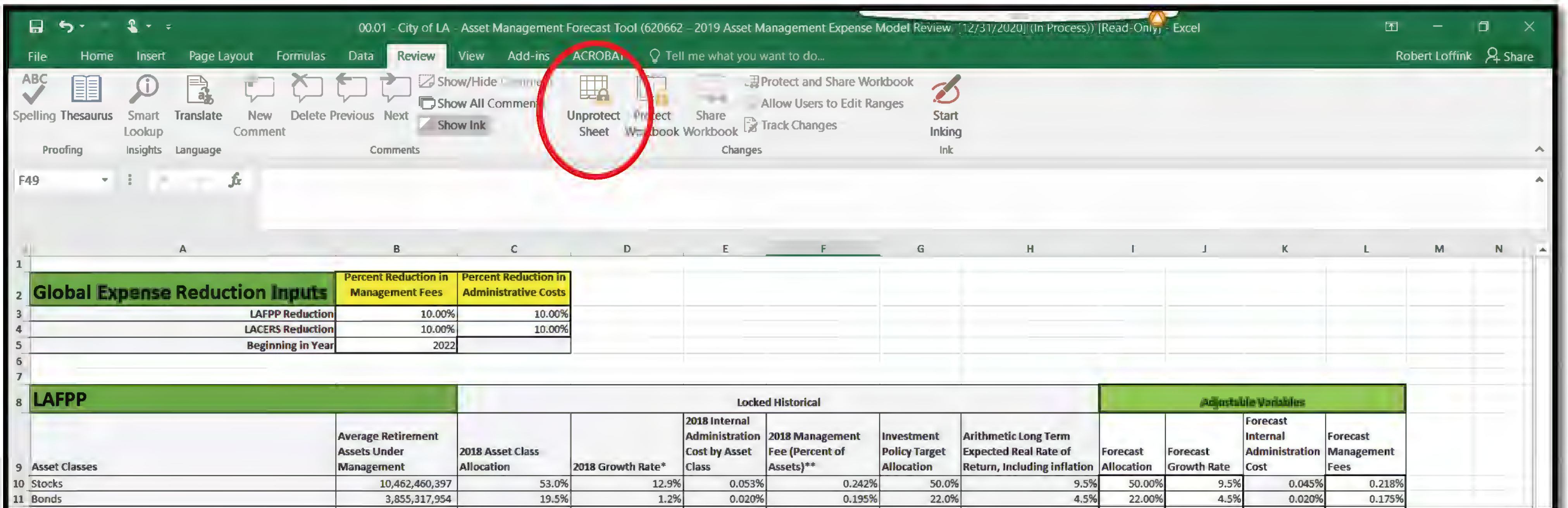
- We also give you the ability to alter individual variables for a more detailed analysis.
- To protect the model these tables have been password protected as long as the Global Input Criteria are being used. However, a copy of the model can be saved and the additional variables adjusted if warranted by the analysis.
- Password to adjust additional variables = Dodgers1

Adjustable Variables			
Forecast Allocation	**Forecast Growth Rate**	**Forecast Internal Administration Cost**	**Forecast Management Fees**
50.00%	9.5%	0.050%	0.242%
22.00%	4.5%	0.022%	0.195%
12.00%	10.5%	0.012%	1.731%
10.00%	7.4%	0.010%	1.038%
5.00%	6.8%	0.005%	0.324%
1.00%	2.8%	0.001%	0.083%
100.00%	**8.107%**	**0.101%**	**0.492%**

Adjustable Variables			
Forecast Allocation	**Forecast Growth Rate**	**Forecast Internal Administration Cost**	**Forecast Management Fees**
46.00%	9.6%	0.055%	0.240%
13.75%	4.0%	0.016%	0.140%
14.00%	12.0%	0.017%	1.968%
13.00%	6.6%	0.015%	1.835%
1.00%	3.0%	0.001%	0.033%
12.25%	6.9%	0.015%	0.169%
100.00%	**8.371%**	**0.119%**	**0.665%**

Inputting the Password

To input the password, click on the 'Review Tab' and then click on the 'Unprotect Sheet' icon. You will then be prompted to enter the password.



Summation of the Total Assets Under Management

- The totals are then summed up for all fund types across both pensions. These totals have all been properly waited and are then used to forecast the total impact.
- The totals are then discounted by the actuarially derived discount rate to the get net present value of the future impact in today's dollars.

Locked Historic Summary								
Combined Summary	**Average Retirement Assets Under Management**	**2018 Asset Class Allocation**	**2018 Growth Rate**	**2018 Internal Administration Cost by Asset Class**	**2018 Management Fee Applied to Investment Policy Allocation (Percent of Assets)****	**Investment Policy Target Allocation**	**Arithmetic Long Term Expected Real Rate of Return, Including inflation**
Total Combined	33,522,467,815	100.0%	10.202%	0.108%	0.563%	100%	8.216%

Locked Input Summary				Input
Forecast Allocation	**Forecast Growth Rate**	**Forecast Internal Administration Cost**	**Forecast Management Fees**	**Discount Rate (NPV)**
100%	8.216%	0.108%	0.563%	7.25%

Output Detail

- The output shows the impact of the changes in both absolute dollars if the savings were reinvested over a 15 and 30 year timeframe and then those results are adjusted to todays dollars using the actuarially derived discount rate.
- We have also added a favorable and stressed forecast to show the sensitivity.

	+1% Forecast Growth	+0% Forecast Growth	-1% Forecast Growth
Output Results:	Favorable	Base	Mod. Stressed
Baseline Asset Growth, Net of Expenses	8.544%	7.544%	6.544%
Forecasted Asset Growth Rate, Net of Forecast Expenses:	8.544%	7.544%	6.544%
Annual Forecasted Net Growth over Baseline	**0.000%**	**0.000%**	**0.000%**
15 Year Compound Asset Growth with Fee Reduction	-	-	-
30 Year Compound Asset Growth with Fee Reduction	-	-	-
15 Year Expected reduction in Unfunded Liability	-	-	-
30 Year Expected reduction in Unfunded Liability	-	-	-

Net Pension Liability as of 6/30/2018		
LAFPP Unfunded Pension Liability	$	1,254,270,000
LACERS Unfunded Pension Liability	$	5,709,348,000
Total Unfunded Pension Liability	**$**	**6,963,618,000**

How It Works

As you can see below, a reduction of both management fees and administrative costs of 10% on both pensions that takes affect in 2022 would result in actual cash of $5.4 Billion over 30 years and when you discount that back to today that would be approximately a $1.14 Billion reduction in the net pension liability.

Global Expense Reduction Inputs	Percent Reduction in Management Fees	Percent Reduction in Administrative Costs
LAFPP Reduction	10.00%	10.00%
LACERS Reduction	10.00%	10.00%
Beginning in Year	2022	

	+1% Forecast Growth	+0% Forecast Growth	-1% Forecast Growth
Output Results:	Favorable	Base	Mod. Stressed
Baseline Asset Growth, Net of Expenses	8.544%	7.544%	6.544%
Forecasted Asset Growth Rate, Net of Forecast Expenses:	8.611%	7.611%	6.611%
Annual Forecasted Net Growth over Baseline	**0.067%**	**0.067%**	**0.067%**
15 Year Compound Asset Growth with Fee Reduction	**926,043,207**	**806,694,770**	**701,828,380**
30 Year Compound Asset Growth with Fee Reduction	**7,102,136,694**	**5,389,456,962**	**4,079,325,667**
15 Year Expected reduction in Unfunded Liability	**409,008,076**	**360,033,391**	**316,699,905**
30 Year Expected reduction in Unfunded Liability	**1,451,474,491**	**1,143,679,351**	**902,176,832**

User Guide

We have also provided a user guide that gives detailed explanations of the inputs and instructions on how to use the model.

City Of Los Angeles
Office Of The City Administrative Officer
ASSET MANAGEMENT EXPENSE MODEL

PURPOSE

To provide the City of Los Angeles (the City) with a functioning asset management expense forecasting tool supported by the most recent, verifiable, and defendable financial data and assumptions available.

SCOPE

The scope of this project was to review and update the retirement asset management expense model (the Model) for two of the City's pension funds; the Los Angeles Fire and Police Pension (LAFPP) and the Los Angeles City Employee's Retirement System (LACERS). The focus of the project was to deliver accurate financial data, calculations, and expanded forecasting capabilities performing the following steps:

1. Reviewed the provided asset management expense model's calculations, assumptions, and data for accuracy.
2. Updated the Model to include historical, traceable, and verifiable financial data from 2018; audited pension financial statements; 2018 actuarial reports; and 2019 budget documents
3. Inserted additional capabilities into the Model, including:
   - Adjustable variables:
     - Forecasted asset class allocation
     - Forecasted asset class growth rate

Questions?

THANK YOU

The material appearing in this presentation is for informational purposes only and should not be construed as advice of any kind, including, without limitation, legal, accounting, or investment advice. This information is not intended to create, and receipt does not constitute, a legal relationship, including, but not limited to, an accountant-client relationship. Although this information may have been prepared by professionals, it should not be used as a substitute for professional services. If legal, accounting, investment, or other professional advice is required, the services of a professional should be sought.

Assurance, tax, and consulting offered through Moss Adams LLP. Investment advisory offered through Moss Adams Wealth Advisors LLC. Investment banking offered through Moss Adams Capital LLC.

APPENDIX – STUDIES AND REVIEWS

2 – Pension Fund Report – Navigant Consulting and Commissioner Wayne Moore

2.1 – City Pension Management Fund Study

2.2 – Power point presentation

2.3 – Report by Commissioner Wayne Moore

NAVIGANT
A Guidehouse Company

City Pension Fund Management Study

FINAL

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The City of Los Angeles
Office of the Chief Legislative Analyst

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DISCLAIMER

This report was prepared by Navigant Consulting, Inc., n/k/a Guidehouse Inc. (“Navigant”),[1] for the Los Angeles City Administrative Officer (CAO). The work presented in this report represents Navigant’s professional judgment based on the information available at the time this report was prepared. Navigant is not responsible for the reader’s use of, or reliance upon, the report, nor any decisions based on the report. NAVIGANT MAKES NO REPRESENTATIONS OR WARRANTIES, EXPRESSED OR IMPLIED. Readers of the report are advised that they assume all liabilities incurred by them, or third parties, as a result of their reliance on the report, or the data, information, findings and opinions contained in the report.

[1] On October 11, 2019, Guidehouse LLP completed its previously announced acquisition of Navigant Consulting Inc. In the months ahead, we will be working to integrate the Guidehouse and Navigant businesses. In furtherance of that effort, we recently renamed Navigant Consulting Inc. as Guidehouse Inc.

EXECUTIVE SUMMARY

Background

The Los Angeles City (City) Administrative Officer (CAO) retained Navigant Consulting, Inc., n/k/a Guidehouse Inc. (Navigant) to assess the management practices of Los Angeles' two City-sponsored pension funds, the Los Angeles City Employees' Retirement System (LACERS) and the Los Angeles Fire and Police Pension Plan (LAFPP), on behalf of the Los Angeles City Commission on Revenue Generation (Commission).[2] The Commission is tasked with maximizing the City's General Fund revenue by providing recommendations to the Mayor and City Council. As part of this effort, the Commission wanted to analyze LACERS and LAFFP's management fees and the funds' investment policy structure to identify methods for reducing costs and unfunded actuarial accrued liabilities (UAAL).

As of 2018, LACERS' actuarial valuation included a UAAL of $5.9 billion and LAFFP's actuarial valuation, of $1.5 billion. Accordingly, the City budget included general funds of $398 million to amortize LACERS' UAAL and $225 million to amortize LAFPP's UAAL. This study identifies recommendations for reducing costs to minimize these numbers by assessing the potential for in-sourcing and implementing broader cost reduction or revenue generation strategies. The list below provides more information about these concepts, based on the Commission's requests.

- **In-sourcing:** In the initial request for bids (RFB), the Commission stated that the in-sourcing, or the movement of asset management services to internal staff, for pension funds can lower costs and increase beneficial control of assets. Specifically, the Commission noted that international funds, such as Ontario Teacher's Pension Plan (OTPP) and Norges Bank in Norway, and large, domestic funds, such as California Public Employees' Retirement System (CalPERS), have successfully reduced investment management costs by restructuring responsibilities between their external managers and internal staff. This study examines the potential for in-sourcing, given the information outlined by the Commission and LACERS and LAFPP's unique conditions.

- **Other Cost Reduction Strategies:** The Commission also requested that Navigant examine broader asset management practices and identify opportunities for cost savings. The RFB did not identify specific items, so Navigant has taken a broad approach for identifying other cost reduction strategies.

- **Benefits of Commission-Proposed Strategies**: The Commission asked Navigant to quantify the potential benefits of five cost reduction and/or revenue generation strategies for each of the funds. The study includes a discussion of the costs, returns, and net benefits of each of the selected strategies as they relate to LACERS and LAFPP.

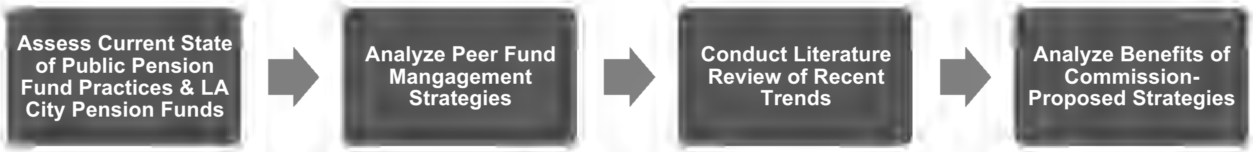
Study Approach

This study examines current investment management costs and asset management strategies to identify methods for reducing costs (or generating revenue) for each respective system and thereby, maximizing the City's General Fund. Navigant used a four-step approach to achieve this goal. The four steps include: (1) assess the current state of public pension fund practices and LACERS and LAFPP, (2) compare LACERS and LAFPP's costs and management structure to a range of peers, (3) conduct a literature review of recent cost reduction strategy trends for public pension plans, and (4) analyze the costs and

[2] On October 11, 2019, Guidehouse LLP completed its previously announced acquisition of Navigant Consulting, Inc. In the months ahead, we will be working to integrate the Guidehouse and Navigant businesses. In furtherance of that effort, we recently renamed Navigant Consulting Inc. as Guidehouse Inc.

benefits of Commission-proposed strategies. The steps culminated in recommendations and a corresponding roadmap for implementation. Figure ES-1 below outlines the study approach.

Figure ES-1. Study Analysis Approach



Source: Navigant

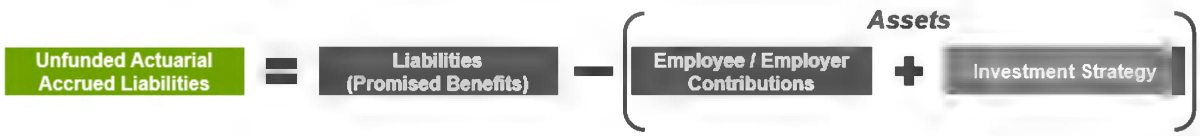
Current State of Public Pension Fund Practices and Los Angeles City Pension Funds

As the first step in the analysis, this section provides broad context about public pension fund management structures and then details LACERS and LAFPP's management practices, including their organizational structure, governance, investment strategy, and costs from the past five years.

Public Pension Fund Management Practices

LACERS and LAFPP administer employer-sponsored defined benefit (DB) plans to its staff. In these plans, employers assume liability for paying a defined benefit amount based on a retirees' employment tenure, earnings, and other factors. LACERS and LAFPP's respective oversight boards generate funding for these benefits by investing employee and employer contributions until an employee is ready to retire, using a defined investment strategy. However, if the employee-employer contributions plus the returns from investing fall short of the funds' liabilities, employers must cover the remaining costs, also known as unfunded actuarial accrued liabilities (UAAL), from other funding sources. Figure ES-2 below illustrates how UAAL is determined.

Figure ES-2. Defined Benefit Plan Structure



Source: LACERS and LAFPP Interviews

In Los Angeles, the City funds the UAAL using the General Fund. For this reason, the City has an interest in reducing UAAL to maximize the General Fund. There are two methods for reducing UAAL: (1) the City can use either employee-employer contributions or (2) LACERS and LAFPP's respective boards can adjust their investment strategies. However, the City determines employee-employer contributions based on negotiated bargaining agreements, making it challenging to implement changes easily.[3] Due to this information, Navigant's study focuses on identifying cost reduction strategies as they relate to investment strategies for the two funds' respective boards to implement.

[3] Notably, LAFPP's employee-employer contribution guidelines are included in the City charter, however LACERS' employee-employer contribution guidelines are not. This means that the City has more flexibility in adjusting LACERS' employee-employer contributions in comparison to LAFPP's employee-employer contributions.

For the purposes of this report, Navigant divides investment strategy into three components: (1) asset allocation, (2) asset management and procurement, and (3) reporting and transparency. Asset allocation determines how funds distribute money in various asset classes. Procurement policies dictate how funds manage its asset allocation and the procedures used to procure internal or external managers to manage the fund. Finally, reporting and transparency consists of the policies for monitoring fund costs and performance over time. Figure ES-3 below provides a high-level overview of these components.

Figure ES-3. Investment Strategy Study Components

Source: Navigant

Los Angeles City Employee Retirement System (LACERS) and Los Angeles Fire and Police Pension Fund (LAFPP)

The City of Los Angeles established LAFPP and LACERS as individual City departments through City Charters in 1899 and 1937, respectively. [4,5] The two funds provide retirement benefits and services to employees of the City. Specifically, LACERS administers benefits for most civilian employees while LAFPP, for sworn members of the Police and Fire Departments and the Port and Airport.[6] The two funds serve over 39,000 active members and 29,000 retirees and their beneficiaries. Together, they manage roughly $20 billion in assets each. As of recent reporting, LACERS combined funded status was 70.1% and LAFPP, 86.9% in 2018. Table ES-1**Error! Reference source not found.** provides an overview of key LA Pension Fund components.

Table ES-1. LA Pension Fund Overview

Components	Description
Organization	Both funds have roughly 100 full time employees each, grouped into three main functional areas: (1) administrative services, (2) investments, and (3) pensions or benefit services. Staff focus on providing services and overseeing investment management. Notably, LACERS and LAFPP staff do not directly manage asset investments, as both funds use a fully outsourced asset management structure.

[4] Los Angeles City Employee Retirement System, About Us, https://www.lacers.org/aboutlacers/about-us.html

[5] LAFPP, 2018 Annual Report, June 30, 2018, https://www.lafpp.com/sites/main/files/file-attachments/lafpp-2018-annual-report-final-web.pdf?1549066280

[6] LACERS does not provide benefits to employees of the Department of Power and Water. These employees have a separate pension fund.

Components	Description
Governance	Both funds are governed by their own oversight boards, pursuant to the City Charter and several California laws, including the California Constitution.[7] Specifically, the boards establish policies, rules, and regulations for the organization, including asset allocation, risk tolerance, and performance benchmarks. The General Manager assumes responsibility for implementing these policies and procedures.
Investment Strategy	*Asset Allocation:* LACERS and LAFPP have similar asset allocations in their investment policies. The funds allocate a large portion (greater than 50%) of assets to equities and an almost equal portion (approximately 20% each) of assets to alternatives and fixed income. The two funds diverge in their asset allocations of cash, as LACERS allocates 5% of its fund to cash and LAFPP, less than 1%. Staff noted that they understand that equities and alternatives have higher costs, but they have chosen to invest in these assets due to high returns, especially compared to fixed income.[8] *Asset Management:* Neither LACERS nor LAFPP manages any of its assets internally; they instead procure external managers to conduct research and manage asset investments, like other similarly-sized organizations.[9] The two funds have historically followed this asset management approach, citing challenges with hiring staff and implementing the technological infrastructure required to manage assets internally due to Civil Service requirements and infrastructural costs.[10] Instead, the oversight boards, working closely with fund staff, develop investment policies, which serve as a guide for their external managers. *Reporting & Transparency:* LACERS and LAFPP formally monitor asset returns on a quarterly basis, using well-defined benchmarks. The benchmarks for the funds include qualitative and quantitative components. The qualitative components consist of assessing external managers' organizations. Although not explicitly stated, the qualitative component appears to measure managers' stability and credibility. To complement this analysis, the quantitative components consist of assessing external managers' investment performance against defined thresholds, including industry-wide markers. If managers do not meet stated assessments, they may be placed on a watch list and terminated if performance does not improve.

[7] Los Angeles City Employees' Retirement System, Board Manual, January 2019, http://www.lacers.org/aboutlacers/board/board-governance-files/Board%20Manual.pdf#page=6

[8] Interview with LACERS and LAFPP staff.

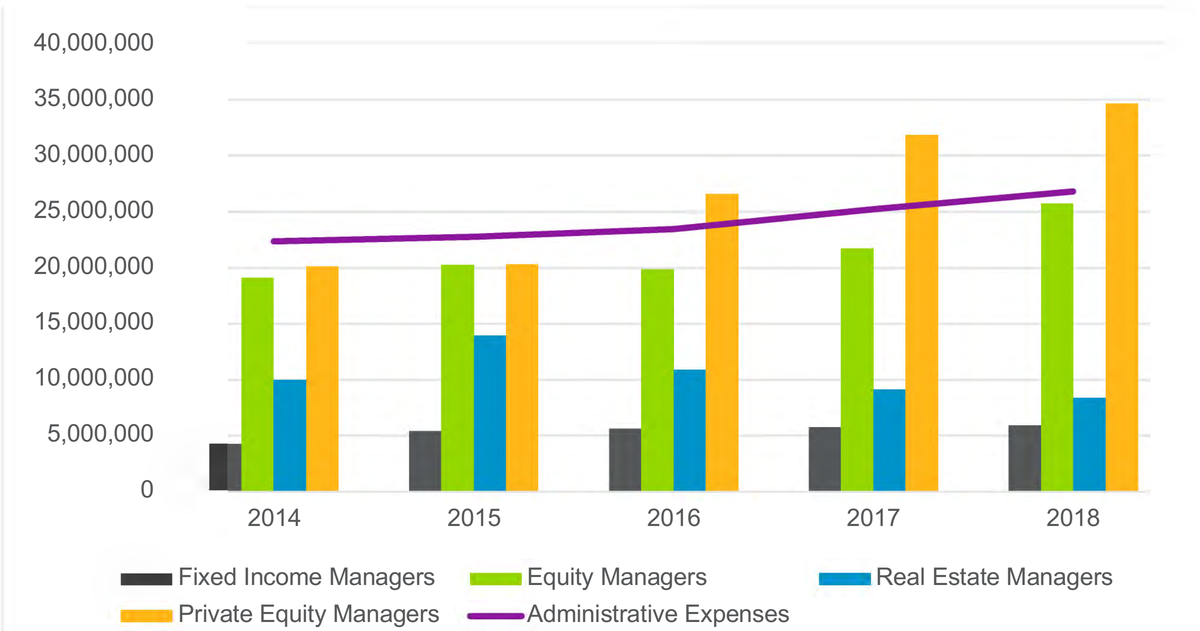
[9] Size refers to assets under management.

[10] Interview with LACERS staff.

Pension Fund Costs

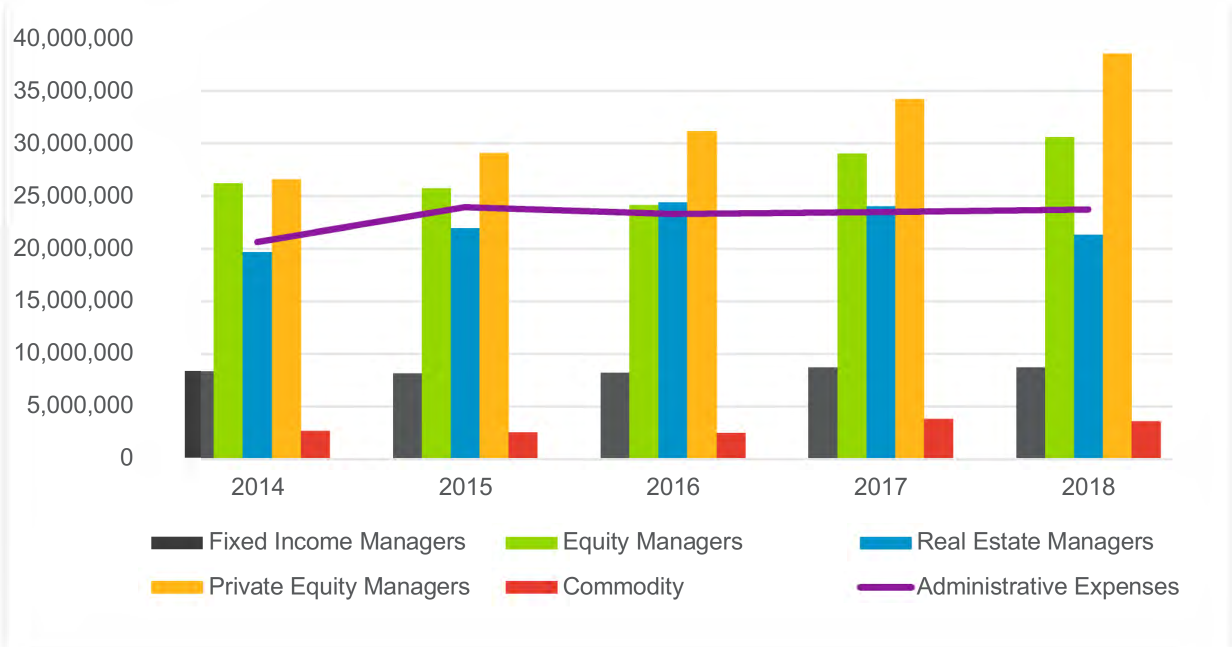
Public pension funds, including LACERS and LAFPP, accrue internal and external management costs, based on their asset management practices. Internal costs include expenses related to the day to day administration of the funds, such as staff salaries, while external costs include expenses tied to external managers. Given that LACERS and LAFPP engage external managers to manage the investments of all their assets, external fees for the two funds comprise the largest proportion of costs. LACERS has spent $24.1 M and LAFPP, $22.9 M on average annually over the past five years on internal administrative costs (e.g., salaries and technology infrastructure). In contrast, LACERS has spent $63.9 M and LAFPP has spent $92.7 M on average annually over the same time frame on external management costs. The bulk of the external costs have been for equity and private equity managers for both funds. This makes sense, since both funds have the most assets allocated to equities and private equity investments tend to cost significantly more due to the research required prior to investing. Figure ES-4 and Figure ES-5 below show the external costs for LACERS and LAFPP, respectively.

Figure ES-4. LACERS External vs. Internal Administrative Costs, 2014 - 2018



Source: LACERS Staff

Figure ES-5. LAFPP External vs. Internal Administrative Costs, 2014 - 2018



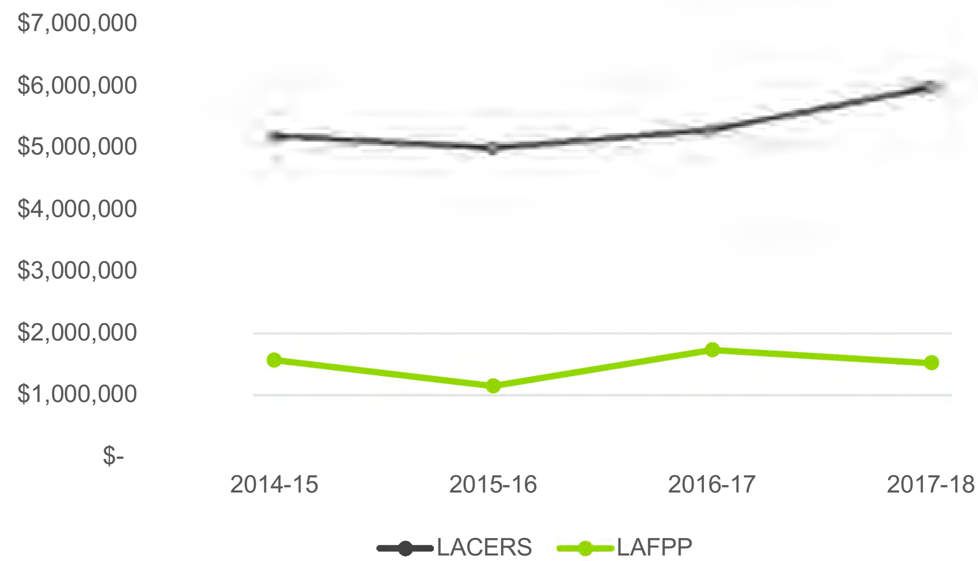
Source: LAFPP Staff

As shown above, costs have increased for almost all asset classes in each of the past five years, while internal management costs have remained stable. On average, total costs have increased 9% annually for LACERS and 5% annually for LAFPP, indicating a steady upwards trend in the short term. However, costs in 2018 equate to less than one half of one percent of total assets and assets for both funds have increased over this period due to positive returns.

Unfunded Actuarial Accrued Liabilities (UAAL)

Given the Commission's focus on UAAL, Navigant analyzed recent historical data to understand trends in UAAL. The two funds have trended oppositely over the past five years. LACERS' UAAL has increased slightly from $5.18 billion to $5.96 billion, while LAFPP's UAAL has decreased slightly from $1.57 billion to $1.52 billion from 2014 to 2018. When looking at individual years, UAAL decreased from fiscal year (FY) 2014-15 to FY 2015-16 and increased from FY 2015-16 to FY 2016-17 for both funds. LACERS' UAAL then increased from FY 2016-17 to FY 2017-18, while LACERS' UAAL decreased that year. The fluctuations in trends suggest that LACERS and LAFPP may be able to implement cost reduction strategies to further hedge against fluctuations in asset returns. Furthermore, a slight cost reduction or revenue generation increase may result in significant reductions in UAAL overtime. For example, a 1% decrease in costs or increase in returns can result in a $59 M reduction in FY 2017-18 UAAL for LACERS and $15 M reduction for LAFPP in the same year. Figure ES-6 Figure ES-4 below shows the UAAL trends from 2014 to 2018.

Figure ES-6. UAAL, 2014 – 2018 (Thousands, USD)



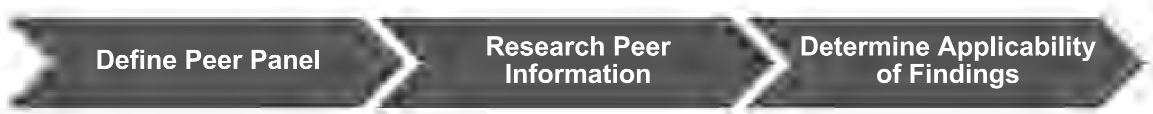
Source: LACERS and LAFPP Data Request

Peer Fund Management Analysis

As part of its analysis, Navigant compared LACERS and LAFPP's investment strategy – including its asset allocation and management approach -- to a range of peer funds. This analysis aims to determine how the two funds compare to peer funds and to identify how approaches may differ amongst funds of different sizes. It also serves to contextualize the funds' practices, providing further insight into the relative benefits, costs, and challenges associated with various asset management strategies.

The analysis consisted of three main steps: (1) defining the peer panel, (2) researching peer information, and (3) determining the applicability of the findings. These steps resulted in a list of peers, research about each peer fund, and strategies that LACERS and LAFPP may adopt based on the research. Figure ES-7 below provides an overview of the analysis approach.

Figure ES-7. Peer Management Analysis Methodology



Source: Navigant

The final peer panel consisted of six public pension funds and one sovereign wealth fund. Navigant included Norway's Government Pension Fund Global, a sovereign wealth fund, since the Commission included the fund in its RFB. This fund offers insights relevant to public pension funds, despite having a slightly different structure. Table ES-2 lists the final peer panel, background information including the fund's total asset value, full-time employees (FTEs), and in-source percentage, and the rationale for each fund's inclusion in the peer panel.

Table ES-2. Peer Panel Overview

Fund	Assets (USD$ B)	FTEs	In-Source Percentage	Rationale for Inclusion
Norway's Government Pension Fund Global (GPFG)	902.8	953	96% of fund	Commission Interest; Internal Management
California Public Employees' Retirement System (CalPERS)	354.0	Unknown	70% of fund	Commission Interest; Internal Management; Proximity
Ontario Teachers' Pension Plan (OTPP)	146.4	1,200	80% of fund	Commission Interest; Internal Management
New York City Employees' Retirement System (NYCERS)	65.5	Unknown	Unknown Percent	Size, City Structure
Los Angeles County Employees Retirement Association (LACERA)	56.3	Unknown	No Assets In-sourced	Size, Proximity
New York City Fire Pension Fund (NYC Fire)	22.3	96	Unknown Percent	Size, City Structure
San Diego City Employees' Retirement System (SDCERS)	17.0	115	No Assets In-sourced	Size, City Structure, Proximity

Source: Fund staff and annual reports

The peer comparison analysis yielded several applicable findings related to overall fund management and cost saving strategies. In particular, the analysis illustrated that the LACERS and LAFPP management strategies closely align with peers and have met or exceeded peer fund performance over the past 10 years. However, there are still opportunities to reduce costs across all asset classes. In terms of cost reduction strategies, the research yielded a few high-level takeaways, listed below.

- LACERS and LAFPP should continue to assess the links between a portfolio's basic asset allocation, its investment expenses, and its overall performance in its forward-looking strategy. As stated previously, shifting their asset allocation can affect both costs and returns. Furthermore, they should continue to account for asset allocation strategies that may reduce costs, such as indexing.

- In-sourcing asset management will be a challenge for LACERS and LAFPP due to their size (measured in assets under management) and their ability to attract, hire, and retain top-tier investment professionals. Furthermore, their current outsourcing strategy aligns with peers of like size.

- LACERS and LAFPP may consider reducing the number of external managers it hires moving forward. LACERS has significantly more (up to four times more than peers) external managers than its peers, based on publicly available information. By reducing managers, LACERS may be able to achieve greater cost-savings by moving greater asset volumes to a smaller number of managers and negotiating better costs.

- Reporting and transparency can help all stakeholders, including its oversight boards, taxpayers, and the City, monitor costs. This includes reporting all relevant fee information in a clear and easily accessible manner. Funds should report both base and performance fees, so stakeholders can understand the complete costs of investing.

- Streamlining external management and relying on low-cost passive managers and indexing can help reduce costs further. LACERS and LAFPP should continue to closely monitor the performance of their investment managers against public benchmarks and consider moving assets into lower-cost index funds if managers cannot regularly outperform market baselines.

Cost Reduction Strategy Literature Review

In addition to developing a peer panel comparison, Navigant conducted a literature review on recent cost reduction strategies employed by public pension funds. The review consisted of collecting secondary research from academic studies, market analyses from third-parties (e.g. nonprofits and finance organizations), and case studies from peers excluded in the full peer panel comparison. The analysis is intended to identify strategies that LACERS and LAFPP do not currently employ but may be applicable to the funds.

Navigant organized its findings into the three investment strategies of interest: (1) asset allocations, (2) asset management and procurement, and (3) reporting and transparency. Table ES-3 below outlines the strategies from the analysis.

Table ES-3. Literature Review Cost Reduction Strategies

Category	Cost Reduction Strategies
Asset Allocation	• Use Managed Custody Accounts (MCA) to reduce costs and increase investing flexibility. Under an MCA, pension funds negotiate fees at the platform level for aggregated assets; investors can then nimbly invest in various products. San Bernardino County Employees Retirement Association (SBCERA) established this investment strategy to increase direct investments and reduce fees. The CIO then implemented this strategy at Texas Tech University Endowment. The CIO has stated that they have been able to reduce costs while getting managers' best ideas incorporated into their portfolio.[11] • Simplify system's investment portfolio and reduce fund managers. Three funds, including South Carolina Retirement Investment Commission (SCRSIC), CalPERS, and Pennsylvania Treasury recently enacted or directed their respective pension funds to simplify their portfolios and reduce the number of external managers.

[11] Hickey III, Thomas A., Fross, Stuart E., Nee, Kenneth C., Generating Returns Through Better Relationships: How Managed Custody Accounts Benefit Managers and Investors, Journal of Security Operations & Custody, February 2, 2016, https://www.foley.com/en/insights/publications/2017/02/generating-returns-through-better-relationships-ho

Category	Cost Reduction Strategies
Asset Management & Procurement	• Adopt specific policies with respect to acceptable fee limits, including establishing a fee budget at the fund level.[12,13] Both the American Federation of Teachers and the Pennsylvania Treasury recently made these recommendations to their respective pension plans. Furthermore, establish fee budgets at the organizational level is a procurement policy best practice.[14] • Explore non-traditional fee structures, such as low fixed fees (rather than performance fees), to mitigate unexpected costs.[15] For example, Orange County Employees Retirement System (OCERS) believes that a base fee is appropriate to provide enough operating income for external managers. OCERS fee policy follows this philosophy closely, assigning fees between the market cost of passive management and 40 percent of fixed fees. • Explore opportunities to pool investments with other pension funds to gain economies of scales. For instance, OCERS developed a mini investment pool by selecting an emerging markets equity manager with a comingled pool, so other public pensions can invest with reduced fees.[16] Furthermore, the pension funds of England and Wales pooled their assets to achieve greater economies of scale and negotiating power.[17]

[12] American Federation of Teachers, The Big Squeeze: How Money Managers' Fees Crush State Budgets and Workers' Retirement Hopes, 2017, http://www.aft.org/sites/default/files/bigsqueeze_may2017.pdf.

[13] Treasury Department Commonwealth of Pennsylvania, Final Report and Recommendations: Public Pension Management and Asset Investment Review Commission, December 13, 2018, http://jsg.legis.state.pa.us/resources/documents/ftp/act5/pdf/PPMAIRC-FINAL.pdf

[14] EY, Five things Getting the basics right in procurement, 2016, https://www.ey.com/Publication/vwLUAssets/EY-best-practice-guide-five-things-in-procurement/$File/EY-best-practice-guide-five-things-in-procurement.pdf

[15] Miller, Gerard, Managing Against Escalating Pension Investment Fees, Government Finance Review, February 2014, https://www.gfoa.org/sites/default/files/GFR_FEB_14_18.pdf.

[16] Orange County Employees Retirement System, Curbing the Costs of Pension Fund Investment Management, May 2014, https://gfoa.org/sites/default/files/FINAL%20-%20Curbing%20the%20Cost%20of%20Public%20Pension%20Portfolio%20Fee%20Management.pdf

[17] Northern Trust, The Local Government Pension Scheme: Beyond Asset Pooling, May 2018, https://www.northerntrust.com/documents/white-papers/asset-servicing/lgps-beyond-asset-pooling.pdf

Category	Cost Reduction Strategies
Reporting & Transparency	• Adopt comprehensive fee-reporting standards in line with the Institutional Limited Partners Association's (ILPA) Fee Transparency Initiative.[18] According to the ILPA, reporting should include partnership expenses, offsets to fees and expenses, and fees with respect to portfolio companies and investments.[19] South Carolina Retirement System (SCRS) collects detailed information on management fees, portfolio companies, other fund-level fees, and accrued performance fees, rather than relying on external manager invoices alone.[20] • Develop investment policy statements that are transparent and accessible. The Pew Charitable Trusts study recommends including information about asset allocation and objectives with risk and returns.[21] For instance, the Missouri State Employee Retirement System (MOSERS) investment policy consists of detailed descriptions about how alternative investments are used to achieve risk and return objectives. • Report results both net and gross of fees by asset class, including for long-term performance results. A recent Pew Charitable Trusts study recently made this recommendation to public pension funds to help stakeholders understand investment performance over time.[22] • Monitor the age of all fee schedules and manager relationships, reviewing them regularly and considering these facts when negotiating. A recent report from the Pennsylvania Treasury recommended that the state's pension funds adopt this practice to minimize fees.[23]

Cost-Savings Analysis of Select Strategies

In addition to identifying cost-savings strategies generally, the Commission tasked Navigant with assessing the potential benefits of implementing five specific strategies selected by its members. The goal of this assessment was to quantify costs, returns, and net benefits to understand how the strategies may impact the two funds.

Table ES-4. Commission on Revenue Generation Selected Strategies

No.	Strategy	Strategy Definition
1	Establish Separate Accounts for Indexed Fixed Income and Equities Investments	Separating investment accounts could give the city beneficial ownership and control over its assets, including the ability to lower costs, exercise proxy voting rights, and increase securities lending revenues. Notably, both LACERS and LAFPP stated they

[18] The Pew Charitable Trusts, Making State Pension Investments More Transparent.

[19] Institutional Limited Partners Association, Reporting Template Guidance Version 1.1, October 2016, https://ilpa.org/wp-content/uploads/2016/10/ILPA-Reporting-Template-Guidance-Version-1.1.pdf

[20] The Pew Charitable Trusts, Making State Pension Investments More Transparent.

[21] The Pew Charitable Trusts, Making State Pension Investments More Transparent.

[22] The Pew Charitable Trusts, Making State Pension Investments More Transparent.

[23] Treasury Department Commonwealth of Pennsylvania, Final Report and Recommendations: Public Pension Management and Asset Investment Review Commission.

		already use separate accounts for their indexed fixed income and equities investments, following industry best practice.
2	Leverage Co-Investing for Private Equity Investments	Co-investing alongside current private equity managers offers the opportunity to participate in private equity ventures with no management fee or carried interest obligation.
3	Establish Cash Overlay Program	Implementing a cash overlay program would generate additional revenue and thereby reduce cash management costs.
4	Increase Manager Diversity	According to years of research, increasing manager diversity in the investment portfolio would produce better financial results across all industries.
5	Invest in Ongoing Research and Peer Reviews	Investing in ongoing research and peer reviews would ensure that the best in-class management strategies are employed.

Source: Commission on Revenue Generation, 2019

To assess each strategy, Navigant identified a baseline investment amount, researched potential costs and returns, and modeled net savings. This research included gathering information directly from LACERS and LAFPP and leveraging publicly available information from case studies and other public pension fund reports. In the cases where information about costs and returns was not readily available, Navigant provides a qualitative discussion about the strategy. The sections below provides a high-level overview of the various strategies and their benefits.

1. *Establish Separate Accounts for Indexed Fixed Income and Equities Investments*

   A separate account is a professionally managed investment portfolio that consists of funds contributed by a single investor. Investing in a separate account is an alternative to investing in a commingled fund, a professionally managed investment portfolio that pools and invests capital contributed by a group of investors. Because separate accounts are managed on behalf of a single investor, they can offer greater flexibility and can provide an investor with greater control and customization of its investment strategy.[24]

   Both LACERS and LAFPP currently employ separate accounts for their indexed fixed income and equities investments. They have used this structure for decades, following industry best practice. Therefore, LACERS and LAFPP cannot derive additional benefits from these strategies.

2. *Leverage Co-Investing for Private Equity Investments*

   Private equity co-investing involves investing capital into a company directly with a general partner, typically a professional private equity manager.[25] Co-investing represents a departure from the typical private equity structure, in which investors contribute capital to a pooled fund that is invested *on their behalf* by a general partner. Because co-investing features investment *in partnership with* (rather than outsourced to) a general partner, co-investing generally has reduced fees. The fee reduction potential of co-investing is amplified for large-scale investors, like public pension funds, who can provide blocks of capital large enough to unlock new investment

[24] James Chen, "Separate Account,*"* Investopedia*,* https://www.investopedia.com/terms/s/separateaccount.asp.
[25] James Chen, "Private Equity," *Investopedia*, https://www.investopedia.com/terms/p/privateequity.asp.

opportunities for general partners. However, there are several challenges with co-investing, including finding deals, conducting due diligence prior to investing in deals, and increasing risk due to decreasing diversification (e.g. since funds would place more money in a small number of large-scale deals).

Navigant found that this strategy may result in significant savings by reducing the two components of private equity fees: (1) management fees, as a percent of assets under management annually, and (2) carried interest fees, as a percent of returns above a pre-negotiated benchmark over the life of the investment. Typically, these fees follow a "2 and 20" structure, meaning investors pay 2% of assets under management for management fees and 20% of returns over a pre-defined benchmark for carried interest fees.[26] Co-investing may help reduce these fees to 0 – 1% and 0 – 10%, respectively. [27] For LACERS and LAFPP this means a potential reduction of $6 - $14 M annually on management fees and 17.5% - 35% on carried interest fees over the lifetime of their current investments, if they moved approximately 35% of their current private equity investments into co-investments.[28]

3. *Establish a Cash Overlay Program*

Cash overlay programs involve investing a portion of a fund's cash in short-term investments and/or derivative contracts, such as futures. This allows investors to invest based on the direction of market prices while eliminating the need to buy the underlying assets, like individual stocks.[29] As such, a cash overlay program unlocks the potential for marginal returns while reducing the need to sacrifice liquidity through the purchase of securities.[30] Neither LACERS nor LAFPP currently operate a cash overlay program, although LACERS had a program before the economic downturn in 2009.

The two funds may achieve additional revenue generation of $8 - $100 million annually by investing 0.5% - 2% of its total assets in an externally managed cash overlay program, assuming the funds achieve between 0.05 – 0.6% returns on the total fund.[31] The potential returns on the cash overlay program are notably higher than LACERS' historic program and reflect the assumptions from recent LACERA, Fresno County Employees Retirement Association (FCERA), and LACERS. Given the potential for significant revenue additions that do not unduly threaten

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[26] Elvis Picardo, "Two and Twenty," Investopedia, https://www.investopedia.com/terms/t/two_and_twenty.asp; LACERS and LAFPP interviews.

[27] Torey Cover Capital Partners, "LACERS Private Equity Program 2020 Strategic Plan," 20, http://www.lacers.org/aboutlacers/board/BoardDocs/2019/Investment/2019-11-12%20INVESTMENT%20CMTE/ITEM_IV.pdf.

[28] Navigant's calculations assumed that LACERS and LAFPP would move approximately 35% of their current private equity investments to co-invested private equity investments. This assumption stems from a recent LACERS report about coinvesting, which can be found here: http://www.lacers.org/aboutlacers/board/BoardDocs/2019/Investment/2019-11-12%20INVESTMENT%20CMTE/ITEM_IV.pdf.

[29] James Chen, "Futures," *Investopedia*, https://www.investopedia.com/terms/f/futures.asp.

[30] "Cash Management: Los Angeles City Employees' Retirement System," NEPC, 11-2, http://www.lacers.org/aboutlacers/board/BoardDocs/2018/Investment/2018-04-10%20INVESTMENT%20CMTE/ITEM%20VII%20-%20PRESENTATION%20BY%20NEPC%20ON%20CASH%20MGMT%20REVIEW.pdf.

[31] These assumptions are based on three recent reports from LACERS, Fresno County CERA, and LACERA. The reports can be found here: http://www.lacers.org/aboutlacers/board/BoardDocs/2018/Investment/2018-04-10%20INVESTMENT%20CMTE/ITEM%20VII%20-%20PRESENTATION%20BY%20NEPC%20ON%20CASH%20MGMT%20REVIEW.pdf; http://www2.co.fresno.ca.us/9200/Attachments/Agendas/2018/20181003/20181003-6A-PerformanceEconomicSummaryReport-Compiled.pdf; https://www.lacera.com/about_lacera/boi/meetings/2019-04-10_boi_agnd.pdf.

fund liquidity, both LACERS and LAFPP should consider further exploring how cash overlay programs might align with and enhance current investment policies and procedures. Like other investment strategies, LACERS and LAFPP should weigh the risks, costs, and returns associated with implementing a cash overlay program before moving forward.

4. *Increase Manager Diversity*

This strategy involves increasing manager diversity as a method for increasing returns, based on a growing body of evidence that illustrates that increasing diversity improves business performance.[32] The basic idea underpinning this strategy is that business performance improves when management teams feature input and representation from diverse and heterogeneous groups in terms of gender, ethnic, and cultural diversity. This research stems from a variety of industries and is not focused specifically on the public pension industry.

There is currently a lack of publicly available data on public pension fund investment manager diversity, including both the portion of minority-owned or controlled external management firms and performance of these firms. In general, public pension funds have aimed to increase diversity through Emerging (and Diverse) Manager Programs. These programs aim to increase the portion of small and diverse external management firms within their portfolio by allocating a defined portion of assets to these firms. However, exact definitions of emerging managers included within these programs varies significantly.[33] Currently, LACERS and LAFPP operate Emerging Manager Programs and allocate approximately 2% and 10% of funds to the programs, respectively. Both funds define emerging managers based on size in assets under management.

Due to the inconclusive evidence related to Emerging Manager Programs, diversity within these programs, and the general lack of publicly-available information related to asset manager diversity and performance, Navigant could not quantify the net benefits of this strategy. However, Navigant recommends that both funds track data and metrics around diversity-related initiatives and continue increasing manager diversity, given it is a best practice.

5. *Invest in Ongoing Research and Peer Reviews*

Investing in peer research and reviews is a useful way for pension fund administrators to identify areas for improvement. Research and peer reviews may include benchmarking costs, performance, and services, research on cutting-edge investment strategies, and fund-specific research (e.g., modeled investment strategies). LACERS and LAFFP currently invest in regular research and peer reviews through two forums: (1) peer benchmarking reports and (2) investment consultant reports. The list below provides more details about each of these forums.

- **Benchmarking Reports:** Both funds use CEM Benchmarking to understand how their costs, services, and performance compares to like-sized peer pension funds. With over 400 funds participating, CEM benchmarking is seen as an industry-leader in providing peer review research for pension funds. Furthermore, NYC Retirement Systems released a statement, saying "CEM is the only vendor capable of providing comprehensive investment cost benchmarking services that utilize actual cost and

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[32] Hunt, Vivian, et. al., Delivering through Diversity, January 2018, McKinsey & Company, https://www.mckinsey.com/business-functions/organization/our-insights/delivering-through-diversity.

[33] "Public pension funds' definition of emerging manager still a work in progress", March 21, 2012, Pensions & Investments, https://www.pionline.com/article/20120321/ONLINE/120329976/public-pension-funds-definition-of-emerging-manager-still-a-work-in-progress

performance data collected from large U.S. pension funds," highlighting the benefits of their study.[34]

- **Investment Consultant Reports**: LACERS and LAFPP retain investment consultants to produce ongoing research and other advisory services. The funds stated that these consultants are generally "non-discretionary," meaning they do not manage any of the funds' outsourced investments and focus purely on advisory.[35] As of 2018, LACERS and LAFPP spent $1.49 M, and $0.84 M on investment consultants, respectively.[36]

Although conducting ongoing peer reviews and research are best practice, the precise net benefits from these efforts is unclear due to a lack of publicly available information quantifying the benefits. Navigant suggests continuing to purchase CEM benchmarking reports and conducting ongoing research and peer reviews, while also beginning to track benefits gained from these studies, where possible. Over time this will allow LACERS and LAFPP to understand how these reports have contributed to overall performance.

Recommendations and Action Plan

Based on the peer benchmarking and the literature review above, Navigant developed recommendations and a subsequent action plan for LACERS and LAFPP. These recommendations consider LACERS and LAFPP's unique regulatory environment and current or recent initiatives. For example, the two funds have already implemented a few of the cost reduction investment strategies from the literature review and therefore, Navigant did not include these in the recommendations. Furthermore, Navigant developed the recommendations at a high-level; many of the suggestions are intended to be a starting point and require further examination before implementation.

Navigant developed recommendations across three categories to align with its peer research and literature review. These categories include: (1) asset allocation, (2) asset management and procurement, and (3) reporting and transparency. In general, LACERS and LAFPP align with their peers' practices in these areas; however, both funds can enhance procurement policies and reporting and transparency to further educate external stakeholders and manage external manager costs. Therefore, Navigant's recommendations focus on these categories. Table ES-5 and Figure ES-8 below provides an overview of Navigant's recommendations and action plan.

Table ES-5. Study Recommendations

Category	Recommendations
Asset Allocation	1. Explore the adoption of alternative fee structures, such as Managed Custody Accounts (MCA) 2. Consider reducing the number of external managers by benchmarking the number of external managers used by peers 3. Continue to assess the feasibility of co-investing for private equity investments 4. Continue to assess the feasibility of establishing a cash overlay program

[34] NYC Retirement Systems eyes CEM Benchmarking in cost analysis search, March 22, 2018, Pensions & Investments, https://www.pionline.com/article/20180322/ONLINE/180329954/nyc-retirement-systems-eyes-cem-benchmarking-in-cost-analysis-search.

[35] LACERS and LAFPP interviews.

[36] LACERS and LAFPP data requests.

Procurement / Fee Policies	3. Adopt specific policies with respect to acceptable fee limits 4. Establish a fee budget at the fund level for all investment managers 5. Explore opportunities to pool investments with LACERS and other CA pension funds
Reporting / Transparency	6. Adopt comprehensive fee reporting (e.g. itemized list of fees, including performance and non-performance). 7. Expand reporting to include 20-year results and include full performance reporting (e.g. by asset and net/gross) 8. Post all performance reports, including historical information (20 year +), in an easily-accessible manner 9. Track age of fee schedules and review every 2 years and track age of manage relationships; use information during negotiations to reduce costs 10. Monitor portfolio-wide manager diversity, including the number of diverse managers, to track progress over time. 11. Monitor benefits of investing in ongoing research and peer reviews to understand the impact of these investments over time.

Source: Navigant

Navigant also developed a corresponding action plan with three timelines for the recommendations above. The action plan considers the level of effort and priority for the recommendations. Specifically, near-term recommendations represent easy-to-implement actions and mid-term recommendations represent actions that require further study. Finally, the long-term recommendations consider the potential outcomes from the near-term and mid-term actions. Figure ES-8 below provides an overview of the action plan.

Figure ES-8. Recommendations and Action Plan

Near-Term

6 Months – 2 Years

- Enhance reporting and transparency by:
  - Tracking fee schedule age to leverage for negotiations
  - Expanding access to historical reports (e.g. 20+ years)
  - Providing detailed performance (e.g. net / gross of fees) and itemized lists of manager fees, including performance-based fees
  - Monitoring portfolio-wide manager diversity and performance
  - Monitoring benefits of investing in ongoing research and peer reviews
- Control costs by adopting fee policies, including:
  - Adopting acceptable fee limit policies
  - Establishing a fund-level fee limit budget

Mid-Term

3 Years – 5 Years

- Conduct studies to explore the feasibility of:
  - Adopting alternative fee structures (e.g. establishing Managed Custody Accounts, and hurdles for performance based fees)
  - Pooling investments with other public pension funds to increase economies of scale and reduce costs
  - Simplify investment strategy and reduce the number of total external managers
  - Co-investing a portion of private equity investments
  - Establishing a cash overlay program

Long-Term

5+ Years

- Implement cost-saving strategies based on the outcome of the feasibility reports
- Assess success of near-term reporting and transparency and cost control efforts

Source: Navigant

1. BACKGROUND

The Los Angeles City (City) Administrative Officer (CAO) retained Navigant Consulting, Inc., n/k/a Guidehouse Inc. (Navigant) to assess the management practices of Los Angeles' two City-sponsored pension funds, the Los Angeles City Employees' Retirement System (LACERS) and the Los Angeles Fire and Police Pension Plan (LAFPP), on behalf of the Los Angeles City Commission on Revenue Generation (Commission).[37] The Commission is tasked with maximizing the City's General Fund revenue by providing recommendations to the Mayor and City Council. As part of this effort, the Commission wanted to analyze LACERS and LAFFP's management fees and the funds' administration structure to identify methods for reducing costs. In particular, the City has an interest in reducing the funds' Unfunded Actuarial Accrued Liabilities (UAAL) and increasing beneficial control of fund assets.

The two pension funds provide benefits to over 70,000 retirees and their beneficiaries. Together, they manage nearly $40 billion in assets on behalf of most of the City's Civil Service employees and sworn officers (e.g., firefighters and police officers).[38] The funds currently employ a defined benefit (DB) plan structure, meaning they provide predetermined benefits to retirees and their beneficiaries based on factors such as the retirees' earning history and years of service. In this structure, employers are liable for paying the funds' UAAL, or the difference between the fund's assets and the aforementioned benefit liabilities. As of 2018, LACERS' actuarial valuation included a UAAL of $5.9 billion and LAFFP's actuarial valuation, of $1.5 billion. Accordingly, the City budget included general funds of $398 million to amortize LACERS' UAAL and $225 million to amortize LAFPP's UAAL.

For this study, Navigant identified recommendations for reducing costs to minimize these numbers by assessing the potential for in-sourcing and implementing broader cost reduction strategies. The study scope, as requested by the Commission, addresses the focus areas described below:

- **In-sourcing:** In the initial request for bids (RFB), the Commission stated that the in-sourcing, or the movement of asset management services to internal staff, for pension funds can lower costs and increase beneficial control of assets. Specifically, the Commission noted that international funds, such as Ontario Teacher's Pension Plan (OTPP) and Norges Bank in Norway, and large, domestic funds, such as California Public Employees' Retirement System (CalPERS) and the California State Teachers' Retirement System (CalSTRS), have successfully reduced investment management costs by restructuring responsibilities between their external managers and internal staff. This study examines the potential for in-sourcing, given the information outlined by the Commission and LACERS and LAFPP's unique conditions.

- **Other Cost Reduction Strategies:** The Commission also requested that Navigant examine broader asset management practices and identify opportunities for cost savings. The RFB did not identify specific items, so Navigant has taken a broad approach for identifying other cost reduction strategies.

- **Benefits of Commission-Proposed Strategies**: The Commission asked Navigant to quantify the potential benefits of five cost reduction and/or revenue generation strategies for each of the funds. The study includes a discussion of the costs, returns, and net benefits of each of the selected strategies as they relate to LACERS and LAFPP.

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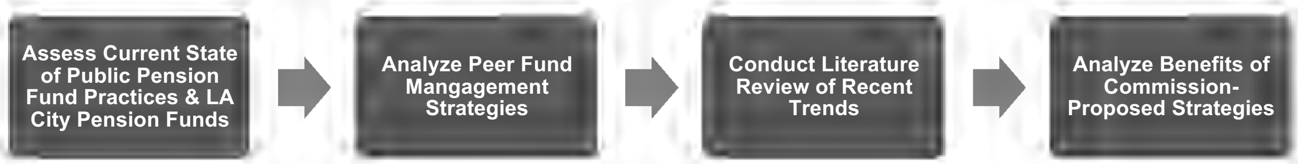
[37] On October 11, 2019, Guidehouse LLP completed its previously announced acquisition of Navigant Consulting, Inc. In the months ahead, we will be working to integrate the Guidehouse and Navigant businesses. In furtherance of that effort, we recently renamed Navigant Consulting Inc. as Guidehouse Inc.

[38] Notably, the funds do not administer benefits for employees of the Department of Water and Power (DWP). These employees have a separate pension fund.

1.1 Study Approach

The goal of this study is to identify methods for reducing UAAL costs and increasing beneficial control of fund assets for each respective system, thereby maximizing the City's General Fund. Navigant examined current investment management costs and asset management strategies, using a four-step approach to achieve the study's goal. The four steps include: (1) assess the current state of public pension fund practices and LACERS and LAFPP, (2) compare LACERS and LAFPP's costs and management structure to a range of peers, (3) conduct a literature review of recent cost reduction strategy trends for public pension plans, and (4) analyze the costs and benefits of Commission-proposed strategies. The steps culminated in recommendations and a corresponding roadmap for implementation. Figure 1-1**Error! Reference source not found.** below outlines the study approach.

Figure 1-1. Study Analysis Approach



Source: Navigant

The list below provides details on each step.

1. **Assess Current State:** Understand overarching public pension fund management practices as well as specific practices employed by LACERS and LAFPP. This assessment includes analyzing the cost of current management practices. The goal of this step is to lay the foundation for the funds' management to use as a point of comparison in Steps 2 and 3.

2. **Analyze Peer Strategies:** Compare costs and management strategies to selected peers to identify potential improvement areas. The goal of this step is to determine if costs and strategies align with peers across a range of sizes.

3. **Conduct Literature Review of Recent Trends:** Review recent reports about cost saving strategies to further identify methods for mitigating costs. The goal of this step is to identify additional strategies to those identified in Step 2.

4. **Analyze the Costs and Benefits of Commission-Proposed Strategies:** Determine the potential net benefits of implementing five Commission-proposed strategies, including incorporating separate accounts, co-investing, and a cash overlay program into current investment strategies as well as investing in manager diversity and ongoing research and peer reviews.

These steps culminated in the development of recommendations and a corresponding roadmap**.** Specifically, Navigant identified the applicability of strategies from Steps 1, 2, 3, and 4 to develop recommendations for implementing selected strategies, translating the findings from the previous steps into a final action plan.

1.2 Report Structure

The report structure aligns with the study approach, with one chapter for each of the steps outlined above:

- **Section 2** provides an overview of public pension fund management practices and LACERS and LAFPP's management structures and associated costs.
- **Section 3** provides an outline of the peer selection methodology and the results of the comparison, including the applicability of the findings to LACERS and LAFPP.
- **Section 4** provides cost reduction strategies from the broader literature review that had not been previously identified.
- **Section 5** provides a cost-benefit analysis of five Commission-proposed strategies.
- **Section 6** provides a synthesis of findings from the previous steps, details high-level recommendations, and outlines an action plan for implementing the recommendations.

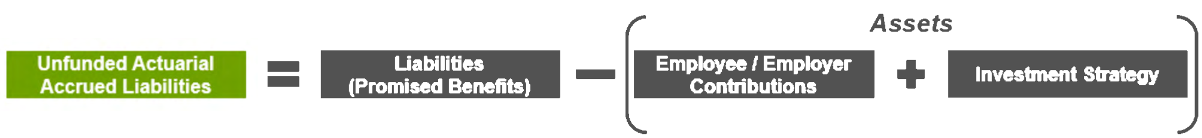
2. CURRENT STATE OF PUBLIC PENSION FUND PRACTICES AND LOS ANGELES CITY PENSION FUNDS

The City of Los Angeles sponsors two pension funds (Funds): (1) the Los Angeles City Employee Retirement System (LACERS) and (2) the Los Angeles Fire and Police Pension (LAFPP).[39] This section provides broad context about public pension fund and then details LACERS and LAFPP's management practices, including organizational structure, governance, investment strategy, and a summary of costs from the past five years. This latter information is based on interviews with staff, data from each of the funds, and publicly available information (e.g., annual reports). Since the two funds have broad similarities, the section discusses the funds in parallel.

2.1 Public Pension Fund Management Practices

As outlined in Section 1, LACERS and LAFPP administer employer-sponsored defined benefit (DB) plans to its staff on behalf of the City of Los Angeles. In these plans, employers assume liability for paying a defined benefit amount based on a retirees' employment tenure, earnings, and other factors. Since each of the funds' respective oversight boards dictate the investment policies of the two funds, the boards are responsible for generating funding for these benefits by investing employee and employer contributions until an employee is ready to retire, using a defined investment strategy. However, if the employee contributions plus the returns from investing fall short of the funds' liabilities, employers must cover the remaining costs, also known as unfunded actuarial accrued liabilities (UAAL), from other funding sources. Figure 2-1 below illustrates how UAAL is determined.

Figure 2-1. Defined Benefit Plan Structure



Source: LACERS and LAFPP Interviews

In Los Angeles, the City funds the UAAL using the General Fund. For this reason, the City has an interest in reducing UAAL to maximize the General Fund. There are two methods for reducing UAAL: (1) the City can use either employee-employer contributions or (2) LACERS and LAFPP's respective boards can adjust their investment strategies. However, the City determines employee-employer contributions based on negotiated bargaining agreements, making it challenging to implement changes easily. Given this information, Navigant's study focuses on identifying cost reduction strategies as they relate to investment strategies.

2.1.1 Investment Strategies

For the purposes of this report, Navigant divides investment strategy into three broad components: (1) asset allocation, (2) asset management and procurement, and (3) reporting and transparency. Asset allocation determines how funds distribute money in various asset classes. Procurement policies dictate how funds manage its asset allocation and the procedures used to procure internal or external managers to manage the fund. Finally, reporting and transparency consists of the policies for monitoring fund costs and performance over time. Figure 2-2 below provides a high-level overview of these components.

[39] Notably, the City of Los Angeles does not sponsor the Los Angeles Department of Water and Power (LADWP) pension fund.

Figure 2-2. Investment Strategy Study Components

Source: Navigant

2.1.1.1 Asset Allocation

In general, pension funds invest in three types of asset classes: (1) fixed income, (2) equities, and (3) alternative investments, or alternatives. Most funds also keep a portion of their assets in cash. Fixed income investments include investments that provide fixed payments on fixed time schedules, such as bonds. These assets are viewed as low cost, low risk, and low return vehicles. Equities include investments in stocks or shares of companies. These assets are viewed as medium cost, medium risk, and medium to high return. Finally, alternatives include all other assets, such as hedge funds, private equity, and real estate. These assets are viewed as high cost, high risk, and high reward. As evidenced by the definitions, asset classes vary greatly in terms of costs, risks, and returns. Therefore, funds must balance these factors to achieve the optimal outcome, reducing risk and minimizing costs while maximizing returns.

In recent years, public pension funds, like LACERS and LAFPP, have shifted away from fixed income assets towards equities and alternatives.[40,41] This shift has meaningful implications on risk, returns, costs, and by extension, UAAL. Notably, recent research about the costs and benefits of higher alternative and equity allocations compared to fixed income allocations remains inconclusive. Most recent data analyses indicate that some pension funds have realized high returns from alternative investments, while others have only realized high investment costs. In short, “there is no one-size-fits-all approach to investments.”[42] This means that asset allocations and management strategies used by industry peers may not necessarily apply to LACERS and LAFPP’s unique conditions.

2.1.1.2 Asset Management

Asset management consists of both a fund’s overarching asset management strategy as well as its policies for contracting with managers to implement investments. A fund’s asset management strategy ultimately dictates how it manages its asset allocation. Asset management structures and procurement policies may vary in terms of feasibility, cost, and benefits.

A fund can manage its assets with internal (in-sourced) or external (outsourced) managers or a hybrid of the two. Almost all funds use external managers to administer investments for at least some of its assets;

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[40] Pew, State Public Pension Funds’ Investment Practices and Performance: 2016 Data Update, September 26, 2018, https://www.pewtrusts.org/en/research-and-analysis/issue-briefs/2018/09/state-public-pension-funds--investment-practices-and--performance-2016-data-update.

[41] Fitch Ratings, US State and Local Pension Investments: Concerns Grow with Riskier Allocations, Lower Returns, May 6, 2019.

[42] Pew Center, Public Pensions Investments and Governance: How systems invest is critical to meeting pension obligations over long term, April 21, 2017, https://www-aws.pewtrusts.org/en/research-and-analysis/articles/2017/04/public-pensions-investments

however, not all funds use internal managers. In general, a funds' management structure depends on its size. Larger funds tend to in-source greater portions of its assets, while smaller funds tend to outsource greater portions of its assets. This trend occurs because larger funds tend to have greater ability to hire qualified staff, implement required technology, and manage associated risks. Section **Error! Reference source not found.** provides more information about this trend.

Since almost all funds hire external managers to some extent, each fund has a procurement policy, which dictates how the fund selects and contracts with managers. For example, LACERS' procurement policies outline the criteria and weights used to select managers. Furthermore, its policy also includes information about the types of investment vehicles LACERS can use when contracting with external managers. Given that these policies are wide-reaching, they can significantly affect costs.

2.1.1.3 Reporting and Transparency

Finally, funds monitor asset allocation and management performance over time through regular reports. These reports are critical for helping stakeholders understand a fund's success. For example, a fund's oversight board and City stakeholders can use these reports to adjust funds' investment strategy and asset management practices. Although the Government Finance Officers Association (GFOA) posts best practices for reporting and transparency, funds often interpret and implement these practices differently. Therefore, it is important to review funds' policies in this area to ensure all stakeholders -- a fund's oversight board, City stakeholders, and taxpayers -- can view track changes and performance and help hold funds accountable.

2.2 Los Angeles City Employee Retirement System (LACERS) and Los Angeles Fire and Police Pension Fund (LAFPP)

The City of Los Angeles established LAFPP and LACERS as individual City departments through City Charters in 1899 and 1937, respectively. [43,44] The two funds provide retirement benefits and services to employees of the City. Specifically, LACERS administers benefits for most civilian employees while LAFPP, for sworn members of the Police and Fire Departments and the Port and Airport.[45] The two funds serve over 39,000 active members and 29,000 retirees and their beneficiaries. Together, they manage roughly $20 billion in assets each. As of recent reporting, LACERS combined funded status was 70.1% and LAFPP, 86.9%. Table 2-1 provides key highlights about LACERS and LAFPP.

Table 2-1. Fund Membership and Asset Overview

Category	LACERS (2019)	LAFPP (2018) *
Members		
Active Members	26,042	13,442
Retirees and Beneficiaries	19,379	10,506
Fund Assets		
Total Assets	$17.7 Billion	$22.3 Billion
Funded Status (% of Total Assets)	70.1%	86.9%
Unfunded Actuarial Accrued Liabilities	$6.59 Billion	$3.25 Billion

[43] Los Angeles City Employee Retirement System, About Us, https://www.lacers.org/aboutlacers/about-us.html
[44] LAFPP, 2018 Annual Report, June 30, 2018, https://www.lafpp.com/sites/main/files/file-attachments/lafpp-2018-annual-report-final-web.pdf?1549066280
[45] LACERS does not provide benefits to employees of the Department of Power and Water. These employees have a separate pension fund.

Source: LACERS 2019-20 Fiscal Year Strategic Plan; LAFPP 2018 Annual Report
**2018 was the most recent annual report publicly available for LAFPP*

2.2.1 Organization Overviews

The two funds have similar organizational structures. Both funds have roughly 100 full time employees grouped into three main functional areas: (1) administrative services, (2) investments, and (3) pensions or benefit services. At a high level, the funds and their employees aim to serve members and retirees by providing services, such as benefit payments and guidance, while maximizing fund returns to ensure future benefits payments.

Notably, LACERS and LAFPP staff do not directly manage asset investments, as both funds use a fully outsourced asset management structure. Both funds stated that they a fully outsourced asset management structure, because the City classifies fund staff as “Civil Service” employees. This means that positions follow a specific career ladder with defined paygrades for each step. The structure makes it difficult to hire qualified investment management staff, because private investment management firms can provide significantly higher compensation. Therefore, internal investment management consists of overseeing external fund managers and both staff capabilities and technological infrastructure align with this structure. The peer benchmarking in Section 3 discusses staffing and infrastructure practices as it relates to management structure further.

2.2.2 Governance

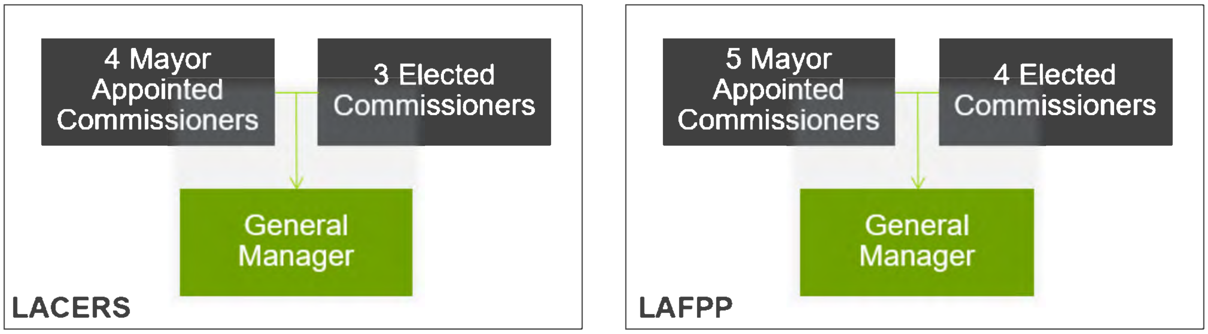
Both funds are governed by their own oversight boards, pursuant to the City Charter and several California laws, including the California Constitution.[46] Specifically, the boards establish policies, rules, and regulations for the organization, including investment strategies, risk tolerance, and performance benchmarks. The resulting policies and procedures are documented for stakeholders and the public to reference. The General Manager assumes responsibility for implementing these policies and procedures. Section 2.2.3 provides more details about each funds’ current policies as they relate to fund management.

The two funds have similar board compositions; they reflect the three main fund stakeholders: beneficiaries, taxpayers, and the City. Both boards include a combination of appointed and elected members, although most members for both boards are appointed by the Mayor. For LACERS, the Board consists of four Mayor-appointed commissioners and three member-elected commissioners. Current commissioners for LACERS include four former or current City employees and local professionals from a variety of businesses.[47] Meanwhile, LAFPP’s Board consists of five appointed and four member-elected commissioners. Current commissioners for LAFPP includes former sworn officers and local professionals, including two owners of investment management firms. Figure 2-3 below provides a high-level overview of the LACERS and LAFPP governance structure.

[46] Los Angeles City Employees’ Retirement System, Board Manual, January 2019, http://www.lacers.org/aboutlacers/board/board-governance-files/Board%20Manual.pdf#page=6

[47] Los Angeles City Employees’ Retirement System, Board of Administration, https://www.lacers.org/aboutlacers/board/index.html

Figure 2-3. LACERS Governance Structure



Source: LACERS, Board of Administration; LAFPP, Board of Commissioners

2.2.3 Investment Strategies

As stated above, the two Boards direct and oversee the fund's investment management, such as setting the investment policy, performance benchmarks, and guidelines for procuring external investment managers. These policies guide overall investment practices and help ensure that the two funds meet long-term investment goals. The sections below provide more details about LACERS investment strategies in accordance with the three areas outlined in Section 2.1.1, asset allocation, asset management, and reporting and transparency.

Asset Allocation

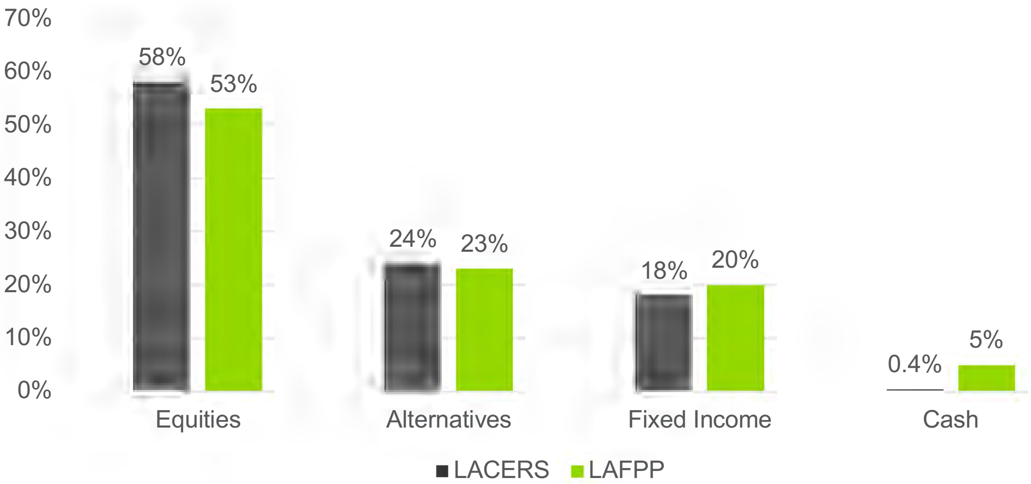
In general, LACERS' and LAFPP's asset allocations consider several overarching factors, including a projection of assets, liabilities, benefit payments and contributions, market risk and return, economic conditions, and funding status.[48,49] LACERS and LAFPP have similar asset allocations in their investment policies. Specifically, the funds allocate a large portion (greater than 50%) of assets to equities and an almost equal portion (approximately 20% each) of assets to alternatives and fixed income. The two funds diverge in their asset allocations of cash, as LACERS allocates 5% of its fund to cash and LAFPP, less than 1%. Staff noted that they understand that equities and alternatives have higher costs, but they have chosen to invest in these assets due to high returns, especially compared to fixed income.[50] Figure 2-4 below illustrates the two funds' asset allocations.

[48] Los Angeles City Employees' Retirement System, Board Manual.

[49] LAFPP, Investment Guidelines Policy, https://www.lafpp.com/sites/main/files/file-attachments/section-iii-board-investment-policies.pdf

[50] Interview with LACERS and LAFPP staff.

Figure 2-4. LACERS and LAFPP Asset Allocation



Source: LACERS Board Manual, LAFPP Investment Policies

In terms of rebalancing to meet asset targets, both plans employ a flexible allocation policy. This means that funds rebalance their assets to match target ranges rather than a specific target number. Additionally, LACERS adopted a Tactical Asset Allocation Plan (TAAP) in 2019, which defines different justifications the fund may use to deviate from its current allocation policy. The goal of this plan is to provide flexibility to take advantage of potentially favorable market conditions and/or protect against unfavorable conditions.[51]

Asset Management

Neither LACERS nor LAFPP manages any of its assets internally; they instead procure external managers to conduct research and manage asset investments, like other similarly-sized organizations.[52] The two funds have historically followed this asset management approach, citing challenges with hiring staff and implementing the technological infrastructure required to manage assets internally due to Civil Service requirements and infrastructural costs.[53] Instead, the oversight boards, working closely with fund staff, develop investment policies, which serve as a guide for their external managers. These policies establish rules for external managers and include methods for controlling investments, including asset allocation and performance monitoring procedures.

Importantly, staff noted that this arrangement allows the two funds to allocate some risk to external managers.[54] For instance, one LACERS staff member shared a recent incident that involved an external manager incorrectly moving funds from one account to another, which resulted in exorbitant fees. Since the external manager made the mistake, the managers' firm offset the fee costs. However, if LACERS had managed the assets associated with the funds internally, it would be solely responsible for paying the

[51] LACERS, Board Manual.
[52] Size refers to assets under management.
[53] Interview with LACERS staff.
[54] Interview with LACERS and LAFPP staff.

fees.[55] In this way, the external management structure provides an inherent risk reduction, although it comes at a cost.

Reporting and Transparency

LACERS and LAFPP formally monitor asset returns on a quarterly basis, using well-defined benchmarks. The benchmarks for the funds include qualitative and quantitative components. The qualitative components consist of assessing external managers' organizations. Although not explicitly stated, the qualitative component appears to measure managers' stability and credibility. To complement this analysis, the quantitative components consist of assessing external managers' investment performance against defined thresholds, including industry-wide markers. In most cases, the funds use similar thresholds, especially for equities and fixed income assets; however, the funds deviate on their policies for alternatives. For example, the LACERS measures its private equity performance against a threshold of Russell 3000 plus 30 basis points, while LAFPP measures its performance against the S&P 500 Index plus 2.5%. Table 2-2 below provides an overview of the two funds' quantitative asset class benchmarks.

Table 2-2. Quantitative Asset Class Benchmarks

Asset Class Category	Asset Class	LACERS	LAFPP
Equities	Domestic Equity	Russell 3000	Russell 3000
	Non-US Equity	MSCI ACWI ex-US*	MSCI ACWI ex-US*
Fixed Income	Fixed Income	Bloomberg BC US Aggregate	Bloomberg BC US Aggregate
Alternatives	Credit Opportunities	15% Bloomberg BC US High Yield Capped + 45% Credit Suisse Leveraged Loans Index + 20% JP Morgan EMBI-GD + 20% JP Morgan GBI EM-GD	Not Applicable
	Private Equity	Russell 3000 + 30 basis points	S&P 500 Index plus 2.5%
	Private Real Estate	NFI-ODCE + 80 basis points	Real Estate Custom Index
	Public Real Assets	US Consumer Price Index + 5%	Real Estate Custom Index
	Commodities	Not Applicable	Commodities Custom Index
Cash	Cash	90-Day Treasury Bill	None

Source: LACERS Board Manual; LAFPP Investment Policies
**Morgan Stanley Capital International All Country World Index ex US*

Neither fund provides a detailed explanation for its chosen benchmarks in its investment policies, making it challenging to interpret the stringency of the thresholds. However, the funds' benchmarks align with industry standard indices for fixed income and equity investments.[56] These benchmarks generally represent large market changes. In contrast, both LACERS and LAFPP use a diverse set of benchmarks for alternative investments, which is common for these types of investments.[57]

[55] Interview with LACERS staff.

[56] Aubrey, Jean-Pierre and Crawford, Caroline V., How Do Fees Affect Plans' Ability to Beat Their Benchmarks?, Center for Retirement Research at Boston College, August 2018, http://crr.bc.edu/wp-content/uploads/2018/07/slp_61.pdf.

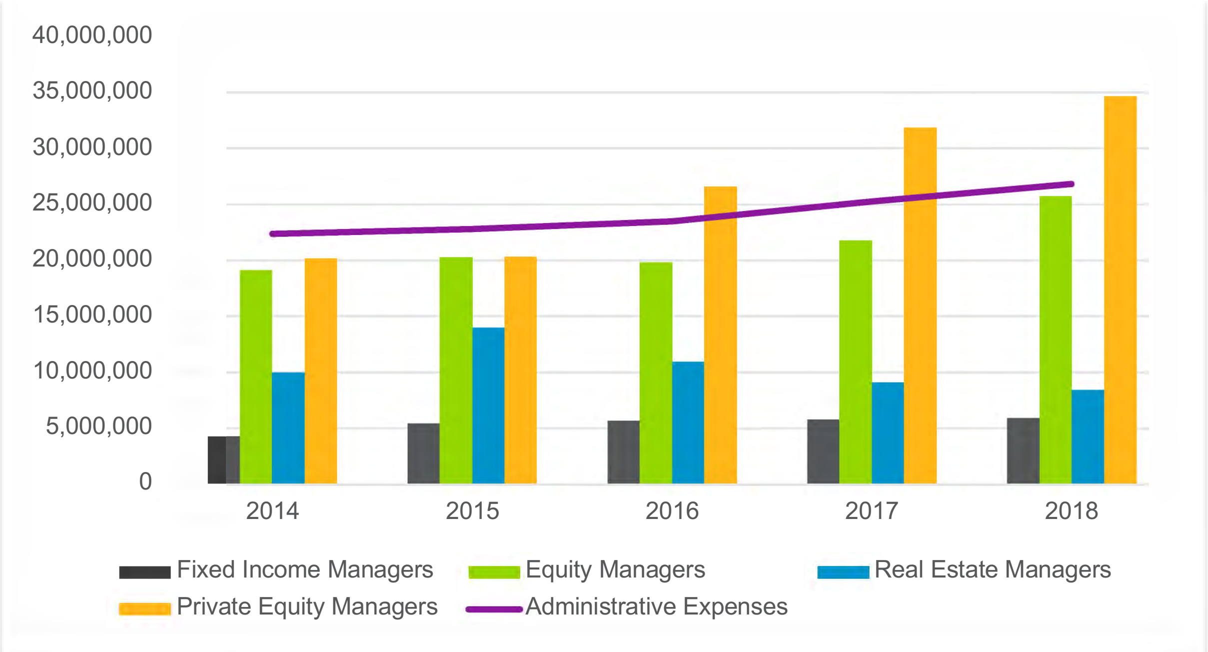
[57] Aubrey, Jean-Pierre and Crawford, Caroline V., How Do Fees Affect Plans' Ability to Beat Their Benchmarks?

The benchmarks allow the two funds to regularly monitor their external managers. If a manager fails to meet the benchmarks and/or the qualitative assessment, the funds place the manager on a watch list. The funds monitor these lists annually to determine if managers should stay or be removed from the list. Both boards have the discretion to determine final termination of managers.

2.2.4 Pension Fund Costs

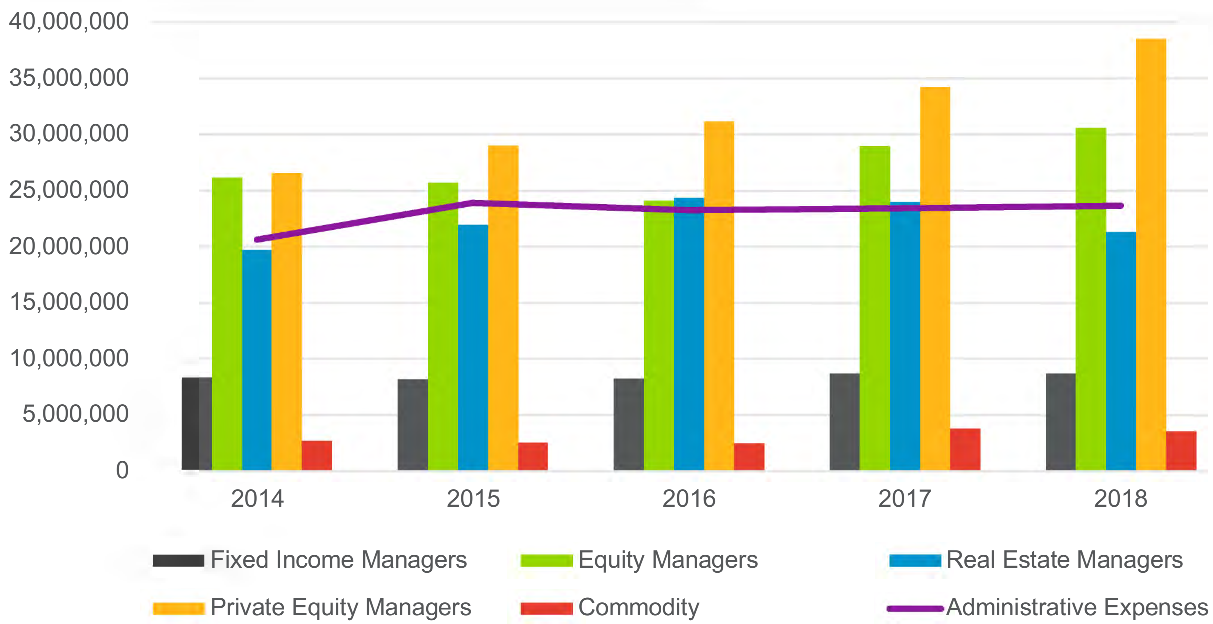
All public pension funds, including LACERS and LAFPP, accrue internal and external management costs. Internal costs include expenses related to the day to day administration of the funds, such as staff salaries, while external costs include expenses tied to external managers. Given that LACERS and LAFPP engage external managers to manage the investments of all its assets, external fees for the two funds comprise the largest proportion of costs. LACERS has spent $24.1 M and LAFPP $22.9 M on average annually over the past five years on internal administrative costs (e.g., salaries and technology infrastructure). In contrast, LACERS has spent $63.9 M and LAFPP has spent $92.7 M on average annually over the same time frame on external management costs. The bulk of the external costs have been for equity and private equity managers for both funds. This is reasonable given that both funds have the most assets allocated to equities and private equity investments tend to cost significantly more due to the research required prior to investing. Figure 2-5 and Figure 2-6 below show the external costs for LACERS and LAFPP, respectively.

Figure 2-5. LACERS External vs. Internal Administrative Costs 2014 - 2018



Source: LACERS Staff

Figure 2-6. LAFPP External vs. Internal Administrative Costs 2014 – 2018



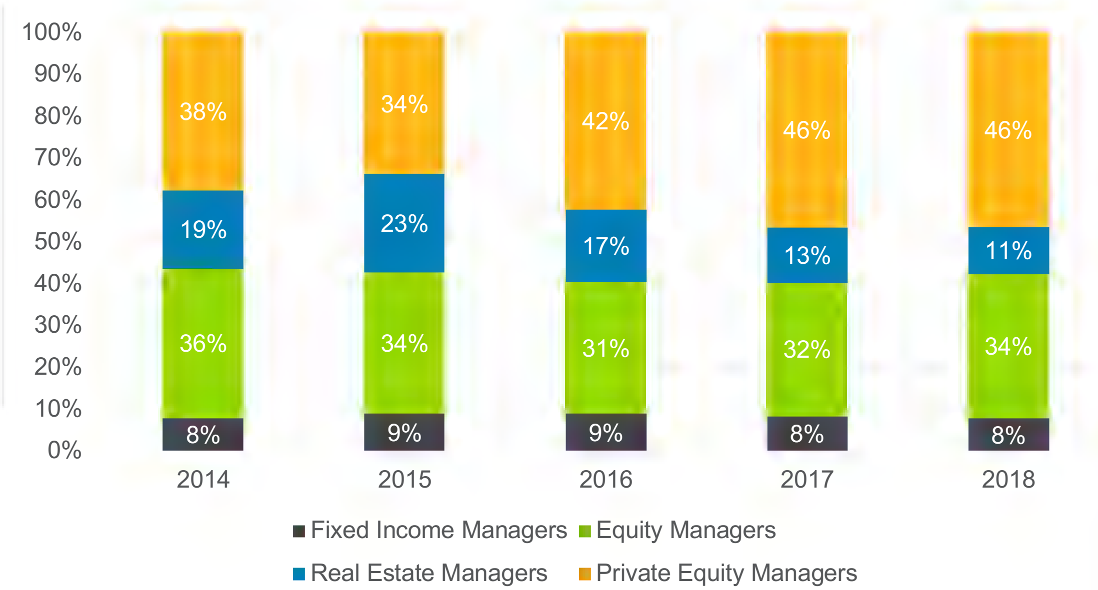
Source: LAFPP Staff

As shown above, costs have increased for almost all asset classes in each of the past five years, while internal management costs have remained stable. On average, total costs have increased 7% annually for LACERS and 5% annually for LAFPP, indicating a steady upwards trend in the short term. However, costs in 2018 equate to less than one half of one percent of total assets and assets for both funds have increased over this period due to positive returns. The sections below provide further discussion of internal and external management costs.

2.2.4.1 External Management Costs

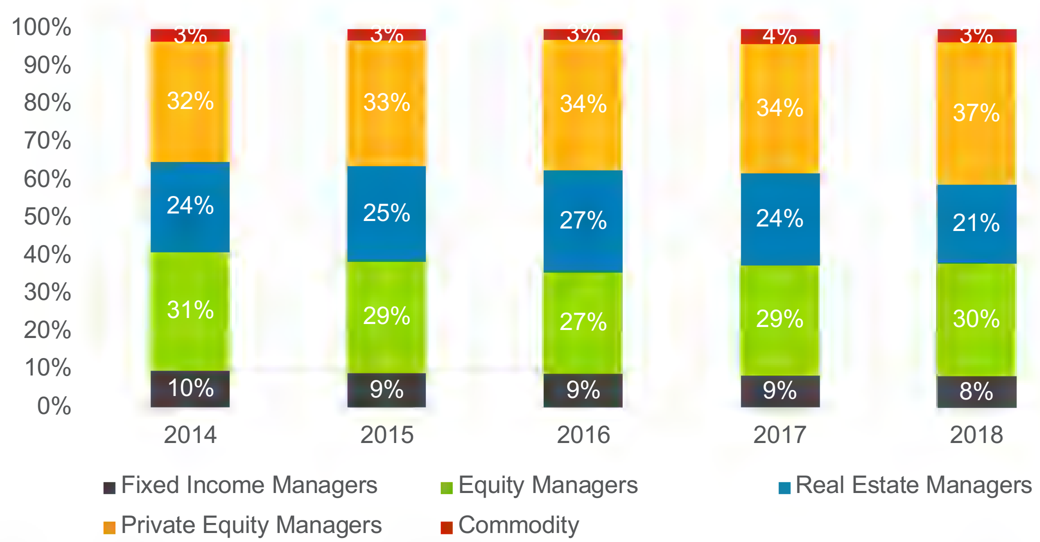
In addition to analyzing the absolute costs of external management, Navigant assessed how costs for different assets have changed in relation to each other over the past five years. In doing so, Navigant found that LACERS and LAFPP external management costs have shifted slightly from real estate to private equity investments. The portion of costs to fixed income, equity, and commodity investments have remained consistent in recent years. Figure 2-7 and Figure 2-8 below show the allocation of external management costs over time.

Figure 2-7. LACERS External Management Cost Allocation (2014 – 2018)



Source: LACERS data

Figure 2-8. LAFPP External Management Cost Allocation (2014 – 2018)



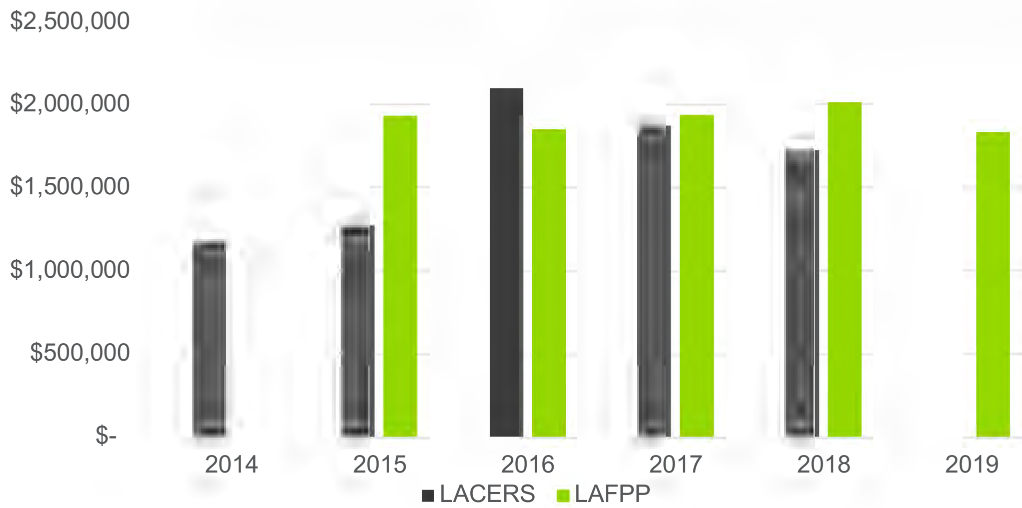
Source: LAFPP data

Notably, the funds costs have only shifted in the alternative investments category. The shift in cost allocation may be the result of increasing costs for private equity managers and investment policies that favor private equity investments over real estate investments. This shift helps illustrate how the funds adapt to market changes over time.

2.2.4.2 Internal Management Costs

Navigant also assessed internal management costs related to investments. These costs include salaries, benefits, and other administrative expenses related to internal investment staff. The costs represent a subset of the costs shown in Figure 2-5 above. Unlike external investment costs, internal expenses fluctuate annually rather than trending in one direction or the other. Figure 2-9 illustrates the changes in costs from 2014 – 2019 based on LACERS and LAFPP data.

Figure 2-9. LACERS and LAFPP Internal Administrative Expenses Related to Investments (2014 – 2019)



Source: LACERS data (note that this excluded 2019 data); LAFPP data (note that this excluded 2014 data)

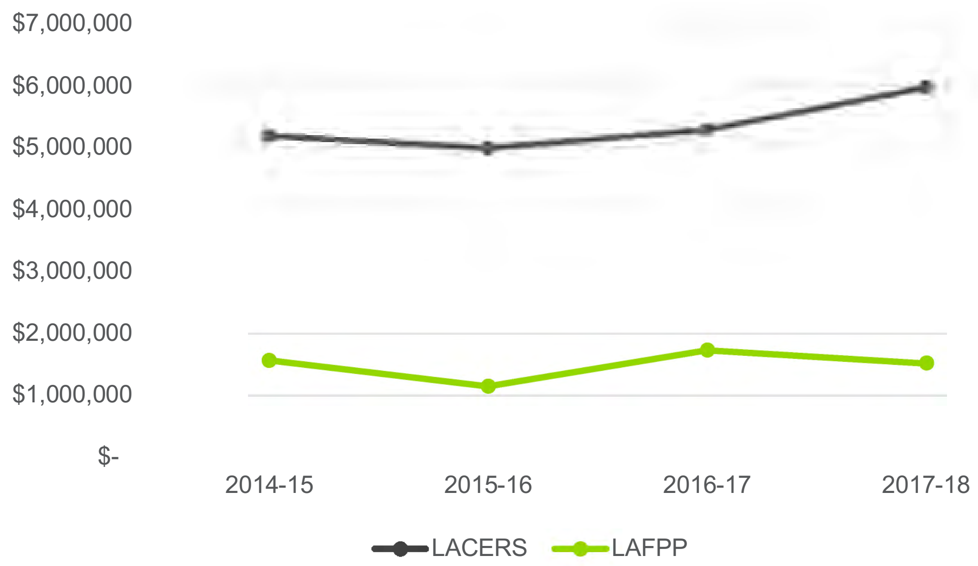
The graphic shows that costs vary by year. For instance, LACERS costs peaked in 2016 and have since declined. Its internal costs have fluctuated significantly, ranging from $1.17 million and $2.10 million over the period reviewed. LACERS cited that costs increased from 2015 to 2016 due to a reclassification of employee benefits and investment related legal expenses as administrative costs.

In contrast, LAFPP's costs declined from 2015 to 2016, increased from 2016 to 2018, and decreased again in 2019. However, costs have stayed between $1.83 million and $2.00 million each year. This shows that internal administrative expenses have remained stable.

2.2.5 Unfunded Actuarial Accrued Liabilities (UAAL)

Given the Commission's focus on UAAL, Navigant analyzed recent historical data to understand trends. The two funds have trended oppositely over the past five years. LACERS' UAAL has increased slightly from $5.18 billion to $5.96 billion, while LAFPP's UAAL has decreased slightly from $1.57 billion to $1.52 billion from 2014 to 2018. When looking at individual years, UAAL decreased from fiscal year (FY) 2014-15 to FY 2015-16 and increased from FY 2015-16 to FY 2016-17 for both funds. LACERS' UAAL then increased from FY 2016-17 to FY 2017-18, while LACERS' UAAL decreased that year. The fluctuations in trends suggest that LACERS and LAFPP may be able to implement cost reduction strategies to further hedge against fluctuations in asset returns. Furthermore, a slight cost reduction or revenue generation increase may result in significant reductions in UAAL overtime. For example, a 1% decrease in costs or increase in returns can result in a $59 M reduction in FY 2017-18 UAAL for LACERS and $15 M reduction for LAFPP in the same year. Figure 2-10 below shows the UAAL trends from 2014 to 2018.

Figure 2-10. UAAL Thousands, USD (2014 – 2018)



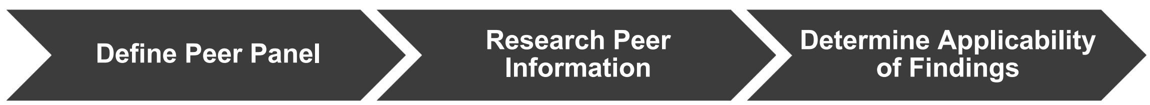
Source: LACERS and LAFPP Data Request

3. PEER FUND MANAGEMENT ANALYSIS

As part of its analysis, Navigant compared LACERS and LAFPP's investment strategy – including its asset allocation and management approach -- to a range of peer funds. This analysis aims to determine how the two funds compare to peer funds and to identify how approaches may differ amongst funds of different sizes. It also serves to contextualize the funds' practices, providing further insight into the relative benefits, costs, and challenges associated with various asset management strategies.

The analysis consisted of three main steps: (1) defining the peer panel, (2) researching peer information, and (3) determining the applicability of the findings. These steps resulted in a list of peers, research about each peer fund, and strategies that LACERS and LAFPP may adopt based on the research. Figure 3-1 below provides an overview of the analysis approach.

Figure 3-1. Peer Management Analysis Methodology



Source: Navigant

Appendix A provides detailed case studies on each of the peers included in this study.

3.1 Peer Panel Definition

Navigant used a range of selection criteria to construct its peer panel. Criteria included fund size (measured in assets under management), experience managing assets in-house, similarities in fund structure and context, and Commission interest, based on the information provided by the Commission in the RFB. For example, Navigant included city-level and California-based pension funds, since they must abide by California statues, like LACERS and LAFPP. Likewise, Navigant included Norges Bank (Norway's Government Pension Fund Global), CalPERS, and OTTP, since the Commissioners called out each of these funds in the RFB.

The final peer panel consisted of six public pension funds and one sovereign wealth fund. Navigant included Norway's Government Pension Fund Global, a sovereign wealth fund, since the Commission included the fund in its RFP background. This fund offers insights relevant to public pension funds, despite having a slightly different structure. Table 3-1 lists the final peer panel, background information, and the rationale for each fund's inclusion.

Table 3-1. Peer Panel Overview

Fund	Assets (USD$ B)	FTEs	In-Source Percentage	Rationale for Inclusion
Norway's Government Pension Fund Global (GPFG)	902.8	953	96% of fund	Commission Interest; Internal Management
California Public Employees' Retirement System (CalPERS)	354.0	Unknown	70% of fund	Commission Interest; Internal

				Management; Proximity
Ontario Teachers' Pension Plan (OTPP)	146.4	1,200	80% of fund	Commission Interest; Internal Management
New York City Employees' Retirement System (NYCERS)	65.5	Unknown	Unknown Percent	Size, City Structure
Los Angeles County Employees Retirement Association (LACERA)	56.3	Unknown	No Assets In-sourced	Size, Proximity
New York City Fire Pension Fund (NYC Fire)	22.3	96	Unknown Percent	Size, City Structure
San Diego City Employees' Retirement System (SDCERS)	17.0	115	No Assets In-sourced	Size, City Structure, Proximity

Source: Fund staff and annual reports

The table above shows the diversity of selected funds and rationales for their selection. Navigant selected a range of funds to understand how cost reduction may relate to various inherent structures, given that there is there is "no one size fits all approach" to fund management, as noted in Section 1.

3.2 Peer Research

After selecting the peer panel, Navigant analyzed peer management strategies along the following parameters: (1) overall asset allocations, (2) returns and costs by asset class, and (3) cost reductions strategies, including asset in-sourcing. Each parameter served a specific purpose. The first parameter provided contextual information about the funds' investment structures and strategies. The second parameter provided information about the funds' performance and ability to manage costs. Finally, the third parameter provided overarching information about cost reduction methods.

3.2.1 Asset Allocation

A fund's asset allocation plays a critical role in the success of its investment strategies, as it fundamentally shapes its investment performance in terms of both costs and returns. In its 2018 Annual Report, for example, LAFPP states that "the single most important decision [its] Board can make in the management of the investment program is the determination of the System's asset allocation. The allocation of the System's assets among various asset classes influences both the expected investment return and the amount of investment risk undertaken."[58]

The importance of asset allocation stems from the unique attributes of each asset type. Equity investments, for example, "aim to deliver long-term investment growth and value-added performance."[59] In other words, public stocks and private equity investments are expected to deliver strong returns over time. Fixed-income investments, on the other hand, provide "security and steady income" while hedging

[58] LAFPP, "2018 Annual Report," 88.
[59] Ontario Teachers' Pension Plan (OTPP), "2018 Annual Report," 25.

"against interest rate risks" and providing fund stability."[60] Put another way, these investments are expected to deliver stable performance but not particularly high returns. Given these differences, a portfolio's relative asset weighting will strongly influence a portfolio's overall return.

As stated above, each of these asset classes also have differing costs, based on the difficulty of vetting the investments. For instance, investors generally conduct research on various companies and markets before investing in equities. In contrast, investors can easily invest in bonds without conducting large amounts of research, since the return amount and timeframe are fixed. Once more these differences will strongly influence a portfolio's overall costs. Table 3-2 below depicts overall asset allocation for all funds examined in this report.

Table 3-2. Peer Asset Allocations (FY 2017-18)

Fund	Equities (%)	Fixed Income (%)	Alternatives (%)	Cash / Short Term (%)
GPFG	66.7	31.6	2.6	0.0
CalPERS	48.9	22.5	25.3	3.3
OTPP	17.0	41.0	74.0	-32.0
NYCERS	47.8	34.3	15.5	2.4
LACERA	46.3	26.8	26.9	0.0
LAFPP	53.0	19.5	22.9	4.6
LACERS	57.8	17.5	24.3	0.4
NYC Fire	41.8	24.1	31.9	2.2
SDCERS	44.5	22.9	30.4	2.2
Average	**47.1**	**26.7**	**28.2**	**-1.9**

Most peer funds similar in size to LACERS and LAFPP, including NYCERS, LACERA, NYC Fire, and SDCERS, have similar asset allocations. They generally allocate 40 – 50% of assets to equities, 20 – 30% to fixed income, 20 – 30% to alternatives, and less than 5% to cash or short-term investments. Importantly, the asset allocations vary within a 10% range, showing the range of allocations funds employ. Both LACERS and LAFPP generally align with their similarly sized peers, although they tend to have slightly more assets allocated to equities and slightly fewer assets allocated to fixed income and alternatives. Furthermore, LAFPP allocates a larger portion of its assets to cash and short-term investments than all other peers.

In contrast to the small to mid-sized funds, larger funds tend to have allocations that fluctuate more widely. For instance, GPFG only allocates 3% of its funds to alternatives, while OTPP allocates 74% to this asset class. These variances are likely driven by differences in the funds' goals and unique regulatory conditions, as both GPFG and OTPP are international funds. For example, GPFG is a sovereign wealth fund rather, while OTPP is a pension fund.

3.2.2 Fund Performance

As expected, returns and costs vary for each of the funds based on their asset allocations. In examining returns, funds have achieved an 8% return rate on average in the most recently available investing year. Most funds have exceeded this average except for GPFG. Table 3-3 depicts the performance of each

[60] Ibid.

fund, overall and by asset class, over the last full year for which data is available across funds (July 1, 2017 – June 30, 2018).

Table 3-3. Investment Performance by Asset Class (FY 2017-2018)[61]

Fund	Overall	US Equities	Non-US Equities	Global Equities	Fixed Income	Private Equity	Real Estate
GPFG	1.72	-	-	2.44	0.25	-	2.25
CalPERS	8.60	-	-	11.50	0.40	16.10	8.00
OTPP	2.50	-	-	-3.60	2.80	19.50	5.80
NYCERS	8.56	14.71	11.15	-	1.29	17.83	12.19
LACERA	9.00	14.10	8.80	-	0.80	21.20	8.20
LAFPP	9.75	16.25	7.79	-	1.01	18.65	5.50
LACERS	9.04	15.26	9.45	-	-0.38	13.93	5.70
NYC Fire	9.30	14.92	10.34	-	1.51	21.90	10.28
SDCERS	8.20	16.30	7.00	11.30	-0.30	11.40	9.50
Average	**8.02**	**15.26**	**9.09**	**8.41**	**0.57**	**17.29**	**7.70**

Across the funds, the strongest investment performance came from private equity (17.29% average return), US stocks (15.26% average return), and international stocks (9.09% average return). Fixed income averaged a return of only 0.57%, again demonstrating that a portfolio's asset weighting can drastically influence its overall return. This analysis provides further support for LACERS' and LAFPP's strategy in the short term to allocate more assets toward public equities and away from fixed income investments.

Given the importance of taking a long-term perspective when examining asset performance, Navigant reviewed historical returns. This analysis showed that funds achieved an average return of 6.69% over 10 years and slightly higher returns over shorter time increments. Table 3-4 below shows the historical returns by fund.

Table 3-4. Investment Performance Over Time (% Return)[62]

Fund	1 Yr.	3 yr.	5 yr.	10 yr.
GPFG	-	6.20	8.10	6.92
CalPERS	8.60	6.70	8.10	5.60
OTPP	2.50	7.10	8.00	10.10
NYCERS	8.56	7.82	8.69	7.08
LACERA	9.00	7.40	8.50	6.30
LAFPP	9.75	7.84	8.95	6.90
LACERS	9.04	7.36	8.46	6.71
NYC Fire	9.30	7.74	8.89	7.11
SDCERS	8.20	7.50	8.40	6.90
Average	**8.05**	**7.30**	**8.45**	**7.07**

[61] Note that OTPP reports returns in calendar years instead of fiscal years. All other funds report in fiscal years.

[62] Note that OTPP reports returns in calendar years instead of fiscal years. All other funds report in fiscal years.

LACERS and LAFPP slightly outperformed the peer panel averages in almost every time increment. Furthermore, the two funds exceeded or came close to their expected returns of 7.25% in the shorter-term timeframes. In the longer-term timeframe of 10 years, LACERS and LAFPP came close to meeting their expected returns. These facts illustrate that the funds' asset allocations generally align with stated goals of maximizing returns.

3.2.3 Fund Costs

Navigant also assessed the costs of administering investments to understand how asset allocations affect cost. By minimizing costs, funds boost net returns. Navigant examined LACERS and LAFPP costs in comparison to peers to understand if the funds can further reduce costs. Specifically, this assessment involved assessing costs as a percent of assets by class to compare costs across the funds. Table 3-5 below provides an overview of the expenses by peer and asset class.

Table 3-5. Expenses as a Percent of Assets by Class (FY 2017-18)

Fund	Fixed Income	Equities	Alternatives	Private Equity
GPFG	--	--	--	--
CalPERS	--	0.02%	0.76%	2.49%
OTPP	0.03%	0.18%	0.29%	1.12%
NYCERS	0.08%	0.16%	1.11%	0.50%
LACERA	0.21%	0.20%	1.33%	1.74%
LAFPP	0.20%	0.26%	1.24%	1.74%
LACERS	0.20%	0.26%	1.04%	1.98%
NYC Fire	0.42%	0.25%	0.82%	2.17%
SDCERS	0.11%	0.35%	0.84%	0.70%
Average	**0.18%**	**0.21%**	**0.93%**	**1.56%**

Note that "—" means information was not publicly available.

The table above shows that LACERS and LAFPP pay slightly more per asset than its peers for each asset class. Although larger funds generally have greater economies of scale, which should reduce costs, there does not appear to be a strong correlation between cost per asset and fund size. This suggests that there may be opportunities for LACERS and LAFPP to learn from peers of all sizes to reduce costs further.

In addition to returns, Navigant assessed the proportion of costs allocated to each asset class to understand how asset allocations and cost allocations relate. Table 3-6 below provides an overview of this analysis.

Table 3-6. Percent of External Management Expenses by Asset Class (FY 2017-2018)

Fund	Public Equity	Fixed Income	Alt. Investments
GPFG	-	-	-

Fund	Public Equity	Fixed Income	Alt. Investments
CalPERS	6	-	94
OTPP	15	6	79
NYCERS	27	10	62
LACERA	18	11	70
LAFPP	30	8	62
LACERS	34	8	58
NYC Fire	11	14	75
SDCERS	35	5	59
Average	22	9	70

Note that "—" means information was not publicly available.

As the table shows, there are significant differences in the costs associated with different types of investments. Private equity and real estate assets, for example, are high-cost assets that generally require significant base and/or performance-based fees. As a result, all funds examined devote the largest share of expenses to their alternative investment holdings and the smallest share to their fixed income holdings, although alternative investments do not comprise the largest portion of their funds.

LACERS' and LAFPP's expense breakdowns closely follow their respective asset allocations. Both funds exceed peer averages for public equity expenses and maintain lower-than-average expenses from fixed-income and alternative investments. Overall, both funds exceed their peer average for external management expenses as a percentage of assets, aligning with its small to mid-sized peers.

3.2.4 Cost Reduction Strategies

After assessing the costs, Navigant investigated cost reduction strategies employed by the peers. In general, peers cost reduction strategies fell into three major categories, which align to the investment strategies outlined above: adjusting asset allocations, in-sourcing and adjusting asset management strategies, and using best practices to monitor and control costs.

3.2.4.1 Asset Allocations

Due to the varied costs associated with assets of different classes, funds can realize large savings by shifting assets away from higher-cost investments like private equity, hedge funds, and private real estate toward lower-cost investments, like stocks and fixed-income investments. However, funds risk missing the high-return investment opportunities that these asset classes can deliver. As shown above, LACERS and LAFPP's asset allocations generally align with peers in terms of costs and returns.

Other cost saving asset allocation strategies include moving away from active managers to lower-cost passive management and indexing strategies within equities. This step is particularly compelling when factoring in the growing acceptance that, over time, "there is no established correlation between high fees and high performance in modern investment management."[63] That is to say, there is no evidence that higher-cost active managers can regularly outperform market indexes. As such, there is an argument to be made that funds should invest in low-cost passive strategies and index funds rather than shell out high fees for active management.

[63] Commonwealth of Pennsylvania, Final Report and Recommendations," 19.

3.2.4.2 Asset Management and In-Sourcing

The Commission identified in-sourcing as a particular area of study interest. The research shows that shifting investments away from external management to internal management can be an effective strategy to reduce expenses and boost net returns; however, the feasibility and effectiveness of this strategy depends greatly on fund size. Table 3-7 lays out each firm's breakdown of internal versus external asset management, listing funds from largest to smallest.

Table 3-7. Portion of Assets Managed Internally vs. Externally (% of assets)[64]

Fund	Internal	External
GPFG	94	6
CalPERS	75	25
OTPP	80	20
NYCERS*	-	-
LACERA	0	100
LAFPP	0	100
LACERS	0	100
NYC Fire*	-	-
SDCERS	0	100

*Note that "—" means information was not publicly available.

The table above shows that only the three largest funds examined in this report rely on significant levels of internal asset management. This makes sense, given that pension funds below a certain size may not have the resources or expertise necessary to manage assets in-house. For such institutions, shifting investments in-house, and absorbing the necessary staffing and organizational changes, could end up costing more than maintaining external management practices. Furthermore, a 2018 study on public pension management conducted by the Pennsylvania state government found that "internal investment management has generally been restricted to investors larger than $25 billion" in assets under management."[65] Given these considerations, and that LACERS and LAFPP manage only approximately $17 billion and $22 billion, respectively, moving to in-source investment management activities is likely not attractive or feasible for either LACERS or LAFPP.

For instance, a key part of in-sourcing asset management is hiring talent to handle the investments, meaning a fund must ensure that its salary and benefits are competitive with those of other sophisticated investment institutions, including Wall Street firms.[66] Numerous stakeholders emphasized that attracting and hiring investment managers would be a significant challenge, particularly given the civil service structure relevant to both LACERS and LAFPP.

However, the two funds may consider reducing the number of external managers procured. For instance, CalPERS recently decided to reduce the number of external managers it hires and stated that it reduced costs by $922.5 million over five years.[67] Navigant found that the number of external managers ranged

[64] NYCERS and NYC Fire state that their assets "are managed predominantly by external investment managers," suggesting some role for internal management. They do not cite specific breakdowns.

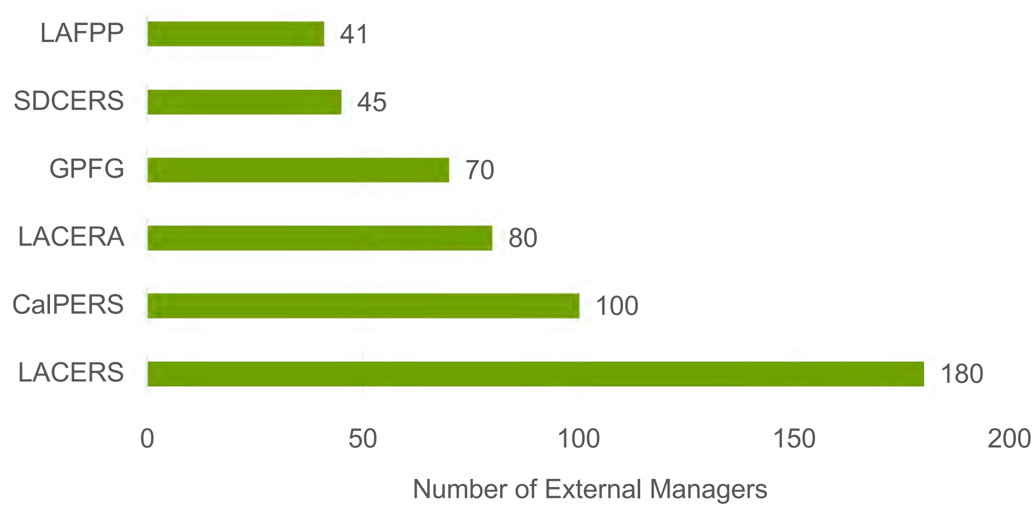
[65] Commonwealth of Pennsylvania, Final Report and Recommendations: Public Pension Management and Asset Investment Review Commission, December 13, 2018, 237, http://jsg.legis.state.pa.us/resources/documents/ftp/act5/pdf/PPMAIRC-FINAL.pdf.

[66] OTPP, "2018 Annual Report," 6.

[67] CalPERS, CalPERS Cuts Costs and Saves Pension Fund $922.5 Million Over a Five-Year Span, November 22, 2016, https://www.calpers.ca.gov/page/newsroom/calpers-news/2016/calpers-cuts-costs-and-saves.

from 41 – 180 for peers included in the study. LAFPP had the lowest number of external managers at 41 managers, while LACERS had the highest at 180 managers. Although the number of managers procured may depend on asset management practices, the numbers show that for like-sized, mostly in-sourced funds, LACERS has significantly more external managers. This represents opportunities to review procurement allowances. Figure 3-2 below shows the number of external managers by fund for peers that had publicly available information.

Figure 3-2. Number of External Managers by Fund[68]



Source: News Reports; Annual Reports

3.2.4.3 Reporting and Transparency

Lastly, it is important to consider the role that reporting and transparency play in ensuring that portfolios perform cost-effectively. When external management expenses are not presented in a clear and comprehensive manner on a regular basis, pension stakeholders cannot evaluate the true cost-effectiveness of their investments. Based on peer research, reporting should include performance both net and gross of returns, historical performance by asset class, and itemized breakdowns of internal and external expenses. These items should all be clearly labeled and easily accessible to the public, given that pension fund performance affects taxpayers and City stakeholders in addition to beneficiaries.

It is particularly important that funds include all management fees – including performance-based fees – in their annual and semi-annual reporting. Failing to do so and reporting only base management fees risks skewing objective analysis and misrepresenting a portfolio's net-of-fees performance. Norges Bank, for example, includes both management fees excluding performance-based fees and management fees including performance-based fees in its annual reporting. All public funds can take this step to better facilitate the evaluation and comprehension of their financial data.[69]

[68] Funds not included in the graphic did not have publicly available information on external managers.

[69] Norges Bank Investment Management, "Government Pension Fund Global Annual Report 2018," 142, https://www.nbim.no/contentassets/02bfbbef416f4014b043e74b8405fa97/annual-report-2018-government-pension-fund-global.pdf.

3.3 Applicability to LACERS and LAFPP

The peer comparison analysis yielded several applicable findings related to overall fund management and cost saving strategies. In particular, the analysis illustrated that the LACERS and LAFPP management strategies closely align with peers and have met or exceeded peer fund performance over the past 10 years. However, there are still opportunities to reduce costs across all asset classes, as shown by the cost comparison tables. In terms of cost reduction strategies, the research yielded a few high-level takeaways, listed below.

- LACERS and LAFPP should continue to assess the key links between a portfolio's basic asset allocation, its investment expenses, and its overall performance in its forward-looking strategy. As stated previously, shifting assets around can affect both costs and returns. Furthermore, it should continue to account for asset allocation strategies that may reduce costs, such as indexing.

- In-sourcing asset management will be a challenge for LACERS and LAFPP, given their size (measured in assets under management) and their ability to attract, hire, and retain top-tier investment professionals. Furthermore, their current outsourcing strategy aligns with peers of like size.

- LACERS and LAFPP may consider reducing the number of external managers it hires moving forward. LACERS in particular has significantly more (up to four times more than peers) external managers than its peers, based on publicly available information. By reducing managers, LACERS may be able to achieve greater cost-savings by moving greater asset volumes to a smaller number of managers and negotiating better costs.

- Reporting and transparency can help all stakeholders, including its oversight boards, taxpayers, and the City monitor costs. This includes reporting all relevant fee information in a clear and easily accessible manner. Funds should report both base and performance fees, so stakeholders can understand the complete costs of investing.

- Streamlining external management and relying on low-cost passive managers and indexing can help reduce costs further. LACERS and LAFPP should continue to closely monitor the performance of their investment managers against public benchmarks and consider moving assets into lower-cost index funds if managers cannot regularly outperform market baselines.

4. COST REDUCTION STRATEGY LITERATURE REVIEW

In addition to developing a peer panel comparison, Navigant conducted a literature review on recent cost reduction strategies employed by public pension funds. The review consisted of collecting secondary research from academic studies, market analyses from third-parties (e.g. nonprofits and finance organizations), and case studies from peers excluded in the full peer panel comparison. The analysis is intended to identify strategies that LACERS and LAFPP do not currently employ but may be applicable to the funds. This section provides an overview of the research conducted and the subsequent analysis.

4.1 Cost Reduction Strategies Overview

Navigant identified cost reduction methods for each of the three investment strategy categories. The categories include (1) investment strategy, (2) procurement policies, and (3) reporting and transparency. These categories cover a wide range of management practices that may help reduce operational costs, especially those that may result from external management fees.

4.1.1 Asset Allocation

A fund's overall asset allocation relates directly to costs as emphasized above. However, a fund's asset allocation vehicles also relate directly to costs, because different vehicles have differing costs. Asset allocation vehicles refer to the products used by investment managers (e.g. within fixed income, managers can use vehicles, such as bonds and certificates of deposits). By adjusting asset allocations to different vehicles, such as indexing, or direct investments, funds may be able to reduce costs, while maintaining its high-level asset allocation targets. The list below outlines best practices in investment strategies.

- Use Managed Custody Accounts (MCA) to reduce costs and increase investing flexibility. Under an MCA, pension funds negotiate fees at the platform level for aggregated assets; investors can then nimbly invest in various products. San Bernardino County Employees Retirement Association (SBCERA) established this investment strategy to increase direct investments and reduce fees. The CIO then implemented this strategy at Texas Tech University Endowment. The CIO has stated that they have been able to reduce costs while getting managers' best ideas incorporated into their portfolio.[70]
- Simplify system's investment portfolio and reduce fund managers. Three funds, including South Carolina Retirement Investment Commission (SCRSIC), CalPERS, and Pennsylvania Treasury recently enacted or directed their respective pension funds to simplify their portfolios and reduce their managers.

Navigant found other strategies for reducing costs through the investment strategy changes, however LACERS and LAFPP have already explored or begun to explore these opportunities. The list below outlines these strategies.

- Consider indexing equities and fixed income investments to reduce costs. The Institute for Pension Fund Integrity recently conducted a study comparing pension fund performance to passive index investment portfolios and found that less than 10 percent of the 52 funds studied

[70] Hickey III, Thomas A., Fross, Stuart E., Nee, Kenneth C., Generating Returns Through Better Relationships: How Managed Custody Accounts Benefit Managers and Investors, Journal of Security Operations & Custody, February 2, 2016, https://www.foley.com/en/insights/publications/2017/02/generating-returns-through-better-relationships-ho

outperformed the passive portfolio.[71] Notably, in 2013, CalPERS took actions to move a larger portion of its fund to passive investments due to the low underperformance of its active investments, as stated previously.[72]

- Establish a loose asset reallocation strategy to take advantage of potential market opportunities as they arise. A recent report from Boston College's Center for Retirement Research found that a loose approach to asset allocation (e.g. staying within target ranges rather than sticking to a specific target number), improved plan performance modestly from 2001 – 2017.[73]
- Leverage co-investments for private equity assets to reduce fees. In these types of arrangements, public pensions invest alongside a fund manager, which help reduce costs. The SCRSIC recently allocated $31 billion to embark on a co-investment venture.[74]

4.1.2 Asset Management & Procurement Policies

Procurement policies govern how funds choose and enter into contracts with external managers and consultants. Given that external managers and consultants play a significant role in how funds perform and pay for investments, it is critical that policies ensure that funds meet their investment and cost-management goals. The list below provides the practices identified from the research.

- Adopt specific policies with respect to acceptable fee limits, including establishing a fee budget at the fund level.[75,76] Both the American Federation of Teachers and the Pennsylvania Treasury recently made these recommendations to their respective pension plans. Furthermore, establish fee budgets at the organizational level is a procurement policy best practice.[77]
- Explore non-traditional fee structures, such as low fixed fees (rather than performance fees), to mitigate unexpected costs.[78] For example, Orange County Employees Retirement System (OCERS) believes that a base fee is appropriate to provide sufficient operating income for external managers. OCERS fee policy follows this philosophy closely, assigning fees between the market cost of passive management and 40 percent of fixed fees.
- Explore opportunities to pool investments with other pension funds to gain economies of scales. For instance, OCERS developed a mini investment pool by selecting an emerging markets equity

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[71] Institute for Pension Fund Integrity, Public Pension Performance: Comparing Pension Investments to Passive Index Portfolios, August 13, 2019, http://ipfiusa.org/2019/08/13/public-pension-performance-comparing-pension-investments-to-passive-index-portfolios/

[72] Tuchman, Mitch, Pensions: CalPERS embraces indexing, October 3, 2013, MarketWatch, https://www.marketwatch.com/story/pensions-calpers-embraces-indexing-2013-10-03.

[73] Aubry, Jean-Pierre and Wandrei, Kevin, Maintaining Target Allocations: Effects on Plan Performance, April 2019, Center for Retirement Research at Boston College, https://crr.bc.edu/wp-content/uploads/2019/04/SLP64__.pdf

[74] Fortune, Mark, South Carolina Seeks Shaved Fees through Co-Investments; Considers Simplified Asset Allocation, Markets Group, April 22, 2019, http://institutional-allocator.com/south-carolina-seeks-shaved-fees-through-co-investments-considers-simplified-asset-allocation/

[75] American Federation of Teachers, The Big Squeeze: How Money Managers' Fees Crush State Budgets and Workers' Retirement Hopes, 2017, http://www.aft.org/sites/default/files/bigsqueeze_may2017.pdf.

[76] Treasury Department Commonwealth of Pennsylvania, Final Report and Recommendations: Public Pension Management and Asset Investment Review Commission, December 13, 2018, http://jsg.legis.state.pa.us/resources/documents/ftp/act5/pdf/PPMAIRC-FINAL.pdf

[77] EY, Five things Getting the basics right in procurement, 2016, https://www.ey.com/Publication/vwLUAssets/EY-best-practice-guide-five-things-in-procurement/$File/EY-best-practice-guide-five-things-in-procurement.pdf

[78] Miller, Gerard, Managing Against Escalating Pension Investment Fees, Government Finance Review, February 2014, https://www.gfoa.org/sites/default/files/GFR_FEB_14_18.pdf.

manager with a comingled pool, so other public pensions can invest with reduced fees.[79] Furthermore, the pension funds of England and Wales pooled their assets to achieve greater economies of scale and negotiating power.[80]

4.1.3 Reporting and Transparency

Reporting and transparency allow policymakers, stakeholders, and the public to understand and track performance over time. Although the Governmental Accounting Standards Board and the Government Finance Officers Association provide guidance for reporting, pension funds often interpret and implement the standards differently, according to a recent Pew Charitable Trusts Study.[81]

- Adopt comprehensive fee-reporting standards in line with the Institutional Limited Partners Association's (ILPA) Fee Transparency Initiative.[82] According to the ILPA, reporting should include partnership expenses, offsets to fees and expenses, and fees with respect to portfolio companies and investments.[83] South Carolina Retirement System (SCRS) collects detailed information on management fees, portfolio companies, other fund-level fees, and accrued performance fees, rather than relying on external manager invoices alone.[84]

- Develop investment policy statements that are transparent and accessible. The Pew Charitable Trusts study recommends including information about asset allocation and objectives with risk and returns. [85] For instance, the Missouri State Employee Retirement System (MOSERS) investment policy consists of detailed descriptions about how alternative investments are used to achieve risk and return objectives.

- Report results both net and gross of fees by asset class, including for long-term performance results. A recent Pew Charitable Trusts study recently made this recommendation to public pension funds to help stakeholders understand investment performance over time. [86]

- Monitor the age of all fee schedules and manager relationships, reviewing them regularly and considering these facts when negotiating. A recent report from the Pennsylvania Treasury recommended that the state's pension funds adopt this practice to minimize fees.[87]

4.2 Applicability to LACERS and LAFPP

The analysis in this section is intended to provide a high-level overview of potential cost-reduction strategies employed by other public pension funds. From this perspective, the strategies above present

[79] Orange County Employees Retirement System, Curbing the Costs of Pension Fund Investment Management, May 2014, https://gfoa.org/sites/default/files/FINAL%20-%20Curbing%20the%20Cost%20of%20Public%20Pension%20Portfolio%20Fee%20Management.pdf

[80] Northern Trust, The Local Government Pension Scheme: Beyond Asset Pooling, May 2018, https://www.northerntrust.com/documents/white-papers/asset-servicing/lgps-beyond-asset-pooling.pdf

[81] The Pew Charitable Trusts, Making State Pension Investments More Transparent, February 2016, https://www.pewtrusts.org/-/media/assets/2016/02/making_state_pension_investments_more_transparent.pdf.

[82] The Pew Charitable Trusts, Making State Pension Investments More Transparent.

[83] Institutional Limited Partners Association, Reporting Template Guidance Version 1.1, October 2016, https://ilpa.org/wp-content/uploads/2016/10/ILPA-Reporting-Template-Guidance-Version-1.1.pdf

[84] The Pew Charitable Trusts, Making State Pension Investments More Transparent.

[85] The Pew Charitable Trusts, Making State Pension Investments More Transparent.

[86] The Pew Charitable Trusts, Making State Pension Investments More Transparent.

[87] Treasury Department Commonwealth of Pennsylvania, Final Report and Recommendations: Public Pension Management and Asset Investment Review Commission.

opportunities for cost reduction, however all strategies listed in this section require additional, detailed reviews to determine if LACERS and LAFPP should implement them. For example, the ability to adopt the increased reporting and transparency strategies will require dedicated staff time and Navigant does not have enough information to determine if LACERS and LAFPP can dedicate this time. Section 5 provides more details about Navigant's recommendations for next steps.

5. COST-SAVINGS ANALYSIS OF SELECT STRATEGIES

In addition to identifying cost-savings strategies generally, the Commission tasked Navigant with assessing the potential benefits of implementing five specific strategies selected by its members. The goal of this assessment was to quantify costs, returns, and net benefits to understand how the strategies may impact the two funds. Table 5-1 below outlines the strategies selected by the Commission.

Table 5-1. Commission on Revenue Generation Selected Strategies

No.	Strategy	Commission Description
1	Establish Separate Accounts for Indexed Fixed Income and Equities Investments[88]	Separating investment accounts could give the city beneficial ownership and control over its assets, including the ability to lower costs, exercise proxy voting rights, and increase securities lending revenues. Notably, both LACERS and LAFPP stated they already use separate accounts for their indexed fixed income and equities investments, following industry best practice.
2	Leverage Co-Investing for Private Equity Investments	Co-investing alongside current private equity managers offers the opportunity to participate in private equity ventures with no management fee or carried interest obligation.
3	Establish Cash Overlay Program	Implementing a cash overlay program would generate additional revenue and thereby reduce cash management costs.
4	Increase Manager Diversity	According to years of research, increasing manager diversity in the investment portfolio would produce better financial results across all industries.
5	Invest in Ongoing Research and Peer Reviews	Investing in ongoing research and peer reviews would ensure that the best in-class management strategies are employed.

Source: Commission on Revenue Generation, 2019

To assess each strategy, Navigant identified a baseline investment amount, researched potential costs and returns, and modeled net savings. This research included gathering information directly from LACERS and LAFPP and leveraging publicly available information from case studies and other public pension fund reports. In the cases where information about costs and returns was not readily available, Navigant provides a qualitative discussion about the strategy. The sections below outline the findings for each of the strategies in Table 5-1.

5.1 Separate Accounts for Indexed Fixed Income and Equities Investments

A separate account is a professionally managed investment portfolio that consists of funds contributed by a single investor. Investing in a separate account is an alternative to investing in a commingled fund, a professionally managed investment portfolio that pools and invests capital contributed by a group of investors. Because separate accounts are managed on behalf of a single investor, they can offer greater

[88] One of the Commissioners from the Commission on Revenue Generation suggested that an alternative strategy the City may investigate is the feasibility and benefits of establishing a joint separate account for LACERS and LAFPP's investments to increase economies of scale and thereby, reducing costs. This strategy was not included in this study's scope of work but may be of future interest.

flexibility and can provide an investor with greater control and customization of its investment strategy.[89] Moreover, because investors generally contribute significant amounts of capital to separate accounts, they are often able to negotiate more favorable management fee structures, thereby reducing expenses and boosting net investment returns. Furthermore, investors may also receive tax benefits by using separate accounts instead of comingled accounts.[90] Notably, the Commission requested Navigant investigate this strategy as it relates to indexed fixed income and equities investments.

Both LACERS and LAFPP currently use separate accounts for their indexed fixed income and equities investments.[91] The two funds stated that using separate accounts for these investments is an industry-wide best practice in interviews. Furthermore, the funds emphasized that they and peers have used this strategy for decades.

5.1.1 Costs & Returns

As stated above, separate accounts provide reduced investment fees as well as tax benefits for investors. For investment fees, managers often charge an ongoing wrap fee of 1-3% of assets under management for separate accounts. In contrast, typical mutual fund investments may include a variety of costs, such as an asset-based fee and sales and transaction costs, which may result in higher expenses compared to separate accounts.[92,93] Additionally, separately managed accounts allow for tax-loss harvesting by allowing investors to recognize tax losses when rebalancing. For example, if an investor loses money on an investment and rebalances its portfolio to adjust its holdings, it can recognize the tax loss, while earning the same return. Tax loss harvesting can result in savings of 1.93% per year, based on historical data analysis from the Aperio Research Group.

For indexed fixed income and equities, returns are expected to be the same as indexed income and equities not in separate accounts. These returns will align with market risk and returns, since funds are indexed to match a chosen market. For example, if a fund is indexed to the Standard and Poor's 500 Index (S&P 500), the fund would have achieved 15.81% in returns over the past three years, the same returns of the overall S&P 500.[94]

5.1.2 Net Benefits

Given that LACERS and LAFPP already use separate accounts for its indexed equities and fixed income investments, LACERS and LAFPP cannot derive any additional benefits from this strategy. For this reason, Navigant did not calculate projected costs, returns, and net benefits.

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[89] James Chen, "Separate Account," Investopedia, https://www.investopedia.com/terms/s/separateaccount.asp.

[90] Geddes, Patrick and Tymoczko, Robert, "Indexed ETFs vs. Indexed Separately Managed Accounts: A User's Guide", Aperio Research, 2019, https://www.aperiogroup.com/Resources/Papers/ETFs%20vs%20SMAs-A%20Users%20Guide.Paper.pdf.

[91] LACERS and LAFPP Staff Interviews.

[92] Clark Capital Management Group, Separately Managed Accounts or Mutual Funds?, https://www.ccmg.com/separately-managed-accounts-smas-mutual-funds/.

[93] Charles Schwab, Managed Accounts Select, https://www.schwab.com/public/schwab/investment_advice/managed_accounts.

[94] Returns shown gross of expenses. S&P 500 returns based on Yahoo Finance 3-Year Daily Total Return on January 21, 2020 from https://finance.yahoo.com/quote/SPY/performance/.

5.2 Co-Investing for Private Equity Investments

Private equity co-investing involves investing capital into a company directly with a general partner, typically a professional private equity manager.[95] Co-investing represents a departure from the typical private equity structure, in which investors contribute capital to a pooled fund that is invested *on their behalf* by a general partner. Because co-investing features investment *in partnership with* (rather than outsourced to) a general partner, co-investing generally has reduced fees. The fee reduction potential of co-investing is amplified for large-scale investors, like public pension funds, who can provide blocks of capital large enough to unlock new investment opportunities for general partners. For this reason, co-investing can enable substantial savings for sophisticated investors.

Like any investment strategy, co-investment also introduces its own risks and challenges, including finding deals, conducting due diligence, and managing increased risk due to decreased investment diversification. The list below explains these challenges further.

- **Finding Deals:** Investors may face challenges identifying and sourcing high-quality co-investment deals, because "demand for [private equity] co-investment vastly outstrips opportunities provided by [General Partners]" and "access to fee-free co-investment appears likely to grow even more difficult."[96]

- **Due Diligence Requirements:** Co-investments require significant due diligence from staff or external consultants, creating additional costs and challenges. Such evaluations help ensure that investors know key information about the investment they are entering into, including whether the investment is aligned with their fund's goals, selection criteria, and existing portfolio.[97] If pension staff members do not have sufficient time to conduct this research, or if staff lacks the experience and expertise necessary to properly evaluate investments, the fund risks an overreliance on general partners' recommendations, which may or may not meet fund standards.[98]

- **Increased Diversification Risk:** A limited co-investment strategy may result in a small number of large-scale deals, which may expose an investor to an undesired level of risk concentration. According to McKinsey's 2019 Global Private Markets Review, "a portfolio with just three co-investments … has a one-in-eight chance of losing money, an outcome seldom suffered by a diversified PE fund. But with a portfolio of 12 positions, the odds of losing money fall to one in 50."[99]

Currently, each fund allocates approximately 10% of its total portfolio to private equity assets. Moreover, each fund plans to increase its exposure to private equity over time. However, neither LACERS nor LAFPP currently operates a private equity co-investment program. Table 5-3 below shows each fund's current and target asset allocations to private equity as of June 30, 2018.

Table 5-2. Current and Target Private Equity (PE) Allocations

	LACERS	LAFPP

[95] James Chen, "Private Equity," *Investopedia*, https://www.investopedia.com/terms/p/privateequity.asp.

[96] "Private Markets Come of Age: McKinsey Global Private Markets Review 2019," McKinsey & Company, 3, 36, https://www.mckinsey.com/~/media/McKinsey/Industries/Private%20Equity%20and%20Principal%20Investors/Our%20Insights/Private%20markets%20come%20of%20age/Private-markets-come-of-age-McKinsey-Global-Private-Markets-Review-2019-vF.ashx; LAFPP Interview.

[97] "Agenda: A Regular Meeting of the Board of Investments, Wednesday, December 11, 2019," LACERA, 61, https://www.lacera.com/about_lacera/boi/meetings/2019-04-10_boi_agnd.pdf.

[98] "Opening Doors of Opportunity: An Investors' Guide to Co-Investments," Callan Institute, 5, https://www.callan.com/wp-content/uploads/2019/04/Callan-4Q18-Hedge-Fund-Monitor.pdf.

[99] "Private Markets Come of Age: McKinsey Global Private Markets Review 2019," 36.

Current PE Allocation (% of Assets Under Management)	10.3%	9.9%
Target PE Allocation (% of Assets Under Management)	14%	12%

Source: LAFPP data, January 1, 2020
Note: The table represents the current private equity allocations. These funds are not currently co-invested.

LACERS and LAFPP staff expressed divergent views on the benefits associated with operating co-investment programs. LACERS staff have an interest in pursuing co-investments and asserted that Board action could result in the establishment of a LACERS co-investment program within the next two years. LAFPP staff, on the other hand, expressed a less sanguine view of co-investing, citing the limited number of co-investment opportunities the fund would have access to and the due diligence-related challenges discussed above.

5.2.1 Costs & Returns

Private equity costs include two components: (1) management fees, as a percent of assets under management annually, and (2) carried interest fees, as a percent of returns above a pre-negotiated benchmark over the life of the investment. According to industry research, these costs generally follow a “2 and 20” structure. This means that private equity managers charge investors management fees of 2% of assets under management annually and a carried interest fee of 20% of returns over a benchmark or set percentage of returns.[100] LACERS’ and LAFPP’s current private equity cost structures aligns with this structure, based on interviews and actual management fee data. Tables 5-4 and 5-5 below show the management fees for LACERS’ and LAFPP’s current private equity investments from 2014 – 2018.

Table 5-3. LACERS Private Equity (PE) Management Fees 2014 - 2018

	FY2014	FY2015	FY2016	FY2017	FY2018
PE Portfolio Value (Thousands $)	1,262,331	1,338,298	1,420,494	1,578,649	1,746,527
Management Fees (Thousands $)	20,145	20,317	26,614	31,837	34,644
Management Fees (% of Assets Under Management)	2%	2%	2%	2%	2%

Source: LACERS data, December 23, 2019

[100] Elvis Picardo, “Two and Twenty,” Investopedia, https://www.investopedia.com/terms/t/two_and_twenty.asp.

Table 5-4. LAFPP Private Equity (PE) Management Fees 2014 - 2018

	FY2014	FY2015	FY2016	FY2017	FY2018
PE Portfolio Value (Thousands $)	1,495,000	1,623,000	1,715,000	1,930,000	2,210,000
Management Fees (Thousands $)	26,575	29,048	31,141	34,215	38,526
Management Fees (% of Assets Under Management)	2%	2%	2%	2%	2%

Source: LAFPP data, January 1, 2020

Notably, the data above does not include carried interest fees. While California Government Code Section 7514.7 requires LACERS and LAFPP to "disclose specific fee, expense, and other information for private markets funds committed to on and after January 1, 2017," data on funds committed to prior to 2017 is not required by law and is therefore incomplete or non-existent.[101] Moreover, private equity investments are long-term strategies that tend to last between 10-15 years, and therefore, LACERS and LAFPP have not paid carried interest fees on many of its private equity investments yet, given these investments are relatively new.

As stated previously, LACERS and LAFPP public pension funds may achieve significant savings from co-investing compared to the "2 and 20" structure. Recent reports cite co-investment management fees of 0 – 1% of assets under management and carried interest fees of 0 – 10% of returns over a set benchmark. The precise fees will vary based on what a pension fund can negotiate.

In terms of returns, private equity co-investment is expected to have the same returns associated with traditional private equity investments, since the nature of the investments are the same. In general, these private equity investments yield high returns. For example, LAFPP's 2018 Annual Report, noted that private equity returned 18.65% during Fiscal Year 2017-2018, thereby outperforming all other asset classes. Likewise, LACERS achieved double digit returns of 11.9% on its private equity investments in the same year.[102]

5.2.2 Net Benefits

As stated previously, the major benefit of co-investment is fee reductions, since co-investing results in reduced or eliminated management and carried interest fees. Navigant modeled these benefits based on data and information from LACERS and LAFPP. Specifically, Navigant identified a potential investment amount and projected costs, returns, and net benefits based on this amount. These calculations do not include the potential impact on internal staff time, since there was no publicly available data about how much additional staff time is required for due diligence.

For the investment assumption, Navigant assumed funds would shift approximately 35% of their current private equity investment to co-investing. This proportion aligns with a recent study conducted for LACERS that recommended a similar level of investment for co-investing.[103] With regard to cost, Navigant

[101] "Disclosure Report of Fees, Expenses, and Carried Interest of Alternative Investment Vehicles for the Fiscal Year Ending June 30, 2019 Pursuant to Government Code Section 7514.7" LACERS, 1, http://www.lacers.org/aboutlacers/board/BoardDocs/2019/Board/2019-12-10_BOARD/ITEM_IXI.pdf.

[102] LACERS data request.

[103] Torey Cover Capital Partners, "LACERS Private Equity Program 2020 Strategic Plan," 20, http://www.lacers.org/aboutlacers/board/BoardDocs/2019/Investment/2019-11-12%20INVESTMENT%20CMTE/ITEM_IV.pdf.

assumed that co-investment management fees would range between 0% and 1% annually and that carried interest fees on co-investments would range from 0% - 10%. Both these assumptions are based on conversations with LACERS staff, assumptions included in the LACERS private equity study cited above, and publicly-available information.[104,105] Finally, the team assumed that returns would remain the same as current private equity investments. This means LACERS and LAFPP would not receive additional gains in private equity returns from co-investing. **Error! Reference source not found.** below provides an overview of the assumptions and the resulting benefits. Table 2-1

Table 5-5. Co-Investment Net Benefits

	LACERS	LAFPP
Investment (Thousands $)	$612,475	$773,665
Costs* (Thousands $)	MF: $0 - $6,125 CIF: 0% - 10% of returns over benchmark	MF: $0 - $7,737 CIF: 0%- 10% of returns over benchmark
Returns Thousands ($)	NA (No additional returns)	NA (No additional returns)
Net Annual Benefit (Thousands $)	MF: $6,000 – $12,125+ CIF: 17.5 – 35% savings relative to current payments**	MF: $5,745 - $13,485+ CIF: 17.5 – 35% savings over current payments**

Source: LACERS and LAFPP Interviews; LACERS Co-Investing Report
**MF: Management Fee; CIF: Carried Interest Fee; Benchmark refers to the set amount of returns that the funds would not pay a carried interest fee on. In the LACERS Co-Investing Report cited above, the consultant used an illustrative benchmark of 8%. This means LACERS would pay carried interest fees on any returns above 8%.*
***Private equity investments generally range from 10-15 years.*

As shown in the table above, under these assumptions each fund could achieve potential savings between $6 million and $14 million annually from reduced management fees alone, if LACERS and LAFPP co-invested 35% of their current private equity investments. For carried interest fees, Navigant concluded that LACERS and LAFPP could reduce carried interest fees by 17.5% -- 35% on their total private equity portfolio under these assumptions. Private equity investments are relatively new for the two funds, so Navigant did not quantify the dollar amount tied to carried interest fee savings due to the lack of available data on current and previous payments.

Given the potential for significant cost savings that preserve access to the high returns generally offered by private equity investment, both LACERS and LAFPP should consider exploring how co-investing strategies might align with and enhance current investment policies and procedures in more detail. When considering these investments, both funds must weigh the risks and challenges that come with co-investing, as discussed above.

5.3 Cash Overlay Program

In the context of public pension funds, cash overlay programs involve investing a portion of a fund's cash in short-term investments and/or derivative contracts, such as futures. This allows investors to invest

[104] Torey Cover Capital Partners, "LACERS Private Equity Program 2020 Strategic Plan," 20.
[105] Auerbach, Andrea, "Ready, Steady, Co-Invest," March 2019, Cambridge Associates, https://www.cambridgeassociates.com/research/co-investment-framework/

based on the direction of market prices while eliminating the need to buy the underlying assets, like individual stocks.[106] As such, a cash overlay program unlocks the potential for marginal returns while reducing the need to sacrifice liquidity through the purchase of securities.[107]

Like all investment strategies, cash overlay programs can also expose a fund to new investment risks. If a fund uses its cash holdings to buy long futures contracts, for example, it exposes itself to losses and capital calls associated with futures contracts investments, which can then impair a fund's ability to meet its other needs. In short, any investment vehicle with the potential to amplify gains has a reciprocal potential to amplify losses.[108]

Neither LACERS nor LAFPP currently operates a cash overlay program. LAFPP has not previously operated a cash overlay program and does not currently plan to establish one.[109] In contrast, LACERS staff operated a small-scale internal cash overlay program prior to the global economic downturn that began in 2007, when interest rates exceeded 5% and spreads between short-term investment instruments and money market rates regularly exceeded 20 basis points. LACERS staff noted that the strategy generated approximately $300,000 per year but stressed that equivalent performance would be difficult to achieve in the today's low interest rate context.[110]

5.3.1 Costs & Returns

Costs for cash overlay programs vary based on whether the program is internally or externally managed. For internal programs, LACERS indicated that its former cash overlay program resulted in roughly one day of work for a full-time employee in addition to transaction costs. For external programs, managers charge funds a proportion of assets under management. These costs tend to range from .01% to 0.06% of assets under management, with costs decreasing as investments increase, based on the submissions from a recent request for proposals (RFP) from LACERA. [111]

Returns from cash overlay programs result from the securitization of funds that would not otherwise be invested. Cash overlay programs stand out in that they do not fundamentally shift a fund's investment strategy. Rather, they aim to "squeeze out" incremental returns by allocating relatively small amounts of capital toward existing asset allocation strategies.[112] For example, LACERS noted it achieved roughly $300,000 in additional returns and recent studies cited returns of 0.05% to 0.6% on total assets under management for these programs.[113] However, with the "relatively lower … return forecasts across assets"

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106 James Chen, "Futures," *Investopedia*, https://www.investopedia.com/terms/f/futures.asp.

107 "Cash Management: Los Angeles City Employees' Retirement System," NEPC, 11-2, http://www.lacers.org/aboutlacers/board/BoardDocs/2018/Investment/2018-04-10%20INVESTMENT%20CMTE/ITEM%20VII%20-%20PRESENTATION%20BY%20NEPC%20ON%20CASH%20MGMT%20REVIEW.pdf.

108 James Chen, "Futures."

109 LAFPP interview

110 Interest rates decrease short-term investment returns. In a low interest rate market, short-term investment returns decrease and vice versa.

111 "Agenda: A Regular Meeting of the Board of Investments, Wednesday, April 10, 2019," LACERA, 118, https://www.lacera.com/about_lacera/boi/meetings/2019-04-10_boi_agnd.pdf.

112 Ibid., 104-6.

113 LACERS Interview; "Cash Management: Los Angeles City Employees' Retirement System," NEPC; "Agenda: A Regular Meeting of the Board of Investments, Wednesday, April 10, 2019," LACERA; "Existing Manager Presentation: Parametric," Verus Investments, 1, http://www2.co.fresno.ca.us/9200/Attachments/Agendas/2018/20181003/20181003-6A-PerformanceEconomicSummaryReport-Compiled.pdf

over the next several years, the addition of these incremental revenue streams may nonetheless present an important opportunity for public pension funds to maintain reasonably high total fund returns.[114]

5.3.2 Net Benefits

Navigant modeled benefits for an externally managed cash overlay program based on data and information from LACERS, LAFPP, and other publicly-available sources. Specifically, Navigant identified a potential investment amount and projected costs, returns, and net benefits based on this amount. These calculations do not include the potential impact on internal staff time, since there was no publicly available data about how much additional staff time is required for due diligence.

With regard to investment assumptions, Navigant assumed that funds would invest between 0.5% and 2% of total assets under management in an externally managed cash overlay program. This range aligns with recent internal cash overlay studies at LACERS, LACERA, and the Fresno County Employees' Retirement Association.[115] For the cost assumption, Navigant assumed that the funds would pay 0.06% of assets under management annually. This assumption is based on the recent LACERA RFP responses and the assumed amount of investment in our calculations.[116] Finally, the team assumed total fund returns would equal between 0.05% and 0.6% based on the studies cited previously. notably **Error! Reference source not found.** below provides an overview of the assumptions and the resulting benefits.

Table 5-6. Cash Overlay Net Benefits

	LACERS	LAFPP
Investment (Thousands $)	$88,465 - $353,860	$111,640 - $446,560
Costs* (Thousands $)	$55 - $210	$65 - $270
Returns (Thousands $)	$8,845 - $106,160	$11,165 - $133,970
Net Annual Benefit (Thousands $)	**$8,635 - $106,105**	**$10,895 - $133,905**

Source: LACERS and LAFPP Interviews; LACERS, Fresno County CERA, and LACERA

The table above shows that LACERS and LAFPP may achieve benefits of over $8 - $100 million annually, by investing 0.5% - 2% of its total assets in an externally managed cash overlay program. The potential returns on the cash overlay program are notably higher than LACERS' historic program and reflect the assumptions from the recent reports cited previously, including a recent consultant report specifically for LACERS. Given the potential for significant revenue additions that do not unduly threaten fund liquidity, both LACERS and LAFPP should consider further exploring how cash overlay programs might align with and enhance current investment policies and procedures. Like other investment strategies, LACERS and LAFPP should weigh the risks, costs, and returns associated with implementing a cash overlay program before moving forward.

[114] Ibid.

[115] "Cash Management: Los Angeles City Employees' Retirement System," NEPC; "Agenda: A Regular Meeting of the Board of Investments, Wednesday, April 10, 2019," LACERA; "Existing Manager Presentation: Parametric," Verus Investments, 1, http://www2.co.fresno.ca.us/9200/Attachments/Agendas/2018/20181003/20181003-6A-PerformanceEconomicSummaryReport-Compiled.pdf.

[116] For blocks of capital between $0 and $400 million, both Parametric Portfolio Associates, LLC, and NISA Investment Advisors, LLC, indicated that they would charge 0.06% of assets under management annually in the LACERA RFP responses. Agenda: A Regular Meeting of the Board of Investments, Wednesday, April 10, 2019," LACERA, 118.

5.4 Increase Manager Diversity

This strategy involves increasing manager diversity as a method for increasing returns, based on a growing body of evidence that illustrates that increasing diversity improves business performance.[117] The basic idea underpinning this strategy is that business performance improves when management teams feature input and representation from diverse and heterogeneous groups, including gender, ethnic, and cultural diversity. Notably, this research stems from business across a variety of industries.

There is currently a lack of publicly available data on public pension fund investment manager diversity, including both the portion of minority-owned or controlled external management firms and performance of these firms. In general, public pension funds have aimed to increase diversity through Emerging (and Diverse) Manager Programs. These programs aim to increase the portion of small and diverse external management firms within their portfolio by allocating a defined portion of assets to these firms. However, exact definitions of emerging managers included within these programs varies significantly, based on local and state laws.[118] Some programs define emerging managers based on asset size, since diverse managers have historically fallen below mainstream investor thresholds.[119] Others use gender (women-owned) or ethnicity (minority-owned) specific definitions. The lack of standardized definitions for programs makes it challenging to compare their performance over time and thus, challenging to quantify the impact of diversity on portfolio performance.

Neither fund provides publicly available information about the diversity of its external managers. However, both LACERS and LAFPP currently operate emerging manager programs and allocate approximately 2% and 10% of funds to the programs, respectively. Both funds define emerging managers based on size in assets under management.

5.4.1 Costs & Returns

Given the lack of data about their external managers' diversity, Navigant used emerging manager programs as a proxy for estimating costs for diverse manager performance. In terms of costs, both LACERS and LAFPP stated they pay approximately the same in fees to emerging managers as non-emerging managers. Although some emerging managers may offer discounts to investors, since they may have less market experience, both LACERS and LAFPP stated that this has not been their experience.

In terms of returns, a recent report authored by a professor at Harvard Business School, found that "for most asset classes, diverse-owned firms exhibit returns that are not significantly different relative to non-diverse firms; however, they have low levels of representation in every asset class."[120] This fact mirrors LACERS and LAFPP's experience with their emerging manager program performance. Specifically, the two funds stated that some managers outperform their benchmarks and their non-emerging managers; however, the inverse is also true.

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[117] Hunt, Vivian, et. al., Delivering through Diversity, January 2018, McKinsey & Company, https://www.mckinsey.com/business-functions/organization/our-insights/delivering-through-diversity.

[118] "Public pension funds' definition of emerging manager still a work in progress", March 21, 2012, Pensions & Investments, https://www.pionline.com/article/20120321/ONLINE/120329976/public-pension-funds-definition-of-emerging-manager-still-a-work-in-progress

[119] Cai, Angela, US Public Pension Fund Diversity Initiatives: Practices, Rationales, and Constitutionality, Fall 2014, DePaul Business and Commercial Law Journal.

[120] Lerner, Josh, et. al., 2018 Diverse Asset Management Firm Assessment Final Report January 2019, January 2019, Bella Private Markets,https://static1.squarespace.com/static/5c194ef4506fbe01692524d6/t/5d000b78b7d0520001e5c8eb/1560284031151/2018+Firm+Assessment+FINAL.pdf

5.4.2 Net Benefits

Due to the information on costs and returns above and the general lack of publicly-available information related to asset manager diversity and performance, Navigant could not quantify the net benefits of this strategy. However, Navigant recommends that both funds track data and metrics around diversity-related initiatives and continue increasing manager diversity, given it is a best practice.

5.5 Ongoing Research and Peer Reviews

Investing in peer research and reviews is a useful way for pension fund administrators to identify areas for improvement. Research and peer reviews may include benchmarking costs, performance, and services, research on cutting-edge investment strategies, and fund-specific research (e.g., modeled investment strategies). Investing in rigorous peer reviews and analysis can help fund managers understand key differences between funds, access detailed cost and performance data, continuously improve investment and administrative processes, and save time and effort by learning from peers and industry best practices.[121]

LACERS and LAFFP currently invest in regular research and peer reviews through two forums: (1) peer benchmarking reports and (2) investment consultant reports. The list below provides more details about each of these forums.

- **Benchmarking Reports:** Both funds use CEM Benchmarking to understand how their costs, services, and performance compares to like-sized peer pension funds. With over 400 funds participating, CEM benchmarking is seen as an industry-leader in providing peer review research for pension funds. Furthermore, NYC Retirement Systems released a statement, saying "CEM is the only vendor capable of providing comprehensive investment cost benchmarking services that utilize actual cost and performance data collected from large U.S. pension funds," highlighting the benefits of their study.[122]

- **Investment Consultant Reports**: LACERS and LAFPP retain investment consultants to produce ongoing research and other advisory services. The funds stated that these consultants are generally "non-discretionary," meaning they do not manage any of the funds' outsourced investments and focus purely on advisory.[123] As of 2018, LACERS and LAFPP spent $1.49 M, and $0.84 M on investment consultants, respectively.[124]

5.5.1 Costs & Returns

The benchmarking and investment consultant reports have defined costs. The CEM Benchmarking reports costs $30,000 - $35,000 per report, or $60,000 - $70,000 every five years, assuming the funds purchase one report every other year. Investment consultants cost significantly more. One study stated that investment consultants charge retainer fees ranging from $25,000 to $150,000 plus additional

[121] "Pension Administration Benchmarking Service," CEM Benchmarking, https://www.cembenchmarking.com/pabs.html.

[122] NYC Retirement Systems eyes CEM Benchmarking in cost analysis search, March 22, 2018, Pensions & Investments, https://www.pionline.com/article/20180322/ONLINE/180329954/nyc-retirement-systems-eyes-cem-benchmarking-in-cost-analysis-search.

[123] LACERS and LAFPP interviews.

[124] LACERS and LAFPP data requests.

expenses, depending on the size of the fund and types of services included.[125] From 2014 to 2018, LACERS spent approximately $1.4 M and LAFPP, $700,000 annually.

Although peer reviews and research are best practice, there was no publicly-available data about the returns generated from ongoing peer reviews and research for pension funds in general. Moreover, there was no publicly-available data about returns from this strategy for LACERS and LAFPP. This makes it challenging to understand how the peer reviews and research impact the two funds.

5.5.2 Net Benefits

Although conducting ongoing peer reviews and research are best practice, the precise net benefits from these efforts is unclear. Navigant suggests continuing to purchase CEM benchmarking reports and conducting ongoing research and peer reviews, while also beginning to track benefits gained from these studies, where possible. Over time this will allow LACERS and LAFPP to understand how these reports have contributed to overall performance.

5.6 Strategy Applicability to LACERS and LAFPP

As shown by the analysis above, the applicability of the Commission-proposed strategies to LACERS and LAFPP varies. For example, LACERS and LAFPP already use separate accounts for indexed fixed income and equities investments and therefore, the strategy as a cost reduction method is not viable. Additionally, Navigant concluded that it could not calculate the precise price costs and returns for increasing manager diversity and investing in ongoing research and peer reviews. However, Navigant suggests continuing to track data and explore opportunities to reduce costs or generate returns from these strategies, as they are best practice. Table 5-7 below outlines the high-level conclusions for each strategy.

Table 5-7. Commission-Proposed Strategy Applicability to LACERS and LAFPP

No.	Strategy	Potential Benefit
1	Establish Separate Accounts for Indexed Fixed Income and Equities Investments	**No potential benefit** – LACERS and LAFPP already use separate accounts.
2	Leverage Co-Investing for Private Equity Investments	**Potential benefit** – Based on high-level estimates LACERS and LAFPP may achieve benefits from co-investing and cash overlay programs. However, both funds need to conduct additional research about how these strategies align with their current investment policies. Notably, LACERS has already begun looking into both these opportunities.
3	Establish Cash Overlay Program	
4	Increase Manager Diversity	**Inconclusive** – LACERS and LAFPP already have emerging manager programs (which help to increase diversity). Data on costs and returns on these programs are mixed. However, Navigant considers this strategy to be a best practice, and

[125] Jarvis, William F., Understanding the Cost of Investment Management, October 2015, Common Fund Institute, https://www.caia.org/sites/default/files/understanding_the_cost_of_investment_management.pdf.

		recommends tracking manager diversity data in the future and continuing to invest in this strategy.
5	Invest in Ongoing Research and Peer Reviews	**Inconclusive** – LACERS and LAFPP already invest in research. There was no publicly available data on how additional research can contribute to savings. However, Navigant considers this strategy to be a best practice, and recommends tracking research and peer review benefits and continuing to invest in this strategy.

Source: Navigant

6. RECOMMENDATIONS AND ACTION PLAN

Based on the peer benchmarking and the literature review above, Navigant developed recommendations and a subsequent action plan for LACERS and LAFPP. These recommendations consider LACERS and LAFPP's unique regulatory environment and current or recent initiatives. For example, the two funds have already implemented a few of the cost reduction investment strategies from the literature review and therefore, Navigant did not include these in the recommendations. Furthermore, Navigant developed the recommendations at a high-level; many of the suggestions are intended to be a starting point and require further examination before implementation. This section outlines the final list of recommendations and resulting action plan.

6.1 Recommendations

Navigant developed recommendations across three categories to align with its peer research, literature review, and assessment of Commission-proposed strategies. These categories include: (1) asset allocation, (2) procurement policies, and (3) reporting and transparency. In general, LACERS and LAFPP align with their peers' practices in these areas; however, both funds can adjust its asset allocations and enhance procurement policies and reporting and transparency to further educate external stakeholders and manage external manager costs.

Notably, Navigant recommended that LACERS and LAFPP should not pursue an in-sourced asset management at LACERS and LAFPP, because the research showed that in-sourcing as a cost reduction strategy works best for larger pension funds. For instance, the Pennsylvania study stated that "scale and governance are crucial considerations for the internal management decision…[and] internal investment management has generally been restricted to funds larger than $25 billion." The peer panel provides further evidence of this fact, as larger funds have greater portions of internal asset management, while smaller funds have little to no assets in-sourced. Furthermore, Navigant excluded other investment strategy recommendations, such as increasing indexing and exploring the use of certain investment vehicles, because LACERS and LAFPP have already looked into these cost reducing mechanisms.

In addition to providing recommendations, Navigant also developed an action plan by dividing each of the recommendations into three timelines: (1) six months to two years, or near-term, (2) three years to five years, or medium-term, and (3) over five years, or long-term. The team developed these timelines based on priority and level of effort of each recommendation. Table 6-1 outlines the recommendations, their level of effort, and suggested timeline.

Table 6-1. Recommendations and Action Plan

Category	Recommendation	Example	Level of Effort	Timeline
Asset Allocation	Explore the adoption of alternative fee structures, such as Managed Custody Accounts (MCA) to reduce costs and increase investing flexibility.	San Bernardino County established MCAs to allow for direct investment and reduce fees. In this structure, funds would negotiate fees at the platform level on an aggregate assets under management basis and allow the investors to nimbly invest in various products (e.g. co-investments and direct investments). Additionally, Orange County Employees Retirement System (OCERS) believes that a base fee is appropriate to provide sufficient operating income for external managers. OCERS fee policy follows this philosophy closely assigning fees between the market cost of passive management and 40 percent of fixed fees.	High	Long-Term
Asset Allocation	Consider reducing the number of external managers by benchmarking the number of external managers used by peers.	CalPERS reduced the number of its external money managers from 159 to 212 in a 9-month period, because it was "paying too much in external management fees compared to peers" based on a CEM benchmarking study	High	Long-Term
Asset Allocation	Continue to assess the feasibility of co-investing for private equity investments	Based on high-level estimates, LACERS and LAFPP may achieve significant benefits from co-investing a portion of its current private equity allocation.	High	Medium-Term

Asset Allocation	Continue to assess the feasibility of establishing a cash overlay program	Based on high-level estimates, LACERS and LAFPP may achieve benefits from establishing a cash overlay program for a small portion of its current portfolio.	High	Medium-Term
Asset Management / Procurement	Do not pursue in-sourcing asset management as a cost reduction strategy, because in-sourcing works best for larger pension funds.	A recent study by the Pennsylvania Treasury stated that in-sourcing is generally restricted to funds larger than $25 billion in assets under management. Furthermore, the Peer Panel in this study shows that smaller funds tend not to in-source asset management.	NA	NA
Asset Management / Procurement	Adopt specific policies with respect to acceptable fee limits	American Federation of Teachers recommended this to public teachers' pensions	Medium	Near-Term
Asset Management / Procurement	Establish a fee budget at the fund level for all investment managers	The State of Pennsylvania recently recommended this to its state pension funds. This recommendation will help the funds curb costs.	High	Medium-Term
Asset Management / Procurement	Explore opportunities to pool investments with LACERS and other CA pension funds	OCERS-CALAPRS issued a joint-RFP to increase economies of scale. Additionally, the pension funds for England and Wales recently established a pooling structure to achieve economies of scale.	High	Medium-Term
Reporting / Transparency	Adopt comprehensive fee reporting (e.g. itemized list of fees, including performance and non-performance).	South Carolina Retirement System / Missouri State Employees Retirement System collects detailed fees. This raises the bar on transparency and allows overseers to better measure and manage costs.)	Low	Near-Term

Reporting / Transparency	Expand performance reporting to include 20-year results and include full performance reporting (e.g. by asset and net/gross)	Georgia, Kentucky, Louisiana, Missouri, and NY release 20-year data on performance returns by asset. This provides stakeholders with long-term results that are more aligned with the long-term investment strategies that funds follow.	Low	Near-Term
Reporting / Transparency	Post all performance reports, including historical information, in an easily-accessible manner for all stakeholders to access	Recent industry reports emphasize the importance of posting historical information about performance for stakeholders to more easily track costs and returns over time.	Medium	Near-Term
Reporting / Transparency	Track age of fee schedules and review every 2 years and track age of manage relationships; use information during negotiations to reduce costs	The State of Pennsylvania recently recommended this to its state pension funds. This recommendation will help the funds curb costs.	High	Medium-Term
Reporting / Transparency	Monitor portfolio-wide manager diversity, including the number of diverse managers and performance over time to understand impact and to track progress over time.	There is a lack of data about manager diversity and diverse manager performance over time, making it challenging to quantify the potential benefits of increasing diversity and to understand the progress on diversity within the two funds.	Medium	Near-Term
Reporting / Transparency	Monitor benefits of investing in ongoing research and peer reviews to understand impact over time.	There is a lack of publicly-available data about the quantifiable benefits of investing in ongoing research and peer reviews, making it challenging to understand the impact of these strategies.	Medium	Near-Term

6.2 Action Plan

Navigant divided recommendations into near-term, mid-term, and long-term timeframes. Near-term recommendations include easy to implement actions, such as enhancing reporting and transparency. Mid-term recommendations include actions that require further cost-benefit and feasibility analyses. Finally, long-term recommendations include actions for assessing the success of near and mid-term actions. Figure 6-1 outlines Navigant's action plan.

Figure 6-1. Action Plan for Implementing Recommendations

Near-Term

6 Months – 2 Years

- Enhance reporting and transparency by:
    - Tracking fee schedule age to leverage for negotiations
    - Expanding access to historical reports (e.g. 20+ years)
    - Providing detailed performance (e.g. net / gross of fees) and itemized lists of manager fees, including performance-based fees
    - Monitoring portfolio-wide manager diversity and performance
    - Monitoring benefits of investing in ongoing research and peer reviews
- Control costs by adopting fee policies, including:
    - Adopting acceptable fee limit policies
    - Establishing a fund-level fee limit budget

Mid-Term

3 Years – 5 Years

- Conduct studies to explore the feasibility of:
    - Adopting alternative fee structures (e.g. establishing Managed Custody Accounts, and hurdles for performance based fees)
    - Pooling investments with other public pension funds to increase economies of scale and reduce costs
    - Simplify investment strategy and reduce the number of total external managers
    - Co-investing a portion of private equity investments
    - Establishing a cash overlay program

Long-Term

5+ Years

- Implement cost-saving strategies based on the outcome of the feasibility reports
- Assess success of near-term reporting and transparency and cost control efforts

Source: Navigant

APPENDIX A. DETAILED PEER CASE STUDIES

Navigant examined asset allocation practices, asset management strategies, cost reduction strategies, and other relevant information for seven peer funds (six public pension funds and one sovereign wealth fund). The next sections present these in-depth case studies in order of largest to smallest (measured in assets under management):

- Norway's Government Pension Fund Global (GPFG)
- California Public Employees' Retirement System (CalPERS)
- Ontario Teachers' Pension Plan (OTPP)
- New York City Employees' Retirement System (NYCERS)
- Los Angeles County Employees Retirement Association (LACERA)
- New York City Fire Pension Funds (NYC Fire)
- San Diego City Employees' Retirement System (SDCERS)

A.1 Norway's Government Pension Fund Global (GPFG)

A.1.1 Background

The Government Pension Fund Global (GPFG) is a public fund established to preserve the long-term stability of Norway's oil wealth.[129] The GPFG manages approximately $1 trillion in assets. Norges Bank, Norway's central bank, manages the funds.

Notably, the GPFG is a sovereign wealth fund, not a pension fund for retirement assets.[130] As a result, many indicators used in this study (Total Members, Unfunded Actuarial Accrued Liability, Funded Ratio, etc.) are not relevant. Nonetheless, the fund provides insights relevant to US public pension plans. Additionally, because the fund uses a January 1 – December 31 Fiscal Year, detailed data on investment performance and expenses from the July 1, 2017 – June 30, 2018 period were re-constructed using quarterly investment reports from 2017 and 2018 (see Footnote 9).

Peer Fund Qualitative Overview (2017-18)[126]	
Total Members	-
Assets Under Mgmt. (Thousands USD)	917,070,000[127]
Unfunded Actuarial Accrued Liability (Thousands USD)	-
Funded Ratio (Assets as % of Obligations)	-
Internal Management (% of Funds Under Mgmt.)	94%[128]
External Mgmt. Expenses (Thousands USD)	183,480
External Mgmt. Expenses (% of Assets)	0.02%

A.1.2 Asset Allocation & Investment Performance

The GPFG's asset allocation stands out for its simplicity and its reliance on equity holdings. For example, it allocates almost two-thirds of its assets to equities. In contrast, it allocates less than five percent of its assets to alternatives and cash or short-term investments. Table A-1 below depicts the fund's overall asset allocation breakdown.

Table A-1. GPFG High Level Asset Allocation

Equities (%)	Fixed Income (%)	Alternatives (%)	Cash / Short Term (%)
66.7	31.6	2.6	-

Source: 2017 and 2018 Annual Reports

Unlike other funds examined in this report, the GPFG does not maintain high levels of alternative asset holdings. The fund only maintains three asset classes – a large share of global public equities, a large share of government bonds, and a small share of private real estate investments. This asset allocation reflects the limited investment mandate established by Norway's Ministry of Finance, which sets the

[126] Because the fund uses a January 1 – December 31 Fiscal Year, detailed data on investment performance and expenses from the July 1, 2017 – June 30, 2018 period were re-constructed using quarterly investment reports from 2017 and 2018. These reports are available at the following site: https://www.nbim.no/en/publications/reports/.

[127] Approximate value. The precise conversion between Norwegian Kroner and US Dollars depends on the relative strength of each currency, which fluctuates according to market demand.

[128] Norges Bank Investment Management, "Strategy 2017-2019," February 8, 2017, 6, https://www.nbim.no/contentassets/f6e98d63856e476cbd5d8aea20d534ff/norges-bank-investment-management_strategyplan-2017-2019.pdf.

[129] Norges Bank, "About the fund," https://www.nbim.no/en/the-fund/about-the-fund/.

[130] "Government Pensions Fund Global / Norges Bank Investment Management," https://www.top1000funds.com/asset_owner/government-pension-fund-global-norges-bank-investment-management/.

fund's overall strategy.[131] According to that mandate, Norges Bank may only invest GPFG funds "in listed equities, bonds, and unlisted real estate" assets.[132]

Furthermore, the fund also stands out for dedicating a significant majority of its assets (66.7%) to public equities. This asset allocation reflects a high-risk, high-reward strategy that leaves the fund's returns subject to stock market fluctuations. This contrasts with the Ontario Teachers' Pension Plan (OTPP), which seeks to hedge against these fluctuations by allocating a smaller portion of its fund to equities. Norges Bank plainly states that its public equities allocation demonstrates a "willingness to take market risk in order to achieve satisfactory long-term returns."[133] This asset allocation has led to an average return of six percent since inception. below depicts the fund's performance over time.

Table A-2. GPFG Historical Performance

1 Yr. (%)	3 Yr. (%)	5 Yr. (%)	10 Yr. (%)	Since Inception (%)
--	6.2	8.1	6.9	5.9

Source: GPFG 2018 Annual Report

A.1.3 Asset Management Considerations

Given the Commission's focus on in-sourcing and cost reduction, this section provides additional details about GPFG's asset management practices as it relates to those areas. GPFG employs a largely in-sourced asset management strategy and a low-alternative investment allocation policy, two unique components of the fund. The list below provides further discussion of these items.

- **In-Sourcing:** Norges Bank aims to maximize in-house management of GPFG assets. Norges notes that the deployment of internal resources helps maintain profitability and that the fund has moved to in-source investment activities that were previously outsourced.[134] However, Norges also relies on some external asset management. The fund states that "external management mandates are awarded in areas where it is not appropriate to build up internal expertise, but where we believe that local knowledge is needed to ensure the best possible management. These mandates are mainly in emerging markets, small companies in developed markets, and environment-related investments."[135] Thus, Norges does not view in-house management as a one-size-fits-all strategy and selectively allocates funds to external managers.

  Given Norges Bank's tendency toward internal asset management, they employ a sizable internal workforce, as expected for a large fund with significant amounts of in-sourcing. Including employees at subsidiaries established to manage unlisted real estate investments, the GPFG is administered by 371 investment professionals and 622 total employees around the world.

- **Alternative Investments:** As noted above, Norway's Ministry of Finance does not currently permit GPFG to maintain significant alternative investment assets. Thus, the fund's only

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[131] Norges Bank Investment Management, "Strategy 2020-2022," 5, https://www.nbim.no/contentassets/e67c709ab52541bab4b449bddc019319/strategy-plan-2020-2022-norges-bank-investment-management.pdf.

[132] Norges Bank Investment Management, "Government Pension Fund Global: Annual Report 2018," 25, https://www.nbim.no/contentassets/02bfbbef416f4014b043e74b8405fa97/annual-report-2018-government-pension-fund-global.pdf.

[133] Norges Bank, "Annual Report 2018," 6.

[134] Norges Bank, "Review of Norges Bank's management of the Government Pension Fund Global," December 15, 2017, 4, https://www.nbim.no/contentassets/e67c709ab52541bab4b449bddc019319/strategy-plan-2020-2022-norges-bank-investment-management.pdf; Norges Bank, "Strategy 2020-2022," 4.

[135] Norges Bank, "Review of Norges Bank's management of the Government Pension Fund Global," 3.

alternative investments are a relatively small portion of its portfolio (2.6%) invested in private real estate. Importantly, the fund's management recently proposed adjusting its mandate so that it can invest a small portion (1%) of its equity portfolio into private equities.[136] This proposal, if accepted by the Ministry of Finance, would represent a notable reformulation of the fund's current investment strategy.

[136] Rachel Fixsen, "Norway's sovereign fund seeks to allocate €6.3bn to private equity," *Investment & Pensions Europe*, August 29, 2019, https://www.ipe.com/countries/norway/norways-sovereign-fund-seeks-to-allocate-63bn-to-private-equity/www.ipe.com/countries/norway/norways-sovereign-fund-seeks-to-allocate-63bn-to-private-equity/10032993.fullarticle.

A.2 California Public Employees' Retirement System (CalPERS)

A.2.1 Background

The California Public Employees' Retirement System (CalPERS) manages retirement assets on behalf of nearly 2 million current and retired state employees. It is the largest public pension fund in the United States.

Like the Ontario Teachers' Pension Plan, CalPERS has worked to reduce investment expenses by in-sourcing significant portions of its assets.[138] However, in employing this model, CalPERS has encountered challenges that US pension funds are likely to come across in striving to emulate the Canadian pension model. This case study provides more details about its in-sourcing and other cost reduction efforts.

Peer Fund Qualitative Overview (2017-18)[137]	
Total Members	1,958,888
Assets Under Mgmt. (Thousands USD)	354,000,000
Unfunded Actuarial Accrued Liability (Thousands USD)	138,864,000
Funded Ratio (Assets as % of Obligations)	70%
Internal Management (% of Funds Under Mgmt.)	75%
External Mgmt. Expenses (Thousands USD)	720,637
External Mgmt. Expenses (% of Assets)	0.20%

A.2.2 Asset Allocation & Investment Performance

CalPERS maintains a relatively standard asset allocation, with near-peer-average holdings across all asset classes. Specifically, it allocates approximately 50 percent of its fund to public equities, 20 percent to fixed income, 25 percent to alternatives and less than 5 percent to cash and short-term investments. Table X below depicts the fund's overarching asset allocation.

Table A-3. CalPERS High Level Asset Allocation

Public Equities (%)	Fixed Income (%)	Alternatives (%)	Cash / Short Term (%)
48.9	22.5	25.3	3.3

Source: 2017 – 18 Comprehensive Annual Financial Report

This asset allocation has resulted in almost nine percent in the past year. However, this year represents the highest returns of the periods examined. For instance, over the past 10 years, CalPERS achieved a roughly six percent return, three percent lower than its most recent returns. This may be the result of changing asset allocations and other management strategies. Table A-4 below depicts the fund's performance over time.

Table A-4. CalPERS Historical Performance

1 Yr. (%)	3 Yr. (%)	5 Yr. (%)	10 Yr. (%)	Since Inception (%)
8.6	6.7	8.1	5.6	-

Source: 2017-18 Comprehensive Annual Financial Report

[137] California Public Employees' Retirement System (CalPERS), "2017-18 Comprehensive Annual Financial Report," https://www.calpers.ca.gov/docs/forms-publications/cafr-2018.pdf.
[138] Mark Anderson, "CalPERS bringing private equity in-house," *Sacramento Business Journal*, May 21, 2018, https://www.bizjournals.com/sacramento/news/2018/05/21/calpers-bringing-private-equity-in-house.html.

A.2.3 Asset Management Considerations

Given the Commission's focus on in-sourcing and cost reduction, this section provides additional details about CalPERS' asset management practices as it relates to those areas. CalPERS employs a largely in-sourced asset management strategy and an investment allocation policy favorable to alternative investments, two unique components of the fund. The list below provides further discussion of these items.

- **In-Sourcing:** As noted above, CalPERS has worked to shift investments "from external managers to internal managers when possible, reducing external management fees, and decreasing the number of outside consultants and advisors."[139] Due to this policy, CalPERS now manages the majority of its public equity investments (80%) and fixed-income investments (90%) internally. However, in this process, the fund has faced significant challenges in competing for highly-capable investment professionals. In a 2019 interview, CalPERS chief investment officer Yu Ben Meng noted that CalPERS "simply does not have the organizational structure nor the compensation options capable of matching what top-tier managers can secure in the private sector."[140]

  To overcome these organizational challenges, CalPERS has established affiliate companies to manage $20 billion in assets outside of publicly-traded stock markets (e.g. private equity). By establishing separate organizations to manage its private equity investments, CalPERS allows itself to "be the sole investor" in the two organizations "rather than being one of many investors in private equity funds under the present model."[141] Moreover, because employees at CalPERS-affiliated companies would not be state employees, they would not be subject to salary limits for public employees, an important financial consideration for attracting highly-trained employees. This unique structure highlights the further challenges in in-sourcing asset management. CalPERS has succeeded in significantly reducing external expenses by reducing external asset managers and moving to manage assets internally. CalPERS' investment fees and expenses decreased by approximately $280 million between 2010 and 2017.[142]

- **Alternative Investments:** Despite a sustained, years-long effort to reduce costs, CalPERS has not stepped away alternative investments. In fact, CalPERS has doubled down on illiquid alternatives, particularly in private equity. In early 2019, CalPERS began "moving to create two new ventures that could invest up to $20 billion outside of publicly traded stock markets."[143] By establishing separate organizations to manage private equity investments, CalPERS unlocks the ability to "be the sole investor … rather than being one of many."[144] would allow CalPERS to access exclusive high-return opportunities while eliminating the significant fees demanded by more traditional external private equity managers, thereby giving the fund "more flexibility and buying power in the growing private equity market."[145]

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[139] Ibid.

[140] Arleen Jacobius, "CalPERS not alone on private equity shift," *Pensions & Investments,* April 1, 2019, https://www.pionline.com/article/20190401/PRINT/190409988/calpers-not-alone-on-private-equity-shift.

[141] Venteicher, "CalPERS moving forward."

[142] CalPERS, "CalPERS Investment Office Saves Millions in Expenses over Six-Year Period; More Cost Effective than Peers," May 16, 2017, https://www.calpers.ca.gov/page/newsroom/calpers-news/2017/investment-office-saves-millions-over-six-years.

[143] Wes Venteicher, "CalPERS moving forward with $20 billion expansion of its private equity investments," *The Sacramento Bee,* March 18, 2019, https://www.sacbee.com/news/politics-government/the-state-worker/article228101409.html.

[144] Ibid.

[145] Ibid.

A.3 Ontario Teachers' Pension Plan (OTPP)

A.3.1 Background

The Ontario Teachers' Pension Plan (OTPP) is a large Canadian pension fund that manages retirement assets on behalf of 327,000 active and retired teachers.[149] The fund embodies the "Canadian Pension Model," which consists of two key components: (1) diversified portfolios and (2) in-house asset management to minimize investment expenses.[150] Various other public pension funds – including those examined in this report – have looked to OTPP's practices for strategic guidance.

Importantly, OTPP is the only fund examined in this report for which performance and expense data are drawn from calendar year 2018 (as opposed to July 1, 2017 – June 30, 2018). Given this discrepancy, readers should note the relevant market contexts when comparing OTPP's performance to the performance of other funds examined in this report.

Peer Fund Qualitative Overview (2017-18)[146]	
Total Members	327,000
Assets Under Mgmt. (Thousands USD)	144,000,000[147]
Unfunded Actuarial Accrued Liability (Thousands USD)	0
Funded Ratio (Assets as % of Obligations)	104%
Internal Management (% of Funds Under Mgmt.)	80%[148]
External Mgmt. Expenses (Thousands USD)	405,000
External Mgmt. Expenses (% of Assets)	0.28%

A.3.2 Asset Allocation & Investment Performance

Two key considerations stand out in OTPP's asset allocation: the large share of fixed income investments and the large share of alternative investments. OTPP allocates the majority of its fund to alternative investments, followed by fixed income, and finally public equity. It also allocates a significant portion of its assets to money markets (noted as short-term investments below). Table A-5 below depicts the fund's overarching asset allocation.

Table A-5. OTPP High Level Asset Allocation

Public Equities (%)	Fixed Income (%)	Alternatives (%)	Cash / Short Term (%)
17.0	41.0	74.0	-32.0[151]

Source: 2018 Annual Report

[146] Ontario Teachers' Pension Plan (OTPP), "2018 Annual Report: All the Right Elements," https://www.otpp.com/documents/10179/803025/Ontario+Teachers%27%20Pension+Plan+2018+Annual+Report/3cf8ee83-e3d0-40a6-a3d7-954ff32695c9.

[147] Approximate value. The precise conversion between Canadian Dollars and US Dollars depends on the relative strength of each currency, which fluctuates according to market demand.

[148] Wafra, "The Evolution of Pension Management: Building In-House Capabilities," 10, https://www.wafra.com/wp-content/uploads/2019/06/The-Evolution-of-Pension-Management_Building-In-House-Capabilities.pdf.

[149] Ontario Teachers' Pension Plan, "About Ontario Teachers," https://www.otpp.com/corporate/about-teachers.

[150] World Bank Group, "The Evolution of the Canadian Pension Model: Practical Lessons for Building World-class Pension Organizations," 8, http://documents.worldbank.org/curated/en/780721510639698502/pdf/121375-The-Evolution-of-the-Canadian-Pension-Model-All-Pages-Final-Low-Res-9-10-2018.pdf.

[151] OTPP's money market investment practices provide funding for investments in other asset classes.

OTPP's large share of fixed income investments reflects two factors. The first is the evolution of the fund's asset allocation over time. Prior to updating its investment management practices to reduce costs and diversify risk, OTPP pursued a 100% externally-managed fixed income portfolio.[152] As such, OTPP's large present-day fixed income allocation may reflect long-term reverberations of past investment policy, especially given that OTPP's shift toward new investment practices has been gradual.[153] The second factor is management's views on the current state of the global economy. In an October 9, 2019, interview, OTPP chief investment officer Ziad Hindo stated, "We are in the 10th or 11th year of the economic expansion. …You need fixed income. You need it because of a recession. You need it because of the trade war and tensions."[154] Put another way, OTPP believes its fixed income assets provide the fund with stability, a safeguard against stock market volatility and a potential economic downturn.

In terms of OTPP's alternative investments, these investments primarily consist of private equity holdings (18%). They also include substantial shares of real estate holdings (15%), infrastructure investments (9%), and credit investments (8%). Like OTPP's fixed income investments, the fund's alternative investments reflect a desire to guard against the volatility of public capital markets.[155] By shifting assets to private markets, which are less accessible to other investors and therefore less exposed to the whims of the market, OTPP aims to eliminate short-term volatility and losses. Other large Canadian pension plans share OTPP's "large appetite for illiquid alternative investments."[156]

OTTP's asset allocation has generally led to strong performance over the past 10 years. Table A-6 below shows the fund's performance over time. OTPP's strong long-term performance suggests why other funds have looked to OTPP for strategic guidance.

Table A-6. OTPP Historical Performance

1 Yr. (%)	4 Yr. (%)	5 Yr. (%)	10 Yr. (%)	Since Inception (%)
2.5	7.1	8.0	10.1	9.7

Note: The fund was established in 1990.
Source: 2018 Annual Report

A.3.3 Asset Management Considerations

Given the Commission's focus on in-sourcing and cost reduction, this section provides additional details about OTTP's asset management practices as it relates to those areas. OTPP employs a largely in-sourced asset management strategy, also known as the "Canadian Pension Model." The list below provides further discussion of its in-sourcing and staffing.

In-Sourcing: As noted above, a central element of OTPP's investment strategy is managing assets in-house. Approximately 80% of OTPP's assets are currently managed internally. By building strong internal investment teams, OTPP avoids paying the high fees and expenses generally demanded by external asset managers. The fund also benefits from access to private markets, which are generally reserved for sophisticated and institutional investors, without having to pay the high fees and expenses demanded by external asset managers. Notably, OTPP still utilizes external management for portion (20%) of its assets. For these assets, the fund's strategy

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[152] Wafra, "The Evolution of Pension Management," 10.

[153] World Bank Group, "The Evolution of the Canadian Pension Model," 51.

[154] Zane Schwartz, "Ontario Teachers' has a $200-billion plan to survive the trade war," *Financial Post*, https://business.financialpost.com/technology/ontario-teachers-has-a-200-billion-plan-to-survive-the-trade-war.

[155] Amy Whyte, "Canadian Fund Dive Deeper into Alternatives, *Institutional Investor.* https://www.institutionalinvestor.com/article/b1flvk8lphjh44/Canadian-Funds-Dive-Deeper-Into-Alternatives.

[156] "U.S. Pensions Aim to Be More Like Canadian Funds," *Institutional Investor*, https://www.institutionalinvestor.com/article/b1505py0f5mpb1/us-pensions-aim-to-be-more-like-canadian-funds.

is to “selectively allocat[e] capital to key external managers in order to access specialized talent and investment opportunities where it is not efficient or practical to maintain the equivalent in-house.”[157]

In terms of internal management, OTPP re-emphasized its commitment to internal management strategies with the launch of the Teachers’ Innovation Platform, which specializes in “late-stage venture capital and growth equity investments in technology companies” in early 2019.[158] The World Bank notes that pension funds generally begin “the move to internal investments with more liquid investments such as public equities, then mov[e] to in-house … investment in alternative asset classes.”[159] The advent of the Teachers’ Innovation Platform therefore suggests the advanced nature of OTPP’s internal investment capabilities.

OTPP’s strategies to minimize external management costs and guard against market volatility are not cost free. To attract top talent capable of managing significant quantities of internal assets, OTPP must ensure that its salaries and benefits are competitive with those of other sophisticated investment institutions, including Wall Street firms. OTPP emphasizes that culture, compensation, and talent are “crucial” to the fund achieving its mission.[160] Specifically, OTPP cites the need to recruit highly-skilled staff globally, in Canada, Europe, and Asia.[161] To achieve this goal, “Canadian pension funds have ensured their pay is competitive with Bay Street, Toronto’s version of Wall Street. They pay a base salary, annual bonus, and long-term performance award.”[162]

OTPP’s commitment to in-house management is the fund’s most notable cost-reduction strategy. The fund regularly asserts its firm commitment to cost-effectiveness and states that “managing assets in-house … is a cost-effective means to implement Ontario Teachers' strategies.”[163] However, the fund’s “substantial investments in private assets and commitment to active management result in higher costs than if assets were deployed in lower-cost public securities and passive mandates” – a straightforward acknowledgement of the cost tradeoff that the fund faces in attempting to outperform public markets.[164]

[157] OTPP, “2018 Annual Report,” 23.

[158] Kirk Falconer, “Ontario Teachers’ unveils tech-focused VC, growth equity platform,” *PE Hub*, https://www.pehub.com/canada/2019/04/ontario-teachers-unveils-tech-focused-vc-growth-equity-platform/.

[159] World Bank Group, “The Evolution of the Canadian Pension Model,” 51.

[160] OTPP, “2018 Annual Report,” 6.

[161] Ibid.

[162] “Maple revolutionaries,” *The Economist, https://www.economist.com/finance-and-economics/2012/03/03/maple-revolutionaries.*

[163] OTPP, “2018 Annual Investment Report,” 22.

[164] Ibid.

A.4 New York City Employees' Retirement System (NYCERS)

A.4.1 Background

The New York City Employees' Retirement System (NYCERS) is a public pension fund that manages retirement assets on behalf of more than 350,000 active and retired city employees. Like the City of Los Angeles, New York City has separate pension funds for different departments and employees. For instance, it has a separate pension fund for its firefighters, police officers, and teachers. These funds operate autonomously, similar to LACERS and LAFPP.

Notably, NYCERS' assets are predominately managed by external investment managers and has a strict policy on hedge fund holdings within its alternative investment asset allocations.[166] The sections below discuss these items further.

Peer Fund Qualitative Overview (2017-18)[165]	
Total Members	381,817
Assets Under Mgmt. (Thousands USD)	65,450,206
Unfunded Actuarial Accrued Liability (Thousands USD)	22,589,354
Funded Ratio (Assets as % of Obligations)	71%
Internal Management (% of Funds Under Mgmt.)	-
External Mgmt. Expenses (Thousands USD)	180,526
External Mgmt. Expenses (% of Assets)	0.28%

A.4.2 Asset Allocation & Investment Performance

NYCERS allocates most of its investments to public equities and fixed income. The allocation's most notable factor is its relative shortage of alternative asset holdings, which is can be explained, at least partially, by the fund's decision to divest hedge fund holdings. Table A-7 depicts the fund's overarching asset allocation.

Table A-7. NYCERS High Level Asset Allocation

Public Equities (%)	Fixed Income (%)	Alternatives (%)	Cash / Short Term (%)
47.8	34.3	15.5	2.4

Source: 2018 Comprehensive Annual Financial Report

The fund has maintained a return of seven to eight percent in each period studied. Despite having a relatively small alternative investment allocation and most of its fund predominately outsourced, the fund has outperformed most of its peers in this particular study. Table A-8 below depicts the fund's performance over time.

Table A-8. NYCERS Historical Performance

1 Yr. (%)	3 Yr. (%)	5 Yr. (%)	10 Yr. (%)	Since Inception (%)
8.6	7.8	8.7	7.1	-

Source: 2018 Comprehensive Annual Financial Report

[165] New York City Employees' Retirement System (NYCERS), "2018 Comprehensive Annual Financial Report," https://www.nycers.org/comprehensive-annual-financial-report.
[166] New York City Comptroller, "Pension / Investment Management," https://comptroller.nyc.gov/services/financial-matters/pension/overview/.

A.4.3 Asset Management Considerations

Given the Commission's focus on in-sourcing and cost reduction, this section provides additional details about NYCERS's asset management practices as it relates to those areas. NYCERS employs largely outsourced asset management strategy and has strict provisions when it comes to alternative investments. The list below provides further discussion of its in-sourcing and staffing.

- ***In-Sourcing:*** As noted above, NYCERS does not generally in-source its investment management activities. This may be a function of the fund's scale (in terms of assets under management). According to a 2018 report on public pension management conducted by Pennsylvania's state government, "Internal investment management has generally been restricted to investors larger than $25 billion."[167] In other words, economies of scale are relevant when deciding whether to in-source or outsource asset management.

  Both NYC Fire and NYCERS have previously come under fire for its mostly outsource investment management strategy. For example, in the past five years, the New York Times and the New Yorker authored reports titled, "*Is Wall Street Robbing New York City's Pension Funds*" and "*New York City Pension System Is Strained by Costs and Politics*."[168,169] Both articles highlighted New York City's growing external management costs and the challenges with changing its structure to reduce costs and UAAL. Most notably, the New York City Pension Funds do not appear to have changed its investment or governance strategy, likely due to political challenges.

- ***Alternative Investments:*** As noted above, NYCERS' trustees voted in April 2016 to "liquidate its hedge fund holdings."[170] The decision resulted from the fund's hedge fund investments underperforming benchmarks while maintaining unjustifiably-high fees.[171] The situation demonstrates NYCERS' attentiveness to the cost-effectiveness of its assets and a willingness to take action to ensure that investments meet their benchmarks while imposing only reasonable fees and expenses on the fund's management.

  Notably, the fund did not decide to liquidate its private equity investments, which comprise approximately 15% of the fund's total assets. This consideration suggests that fund management and trustees did not conclude that private equity assets were similarly underperforming while racking up costs. With the decision to liquidate hedge fund holdings, NYCERS established a trajectory toward private equity acting as the only alternative asset in the fund's portfolio.

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[167] Public Pension Management and Asset Investment Review Commission, "Final Report and Recommendations," December 2018, 237, https://www.psers.pa.gov/About/Investment/Documents/PPMAIRC%202018/2018-PPMAIRC-FINAL.pdf.

[168] Davies, Dan, Is Wall Street Really Robbing New York City's Pension Funds, April 20, 2015, The New Yorker, https://www.newyorker.com/business/currency/is-wall-street-really-robbing-new-york-citys-pension-funds.

[169] Chen, David W and Walsh, Mary Williams, New York City Pension System Is Strained by Costs and Politics, August 3, 2014, The New York Times, https://www.nytimes.com/2014/08/04/nyregion/new-york-city-pension-system-is-strained-by-costs-and-politics.html.

[170] Robert Steyer, "NYCERS pulls the plug on hedge funds," *Pensions & Investments,* April 18, 2016, https://www.pionline.com/article/20160418/PRINT/304189975/nycers-pulls-the-plug-on-hedge-funds.

[171] Ibid.

A.5 Los Angeles County Employees Retirement Association (LACERA)

A.5.1 Background

Peer Fund Qualitative Overview (2017-18)[172]	
Total Members	171,824
Assets Under Mgmt. (Thousands USD)	56,300,000
Unfunded Actuarial Accrued Liability (Thousands USD)	13,144,496
Funded Ratio (Assets as % of Obligations)	80%
Internal Management (% of Funds Under Mgmt.)	0%
External Mgmt. Expenses (Thousands USD)	287,650
External Mgmt. Expenses (% of Assets)	0.51%

The Los Angeles County Employees Retirement Association (LACERA) is a public pension fund that manages retirement assets on behalf of approximately 172,000 current and retired county employees. LACERA is the closest (in distance) to LACERS and LAFPP. It also has reciprocity with LACERS and CalPERS, meaning that employees from one system can move to the other to preserve and enhance their benefits.

Notably, LACERA is the largest fund examined in this report to rely on external management for 100 percent of its assets.[173] However, the fund has recently evaluated establishing an internal team to manage some co-investment activities.[174]

A.5.2 Asset Allocation & Investment Performance

LACERA maintains an asset allocation that is relatively similar with the peer funds in this report, with near-peer-average holdings across all asset classes. It specifically allocates almost 50 percent of its assets in public equities and approximately 25 percent to fixed income and alternative investments. It allocates no assets to cash or short-term investments. Table A-9 below depicts the fund's overarching asset allocation.

Table A-9. LACERA High Level Asset Allocation

Public Equities (%)	Fixed Income (%)	Alternatives (%)	Cash / Short Term (%)
46.3	26.8	26.9	-

Source: It Adds Up: 2018 Annual Report

With this asset allocation, the fund slightly outperformed peer averages in near-term periods, including in the past one, three, and five years. However, the fund slightly underperformed the peer average over a 10-year period. This may reflect recent adjustments in asset allocations and/or broader market changes. Table A-10 below shows the fund's performance over time.

[172] Los Angeles County Employees Retirement Association (LACERA), "It All Adds Up: 2018 Annual Report," https://www.lacera.com/investments/Annual_Report/cafr/cafr.pdf.

[173] The New York City Employees' Retirement System states only that their assets "are managed predominantly by external investment managers," suggesting some role for internal management. The fund did not state a specific internal-external breakdown.

[174] Los Angeles County Employees Retirement Association (LACERA), "Agenda: A Regular Meeting of the Equity: Public/Private Committee and Board of Investments*," November 8, 2018, https://www.lacera.com/about_lacera/boi/meetings/equity/2018-11-08-equity_agnd.pdf.

Table A-10. LACERA Historical Performance

1 Yr. (%)	3 Yr. (%)	5 Yr. (%)	10 Yr. (%)	Since Inception (%)
9.0	7.4	8.5	6.3	-

Source: It Adds Up: 2018 Annual Report

A.5.3 Asset Management Considerations

Given the Commission's focus on in-sourcing and cost reduction, this section provides additional details about NYCERS's asset management practices as it relates to those areas. LACERA employs an entirely outsourced asset management strategy. The list below provides further discussion of its in-sourcing and staffing.

- ***In-Sourcing:*** LACERA does not currently manage any assets in-house.[175] However, in 2018 LACERA considered "the costs and benefits of managing co-investments internally" and determined that doing so would result in savings of $350 million over 15 years.[176] The fund also notes that the move would lead to "enhanced investment culture and image," suggesting the association between sophisticated pension funds and internal asset management. However, LACERA estimates that shifting assets toward internal management would require increasing levels of investment, legal, and accounting staff over time."[177] Notably, they also concluded that "LACERA has the necessary experience and resources internally to develop and manage an in-house co-investment program," suggesting that it has the ability to attract top-tier investment professionals at public pension funds with generally stringent salary systems. The fund specifically cites its team's knowledge of "direct and co-investment skills" and "how to build and manage diversified portfolios."[178] Nonetheless, more than a year later, the fund's assets remain entirely externally managed.

[175] Email from LACERA staff.
[176] LACERA, "Agenda," 13.
[177] Ibid., 26.
[178] Ibid.

A.6 New York City Fire Pension Fund (NYC Fire)

A.6.1 Background

Peer Fund Qualitative Overview (2017-18)[179]	
Total Members	27,677
Assets Under Mgmt. (Thousands USD)	15,531,200
Unfunded Actuarial Accrued Liability (Thousands USD)	9,042,978
Funded Ratio (Assets as % of Obligations)	64%
Internal Management (% of Funds Under Mgmt.)	-
External Mgmt. Expenses (Thousands USD)	90,109
External Mgmt. Expenses (% of Assets)	0.58%

Similar to LAFPP, the New York City Fire Pension Fund (NYC Fire) is a public pension fund that manages retirement assets on behalf of its nearly 28,000 retired and active firefighters. Its assets "are managed predominantly by external investment managers, like its sister portfolio, NYCERS."[180] Furthermore, like LACERS and LAFPP, NYC Fire and NYCERS operate separately and provide benefits and services to different employees for New York City.

Like NYCERS and the other New York City pension funds, NYC Fire has been criticized for its underfunding of its pension plans and its externally outsourced asset management strategy. However, the fund has yet to adjust its in-sourcing and outsourcing policy. This case study provides additional details about the asset management challenges NYC Fire and other New York City pension funds have faced.

A.6.2 Asset Allocation & Investment Performance

NYC Fire's asset allocation closely resembles the average peer panel allocations in this study. It allocates approximately 40 percent of its assets to public equities, 25 percent to fixed income, and 30 percent to alternatives. It also allocates less than five percent of its assets to cash or short-term investments. below shows NYCERS' overarching asset allocation. Table A-11 below shows NYC Fire's asset allocation.

Table A-11. NYC Fire High Level Asset Allocation

Public Equities (%)	Fixed Income (%)	Alternatives (%)	Cash / Short Term (%)
41.8	24.1	31.92	2.23

Source: Comprehensive Annual Financial Report

The asset allocation above has led to relatively high performance in the past year. The fund has also slightly outperformed the peer averages in this study over the past decade. Table A-12 below depicts the fund's performance over time.

Table A-12. NYC Fire Historical Performance

1 Yr. (%)	3 Yr. (%)	5 Yr. (%)	10 Yr. (%)	Since Inception (%)
9.3	7.7	8.9	7.1	-

[179] New York City Fire Pension Funds, "Comprehensive Annual Financial Report:," https://www1.nyc.gov/assets/fdny/downloads/pdf/about/fire-pension-fund-cafr.pdf.
[180] New York City Comptroller, "Pension / Investment Management,"

A.6.3 Asset Management Considerations

Given the Commission's focus on in-sourcing and cost reduction, this section provides additional details about NYC Fire's asset management practices as it relates to those areas. NYC Fire employs an entirely outsourced asset management strategy. The list below provides further discussion of its in-sourcing.

- ***In-Sourcing:*** As noted above, NYC Fire generally outsources its investment management activities, like its similarly sized peers. Both NYC Fire and NYCERS have previously come under fire for its mostly outsource investment management strategy. For example, in the past five years, the New York Times and the New Yorker authored reports titled, "*Is Wall Street Robbing New York City's Pension Funds*" and "*New York City Pension System Is Strained by Costs and Politics*."[181,182] Both articles highlighted New York City's growing external management costs and the challenges with changing its structure to reduce costs and UAAL. Most notably, the New York City Pension Funds do not appear to have changed its investment or governance strategy, likely due to political challenges.

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[181] Davies, Dan, Is Wall Street Really Robbing New York City's Pension Funds, April 20, 2015, The New Yorker, https://www.newyorker.com/business/currency/is-wall-street-really-robbing-new-york-citys-pension-funds.

[182] Chen, David W and Walsh, Mary Williams, New York City Pension System Is Strained by Costs and Politics, August 3, 2014, The New York Times, https://www.nytimes.com/2014/08/04/nyregion/new-york-city-pension-system-is-strained-by-costs-and-politics.html.

A.7 San Diego City Employees' Retirement System (SDCERS)

A.7.1 Background

The San Diego City Employees' Retirement System (SDCERS) is a small public pension fund that manages retirement assets on behalf of approximately 21,000 active and retired city employees. Unlike LACERS, LAFPP, NYCERS, and NYC Fire, SDCERS provides benefits to all city employees, including general policy, fire, lifeguard, and elected officials. Notably, SDCERS is the smallest fund examined in this report and does not in-source any of its fund management.[184]

Peer Fund Qualitative Overview (2017-18)[183]	
Total Members	20,786
Assets Under Mgmt. (Thousands USD)	8,082,180
Unfunded Actuarial Accrued Liability (Thousands USD)	2,915,532
Funded Ratio (Assets as % of Obligations)	78%
Internal Management (% of Funds Under Mgmt.)	0%
External Mgmt. Expenses (Thousands USD)	35,586
External Mgmt. Expenses (% of Assets)	0.44%

In general, SDCERS and the City of San Diego have been focused on other, non-asset management related, cost reduction strategies over the past decade. Specifically, voters passed a proposition to replace Civil Service employee pensions (e.g. defined benefit plans) with 401(k) style programs (e.g. defined contribution plans). However, this change has come under fire by unions and the California Supreme Court recently ruled that the measure was illegal.[185] This proposition has dominated the news about SDCERS and therefore, there is notably less information about its asset management strategy.

A.7.2 Asset Allocation & Investment Performance

SDCERS maintains a similar asset allocation to its peer in this study. It currently allocates almost 45 percent of its assets to equities, 20 percent to fixed income, and 30 percent to alternatives. It also allocates less than five percent of its portfolio to cash and short-term investments. Table A-13 below depicts the fund's overarching asset allocation.

Table A-13. SDCERS High Level Asset Allocation

Public Equities (%)	Fixed Income (%)	Alternatives (%)	Cash / Short Term (%)
44.5	22.9	30.4	2.2

Source: SDCERS Comprehensive Annual Financial Report for Fiscal Year Ended June 30, 2018

In the short term, SDCERS has achieved an eight percent return on its investments. It has maintained a similar level of return over the past decade. Table A-14 below depicts the fund's performance over time.

[183] San Diego City Employees' Retirement System (SDCERS), "Comprehensive Annual Financial Report for the Fiscal Year Ended June 30, 2018," https://www.sdcers.org/Investments/Annual-Reports/Current-Year-(1)/SDCERS-FY-2018-CAFR.aspx.

[184] Public Pension Management and Asset Investment Review Commission, "Final Report and Recommendations," 237.

[185] Lewis, Scott, The City Flipped on Prop. B – But it Doesn't Change Much Yet, Voice of San Diego, June 10, 2019, https://www.voiceofsandiego.org/topics/government/the-city-flipped-on-prop-b-but-it-doesnt-change-much-yet/.

Table A-14. SDCERS Historical Performance

1 Yr. (%)	3 Yr. (%)	5 Yr. (%)	10 Yr. (%)	Since Inception (%)
8.2	7.5	8.4	6.9	-

Source: SDCERS Comprehensive Annual Financial Report for Fiscal Year Ended June 30, 2018

A.7.3 Asset Management Considerations

Given the Commission's focus on in-sourcing and cost reduction, this section provides additional details about SDCERS' asset management practices as it relates to those areas. SDCERS employs an entirely outsourced asset management strategy. The list below provides further discussion of its in-sourcing.

- ***In-Sourcing:*** As stated above, SDCERS relies on external management for 100% of its assets.[186] Navigant found little information about SDCERS asset management strategy and/or plans to change it. As mentioned previously, this may be the result of San Diego's focus on Proposition B and adjusting fundamental aspects of its pension plan.

[186] Email from SDCERS staff.

CITY PENSION FUND MANAGEMENT STUDY ADDITIONAL SCOPE

DRAFT FINDINGS

JANUARY 13, 2020

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EXECUTIVE SUMMARY

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STUDY BACKGROUND & SCOPE

The Commission on Revenue Generation (Commission) asked Navigant to assess the potential savings of select strategies as an add-on to Navigant's initial City Pension Management Study. These strategies include:

City Pension Add-On Study Scope

No.	Strategy	Commission Description
1	Establish Separate Accounts for Indexed Fixed Income and Equities Investments	Separate accounts vs. co-mingled accounts would give the city beneficial ownership and control over their assets for lowering costs, exercising proxy voting rights and increasing securities lending revenues.
2	Leverage Co-Investing for Private Equity Investments	Co-investing alongside current private equity managers offers opportunity to participate in private equity ventures with no management fee or carried interest obligation.
3	Establish Cash Overlay Program	Implementing a cash overlay program to generate additional revenue and thereby reduce cash management costs.
4	Increase Manager Diversity	Increase manager diversity in the investment portfolio, in accordance with 20 years of research which concludes that more diverse management teams produce better financial results across all industries.
5	Invest in Ongoing Research and Peer Reviews	Invest in ongoing research and peer reviews to insure that the best in-class management strategies are employed.

Source: Commission on Revenue Generation, Pension Fund Forecasting Analytical Tool

SAVINGS ANALYSIS APPROACH

Navigant used a three-step approach to determine potential savings for each strategy on the Commission's proposed list.

Gather Data

(1) Research costs and savings data

(2) Review LACERS and LAFPP data related to each strategy

(3) Interview LACERS and LAFPP to supplement data collection

Determine Savings

(1) Identify baseline for each strategy

(2) Identify costs and savings from research based on realistic investments

(3) Determine or discuss potential savings

Develop Conclusions

(1) Based on the outputs from Step 2, identify viable strategies for LACERS and LAFPP to pursue

This approach resulted in a *range* of potential outcomes for strategies, where possible. In some cases, Navigant was not able to quantify savings and instead, provided a qualitative discussion of the strategy.

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ANALYSIS CONCLUSIONS

Navigant developed high-level conclusions for each proposed strategy. Based on its study, Navigant suggests the funds explore co-investing and cash overlay programs further to identify how the strategies align to their current investment policies.

No.	Strategy	Potential Benefit
1	Establish Separate Accounts for Indexed Fixed Income and Equities Investments	**No potential benefit** – LACERS and LAFPP already use separate accounts.
2	Leverage Co-Investing for Private Equity Investments	**Potential benefit** – Based on high-level estimates LACERS and LAFPP may achieve benefits from co-investing and cash overlay programs. However, both funds need to conduct additional research about how these strategies align with their current investment policies. Notably, LACERS has already begun looking into both these opportunities.
3	Establish Cash Overlay Program	
4	Increase Manager Diversity	**Inconclusive** – LACERS and LAFPP already have emerging manager programs (which help to spur diversity). Data on costs and returns on these programs are mixed.
5	Invest in Ongoing Research and Peer Reviews	**Inconclusive** – LACERS and LAFPP already invest in research. There was no publicly available data on how additional research can contribute to savings.

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DETAILED ANALYSIS

STUDY BACKGROUND & SCOPE

The Commission on Revenue Generation (Commission) asked Navigant to assess the potential savings of select strategies as an add-on to Navigant's initial City Pension Management Study. These strategies include:

City Pension Add-On Study Scope

No.	Strategy	Commission Description
1	Establish Separate Accounts for Indexed Fixed Income and Equities Investments	Separate accounts vs. co-mingled accounts would give the city beneficial ownership and control over their assets for lowering costs, exercising proxy voting rights and increasing securities lending revenues.
2	Leverage Co-Investing for Private Equity Investments	Co-investing alongside current private equity managers offers opportunity to participate in private equity ventures with no management fee or carried interest obligation.
3	Establish Cash Overlay Program	Implementing a cash overlay program to generate additional revenue and thereby reduce cash management costs.
4	Increase Manager Diversity	Increase manager diversity in the investment portfolio, in accordance with 20 years of research which concludes that more diverse management teams produce better financial results across all industries.
5	Invest in Ongoing Research and Peer Reviews	Invest in ongoing research and peer reviews to insure that the best in-class management strategies are employed.

Source: Commission on Revenue Generation, Pension Fund Forecasting Analytical Tool

SAVINGS ANALYSIS APPROACH

Navigant used a three-step approach to determine potential savings for each strategy on the Commission's proposed list.

Gather Data

(1) Research costs and savings data

(2) Review LACERS and LAFPP data related to each strategy

(3) Interview LACERS and LAFPP to supplement data collection

Determine Savings

(1) Identify baseline for each strategy

(2) Identify costs and savings from research based on realistic investments

(3) Determine or discuss potential savings

Develop Conclusions

(1) Based on the outputs from Step 2, identify viable strategies for LACERS and LAFPP to pursue

This approach resulted in a *range* of potential outcomes for strategies, where possible. In some cases, Navigant was not able to quantify savings and instead, provided a qualitative discussion of the strategy.

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1. SEPARATE ACCOUNTS

Separate accounts for indexed equities and fixed income will **not** provide additional savings, given that both LACERS and LAFPP already use separate accounts for these investments.

Savings Modeling Assumptions

- Baseline: LACERS and LAFPP use separate accounts for its indexed equities and fixed income to the extent possible.
- Investment: NA
- Costs: NA
- Returns: NA

	LACERS	LAFPP
Investment (Thousands $)	LACERS already uses separate accounts for indexed equities and fixed income.	LAFPP already uses separate accounts for indexed equities and fixed income.
Costs* (Thousands $)	NA	NA
Returns Thousands ($)	NA	NA
Net Annual Benefit (Thousands $)	NA	NA

Source: LACERS and LAFPP Interviews

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2. CO-INVESTING

Co-Investing may result in significant savings for LACERS and LAFPP, depending on the amount invested and lifetime returns on investments.* For instance, if LACERS and LAFPP co-invested 35% of their current private equity investments, they could save over $5 M on management fees and 10-20% on current carried interest fees.**

Savings Modeling Assumptions

- Baseline: LACERS and LAFPP currently pay a *management fee* of 2% of assets under management and a *carried interest fee* of 20% on returns over a specific benchmark.
- Investment: We assumed LACERS and LAFPP would move 35% of its assets to co-investments, based on a recent LACERS report.
- Costs: Fees for the two cost components may vary.
  - Management Fee (MF): 0% - 1%.
  - Carried Interest Fees (CIF): 0% 10%.
- Returns:
  - Assumed to have the same returns as current private equity investments.

	LACERS	LAFPP
Investment (Thousands $)	$612,475	$773,665
Costs* (Thousands $)	MF: $0 - $6,125 CIF: 0% - 10% of returns over benchmark	MF: $0 - $7,737 CIF: 0%- 10% of returns over benchmark
Returns Thousands ($)	NA (No additional returns)	NA (No additional returns)
Net Annual Benefit (Thousands $)	MF: $6,000 – $12,125+ CIF: 10-20% savings over current payments**	MF: $5,745 - $13,485+ CIF: 10-20% savings over current payments**

*Private equity investments generally range from 10-15 years.
**Navigant did not calculate CIF payments due to the lack of historic data available from LACERS and LAFPP on these payments, given these types of investments are relatively new.

Source: LACERS and LAFPP Interviews; LACERS Co-Investing Report

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3. CASH OVERLAY PROGRAM

A cash overlay program can result in upwards of $8-10 million dollars annually for LACERS and LAFPP, respectively based on data from recent LACERS, Fresno County CERA, and LACERA reports.

Savings Modeling Assumptions

- Baseline: LACERS and LAFPP currently do not have a cash overlay program.
- Investment: 0.5% - 2.0% of total assets under management (AUM).
- Costs: 0.06% of AUM (of asset class).
- Returns: 0.05 – 0.60% of total AUM.

	LACERS	LAFPP
Investment (Thousands $)	$88,465 - $353,860	$111,640 - $446,560
Costs* (Thousands $)	$55 – $210	$65 – $270
Returns Thousands ($)	$8,845 - $106,160	$11,165 - $133,970
Net Annual Benefit (Thousands $)	**$8,635 – $106,105**	**$10,895 – $133,905**

Source: LACERS and LAFPP Interviews; LACERS, Fresno County CERA, and LACERA

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4. INCREASE MANAGER DIVERSITY

Research on the potential savings and increased returns from emerging manager programs is inconclusive, based on LACERS and LAFPP's historical experience and recent industry news.

Emerging Manager Program Background: Consistent with California law, LACERS and LAFPP do not grant preferential treatment on the basis of race, gender…etc. when selecting external investment managers. CA funds, like LACERS and LAFPP, instead define firms by their size – e.g. small and emerging -- and have developed programs to allocate a portion of its funds to these managers.

- As of 2018, LACERS allocated 2.4% of its total AUM to emerging managers.
- As of 2018, LAFPP allocated 10.8% of its total AUM to emerging managers. LAFPP has one of the largest emerging manager programs in the country, according to staff and its website.

Potential Cost Savings: Although some research suggests funds may receive reduced fees (to offset the increased risk of investing with a newer manager or for being an early investor in funds), this has not been the experience for LACERS and LAFPP. The two funds pay roughly the same in fees to emerging managers as non-emerging managers. This suggests there are no cost savings for LACERS and LAFPP from this strategy.

Potential Return Generation: Although some research suggests that funds may receive higher returns by investing with emerging managers (due to their nimbleness and innovativeness), both LACERS and LAFPP have stated this has not been their experience overall. They both noted that *some* emerging managers may outperform their non-emerging manager counterparts, but others do not. This fact is supported by recent developments from CalPERS and Ohio PERS and their decisions to cut portions of their emerging manager programs due to underperformance.

Source: LACERS and LAFPP Interviews; CalPERS; Ohio PERS; Emerging Manager Principles from CalSTRS; Current Fund Terms for Small/Emerging Managers

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5. INVEST IN ONGOING RESEARCH

Navigant agrees that investing in peer reviews and ongoing research are best practice and based on its research, LACERS and LAFPP have already invested in both of these areas.

Ongoing Research Background: LACERS and LAFPP currently invest in ongoing research and peer reviews through two forums: (1) CEM Benchmarking and (2) investment consultant reports.

- CEM Benchmarking: With over 400 funds participating, CEM benchmarking is seen as an industry-leader in providing peer review research for pension funds. Furthermore, NYCRS released a statement, saying "CEM is the only vendor capable of providing comprehensive investment cost benchmarking services that utilize actual cost and performance data collected from large U.S. pension funds,“ highlighting the benefits of their study.
- Investment Consultant Reports: Both funds use investment consultants to provide ongoing research (in addition to other advisory services). To date, the funds spend $1.49 M, and $0.84 M on investment consultants, respectively.

Potential Cost Savings and Return Generation: Navigant agrees that investing in peer reviews and ongoing research are best practice and based on its research, LACERS and LAFPP have already invested in both of these areas. Research on the exact amount of benchmarking and research needed to generate cost savings and higher returns is not readily available.

Source: LACERS and LAFPP Interviews; NYCRS

ANALYSIS CONCLUSIONS

Navigant developed high-level conclusions for each proposed strategy. Based on its study, Navigant suggests the funds explore co-investing and cash overlay programs further to identify how the strategies align to their current investment policies.

No.	Strategy	Potential Benefit
1	Establish Separate Accounts for Indexed Fixed Income and Equities Investments	**No potential benefit** – LACERS and LAFPP already use separate accounts.
2	Leverage Co-Investing for Private Equity Investments	**Potential benefit** – Based on high-level estimates LACERS and LAFPP may achieve benefits from co-investing and cash overlay programs. However, both funds need to conduct additional research about how these strategies align with their current investment policies. Notably, LACERS has already begun looking into both these opportunities.
3	Establish Cash Overlay Program	
4	Increase Manager Diversity	**Inconclusive** – LACERS and LAFPP already have emerging manager programs (which help to spur diversity). Data on costs and returns on these programs are mixed.
5	Invest in Ongoing Research and Peer Reviews	**Inconclusive** – LACERS and LAFPP already invest in research. There was no publicly available data on how additional research can contribute to savings.

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REDUCING THE COSTS OF INVESTMENTS

REPORT BY COMMISSIONER WAYNE MOORE

Recommendation:

Reducing the costs of investments made by the City's 2 pension funds could increase total fund assets by $413 – $497 million, reduce unfunded liabilities by $253 to $300 million and reduce annual general fund amortization costs by $20 and $25 million. The Revenue Commission recommends the Mayor request the Los Angeles Fire and Police Pension Board and the Los Angeles City Employees Retirement System Board of Administration adopt plans to reduce their combined costs of investments by at least 10% within 5 years and issue a joint annual report on progress towards reaching that goal.

Background:

Over the next decade, institutional investors such as the City's two pension funds - Los Angeles City Employee Retirement System (LACERS) and Los Angeles Fire and Police Pension Board (LAFPP) - face a low investment return environment. Horizon Actuarial Services, LLC, in its 2019 Survey of Capital Market Assumptions, stated that the 10-year median annualized returns assumption was 6.6%, which is well below the City's actuarial assumption of 7.25%. While these assumptions are not predictive, they do drive institutional investors to accept higher risks and increased costs in search of higher investment returns to meet their return objectives. Alternatively, reducing costs and portfolio risks can help investors meet return objectives.

By reducing the costs of investment, net investment returns increase, which help close the gap between low return expectations and the required actuarial return objective. This also reduces the need for overall portfolio investment risk taking. Furthermore, reducing investment costs increase fund balances in the long term, decreasing the City's unfunded accrued actuarial pension liabilities (UAAL) and the annual cost of fully amortizing them. As of June 30, 2018 the City's UAAL for LACERS and LAFPP was $18.5 billion. The Fiscal Year 2019-20 City budget included $658 million for fully amortizing the UAAL. These annual amortization costs are funded through the City's general fund.

The Revenue Commission, with the help of Moss Adams, developed an Asset Management Cost Forecasting and Analytical Tool that allows users to assess the investment related costs of various asset allocation schemes and measure the impact on overall investment portfolio returns and projected fund balances. Investment-related costs include administration, consulting services, asset management fees and expenses, as well as performance fees. Administrative costs (labor and non-labor), consulting costs, and some asset management fees, expenses and performance fees are captured in the City's financial statements. However, some management expenses are netted from payments and distributions while some performance fees, such as carried interest, are not reported in the City's financial statements and are therefore not completely transparent.

REDUCING THE COSTS OF INVESTMENTS

REPORT BY COMMISSIONER WAYNE MOORE

Using the Asset Management Cost Forecasting and Analytical Tool, the Revenue Commission estimates that if investment-related costs were 10% less, i.e. 0.559% of assets under management vs. 0.621), over 10 years the City could increase total fund assets by $413 – $497 million, reduce unfunded liabilities by $253 to $300 million and reduce annual amortization costs by $20 and $25 million after using the following assumptions:

1. The June 30, 2018 total LACERS and LAFPP assets of $33.5 billion
2. The weighted administrative and management fees of both funds was 0.621% of total assets under management based on June 30, 2018 financial statements,
3. Forecasted investment returns of 6.25%, 7.25% and 8.25 %,

Reducing the cost of investing is a continuing, dynamic and intentional process. As asset allocations change and assets under management increase, opportunities to reduce costs also increase. The Revenue Commission engaged Navigant consultants to review current literature a and practices in cost reduction strategies. Some cost reduction strategies worth considering include:

1. Managing some assets directly with in-house management staff.
2. Creating a City of Los Angeles separate account for indexed equities and fixed-income investments. Separate accounts vs. co-mingled accounts would give the city beneficial ownership and control over their assets for lowering costs, exercising proxy voting rights and increasing securities lending revenues.
3. Co-investing alongside current private equity managers offers opportunities to participate in private equity ventures with no management fee or carried interest obligation, although with increased risk.
4. Implementing a cash overlay program to generate additional revenue and thereby reducing the opportunity costs of maintaining cash reserves.
5. Increasing manager diversity and inclusion in the investment portfolio, in accordance with 25 years of research which concludes that more diverse management teams produce better financial results across all industries.
6. Investing in ongoing research and peer reviews to insure that the best in-class investment management strategies are employed at the optimal cost vs. performance metrics.

Board Meeting: 06/09/20
Item VIII-B

TOWNSEND® GROUP
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Real Estate Portfolio

Performance Review

FOURTH QUARTER 2019

LACERS
LOS ANGELES CITY EMPLOYEES' RETIREMENT SYSTEM

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Portfolio Funding Status

- The following slides provide a review of key information pertaining to the Los Angeles City Employees' Retirement System ("LACERS") Real Estate Portfolio (the "Portfolio") through December 31, 2019. A detailed performance report is also provided as **Exhibit A.**
- The System is below its 7.0% target to Real Estate as of year-end on a funded and committed basis. The target allocation was increased from 5.0% in April 2018.

	Market Value ($ millions)*	% LACERS Plan*
LACERS Total Plan Assets	18,868	
Real Estate Target	1,321	7.0%
RE Market Value:		
Core	572	
Non-Core	185	
Timber	19	
Total RE Market Value	777	4.1%
Unfunded Commitments	119	0.6%
RE Market Value & Unfunded Commitments	896	4.7%
Remaining Allocation	425	2.3%

*Figures may not add due to rounding.

Real Estate Portfolio Composition

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	Strategic Targets		Portfolio Composition (12/31/2019)*	
	Target Allocation	Tactical Range	Market Value	Market Value & Unfunded Commitments
Core	**60%**	**40% - 80%**	**73.7%**	**65.9%**
Non-Core	**40%**	**20% - 60%**	**23.9%**	**31.9%**
Value Add Portfolio	*N/A*	*N/A*	*12.2%*	*17.1%*
Opportunistic Portfolio	*N/A*	*N/A*	*11.7%*	*14.8%*
Timber	**N/A**	**N/A**	**2.5%**	**2.1%**

- 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 2015, in an effort to transition the Portfolio, the LACERS Board has approved $255 million in Core commitments**, which have all been fully funded to date, with the exception of Kayne Anderson Core Real Estate Fund.
- The LACERS Board approved approximately $220 million in Non-Core investments** since 2015. These investments 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 near strategic targets, but slightly below the Non-Core target.
- The Core Portfolio utilizes 25.9% leverage, measured on a loan-to-value (LTV) basis, well below the 40.0% constraint.
- The Non-Core Portfolio has a 47.1% LTV ratio, well below the 75.0% constraint.

*Figures may not add due to rounding.
** As of 12/31/2019.

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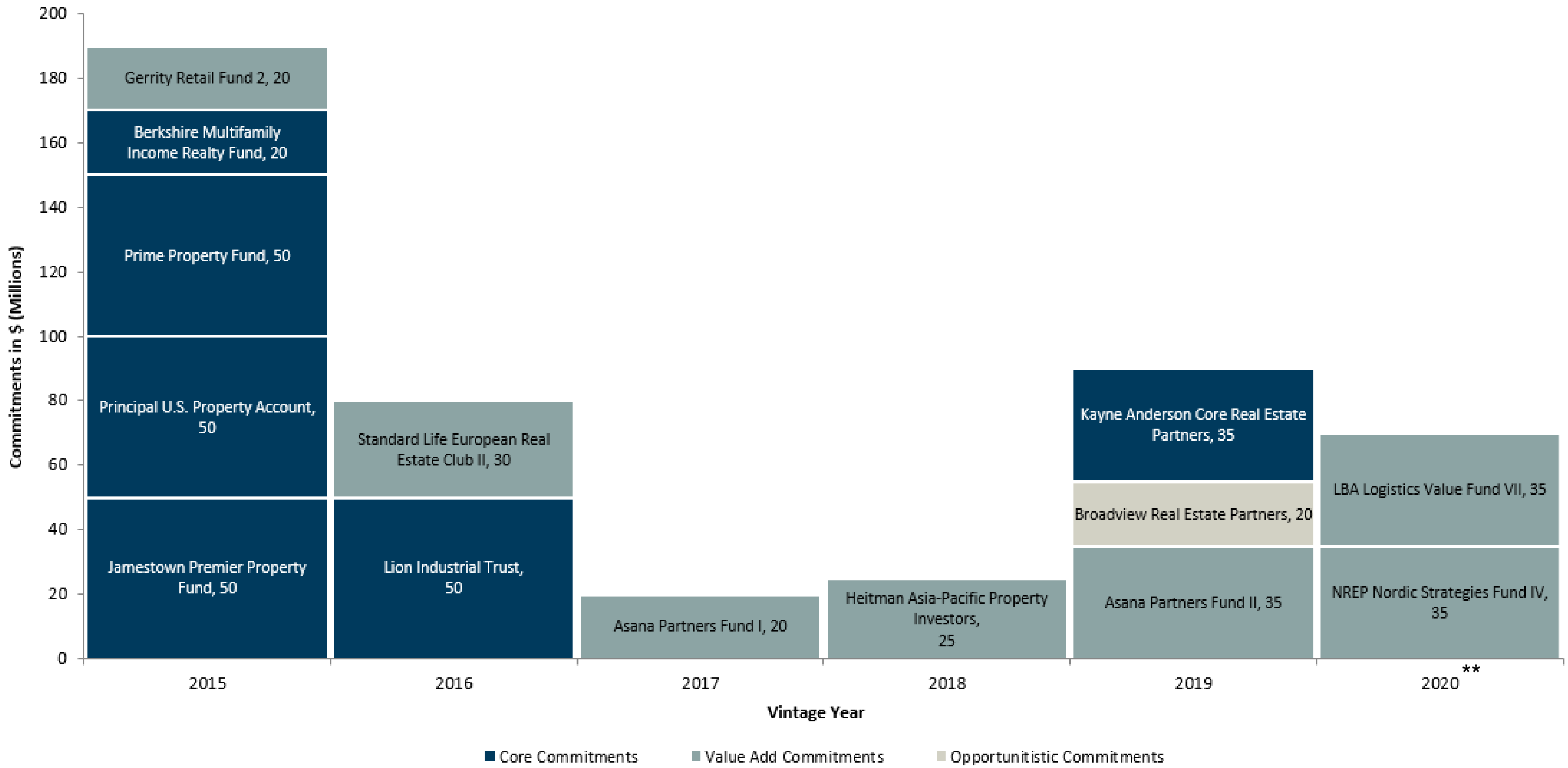
LACERS Commitment Activity Under Townsend Advisory – Last Five Years



- LACERS has committed $475 million* since 2015, all of which has been Townsend-initiated activity.
- Three Non-Core commitments since 2015 (Gerrity, Asana and Broadview) met LACERS' Emerging Manager guidelines.
  - In the Core Open-End Commingled Fund (OECF) 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.

*Commitment amounts as of 4Q19.

**Inclusive of investments made prior to 12/31/19.

Projected Non-Core Liquidations

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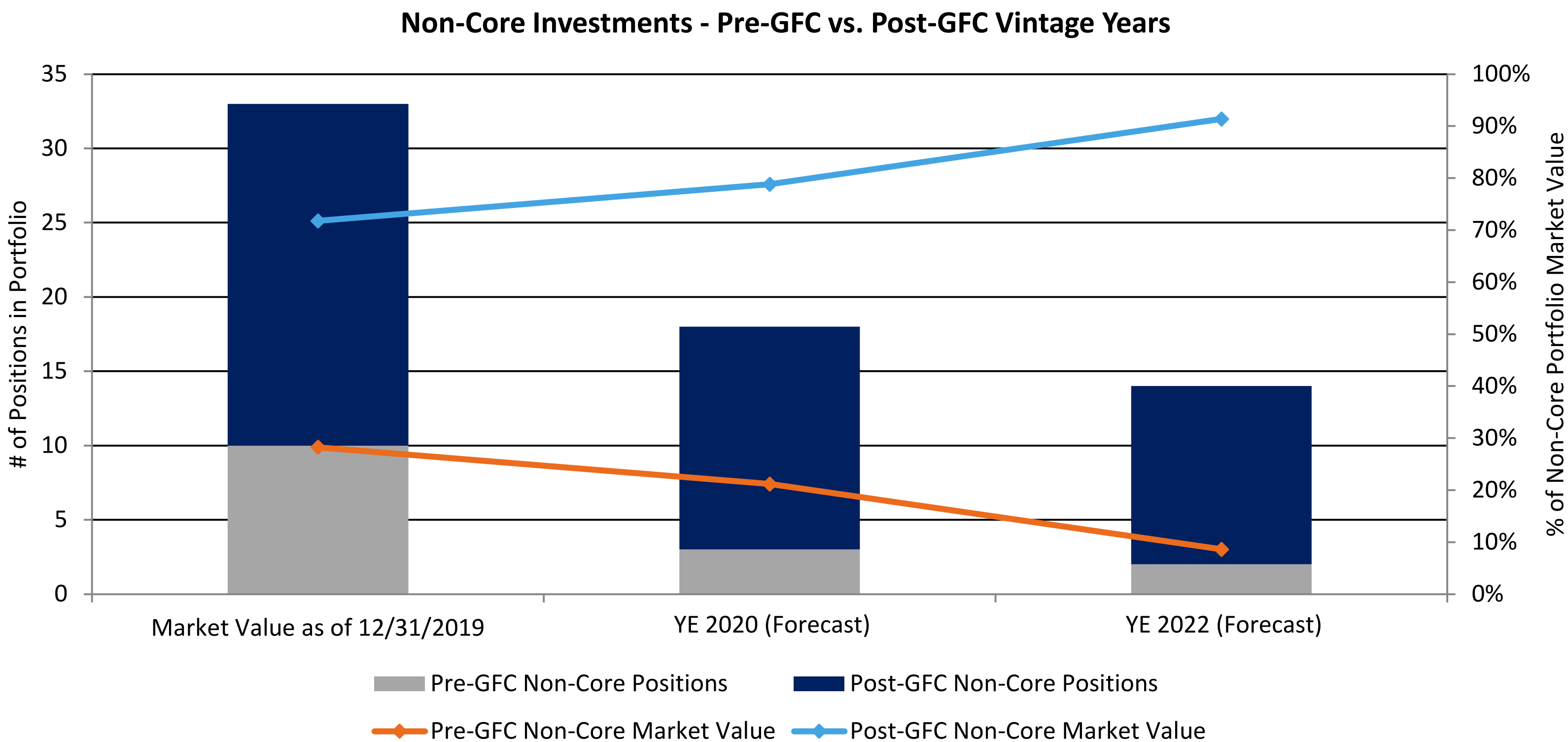

- 15 out of 33 Non-Core funds are projected to liquidate through year-end 2020. 19 Non-Core positions are expected to liquidate through year-end 2022.
- The number of Pre-Global Financial Crisis ("Pre-GFC") Non-Core positions is also projected to decrease significantly over the next few years. Only three of the Non-Core investments made before the Global Financial Crisis are projected to remain through year-end 2020 (two through year-end 2022). As of 12/31/19, there are still 10 Pre-GFC Non-Core positions in the portfolio.
- The Non-Core Portfolio, which currently consists of 31.7% Pre-GFC investments on a market value basis, is projected to be composed predominantly of Post-GFC investments by year-end 2022 (91.4% of projected market value).

Total Portfolio Performance

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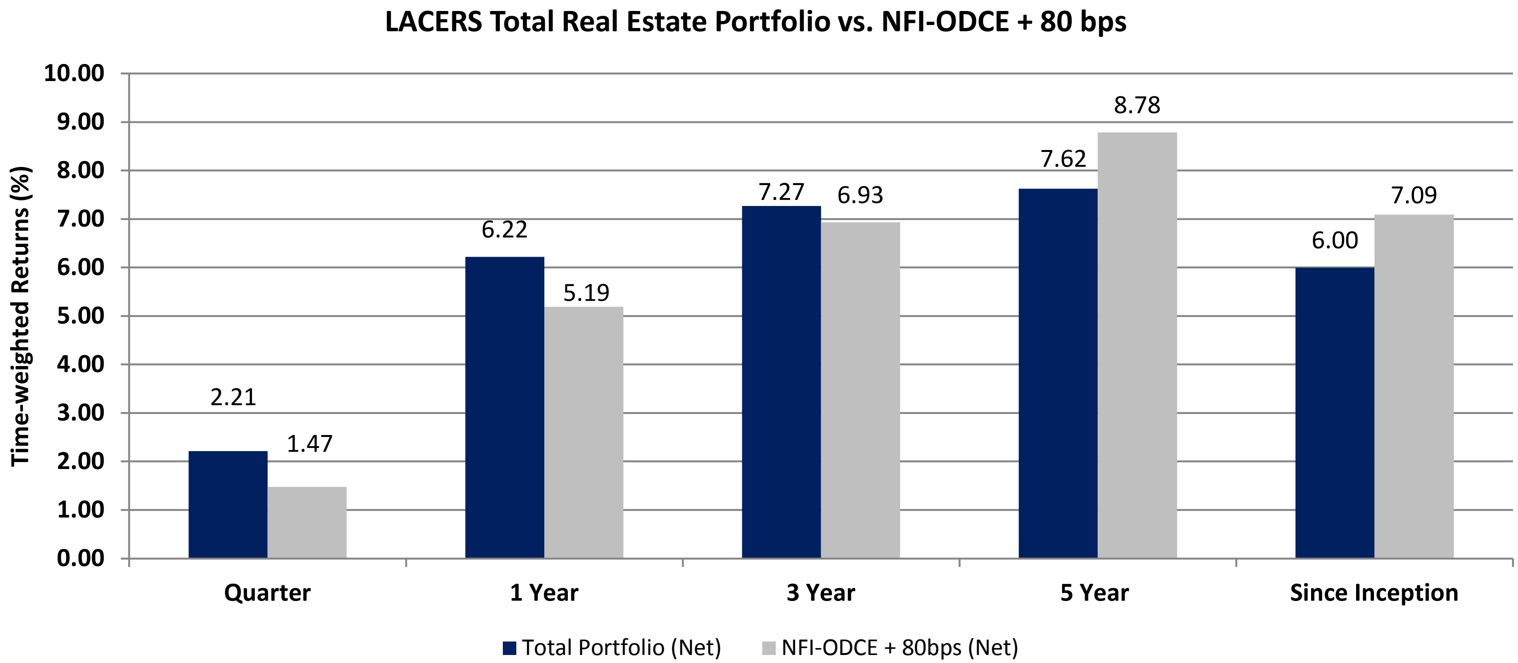

- The benchmark for the LACERS Total Real Estate Portfolio is the NCREIF Fund Index of Open-End Diversified Core Equity funds (NFI-ODCE) + 80 basis points ("bps"), measured over 5-year time periods, net of fees (defined below). LACERS has underperformed over the 5-year and since-inception periods, mostly due to weak performance of Non-Core legacy funds. However, investments made since 2014 are outperforming the benchmark, as detailed on page 8.
- When the LACERS benchmark was restructured in 2014, Townsend advised the Board that it could take up to five years for outperformance to begin, given the heavy concentration in Non-Core legacy funds that were expected to underperform until liquidation.
- The NFI-ODCE is a Core index that includes Core open-end diversified funds with at least 95% of their investments in US markets. The NFI-ODCE is the first of the NCREIF Fund Database products, created in May 2005, and is an index of investment returns reporting on both a historical (back to 1978) and current basis (24 active vehicles), utilizing approximately 21.5% leverage.
  - The 80 basis point ("bps") premium is a reflection of the incremental return expected from Non-Core exposure in the Portfolio, which is not included in the NFI-ODCE.

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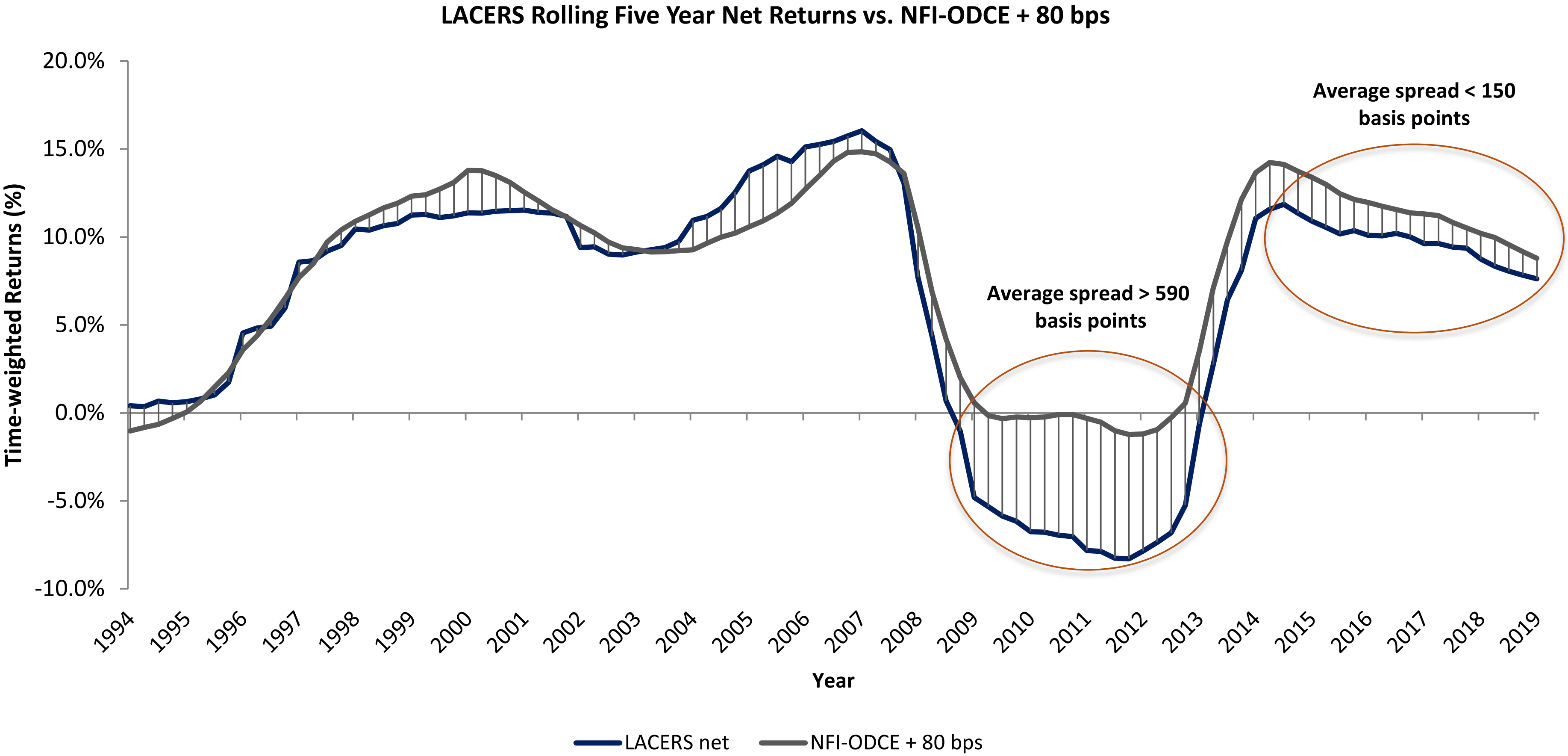
Improving Relative Total Portfolio Performance



- The chart above displays rolling 5-year time-weighted returns for the Total LACERS Portfolio, net of fees, relative to the benchmark.
- While LACERS continues to underperform the benchmark on a rolling 5-year basis, LACERS' average spread to the benchmark is trending downwards. Performance should continue to improve as accretive investments approved since 2014 continue to fund into the Portfolio and legacy investments fully liquidate.
- Townsend also analyzed this performance trend by strategy within the LACERS Portfolio. The same trend existed by strategy but Core holdings tracked the benchmark closer than Non-Core strategies.

Post-GFC Investments Accretive to Performance

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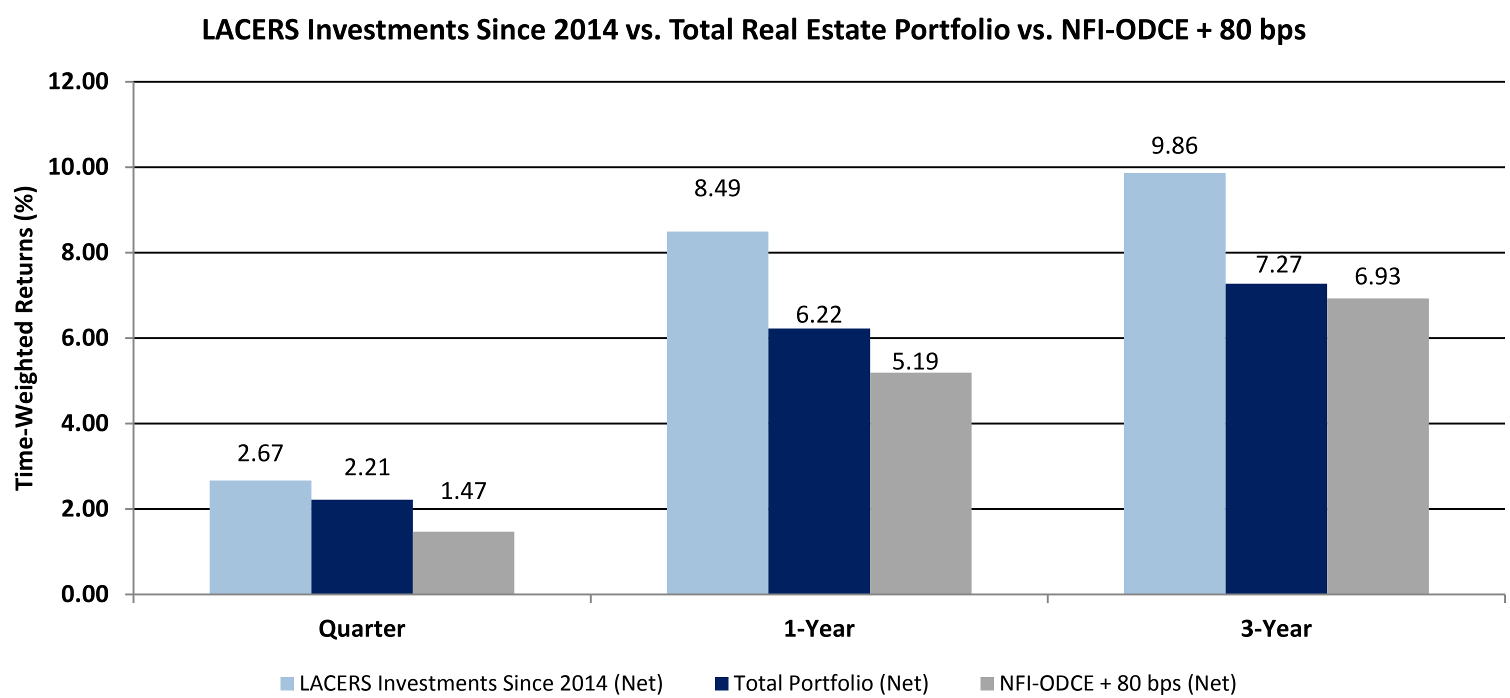

- Since 2014, Townsend has recommended sixteen* investments to LACERS staff and fourteen (including three emerging managers) ultimately were approved by the Board. The first of these investments to call capital was Jamestown Premier Property Fund in 3Q15. Core investments include Berkshire, Jamestown, Lion Industrial Trust, Prime, Principal, and Kayne Anderson Core. Non-Core investments include Gerrity, Standard Life, Asana I and Asana II, Heitman Asia, Broadview Real Estate Partners, NREP and LBA.
- Performance of Townsend-advised investments since 2014 exceeds performance of the Total Portfolio and the benchmark over the trailing quarter, 1-year and 3-year periods. These investments are expected to drive performance going forward.

*As of 4Q19.

Relative Performance by Strategy: Core

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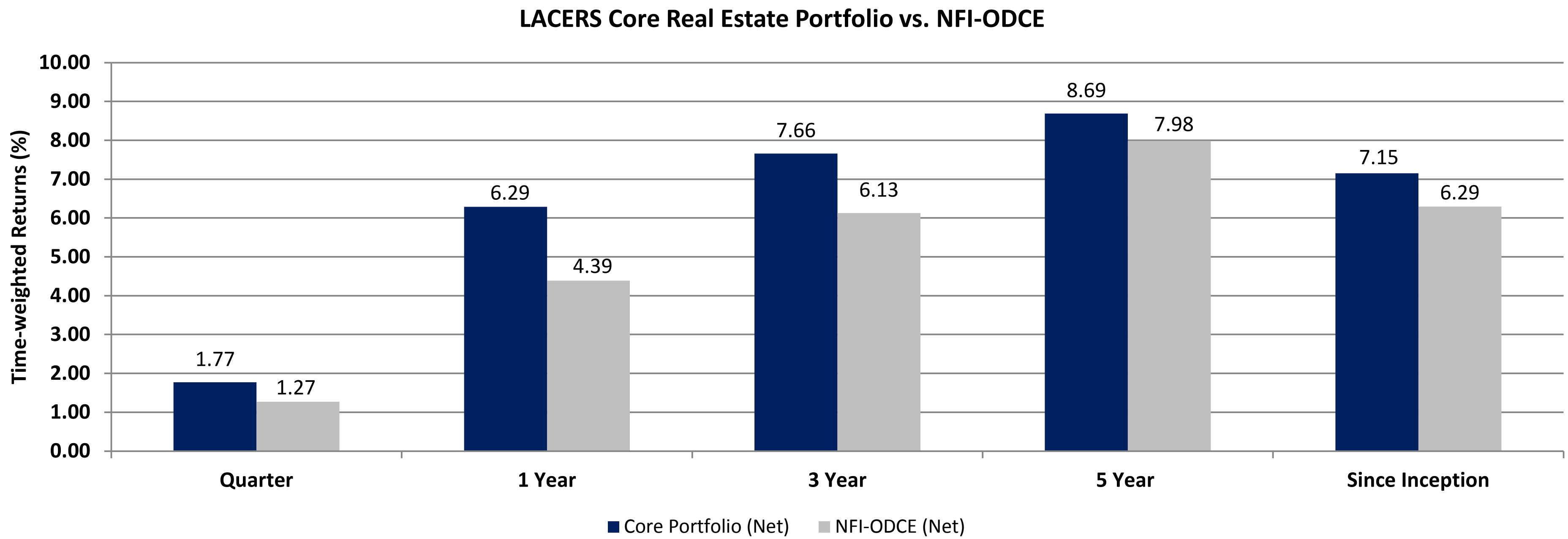

- The LACERS Core benchmark is the NFI-ODCE, measured over 5-year time periods, net of fees.
- The Core Portfolio has outperformed the benchmark over all periods.
- On an absolute return basis, Lion Industrial Trust was the largest contributor to Core performance over the quarter, outperforming the NFI-ODCE by 158 bps. Invesco Core Real Estate was the largest contributor on a dollar-basis, delivering a 2.2% net return.
- Jamestown Premier Property Fund and CIM VI were the weakest performers, underperforming the NFI-ODCE by 134 bps and 126 bps, respectively.
- Over the trailing year, outperformance on a dollar basis was driven by the strong returns of Lion Industrial Trust and Invesco Core Real Estate. On an absolute return basis, Lion Industrial Trust and Kayne Anderson Core Real Estate Fund were the strongest performers, delivering 952 bps and 456 bps of alpha, respectively.

Relative Performance by Strategy: Non-Core

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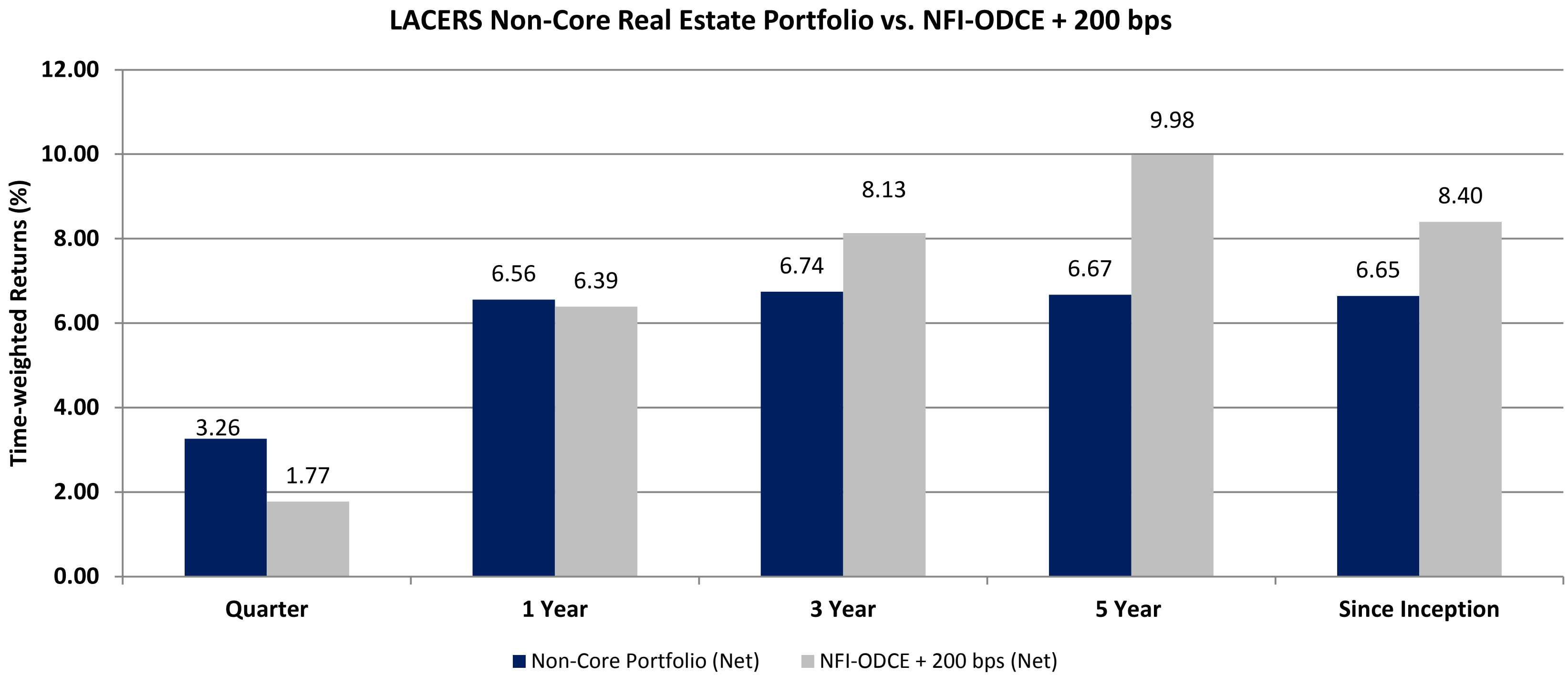
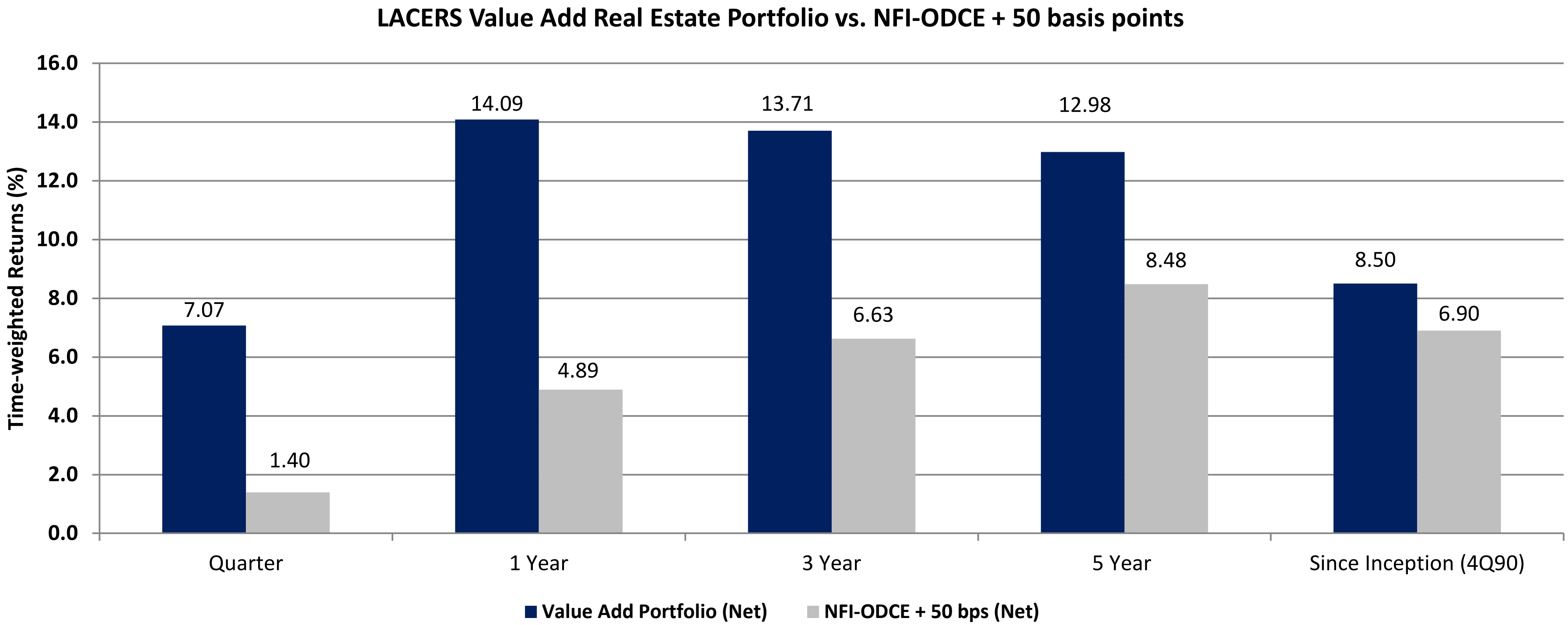


- The LACERS Non-Core benchmark is the NFI-ODCE + 200 bps, measured over 5-year time periods, net of fees. The 200 bps premium is a reflection of the incremental return expected from the additional risk inherent in Non-Core strategies.
- The Non-Core Portfolio underperformed the NFI-ODCE + 200 bps benchmark over all time periods, with the exception of the quarter and 1-year periods. Underperformance over longer time periods is mostly due to Non-Core legacy funds that are due to liquidate over the next few years. As discussed on page 5, there are currently 10 Non-Core funds in the portfolio that were committed to before the Global Financial Crisis. As these funds liquidate and approved investments are funded, Non-Core portfolio performance is expected to improve.
- The Value Add Portfolio has achieved strong absolute and relative annualized returns, while the Opportunistic Portfolio has been the main reason for Non-Core underperformance. Both are discussed in more detail on the following pages.

Relative Performance by Strategy: Non-Core — Value Add



- The LACERS Value Add benchmark is the NFI-ODCE + 50 bps, measured over 5-year time periods, net of fees. The 50 bps premium is a reflection of the incremental return expected from additional risk inherent in Value Add strategies
- The Value Add Portfolio outperformed the NFI-ODCE + 50 bps benchmark over all periods, with significant outperformance over the quarter, 1-year and 3-year and 5-year periods.
- Standard Life Investments European Real Estate Club II, which outperformed its benchmark by 3,805 bps over the quarter, was the strongest driver of performance on a dollar-return and absolute return basis.
- Over the trailing year, seven out of eight active Value Add investments outperformed the benchmark.

Relative Performance by Strategy: Non-Core — Opportunistic

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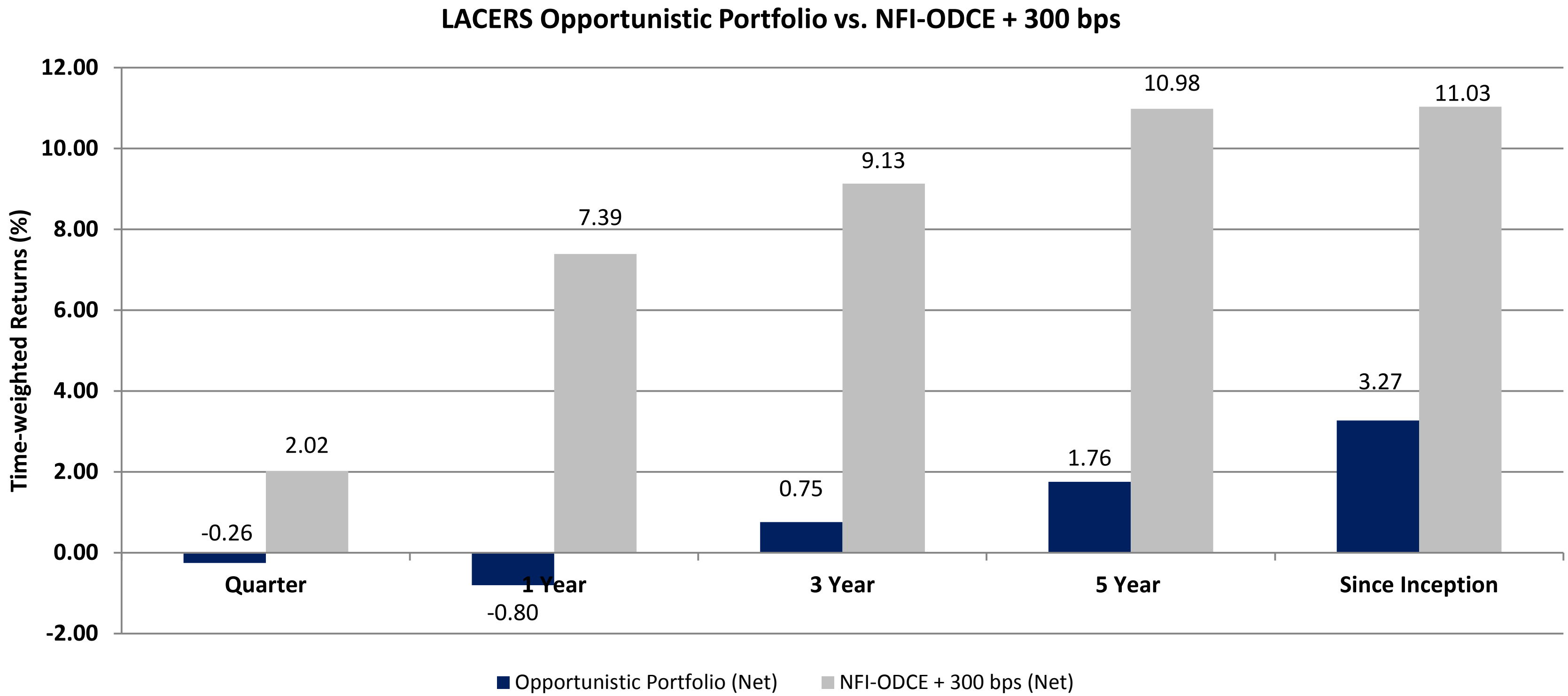

- The LACERS Opportunistic benchmark is the NFI-ODCE + 300 bps, measured over 5-year time periods, net of fees. The 300 bps premium is a reflection of the incremental return expected from additional risk inherent in Opportunistic strategies.
- The Opportunistic Portfolio underperformed the NFI-ODCE + 300 bps benchmark across all time periods. Underperformance over long time periods is mostly due to legacy funds that are due to liquidate over the next few years.
- There are currently 10 active Opportunistic funds in the portfolio that were committed to before the Global Financial Crisis. As these funds liquidate and approved investments are funded, Opportunistic portfolio performance is expected to improve.
- The only active outperforming Opportunistic funds over the trailing year were Bryanston Retail Opportunity Fund and California Smart Growth Fund IV, delivering 1049 bps and 2088 bps of alpha, respectively.

Relative Performance by Strategy: Timber

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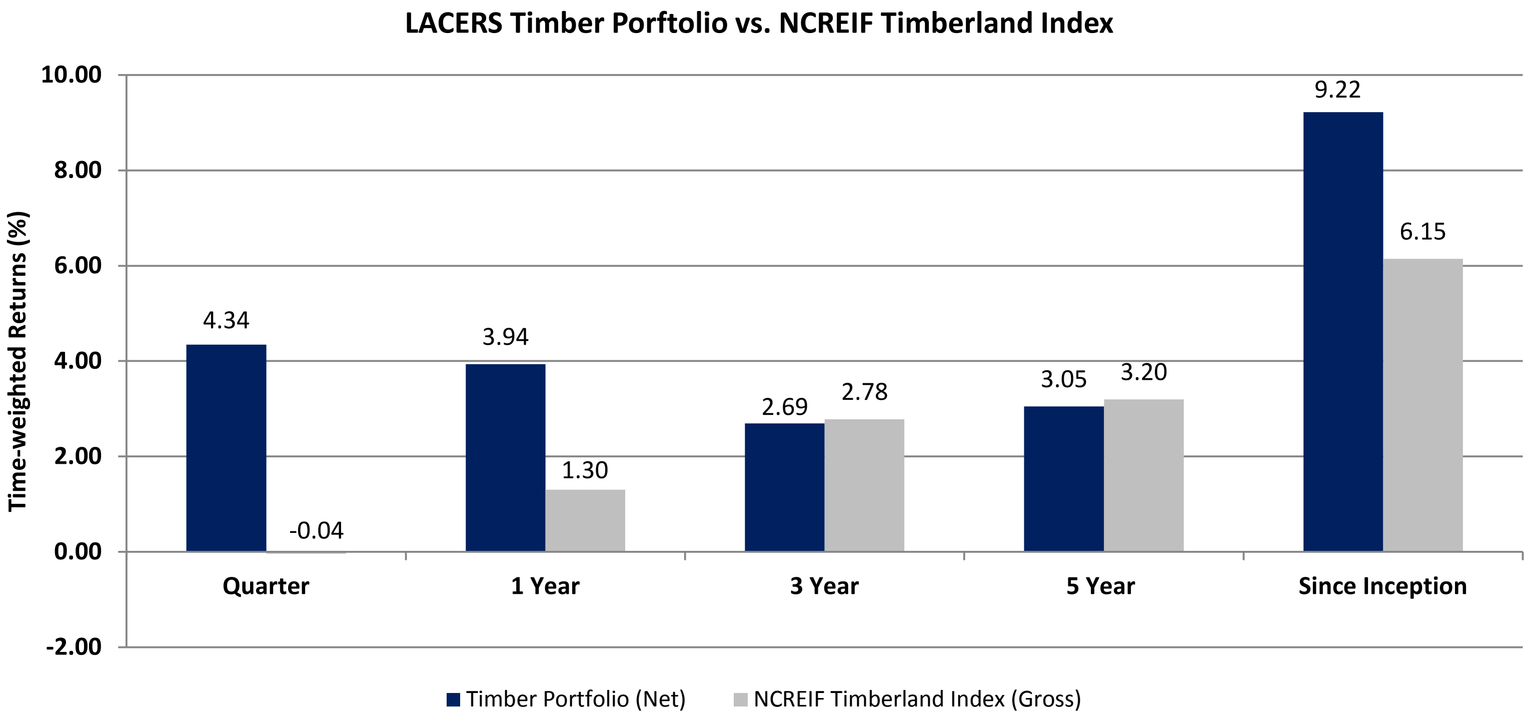
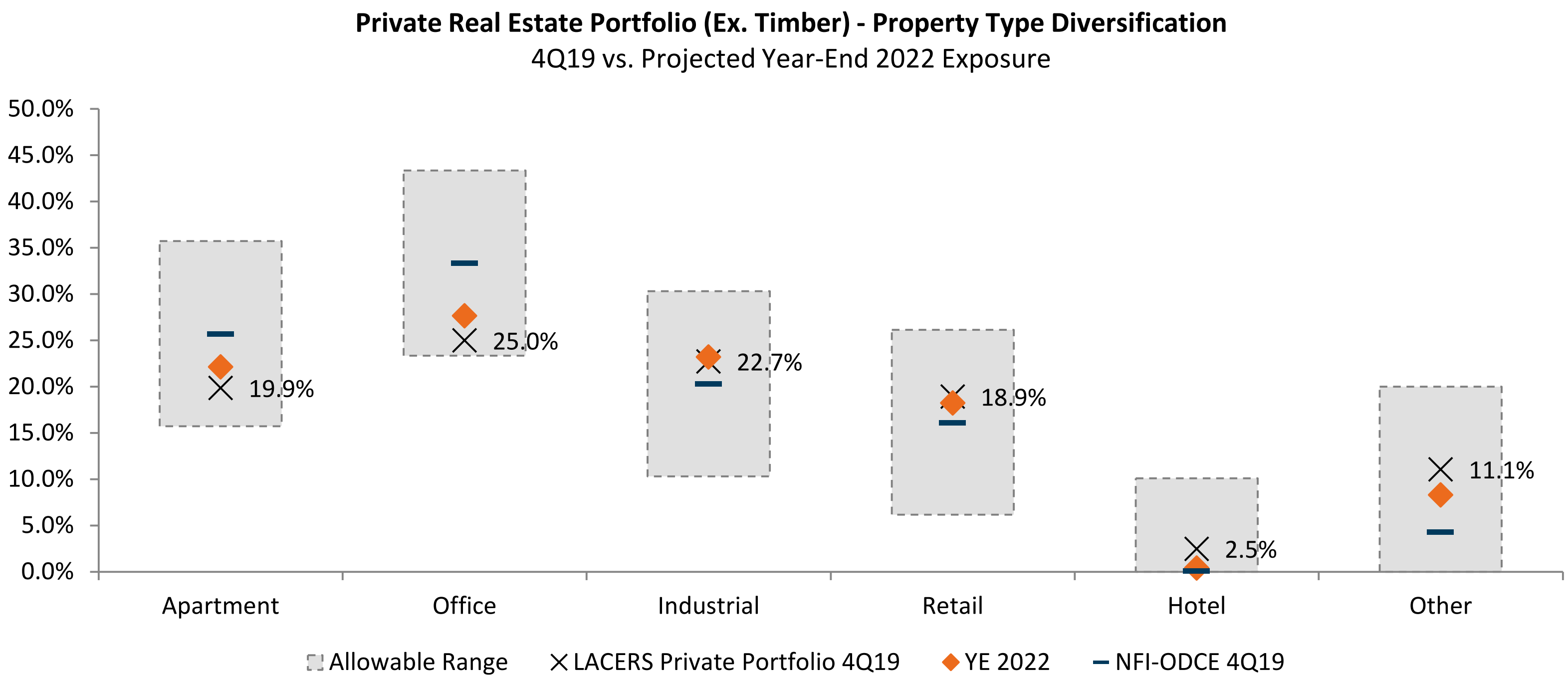


- The Timber Portfolio, net of fees, underperformed its benchmark, the NCREIF Timberland Index, gross of fees, over the 3-year and 5-year periods, and outperformed over all other periods.
- Outperformance over the long-term is mostly related to strong performance of Hancock ForesTree V, which was fully liquidated by year-end 2015.
- LACERS sole active timberland investment is Hancock Timberland IX (a $20 million commitment). The Fund's assets are located in the United States (85%, split between the South and the Northwest) and Chile (15%). The Lake States region was the strongest performing region in the NCREIF Timberland Index over the quarter.
- Income returns for timber investments tend to be infrequent and are realized through harvest. To date, there has been no meaningful income from the fund due to limited harvest activity during a period of lower timber prices. This has impacted total returns.
- Further, all assets in Hancock Timberland IX are appraised at year-end, which is why appreciation usually remains relatively flat from the first quarter through the third quarter of each year. The effect of year-end appraisals is demonstrated in the 4Q19 and annualized returns.

Real Estate Portfolio Diversification



- The diversification of the Private Portfolio is measured against the diversification of the NFI-ODCE ± 10.0% with up to 20.0% of the Portfolio allowed in “Other”. Currently, the “Other” category includes investments in alternative property types including Self Storage, Student Housing, Senior Housing, For Sale Residential, and Land.
- Among the “Other” property types, LACERS’ portfolio has the greatest exposure to Medical Office (2.58%), Self-Storage (1.55%), Land (0.65%), Student Housing (0.43%), and Healthcare (0.32%).

Real Estate Portfolio Diversification

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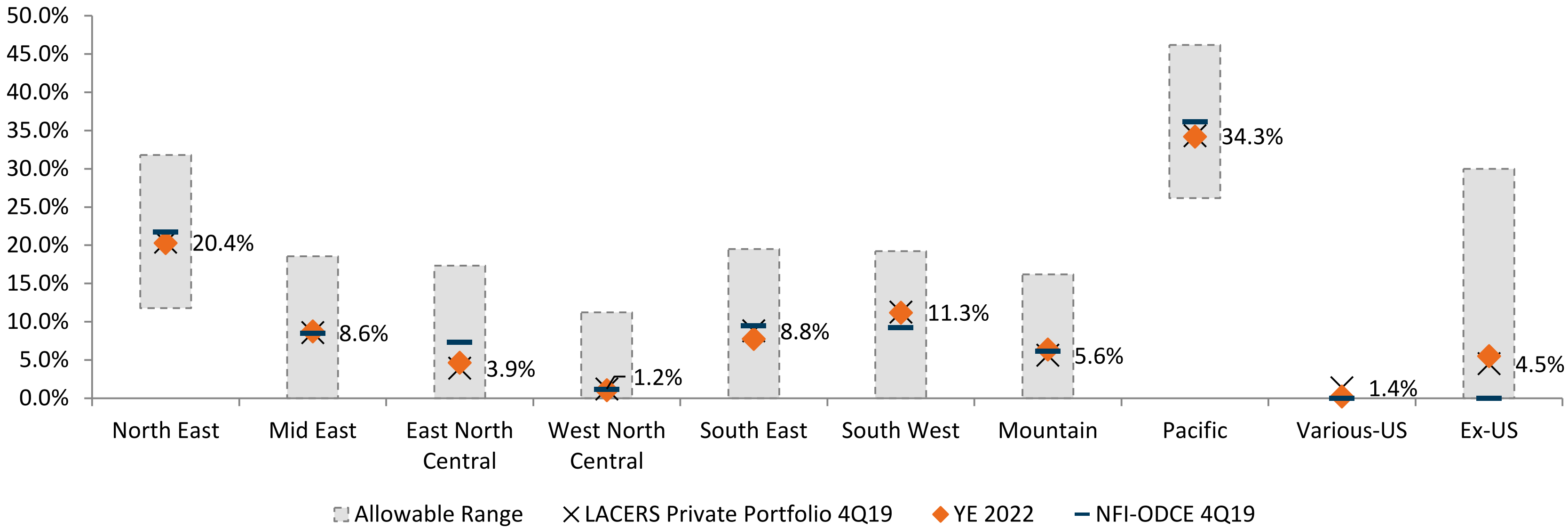
Private Real Estate Portfolio (Ex. Timber) – Geographic Diversification
4Q19 vs. Projected Year-End 2022 Exposure



- The diversification goal of the Private Portfolio is to be well diversified across the US. The only constraint is a 30.0% maximum allocation to Ex-US investments. NFI-ODCE diversification is provided as a benchmark.
- The Portfolio currently has an aggregate exposure to the Los Angeles metropolitan area of 7.2% as of 4Q19, with a 4.1% exposure to Los Angeles City. The NFI-ODCE's exposure to the Los Angeles metropolitan area is 11.0%**.
- The 4.5% Ex-US exposure is composed primarily of three large regional exposures: Asia (2.5%), Europe (1.5%), and Emerging Americas (0.5%).

**Collected by Townsend bi-annually, as of 4Q19. Based on % NAV.

Exhibit A: Performance Flash Report

Los Angeles City Employee's Retirement System
Fourth Quarter 2019

Portfolio Composition ($)								
Total Plan Assets	Allocation		Market Value		Unfunded Commitments		Remaining Allocation	
18,867,824,935	1,320,747,745	7.0%	776,781,433	4.1%	119,438,148	0.6%	424,528,164	2.3%

Performance Summary	Quarter (%)		1 Year (%)		3 Year (%)		5 Year (%)	
	TGRS	TNET	TGRS	TNET	TGRS	TNET	TGRS	TNET
LACERS	2.6	2.2	7.6	6.2	8.7	7.3	9.1	7.6
NFI-ODCE + 80 basis points	1.7	1.5	6.1	5.2	7.9	6.9	9.8	8.8

Funding Status ($)	Investment Vintage Year	Commitment Amount	Funded Amount	Unfunded Commitments	Capital Returned	Market Value	Market Value (%)	Market Value + Unfunded Commitments (%)
Core Portfolio	**1989**	**413,867,553**	**462,572,227**	**18,396,387**	**173,960,889**	**572,383,428**	**73.7**	**65.9**
Non-Core Portfolio	**1990**	**758,539,228**	**698,978,892**	**101,041,761**	**629,614,089**	**185,285,914**	**23.9**	**31.9**
Value Added Portfolio	1990	253,531,885	180,774,151	58,607,010	166,281,102	94,708,470	12.2	17.1
Opportunistic Portfolio	1996	505,007,343	518,204,738	42,434,751	463,332,987	90,577,445	11.7	14.8
Timber Portfolio	**1999**	**20,000,000**	**18,601,851**	**0**	**4,342,968**	**19,112,091**	**2.5**	**2.1**
Total Current Portfolio								
LACERS	**1989**	**1,192,406,781**	**1,180,152,970**	**119,438,148**	**807,917,946**	**776,781,433**	**100.0**	**100.0**

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Los Angeles City Employee's Retirement System
Fourth Quarter 2019

Funding Status ($)	Investment Vintage Year	Commitment Amount	Funded Amount	Unfunded Commitments	Capital Returned	Market Value	Market Value (%)	Market Value + Unfunded Commitments (%)
Core								
Berkshire Multifamily Income Realty Fund	2015	20,000,000	20,000,000	0	5,633,809	21,903,717	2.8	2.4
CIM Commercial Trust Corporation (“CMCT”)	2014	40,000,000	46,417,723	0	55,823,168	9,142	0.0	0.0
CIM VI (Urban REIT), LLC	2012	25,000,000	25,000,000	0	5,859,445	32,370,821	4.2	3.6
INVESCO Core Real Estate	2004	63,867,553	120,914,143	0	62,398,278	189,245,540	24.4	21.1
Jamestown Premier Property Fund	2015	50,000,000	51,038,039	0	25,504,897	39,168,636	5.0	4.4
JP Morgan Strategic Property Fund	2005	30,000,000	30,421,882	0	2,858,499	71,244,090	9.2	7.9
Kayne Anderson Core Real Estate Fund	2019	35,000,000	16,603,613	18,396,387	364,653	16,901,096	2.2	3.9
Lion Industrial Trust - 2007	2016	50,000,000	52,176,827	0	7,286,919	75,851,359	9.8	8.5
Prime Property Fund	2015	50,000,000	50,000,000	0	8,231,220	57,876,993	7.5	6.5
Principal U.S. Property Account	2015	50,000,000	50,000,000	0	0	67,812,034	8.7	7.6
Core	**1989**	**413,867,553**	**462,572,227**	**18,396,387**	**173,960,888**	**572,383,428**	**73.7**	**65.9**
Timber								
Hancock Timberland XI	2012	20,000,000	18,601,851	0	4,342,968	19,112,091	2.5	2.1
Timber	**1999**	**20,000,000**	**18,601,851**	**0**	**4,342,968**	**19,112,091**	**2.5**	**2.1**
Value Added								
Almanac Realty Securities VI	2012	25,000,000	15,475,571	0	17,062,272	4,441,652	0.6	0.5
Asana Partners Fund I	2017	20,000,000	15,610,965	4,389,035	0	22,556,387	2.9	3.0
Asana Partners Fund II	2019	35,000,000	2,668,750	32,331,250	0	2,143,708	0.3	3.8
Cornerstone Enhanced Mortgage Fund I	2012	25,000,000	13,436,224	0	17,267,405	347	0.0	0.0
DRA Growth and Income Fund VII	2011	25,000,000	26,640,000	0	51,066,181	7,517,994	1.0	0.8
DRA Growth and Income Fund VIII	2014	25,000,000	29,576,071	518,519	21,321,843	17,935,199	2.3	2.1
Gerrity Retail Fund 2	2015	20,000,000	16,921,399	3,156,455	3,957,940	17,539,513	2.3	2.3
Heitman Asia-Pacific Property Investors	2018	25,000,000	13,371,581	11,966,308	518,227	12,903,504	1.7	2.8
Mesa West Real Estate Income Fund III	2013	25,000,000	18,939,181	5,000,000	23,199,128	1,254,338	0.2	0.7
Standard Life Investments European Real Estate Club II	2015	28,531,885	28,134,410	1,245,443	31,888,107	8,415,828	1.1	1.1
Value Added	**1990**	**253,531,885**	**180,774,152**	**58,607,010**	**166,281,103**	**94,708,470**	**12.2**	**17.1**
Total Current Portfolio								
LACERS	**1989**	**1,192,406,781**	**1,180,152,970**	**119,438,148**	**807,917,945**	**776,781,433**	**100.0**	**100.0**

Funding Status ($)	Investment Vintage Year	Commitment Amount	Funded Amount	Unfunded Commitments	Capital Returned	Market Value	Market Value (%)	Market Value + Unfunded Commitments (%)
Opportunistic								
Apollo CPI Europe I	2006	25,533,001	22,385,238	1,667,564	11,493,929	476,519	0.1	0.2
Bristol Value II, L.P.	2012	20,000,000	23,139,229	2,352,510	11,214,799	17,720,450	2.3	2.2
Broadview Real Estate Partners Fund, L.P.	2019	20,000,000	390,570	19,609,430	0	-5,068	0.0	2.2
Bryanston Retail Opportunity Fund	2005	10,000,000	4,271,584	5,885,919	9,569,780	5,012,864	0.6	1.2
California Smart Growth Fund IV	2006	30,000,000	31,522,663	33,153	34,217,332	2,932,946	0.4	0.3
Canyon Johnson Urban Fund II	2005	10,000,000	8,988,718	1,011,296	3,974,652	33,292	0.0	0.1
CIM Real Estate Fund III	2007	15,000,000	16,674,075	0	20,818,964	7,637,633	1.0	0.9
CityView LA Urban Fund I	2007	25,000,000	61,482,527	0	73,811,664	0	0.0	0.0
Colony Investors VIII	2007	30,000,000	28,963,224	1,023,167	12,378,404	545,528	0.1	0.2
DRA Growth and Income Fund VI	2007	25,000,000	16,788,945	0	27,517,518	956,216	0.1	0.1
Integrated Capital Hospitality Fund	2009	10,000,000	6,006,797	0	2,728,129	320,644	0.0	0.0
LaSalle Asia Fund II	2005	25,000,000	24,016,560	0	25,752,817	236,459	0.0	0.0
Latin America Investors III	2008	20,000,000	20,686,689	0	3,886,924	-1,521,282	-0.2	-0.2
Lone Star Fund VII	2011	15,000,000	14,075,468	924,533	24,557,560	98,578	0.0	0.1
Lone Star Real Estate Fund II	2011	15,000,000	13,291,475	1,708,525	20,156,250	478,639	0.1	0.2
RECP Fund IV, L.P.	2008	40,000,000	51,496,646	1,265,045	34,322,350	29,531,087	3.8	3.4
Southern California Smart Growth Fund	2004	10,000,000	18,836,734	68,213	18,787,802	40,020	0.0	0.0
Stockbridge Real Estate Fund II	2006	30,000,000	30,000,000	0	4,049,560	9,861,387	1.3	1.1
The Buchanan Fund V	2007	30,000,000	27,000,000	3,000,000	25,999,748	0	0.0	0.3
Torchlight Debt Opportunity Fund IV	2013	24,474,342	24,483,106	0	30,445,731	4,755,228	0.6	0.5
Tuckerman Group Residential Income & Value Added Fund	2004	25,000,000	26,542,525	0	25,874,723	451,426	0.1	0.1
Walton Street Real Estate Fund V	2006	25,000,000	25,000,001	0	16,410,846	2,224,409	0.3	0.2
Walton Street Real Estate Fund VI	2009	25,000,000	22,161,966	3,885,396	25,363,504	8,790,469	1.1	1.4
Opportunistic	**1996**	**505,007,343**	**518,204,740**	**42,434,751**	**463,332,986**	**90,577,444**	**11.7**	**14.8**
Private Real Estate Portfolio Only (ex. Timber)	**1989**	**1,172,406,781**	**1,161,551,119**	**119,438,148**	**803,574,977**	**757,669,342**	**97.5**	**97.9**
Non-Core Portfolio	**1990**	**758,539,228**	**698,978,892**	**101,041,761**	**629,614,089**	**185,285,914**	**23.9**	**31.9**
Total Current Portfolio								
LACERS	**1989**	**1,192,406,781**	**1,180,152,970**	**119,438,148**	**807,917,945**	**776,781,433**	**100.0**	**100.0**

Returns (%)	Market Value ($)	Quarter				1 Year				3 Year			
		INC[2]	APP[2]	TGRS[2]	TNET[2]	INC	APP	TGRS	TNET	INC	APP	TGRS	TNET
Core													
Berkshire Multifamily Income Realty Fund	21,903,717	1.1	0.5	1.6	1.4	4.3	0.7	5.0	4.2	4.1	1.3	5.5	4.8
CIM Commercial Trust Corporation ("CMCT")[1]	9,142	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
CIM VI (Urban REIT), LLC	32,370,821	0.7	-0.3	0.3	0.0	3.0	2.2	5.3	3.9	3.5	3.3	6.9	5.5
INVESCO Core Real Estate	189,245,540	0.9	1.3	2.3	2.2	3.7	2.8	6.6	6.2	3.7	4.3	8.1	7.7
Jamestown Premier Property Fund	39,168,636	0.2	0.0	0.2	-0.1	2.1	0.9	3.0	2.4	3.4	6.5	10.1	8.0
JP Morgan Strategic Property Fund	71,244,090	1.0	1.3	2.3	2.0	3.8	0.5	4.4	3.4	4.0	2.5	6.5	5.5
Kayne Anderson Core Real Estate Fund	16,901,096	1.1	1.2	2.3	2.2	5.1	4.2	9.6	9.0				
Lion Industrial Trust - 2007	75,851,359	1.2	2.2	3.4	2.9	4.9	11.2	16.5	13.9	5.1	11.0	16.5	14.0
Prime Property Fund	57,876,993	0.9	0.9	1.8	1.5	3.9	3.4	7.4	6.2	4.0	4.7	8.8	7.6
Principal U.S. Property Account	67,812,034	1.1	0.5	1.5	1.3	4.3	2.6	7.0	6.0	4.5	3.7	8.4	7.4
Core	**572,383,428**	**0.9**	**1.1**	**2.0**	**1.8**	**3.8**	**3.3**	**7.2**	**6.3**	**4.0**	**4.6**	**8.7**	**7.7**
Timber													
Hancock Timberland XI	19,112,091	0.1	4.4	4.6	4.3	0.4	4.5	4.9	3.9	0.4	3.2	3.6	2.7
Timber	**19,112,091**	**0.1**	**4.4**	**4.6**	**4.3**	**0.4**	**4.5**	**4.9**	**3.9**	**0.4**	**3.2**	**3.6**	**2.7**
Value Added													
Almanac Realty Securities VI	4,441,652	3.4	-4.1	-0.7	-0.9	10.9	-12.4	-2.5	-3.2	8.7	-8.2	0.0	-0.8
Asana Partners Fund I	22,556,387	0.6	3.2	3.8	2.8	2.2	26.1	28.7	21.3				
Asana Partners Fund II	2,143,708	-6.3	17.4	11.1	1.5								
Cornerstone Enhanced Mortgage Fund I[4]	347	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
DRA Growth and Income Fund VII	7,517,994	1.9	18.8	20.7	17.2	7.6	46.3	56.3	45.0	8.6	34.0	44.8	36.7
DRA Growth and Income Fund VIII	17,935,199	2.5	3.3	5.8	4.6	8.7	2.2	11.0	8.6	10.7	2.2	13.1	10.5
Gerrity Retail Fund 2	17,539,513	1.4	0.4	1.8	1.5	6.3	0.4	6.7	5.3	7.3	2.2	9.6	7.8
Heitman Asia-Pacific Property Investors	12,903,504	4.3	5.9	10.2	10.0	4.5	-0.1	4.1	3.3				
Mesa West Real Estate Income Fund III	1,254,338	0.3	0.0	0.3	0.2	6.1	-1.8	4.2	3.5	11.4	-0.6	10.7	8.7
Standard Life Investments European Real Estate Club II	8,415,828	0.7	49.8	50.5	39.4	11.1	39.0	54.8	41.9	5.9	19.5	26.6	22.4
Value Added	**94,708,470**	**1.7**	**7.0**	**8.8**	**7.1**	**6.3**	**12.0**	**18.8**	**14.1**	**6.9**	**9.7**	**17.2**	**13.7**
Total Portfolio													
LACERS	**776,781,433**	**0.8**	**1.8**	**2.6**	**2.2**	**3.6**	**3.9**	**7.6**	**6.2**	**4.0**	**4.5**	**8.7**	**7.3**
Indices													
NFI-ODCE (Core)		1.0	0.5	1.5	1.3	4.2	1.1	5.3	4.4	4.2	2.8	7.1	6.1
NFI-ODCE + 80 bps (Total Portfolio)				1.7	1.5			6.1	5.2			7.9	6.9
NFI-ODCE + 200 bps (Non-Core Portfolio)				2.0	1.8			7.3	6.4			9.1	8.1
NFI -ODCE + 50 bps (Value Add)				1.6	1.4			5.8	4.9			7.6	6.6
NFI -ODCE + 300 bps (Opportunistic)				2.3	2.0			8.3	7.4			10.1	9.1
NCREIF Timberland Property Index "NTI"		0.6	-0.7	0.0		2.7	-1.4	1.3		2.9	-0.1	2.8	

* Net IRR and Equity Multiple may be missing due to hard coded data.
[1] Originally CIM IV. Data shown only reflects performance since the formation of CMCT. Combined, CIM IV/CMCT has achieved a 6.3% net IRR nad 1.3x net equity multiple since inception (1Q06).
[2] INC: Income Return; APP: Appreciation Return; TGRS: Total Gross Return; TNET: Total Net Return. Please refer to Exhibit C for more detailed definitions.
[3] Negative Market Value represents fees owed to the manager. No capital had been called as of quarter-end.
[4] Liquidating investment. Time-weighted returns are excluded as they are no longer meaningful.

Los Angeles City Employee's Retirement System
Fourth Quarter 2019

Returns (%)	Market Value ($)	5 Year INC	5 Year APP	5 Year TGRS	5 Year TNET	Inception INC	Inception APP	Inception TGRS	Inception TNET	TWR Calculation Inception	Net IRR*	Equity Multiple*
Core												
Berkshire Multifamily Income Realty Fund	21,903,717					4.3	2.4	6.7	6.0	1Q16	8.5	1.4
CIM Commercial Trust Corporation ("CMCT")[1]	9,142	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1Q14	4.6	1.2
CIM VI (Urban REIT), LLC	32,370,821	3.8	3.4	7.3	5.9	3.7	5.8	9.6	8.2	3Q12	7.4	1.5
INVESCO Core Real Estate	189,245,540	3.9	5.6	9.6	9.2	5.1	3.0	8.3	7.8	4Q04	7.7	2.1
Jamestown Premier Property Fund	39,168,636					3.8	6.2	10.2	8.1	3Q15	8.3	1.3
JP Morgan Strategic Property Fund	71,244,090	4.4	4.0	8.6	7.5	5.2	2.2	7.5	6.4	4Q05	6.6	2.4
Kayne Anderson Core Real Estate Fund	16,901,096					5.1	4.2	9.6	9.0	1Q19	8.1	1.0
Lion Industrial Trust - 2007	75,851,359					5.3	10.4	16.1	13.7	1Q16	13.7	1.6
Prime Property Fund	57,876,993					4.1	5.0	9.2	8.0	1Q16	8.0	1.3
Principal U.S. Property Account	67,812,034					4.7	4.2	9.0	8.0	4Q15	7.9	1.4
Core	**572,383,428**	**4.1**	**5.3**	**9.6**	**8.7**	**6.3**	**1.7**	**8.1**	**7.1**	**1Q89**	**6.0**	**1.5**
Timber												
Hancock Timberland XI	19,112,091	0.0	4.0	3.9	3.1	-0.3	5.8	5.5	4.7	2Q12	4.3	1.3
Timber	**19,112,091**	**0.0**	**4.0**	**3.9**	**3.0**	**4.6**	**5.6**	**10.6**	**9.2**	**4Q99**	**9.7**	**1.7**
Value Added												
Almanac Realty Securities VI	4,441,652	7.9	-0.6	7.3	6.2	8.8	2.6	11.6	9.8	1Q13	11.8	1.4
Asana Partners Fund I	22,556,387					1.5	25.0	26.8	18.5	2Q17	20.1	1.4
Asana Partners Fund II	2,143,708					-6.3	17.4	11.1	1.5	4Q19	-53.1	0.8
Cornerstone Enhanced Mortgage Fund I[4]	347	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	4Q12	9.2	1.3
DRA Growth and Income Fund VII	7,517,994	9.7	26.7	38.2	30.8	11.3	17.8	30.6	25.0	1Q12	21.4	2.2
DRA Growth and Income Fund VIII	17,935,199	11.8	2.0	14.0	11.2	11.8	1.9	13.9	11.1	4Q14	11.3	1.3
Gerrity Retail Fund 2	17,539,513					7.9	4.0	12.1	9.7	4Q15	8.3	1.3
Heitman Asia-Pacific Property Investors	12,903,504					1.8	-2.2	-0.5	-1.4	3Q18	0.4	1.0
Mesa West Real Estate Income Fund III	1,254,338	11.8	-0.5	11.3	9.0	11.9	-0.2	11.7	8.5	4Q13	8.6	1.3
Standard Life Investments European Real Estate Club II	8,415,828					4.7	16.2	21.7	18.4	1Q16	15.6	1.4
Value Added	**94,708,470**	**7.4**	**8.3**	**16.1**	**13.0**	**7.6**	**2.8**	**10.5**	**8.5**	**4Q90**		
Total Portfolio												
LACERS	**776,781,433**	**4.4**	**4.5**	**9.1**	**7.6**	**6.1**	**1.6**	**7.7**	**6.0**	**1Q89**		
Indices												
NFI-ODCE (Core)		4.4	4.4	9.0	8.0	6.7	0.6	7.3	6.3	1Q89		
NFI-ODCE + 80 bps (Total Portfolio)				9.8	8.8			8.1	7.1	1Q89		
NFI-ODCE + 200 bps (Non-Core Portfolio)				11.0	10.0			9.4	8.4	4Q90		
NFI -ODCE + 50 bps (Value Add)				9.5	8.5			7.9	6.9	4Q90		
NFI -ODCE + 300 bps (Opportunistic)				12.0	11.0			12.1	11.0	4Q96		
NCREIF Timberland Property Index "NTI"		2.8	0.4	3.2		3.3	2.8	6.1		4Q99		

Net IRR and Equity Multiple may be missing due to hard coded data.
[1] Originally CIM IV. Data shown only reflects performance since the formation of CMCT. Combined, CIM IV/CMCT has achieved a 6.3% net IRR nad 1.3x net equity multiple since inception (1Q06).
[2] INC: Income Return; APP: Appreciation Return; TGRS: Total Gross Return; TNET: Total Net Return. Please refer to Exhibit C for more detailed definitions.
[3] Negative Market Value represents fees owed to the manager. No capital had been called as of quarter-end.
[4] Liquidating investment. Time-weighted returns are excluded as they are no longer meaningful.

Returns

Los Angeles City Employee's Retirement System
Fourth Quarter 2019

Returns (%)	Market Value ($)	Quarter INC	Quarter APP	Quarter TGRS	Quarter TNET	1 Year INC	1 Year APP	1 Year TGRS	1 Year TNET	3 Year INC	3 Year APP	3 Year TGRS	3 Year TNET
Opportunistic													
Apollo CPI Europe I [1]	476,519	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Bristol Value II, L.P.	17,720,450	0.3	8.5	8.8	8.4	0.0	8.5	8.5	6.9	1.1	9.5	10.7	9.0
Broadview Real Estate Partners Fund, L.P.	-5,068	N/A	N/A	N/A	N/A								
Bryanston Retail Opportunity Fund	5,012,864	-0.1	18.4	18.3	18.2	-0.1	18.4	18.3	17.9	-0.1	4.5	4.4	4.0
California Smart Growth Fund IV	2,932,946	-0.2	0.0	-0.2	-0.2	0.3	27.9	28.3	28.3	2.0	9.1	11.2	10.8
Canyon Johnson Urban Fund II [1]	33,292	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
CIM Real Estate Fund III [12]	7,637,633	-0.4	-0.7	-1.1	-1.4	0.8	-0.5	0.3	-1.1	2.0	2.4	4.7	3.2
CityView LA Urban Fund I [1]	0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Colony Investors VIII [12]	545,528	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
DRA Growth and Income Fund VI [1]	956,216	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Integrated Capital Hospitality Fund	320,644	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
LaSalle Asia Fund II [1]	236,459	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Latin America Investors III [13]	-1,521,282	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Lone Star Fund VII [1]	98,578	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Lone Star Real Estate Fund II [1]	478,639	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
RECP Fund IV, L.P.	29,531,087	0.5	-0.5	0.1	0.0	1.8	0.5	2.3	2.1	2.1	4.1	6.2	5.3
Southern California Smart Growth Fund [1]	40,020	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Stockbridge Real Estate Fund II	9,861,387	0.4	1.0	1.4	1.3	2.2	-6.7	-4.6	-5.0	1.2	3.9	5.2	4.7
The Buchanan Fund V [1]	0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Torchlight Debt Opportunity Fund IV	4,755,228	1.1	-5.0	-3.9	-1.4	5.7	-7.6	-2.2	1.5	8.0	0.9	9.0	7.7
Tuckerman Group Residential Income & Value Added Fund [1]	451,426	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Walton Street Real Estate Fund V	2,224,409	-0.1	-8.6	-8.7	-8.7	-1.4	-16.7	-17.9	-18.1	1.9	-12.3	-10.6	-11.1
Walton Street Real Estate Fund VI	8,790,469	1.8	-1.3	0.5	0.2	5.2	-3.1	2.0	1.0	4.3	0.7	5.1	4.0
Opportunistic	**90,577,444**	**-0.7**	**0.5**	**-0.2**	**-0.3**	**0.8**	**-0.7**	**0.1**	**-0.8**	**2.0**	**0.0**	**2.1**	**0.8**
Private Real Estate Portfolio Only (ex. Timber)	**757,669,342**	**0.8**	**1.7**	**2.5**	**2.2**	**3.7**	**3.8**	**7.7**	**6.3**	**4.1**	**4.6**	**8.8**	**7.4**
Non-Core Portfolio	**185,285,914**	**0.6**	**3.4**	**4.0**	**3.3**	**3.6**	**5.1**	**8.9**	**6.6**	**4.4**	**4.4**	**8.9**	**6.7**
Total Portfolio													
LACERS	**776,781,433**	**0.8**	**1.8**	**2.6**	**2.2**	**3.6**	**3.9**	**7.6**	**6.2**	**4.0**	**4.5**	**8.7**	**7.3**
Indices													
NFI-ODCE (Core)		1.0	0.5	1.5	1.3	4.2	1.1	5.3	4.4	4.2	2.8	7.1	6.1
NFI-ODCE + 80 bps (Total Portfolio)				1.7	1.5			6.1	5.2			7.9	6.9
NFI-ODCE + 200 bps (Non-Core Portfolio)				2.0	1.8			7.3	6.4			9.1	8.1
NFI -ODCE + 50 bps (Value Add)				1.6	1.4			5.8	4.9			7.6	6.6
NFI -ODCE + 300 bps (Opportunistic)				2.3	2.0			8.3	7.4			10.1	9.1
NCREIF Timberland Property Index “NTI”		0.6	-0.7	0.0		2.7	-1.4	1.3		2.9	-0.1	2.8	

* Net IRR and Equity Multiple may be missing due to hard coded data.
[1] Liquidating investment. Time-weighted returns are excluded as they are no longer meaningful.
[2] Broken time-weighted return since inception

TOWNSEND GROUP
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Returns (%)	Market Value ($)	5 Year				Inception				TWR Calculation Inception	Net IRR*	Equity Multiple*
		INC	APP	TGRS	TNET	INC	APP	TGRS	TNET			
Opportunistic												
Apollo CPI Europe I [1]	476,519	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	4Q06	-9.3	0.5
Bristol Value II, L.P.	17,720,450	1.9	8.2	10.2	8.5	2.6	11.0	13.8	12.0	1Q13	9.7	1.3
Broadview Real Estate Partners Fund, L.P.	-5,068					N/A	N/A	N/A	N/A	4Q19	0.0	0.0
Bryanston Retail Opportunity Fund	5,012,864	-0.2	22.3	22.1	21.5	6.9	22.8	29.3	26.1	2Q05	79.7	3.4
California Smart Growth Fund IV	2,932,946	2.8	8.9	11.9	11.3	2.2	1.2	3.4	1.3	1Q07	2.6	1.2
Canyon Johnson Urban Fund II[1]	33,292	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	3Q05	-10.4	0.4
CIM Real Estate Fund III[1,2]	7,637,633	5.7	-1.2	5.5	4.1	-8.6	N/A	N/A	N/A	1Q08	9.8	1.7
CityView LA Urban Fund I[1]	0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	3Q07	11.8	1.2
Colony Investors VIII[1,2]	545,528	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	4Q07	-11.6	0.4
DRA Growth and Income Fund VI[1]	956,216	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	2Q08	10.8	1.7
Integrated Capital Hospitality Fund	320,644	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	3Q11	-21.5	0.5
LaSalle Asia Fund II [1]	236,459	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	4Q05	1.8	1.1
Latin America Investors III[1,3]	-1,521,282	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1Q09	0.0	0.1
Lone Star Fund VII [1]	98,578	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	3Q11	50.2	1.8
Lone Star Real Estate Fund II[1]	478,639	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	3Q11	26.5	1.6
RECP Fund IV, L.P.	29,531,087	2.0	4.6	6.7	5.5	3.3	-5.7	-2.6	-6.1	4Q08	3.8	1.2
Southern California Smart Growth Fund[1]	40,020	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1Q05	0.0	1.0
Stockbridge Real Estate Fund II	9,861,387	0.4	2.4	2.8	2.2	-8.5	-9.1	-16.7	-18.9	4Q06	-7.2	0.5
The Buchanan Fund V[1]	0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	3Q07	-0.6	1.0
Torchlight Debt Opportunity Fund IV	4,755,228	8.3	1.8	10.1	8.6	8.9	1.9	10.9	9.0	4Q13	10.0	1.4
Tuckerman Group Residential Income & Value Added Fund [1]	451,426	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	4Q04	-0.1	1.0
Walton Street Real Estate Fund V	2,224,409	2.5	-6.3	-4.0	-4.8	2.0	-3.3	-1.4	-3.0	4Q06	-3.2	0.7
Walton Street Real Estate Fund VI	8,790,469	3.4	1.1	4.5	3.3	-8.3	13.1	2.3	-2.2	3Q09	8.7	1.5
Opportunistic	**90,577,444**	**2.8**	**0.4**	**3.2**	**1.8**	**4.1**	**2.6**	**6.7**	**3.3**	**4Q96**	**2.0**	**1.1**
Private Real Estate Portfolio Only (ex. Timber)	**757,669,342**	**4.5**	**4.5**	**9.2**	**7.7**	**6.1**	**1.5**	**7.6**	**5.9**	**1Q89**		
Non-Core Portfolio	**185,285,914**	**4.9**	**3.8**	**8.8**	**6.7**	**6.4**	**2.7**	**9.2**	**6.6**	**4Q90**		
Total Portfolio												
LACERS	**776,781,433**	**4.4**	**4.5**	**9.1**	**7.6**	**6.1**	**1.6**	**7.7**	**6.0**	**1Q89**		
Indices												
NFI-ODCE (Core)		4.4	4.4	9.0	8.0	6.7	0.6	7.3	6.3	1Q89		
NFI-ODCE + 80 bps (Total Portfolio)				9.8	8.8			8.1	7.1	1Q89		
NFI-ODCE + 200 bps (Non-Core Portfolio)				11.0	10.0			9.4	8.4	4Q90		
NFI -ODCE + 50 bps (Value Add)				9.5	8.5			7.9	6.9	4Q90		
NFI -ODCE + 300 bps (Opportunistic)				12.0	11.0			12.1	11.0	4Q96		
NCREIF Timberland Property Index "NTI"		2.8	0.4	3.2		3.3	2.8	6.1		4Q99		

* Net IRR and Equity Multiple may be missing due to hard coded data.

[1] Liquidating investment. Time-weighted returns are excluded as they are no longer meaningful.
[2] Broken time-weighted return since inception

TOWNSEND® GROUP
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Returns (%)	Market Value ($)	2019		2018		2017		2016		2015		2014	
		TGRS	TNET	TGRS	TNET	TGRS	TNET	TGRS	TNET	TGRS	TNET	TGRS	TNET
Core													
Berkshire Multifamily Income Realty Fund	21,903,717	5.0	4.2	6.2	5.6	5.4	4.7	10.4	9.5				
CIM Commercial Trust Corporation (“CMCT”)	9,142	N/A	N/A	-0.6	-0.6	2.8	2.8	3.3	3.3	5.0	5.0	9.7	9.7
CIM VI (Urban REIT), LLC	32,370,821	5.3	3.9	10.4	8.9	5.2	3.7	2.6	2.4	13.4	11.0	15.0	13.5
INVESCO Core Real Estate	189,245,540	6.6	6.2	9.4	9.0	8.4	8.0	9.2	8.9	14.7	14.3	12.4	11.9
Jamestown Premier Property Fund	39,168,636	3.0	2.4	9.7	7.7	18.0	14.2	6.7	5.4	8.5	7.0		
JP Morgan Strategic Property Fund	71,244,090	4.4	3.4	8.0	7.0	7.2	6.2	8.4	7.3	15.2	14.1	11.1	10.1
Kayne Anderson Core Real Estate Fund	16,901,096	9.6	9.0										
Lion Industrial Trust - 2007	75,851,359	16.5	13.9	18.7	15.9	14.4	12.3	14.9	12.8				
Prime Property Fund	57,876,993	7.4	6.2	9.1	8.0	9.9	8.8	10.4	9.2				
Principal U.S. Property Account	67,812,034	7.0	6.0	9.1	8.1	9.1	8.1	10.1	9.0	3.0	2.8		
Core	**572,383,428**	**7.2**	**6.3**	**9.8**	**8.7**	**9.2**	**8.1**	**8.7**	**7.9**	**13.4**	**12.7**	**11.8**	**11.3**
Timber													
Hancock Timberland XI	19,112,091	4.9	3.9	3.9	2.9	2.1	1.2	3.5	2.6	5.4	4.6	5.2	4.6
Timber	**19,112,091**	**4.9**	**3.9**	**3.9**	**2.9**	**2.1**	**1.2**	**3.5**	**2.6**	**5.4**	**4.5**	**8.1**	**4.5**
Value Added													
Almanac Realty Securities VI	4,441,652	-2.5	-3.2	2.0	1.3	0.4	-0.3	15.2	14.3	23.5	21.2	15.2	12.8
Asana Partners Fund I	22,556,387	28.7	21.3	26.4	18.7	18.1	10.8						
Asana Partners Fund II[1]	2,143,708												
Cornerstone Enhanced Mortgage Fund I[2]	347	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
DRA Growth and Income Fund VII	7,517,994	56.3	45.0	45.3	37.5	33.0	27.5	35.2	28.8	22.9	16.2	20.3	17.7
DRA Growth and Income Fund VIII	17,935,199	11.0	8.6	14.1	11.3	14.2	11.7	14.7	11.8	16.0	12.9	2.7	2.1
Gerrity Retail Fund 2	17,539,513	6.7	5.3	12.4	10.6	9.8	7.6	21.4	17.7	1.7	0.6		
Heitman Asia-Pacific Property Investors	12,903,504	4.1	3.3	-4.7	-5.2								
Mesa West Real Estate Income Fund III	1,254,338	4.2	3.5	15.8	12.8	12.6	10.1	11.2	8.8	13.0	10.2	13.3	8.7
Standard Life Investments European Real Estate Club II	8,415,828	54.8	41.9	-2.0	-2.7	33.8	32.6	8.1	7.1				
Value Added	**94,708,470**	**18.8**	**14.1**	**14.1**	**11.0**	**18.5**	**15.9**	**14.6**	**12.1**	**14.5**	**11.7**	**12.6**	**10.9**
Total Portfolio													
LACERS	**776,781,433**	**7.6**	**6.2**	**8.4**	**7.0**	**10.0**	**8.6**	**8.1**	**6.8**	**11.2**	**9.5**	**13.7**	**11.8**
Indices													
NFI-ODCE (Core)		4.8	4.1	8.3	7.4	7.6	6.7	8.8	7.8	15.0	14.0	12.5	11.5
NFI-ODCE + 80 bps (Total Portfolio)		5.6	4.9	9.1	8.2	8.4	7.5	9.6	8.6	15.8	14.8	13.3	12.3
NFI-ODCE + 200 bps (Non-Core Portfolio)		7.6	6.9	10.3	9.4	9.6	8.7	10.8	9.8	17.0	16.0	14.5	13.5
NFI-ODCE + 50 bps (Value Add)		5.3	4.6	8.8	7.9	8.1	7.2	9.3	8.3	15.5	14.5	13.0	12.0
NFI-ODCE + 300 bps (Opportunistic)		7.8	7.1	11.3	10.4	10.6	9.7	11.8	10.8	18.0	17.0	15.5	14.5
NCREIF Timberland Index (Timber)		1.3		3.4		3.6		2.7		5.0		10.5	

[1] Negative Market Value represents fees owed to the manager. No capital had been called as of quarter-end.

[2] Liquidating investment. Time-weighted returns are excluded as they are no longer meaningful.

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Returns (%)	Market Value ($)	2013		2012		2011		2010		2009		2008		2007	
		TGRS	TNET	TGRS	TNET	TGRS	TNET	TGRS	TNET	TGRS	TNET	TGRS	TNET	TGRS	TNET
Core															
Berkshire Multifamily Income Realty Fund	21,903,717														
CIM Commercial Trust Corporation ("CMCT")	9,142														
CIM VI (Urban REIT), LLC	32,370,821	6.8	5.4	13.8	13.1										
INVESCO Core Real Estate	189,245,540	14.3	13.8	8.7	8.2	16.9	16.4	16.7	16.1	-32.2	-32.6	-4.6	-5.0	13.6	13.1
Jamestown Premier Property Fund	39,168,636														
JP Morgan Strategic Property Fund	71,244,090	15.9	14.8	12.1	11.0	15.9	14.8	14.1	13.0	-26.5	-27.4	-8.1	-9.0	16.6	15.6
Kayne Anderson Core Real Estate Fund	16,901,096														
Lion Industrial Trust - 2007	75,851,359														
Prime Property Fund	57,876,993														
Principal U.S. Property Account	67,812,034														
Core	**572,383,428**	**13.3**	**12.5**	**9.6**	**8.9**	**15.6**	**14.8**	**16.1**	**15.2**	**-26.4**	**-27.1**	**-4.9**	**-5.6**	**14.4**	**13.6**
Timber															
Hancock Timberland XI	19,112,091	9.9	8.9	8.1	7.6										
Timber	**19,112,091**	**20.9**	**17.8**	**9.9**	**8.9**	**3.9**	**4.2**	**2.9**	**2.7**	**-7.4**	**-5.5**	**7.6**	**6.5**	**22.1**	**17.3**
Value Added															
Almanac Realty Securities VI	4,441,652	31.6	26.1												
Asana Partners Fund I	22,556,387														
Asana Partners Fund II[1]	2,143,708														
Cornerstone Enhanced Mortgage Fund I[2]	347	N/A	N/A	N/A	N/A										
DRA Growth and Income Fund VII	7,517,994	18.7	15.5	17.6	14.3										
DRA Growth and Income Fund VIII	17,935,199														
Gerrity Retail Fund 2	17,539,513														
Heitman Asia-Pacific Property Investors	12,903,504														
Mesa West Real Estate Income Fund III	1,254,338	3.2	-0.6												
Standard Life Investments European Real Estate Club II	8,415,828														
Value Added	**94,708,470**	**9.5**	**7.9**	**17.1**	**15.6**	**18.3**	**16.2**	**4.1**	**1.8**	**-38.5**	**-39.4**	**-20.7**	**-20.0**	**17.8**	**15.2**
Total Portfolio															
LACERS	**776,781,433**	**13.5**	**11.4**	**12.8**	**11.0**	**12.6**	**10.8**	**13.0**	**10.3**	**-34.4**	**-35.9**	**-22.5**	**-23.6**	**14.5**	**11.3**
Indices															
NFI-ODCE (Core)		13.9	12.9	10.9	9.8	16.0	15.0	16.4	15.3	-29.8	-30.4	-10.0	-10.7	16.0	14.8
NFI-ODCE + 80 bps (Total Portfolio)		14.7	13.7	11.7	10.6	16.8	15.8	17.2	16.1	-29.0	-29.6	-9.2	-9.9	16.8	15.6
NFI-ODCE + 200 bps (Non-Core Portfolio)		15.9	14.9	12.9	11.8	18.0	17.0	18.4	17.3	-27.8	-28.4	-8.0	-8.7	18.0	16.8
NFI-ODCE + 50 bps (Value Add)		14.4	13.4	11.4	10.3	16.5	15.5	16.9	15.8	-29.3	-29.9	-9.5	-10.2	16.5	15.3
NFI-ODCE + 300 bps (Opportunistic)		16.9	15.9	13.9	12.8	19.0	18.0	19.4	18.3	-26.8	-27.4	-7.0	-7.7	19.0	17.8
NCREIF Timberland Index (Timber)		9.7		7.8		1.6		-0.1		-4.7		9.5		18.4	

[1] Negative Market Value represents fees owed to the manager. No capital had been called as of quarter-end.

[2] Liquidating investment. Time-weighted returns are excluded as they are no longer meaningful.

Calendar Year Returns

TOWNSEND GROUP
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Los Angeles City Employee's Retirement System
Fourth Quarter 2019

Returns (%)	Market Value ($)	2019 TGRS	2019 TNET	2018 TGRS	2018 TNET	2017 TGRS	2017 TNET	2016 TGRS	2016 TNET	2015 TGRS	2015 TNET	2014 TGRS	2014 TNET
Opportunistic													
Apollo CPI Europe I [1]	476,519	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Bristol Value II, L.P.	17,720,450	8.5	6.9	6.7	5.1	17.1	15.3	11.0	9.1	8.2	6.1	12.4	10.6
Broadview Real Estate Partners Fund, L.P.	-5,068	N/A	N/A										
Bryanston Retail Opportunity Fund	5,012,864	18.3	17.9	23.5	22.9	-22.1	-22.4	-2.5	-2.8	144.0	142.1	7.3	5.8
California Smart Growth Fund IV	2,932,946	28.3	28.3	-6.1	-6.1	14.3	12.8	5.9	5.4	20.3	19.2	17.9	16.2
Canyon Johnson Urban Fund II [1]	33,292	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
CIM Real Estate Fund III	7,637,633	0.3	-1.1	5.9	4.5	8.0	6.4	5.4	4.0	8.3	7.1	11.0	9.8
CityView LA Urban Fund I [1]	0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Colony Investors VIII [1]	545,528	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
DRA Growth and Income Fund VI	956,216	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Integrated Capital Hospitality Fund	320,644	N/A	N/A	-42.7	-43.7	-17.6	-18.7	-34.0	-34.6	-14.6	-15.2	28.2	27.2
LaSalle Asia Fund II [1]	236,459	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Latin America Investors III [2]	-1,521,282	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Lone Star Fund VII [1]	98,578	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Lone Star Real Estate Fund II [1]	478,639	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
RECP Fund IV, L.P.	29,531,087	2.3	2.1	2.1	1.6	14.6	12.4	6.9	5.3	8.3	6.2	6.4	4.6
Southern California Smart Growth Fund [1]	40,020	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Stockbridge Real Estate Fund II	9,861,387	-4.6	-5.0	0.6	0.2	21.2	20.6	-4.7	-5.5	3.9	2.6	24.4	22.8
The Buchanan Fund V [1]	0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Torchlight Debt Opportunity Fund IV	4,755,228	-2.2	1.5	14.8	10.7	15.2	11.3	11.8	9.8	12.0	9.8	13.9	10.4
Tuckerman Group Residential Income & Value Added Fund [1]	451,426	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Walton Street Real Estate Fund V	2,224,409	-17.9	-18.1	-16.6	-17.1	4.5	3.5	2.1	0.7	11.9	10.4	13.2	11.7
Walton Street Real Estate Fund VI	8,790,469	2.0	1.0	4.2	3.1	9.2	7.9	-5.4	-6.6	13.5	12.2	14.8	13.4
Opportunistic	**90,577,444**	**0.1**	**-0.8**	**-1.0**	**-2.4**	**7.5**	**5.8**	**2.8**	**1.3**	**7.2**	**5.3**	**15.7**	**12.9**
Private Real Estate Portfolio Only (ex. Timber)	**757,669,342**	**7.7**	**6.3**	**8.6**	**7.1**	**10.2**	**8.8**	**8.2**	**6.9**	**11.3**	**9.6**	**13.8**	**12.0**
Non-Core Portfolio	**185,285,914**	**8.9**	**6.6**	**5.9**	**3.7**	**12.0**	**10.0**	**7.5**	**5.6**	**9.8**	**7.6**	**14.7**	**12.2**
Total Portfolio													
LACERS	**776,781,433**	**7.6**	**6.2**	**8.4**	**7.0**	**10.0**	**8.6**	**8.1**	**6.8**	**11.2**	**9.5**	**13.7**	**11.8**
Indices													
NFI-ODCE (Core)		4.8	4.1	8.3	7.4	7.6	6.7	8.8	7.8	15.0	14.0	12.5	11.5
NFI-ODCE + 80 bps (Total Portfolio)		5.6	4.9	9.1	8.2	8.4	7.5	9.6	8.6	15.8	14.8	13.3	12.3
NFI-ODCE + 200 bps (Non-Core Portfolio)		7.6	6.9	10.3	9.4	9.6	8.7	10.8	9.8	17.0	16.0	14.5	13.5
NFI-ODCE + 50 bps (Value Add)		5.3	4.6	8.8	7.9	8.1	7.2	9.3	8.3	15.5	14.5	13.0	12.0
NFI-ODCE + 300 bps (Opportunistic)		7.8	7.1	11.3	10.4	10.6	9.7	11.8	10.8	18.0	17.0	15.5	14.5
NCREIF Timberland Index (Timber)		1.3		3.4		3.6		2.7		5.0		10.5	

[1] Liquidating investment. Time-weighted returns are excluded as they are no longer meaningful.

[2] Negative Market Value represents fees owed to the manager. No capital had been called as of quarter-end.

Los Angeles City Employee's Retirement System
Fourth Quarter 2019

Returns (%)	Market Value ($)	2013		2012		2011		2010		2009		2008		2007	
		TGRS	TNET	TGRS	TNET	TGRS	TNET	TGRS	TNET	TGRS	TNET	TGRS	TNET	TGRS	TNET
Opportunistic															
Apollo CPI Europe I [1]	476,519	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Bristol Value II, L.P.	17,720,450	35.0	33.0												
Broadview Real Estate Partners Fund, L.P.	-5,068														
Bryanston Retail Opportunity Fund	5,012,864	50.5	47.5	40.1	37.2	-4.3	-7.2	20.9	18.3	12.8	10.2	73.9	69.4	-43.1	-45.5
California Smart Growth Fund IV	2,932,946	13.1	11.6	19.9	18.3	26.7	24.6	20.1	17.0	-34.6	-38.0	-46.3	-48.6	3.0	-2.5
Canyon Johnson Urban Fund II [1]	33,292	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
CIM Real Estate Fund III	7,637,633	11.1	9.9	20.8	19.4	21.8	19.8	15.3	-13.8	-53.5	-83.5	-117.3	-113.8		
CityView LA Urban Fund I [1]	0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Colony Investors VIII [1]	545,528	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
DRA Growth and Income Fund VI	956,216	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A		
Integrated Capital Hospitality Fund	320,644	12.1	11.0	96.8	87.9	6.0	2.6								
LaSalle Asia Fund II [1]	236,459	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Latin America Investors III [2]	-1,521,282	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A				
Lone Star Fund VII [1]	98,578	N/A	N/A	N/A	N/A	N/A	N/A								
Lone Star Real Estate Fund II [1]	478,639	N/A	N/A	N/A	N/A	N/A	N/A								
RECP Fund IV, L.P.	29,531,087	8.5	6.7	23.4	21.1	2.4	-1.4	12.5	4.3	-45.6	-54.8	-40.0	-40.0		
Southern California Smart Growth Fund [1]	40,020	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Stockbridge Real Estate Fund II	9,861,387	46.5	43.7	3.2	0.7	7.2	4.2	21.8	16.8	-86.3	-86.8	-83.4	-84.0	-27.9	-31.9
The Buchanan Fund V [1]	0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Torchlight Debt Opportunity Fund IV	4,755,228	3.6	3.0												
Tuckerman Group Residential Income & Value Added Fund [1]	451,426	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Walton Street Real Estate Fund V	2,224,409	12.9	11.2	9.5	7.8	10.1	8.0	48.0	44.0	-27.8	-31.1	-47.7	-48.7	10.3	8.6
Walton Street Real Estate Fund VI	8,790,469	16.0	14.3	12.1	10.4	14.3	12.3	173.3	162.1	-78.1	-84.0				
Opportunistic	**90,577,444**	**15.3**	**12.2**	**12.5**	**10.1**	**8.8**	**6.5**	**17.1**	**12.6**	**-39.0**	**-41.6**	**-36.6**	**-39.2**	**10.6**	**4.5**
Private Real Estate Portfolio Only (ex. Timber)	**757,669,342**	**13.4**	**11.3**	**12.8**	**11.1**	**12.8**	**10.9**	**13.3**	**10.5**	**-35.1**	**-36.7**	**-23.1**	**-24.3**	**14.3**	**11.1**
Non-Core Portfolio	**185,285,914**	**13.6**	**10.9**	**14.0**	**11.9**	**11.9**	**9.6**	**12.2**	**8.5**	**-38.8**	**-40.7**	**-30.0**	**-31.3**	**14.2**	**9.9**
Total Portfolio															
LACERS	**776,781,433**	**13.5**	**11.4**	**12.8**	**11.0**	**12.6**	**10.8**	**13.0**	**10.3**	**-34.4**	**-35.9**	**-22.5**	**-23.6**	**14.5**	**11.3**
Indices															
NFI-ODCE (Core)		13.9	12.9	10.9	9.8	16.0	15.0	16.4	15.3	-29.8	-30.4	-10.0	-10.7	16.0	14.8
NFI-ODCE + 80 bps (Total Portfolio)		14.7	13.7	11.7	10.6	16.8	15.8	17.2	16.1	-29.0	-29.6	-9.2	-9.9	16.8	15.6
NFI-ODCE + 200 bps (Non-Core Portfolio)		15.9	14.9	12.9	11.8	18.0	17.0	18.4	17.3	-27.8	-28.4	-8.0	-8.7	18.0	16.8
NFI-ODCE + 50 bps (Value Add)		14.4	13.4	11.4	10.3	16.5	15.5	16.9	15.8	-29.3	-29.9	-9.5	-10.2	16.5	15.3
NFI-ODCE + 300 bps (Opportunistic)		16.9	15.9	13.9	12.8	19.0	18.0	19.4	18.3	-26.8	-27.4	-7.0	-7.7	19.0	17.8
NCREIF Timberland Index (Timber)		9.7		7.8		1.6		-0.1		-4.7		9.5		18.4	

[1] Liquidating investment. Time-weighted returns are excluded as they are no longer meaningful.

[2] Negative Market Value represents fees owed to the manager. No capital had been called as of quarter-end.

Quarterly Cash Flow Activity ($)	Beginning Market Value	Contributions	Distributions	Withdrawals	Gross Income	Manager Fees	Appreciation	Ending Market Value	LTV (%)
Core									
Berkshire Multifamily Income Realty Fund	24,451,057	0	149,821	2,696,499	229,948	38,980	108,012	21,903,717	39.8
CIM Commercial Trust Corporation (“CMCT”)	10,618	0	0	0	-1,476	0	0	9,142	10.7
CIM VI (Urban REIT), LLC	32,601,622	0	234,216	0	214,390	107,852	-103,123	32,370,821	0.0
INVESCO Core Real Estate	185,222,069	1,636,557	1,715,060	0	1,764,953	166,095	2,503,116	189,245,540	24.7
Jamestown Premier Property Fund	39,259,370	58,889	122,079	0	75,697	101,840	-1,401	39,168,636	41.7
JP Morgan Strategic Property Fund	69,818,670	0	0	0	682,521	173,630	916,529	71,244,090	23.2
Kayne Anderson Core Real Estate Fund	11,271,600	5,453,378	180,666	0	175,583	23,520	204,721	16,901,096	42.1
Lion Industrial Trust - 2007	74,147,661	140,352	551,106	0	888,959	373,113	1,598,607	75,851,359	31.0
Prime Property Fund	57,565,840	0	568,301	0	536,270	149,422	492,606	57,876,993	16.7
Principal U.S. Property Account	66,949,346	0	0	0	706,727	161,477	317,438	67,812,034	18.8
Core	**561,297,853**	**7,289,176**	**3,521,249**	**2,696,499**	**5,273,572**	**1,295,929**	**6,036,505**	**572,383,428**	**25.9**
Timber									
Hancock Timberland XI	20,342,754	0	2,113,189	0	29,363	46,478	899,641	19,112,091	0.0
Timber	**20,342,754**	**0**	**2,113,189**	**0**	**29,363**	**46,478**	**899,641**	**19,112,091**	**0.0**
Value Added									
Almanac Realty Securities VI	6,813,282	0	989,304	1,337,576	176,296	9,749	-211,297	4,441,652	47.8
Asana Partners Fund I	21,936,266	0	0	0	135,286	221,883	706,718	22,556,387	41.3
Asana Partners Fund II	376,890	1,750,000	0	0	-71,350	109,375	197,543	2,143,708	0.0
Cornerstone Enhanced Mortgage Fund I	70,005	0	28,742	0	-41,263	-347	0	347	0.0
DRA Growth and Income Fund VII	6,947,484	0	590,276	0	126,220	233,829	1,268,395	7,517,994	53.0
DRA Growth and Income Fund VIII	18,599,549	462,963	891,341	1,071,611	451,987	209,018	592,670	17,935,199	70.0
Gerrity Retail Fund 2	17,412,482	63,758	193,634	0	243,212	56,319	70,014	17,539,513	56.3
Heitman Asia-Pacific Property Investors	11,861,223	313,985	450,385	0	503,294	24,164	699,551	12,903,504	48.0
Mesa West Real Estate Income Fund III	2,067,171	0	332,248	485,082	5,532	1,035	0	1,254,338	0.0
Standard Life Investments European Real Estate Club II	6,035,096	0	0	0	41,818	665,224	3,004,138	8,415,828	38.1
Value Added	**92,119,448**	**2,590,706**	**3,475,930**	**2,894,269**	**1,571,032**	**1,530,249**	**6,327,732**	**94,708,470**	**53.2**
Total Portfolio									
LACERS	**768,743,869**	**10,098,930**	**12,110,516**	**6,976,467**	**6,263,497**	**2,939,802**	**13,701,923**	**776,781,433**	**31.9**

Los Angeles City Employee's Retirement System
Fourth Quarter 2019

Quarterly Cash Flow Activity ($)	Beginning Market Value	Contributions	Distributions	Withdrawals	Gross Income	Manager Fees	Appreciation	Ending Market Value	LTV (%)
Opportunistic									
Apollo CPI Europe I	440,591	0	0	0	22,831	0	13,097	476,519	0.0
Bristol Value II, L.P.	16,162,511	219,048	33,651	0	51,607	60,147	1,381,082	17,720,450	37.9
Broadview Real Estate Partners Fund, L.P.	8,666	0	0	0	-56,560	0	42,826	-5,068	0.0
Bryanston Retail Opportunity Fund	4,240,661	0	0	0	-4,216	3,931	780,350	5,012,864	53.4
California Smart Growth Fund IV	3,742,190	0	0	804,127	-5,117	0	0	2,932,946	0.0
Canyon Johnson Urban Fund II	33,164	0	0	0	-539	0	667	33,292	0.0
CIM Real Estate Fund III	7,879,023	0	45,078	83,350	-28,041	27,397	-57,524	7,637,633	30.0
CityView LA Urban Fund I	35,686	0	30,328	0	-3,480	0	-1,878	0	0.0
Colony Investors VIII	546,413	0	0	0	958	0	-1,843	545,528	0.0
DRA Growth and Income Fund VI	1,003,851	0	68,000	0	20,365	8,407	8,407	956,216	59.0
Integrated Capital Hospitality Fund	2,121,839	0	0	0	-885,388	12,861	-902,946	320,644	46.8
LaSalle Asia Fund II	235,801	0	0	0	658	0	0	236,459	0.0
Latin America Investors III	-1,134,682	0	0	0	-109,910	46,410	-230,280	-1,521,282	20.1
Lone Star Fund VII	98,293	0	0	0	698	72	-342	98,578	0.0
Lone Star Real Estate Fund II	595,182	0	105,110	18,040	-26,266	-4,762	28,112	478,639	45.0
RECP Fund IV, L.P.	30,566,972	0	563,534	480,182	164,994	14,525	-142,638	29,531,087	42.7
Southern California Smart Growth Fund	39,465	0	0	0	555	0	0	40,020	0.0
Stockbridge Real Estate Fund II	9,731,566	0	0	0	43,100	8,808	95,529	9,861,387	3.5
The Buchanan Fund V	205,241	0	205,241	0	0	0	0	0	0.0
Torchlight Debt Opportunity Fund IV	6,125,709	0	1,298,024	0	57,510	-134,126	-264,093	4,755,228	14.5
Tuckerman Group Residential Income & Value Added Fund	445,486	0	0	0	-9,073	488	15,501	451,426	0.0
Walton Street Real Estate Fund V	2,437,143	0	0	0	-3,525	0	-209,209	2,224,409	56.6
Walton Street Real Estate Fund VI	9,423,043	0	651,182	0	158,369	22,988	-116,773	8,790,469	51.7
Opportunistic	**94,983,814**	**219,048**	**3,000,148**	**1,385,699**	**-610,470**	**67,146**	**438,045**	**90,577,444**	**38.6**
Private Real Estate Portfolio Only (ex. Timber)	**748,401,115**	**10,098,930**	**9,997,327**	**6,976,467**	**6,234,134**	**2,893,324**	**12,802,282**	**757,669,342**	**32.5**
Non-Core Portfolio	**187,103,262**	**2,809,754**	**6,476,078**	**4,279,968**	**960,562**	**1,597,395**	**6,765,777**	**185,285,914**	**47.1**
Total Portfolio									
LACERS	**768,743,869**	**10,098,930**	**12,110,516**	**6,976,467**	**6,263,497**	**2,939,802**	**13,701,923**	**776,781,433**	**31.9**

Property Type Diversification (%)	Apartment	Office	Industrial	Retail	Hotel	Other
Core						
Berkshire Multifamily Income Realty Fund	100.0	-	-	-	-	-
CIM Commercial Trust Corporation (“CMCT”)	-	81.7	-	-	14.5	3.8
CIM VI (Urban REIT), LLC	60.0	20.2	-	19.9	-	-
INVESCO Core Real Estate	27.6	35.5	18.9	15.4	-	2.5
Jamestown Premier Property Fund	-	67.4	-	24.8	-	7.8
JP Morgan Strategic Property Fund	20.9	36.5	17.0	24.0	-	1.6
Kayne Anderson Core Real Estate Fund	-	-	-	-	-	100.0
Lion Industrial Trust - 2007	-	-	100.0	-	-	-
Prime Property Fund	25.3	31.1	22.1	11.9	-	9.6
Principal U.S. Property Account	18.7	38.7	22.6	14.5	-	5.5
Core	**23.7**	**29.8**	**26.5**	**13.8**	**0.0**	**6.1**
Timber						
Hancock Timberland XI	-	-	-	-	-	100.0
Timber	**-**	**-**	**-**	**-**	**-**	**100.0**
Value Added						
Almanac Realty Securities VI	29.9	-	-	-	66.9	3.2
Asana Partners Fund I	-	-	-	100.0	-	-
Asana Partners Fund II	-	-	-	100.0	-	-
Cornerstone Enhanced Mortgage Fund I	-	-	-	-	-	-
DRA Growth and Income Fund VII	56.1	29.4	-	14.5	-	-
DRA Growth and Income Fund VIII	8.3	27.4	16.0	48.3	-	-
Gerrity Retail Fund 2	-	-	-	100.0	-	-
Heitman Asia-Pacific Property Investors	-	55.2	-	23.5	-	21.3
Mesa West Real Estate Income Fund III	100.0	-	-	-	-	-
Standard Life Investments European Real Estate Club II	-	-	-	-	-	100
Value Added	**6.5**	**13.3**	**3.1**	**62.8**	**2.8**	**11.5**
Total Portfolio						
Los Angeles City Employees' Retirement System	**19.3**	**25.5**	**20.4**	**18.2**	**2.4**	**14.2**
Indices						
NFI-ODCE	**25.7**	**33.4**	**20.3**	**16.1**	**0.1**	**4.3**

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Los Angeles City Employee's Retirement System
Fourth Quarter 2019

Property Type Diversification (%)	Apartment	Office	Industrial	Retail	Hotel	Other
Opportunistic						
Apollo CPI Europe I	-	-	-	-	-	-
Bristol Value II, L.P.	14.7	54.8	-	-	-	30.6
Broadview Real Estate Partners Fund, L.P.	-	-	100.0	-	-	-
Bryanston Retail Opportunity Fund	-	-	-	90.2	-	9.8
California Smart Growth Fund IV	-	-	64.1	-	-	35.9
Canyon Johnson Urban Fund II	-	-	-	100.0	-	-
CIM Real Estate Fund III	19.6	17.5	-	10.0	25.4	27.4
CityView LA Urban Fund I	-	-	-	-	-	-
Colony Investors VIII	-	-	-	-	-	100.0
DRA Growth and Income Fund VI	-	41.6	-	58.4	-	-
Integrated Capital Hospitality Fund	-	-	-	-	100.0	-
LaSalle Asia Fund II	-	-	-	-	-	-
Latin America Investors III	-	17.3	-	-	-	82.7
Lone Star Fund VII	-	-	-	-	-	100.0
Lone Star Real Estate Fund II	-	20.3	-	9.9	-	69.8
RECP Fund IV, L.P.	3.6	3.8	6.2	-	37.0	49.5
Southern California Smart Growth Fund	-	-	-	-	-	-
Stockbridge Real Estate Fund II	-	-	-	-	-	100.0
The Buchanan Fund V	-	-	-	-	-	-
Torchlight Debt Opportunity Fund IV	13.1	3.5	0.4	34.0	30.8	18.2
Tuckerman Group Residential Income & Value Added Fund	-	-	-	-	-	100.0
Walton Street Real Estate Fund V	-	-	-	4.5	17.3	78.1
Walton Street Real Estate Fund VI	3.5	4.4	-	-10.8	3.9	99.1
Opportunistic	**6.7**	**15.0**	**3.6**	**7.6**	**19.6**	**47.5**
Private Real Estate Portfolio Only (ex. Timber)	**19.9**	**25.0**	**22.7**	**18.9**	**2.5**	**11.1**
Non-Core Portfolio	**6.3**	**13.5**	**3.2**	**31.1**	**10.1**	**35.7**
Total Portfolio						
Los Angeles City Employees' Retirement System	**19.3**	**25.5**	**20.4**	**18.2**	**2.4**	**14.2**
Indices						
NFI-ODCE	**25.7**	**33.4**	**20.3**	**16.1**	**0.1**	**4.3**

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Geographic Diversification (%)	North East	Mid East	East North Central	West North Central	South East	South West	Mountain	Pacific	Var-US	Ex-US
Core										
Berkshire Multifamily Income Realty Fund	6.8	5.5	8.4	3.8	24.8	11.3	8.1	31.4	-	-
CIM Commercial Trust Corporation (“CMCT”)	-	-	-	-	-	-	-	-	100.0	-
CIM VI (Urban REIT), LLC	57.0	9.3	-	-	-	23.9	-	9.9	-	-
INVESCO Core Real Estate	19.4	7.1	2.2	0.7	1.7	13.8	10.3	44.7	-	-
Jamestown Premier Property Fund	30.1	29.9	-	-	4.4	-	-	35.6	-	-
JP Morgan Strategic Property Fund	19.6	6.6	4.6	0.1	4.7	15.8	2.6	46.0	-	-
Kayne Anderson Core Real Estate Fund	1.0	10.1	4.2	9.6	33.5	26.2	8.6	6.7	-	-
Lion Industrial Trust - 2007	20.5	1.9	7.5	1.3	14.8	14.3	5.8	34.0	-	-
Prime Property Fund	23.9	7.0	9.0	1.5	13.0	8.1	5.0	32.5	-	-
Principal U.S. Property Account	17.0	9.0	2.9	1.2	8.7	14.3	11.5	35.4	-	-
Core	**21.6**	**8.3**	**4.0**	**1.1**	**7.7**	**13.5**	**6.9**	**36.9**	**-**	**-**
Timber										
Hancock Timberland XI	-	-	-	-	-	-	-	22.6	62.4	15.0
Timber	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**22.6**	**62.4**	**15.0**
Value Added										
Almanac Realty Securities VI	-	-	-	-	-	-	-	-	100.0	-
Asana Partners Fund I	9.6	38.5	-	-	23.0	21.9	-	7.0	-	-
Asana Partners Fund II	23.6	38.3	-	-	-	-	2.6	35.5	-	-
Cornerstone Enhanced Mortgage Fund I	-	-	-	-	-	-	-	-	100.0	-
DRA Growth and Income Fund VII	-	8.9	8.7	4.2	47.2	3.0	5.5	22.6	-	-
DRA Growth and Income Fund VIII	5.8	7.5	27.3	12.7	16.9	8.7	1.1	19.9	-	-
Gerrity Retail Fund 2	-	-	-	-	-	-	-	100.0	-	-
Heitman Asia-Pacific Property Investors	-	-	-	-	-	-	-	-	-	100.0
Mesa West Real Estate Income Fund III	100.0	-	-	-	-	-	-	-	-	-
Standard Life Investments European Real Estate Club II	-	-	-	-	-	-	-	-	-	100.0
Value Added	**5.2**	**12.2**	**5.9**	**2.7**	**12.4**	**7.1**	**0.7**	**26.6**	**4.7**	**22.5**
Total Portfolio										
LACERS	**19.9**	**8.4**	**3.8**	**1.2**	**8.6**	**11.0**	**5.5**	**34.0**	**2.9**	**4.8**
Indices										
NFI-ODCE	**21.8**	**8.5**	**7.3**	**1.2**	**9.5**	**9.2**	**6.2**	**36.2**	**-**	**-**

Geographic Diversification (%)	North East	Mid East	East North Central	West North Central	South East	South West	Mountain	Pacific	Var-US	Ex-US
Opportunistic										
Apollo CPI Europe I	-	-	-	-	-	-	-	-	100.0	-
Bristol Value II, L.P.	48.7	-	-	-	42.8	-	8.5	-	-	-
Broadview Real Estate Partners Fund, L.P.	-	-	100.0	-	-	-	-	-	-	-
Bryanston Retail Opportunity Fund	16.4	0.0	9.8	0.2	1.5	12.0	13.5	46.5	-	-
California Smart Growth Fund IV	-	-	-	-	-	-	-	100.0	-	-
Canyon Johnson Urban Fund II	100.0	-	-	-	-	-	-	-	-	-
CIM Real Estate Fund III	19.6	-	7.5	-	32.9	-	11.7	28.2	-	-
CityView LA Urban Fund I	-	-	-	-	-	-	-	-	100.0	-
Colony Investors VIII	-	-	-	-	-	-	-	94.8	-	5.2
DRA Growth and Income Fund VI	5.1	-	-	-	36.5	-	58.4	-	-	-
Integrated Capital Hospitality Fund	-	100.6	-	-	-	-0.6	-	-	-	-
LaSalle Asia Fund II	-	-	-	-	-	-	-	-	100.0	-
Latin America Investors III	-	-	-	-	-	-	-	-	-	100.0
Lone Star Fund VII	-	-	100.0	-	-	-	-	-	-	-
Lone Star Real Estate Fund II	-	-	-	-	-	-	-	-	90.1	9.9
RECP Fund IV, L.P.	21.4	18.3	-	-	-	1.4	0.0	18.2	-	40.7
Southern California Smart Growth Fund	-	-	-	-	-	-	-	-	100.0	-
Stockbridge Real Estate Fund II	-	-	-	-	-	-	-	100.0	-	-
The Buchanan Fund V	-	-	-	-	-	-	-	-	100.0	-
Torchlight Debt Opportunity Fund IV	-	-	-	-	-	-	-	-	100.0	-
Tuckerman Group Residential Income & Value Added Fund	100.0	-	-	-	-	-	-	-	-	-
Walton Street Real Estate Fund V	-	-	-	-	8.3	-	0.3	7.2	-	84.2
Walton Street Real Estate Fund VI	93.3	4.8	2.1	-0.2	1.9	2.6	-15.0	4.8	-	5.9
Opportunistic	**28.7**	**6.8**	**1.5**	**0.0**	**12.0**	**1.4**	**2.6**	**26.2**	**6.6**	**14.3**
Private Real Estate Portfolio Only (ex. Timber)	**20.4**	**8.6**	**3.9**	**1.2**	**8.8**	**11.3**	**5.6**	**34.3**	**1.4**	**4.5**
Non-Core Portfolio	**16.7**	**9.5**	**3.7**	**1.4**	**12.2**	**4.3**	**1.6**	**26.4**	**5.6**	**18.5**
Total Portfolio										
LACERS	**19.9**	**8.4**	**3.8**	**1.2**	**8.6**	**11.0**	**5.5**	**34.0**	**2.9**	**4.8**
Indices										
NFI-ODCE	**21.8**	**8.5**	**7.3**	**1.2**	**9.5**	**9.2**	**6.2**	**36.2**	**-**	**-**

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Advisory Disclosures and Definitions

Disclosure
Trade Secret and Confidential.

Past performance is not indicative of future results.

Investing involves risk, including the possible loss of principal.

Returns are presented on a time weighted basis and shown both gross and net of underlying third party fees and expenses and may include income, appreciation and/or other earnings. In addition, investment level Net IRR's and equity multiples are reported.

The Townsend Group, on behalf of its client base, collects quarterly limited partner/client level performance data based upon inputs from the underlying investment managers. Data collection is for purposes of calculating investment level performance as well as aggregating and reporting client level total portfolio performance. Quarterly limited partner/client level performance data is collected directly[1] from the investment managers via a secure data collection site.

[1]In select instances where underlying investment managers have ceased reporting limited partner/client level performance data directly to The Townsend Group via a secure data collection site, The Townsend Group may choose to input performance data on behalf of its client based upon the investment managers quarterly capital account statements which are supplied to The Townsend Group and the client alike.

Benchmarks
The potential universe of available real asset benchmarks are infinite. Any one benchmark, or combination thereof, may be utilized on a gross or net of fees basis with or without basis point premiums attached. These benchmarks may also utilize a blended composition with varying weighting methodologies, including market weighted and static weighted approaches.

Exhibit B: Real Estate Market Update

United States Real Estate Market Update (4Q19)

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General

- The S&P 500 produced a gross total return of 9.1% during the quarter. The MSCI US REIT index produced a return of -0.8%. Ending the year on a high note, Consumer Sentiment increased to 99.3. Subsequent to quarter-end, the macro environment took a sharp turn as a result of the novel coronavirus spreading globally, disrupting supply chains, and impacting consumer behavior.

- Macro indicators for U.S. real estate continue to be positive; GDP grew at an annualized rate of 2.0% in the fourth quarter and headline CPI rose by 2.3% YoY, just above the Fed's 2% target. As of quarter-end, the economy has now experienced 111 consecutive months of job growth. The Federal Reserve cut rates three times in 2019 and, in 2020, an emergency 50bps rate cut was made intermeeting as a result of the previously mentioned coronavirus.

Commercial Real Estate

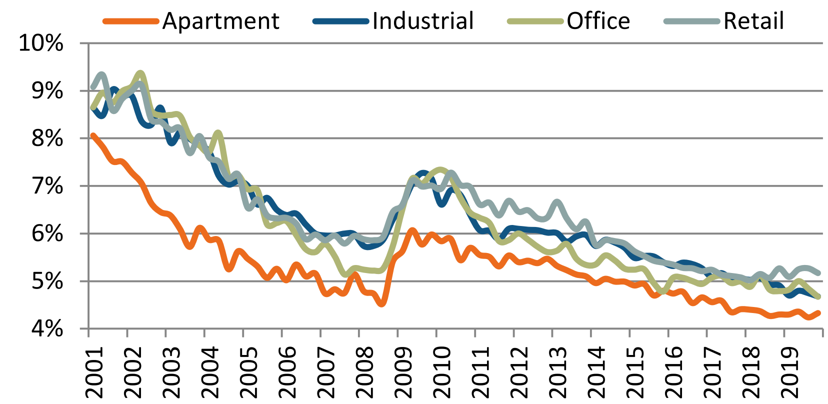
- Private real estate market carrying values remained flat over the quarter. Transaction cap rates (5.4%) expanded 4 bps during the quarter, while current valuation cap rates compressed across property sectors, industrial (-7 bps), office (-17 bps), and retail (-10 bps). Apartment cap rates were expanded 9 bps during the quarter.

- NOI growth continues to be elevated across property sectors during the quarter, with the industrial sector continuing to outpace the other traditional property types. While the industrial sector has faced increasing supply, it continues to benefit from outsized demand tailwinds (e-commerce and economic growth). Retail NOI growth continues to struggle (-82 bps) in the face of e-commerce headwinds.

- In the fourth quarter of 2019, $22 bn of aggregate capital was raised by real estate funds. Through the fourth quarter of 2019, private equity real estate funds raised $157 bn which is an increase of 5% YoY. Transaction volume was flat during the 4th quarter at $581.2 bn.

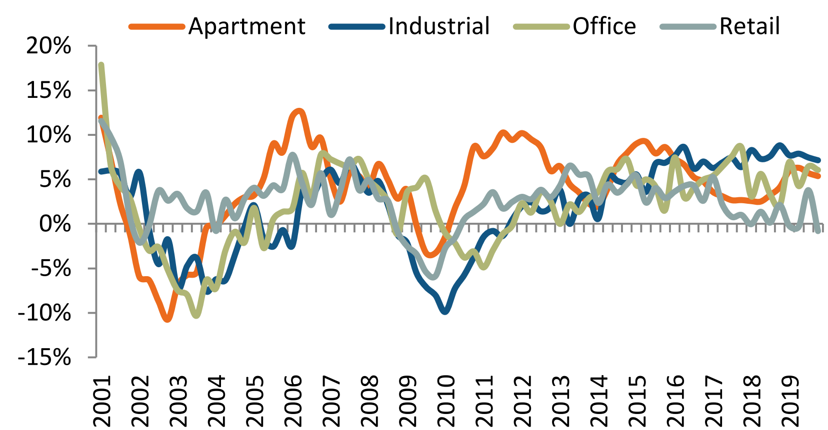
- 10-year treasury bond yields increased to 1.88% during the quarter, and, subsequent to quarter-end, have dropped to 0.57%.

Current Value Cap Rates by Property Type



Source: NCREIF

4 Qtr Rolling NOI Growth



Source: NCREIF

Sources: Bureau of Economic Analysis, U.S. Census Bureau, Federal Reserve Board, NCREIF, Cushman and Wakefield, Real Capital Analytics, Bloomberg LP., Preqin, University of Michigan, Green Street

United States Property Matrix (4Q19)

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INDUSTRIAL

- In 4Q19, industrial properties were the highest returning sector at 3.2% and outperformed the NPI by 160 bps.
- Transaction volumes reached $35.9 billion in the fourth quarter of the year, a 10.0% year-over-year increase. Individual asset sales were up 25.5% year-over-year, while portfolio purchases turned in a year-over-year volume increase of 149.0%. Yet again, portfolio transaction volume was driven by multiple megadeals occurring in the sector, as well as a significant year-over-year decrease in entity-level transactions. This large portfolio transaction volume increase is expected to be an outlier and should regress to the mean positive growth rate.
- The industrial sector continued to experience steady NOI growth of 7.1% over the past year, decreasing from the prior periods TTM growth of 7.5% in 3Q19. Market rent growth is expected to decelerate compared to the recent phenomenal pace, but still remains strong.
- Vacancy increased by 11 bps to 3.3%, still remaining close to all-time historic lows. E-commerce continues to drive demand.
- Industrial cap rates compressed approximately 23 bps from a year ago, to 4.68%. Industrial fundamentals still top all property sectors.

MULTIFAMILY

- The apartment sector delivered a 1.5% return during the quarter, underperforming the NPI by 9 bps.
- Transaction volume in the fourth quarter of 2019 reached $52.7 billion, an decrease of 1.8% year-over-year. This volume continues to make multifamily the most actively traded sector for the tenth straight quarter.
- Cap rates grew to 4.33%, inflating 3 bps year-over-year. Robust job growth and improving wages have supported healthy operating fundamentals.
- Steady demand for the sector continues to keep occupancy floating around 94.0%, vacancy has decreased 16 bps from a year ago. The aging millennials have begun shifting their desires to suburban living but continued home price appreciation has deterred the full effect of this migratory trend.

OFFICE

- The office sector returned 1.7% in 4Q19, 15 bps above the NPI return over the period.
- Transaction volumes decreased by 3.8% year-over-year in Q4. Annual sales volumes equaled $41.1 billion for the quarter. Single asset transactions accounted for 79% of volume.
- Occupancy growth within the office sector has improved, increasing 0.7% year-over-year. Office continues to be the highest vacancy property type at close to 9.8%.
- NOI growth of 6.1% in the last year is a positive as the sector continues to benefit from positive job growth. Sun Belt and tech-oriented West Coast office fundamentals continue to prove healthiest.
- Office cap rates compressed from a year ago to approximately 4.67% in the fourth quarter. Office-using job growth is positive, though decelerating as expected.

RETAIL

- As of 4Q19, the retail sector delivered a quarterly return of 0.1%, performing 150 bps below the NPI.
- Transaction volumes totaled $19.4 billion in the fourth quarter, increasing 2.5% year-over-year.
- Cap rates have compressed approximately 10 bps within the sector over the last year. Strong fundamental headwinds continue to affect the retail landscape.
- After showing positive for the first time this year last quarter, NOI growth has turned a negative for the fourth quarter. NOI has decreased 82 bps over the past year. Retail is expected to continue to suffer from the shift towards e-commerce.
- Retail vacancy rates increased 19 bps over the past year to 7.1%. Many big box stores have closed as the need for retail space shrinks, translating to a negative outlook for rent growth.

Sources: Real Capital Analytics, Green Street, NCREIF

Global Real Estate Market Update (4Q19)

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- Global investment activity during the fourth quarter of 2019 was down relative to the same period in 2018. In 2019, the New York, San Francisco and Los Angeles metro markets have witnessed the greatest transaction volume.
- Broad geopolitical risk factors, such as Brexit and the Trade War, continue to have negatively influenced sentiment. An impending global slowdown, especially in the manufacturing sector, further dampened transaction volumes. Loose monetary policy continued supporting low yields and pushing capital inflows towards real estate which offers a premium to other asset classes.

Global Total Commercial Real Estate Volume - 2018 - 2019

$ US Billions	Q4 2019	Q4 2018	% Change Q4 19 - Q4 18	2019	2018	% Change 2019 - 2018
Americas	155	159	-2%	520	525	-1%
EMEA	121	124	-3%	335	361	-7%
Asia Pacific	199	229	-13%	825	868	-5%
Total	475	512	-7%	1680	1754	-4%

Source: Real Capital Analytics, Inc., Q4' 19

- Investment volumes in the Americas decreased by 2% year-over-year, including Canada and Brazil showing declines, the US remaining unchanged, and Mexico posting investment volume growth.
- The Asia Pacific region declined as a whole due largely to activity levels falling in several key markets. Specifically in Hong Kong, volume hit its lowest level since the Global Financial Crisis as a product of continued sociopolitical uncertainty within the metro. Japan was the sole country to experience growth as Australia was flat and both China and South Korea declined.
- In EMEA, Brexit continued to press UK investment volumes lower, a 21% decline from fourth quarter 2018. Growth was mixed for the rest of EMEA countries with Italy, Ireland, Sweden, and Greece reporting the largest increases.
- In the office sector, global leasing activity was healthy but moderated in the final quarter of 2019. The U.S office market saw net absorption hit a cyclical high despite a 6% QoQ decline in leasing activity. Europe experienced an uptick in demand, and office net absorption surpassed the 10 year average by nearly 20%. Economic, geopolitical, and sectoral headwinds subdued leasing activity in the APAC region resulting in leasing volumes 13% lower than in 2018.
- The retail sector continued to face headwinds globally as e-commerce disrupts traditional consumer spending habits. Within the U.S., net absorption continued to trend downward, declining 10% YoY. Retail sales increased 3.8% YoY driven by non-store retailers and food services. Across Europe, rents were broadly stable, while APAC markets rents were muted.
- The multifamily market in the U.S. has continued to see strong growth, with vacancy rates hitting their lowest Q4 level since 2000. Construction remains near peak levels, possibly presenting future supply headwinds. Rent control and low supply constrained activity in many European markets, but investment volume remains positive. APAC markets were mixed, a result of macroeconomic uncertainty and holiday season effects.
- Industrial properties demand continued to grow but at a slower pace. Uptake was robust globally driven by logistics and omnichannel distribution demand. New supply has been increasing rapidly, and there are signs of slowing demand in Asia while Europe recovered from a slow start earlier in the year.

Global Outlook - GDP (Real) Growth % pa, 2019-2021

	2019	2020	2021
Global	**2.9**	**3.0**	**3.3**
Asia Pacific	**4.5**	**4**	**4.4**
Australia	1.8	2.0	2.6
China	6.1	5.5	5.8
India	5.0	5.8	6.6
Japan	0.8	0.3	0.8
North America	**2.1**	**1.7**	**2.0**
US	2.3	1.8	2.0
MENA*	**2.0**	**2.7**	**2.9**
European Union	**1.5**	**1.2**	**1.5**
France	1.3	1	1.3
Germany	0.6	0.6	1.2
UK	1.4	1.0	1.5

*Middle East North Africa
Source: Bloomberg (March 2, 2020)

Sources: Jones Lang LaSalle Research, Real Capital Analytics, Inc., CBRE

Exhibit C: Glossary

TOWNSEND® GROUP
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Cash Flow Statement

Beginning Market Value:	**Value of real estate, cash and other holdings from prior period end.**
Contributions:	Cash funded to the investment for acquisition and capital items (i.e., initial investment cost or significant capital improvements).
Distributions:	Actual cash returned from the investment, representing distributions of income from operations.
Withdrawals:	Cash returned from the investment, representing returns of capital or net sales proceeds.
Ending Market Value:	The value of an investment as determined by actual sales dollars invested and withdrawn plus the effects of appreciation and reinvestment; market value is equal to the ending cumulative balance of the cash flow statement (NAV).
Unfunded Commitments:	Capital allocated to managers which remains to be called for investment. Amounts are as reported by managers.
Remaining Allocation	The difference between the ending market value + the unfunded commitments and the target allocation. This figure represents dollars available for allocation.

Style Groups

TOWNSEND® GROUP
an Aon company

The Style Groups consist of returns from commingled funds with similar risk/return investment strategies. Investor portfolios/investments are compared to comparable style groupings.	
Core:	Direct investments in operating, fully leased, office, retail, industrial, or multifamily properties using little or no leverage (normally less than 30%).
Value-Added:	Core returning investments that take on moderate additional risk from one or more of the following sources: leasing, re-development, exposure to non-traditional property types, the use of leverage (typically between 40% and 65%).
Opportunistic:	Investments that take on additional risk in order to achieve a higher return. Typical sources of risks are: development, land investing, operating company investing, international exposure, high leverage (typically between 50% and 65% or higher), distressed properties.

Indices

TOWNSEND® GROUP
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Stylized Index:	**Weights the various style group participants so as to be comparable to the investor portfolio holdings for each period.**
Open-End Diversified Core Equity Index ("ODCE"):	A core index that includes only open-end diversified core strategy funds with at least 95% of their investments in U.S. markets. The ODCE is the first of the NCREIF Fund Database products, created in May 2005, and is an index of investment returns reporting on both a historical and current basis (24 active vehicles). The ODCE Index is capitalization-weighted and is reported gross and net of fees. Measurement is time-weighted and includes leverage.
NCREIF Timberland Index ("NTI"):	National Index comprised of a large pool of individual timber properties owned by institutions for investment purposes.
NCREIF Property Index ("NPI"):	National Property Index comprised of core equity real estate assets owned by institutions.

Performance

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Income Return ("INC"):	**Net operating income net of debt service before deduction of capital items (e.g., roof replacement, renovations, etc.)**
Appreciation Return ("APP"):	Increase or decrease in investment's value based on internal or third party appraisal, recognition of capital expenditures which did not add value or uncollectible accrued income, or realized gain or loss from sales.
Total Gross Return ("TGRS"):	The sum of the income return and appreciation return before adjusting for fees paid to and/or accrued by the manager.
Total Net Return ("TNET"):	Total gross return less Advisor fees reported. All fees are requested (asset management, accrued incentives, paid incentives). No fee data is verified. May not include any fees paid directly by the investor as opposed to those paid from cash flows.
Inception Returns[1]:	The total net return for an investment or portfolio over the period of time the client has funds invested. Total portfolio Inception Returns may include returns from investments no longer held in the current portfolio.
Net IRR:	IRR after advisory fees, incentive and promote. This includes actual cash flows and a reversion representing the LP Net Assets at market value as of the period end reporting date.
Equity Multiple:	The ratio of Total Value to Paid-in-Capital (TVPIC). It represents the Total Return of the investment to the original investment not taking into consideration the time invested. Total Value is computed by adding the Residual Value and Distributions. It is calculated net of all investment advisory and incentive fees and promote.

[1] Portfolio level returns include historical returns of managers no longer with assets under management.
All returns are calculated on a time-weighted basis.

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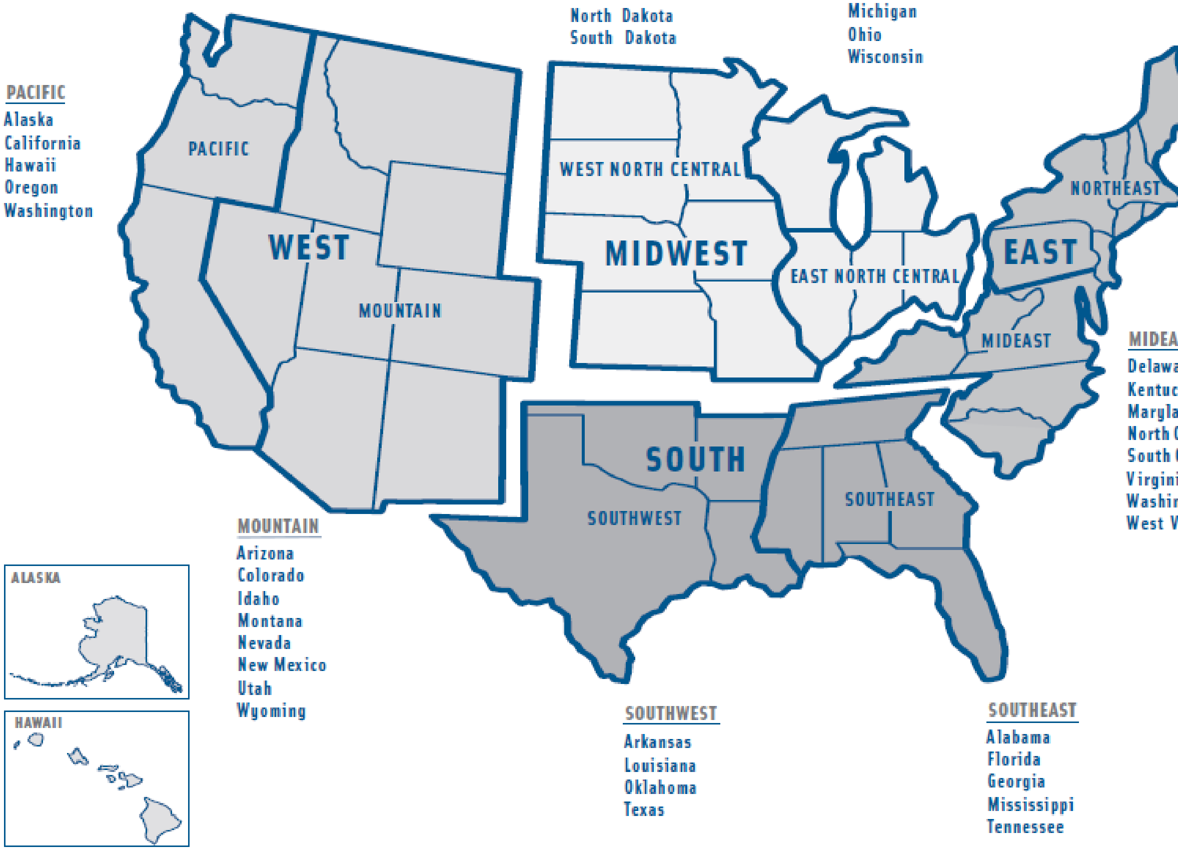
GEOGRAPHIC REGIONS and DIVISIONS



WEST NO. CENTRAL
Iowa
Kansas
Minnesota
Missouri
Nebraska
North Dakota
South Dakota

EAST NO. CENTRAL
Illinois
Indiana
Michigan
Ohio
Wisconsin

NORTHEAST
Connecticut
Maine
Massachusetts
New Hampshire
New Jersey
New York
Pennsylvania
Rhode Island
Vermont

PACIFIC
Alaska
California
Hawaii
Oregon
Washington

MIDEAST
Delaware
Kentucky
Maryland
North Carolina
South Carolina
Virginia
Washington, DC
West Virginia

MOUNTAIN
Arizona
Colorado
Idaho
Montana
Nevada
New Mexico
Utah
Wyoming

SOUTHWEST
Arkansas
Louisiana
Oklahoma
Texas

SOUTHEAST
Alabama
Florida
Georgia
Mississippi
Tennessee

NCREIF

PORTFOLIO PERFORMANCE REVIEW

LOS ANGELES CITY EMPLOYEES' RETIREMENT SYSTEM

Quarter Ending March 31, 2020

LACERS
LOS ANGELES CITY EMPLOYEES' RETIREMENT SYSTEM

NEPC

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

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EXECUTIVE SUMMARY

NEPC, LLC

PERFORMANCE OVERVIEW

Q1 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
2.8%	39.8	-124 bps	-19.6%	-22.8%	-23.6%	3.1%	-12.7%	-13.4%	-67.1%	4.0%	-25.5%

	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	**$16,280,181,604**	**-13.17%**	**57**	**-8.08%**	**52**	**-4.85%**	**49**	**3.44%**	**31**	**4.09%**	**36**	**7.04%**	**25**	**6.20%**	**22**	**7.61%**	**Oct-94**
Policy Index		-14.48%	74	-8.57%	65	-5.39%	60	3.17%	37	3.97%	39	6.85%	29	6.02%	27	7.54%	Oct-94
InvMetrics Public DB $1-50B Gross Median		-12.57%		-7.95%		-4.88%		2.63%		3.45%		6.24%		5.52%		7.42%	Oct-94

Note: Performance is gross of fees

Global risk assets declined during the quarter as markets digested the potential economic impact of COVID-19

- The U.S. Equity composite under-performed. The Non-U.S. Equity composite under-performed due to manager selection.

Credit spreads increased, ending the quarter well above long-term medians

- The Total Fixed Income composite underperformed due to manager selection

Widespread stimulative fiscal and monetary policies have been implemented to help support economic growth

Energy prices collapsed as tensions intensified between Saudi Arabia and Russia, leading to supply gluts and a sharp decline in prices

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

MARKET OUTLOOK

NEPC, LLC

MACRO PERFORMANCE OVERVIEW

Q1 Macro Market Summary

The US announced a $2.2 trillion dollar stimulus package, representing roughly 10% of total GDP

Government bond yields declined with the US 10-Year Treasury yields falling 124 bps, ending Q1 at historical lows

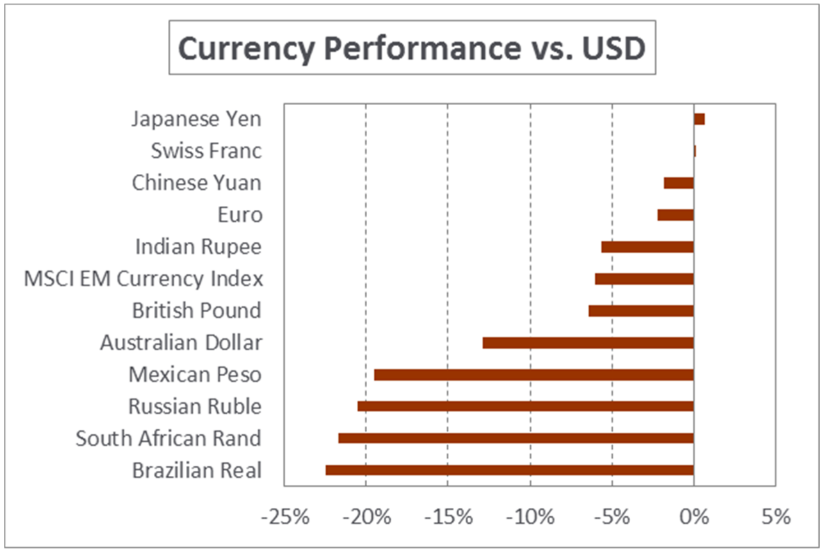
Safe-haven currencies broadly rallied, reflecting a flight-to-quality across markets

	Yield 12/31/19	Yield 03/31/20	|Δ|
US 10-Year	1.92%	0.68%	-1.24%
US 30-Year	2.39%	1.32%	-1.07%
US Real 10-Year	0.15%	-0.17%	-0.32%
German 10-Year	-0.19%	-0.49%	-0.30%
Japan 10-Year	-0.02%	0.02%	0.04%
China 10-Year	3.20%	2.61%	-0.59%
EM Local Debt	5.22%	5.36%	0.14%

Source: FactSet

Central Banks	Current Rate	CPI YOY	Notes from the Quarter
Federal Reserve	0.00% - 0.25%	2.3%	The Fed cut interest rates by a total of 150 basis points in two emergency meetings in March and announced unlimited QE
European Central Bank	0.00%	1.2%	The ECB maintained its current benchmark interest rates and announced an €750 billion QE program
Bank of Japan	-0.10%	0.5%	The BoJ continued its ultra-easy QE and introduced an unscheduled policy to purchase an additional ¥1 trillion worth of government bond

Source: FactSet

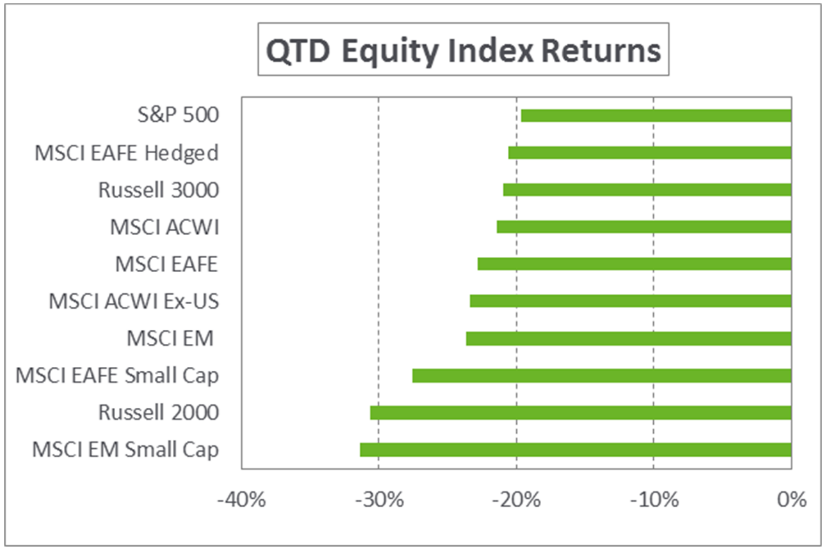


Source: FactSet

EQUITY PERFORMANCE OVERVIEW

Q1 Equity Market Summary

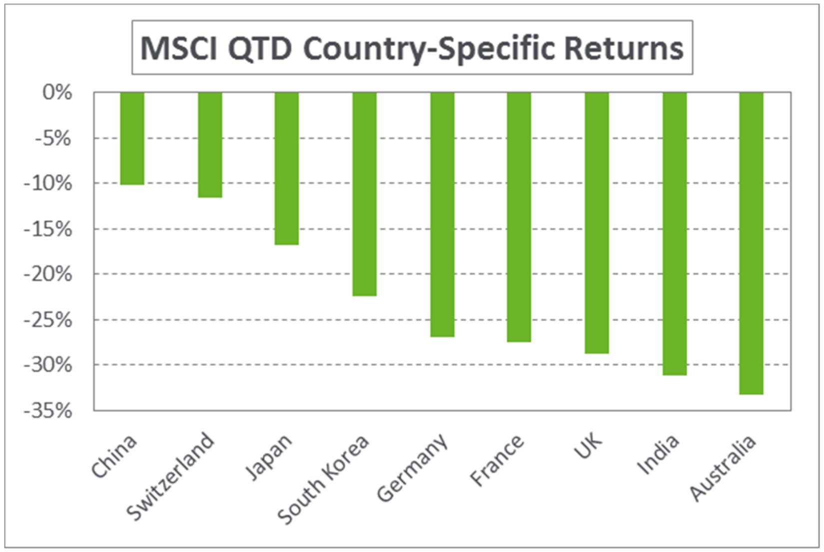
- **Global equities entered bear markets, falling over 20% from the peaks, amid COVID-19 concerns**
- **Small cap equities underperformed given their sensitivity and vulnerability to an economic slowdown**
- **Chinese equities performed relatively well as COVID-19 cases declined and manufacturing data rebounded**



Source: FactSet

Russell 3000 QTD Sector Returns	
Technology	-12.1%
Health Care	-12.9%
Consumer Discretionary	-20.5%
Consumer Staples	-15.1%
Energy	-51.6%
Materials & Processing	-28.3%
Producer Durables	-27.8%
Financial Services	-28.6%
Utilities	-15.1%

Source: FactSet



Source: FactSet

CREDIT PERFORMANCE OVERVIEW

Q1 Credit Market Summary

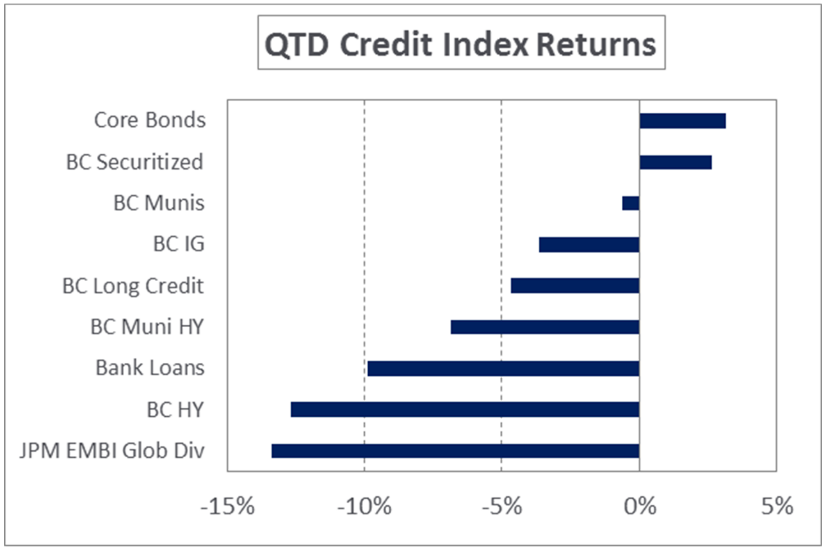
Credit spreads increased, ending the quarter well above long-term medians

US corporate high yield bonds fell 12.7% after spreads widened by 544 bps

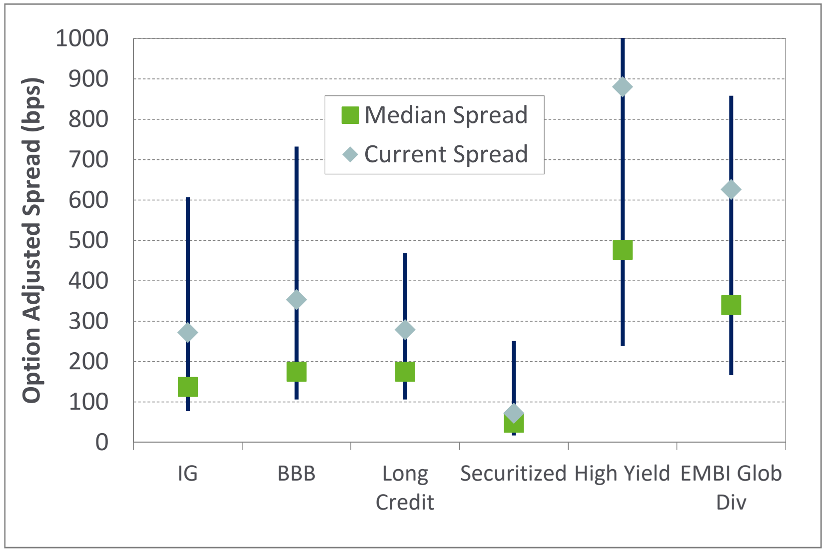
Long credit returns decreased 4.7%, reflecting spread widening, which offset the decline in rates rates

Credit Spread (Basis Points)	12/31/2019	3/31/2020	|Δ|
BC IG Credit	93	272	179
BC Long Credit	139	279	140
BC Securitized	42	72	30
BC High Yield	336	880	544
Muni HY	226	473	247
JPM EMBI	291	626	335
Bank Loans - Libor	372	734	362

Source: FactSet



Source: FactSet



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

REAL ASSETS PERFORMANCE OVERVIEW

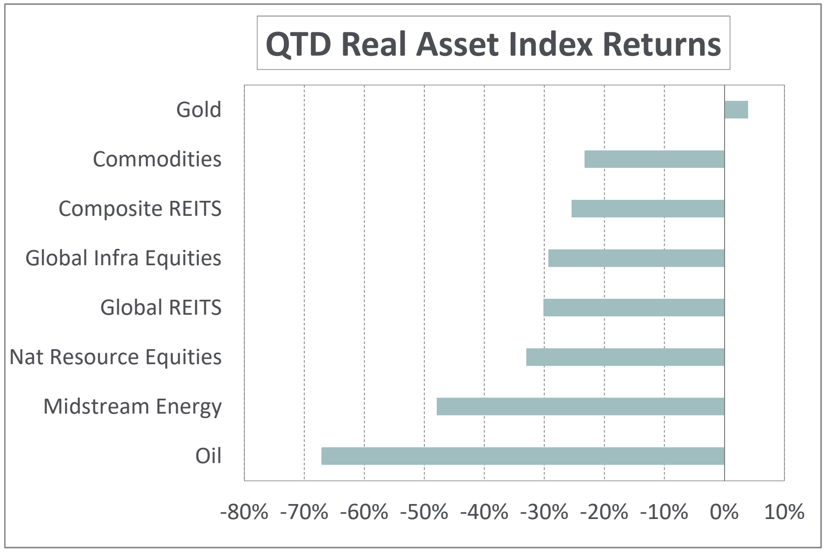
Q1 Real Assets Market Summary

Spot WTI crude oil fell 67.1% as the Russia-Saudi Arabia price war and demand uncertainties from COVID-19 impacted both supply and demand

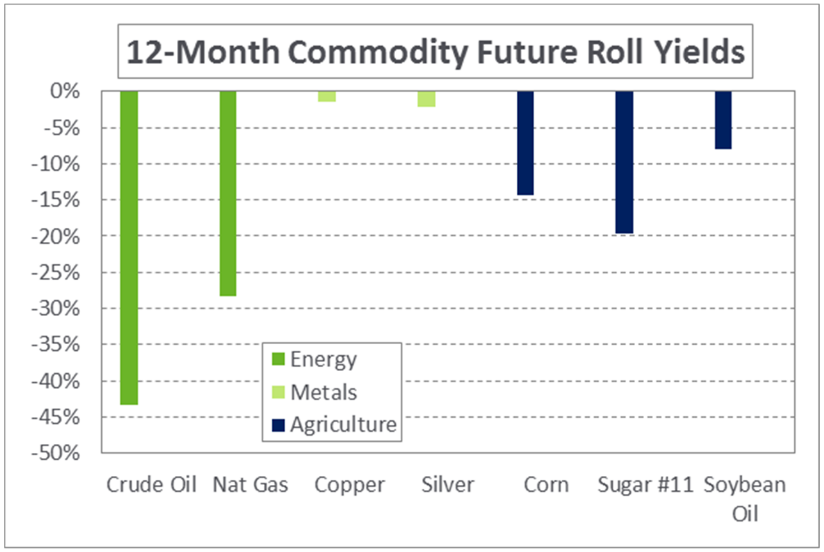
Commodities declined reflecting waning demand, with the exception of gold, which increased 4.0%, reflecting a flight-to-quality

Real Asset Yields	12/31/2019	3/31/2020
Midstream Energy	6.4%	12.0%
Core Real Estate*	4.5%	4.5%
Composite REITs	4.1%	5.4%
Global REITs	4.2%	5.7%
Global Infrastructure Equities	4.0%	4.3%
Natural Resource Equities	3.9%	4.8%
US 10-Year Breakeven Inflation	1.8%	0.9%
Commodity Index Roll Yield	-1.7%	-14.3%
10-Year TIPS Real Yield	0.2%	-0.2%

Source: FactSet
Core Real Estate* yields are subject to a one quarter lag



Source: FactSet



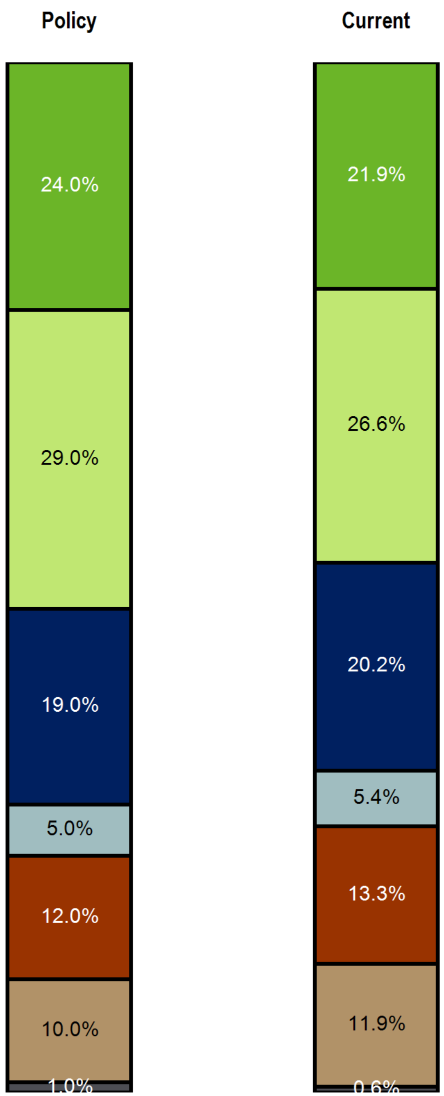
Source: FactSet

ASSET CLASS POLICY OVERVIEW

NEPC, LLC

Los Angeles City Employees' Retirement System

TOTAL FUND ASSET ALLOCATION VS. POLICY



Asset Allocation vs. Target

	Current	Policy	Current	Difference*	Policy Range	Within Range
U.S. Equity	$3,569,588,350	24.00%	21.93%	-2.07%	19.00% - 29.00%	**Yes**
Non-US Equity	$4,326,219,608	29.00%	26.57%	-2.43%	24.00% - 34.00%	**Yes**
Core Fixed Income	$3,291,074,018	19.00%	20.22%	1.22%	15.00% - 22.00%	**Yes**
Credit Opportunities	$883,134,987	5.00%	5.42%	0.42%	0.00% - 10.00%	**Yes**
Private Equity	$2,168,845,778	12.00%	13.32%	1.32%		**Yes**
Real Assets	$1,945,003,556	10.00%	11.95%	1.95%	7.00% - 13.00%	**Yes**
Cash	$96,315,307	1.00%	0.59%	-0.41%	0.00% - 2.00%	**Yes**
Total	**$16,280,181,604**	**100.00%**	**100.00%**			

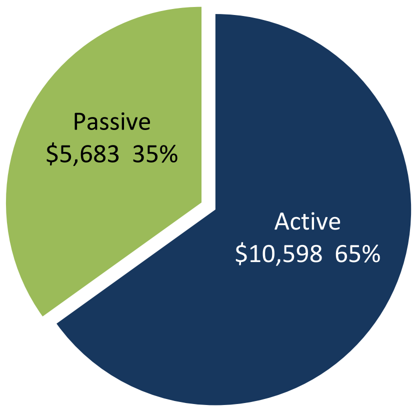
*Difference between Policy and Current Allocation

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.

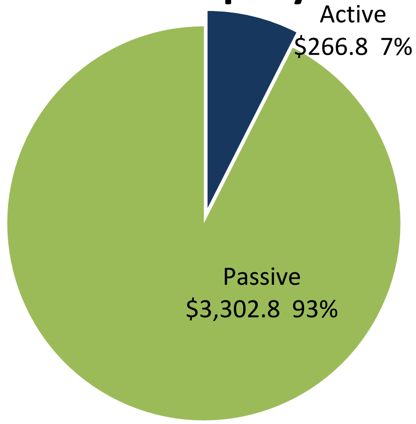
ACTIVE VS. PASSIVE MANAGER BREAKDOWN

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

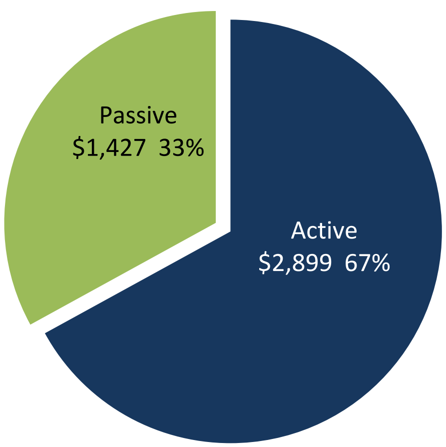
Total Fund



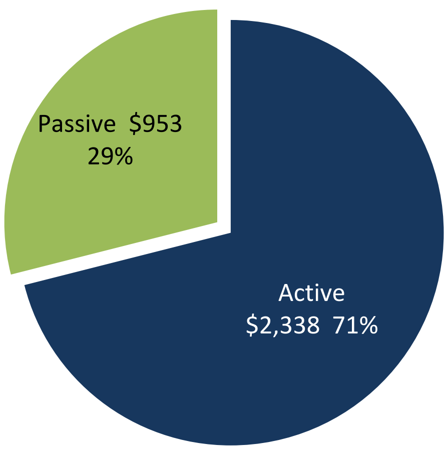
U.S. Equity



Non-U.S. Equity



Core Fixed Income



- Of the Total Fund, LACERS allocated 65% to active managers and 35% 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	**$16,280,181,604**	**-13.17%**	**57**	**-8.08%**	**52**	**-4.85%**	**49**	**3.44%**	**31**	**4.09%**	**36**	**7.04%**	**25**	**6.20%**	**22**	**7.61%**	**Oct-94**
Policy Index		-14.48%	74	-8.57%	65	-5.39%	60	3.17%	37	3.97%	39	6.85%	29	6.02%	27	7.54%	Oct-94
InvMetrics Public DB $1-50B Gross Median		-12.57%		-7.95%		-4.88%		2.63%		3.45%		6.24%		5.52%		7.42%	Oct-94

Over the past five years, the Fund returned 4.09% outperforming the policy index by 0.12% and ranked in the 36th percentile in the Public Funds $1 Billion- $50 Billion universe. The Fund's volatility was 8.14% and ranked in the 65th percentile over this period. The Fund's risk-adjusted performance, as measured by the Sharpe Ratio, ranks in the 34th percentile in its peer group.

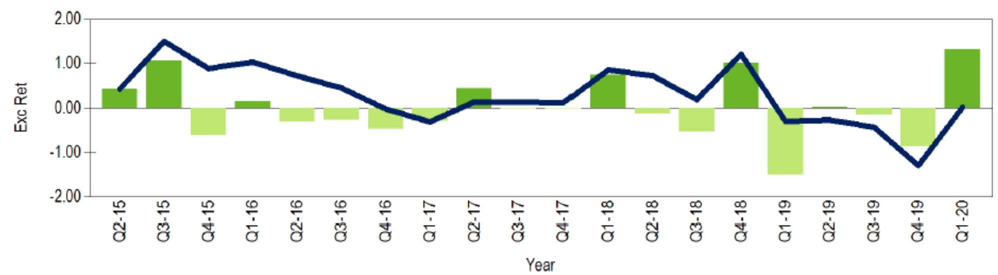
Over the past three years, the Fund returned 3.44% outperforming the policy index by 0.27% and ranked in the 31st percentile in its peer group. The Fund's volatility ranks in the 58th percentile resulting in a three-year Sharpe Ratio of 0.19 and ranked in the 33rd percentile.

In the one-year ended March 31, 2020, the Fund experienced a net investment loss of of $827.4 million, which includes a net investment loss of $1.58 billion during the first calendar quarter. Assets decreased from $17.32 billion twelve months ago to $16.28 billion on March 31, 2020. The Fund returned -4.85%, outperforming the policy index by 0.54% and ranked in the 49th percentile in its peer group.

All asset classes were within policy range as of March 31, 2020.

The InvMetrics Public Funds $1 Billion- $50 Billion Universe contains 77 observations for the period ending March 31, 2020.

Quarterly and Cumulative Excess Performance



5 Years Ending March 31, 2020

	Annualized Return (%)	Rank	Annualized Standard Deviation	Rank	Sharpe Ratio	Rank	Sortino Ratio RF	Rank
LACERS Master Trust	4.09%	36	8.14%	65	0.36	34	0.39	33
Policy Index	3.97%	39	9.30%	88	0.31	46	0.33	42
InvMetrics Public DB $1-50B Gross Median	3.45%	--	7.79%	--	0.28	--	0.29	--

3 Years Ending March 31, 2020

	Annualized Return (%)	Rank	Annualized Standard Deviation	Rank	Sharpe Ratio	Rank	Sortino Ratio RF	Rank
LACERS Master Trust	3.44%	31	8.95%	58	0.19	33	0.19	31
Policy Index	3.17%	37	10.16%	89	0.14	40	0.14	38
InvMetrics Public DB $1-50B Gross Median	2.63%	--	8.31%	--	0.11	--	0.10	--

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	**16,280,181,604**	**100.00**	**-13.17**	**-8.08**	**-4.85**	**3.44**	**4.09**	**7.04**	**7.61**	**Oct-94**
Policy Index			-14.48	-8.57	-5.39	3.17	3.97	6.85	7.54	*Oct-94*
Over/Under			1.31	0.49	0.54	0.27	0.12	0.19	0.07	
U.S. Equity	**3,569,588,350**	**21.93**	**-21.69**	**-13.85**	**-10.18**	**3.47**	**5.43**	**9.98**	**9.52**	**Oct-94**
U.S. Equity Blend			-20.90	-12.70	-9.13	4.00	5.77	10.15	8.55	*Oct-94*
Over/Under			-0.79	-1.15	-1.05	-0.53	-0.34	-0.17	0.97	
Non-U.S. Equity	**4,326,219,608**	**26.57**	**-24.28**	**-18.69**	**-16.12**	**-1.42**	**0.30**	**3.14**	**4.22**	**Nov-94**
MSCI ACWI ex USA			-23.36	-18.02	-15.57	-1.96	-0.64	2.05	4.08	*Nov-94*
Over/Under			-0.92	-0.67	-0.55	0.54	0.94	1.09	0.14	
Core Fixed Income	**3,291,074,018**	**20.22**	**2.55**	**5.07**	**8.43**	**4.76**	**3.53**		**3.71**	**Jul-12**
Core Fixed Income Blend			3.15	5.68	8.93	4.82	3.36		3.22	*Jul-12*
Over/Under			-0.60	-0.61	-0.50	-0.06	0.17		0.49	
Credit Opportunities	**883,134,987**	**5.42**	**-15.15**	**-11.73**	**-8.75**	**0.08**	**2.05**		**3.24**	**Jun-13**
Credit Opportunities Blend			-12.92	-9.64	-6.88	0.66	2.82		3.78	*Jun-13*
Over/Under			-2.23	-2.09	-1.87	-0.58	-0.77		-0.54	
Real Assets	**1,945,003,556**	**11.95**	**-4.40**	**-1.84**	**0.19**	**3.72**	**4.70**	**7.28**	**6.06**	**Nov-94**
CPI + 5% (Unadjusted)			1.67	4.52	6.61	7.01	6.88	6.80	7.27	*Nov-94*
Over/Under			-6.07	-6.36	-6.42	-3.29	-2.18	0.48	-1.21	
Public Real Assets	**1,128,163,061**	**6.93**	**-6.98**	**-4.20**	**-2.03**	**1.10**	**1.16**		**0.80**	**Jun-14**
Public Real Assets Blend			-12.83	-11.31	-9.81	-2.36	-1.51		-2.45	*Jun-14*
Over/Under			5.85	7.11	7.78	3.46	2.67		3.25	
Private Real Estate	**798,610,929**	**4.91**	**-0.59**	**1.73**	**3.55**	**6.75**	**8.11**	**9.19**	**6.80**	**Oct-94**
Real Estate Blend			1.17	4.46	5.71	7.66	9.32	11.35	9.75	*Oct-94*
Over/Under			-1.76	-2.73	-2.16	-0.91	-1.21	-2.16	-2.95	
Private Equity	**2,168,845,778**	**13.32**	**3.48**	**5.96**	**10.98**	**12.82**	**10.83**	**12.48**	**10.46**	**Nov-95**
Private Equity Blend			-20.26	-10.71	-6.37	7.12	8.93	13.67	12.08	*Nov-95*
Over/Under			23.74	16.67	17.35	5.70	1.90	-1.19	-1.62	
Cash	**96,315,307**	**0.59**								

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	**16,280,181,604**	**100.00**	**-13.21**	**-8.19**	**-5.01**	**3.26**	**3.90**	**6.85**		**Oct-94**
Policy Index			-14.48	-8.57	-5.39	3.17	3.97	6.85		Oct-94
Over/Under			1.27	0.38	0.38	0.09	-0.07	0.00		
U.S. Equity	**3,569,588,350**	**21.93**	**-21.70**	**-13.88**	**-10.23**	**3.41**	**5.36**	**9.83**		**Oct-94**
U.S. Equity Blend			-20.90	-12.70	-9.13	4.00	5.77	10.15		Oct-94
Over/Under			-0.80	-1.18	-1.10	-0.59	-0.41	-0.32		
Non-U.S. Equity	**4,326,219,608**	**26.57**	**-24.36**	**-18.92**	**-16.44**	**-1.78**	**-0.06**	**2.79**		**Nov-94**
MSCI ACWI ex USA			-23.36	-18.02	-15.57	-1.96	-0.64	2.05		Nov-94
Over/Under			-1.00	-0.90	-0.87	0.18	0.58	0.74		
Core Fixed Income	**3,291,074,018**	**20.22**	**2.53**	**5.00**	**8.33**	**4.66**	**3.43**		**3.59**	**Jul-12**
Core Fixed Income Blend			3.15	5.68	8.93	4.82	3.36		3.22	Jul-12
Over/Under			-0.62	-0.68	-0.60	-0.16	0.07		0.37	
Credit Opportunities	**883,134,987**	**5.42**	**-15.22**	**-11.94**	**-9.03**	**-0.24**	**1.71**		**2.91**	**Jun-13**
Credit Opportunities Blend			-12.92	-9.64	-6.88	0.66	2.82		3.78	Jun-13
Over/Under			-2.30	-2.30	-2.15	-0.90	-1.11		-0.87	
Real Assets	**1,945,003,556**	**11.95**	**-4.44**	**-1.95**	**0.04**	**3.56**	**4.54**	**7.13**		**Nov-94**
CPI + 5% (Unadjusted)			1.67	4.52	6.61	7.01	6.88	6.80		Nov-94
Over/Under			-6.11	-6.47	-6.57	-3.45	-2.34	0.33		
Public Real Assets	**1,128,163,061**	**6.93**	**-7.03**	**-4.34**	**-2.23**	**0.86**	**0.94**		**0.59**	**Jun-14**
Public Real Assets Blend			-12.83	-11.31	-9.81	-2.36	-1.51		-2.45	Jun-14
Over/Under			5.80	6.97	7.58	3.22	2.45		3.04	
Private Real Estate	**798,610,929**	**4.91**	**-0.61**	**1.66**	**3.46**	**6.67**	**8.02**	**9.07**		**Oct-94**
Real Estate Blend			1.17	4.46	5.71	7.66	9.32	11.35		Oct-94
Over/Under			-1.78	-2.80	-2.25	-0.99	-1.30	-2.28		
Private Equity	**2,168,845,778**	**13.32**	**3.48**	**5.96**	**10.99**	**12.83**	**10.84**	**12.49**		**Nov-95**
Private Equity Blend			-20.26	-10.71	-6.37	7.12	8.93	13.67		Nov-95
Over/Under			23.74	16.67	17.36	5.71	1.91	-1.18		
Cash	**96,315,307**	**0.59**								

Los Angeles City Employees' Retirement System

TOTAL FUND RISK STATISTICS (NET)

3 Years Ending March 31, 2020	% 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%	3.26%	35	8.96%	59	0.27%	45	0.06	53	0.17	34	1.48%	66
Total Equity	48.50%	0.55%	50	15.45%	71	-0.20%	30	-0.27	--	-0.08	50	0.77%	11
U.S. Equity	21.93%	3.41%	31	16.13%	44	-0.63%	36	-0.89	--	0.11	31	0.67%	11
Non-U.S. Equity	26.57%	-1.78%	38	15.58%	61	0.27%	33	0.16	37	-0.25	36	1.09%	14
Developed ex-U.S.	20.07%	-1.49%	51	15.37%	79	0.50%	45	0.19	39	-0.23	45	1.71%	28
Emerging Markets	6.50%	-2.92%	37	17.41%	61	-1.30%	32	-1.01	--	-0.35	37	1.28%	1
Core Fixed Income	20.22%	4.66%	9	3.09%	15	-0.03%	23	-0.36	--	2.04	17	0.46%	8
Credit Opportunities	5.42%	-0.24%	--	9.49%	--	-0.77%	--	-0.59	--	-0.16	--	1.53%	--
Real Assets	11.95%	3.56%	--	3.26%	--	-2.80%	--	-1.09	--	0.53	--	3.18%	--
Public Real Assets	6.93%	0.86%	--	5.42%	--	1.92%	--	1.11	--	-0.16	--	2.91%	--
Private Real Estate	4.91%	6.67%	44	2.08%	45	6.76%	2	-0.24	--	2.03	78	4.19%	94
Private Equity	13.32%	12.83%	55	4.70%	15	11.67%	14	0.32	31	11.07	48	18.03%	92

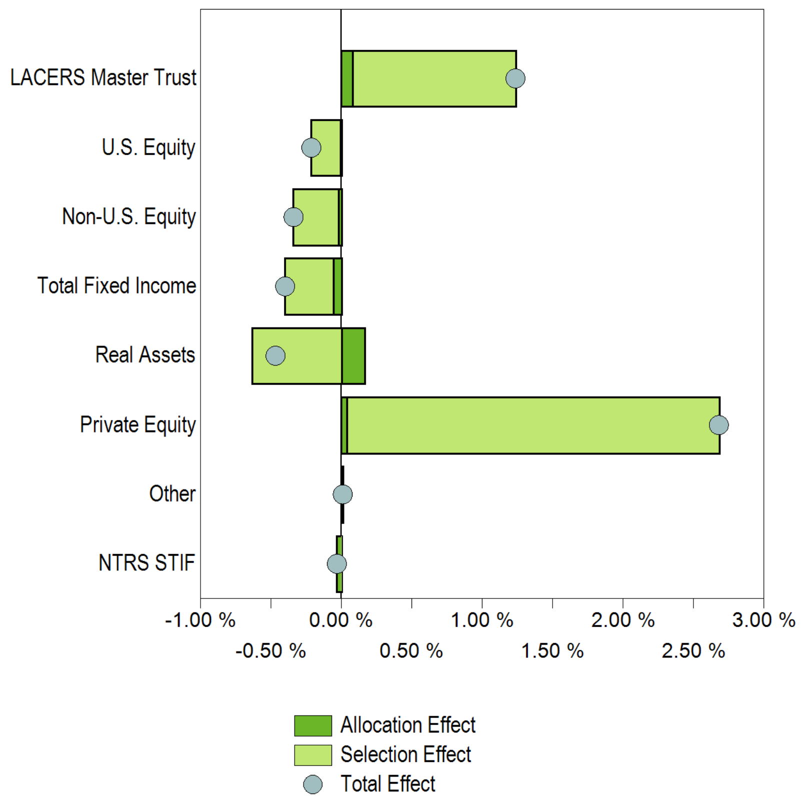
5 Years Ending March 31, 2020	% of Total MV (%)	Annualized Return (%)	Rank	Annualized Standard Deviation	Rank	Annualized Alpha Jensen (%)	Rank	Information Ratio	Rank	Sortino Ratio RF	Rank	Tracking Error	Rank
LACERS Master Trust	100.00%	3.90%	40	8.15%	65	0.30%	43	-0.05	--	0.36	35	1.37%	61
Total Equity	48.50%	2.40%	53	14.00%	66	-0.05%	32	-0.07	--	0.10	53	0.68%	11
U.S. Equity	21.93%	5.36%	19	14.37%	42	-0.48%	23	-0.61	--	0.31	21	0.68%	8
Non-U.S. Equity	26.57%	-0.06%	36	14.59%	62	0.59%	26	0.51	15	-0.10	37	1.15%	8
Developed ex-U.S.	20.07%	-0.09%	45	14.29%	72	0.54%	39	0.32	34	-0.10	45	1.64%	28
Emerging Markets	6.50%	-0.86%	34	17.84%	90	-0.48%	45	-0.42	--	-0.17	34	1.18%	1
Core Fixed Income	20.22%	3.43%	19	3.00%	18	0.17%	34	0.14	17	1.30	7	0.52%	12
Credit Opportunities	5.42%	1.71%	--	8.24%	--	-1.26%	--	-0.81	--	0.06	--	1.37%	--
Real Assets	11.95%	4.54%	--	2.97%	--	-2.68%	--	-0.83	--	1.24	--	2.84%	--
Public Real Assets	6.93%	0.94%	--	5.06%	--	1.59%	--	0.84	--	-0.05	--	2.90%	--
Private Real Estate	4.91%	8.02%	44	2.07%	28	8.63%	3	-0.27	--	2.83	74	4.88%	94
Private Equity	13.32%	10.84%	62	4.22%	13	10.41%	26	0.12	49	9.95	51	15.93%	87

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 ATTRIBUTION ANALYSIS (NET)

Attribution Effects
3 Months Ending March 31, 2020



Attribution Summary
3 Months Ending March 31, 2020

	Policy Weight	Wtd. Actual Return	Wtd. Index Return	Excess Return	Selection Effect	Allocation Effect	Total Effects
U.S. Equity	24.00%	-21.70%	-20.90%	-0.80%	-0.20%	0.00%	-0.21%
Non-U.S. Equity	29.00%	-24.36%	-23.36%	-1.00%	-0.32%	-0.03%	-0.34%
Total Fixed Income	24.00%	-1.83%	-0.29%	-1.53%	-0.34%	-0.06%	-0.40%
Real Assets	10.00%	-4.44%	1.67%	-6.11%	-0.63%	0.17%	-0.47%
Private Equity	12.00%	3.48%	-20.26%	23.74%	2.65%	0.04%	2.68%
Other	0.00%				0.01%	0.00%	0.01%
Cash	1.00%	0.38%	0.37%	0.00%	0.00%	-0.03%	-0.03%
Total	**100.00%**	**-13.23%**	**-14.48%**	**1.25%**	**1.16%**	**0.09%**	**1.25%**

Wtd. = Weighted

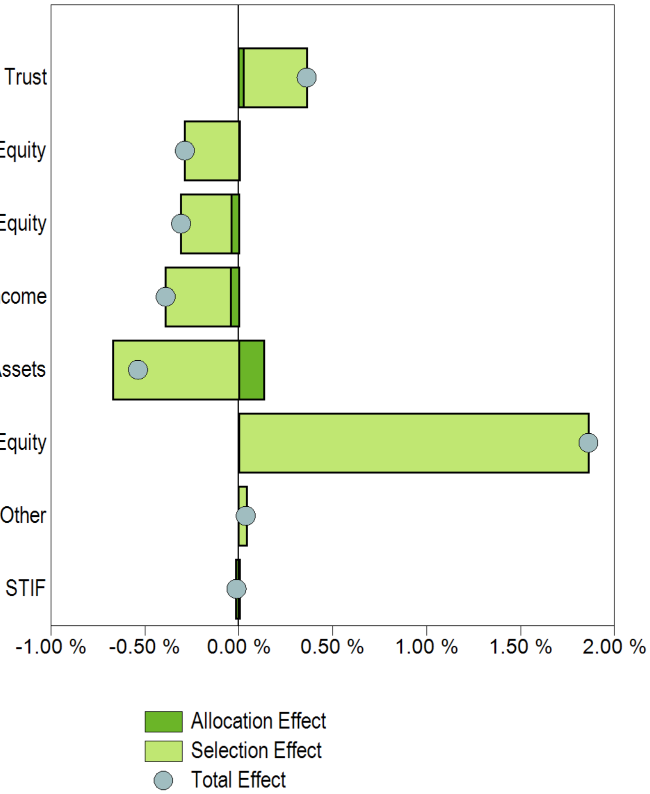
Note: Policy Target Asset Allocation does not reflect the new target asset allocation adopted on April 10, 2018. Implementation of the new asset allocation is currently in progress.

Other composite is comprised of securities lending income, tax reclaims and other miscellaneous transactions.

Los Angeles City Employees' Retirement System

TOTAL FUND ATTRIBUTION ANALYSIS (NET)

Attribution Effects
FYTD Ending March 31, 2020



Attribution Summary
FYTD Ending March 31, 2020

	Policy Weight	Wtd. Actual Return	Wtd. Index Return	Excess Return	Selection Effect	Allocation Effect	Total Effects
U.S. Equity	24.00%	-13.88%	-12.70%	-1.18%	-0.29%	0.01%	-0.28%
Non-U.S. Equity	29.00%	-18.92%	-18.02%	-0.90%	-0.27%	-0.04%	-0.31%
Total Fixed Income	24.00%	0.92%	2.43%	-1.51%	-0.35%	-0.04%	-0.39%
Real Assets	10.00%	-1.95%	4.52%	-6.47%	-0.67%	0.14%	-0.53%
Private Equity	12.00%	5.96%	-10.71%	16.68%	1.87%	0.00%	1.87%
Other	0.00%				0.04%	0.00%	0.04%
Cash	1.00%	1.44%	1.27%	0.17%	0.00%	-0.01%	-0.01%
Total	**100.00%**	**-8.19%**	**-8.57%**	**0.39%**	**0.34%**	**0.04%**	**0.39%**

Wtd. = Weighted

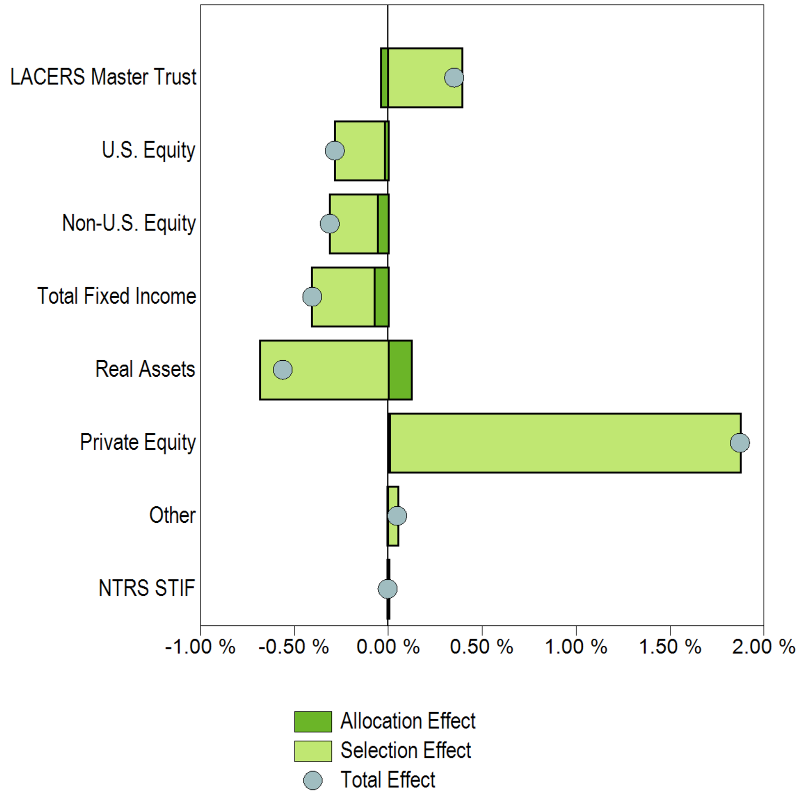
Note: Policy Target Asset Allocation does not reflect the new target asset allocation adopted on April 10, 2018. Implementation of the new asset allocation is currently in progress.

Other composite is comprised of securities lending income, tax reclaims and other miscellaneous transactions.

Los Angeles City Employees' Retirement System

TOTAL FUND ATTRIBUTION ANALYSIS (NET)

Attribution Effects
1 Year Ending March 31, 2020



Attribution Summary
1 Year Ending March 31, 2020

	Policy Weight	Wtd. Actual Return	Wtd. Index Return	Excess Return	Selection Effect	Allocation Effect	Total Effects
U.S. Equity	24.00%	-10.23%	-9.13%	-1.10%	-0.26%	-0.01%	-0.27%
Non-U.S. Equity	29.00%	-16.44%	-15.57%	-0.86%	-0.25%	-0.06%	-0.31%
Total Fixed Income	24.00%	4.16%	5.59%	-1.43%	-0.33%	-0.07%	-0.40%
Real Assets	10.00%	0.04%	6.61%	-6.57%	-0.69%	0.13%	-0.56%
Private Equity	12.00%	10.99%	-6.37%	17.36%	1.88%	0.00%	1.88%
Other	0.00%				0.05%	0.00%	0.05%
Cash	1.00%	2.06%	1.85%	0.21%	0.00%	0.00%	0.00%
Total	**100.00%**	**-5.01%**	**-5.39%**	**0.38%**	**0.40%**	**-0.02%**	**0.38%**

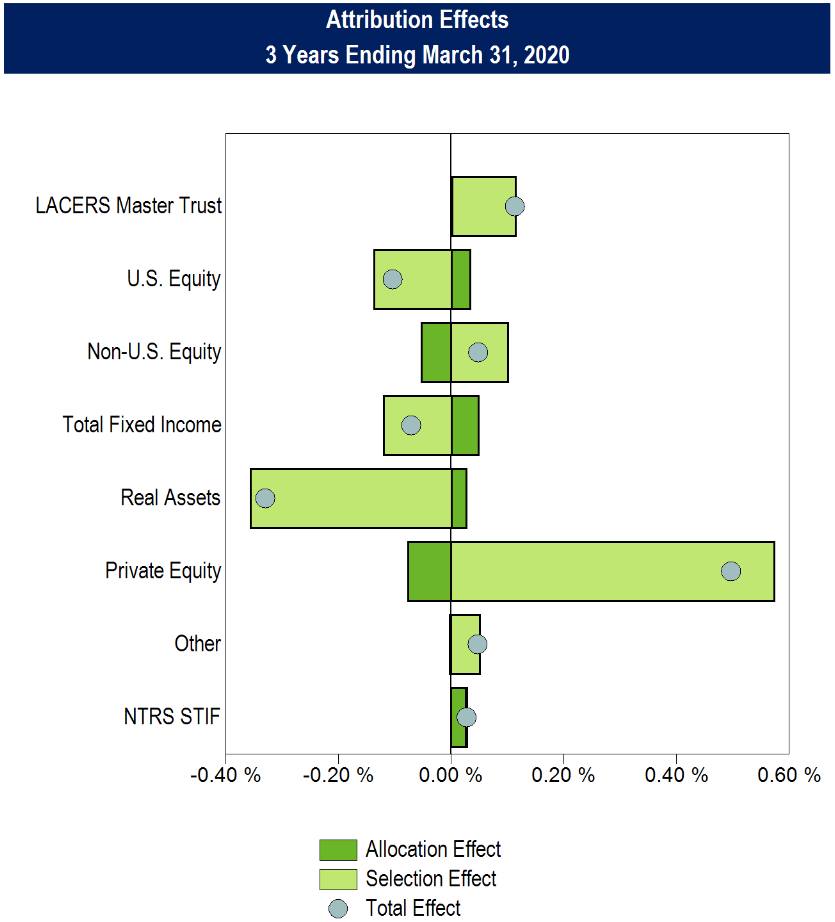
Wtd. = Weighted

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.

Other composite is comprised of securities lending income, tax reclaims and other miscellaneous transactions.

Los Angeles City Employees' Retirement System

TOTAL FUND ATTRIBUTION ANALYSIS (NET)



Attribution Summary
3 Years Ending March 31, 2020

	Policy Weight	Wtd. Actual Return	Wtd. Index Return	Excess Return	Selection Effect	Allocation Effect	Total Effects
U.S. Equity	24.00%	3.41%	4.00%	-0.59%	-0.14%	0.03%	-0.10%
Non-U.S. Equity	29.00%	-1.78%	-1.96%	0.18%	0.10%	-0.05%	0.05%
Total Fixed Income	24.00%	3.55%	4.01%	-0.46%	-0.12%	0.04%	-0.08%
Real Assets	10.00%	3.56%	7.01%	-3.45%	-0.36%	0.03%	-0.33%
Private Equity	12.00%	12.83%	7.12%	5.71%	0.58%	-0.08%	0.50%
Other	0.00%				0.05%	0.00%	0.05%
Cash	1.00%	1.90%	1.72%	0.18%	0.00%	0.03%	0.03%
Total	**100.00%**	**3.29%**	**3.17%**	**0.11%**	**0.12%**	**-0.01%**	**0.11%**

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.

Other composite is comprised of securities lending income, tax reclaims and other miscellaneous transactions.

PRIVATE MARKETS PERFORMANCE AS OF DECEMBER 31, 2019

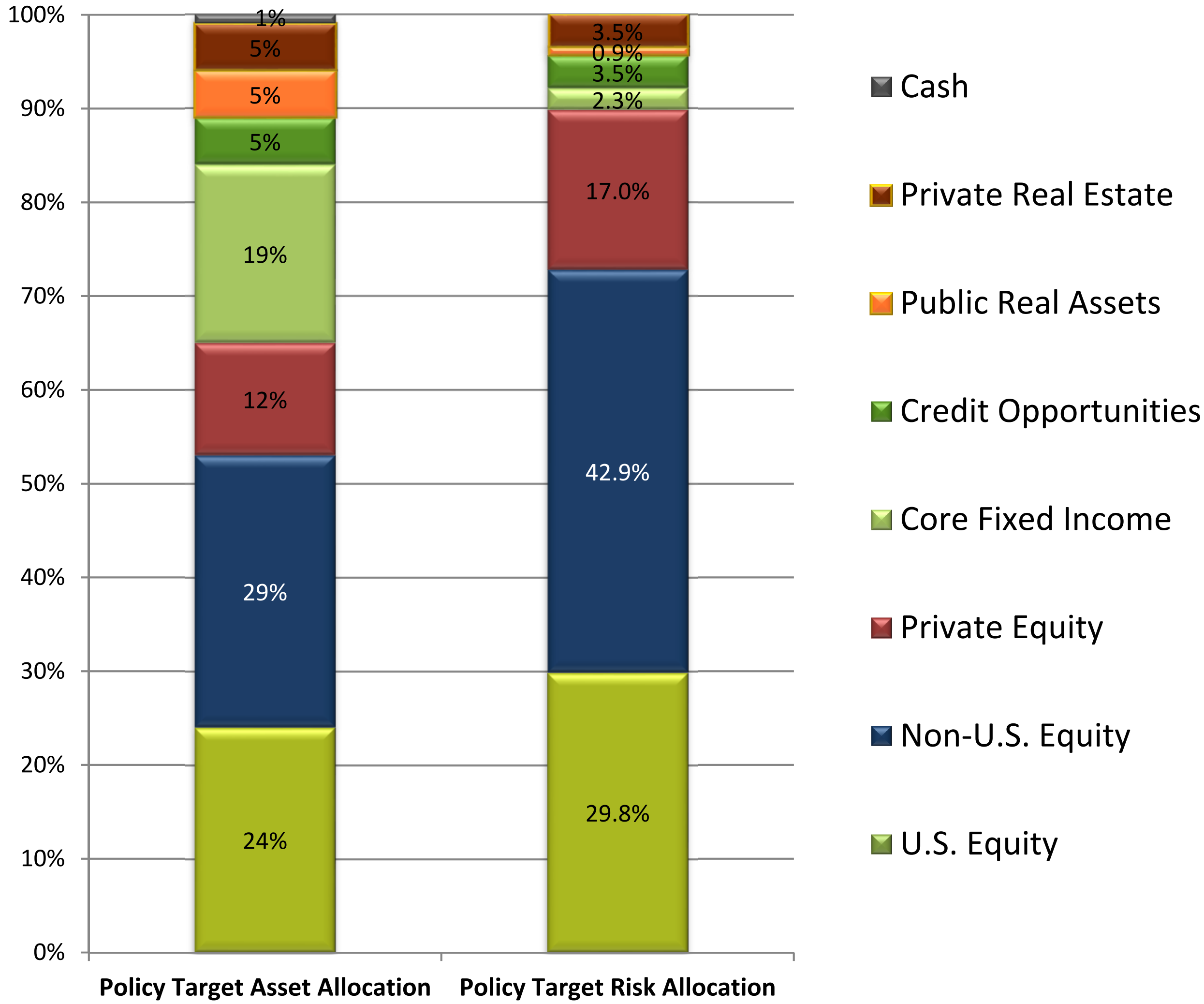
Private Equity	10 Year IRR	Since Inception IRR	Since Inception Multiple
Aggregate Portfolio	12.5%	11.2%	1.56x
Core Portfolio	13.2%	11.7%	1.58x
Specialized Portfolio	4.2%	1.9%	1.11x
Russell 3000 + 300 bps	16.4%	14.1%	N/A

Real Estate	10 Year Return (Net)	Since Inception Return (Net)
Total Portfolio (TWR)[1]	9.33%	5.99%
NFI-ODCE + 80 basis points (TWR)	11.19%	7.09%

Note: The Total Value to Paid-In Ratio (TVPI) is a multiple that relates the current value of the private equity portfolio plus all distributions received to date with the total amount of capital contributed.

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

TOTAL FUND RISK ALLOCATION – ASSET ALLOCATION VS. RISK ALLOCATION



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

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

PUBLIC MARKETS RISK BUDGET COMPARISON AS OF MARCH 31, 2020

Public Markets Asset Class	Target Risk Budget	Actual 3 Yr Tracking Error
U.S. Equity	0.50%	0.67%
Non-U.S. Equity	1.20%	1.09%
Core Fixed Income	1.00%	0.46%
Credit Opportunities	1.50%	1.53%
Public Real Assets*	3.00%	2.91%

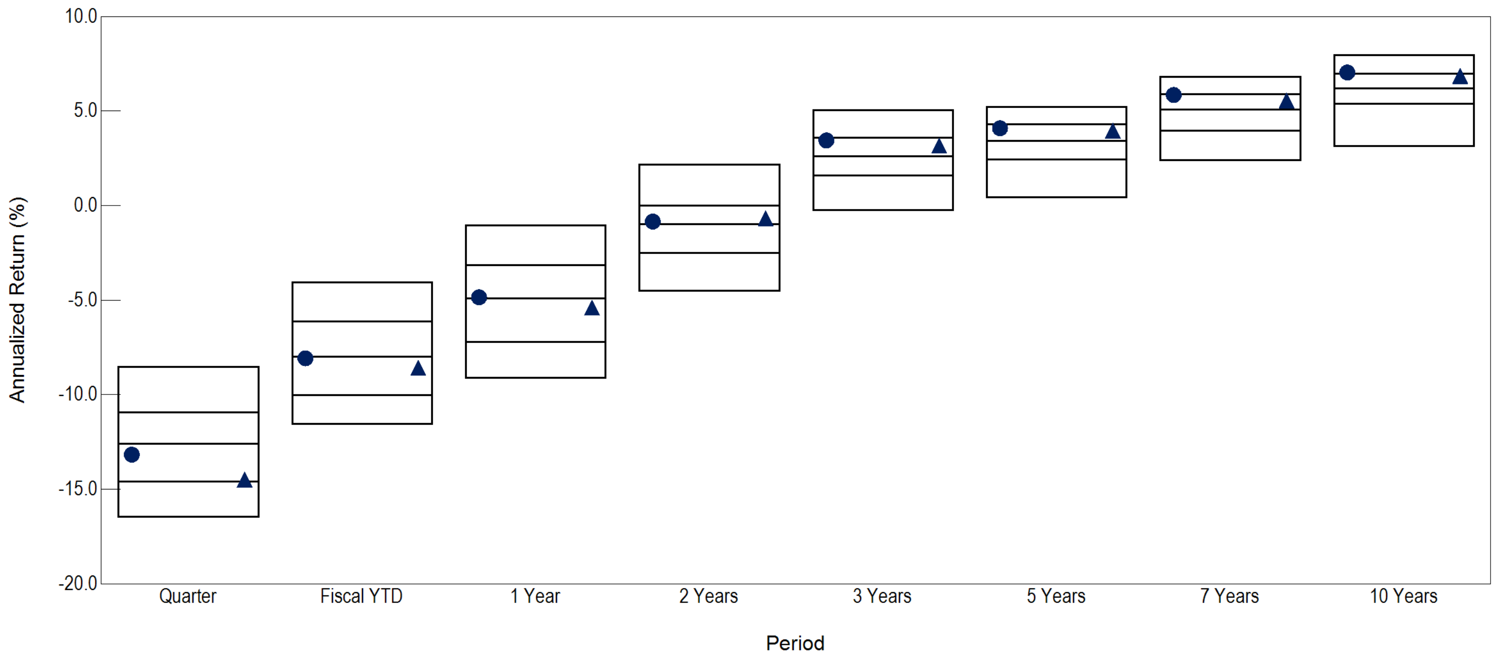
- Current public market asset class composite tracking error statistics are compared to asset class target risk budgets to ensure active risks are within expectations.
- Risk budgets are to be evaluated over three-year periods, at minimum, to reflect a full market cycle.
- All equity public markets asset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

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

Los Angeles City Employees' Retirement System

TOTAL FUND RETURN SUMMARY VS. PEER UNIVERSE

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

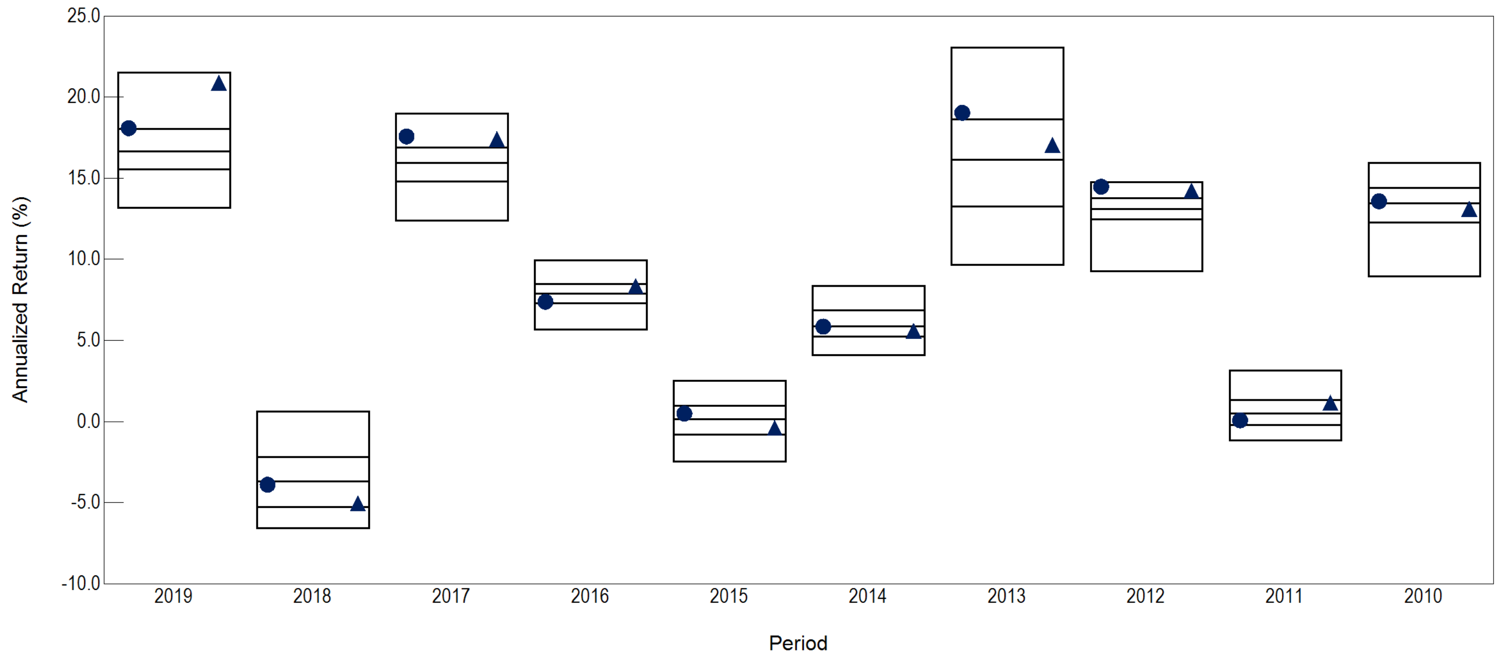


	Return (Rank)															
5th Percentile	-8.53		-4.06		-1.06		2.18		5.05		5.22		6.81		7.96	
25th Percentile	-10.92		-6.10		-3.11		0.03		3.62		4.33		5.92		7.02	
Median	-12.57		-7.95		-4.88		-0.94		2.63		3.45		5.11		6.24	
75th Percentile	-14.55		-10.00		-7.17		-2.48		1.63		2.46		4.01		5.40	
95th Percentile	-16.41		-11.50		-9.09		-4.48		-0.22		0.48		2.44		3.18	
# of Portfolios	73		73		73		73		73		72		70		67	
● LACERS Master Trust	-13.17	(57)	-8.08	(52)	-4.85	(49)	-0.84	(45)	3.44	(31)	4.09	(36)	5.85	(27)	7.04	(25)
▲ Policy Index	-14.48	(74)	-8.57	(65)	-5.39	(60)	-0.66	(39)	3.17	(37)	3.97	(39)	5.57	(34)	6.85	(29)

Los Angeles City Employees' Retirement System

TOTAL FUND RETURN SUMMARY VS. PEER UNIVERSE

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



Return (Rank)	2019		2018		2017		2016		2015		2014		2013		2012		2011		2010	
5th Percentile	21.49		0.60		19.00		9.95		2.50		8.38		23.05		14.75		3.13		15.93	
25th Percentile	18.08		-2.13		16.94		8.51		1.00		6.90		18.67		13.81		1.37		14.45	
Median	16.68		-3.64		15.99		7.91		0.20		5.93		16.17		13.15		0.53		13.49	
75th Percentile	15.61		-5.22		14.83		7.34		-0.77		5.28		13.30		12.50		-0.16		12.30	
95th Percentile	13.20		-6.53		12.43		5.71		-2.43		4.12		9.70		9.31		-1.14		8.98	
# of Portfolios	77		78		78		78		77		77		76		75		74		71	
● LACERS Master Trust	18.08	(26)	-3.89	(60)	17.57	(15)	7.38	(72)	0.49	(35)	5.85	(53)	19.03	(23)	14.47	(10)	0.08	(68)	13.58	(49)
▲ Policy Index	20.88	(9)	-5.04	(71)	17.41	(16)	8.35	(35)	-0.39	(68)	5.58	(61)	17.06	(35)	14.23	(18)	1.17	(32)	13.11	(55)

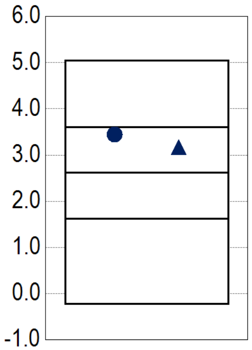
NEPC

Los Angeles City Employees' Retirement System

TOTAL FUND RISK STATISTICS VS. PEER UNIVERSE

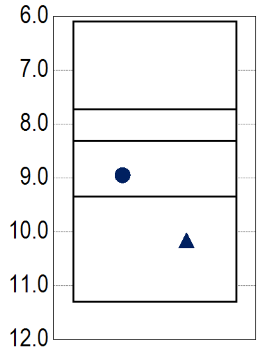
LACERS Master Trust vs. InvMetrics Public DB $1-50B Gross
3 Years

Annualized Return (%)



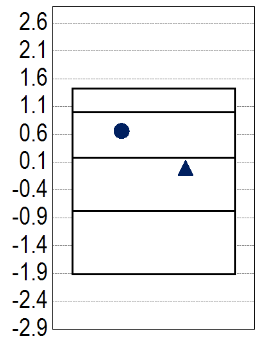
● LACERS Master Trust	
Value	3.44
Rank	31
▲ Policy Index	
Value	3.17
Rank	37
Universe	
5th %tile	5.05
25th %tile	3.62
Median	2.63
75th %tile	1.63
95th %tile	-0.22

Annualized Standard Deviation



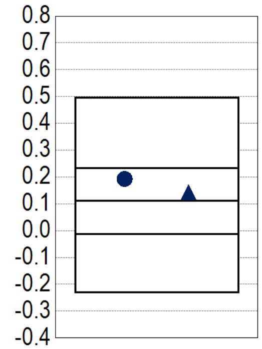
● LACERS Master Trust	
Value	8.95
Rank	58
▲ Policy Index	
Value	10.16
Rank	89
Universe	
5th %tile	6.10
25th %tile	7.72
Median	8.31
75th %tile	9.34
95th %tile	11.29

Annualized Alpha (%)



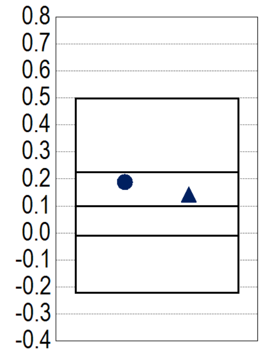
● LACERS Master Trust	
Value	0.66
Rank	34
▲ Policy Index	
Value	0.00
Rank	59
Universe	
5th %tile	1.42
25th %tile	1.01
Median	0.19
75th %tile	-0.77
95th %tile	-1.90

Sharpe Ratio



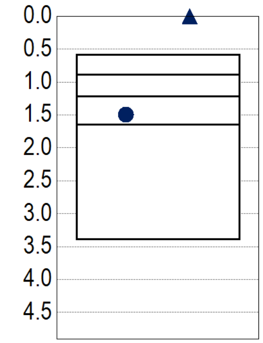
● LACERS Master Trust	
Value	0.19
Rank	33
▲ Policy Index	
Value	0.14
Rank	40
Universe	
5th %tile	0.50
25th %tile	0.24
Median	0.11
75th %tile	-0.01
95th %tile	-0.23

Sortino Ratio Risk Free



● LACERS Master Trust	
Value	0.19
Rank	31
▲ Policy Index	
Value	0.14
Rank	38
Universe	
5th %tile	0.50
25th %tile	0.23
Median	0.10
75th %tile	-0.01
95th %tile	-0.22

Tracking Error



● LACERS Master Trust	
Value	1.49
Rank	67
▲ Policy Index	
Value	0.00
Rank	1
Universe	
5th %tile	0.58
25th %tile	0.87
Median	1.21
75th %tile	1.63
95th %tile	3.37

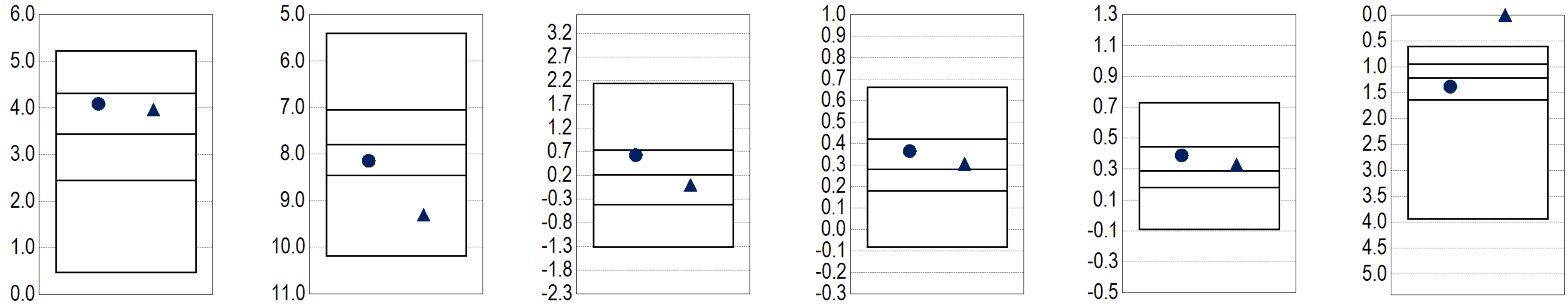
Sortino Ratio RF = Sortino Ratio Risk Free. The risk free rate is the Citi 91 Day T-Bill Index.

Los Angeles City Employees' Retirement System

TOTAL FUND RISK STATISTICS VS. PEER UNIVERSE

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

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



	Annualized Return (%)	Annualized Standard Deviation	Annualized Alpha (%)	Sharpe Ratio	Sortino Ratio Risk Free	Tracking Error
● LACERS Master Trust						
Value	4.09	8.14	0.63	0.36	0.39	1.38
Rank	36	65	32	34	33	63
▲ Policy Index						
Value	3.97	9.30	0.00	0.31	0.33	0.00
Rank	39	88	61	46	42	1
Universe						
5th %tile	5.22	5.40	2.14	0.66	0.73	0.61
25th %tile	4.33	7.04	0.75	0.42	0.45	0.93
Median	3.45	7.79	0.22	0.28	0.29	1.20
75th %tile	2.46	8.45	-0.41	0.18	0.18	1.63
95th %tile	0.48	10.18	-1.31	-0.08	-0.09	3.92

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

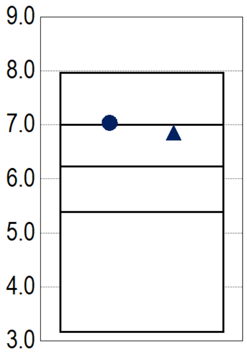
Los Angeles City Employees' Retirement System

TOTAL FUND RISK STATISTICS VS. PEER UNIVERSE

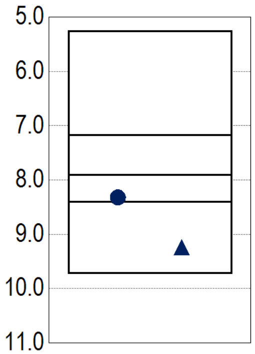
LACERS Master Trust vs. InvMetrics Public DB $1-50B Gross
10 Years

	Annualized Return (%)	Annualized Standard Deviation	Annualized Alpha (%)	Sharpe Ratio	Sortino Ratio Risk Free	Tracking Error
● LACERS Master Trust						
Value	7.04	8.32	0.90	0.77	0.97	1.33
Rank	25	71	30	33	28	52
▲ Policy Index						
Value	6.85	9.24	0.00	0.68	0.86	0.00
Rank	29	88	77	53	48	1
Universe						
5th %tile	7.96	5.25	3.50	1.03	1.25	0.71
25th %tile	7.02	7.16	1.00	0.80	1.00	1.09
Median	6.24	7.90	0.38	0.69	0.84	1.30
75th %tile	5.40	8.39	0.05	0.62	0.74	1.81
95th %tile	3.18	9.71	-0.65	0.45	0.54	5.19

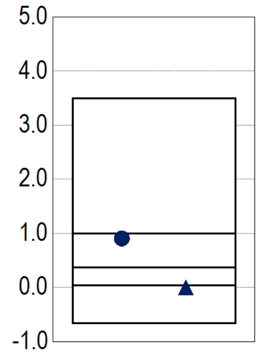
Annualized Return (%)



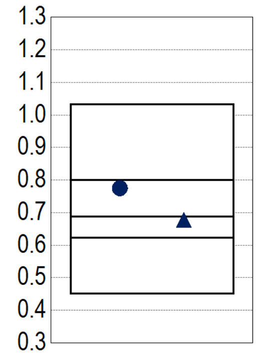
Annualized Standard Deviation



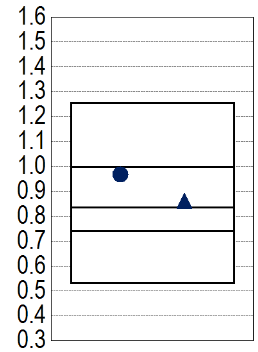
Annualized Alpha (%)



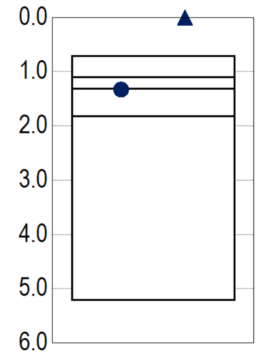
Sharpe Ratio



Sortino Ratio Risk Free

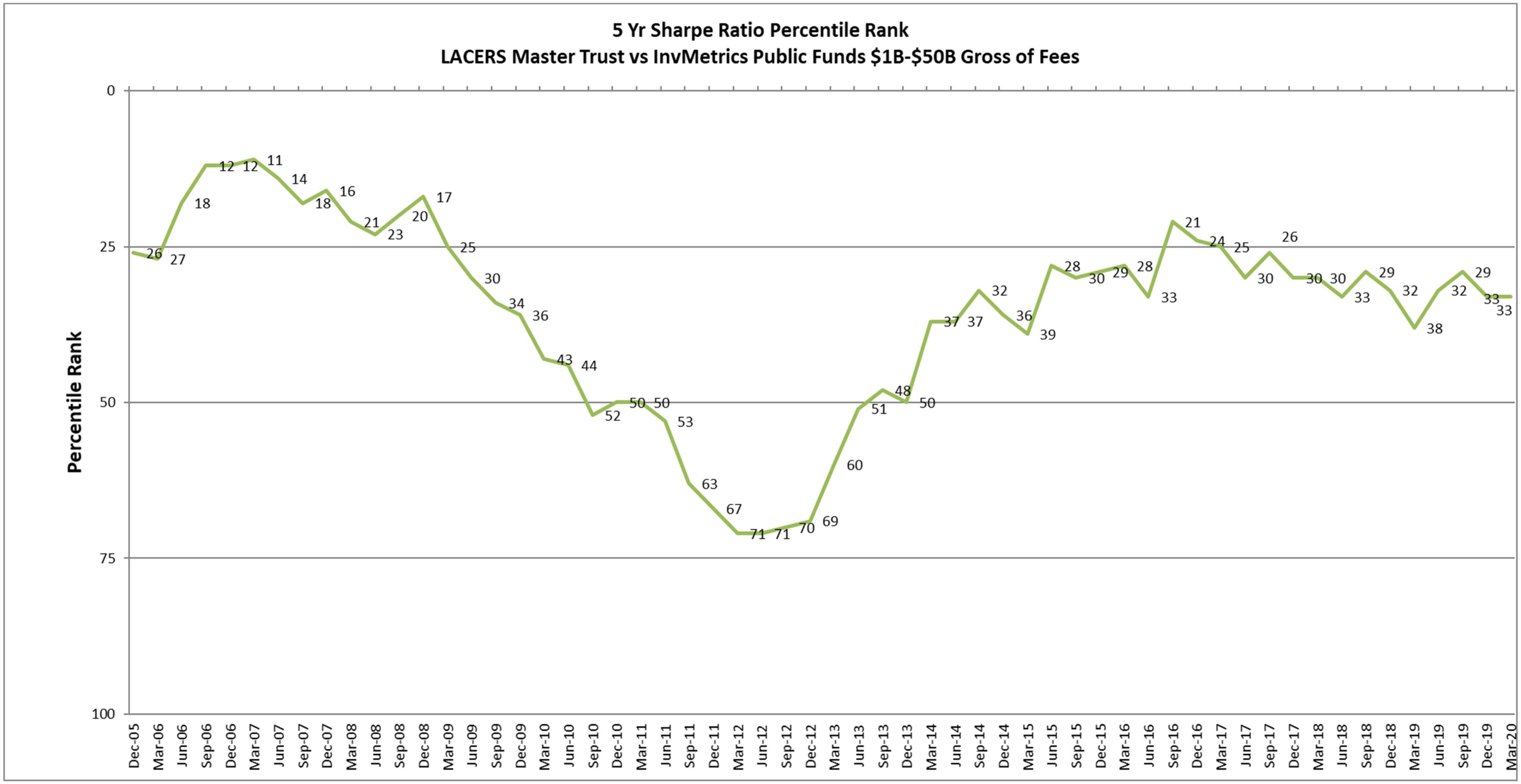


Tracking Error



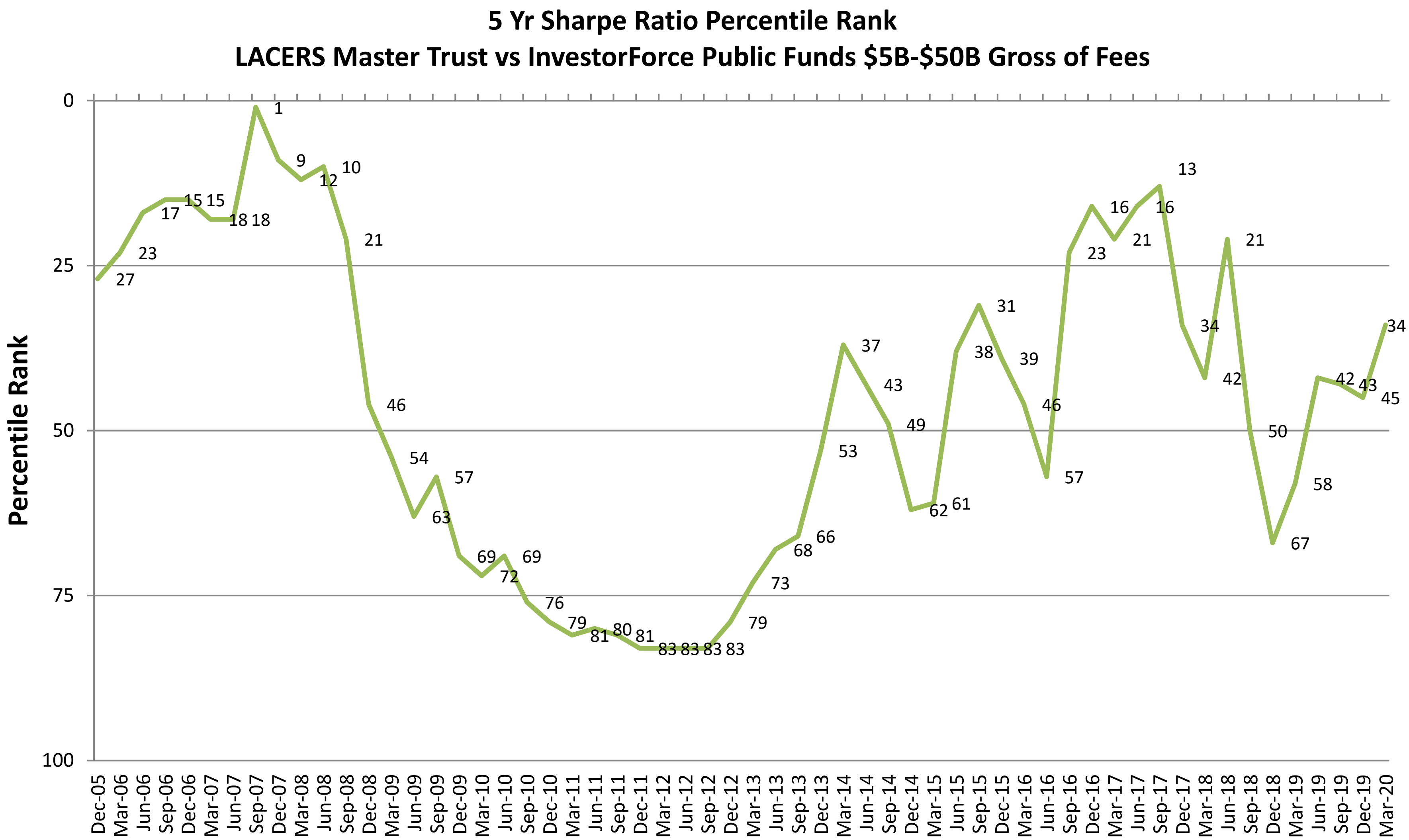
Sortino Ratio RF = Sortino Ratio Risk Free. The risk free rate is the Citi 91 Day T-Bill Index.

HISTORICAL RISK ADJUSTED RETURN UNIVERSE COMPARISON



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

HISTORICAL RISK ADJUSTED RETURN UNIVERSE COMPARISON



U.S. EQUITY

NEPC, LLC

Los Angeles City Employees' Retirement System

U.S. EQUITY (GROSS)

	Market Value ($)	% of Portfolio	3 Mo (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
U.S. Equity	**3,569,588,350**	**100.00**	**-21.69**	**-13.85**	**-10.18**	**3.47**	**5.43**	**9.98**	**9.52**	**Oct-94**
U.S. Equity Blend			*-20.90*	*-12.70*	*-9.13*	*4.00*	*5.77*	*10.15*	*8.55*	*Oct-94*
Over/Under			-0.79	-1.15	-1.05	-0.53	-0.34	-0.17	0.97	
Rhumbline Advisors Russell 2000[1]	194,688,449	5.45	-30.55	-25.49	-23.91	-4.58	-0.30		-0.30	Apr-15
Russell 2000			*-30.61*	*-25.55*	*-23.99*	*-4.64*	*-0.25*		*-0.25*	*Apr-15*
Over/Under			0.06	0.06	0.08	0.06	-0.05		-0.05	
Rhumbline Advisors Russell 2000 Growth [1]	110,868,533	3.11	-25.74	-20.73	-18.54	0.11	1.64		2.82	Jan-15
Russell 2000 Growth			*-25.77*	*-20.76*	*-18.58*	*0.10*	*1.70*		*2.87*	*Jan-15*
Over/Under			0.03	0.03	0.04	0.01	-0.06		-0.05	
Rhumbline Advisors Russell 2000 Value[1]	147,404,644	4.13	-35.51	-30.62	-29.67	-9.49			0.89	Mar-16
Russell 2000 Value			*-35.66*	*-30.60*	*-29.64*	*-9.51*			*0.92*	*Mar-16*
Over/Under			0.15	-0.02	-0.03	0.02			-0.03	
EAM Investors	105,770,312	2.96	-25.45	-21.76	-16.51	5.65			6.15	Sep-15
Russell 2000 Growth			*-25.77*	*-20.76*	*-18.58*	*0.10*			*4.65*	*Sep-15*
Over/Under			0.32	-1.00	2.07	5.55			1.50	
Principal Global Investors	161,016,307	4.51	-23.70	-16.19	-8.04	7.03	7.14		9.11	Aug-14
Russell MidCap			*-27.07*	*-21.55*	*-18.31*	*-0.81*	*1.85*		*3.62*	*Aug-14*
Over/Under			3.37	5.36	10.27	7.84	5.29		5.49	
Rhumbline Advisors S&P 500	2,849,834,745	79.84	-19.69	-11.11	-7.28	4.98	6.62	10.51	9.01	Feb-93
S&P 500			*-19.60*	*-10.82*	*-6.98*	*5.10*	*6.73*	*10.53*	*8.87*	*Feb-93*
Over/Under			-0.09	-0.29	-0.30	-0.12	-0.11	-0.02	0.14	
Escrow Account	5,360	0.00								

1- Portfolio has a mid-month inception date. Since inception return is calculated from the first full month of performance.
- U.S. Equity Blend = Russell 3000 from 1/1/2000 to present; 33.75% S&P 500/ 35% Russell 1000 Value/ 12.50% Russell 1000 Growth/ 12.50% Russell 2000 Value/ 6.25% Russell 2000 Growth prior to
eA = eVestment Alliance

Los Angeles City Employees' Retirement System

U.S. EQUITY (NET)

	Market Value ($)	% of Portfolio	3 Mo (%)	Rank	Fiscal YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank	Inception (%)	Inception Date
U.S. Equity	**3,569,588,350**	**100.00**	**-21.70**	**32**	**-13.88**	**30**	**-10.23**	**32**	**3.41**	**31**	**5.36**	**19**	**9.83**	**34**		**Oct-94**
U.S. Equity Blend			*-20.90*	*15*	*-12.70*	*15*	*-9.13*	*17*	*4.00*	*14*	*5.77*	*11*	*10.15*	*14*		*Oct-94*
Over/Under			-0.80		-1.18		-1.10		-0.59		-0.41		-0.32			
InvMetrics Public DB > $1 Billion US Equity Net Median			*-22.37*		*-15.14*		*-11.85*		*2.62*		*4.63*		*9.44*			*Oct-94*
Rhumbline Advisors Russell 2000 [1]	194,688,449	5.45	-30.55	47	-25.49	45	-23.92	47	-4.59	46	-0.31	48			-0.31	Apr-15
Russell 2000			*-30.61*	*47*	*-25.55*	*46*	*-23.99*	*48*	*-4.64*	*46*	*-0.25*	*48*			*-0.25*	*Apr-15*
Over/Under			0.06		0.06		0.07		0.05		-0.06				-0.06	
eV US Small Cap Equity Net Median			*-31.26*		*-26.40*		*-24.66*		*-5.29*		*-0.63*				*-0.63*	*Apr-15*
Rhumbline Advisors Russell 2000 Growth [1]	110,868,533	3.11	-25.74	72	-20.73	56	-18.54	65	0.11	73	1.64	77			2.82	Jan-15
Russell 2000 Growth			*-25.77*	*72*	*-20.76*	*57*	*-18.58*	*65*	*0.10*	*73*	*1.70*	*77*			*2.87*	*Jan-15*
Over/Under			0.03		0.03		0.04		0.01		-0.06				-0.05	
eV US Small Cap Growth Equity Net Median			*-23.40*		*-20.12*		*-15.80*		*3.58*		*4.10*				*4.73*	*Jan-15*
Rhumbline Advisors Russell 2000 Value [1]	147,404,644	4.13	-35.51	56	-30.63	52	-29.68	56	-9.50	46					0.89	Mar-16
Russell 2000 Value			*-35.66*	*58*	*-30.60*	*52*	*-29.64*	*55*	*-9.51*	*46*					*0.92*	*Mar-16*
Over/Under			0.15		-0.03		-0.04		0.01						-0.03	
eV US Small Cap Value Equity Net Median			*-35.06*		*-30.45*		*-29.10*		*-9.74*						*-0.19*	*Mar-16*
EAM Investors	105,770,312	2.96	-25.59	29	-22.17	32	-17.09	25	4.90	14					5.40	Sep-15
Russell 2000 Growth			*-25.77*	*29*	*-20.76*	*25*	*-18.58*	*28*	*0.10*	*27*					*4.65*	*Sep-15*
Over/Under			0.18		-1.41		1.49		4.80						0.75	
eV US Small Cap Equity Net Median			*-31.26*		*-26.40*		*-24.66*		*-5.29*						*1.87*	*Sep-15*

1- Portfolio has a mid-month inception date. Since inception return is calculated from the first full month of performance.
- U.S. Equity Blend = Russell 3000 from 1/1/2000 to present; 33.75% S&P 500/ 35% Russell 1000 Value/ 12.50% Russell 1000 Growth/ 12.50% Russell 2000 Value/ 6.25% Russell 2000 Growth prior to
eA = eVestment Alliance

Los Angeles City Employees' Retirement System

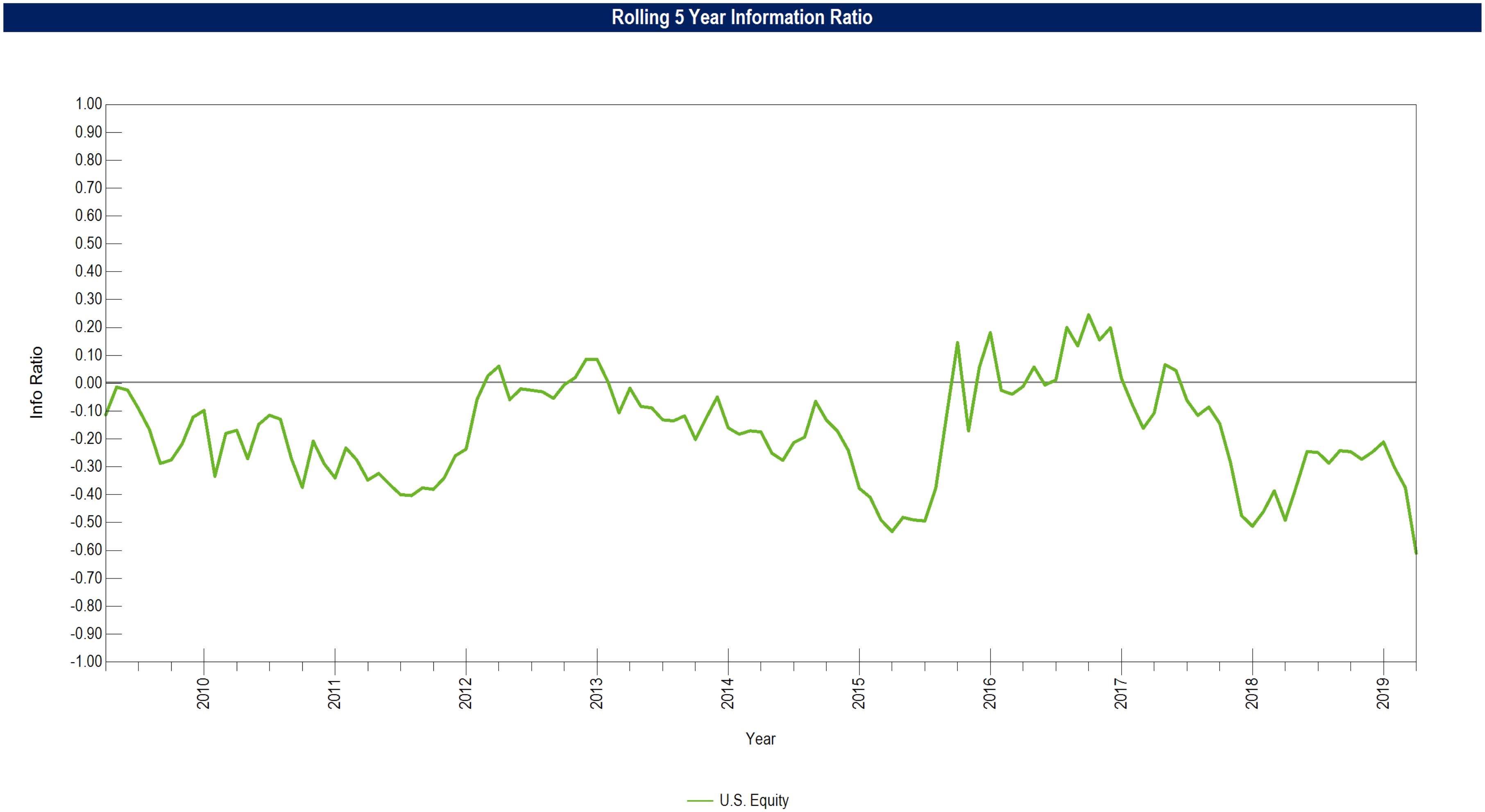
U.S. EQUITY (NET)

	Market Value ($)	% of Portfolio	3 Mo (%)	Rank	Fiscal YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank	Inception (%)	Inception Date
Principal Global Investors [1]	161,016,307	4.51	-23.78	44	-16.42	36	-8.38	23	6.63	18	6.73	15			8.72	Aug-14
Russell MidCap			*-27.07*	*55*	*-21.55*	*57*	*-18.31*	*53*	*-0.81*	*52*	*1.85*	*52*			*3.62*	*Aug-14*
Over/Under			3.29		5.13		9.93		7.44		4.88				5.10	
eV US Mid Cap Equity Net Median			*-25.91*		*-20.23*		*-17.38*		*0.07*		*1.98*				*3.40*	*Aug-14*
Rhumbline Advisors S&P 500	2,849,834,745	79.84	-19.69	43	-11.12	39	-7.28	40	4.97	35	6.61	29	10.50	30		Feb-93
S&P 500			*-19.60*	*42*	*-10.82*	*37*	*-6.98*	*38*	*5.10*	*35*	*6.73*	*28*	*10.53*	*30*		*Feb-93*
Over/Under			-0.09		-0.30		-0.30		-0.13		-0.12		-0.03			
eV US Large Cap Equity Net Median			*-20.88*		*-13.10*		*-9.52*		*2.94*		*4.69*		*9.29*			*Feb-93*
Escrow Account	5,360	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

Los Angeles City Employees' Retirement System

U.S. EQUITY ROLLING 5 YEAR INFORMATION RATIO



*Returns are net of fees.

MANAGER REPORT CARD

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

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

- Annual Management Fee Paid as of fiscal year ending June 30, 2019.

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

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

NON-U.S. EQUITY

NEPC, LLC

Los Angeles City Employees' Retirement System

NON-U.S. EQUITY (GROSS)

	Market Value ($)	% of Portfolio	3 Mo (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Non-U.S. Equity	**4,326,219,608**	**100.00**	**-24.28**	**-18.69**	**-16.12**	**-1.42**	**0.30**	**3.14**	**4.22**	**Nov-94**
MSCI ACWI ex USA			-23.36	-18.02	-15.57	-1.96	-0.64	2.05	4.08	*Nov-94*
Over/Under			-0.92	-0.67	-0.55	0.54	0.94	1.09	0.14	
Developed ex-U.S.	**3,267,840,243**	**75.54**	**-24.16**	**-18.33**	**-15.29**	**-1.18**	**0.23**		**4.70**	**Jun-12**
MSCI EAFE			-22.83	-17.42	-14.38	-1.82	-0.62		3.98	*Jun-12*
Over/Under			-1.33	-0.91	-0.91	0.64	0.85		0.72	
AQR Capital (Watch)	215,224,036	4.97	-27.66	-18.83	-18.36	-3.69	0.87		0.19	Feb-14
MSCI EAFE Small Cap			-27.52	-19.52	-18.15	-2.88	0.97		0.22	*Feb-14*
Over/Under			-0.14	0.69	-0.21	-0.81	-0.10		-0.03	
Barrow Hanley	391,561,277	9.05	-32.13	-24.95	-22.35	-6.60	-3.32		-2.37	Nov-13
MSCI EAFE Value			-28.20	-23.93	-22.76	-6.65	-3.83		-3.10	*Nov-13*
Over/Under			-3.93	-1.02	0.41	0.05	0.51		0.73	
Lazard Asset Management [1] (Watch)	489,687,093	11.32	-22.93	-19.15	-16.17	0.69	-0.36		0.96	Nov-13
MSCI EAFE			-22.83	-17.42	-14.38	-1.82	-0.62		-0.30	*Nov-13*
Over/Under			-0.10	-1.73	-1.79	2.51	0.26		1.26	
MFS Institutional Advisors	552,901,496	12.78	-18.00	-11.53	-6.49	5.83	4.89		4.31	Oct-13
MSCI World ex USA Growth NR USD			-17.81	-11.57	-6.47	2.55	2.05		2.22	*Oct-13*
Over/Under			-0.19	0.04	-0.02	3.28	2.84		2.09	
Oberweis Asset Mgmt [1] (Watch)	191,687,009	4.43	-24.07	-20.78	-17.37	-1.60	1.98		2.46	Jan-14
MSCI EAFE Small Cap			-27.52	-19.52	-18.15	-2.88	0.97		1.09	*Jan-14*
Over/Under			3.45	-1.26	0.78	1.28	1.01		1.37	
SSgA World ex US IMI	1,426,779,331	32.98	-23.80	-18.04	-15.01	-1.80	-0.17	3.03	4.76	Aug-93
MSCI World ex USA IMI NR USD [2]			-24.00	-18.34	-15.48	-2.29	-0.62	2.61	4.48	*Aug-93*
Over/Under			0.20	0.30	0.47	0.49	0.45	0.42	0.28	

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	**1,058,379,365**	**24.46**	**-24.67**	**-19.82**	**-18.66**	**-2.41**	**-0.32**		**0.81**	**Jun-12**
MSCI Emerging Markets			*-23.60*	*-18.18*	*-17.69*	*-1.62*	*-0.37*		*1.09*	*Jun-12*
Over/Under			-1.07	-1.64	-0.97	-0.79	0.05		-0.28	
Axiom Emerging Markets (Watch)	377,999,616	8.74	-21.04	-13.03	-10.68	1.29	1.85		1.87	May-14
MSCI Emerging Markets Growth NR USD			*-19.34*	*-10.17*	*-9.94*	*2.39*	*2.13*		*2.41*	*May-14*
Over/Under			-1.70	-2.86	-0.74	-1.10	-0.28		-0.54	
MSCI Emerging Markets			*-23.60*	*-18.18*	*-17.69*	*-1.62*	*-0.37*		*-0.29*	*May-14*
DFA Emerging Markets [1]	319,103,261	7.38	-30.03	-27.81	-27.98	-7.09	-2.47		-4.69	Aug-14
MSCI Emerging Markets Value NR USD			*-28.00*	*-25.97*	*-25.26*	*-5.78*	*-3.00*		*-4.78*	*Aug-14*
Over/Under			-2.03	-1.84	-2.72	-1.31	0.53		0.09	
QMA Emerging Markets [1] (Watch)	361,276,489	8.35	-23.19	-18.52	-16.94	-1.60	-0.43		0.08	May-14
MSCI Emerging Markets			*-23.60*	*-18.18*	*-17.69*	*-1.62*	*-0.37*		*-0.29*	*May-14*
Over/Under			0.41	-0.34	0.75	0.02	-0.06		0.37	

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	**4,326,219,608**	**100.00**	**-24.36**	**58**	**-18.92**	**69**	**-16.44**	**67**	**-1.78**	**38**	**-0.06**	**36**	**2.79**	**35**		**Nov-94**
MSCI ACWI ex USA			*-23.36*	*38*	*-18.02*	*52*	*-15.57*	*54*	*-1.96*	*46*	*-0.64*	*69*	*2.05*	*87*		*Nov-94*
Over/Under			-1.00		-0.90		-0.87		0.18		0.58		0.74			
Developed ex-U.S.	**3,267,840,243**	**75.54**	**-24.23**	**85**	**-18.52**	**85**	**-15.56**	**79**	**-1.49**	**51**	**-0.09**	**45**			**4.41**	**Jun-12**
MSCI EAFE			*-22.83*	*21*	*-17.42*	*46*	*-14.38*	*46*	*-1.82*	*54*	*-0.62*	*74*			*3.98*	*Jun-12*
Over/Under			-1.40		-1.10		-1.18		0.33		0.53				0.43	
InvMetrics Public DB > $1 Billion Dev Mkt ex-US Eq Net Median			*-23.85*		*-17.69*		*-14.85*		*-1.49*		*-0.18*				*4.35*	*Jun-12*
AQR Capital [1] (Watch)	215,224,036	4.97	-27.79	42	-19.29	32	-18.98	51	-4.43	57	0.10	60			-0.50	Feb-14
MSCI EAFE Small Cap			*-27.52*	*38*	*-19.52*	*40*	*-18.15*	*47*	*-2.88*	*41*	*0.97*	*45*			*0.22*	*Feb-14*
Over/Under			-0.27		0.23		-0.83		-1.55		-0.87				-0.72	
eV EAFE Small Cap Equity Net Median			*-28.52*		*-21.23*		*-18.94*		*-3.64*		*0.52*				*0.09*	*Feb-14*
Barrow Hanley [1]	391,561,277	9.05	-32.22	85	-25.23	80	-22.74	67	-7.07	78	-3.81	82			-2.85	Nov-13
MSCI EAFE Value			*-28.20*	*58*	*-23.93*	*65*	*-22.76*	*67*	*-6.65*	*69*	*-3.83*	*82*			*-3.10*	*Nov-13*
Over/Under			-4.02		-1.30		0.02		-0.42		0.02				0.25	
eV EAFE Value Equity Net Median			*-27.51*		*-22.20*		*-20.67*		*-5.80*		*-2.75*				*-2.17*	*Nov-13*
Lazard Asset Management [1] (Watch)	489,687,093	11.32	-23.04	40	-19.48	59	-16.62	53	0.18	22	-0.89	57			0.43	Nov-13
MSCI EAFE			*-22.83*	*38*	*-17.42*	*38*	*-14.38*	*35*	*-1.82*	*43*	*-0.62*	*52*			*-0.30*	*Nov-13*
Over/Under			-0.21		-2.06		-2.24		2.00		-0.27				0.73	
eV All EAFE Equity Net Median			*-24.25*		*-18.36*		*-16.14*		*-2.36*		*-0.58*				*-0.04*	*Nov-13*
MFS Institutional Advisors	552,901,496	12.78	-18.10	41	-11.81	40	-6.89	54	5.34	14	4.38	2			3.82	Oct-13
MSCI World ex USA Growth NR USD			*-17.81*	*32*	*-11.57*	*37*	*-6.47*	*42*	*2.55*	*51*	*2.05*	*53*			*2.22*	*Oct-13*
Over/Under			-0.29		-0.24		-0.42		2.79		2.33				1.60	
eV EAFE All Cap Growth Net Median			*-19.14*		*-12.11*		*-6.79*		*2.56*		*2.09*				*2.17*	*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] (Watch)	191,687,009	4.43	-24.26	12	-21.24	51	-18.03	46	-2.43	38	1.13	40			1.60	Jan-14
MSCI EAFE Small Cap			*-27.52*	*38*	*-19.52*	*40*	*-18.15*	*47*	*-2.88*	*41*	*0.97*	*45*			*1.09*	*Jan-14*
Over/Under			3.26		-1.72		0.12		0.45		0.16				0.51	
eV EAFE Small Cap Equity Net Median			*-28.52*		*-21.23*		*-18.94*		*-3.64*		*0.52*				*0.97*	*Jan-14*
SSgA World ex US IMI	1,426,779,331	32.98	-23.81	49	-18.06	46	-15.03	41	-1.82	45	-0.20	46	3.00	71	4.76	Aug-93
MSCI World ex USA IMI NR USD [2]			*-24.00*	*51*	*-18.34*	*53*	*-15.48*	*47*	*-2.29*	*53*	*-0.62*	*56*	*2.61*	*79*	*4.48*	*Aug-93*
Over/Under			0.19		0.28		0.45		0.47		0.42		0.39		0.28	
eV EAFE Core Equity Net Median			*-23.99*		*-18.20*		*-15.89*		*-2.25*		*-0.47*		*3.80*		*5.82*	*Aug-93*
Emerging Markets	**1,058,379,365**	**24.46**	**-24.78**	**50**	**-20.14**	**51**	**-19.10**	**50**	**-2.92**	**37**	**-0.86**	**34**			**0.20**	**Jun-12**
MSCI Emerging Markets			*-23.60*	*25*	*-18.18*	*25*	*-17.69*	*25*	*-1.62*	*22*	*-0.37*	*29*			*1.09*	*Jun-12*
Over/Under			-1.18		-1.96		-1.41		-1.30		-0.49				-0.89	
InvMetrics Public DB > $1 Billion Emg Mkt Eq Net Median			*-24.78*		*-20.14*		*-19.10*		*-3.77*		*-1.15*				*0.17*	*Jun-12*
Axiom Emerging Markets (Watch)	377,999,616	8.74	-21.17	12	-13.47	9	-11.29	8	0.59	16	1.14	22			1.20	May-14
MSCI Emerging Markets Growth NR USD			*-19.34*	*6*	*-10.17*	*2*	*-9.94*	*6*	*2.39*	*5*	*2.13*	*10*			*2.41*	*May-14*
Over/Under			-1.83		-3.30		-1.35		-1.80		-0.99				-1.21	
MSCI Emerging Markets			*-23.60*	*35*	*-18.18*	*37*	*-17.69*	*40*	*-1.62*	*32*	*-0.37*	*41*			*-0.29*	*May-14*
eV Emg Mkts Equity Net Median			*-25.05*		*-20.07*		*-19.10*		*-2.71*		*-0.87*				*-0.53*	*May-14*
DFA Emerging Markets [1]	319,103,261	7.38	-30.13	85	-28.11	90	-28.38	92	-7.56	89	-2.97	84			-5.16	Aug-14
MSCI Emerging Markets Value NR USD			*-28.00*	*74*	*-25.97*	*83*	*-25.26*	*82*	*-5.78*	*76*	*-3.00*	*84*			*-4.78*	*Aug-14*
Over/Under			-2.13		-2.14		-3.12		-1.78		0.03				-0.38	
eV Emg Mkts Equity Net Median			*-25.05*		*-20.07*		*-19.10*		*-2.71*		*-0.87*				*-1.77*	*Aug-14*
QMA Emerging Markets [1] (Watch)	361,276,489	8.35	-23.26	30	-18.75	42	-17.26	38	-1.98	37	-0.85	50			-0.35	May-14
MSCI Emerging Markets			*-23.60*	*35*	*-18.18*	*37*	*-17.69*	*40*	*-1.62*	*32*	*-0.37*	*41*			*-0.29*	*May-14*
Over/Under			0.34		-0.57		0.43		-0.36		-0.48				-0.06	
eV Emg Mkts Equity Net Median			*-25.05*		*-20.07*		*-19.10*		*-2.71*		*-0.87*				*-0.53*	*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 March 31, 2020	Manager Ending Allocation (USD)	Index Ending Allocation (USD)
Europe		
Austria	0.2%	0.1%
Belgium	0.5%	0.6%
Croatia**	0.0%	0.0%
Czech Republic*	0.0%	0.0%
Denmark	1.6%	1.4%
Estonia**	0.0%	0.0%
Finland	1.0%	0.7%
France	8.4%	7.1%
Germany	6.1%	5.4%
Greece*	0.1%	0.1%
Hungary*	0.1%	0.1%
Ireland	0.5%	0.4%
Italy	1.8%	1.4%
Lithuania**	0.0%	0.0%
Luxembourg	0.0%	0.0%
Netherlands	2.3%	2.8%
Norway	0.7%	0.4%
Poland*	0.1%	0.2%
Portugal	0.1%	0.1%
Romania**	0.0%	0.0%
Russia*	0.7%	0.9%
Serbia**	0.0%	0.0%
Slovenia**	0.0%	0.0%
Spain	1.1%	1.7%
Sweden	2.1%	1.8%
Switzerland	6.7%	7.1%
United Kingdom	10.0%	10.0%
Total-Europe	**44.0%**	**42.3%**

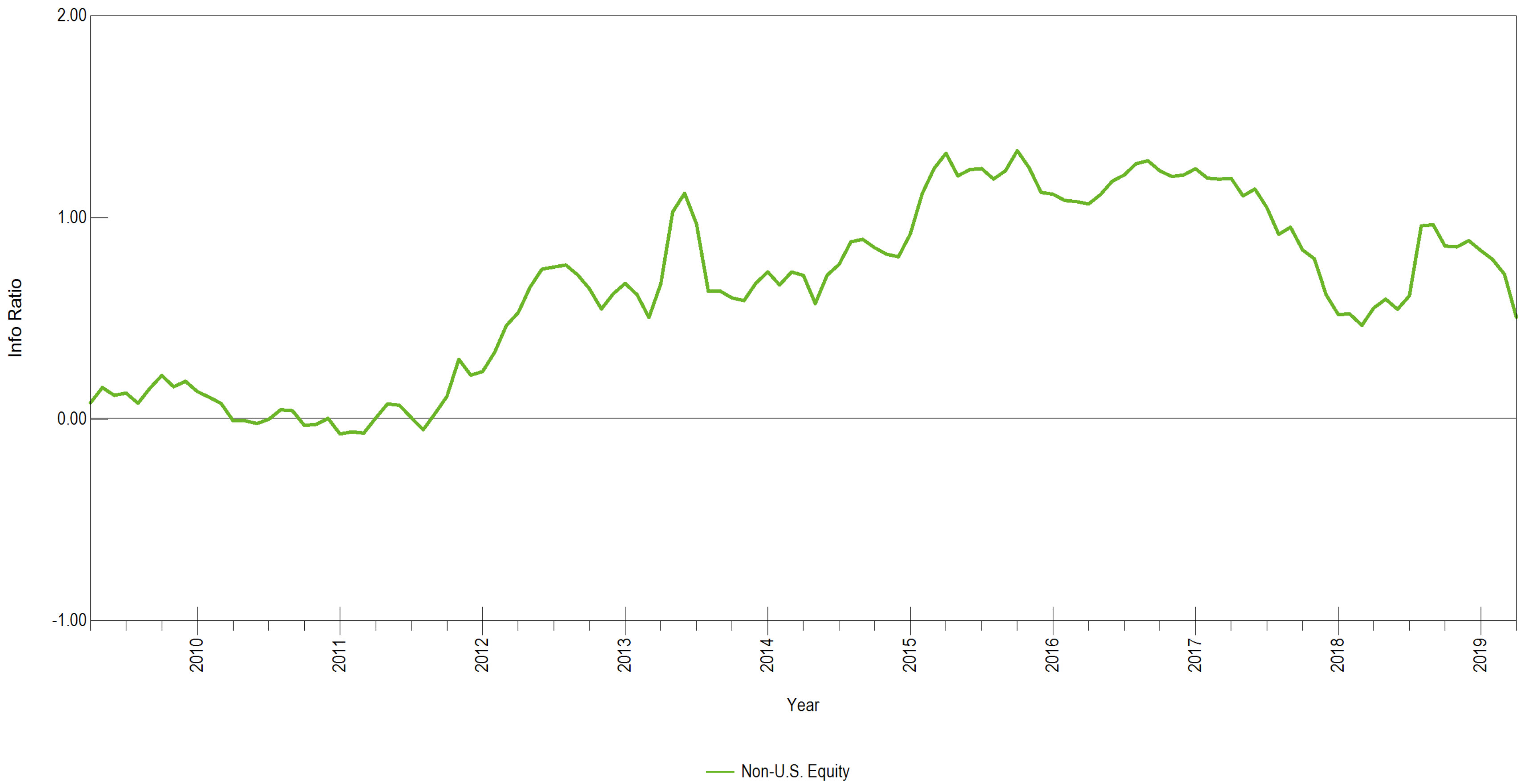
Versus MSCI ACWI ex USA - Quarter Ending March 31, 2020	Manager Ending Allocation (USD)	Index Ending Allocation (USD)
Americas		
Brazil*	1.2%	1.4%
Canada	4.4%	6.3%
Chile*	0.1%	0.2%
Colombia*	0.3%	0.1%
Mexico*	0.6%	0.5%
Peru*	0.0%	0.1%
United States	2.4%	0.0%
Total-Americas	**9.1%**	**8.6%**
AsiaPacific		
Australia	2.5%	3.9%
China*	6.5%	11.0%
Hong Kong	6.5%	2.5%
India*	2.2%	2.2%
Indonesia*	0.3%	0.4%
Japan	15.7%	17.4%
Korea*	3.2%	3.3%
Malaysia*	0.2%	0.5%
New Zealand	0.1%	0.2%
Philippines*	0.3%	0.2%
Singapore	1.3%	0.8%
Taiwan*	4.0%	3.4%
Thailand*	0.4%	0.6%
Total-AsiaPacific	**43.2%**	**46.5%**
Other		
Egypt*	0.1%	0.0%
Israel	0.7%	0.4%
Other Countries	0.3%	0.0%
Qatar*	0.1%	0.3%
South Africa*	0.9%	1.0%
Turkey*	0.2%	0.1%
United Arab Emirates*	0.0%	0.2%
Total-Other	**2.2%**	**2.7%**
Totals		
Developed	76.6%	72.5%
Emerging*	21.6%	27.5%
Other	0.3%	
Cash	1.5%	

* = Emerging Market
** = Frontier Market

Los Angeles City Employees' Retirement System

NON-U.S. EQUITY ROLLING 5 YEAR INFORMATION

Rolling 5 Year Information Ratio



*Returns are net of fees

MANAGER REPORT CARD

Non-U.S. Equity Managers	Inception Date	Mandate	Current Quarter (Net)		One Year (Net)		Three Years (Net)		Five Years (Net)		Since Inception (Net)	Annual Mgt Fee Paid $ (000)	Comments
			Index	Universe	Index	Universe	Index	Universe	Index	Universe	Index		
Axiom International	Mar-14	Emerging Markets	×	✓	×	✓	×	✓	×	✓	×	2,905.3	On Watch since April 2019 due to performance
Q.M.A.	Apr-14	Emerging Markets	✓	✓	✓	✓	×	✓	×	✓	×	1,632.8	On Watch since July 2019 due to performance
DFA Emerging Markets	Jul-14	Emerging Markets	×	×	×	×	×	×	✓	×	×	2,208.6	Performance compliant with LACERS' Manager Monitoring Policy
AQR	Feb-14	Non-U.S. Developed	×	✓	×	×	×	×	×	×	×	2,522.4	On Watch since May 2019 due to performance.
Oberweis Asset Mgt.	Jan-14	Non-U.S. Developed	✓	✓	✓	✓	✓	✓	✓	✓	✓	1,434.9	On Watch since February 2020 due to performance
Barrow, Hanley, Mewhinney & Strauss	Nov-13	Non-U.S. Developed	×	×	✓	×	×	×	✓	×	✓	2,574.2	Performance compliant with LACERS' Manager Monitoring Policy
Lazard Asset Mgt.	Nov-13	Non-U.S. Developed	×	✓	×	×	✓	✓	×	×	✓	3,003.5	On Watch since February 2020 due to performance
MFS Institutional Advisors	Oct-13	Non-U.S. Developed	×	✓	×	×	✓	✓	✓	✓	✓	2,662.1	Performance compliant with LACERS' Manager Monitoring Policy
SsgA (Passive)	Aug-93	Non-U.S. Developed	✓	✓	✓	✓	✓	✓	✓	✓	✓✓	391.2	Performance compliant with LACERS' Manager Monitoring Policy

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

- Annual Management Fee Paid as of fiscal year ending June 30, 2019.

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

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

CORE FIXED INCOME

NEPC, LLC

Los Angeles City Employees' Retirement System

CORE FIXED INCOME (GROSS)

	Market Value ($)	% of Portfolio	3 Mo (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Core Fixed Income	**3,291,074,018**	**100.00**	**2.55**	**5.07**	**8.43**	**4.76**	**3.53**		**3.71**	**Jul-12**
Core Fixed Income Blend			*3.15*	*5.68*	*8.93*	*4.82*	*3.36*		*3.22*	*Jul-12*
Over/Under			-0.60	-0.61	-0.50	-0.06	0.17		0.49	
Baird Advisors	348,691,957	10.60	1.50	3.49	6.34	3.89	3.12	4.01	4.39	Mar-05
BBgBarc US Govt/Credit Int TR			*2.40*	*4.19*	*6.88*	*3.79*	*2.76*	*3.14*	*3.81*	*Mar-05*
Over/Under			-0.90	-0.70	-0.54	0.10	0.36	0.87	0.58	
LM Capital (Watch)	332,334,439	10.10	1.28	3.86	7.07	4.13	3.20	3.96	4.66	Mar-05
Core Fixed Income Blend			*3.15*	*5.68*	*8.93*	*4.82*	*3.36*	*4.02*	*4.53*	*Mar-05*
Over/Under			-1.87	-1.82	-1.86	-0.69	-0.16	-0.06	0.13	
Loomis Sayles	838,243,253	25.47	3.30	5.95	9.65	5.49	4.17	5.03	9.06	Jul-80
BC US Agg LACERS custom			*3.15*	*5.68*	*8.93*	*4.82*	*3.36*	*3.88*	*7.58*	*Jul-80*
Over/Under			0.15	0.27	0.72	0.67	0.81	1.15	1.48	
Neuberger Berman (Watch)	818,834,476	24.88	2.16	4.70	8.07	4.55	3.39	4.55	5.77	Sep-01
Core Fixed Income Blend			*3.15*	*5.68*	*8.93*	*4.82*	*3.36*	*4.02*	*4.76*	*Sep-01*
Over/Under			-0.99	-0.98	-0.86	-0.27	0.03	0.53	1.01	
SSgA U.S. Aggregate Bond [1]	952,969,893	28.96	3.06	5.60	8.87	4.81	3.36		3.65	Jul-14
BBgBarc US Aggregate TR			*3.15*	*5.68*	*8.93*	*4.82*	*3.36*		*3.65*	*Jul-14*
Over/Under			-0.09	-0.08	-0.06	-0.01	0.00		0.00	

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

Los Angeles City Employees' Retirement System

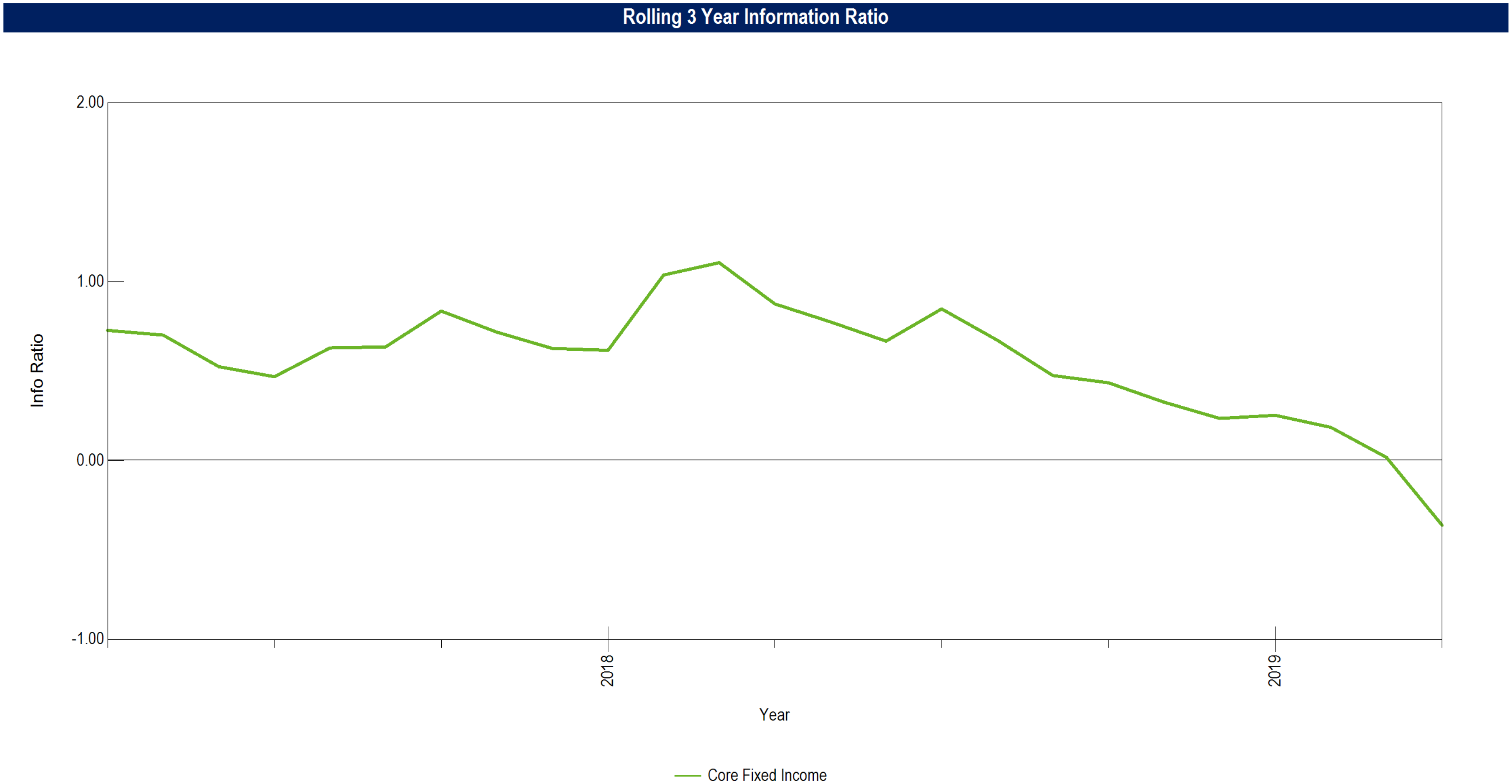
CORE FIXED INCOME (NET)

	Market Value ($)	% of Portfolio	3 Mo (%)	Rank	Fiscal YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank	Inception (%)	Inception Date
Core Fixed Income	**3,291,074,018**	**100.00**	**2.53**	**17**	**5.00**	**15**	**8.33**	**14**	**4.66**	**9**	**3.43**	**19**			**3.59**	**Jul-12**
Core Fixed Income Blend			*3.15*	*15*	*5.68*	*14*	*8.93*	*12*	*4.82*	*8*	*3.36*	*22*			*3.22*	*Jul-12*
Over/Under			-0.62		-0.68		-0.60		-0.16		0.07				0.37	
InvMetrics Public DB > $1 Billion US Fixed Income Net Median			*-0.38*		*1.41*		*4.33*		*3.43*		*2.99*				*3.15*	*Jul-12*
Baird Advisors	348,691,957	10.60	1.47	45	3.40	40	6.22	32	3.76	10	2.99	4	3.88	10	4.26	Mar-05
BBgBarc US Govt/Credit Int TR			*2.40*	*13*	*4.19*	*12*	*6.88*	*8*	*3.79*	*9*	*2.76*	*22*	*3.14*	*45*	*3.81*	*Mar-05*
Over/Under			-0.93		-0.79		-0.66		-0.03		0.23		0.74		0.45	
eV US Interm Duration Fixed Inc Net Median			*1.21*		*2.94*		*5.43*		*3.36*		*2.56*		*3.08*		*3.92*	*Mar-05*
LM Capital (Watch)	332,334,439	10.10	1.26	62	3.78	60	6.97	59	4.03	74	3.10	62	3.83	61	4.52	Mar-05
Core Fixed Income Blend			*3.15*	*15*	*5.68*	*12*	*8.93*	*13*	*4.82*	*15*	*3.36*	*30*	*4.02*	*47*	*4.53*	*Mar-05*
Over/Under			-1.89		-1.90		-1.96		-0.79		-0.26		-0.19		-0.01	
eV US Core Fixed Inc Net Median			*1.68*		*4.09*		*7.28*		*4.36*		*3.22*		*3.94*		*4.49*	*Mar-05*
Loomis Sayles	838,243,253	25.47	3.27	13	5.85	10	9.52	6	5.36	3	4.04	2	4.90	2		Jul-80
BC US Agg LACERS custom			*3.15*	*15*	*5.68*	*12*	*8.93*	*13*	*4.82*	*15*	*3.36*	*30*	*3.88*	*56*		*Jul-80*
Over/Under			0.12		0.17		0.59		0.54		0.68		1.02			
eV US Core Fixed Inc Net Median			*1.68*		*4.09*		*7.28*		*4.36*		*3.22*		*3.94*			*Jul-80*
Neuberger Berman (Watch)	818,834,476	24.88	2.13	39	4.60	35	7.93	33	4.40	47	3.24	47	4.38	19	5.61	Sep-01
Core Fixed Income Blend			*3.15*	*15*	*5.68*	*12*	*8.93*	*13*	*4.82*	*15*	*3.36*	*30*	*4.02*	*47*	*4.76*	*Sep-01*
Over/Under			-1.02		-1.08		-1.00		-0.42		-0.12		0.36		0.85	
eV US Core Fixed Inc Net Median			*1.68*		*4.09*		*7.28*		*4.36*		*3.22*		*3.94*		*4.60*	*Sep-01*
SSgA U.S. Aggregate Bond [1]	952,969,893	28.96	3.05	16	5.58	13	8.84	16	4.77	17	3.32	34			3.62	Jul-14
BBgBarc US Aggregate TR			*3.15*	*15*	*5.68*	*12*	*8.93*	*13*	*4.82*	*15*	*3.36*	*30*			*3.65*	*Jul-14*
Over/Under			-0.10		-0.10		-0.09		-0.05		-0.04				-0.03	
eV US Core Fixed Inc Net Median			*1.68*		*4.09*		*7.28*		*4.36*		*3.22*				*3.50*	*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



*Returns are net of fees

MANAGER REPORT CARD

Core Fixed Income Managers	Inception Date	Mandate	Current Quarter (Net)		One Year (Net)		Three Years (Net)		Five Years (Net)		Since Inception (Net)	Annual Mgt Fee Paid $ (000)	Comments
			Index	Universe	Index	Universe	Index	Universe	Index	Universe	Index		
Neuberger Berman	Sep-01	Core	×	✓	×	✓	×	✓	✓	✓	✓	1,031.6	On Watch since March 2019 due to performance
Loomis Sayles	Jul-80	Core	✓	✓	✓	✓	✓	✓	✓	✓	✓✓	952.5	Performance compliant with LACERS' Manager Monitoring Policy
Baird Advisors	Mar-05	Intermediate	×	✓	×	✓	×	✓	✓	✓	✓	317.7	Performance compliant with LACERS' Manager Monitoring Policy
LM Capital Group	Mar-05	Core	×	×	×	×	×	×	×	×	×	314.7	On Watch since March 2019 due to performance
SSgA (Passive)	Jul-14	Core	×	✓	×	✓	×	✓	×	✓	×	394.4	Performance compliant with LACERS' Manager Monitoring Policy

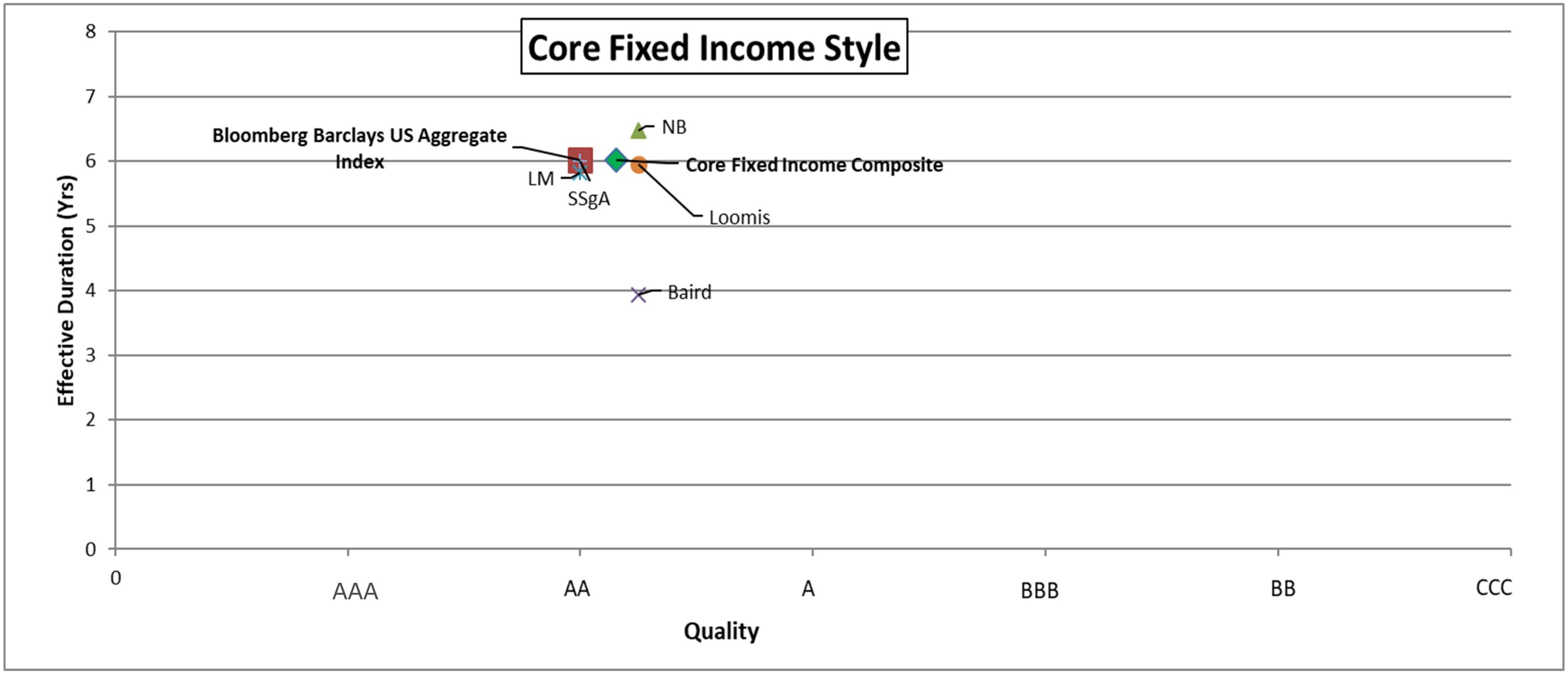
Note: Managers are placed on Watch List for concerns with organization, process and performance. Managers are normally on the Watch List for 12 months though may be longer if manager issues remain but not severe enough to warrant termination recommendation.

- Annual Management Fee Paid as of fiscal year ending June 30, 2019.

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

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

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.

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	**883,134,987**	**100.00**	**-15.15**	**-11.73**	**-8.75**	**0.08**	**2.05**		**3.24**	**Jun-13**
Credit Opportunities Blend			-12.92	-9.64	-6.88	0.66	2.82		3.78	*Jun-13*
Over/Under			-2.23	-2.09	-1.87	-0.58	-0.77		-0.54	
AEGON USA (Watch)	328,004,726	37.14	-15.45	-11.51	-9.13	0.08	2.45		3.61	Jun-13
BBgBarc US High Yield 2% Issuer Cap TR			-12.68	-9.21	-6.94	0.76	2.78		3.68	*Jun-13*
Over/Under			-2.77	-2.30	-2.19	-0.68	-0.33		-0.07	
Prudential Emerging Markets	364,235,424	41.24	-16.28	-12.48	-8.13	0.39	2.77		2.85	May-14
JP Morgan EMBI Global Diversified			-13.38	-10.48	-6.84	0.42	2.82		2.62	*May-14*
Over/Under			-2.90	-2.00	-1.29	-0.03	-0.05		0.23	
Bain Capital Senior Loan Fund, LP*	190,881,568	21.61	-12.35	-10.66	-9.24	-0.63			1.00	Jun-15
Credit Suisse Leveraged Loans			-13.19	-10.92	-9.51	-0.73			1.10	*Jun-15*
Over/Under			0.84	0.26	0.27	0.10			-0.10	

- 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)

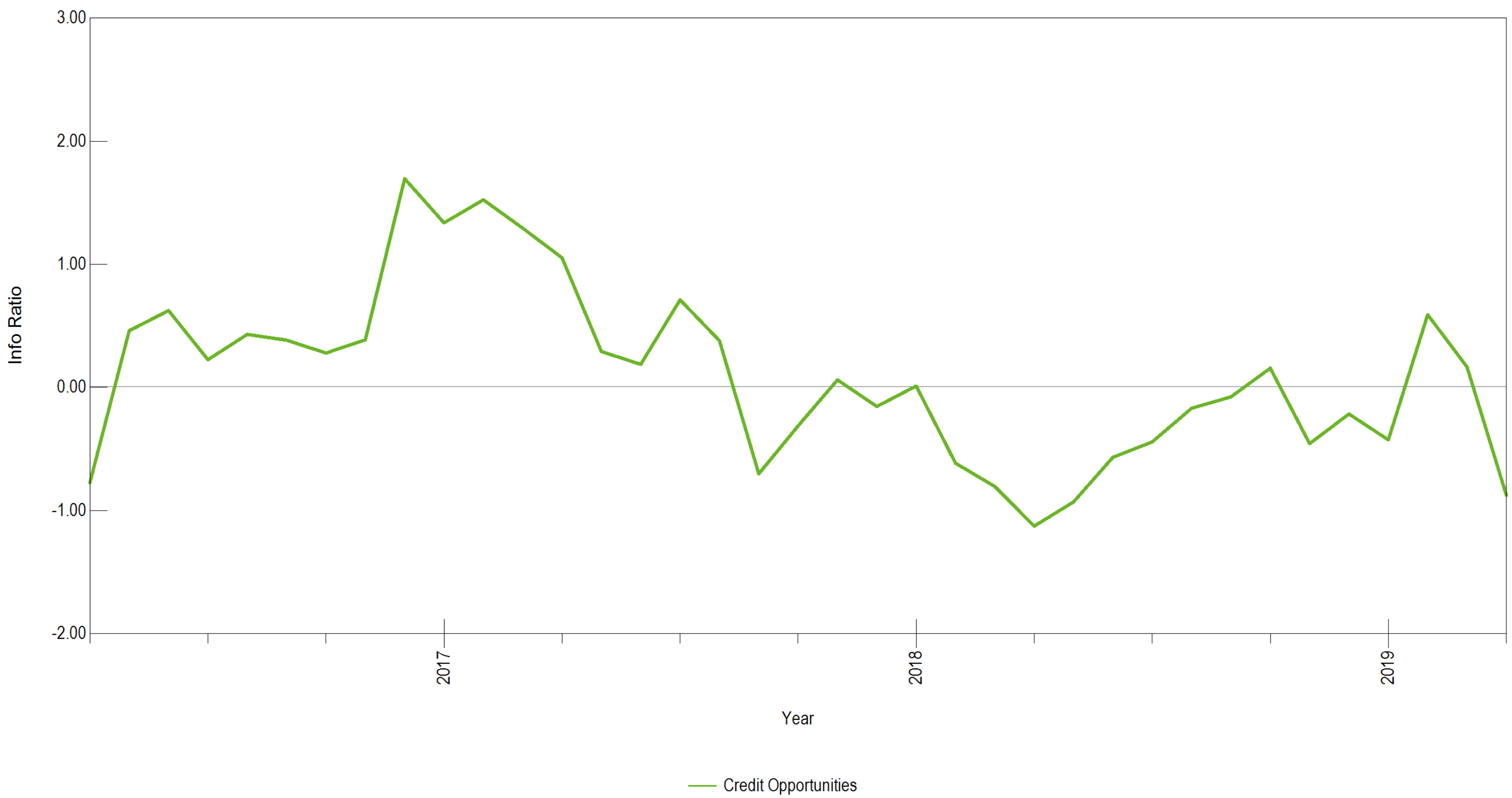
	Market Value ($)	% of Portfolio	3 Mo (%)	Rank	Fiscal YTD (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank	Inception (%)	Inception Date
Credit Opportunities	**883,134,987**	**100.00**	**-15.22**		**-11.94**		**-9.03**		**-0.24**		**1.71**				**2.91**	**Jun-13**
Credit Opportunities Blend			*-12.92*		*-9.64*		*-6.88*		*0.66*		*2.82*				*3.78*	*Jun-13*
Over/Under			-2.30		-2.30		-2.15		-0.90		-1.11				-0.87	
AEGON USA (Watch)	328,004,726	37.14	-15.53	88	-11.77	84	-9.47	82	-0.29	77	2.07	62			3.24	Jun-13
BBgBarc US High Yield 2% Issuer Cap TR			*-12.68*	*57*	*-9.21*	*57*	*-6.94*	*55*	*0.76*	*41*	*2.78*	*23*			*3.68*	*Jun-13*
Over/Under			-2.85		-2.56		-2.53		-1.05		-0.71				-0.44	
eV US High Yield Fixed Inc Net Median			*-12.13*		*-8.89*		*-6.62*		*0.57*		*2.30*				*3.25*	*Jun-13*
Prudential Emerging Markets	364,235,424	41.24	-16.38	67	-12.74	52	-8.50	39	0.00	32	2.37	35			2.46	May-14
JP Morgan EMBI Global Diversified			*-13.38*	*31*	*-10.48*	*33*	*-6.84*	*30*	*0.42*	*31*	*2.82*	*11*			*2.62*	*May-14*
Over/Under			-3.00		-2.26		-1.66		-0.42		-0.45				-0.16	
eV Emg Mkts Fixed Inc - Hard Currency Net Median			*-15.67*		*-12.64*		*-8.84*		*-1.02*		*2.12*				*1.65*	*May-14*
Bain Capital Senior Loan Fund, LP	190,881,568	21.61	-12.35	60	-10.66	65	-9.24	62	-0.63	49					1.00	Jun-15
Credit Suisse Leveraged Loans			*-13.19*	*73*	*-10.92*	*67*	*-9.51*	*66*	*-0.73*	*51*					*1.10*	*Jun-15*
Over/Under			0.84		0.26		0.27		0.10						-0.10	
eV US Float-Rate Bank Loan Fixed Inc Net Median			*-11.93*		*-9.64*		*-8.27*		*-0.71*						*0.94*	*Jun-15*

- 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

Los Angeles City Employees' Retirement System

CREDIT OPPORTUNITIES ROLLING 1 YEAR

Rolling 1 Year Information Ratio



*Returns are net of fees

MANAGER REPORT CARD

Credit Opportunities Managers	Inception Date	Mandate	Current Quarter (Net)		One Year (Net)		Three Years (Net)		Five Years (Net)		Since Inception (Net)	Annual Mgt Fee Paid $ (000)	Comments
			Index	Universe	Index	Universe	Index	Universe	Index	Universe	Index		
AEGON USA	Jun-13	High Yield Bonds	×	×	×	×	×	×	×	×	×	1,428.4	On Watch since October 2017 due to organizational reasons
Prudential	May-14	Emerging Market Debt	×	×	×	✓	×	✓	×	✓	×	1,432.7	Performance compliant with LACERS' Manager Monitoring Policy
Bain	Jun-15	Bank Loans	✓	×	✓	×	✓	✓	N/A	N/A	×	754.3	Performance compliant with LACERS' Manager Monitoring Policy

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

- Annual Management Fee Paid as of fiscal year ending June 30, 2019.

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

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

REAL ASSETS

NEPC, LLC

Los Angeles City Employees' Retirement System

REAL ASSETS (GROSS)

	Market Value ($)	% of Portfolio	3 Mo (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Real Assets	**1,945,003,556**	**100.00**	**-4.40**	**-1.84**	**0.19**	**3.72**	**4.70**	**7.28**	**6.06**	**Nov-94**
CPI + 5% (Unadjusted)			*1.67*	*4.52*	*6.61*	*7.01*	*6.88*	*6.80*	*7.27*	*Nov-94*
Over/Under			-6.07	-6.36	-6.42	-3.29	-2.18	0.48	-1.21	
Public Real Assets	**1,128,163,061**	**58.00**	**-6.98**	**-4.20**	**-2.03**	**1.10**	**1.16**		**0.80**	**Jun-14**
Public Real Assets Blend			*-12.83*	*-11.31*	*-9.81*	*-2.36*	*-1.51*		*-2.45*	*Jun-14*
Over/Under			5.85	7.11	7.78	3.46	2.67		3.25	
TIPS	**769,980,916**	**39.59**	**1.69**	**3.32**	**6.59**	**3.59**	**2.79**		**2.23**	**Jul-14**
BBgBarc US TIPS TR			*1.69*	*3.87*	*6.85*	*3.46*	*2.67*		*2.22*	*Jul-14*
Over/Under			0.00	-0.55	-0.26	0.13	0.12		0.01	
DFA US TIPS [1]	769,980,916	39.59	1.69	3.32	6.59	3.59	2.92		2.36	Aug-14
BBgBarc US TIPS TR			*1.69*	*3.87*	*6.85*	*3.46*	*2.67*		*2.22*	*Aug-14*
Over/Under			0.00	-0.55	-0.26	0.13	0.25		0.14	
REITS	**186,707,939**	**9.60**	**-19.98**	**-13.52**	**-11.30**	**2.15**	**4.15**		**4.15**	**Mar-15**
FTSE NAREIT All Equity REIT			*-23.44*	*-17.41*	*-15.93*	*-0.07*	*1.91*		*1.91*	*Mar-15*
Over/Under			3.46	3.89	4.63	2.22	2.24		2.24	
CenterSquare US Real Estate [1]	186,707,939	9.60	-19.98	-13.52	-11.30	2.15			4.87	May-15
FTSE NAREIT All Equity REIT			*-23.44*	*-17.41*	*-15.93*	*-0.07*			*3.00*	*May-15*
Over/Under			3.46	3.89	4.63	2.22			1.87	
Commodities	**171,474,205**	**8.82**	**-22.83**	**-21.04**	**-22.18**	**-7.89**			**-8.46**	**Jun-15**
Bloomberg Commodity Index TR USD			*-23.29*	*-21.37*	*-22.31*	*-8.61*			*-9.03*	*Jun-15*
Over/Under			0.46	0.33	0.13	0.72			0.57	
CoreCommodity Mgmt [1]	171,474,205	8.82	-22.83	-21.04	-22.18	-7.89			-8.46	Jul-15
Bloomberg Commodity Index TR USD			*-23.29*	*-21.37*	*-22.31*	*-8.61*			*-9.03*	*Jul-15*
Over/Under			0.46	0.33	0.13	0.72			0.57	
Private Real Estate	**798,610,929**	**41.06**	**-0.59**	**1.73**	**3.55**	**6.75**	**8.11**	**9.19**	**6.80**	**Oct-94**
Real Estate Blend			*1.17*	*4.46*	*5.71*	*7.66*	*9.32*	*11.35*	*9.75*	*Oct-94*
Over/Under			-1.76	-2.73	-2.16	-0.91	-1.21	-2.16	-2.95	
Timber	**18,229,566**	**0.94**	**0.00**	**-0.54**	**2.74**	**2.61**	**1.94**	**5.06**	**9.02**	**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	**1,945,003,556**	**100.00**	**-4.44**		**-1.95**		**0.04**		**3.56**		**4.54**		**7.13**			**Nov-94**
CPI + 5% (Unadjusted)			*1.67*		*4.52*		*6.61*		*7.01*		*6.88*		*6.80*			*Nov-94*
Over/Under			-6.11		-6.47		-6.57		-3.45		-2.34		0.33			
Public Real Assets	**1,128,163,061**	**58.00**	**-7.03**		**-4.34**		**-2.23**		**0.86**		**0.94**				**0.59**	**Jun-14**
Public Real Assets Blend			*-12.83*		*-11.31*		*-9.81*		*-2.36*		*-1.51*				*-2.45*	*Jun-14*
Over/Under			5.80		6.97		7.58		3.22		2.45				3.04	
TIPS	**769,980,916**	**39.59**	**1.68**		**3.28**		**6.54**		**3.54**		**2.74**				**2.17**	**Jul-14**
BBgBarc US TIPS TR			*1.69*		*3.87*		*6.85*		*3.46*		*2.67*				*2.22*	*Jul-14*
Over/Under			-0.01		-0.59		-0.31		0.08		0.07				-0.05	
DFA US TIPS [1]	769,980,916	39.59	1.68	24	3.28	34	6.54	32	3.54	12	2.87	12			2.30	Aug-14
BBgBarc US TIPS TR			*1.69*	*23*	*3.87*	*20*	*6.85*	*19*	*3.46*	*15*	*2.67*	*25*			*2.22*	*Aug-14*
Over/Under			-0.01		-0.59		-0.31		0.08		0.20				0.08	
eV US TIPS / Inflation Fixed Inc Net Median			*0.51*		*2.31*		*5.14*		*2.93*		*2.20*				*1.72*	*Aug-14*
REITS	**186,707,939**	**9.60**	**-20.07**		**-13.77**		**-11.65**		**1.71**		**3.71**				**3.71**	**Mar-15**
FTSE NAREIT All Equity REIT			*-23.44*		*-17.41*		*-15.93*		*-0.07*		*1.91*				*1.91*	*Mar-15*
Over/Under			3.37		3.64		4.28		1.78		1.80				1.80	
CenterSquare US Real Estate [1]	186,707,939	9.60	-20.07	19	-13.77	20	-11.65	23	1.71	16					4.42	May-15
FTSE NAREIT All Equity REIT			*-23.44*	*51*	*-17.41*	*51*	*-15.93*	*50*	*-0.07*	*36*					*3.00*	*May-15*
Over/Under			3.37		3.64		4.28		1.78						1.42	
eV US REIT Net Median			*-23.41*		*-17.40*		*-15.98*		*-1.08*						*1.96*	*May-15*
Commodities	**171,474,205**	**8.82**	**-22.97**		**-21.38**		**-22.64**		**-8.54**						**-9.11**	**Jun-15**
Bloomberg Commodity Index TR USD			*-23.29*		*-21.37*		*-22.31*		*-8.61*						*-9.03*	*Jun-15*
Over/Under			0.32		-0.01		-0.33		0.07						-0.08	
CoreCommodity Mgmt [1]	171,474,205	8.82	-22.97		-21.38		-22.64		-8.54						-9.11	Jul-15
Bloomberg Commodity Index TR USD			*-23.29*		*-21.37*		*-22.31*		*-8.61*						*-9.03*	*Jul-15*
Over/Under			0.32		-0.01		-0.33		0.07						-0.08	

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	**798,610,929**	**41.06**	**-0.61**	**90**	**1.66**	**85**	**3.46**	**73**	**6.67**	**44**	**8.02**	**44**	**9.07**	**78**		**Oct-94**
Real Estate Blend			*1.17*	*16*	*4.46*	*8*	*5.71*	*11*	*7.66*	*8*	*9.32*	*9*	*11.35*	*12*		*Oct-94*
Over/Under			-1.78		-2.80		-2.25		-0.99		-1.30		-2.28			
InvMetrics Public DB Real Estate Priv Net Median			*0.61*		*3.29*		*4.51*		*6.55*		*7.80*		*9.80*			*Oct-94*
Timber	**18,229,566**	**0.94**	**0.00**		**-0.54**		**2.74**		**2.61**		**1.94**		**5.06**			**Sep-99**

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

MANAGER REPORT CARD

Real Assets Managers	Inception Date	Mandate	Current Quarter (Net)		One Year (Net)		Three Years (Net)		Five Years (Net)		Since Inception (Net)	Annual Mgt Fee Paid $ (000)	Comments
			Index	Universe	Index	Universe	Index	Universe	Index	Universe	Index		
DFA	Jul-14	U.S. TIPS	×	✓	×	✓	✓	✓	✓	✓	✓	333.9	Performance compliant with LACERS' Manager Monitoring Policy
CenterSquare	Apr-15	REITS	✓	✓	✓	✓	✓	✓	N/A	N/A	✓	592.3	Performance compliant with LACERS' Manager Monitoring Policy
CoreCommodity Mgt.	Jul-15	Commodities	✓	N/A	×	N/A	✓	N/A	N/A	N/A	×	983.9	Performance compliant with LACERS' Manager Monitoring Policy

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

- Annual Management Fee Paid as of fiscal year ending June 30, 2019.

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

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

APPENDIX

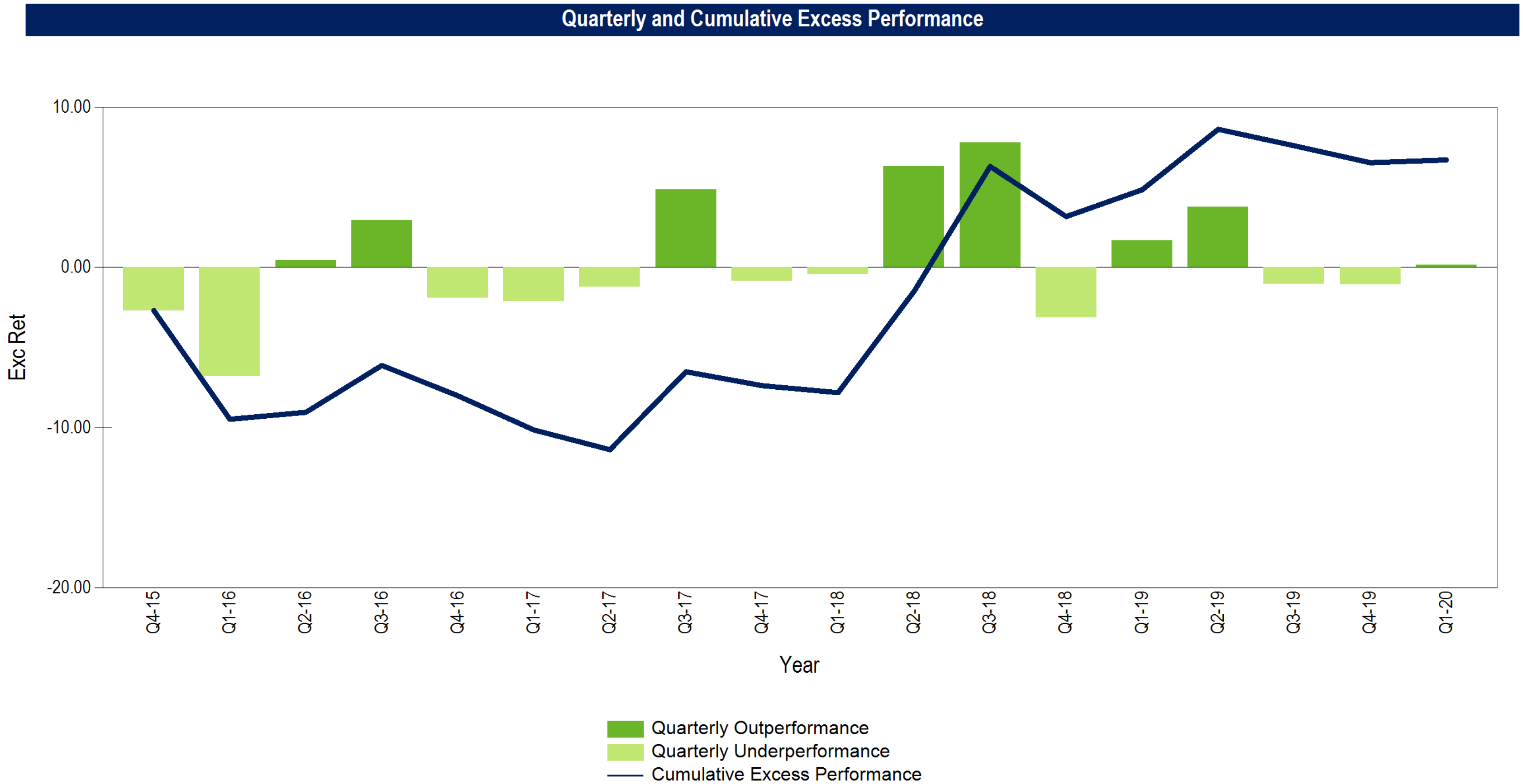
NEPC, LLC

U.S. EQUITY MANAGER PERFORMANCE

NEPC, LLC

Los Angeles City Employees' Retirement System

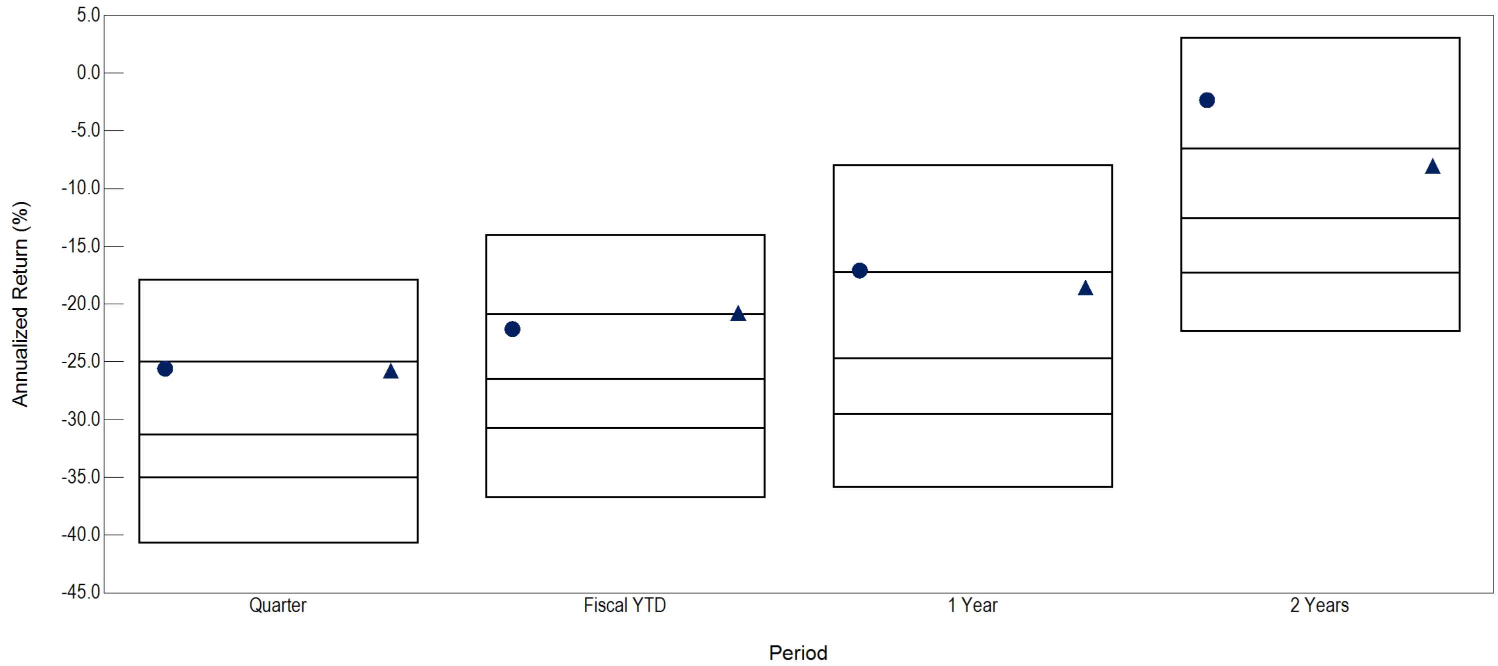
EAM INVESTORS



Los Angeles City Employees' Retirement System

EAM INVESTORS

EAM Investors vs. eV US Small Cap Equity Net

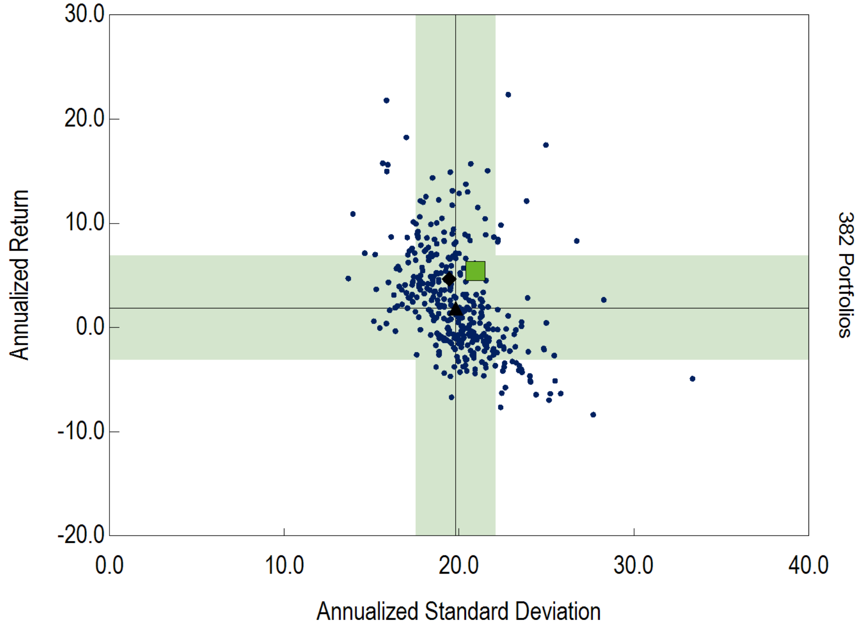


	Return (Rank)							
5th Percentile	-17.87		-14.00		-7.96		3.03	
25th Percentile	-24.92		-20.82		-17.19		-6.48	
Median	-31.26		-26.40		-24.66		-12.52	
75th Percentile	-34.96		-30.67		-29.46		-17.22	
95th Percentile	-40.57		-36.68		-35.79		-22.29	
# of Portfolios	414		413		413		408	
● EAM Investors	-25.59	(29)	-22.17	(32)	-17.09	(25)	-2.35	(12)
▲ Russell 2000 Growth	-25.77	(29)	-20.76	(25)	-18.58	(28)	-8.05	(30)

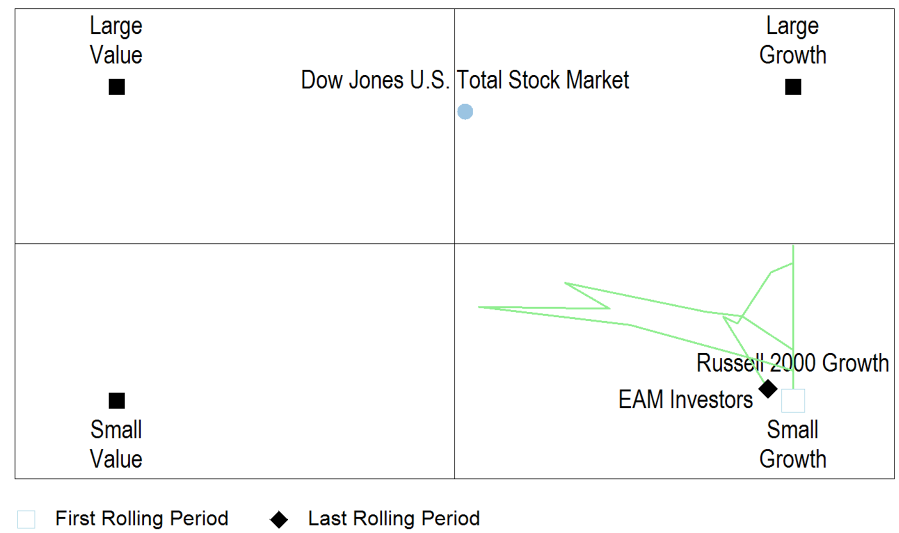
Los Angeles City Employees' Retirement System

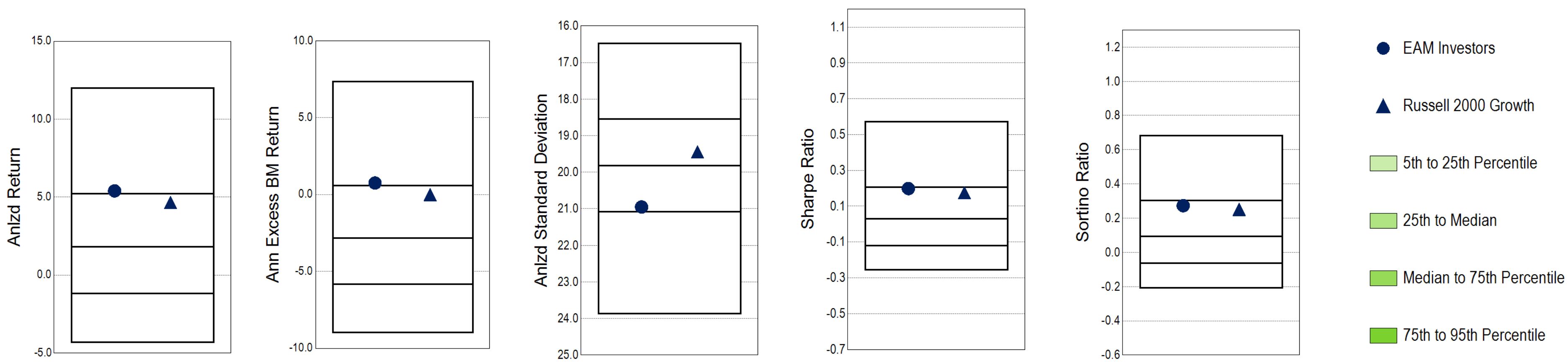
EAM INVESTORS

Since Inception Risk Return



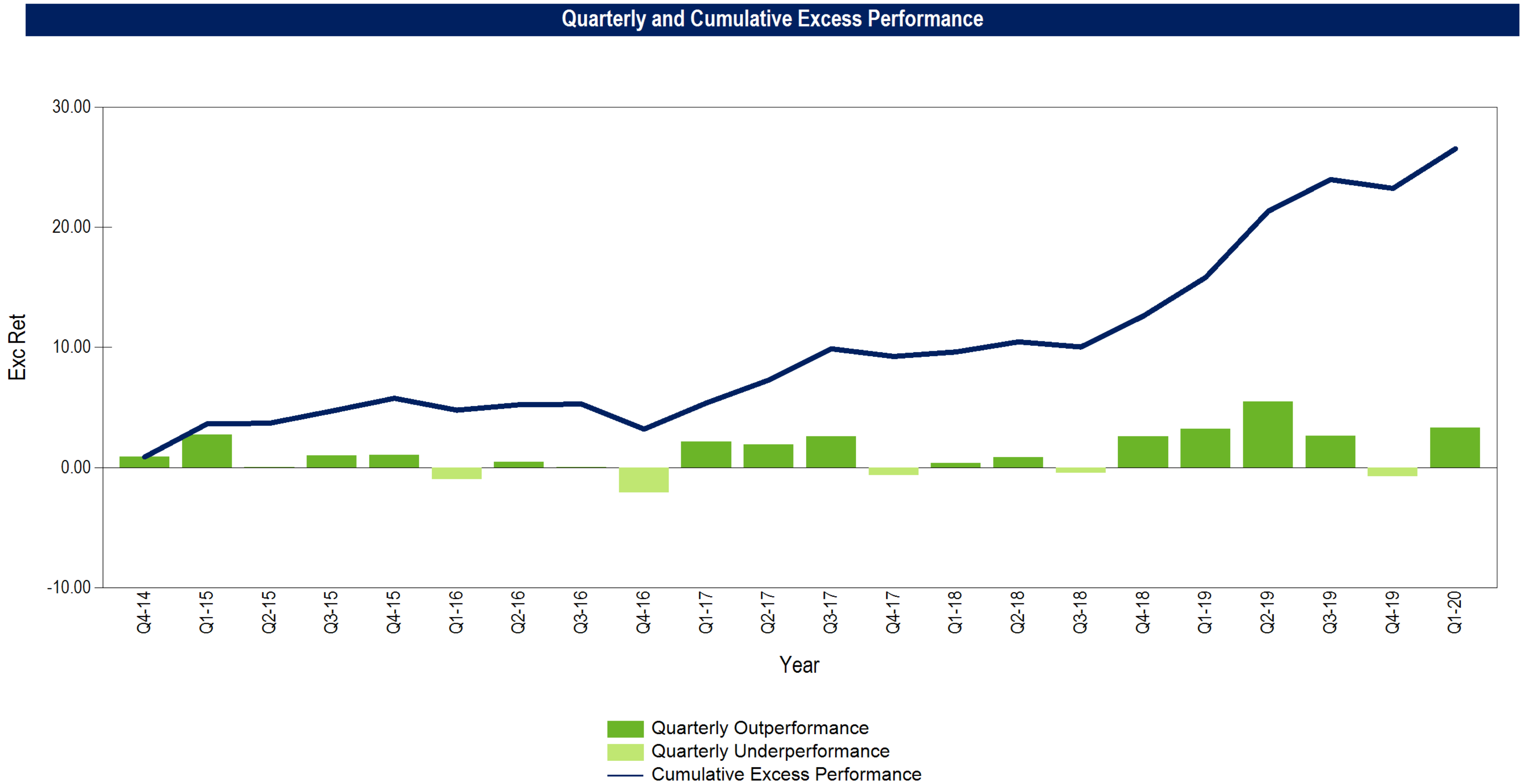
Since Inception Style Map





Los Angeles City Employees' Retirement System

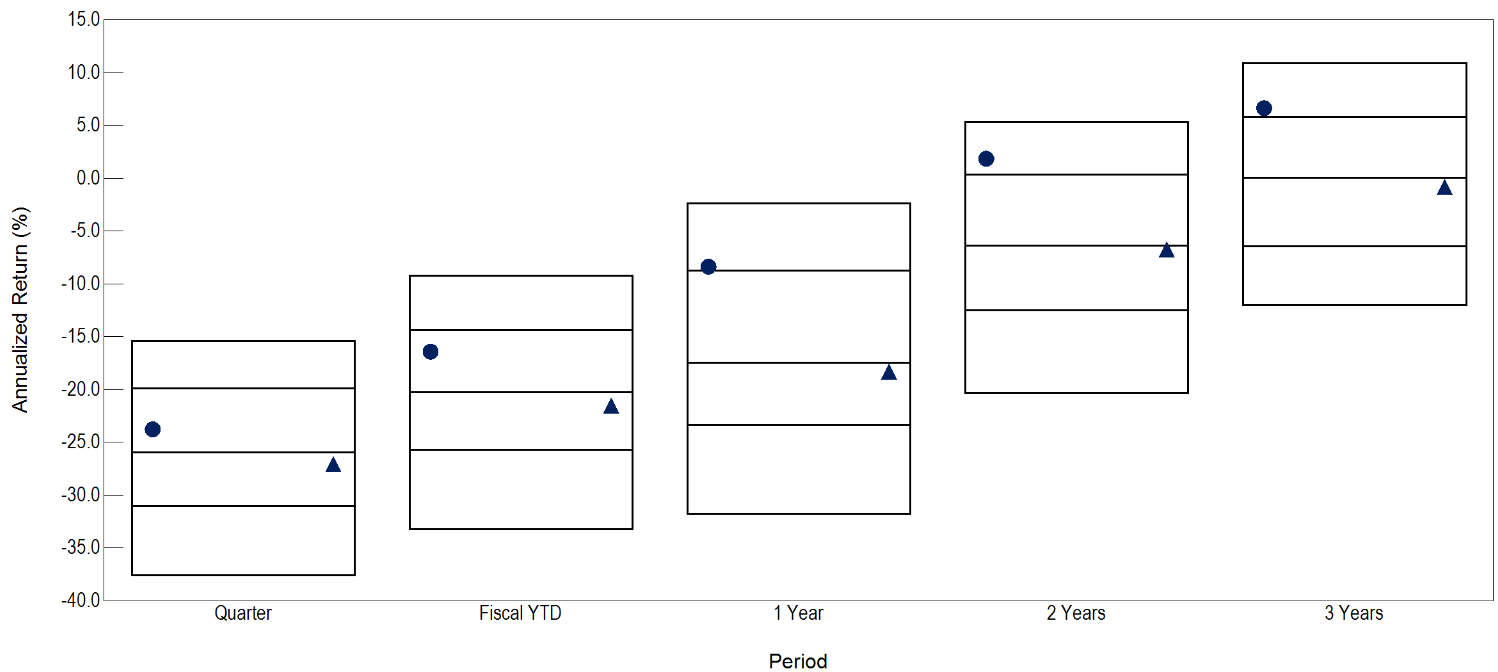
PRINCIPAL GLOBAL INVESTORS



Los Angeles City Employees' Retirement System

PRINCIPAL GLOBAL INVESTORS

Principal Global Investors vs. eV US Mid Cap Equity Net

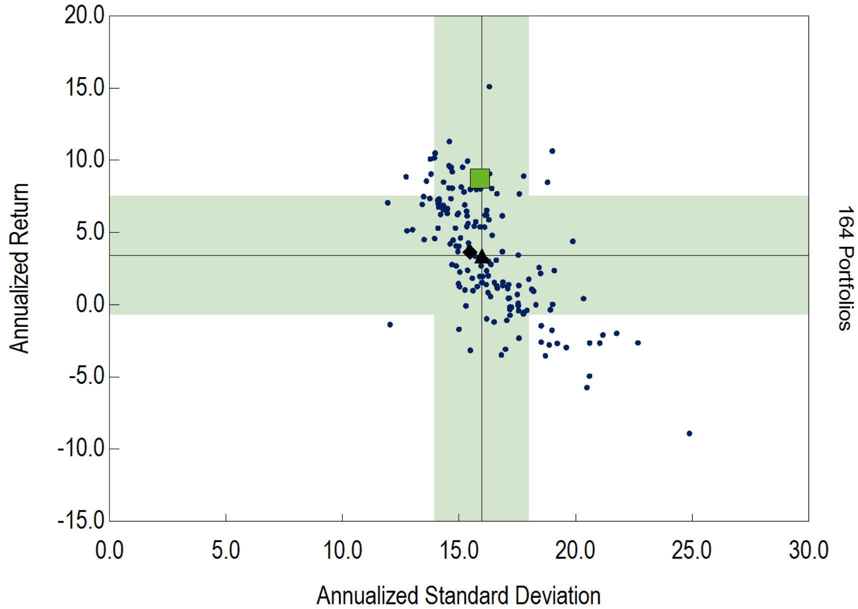


	Return (Rank)									
5th Percentile	-15.38		-9.21		-2.40		5.33		10.90	
25th Percentile	-19.85		-14.35		-8.69		0.38		5.84	
Median	-25.91		-20.23		-17.38		-6.32		0.07	
75th Percentile	-30.96		-25.67		-23.30		-12.45		-6.35	
95th Percentile	-37.53		-33.16		-31.70		-20.24		-11.98	
# of Portfolios	178		178		178		177		175	
● Principal Global Investors	-23.78	(44)	-16.42	(36)	-8.38	(23)	1.84	(17)	6.63	(18)
▲ Russell MidCap	-27.07	(55)	-21.55	(57)	-18.31	(53)	-6.74	(51)	-0.81	(52)

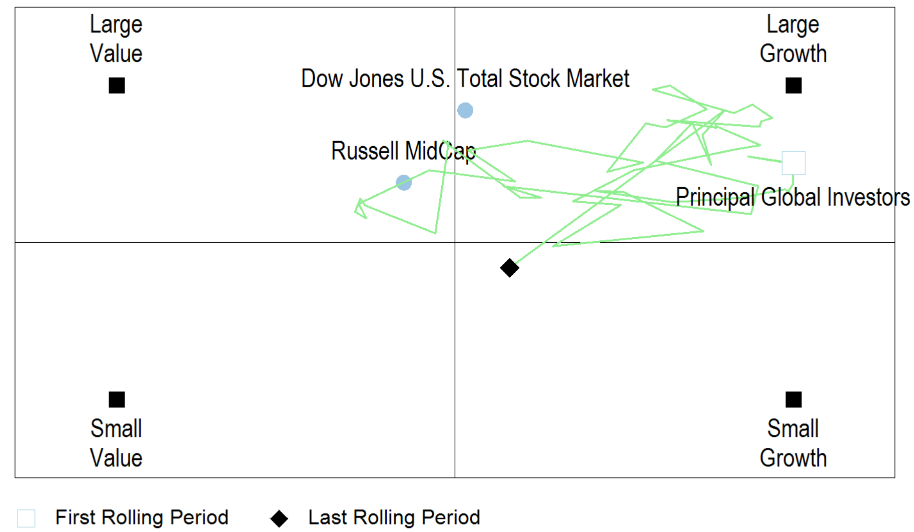
Los Angeles City Employees' Retirement System

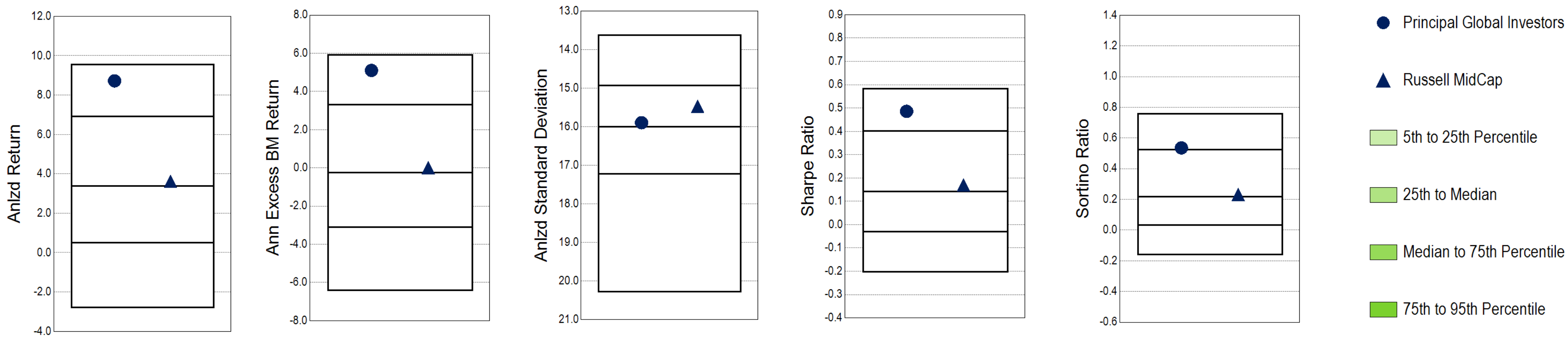
PRINCIPAL GLOBAL INVESTORS

Since Inception Risk Return



Since Inception Style Map

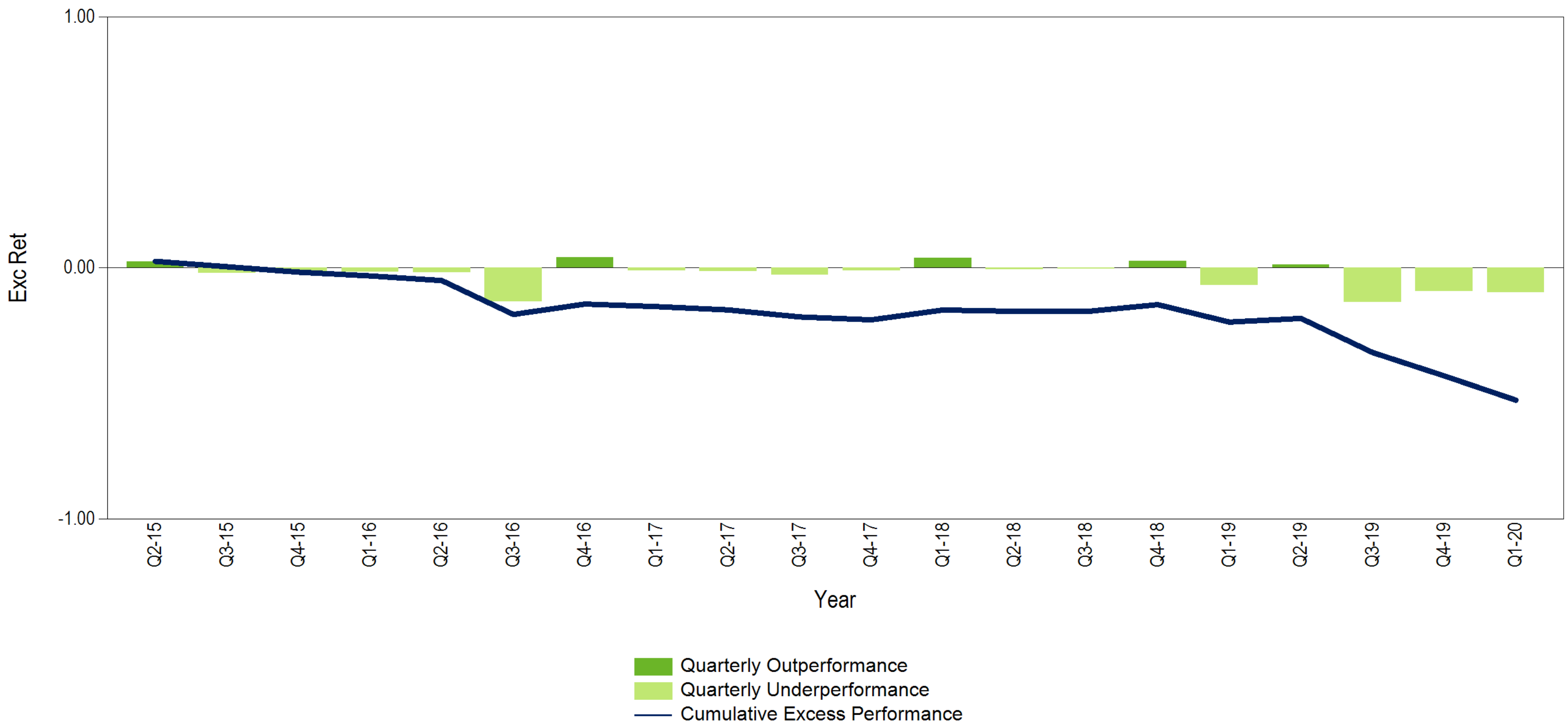




Los Angeles City Employees' Retirement System

RHUMBLINE ADVISORS S&P 500

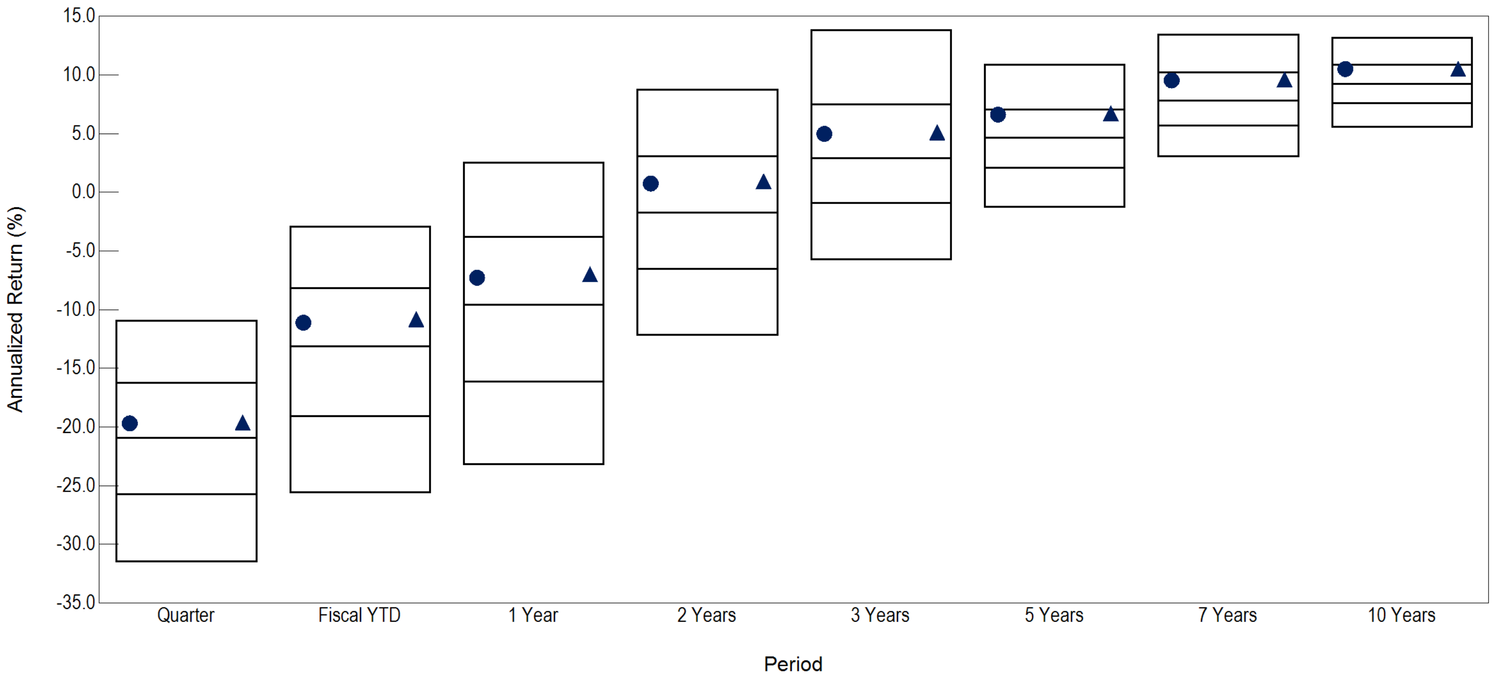
Quarterly and Cumulative Excess Performance



Los Angeles City Employees' Retirement System

RHUMBLINE ADVISORS S&P 500

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

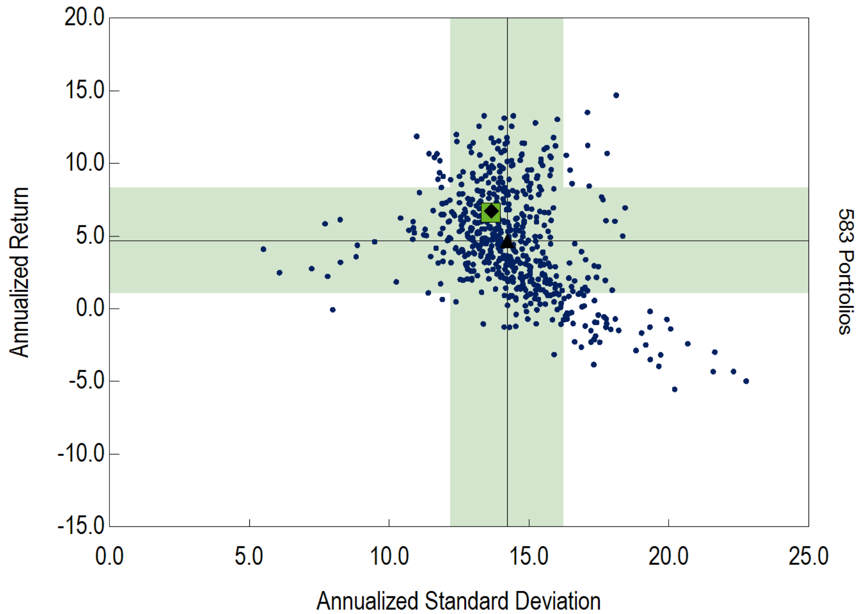


	Return (Rank)															
5th Percentile	-10.94		-2.92		2.51		8.75		13.81		10.88		13.42		13.13	
25th Percentile	-16.18		-8.09		-3.76		3.12		7.56		7.09		10.28		10.92	
Median	-20.88		-13.10		-9.52		-1.65		2.94		4.69		7.87		9.29	
75th Percentile	-25.69		-19.01		-16.06		-6.47		-0.88		2.12		5.76		7.64	
95th Percentile	-31.40		-25.50		-23.13		-12.11		-5.68		-1.20		3.13		5.63	
# of Portfolios	640		634		634		630		614		583		540		454	
● Rhumbline Advisors S&P 500	-19.69	(43)	-11.12	(39)	-7.28	(40)	0.74	(37)	4.97	(35)	6.61	(29)	9.53	(32)	10.50	(30)
▲ S&P 500	-19.60	(42)	-10.82	(37)	-6.98	(38)	0.92	(35)	5.10	(35)	6.73	(28)	9.62	(31)	10.53	(30)

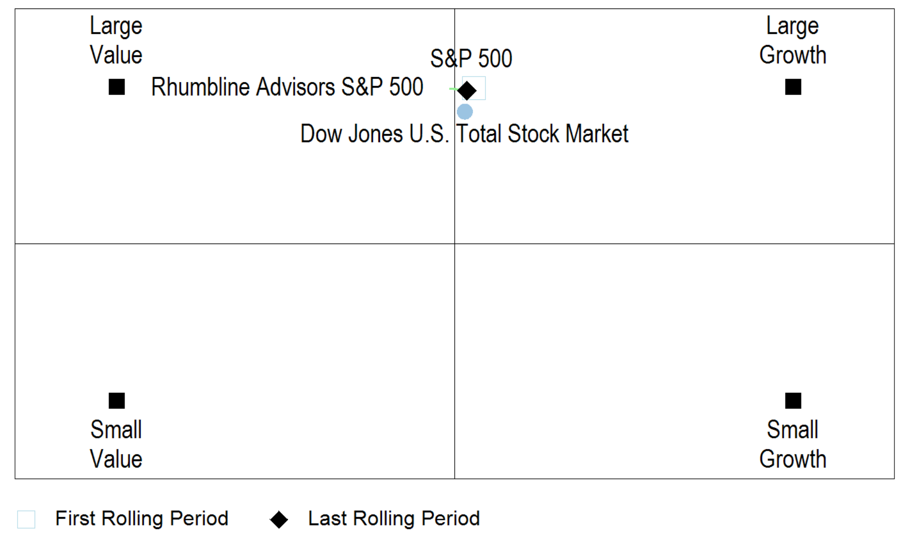
Los Angeles City Employees' Retirement System

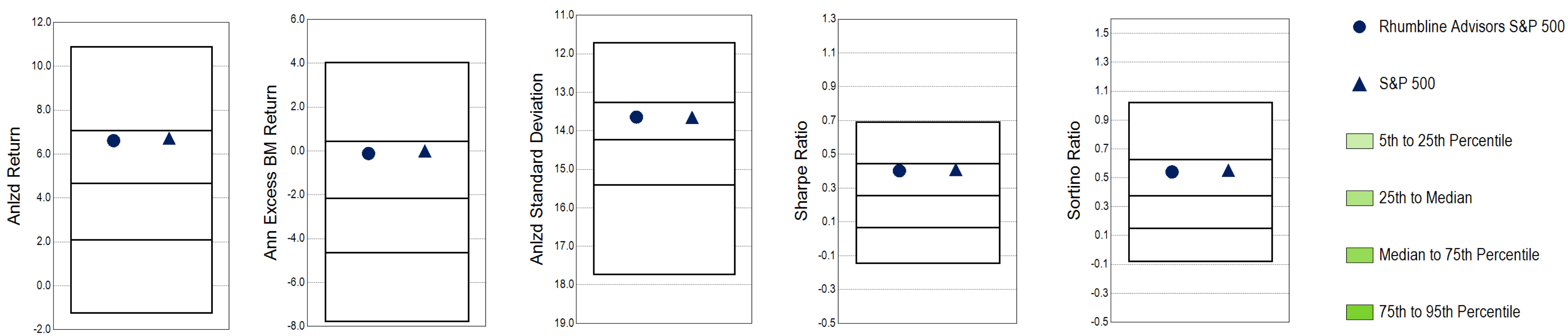
RHUMBLINE ADVISORS S&P 500

5 Year Risk Return



5 Year Style Map

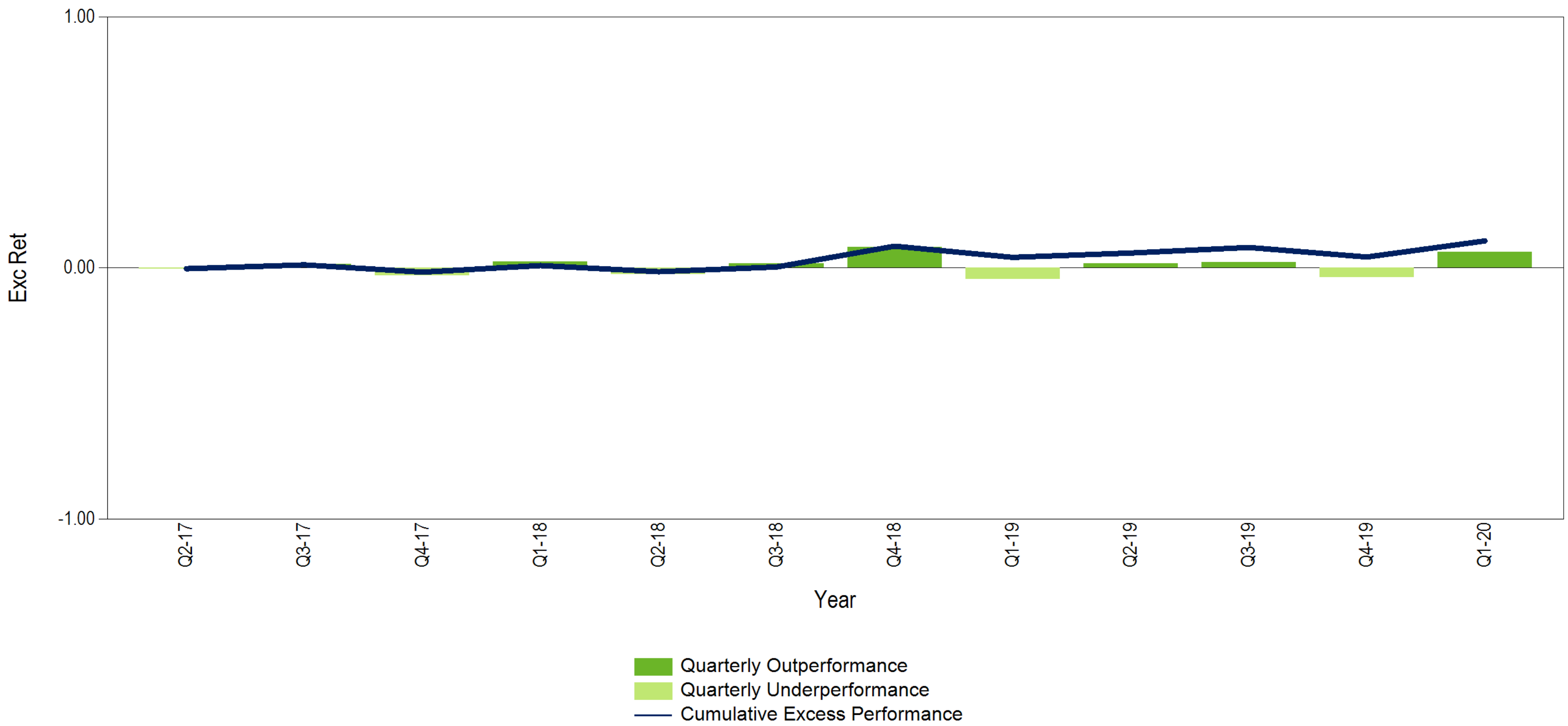




Los Angeles City Employees' Retirement System

RHUMBLINE ADVISORS RUSSELL 2000

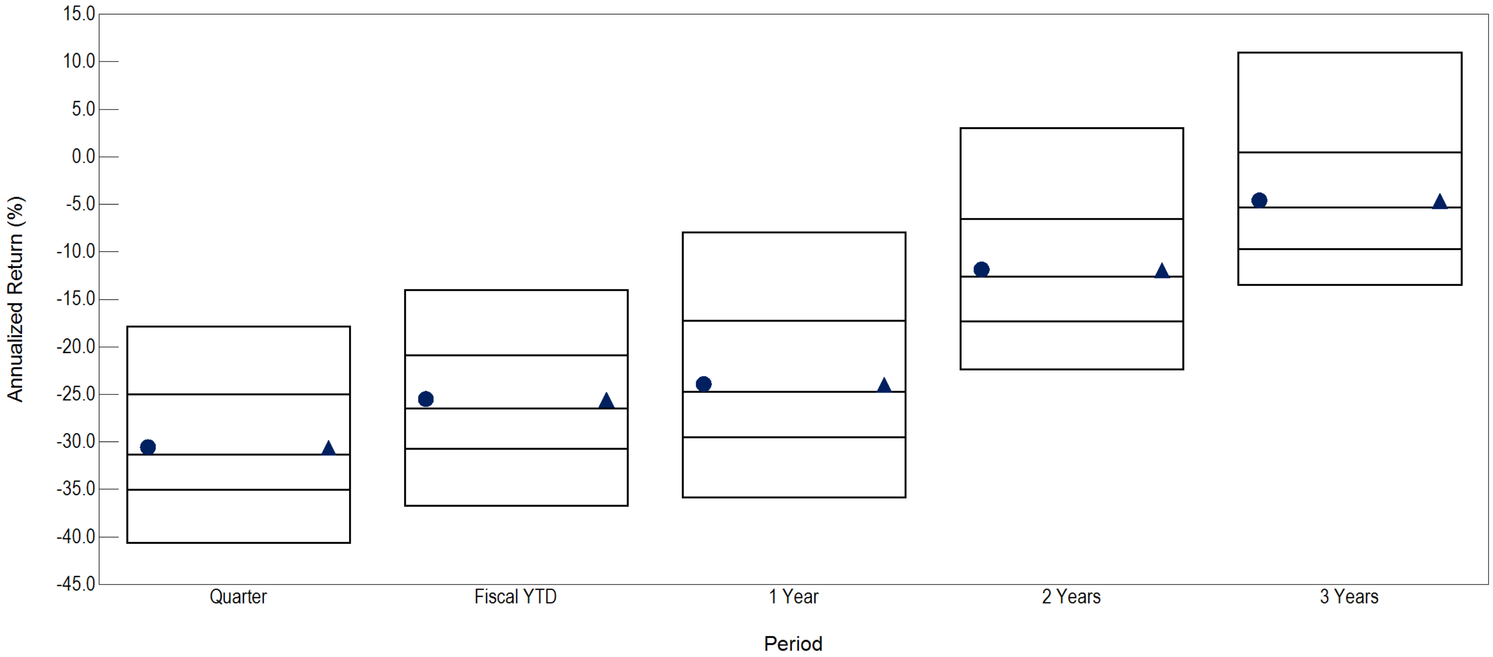
Quarterly and Cumulative Excess Performance



Los Angeles City Employees' Retirement System

RHUMBLINE ADVISORS RUSSELL 2000

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

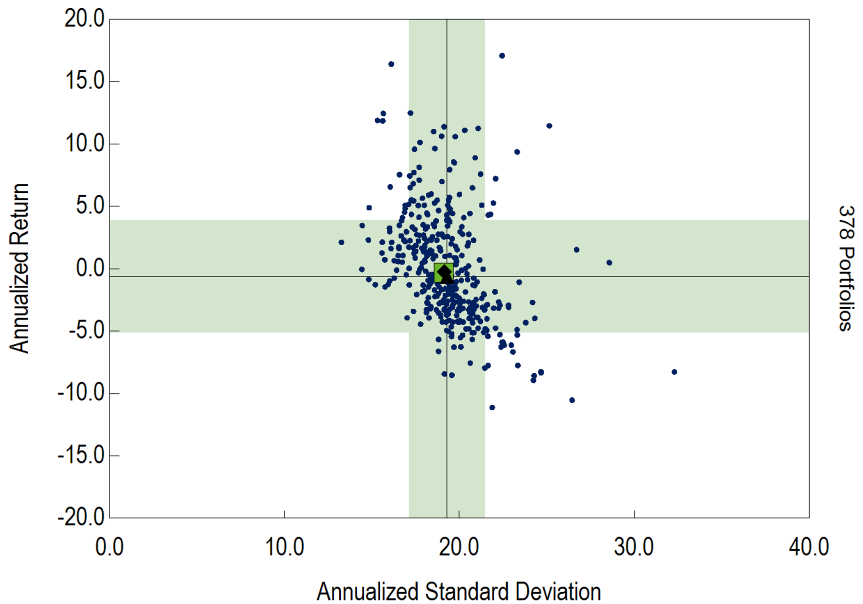


Return (Rank)	Quarter		Fiscal YTD		1 Year		2 Years		3 Years	
5th Percentile	-17.87		-14.00		-7.96		3.03		10.97	
25th Percentile	-24.92		-20.82		-17.19		-6.48		0.53	
Median	-31.26		-26.40		-24.66		-12.52		-5.29	
75th Percentile	-34.96		-30.67		-29.46		-17.22		-9.61	
95th Percentile	-40.57		-36.68		-35.79		-22.29		-13.40	
# of Portfolios	414		413		413		408		402	
● Rhumbline Advisors Russell 2000	-30.55	(47)	-25.49	(45)	-23.92	(47)	-11.86	(48)	-4.59	(46)
▲ Russell 2000	-30.61	(47)	-25.55	(46)	-23.99	(48)	-11.93	(48)	-4.64	(46)

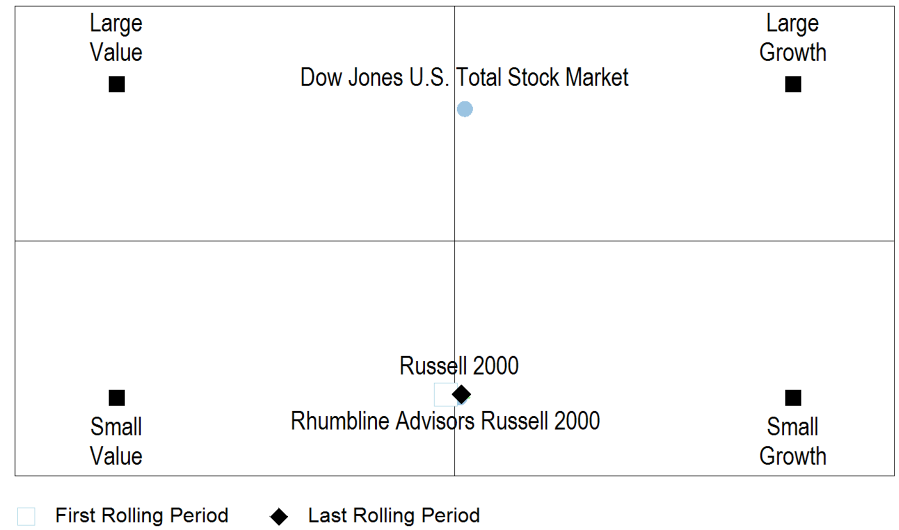
Los Angeles City Employees' Retirement System

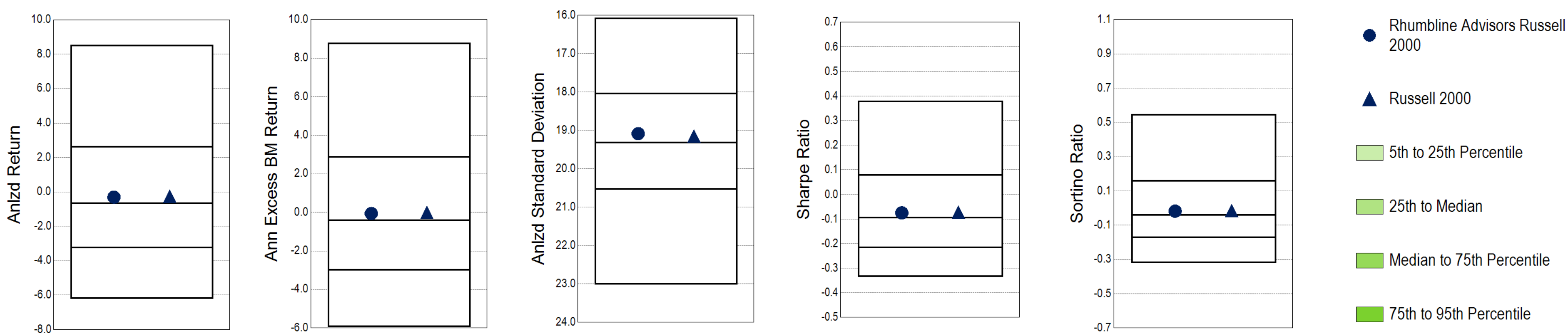
RHUMBLINE ADVISORS RUSSELL 2000

Since Inception Risk Return



Since Inception Style Map

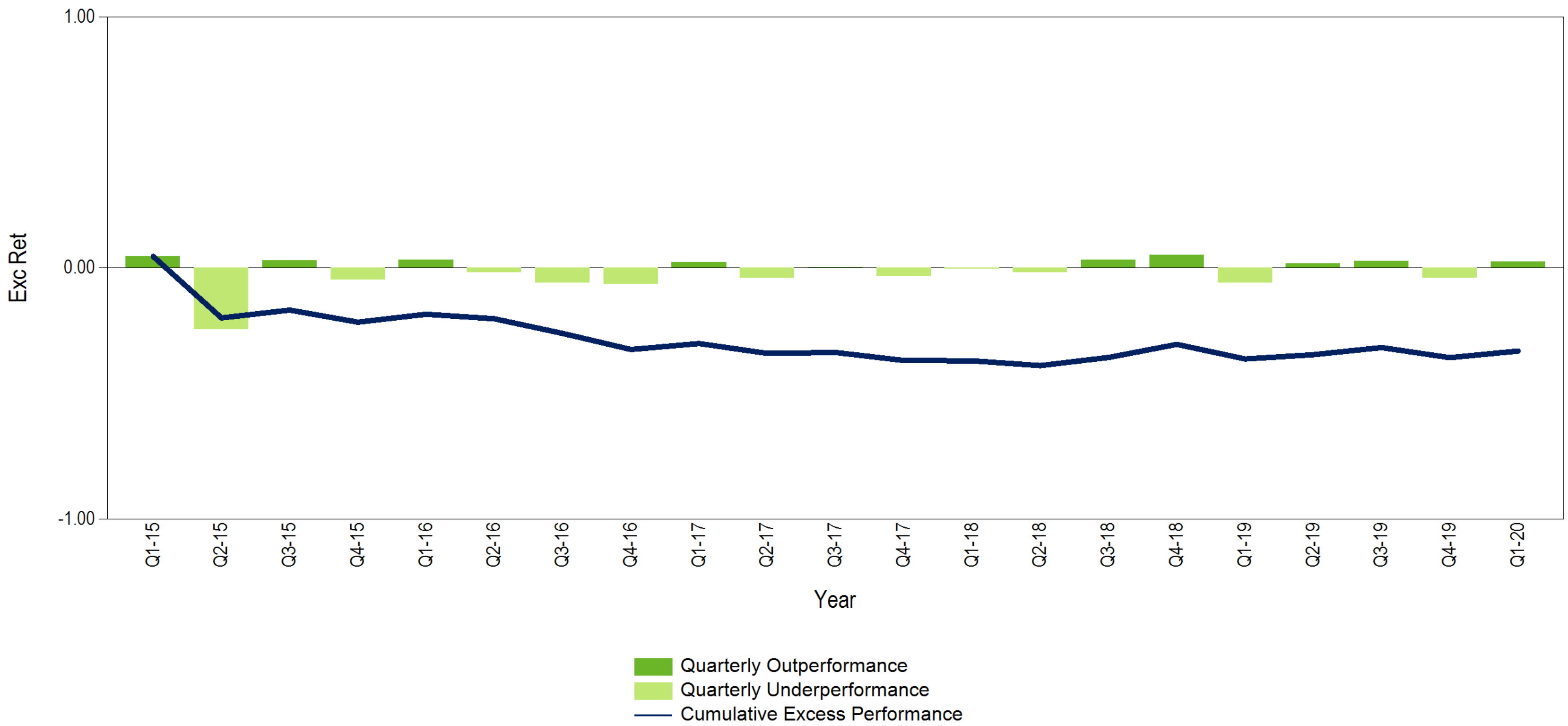




Los Angeles City Employees' Retirement System

RHUMBLINE ADVISORS RUSSELL 2000 GROWTH

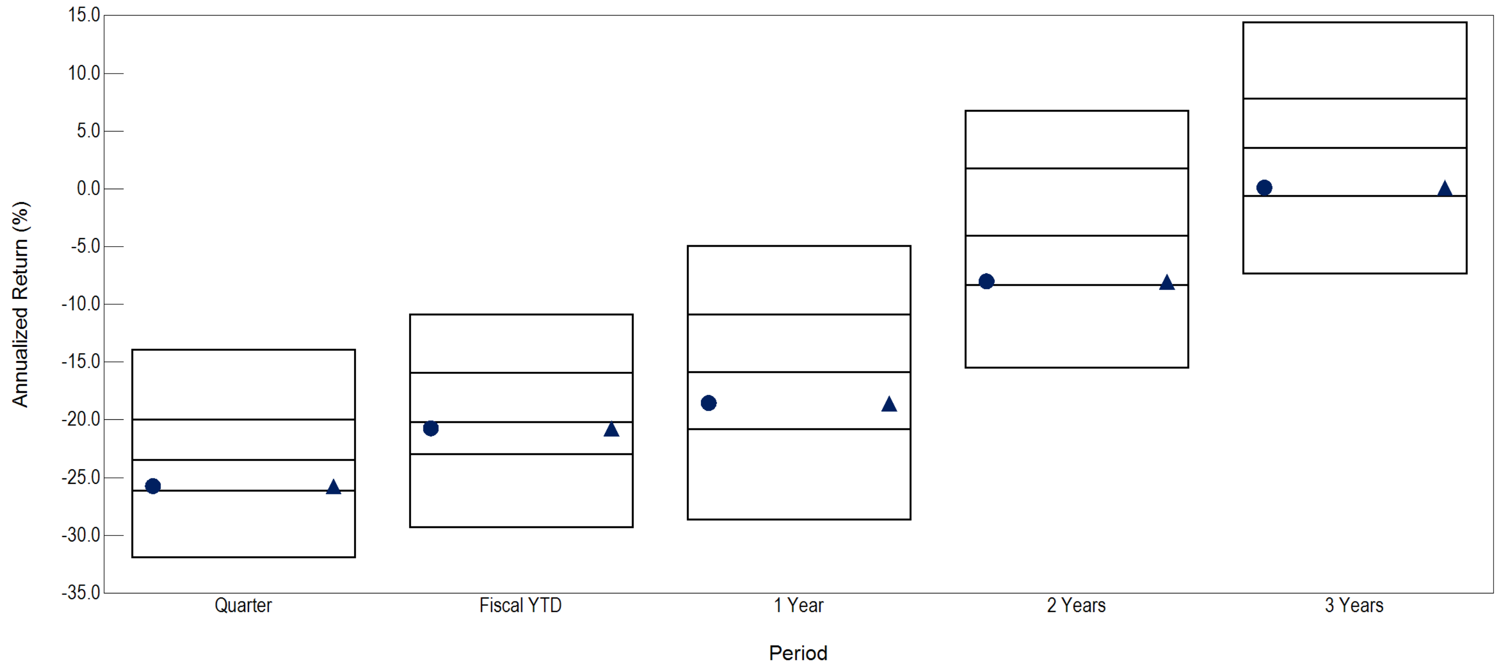
Quarterly and Cumulative Excess Performance



Los Angeles City Employees' Retirement System

RHUMBLINE ADVISORS RUSSELL 2000 GROWTH

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

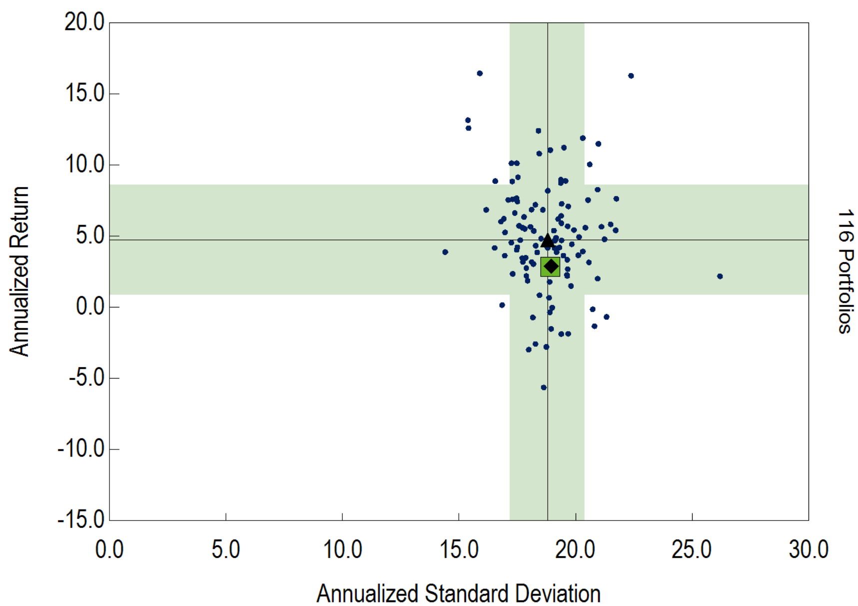


	Return (Rank)									
5th Percentile	-13.93		-10.88		-4.95		6.76		14.42	
25th Percentile	-19.93		-15.89		-10.80		1.81		7.89	
Median	-23.40		-20.12		-15.80		-3.98		3.58	
75th Percentile	-26.07		-22.90		-20.76		-8.28		-0.57	
95th Percentile	-31.87		-29.25		-28.56		-15.43		-7.29	
# of Portfolios	128		128		128		127		127	
● Rhumbline Advisors Russell 2000 Growth	-25.74	(72)	-20.73	(56)	-18.54	(65)	-8.01	(73)	0.11	(73)
▲ Russell 2000 Growth	-25.77	(72)	-20.76	(57)	-18.58	(65)	-8.05	(73)	0.10	(73)

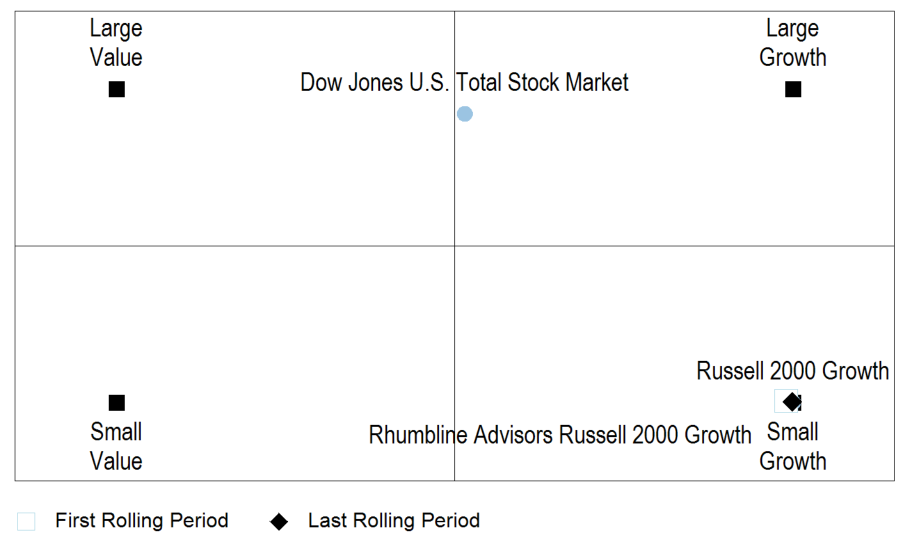
Los Angeles City Employees' Retirement System

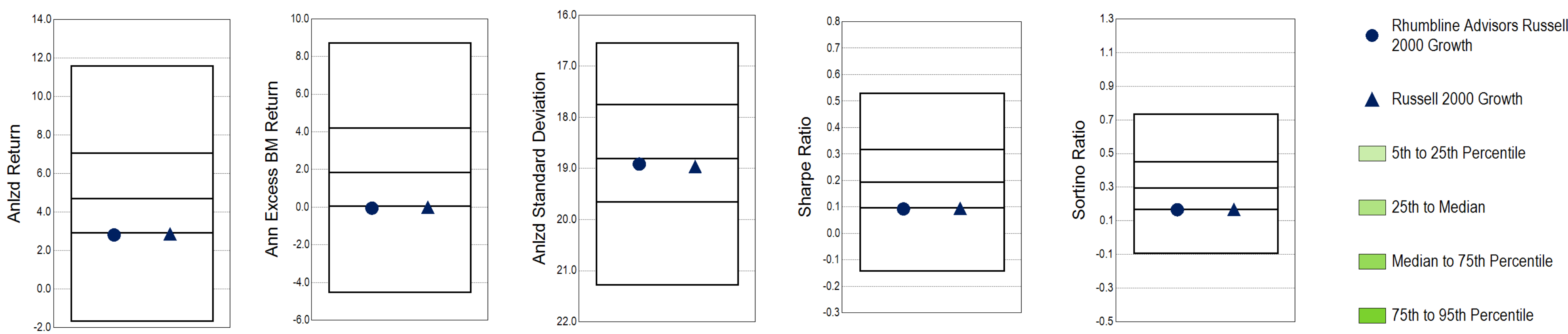
RHUMBLINE ADVISORS RUSSELL 2000 GROWTH

Since Inception Risk Return



Since Inception Style Map

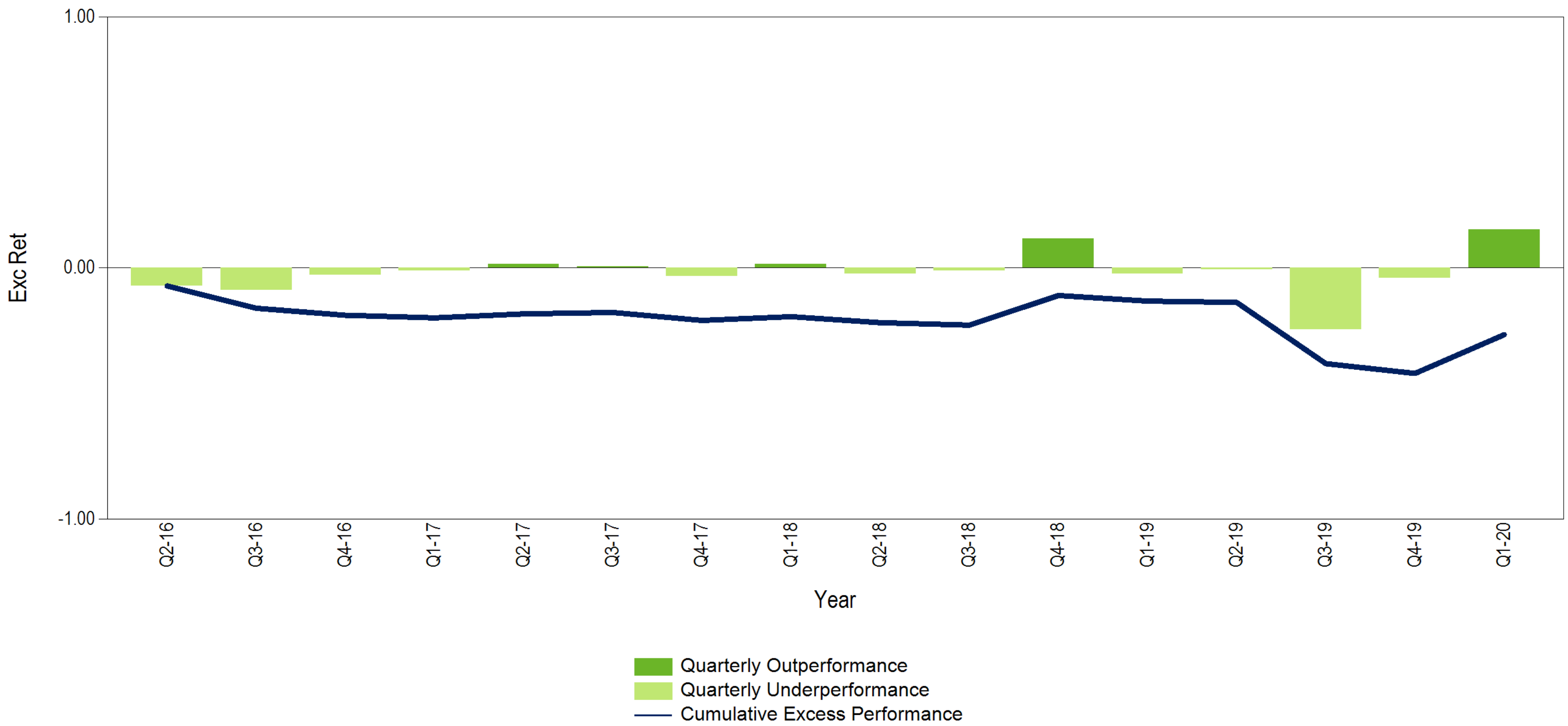




Los Angeles City Employees' Retirement System

RHUMBLINE ADVISORS RUSSELL 2000 VALUE

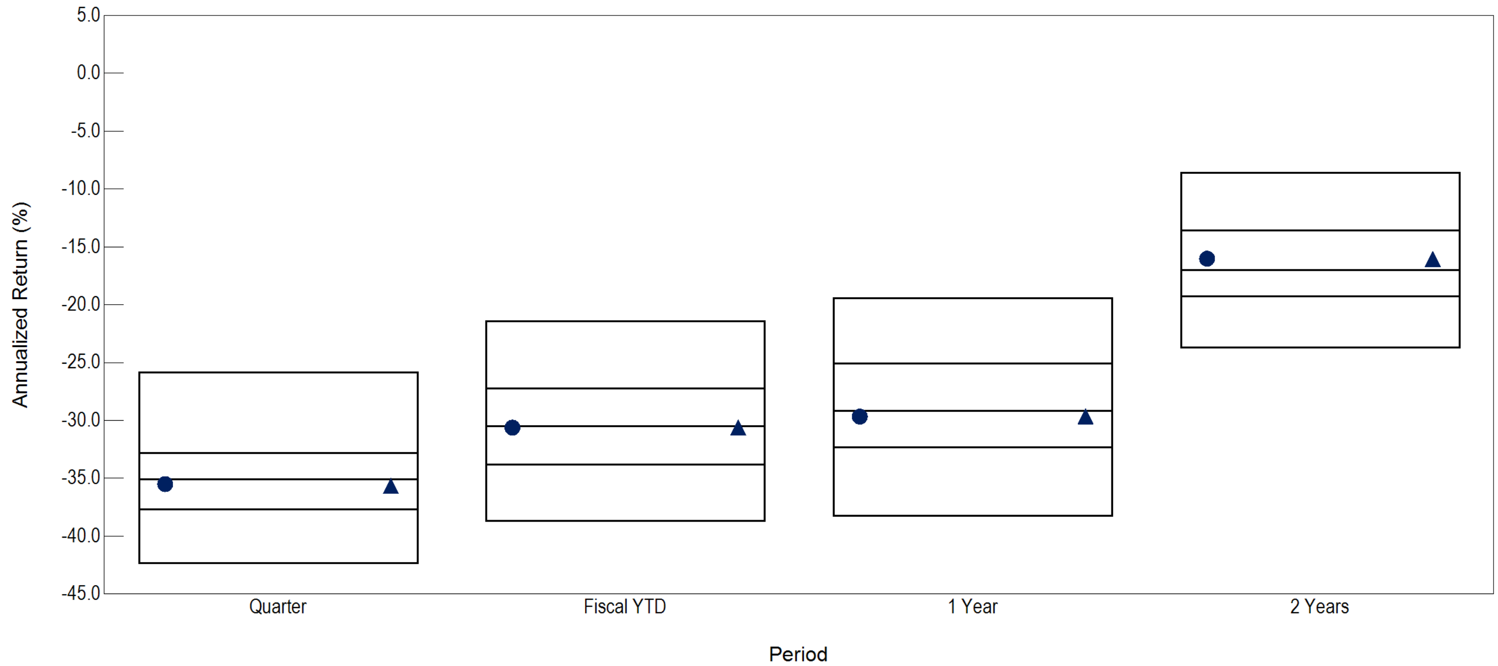
Quarterly and Cumulative Excess Performance



Los Angeles City Employees' Retirement System

RHUMBLINE ADVISORS RUSSELL 2000 VALUE

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

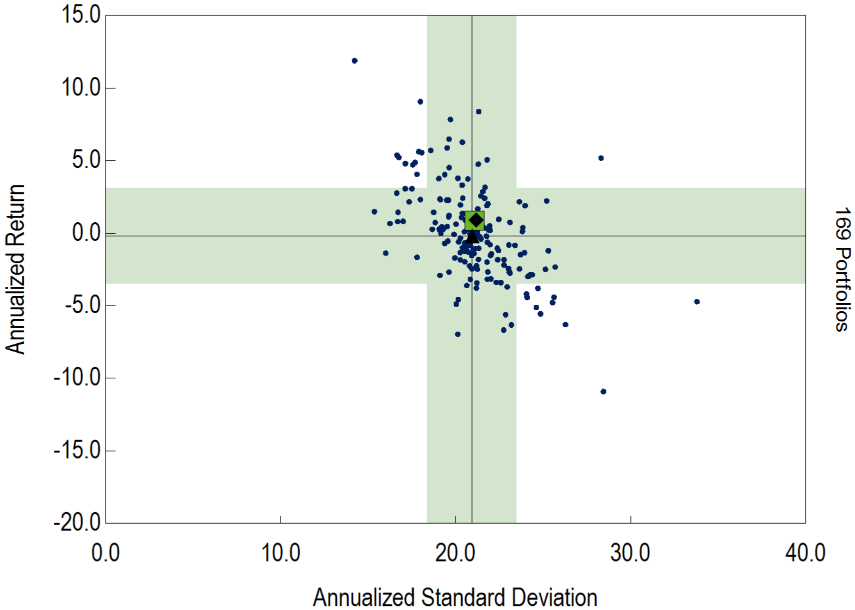


	Return (Rank)							
5th Percentile	-25.86		-21.46		-19.44		-8.59	
25th Percentile	-32.78		-27.18		-25.00		-13.50	
Median	-35.06		-30.45		-29.10		-16.96	
75th Percentile	-37.65		-33.76		-32.25		-19.25	
95th Percentile	-42.27		-38.60		-38.16		-23.65	
# of Portfolios	179		178		178		175	
● Rhumbline Advisors Russell 2000 Value	-35.51	(56)	-30.63	(52)	-29.68	(56)	-16.03	(42)
▲ Russell 2000 Value	-35.66	(58)	-30.60	(52)	-29.64	(55)	-16.05	(42)

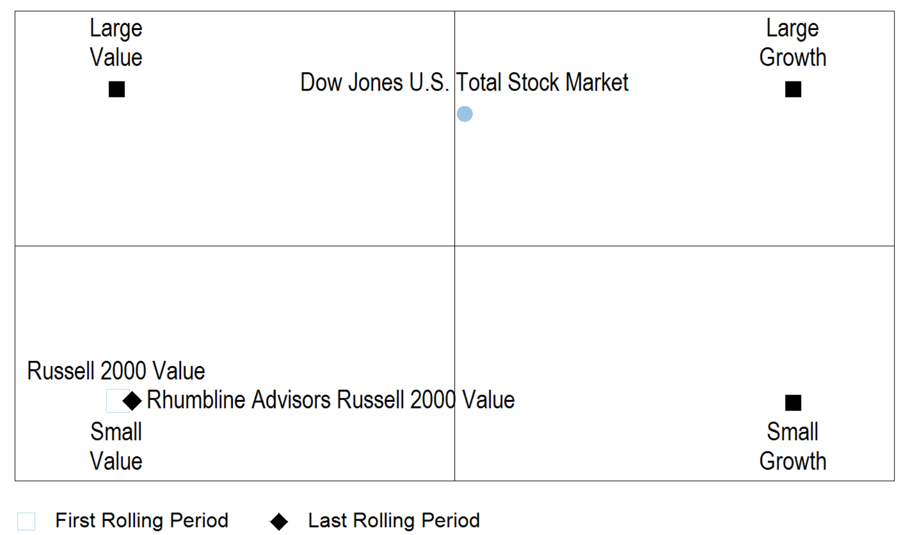
Los Angeles City Employees' Retirement System

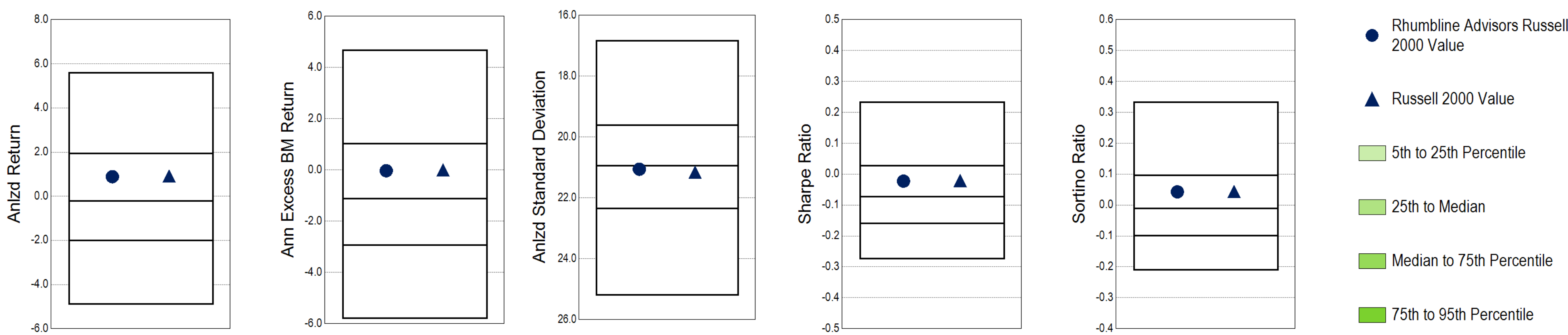
RHUMBLINE ADVISORS RUSSELL 2000 VALUE

Since Inception Risk Return



Since Inception Style Map





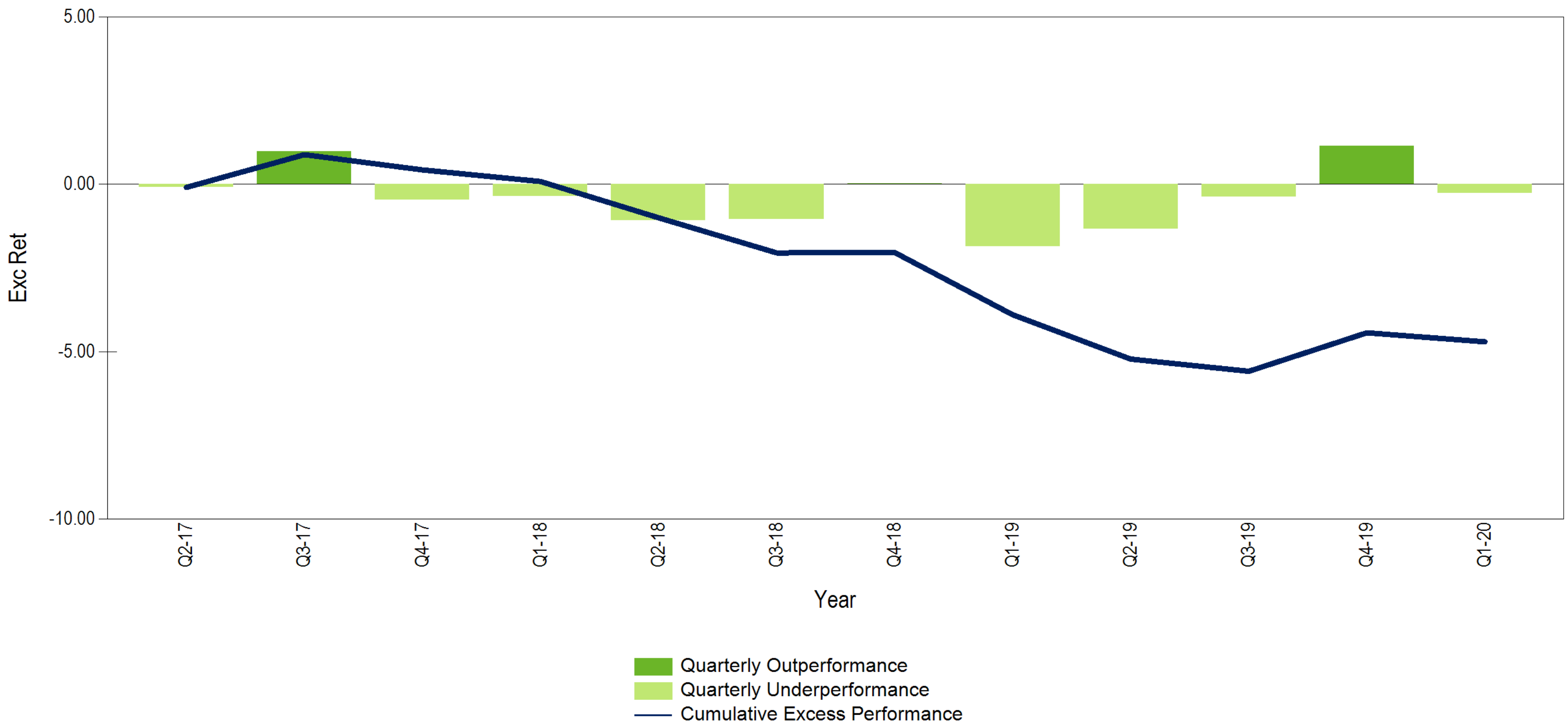
NON-U.S. EQUITY MANAGER PERFORMANCE

NEPC, LLC

Los Angeles City Employees' Retirement System

AQR CAPITAL

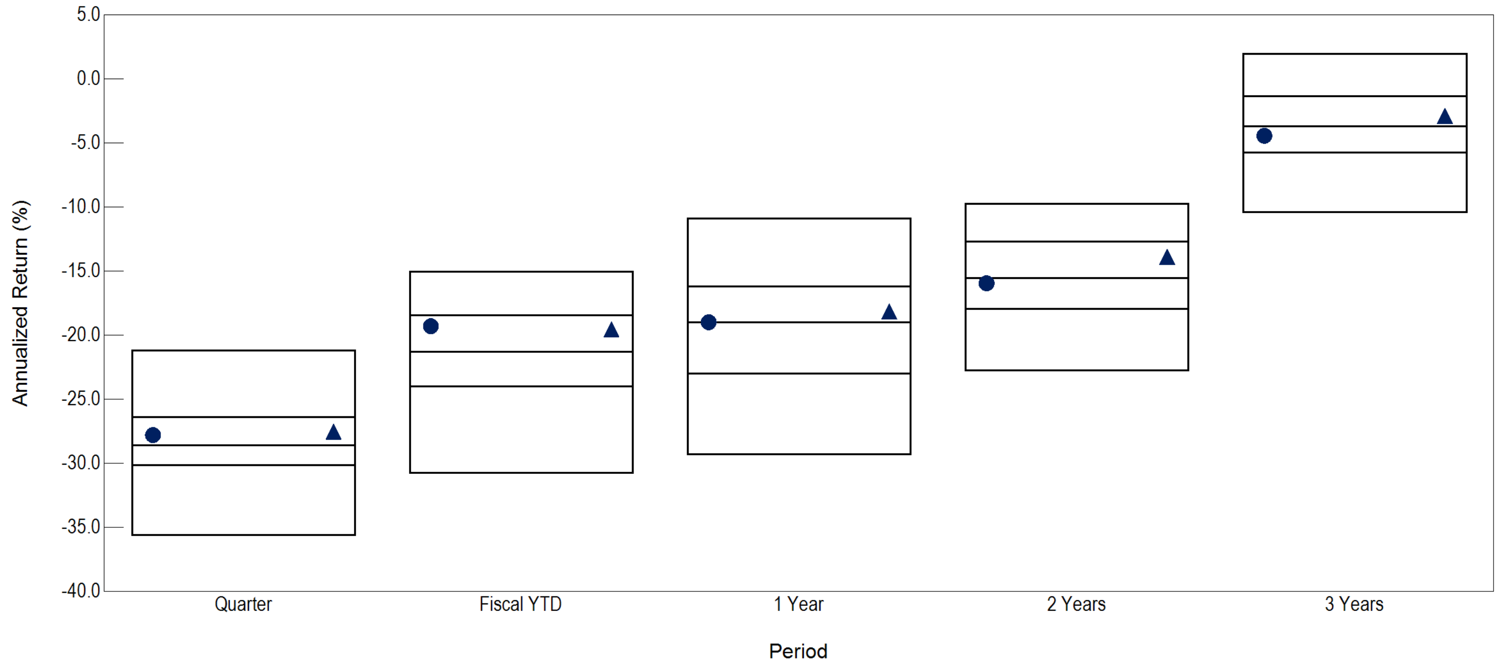
Quarterly and Cumulative Excess Performance



Los Angeles City Employees' Retirement System

AQR CAPITAL

AQR Capital vs. eV EAFE Small Cap Equity Net

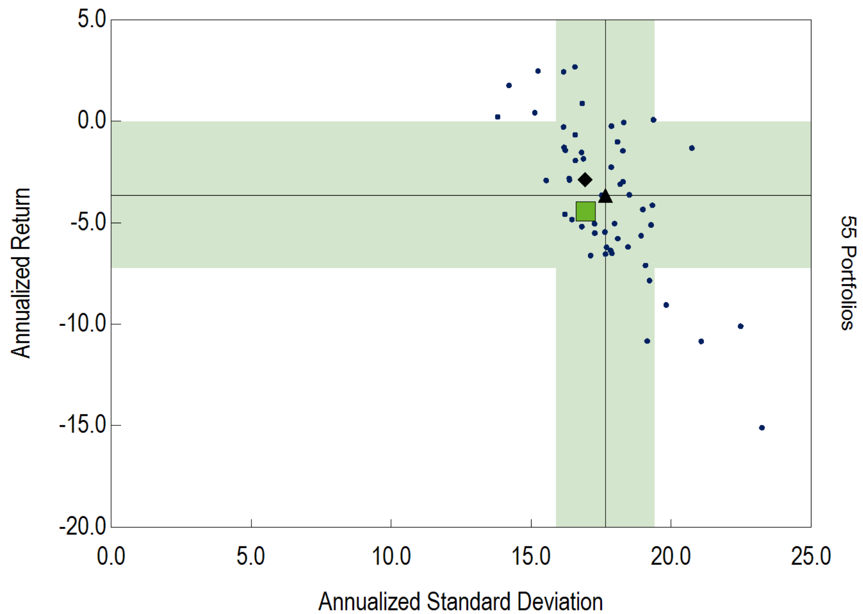


	Return (Rank)									
5th Percentile	-21.19		-15.02		-10.91		-9.76		1.97	
25th Percentile	-26.34		-18.41		-16.14		-12.64		-1.30	
Median	-28.52		-21.23		-18.94		-15.50		-3.64	
75th Percentile	-30.07		-23.94		-22.92		-17.89		-5.71	
95th Percentile	-35.53		-30.68		-29.26		-22.68		-10.32	
# of Portfolios	61		60		60		57		55	
● AQR Capital	-27.79	(42)	-19.29	(32)	-18.98	(51)	-15.94	(53)	-4.43	(57)
▲ MSCI EAFE Small Cap	-27.52	(38)	-19.52	(40)	-18.15	(47)	-13.87	(29)	-2.88	(41)

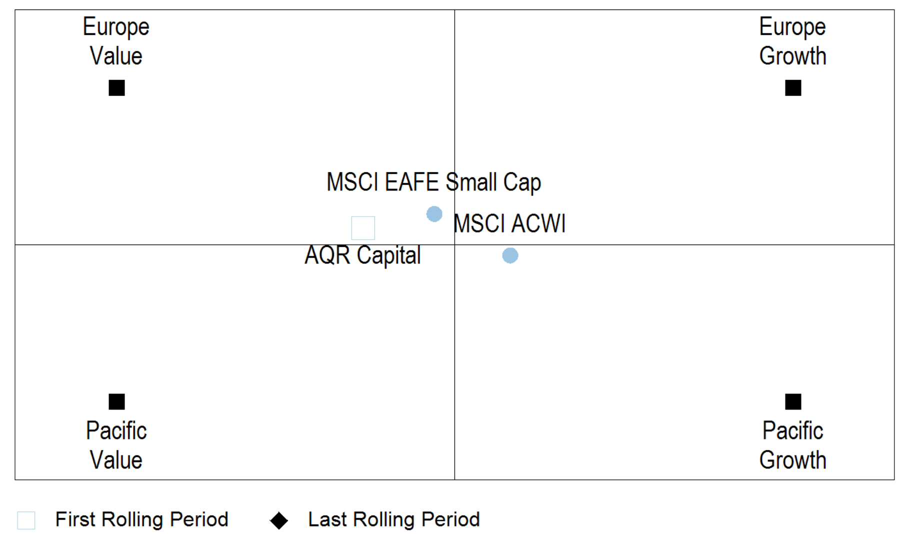
Los Angeles City Employees' Retirement System

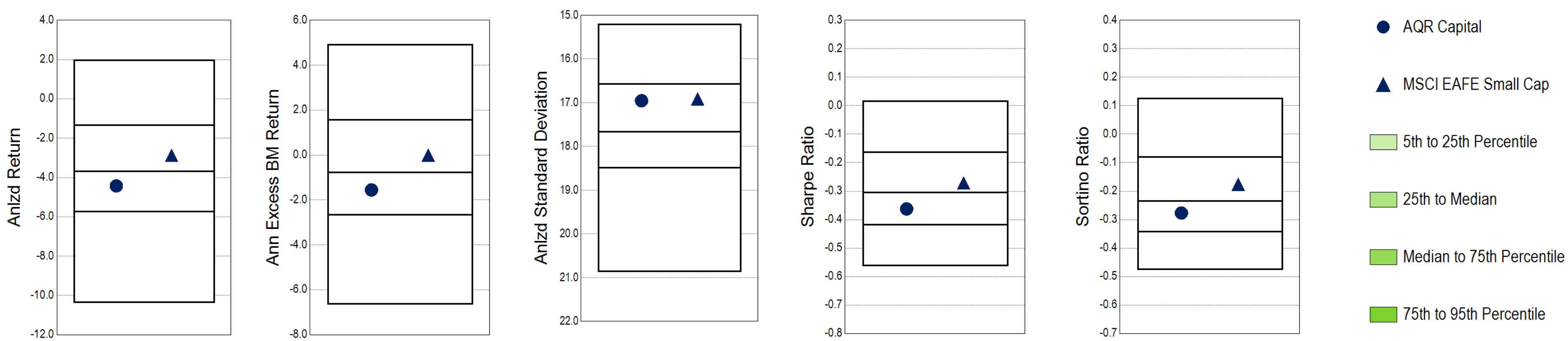
AQR CAPITAL

3 Year Risk Return



3 Year Style Map

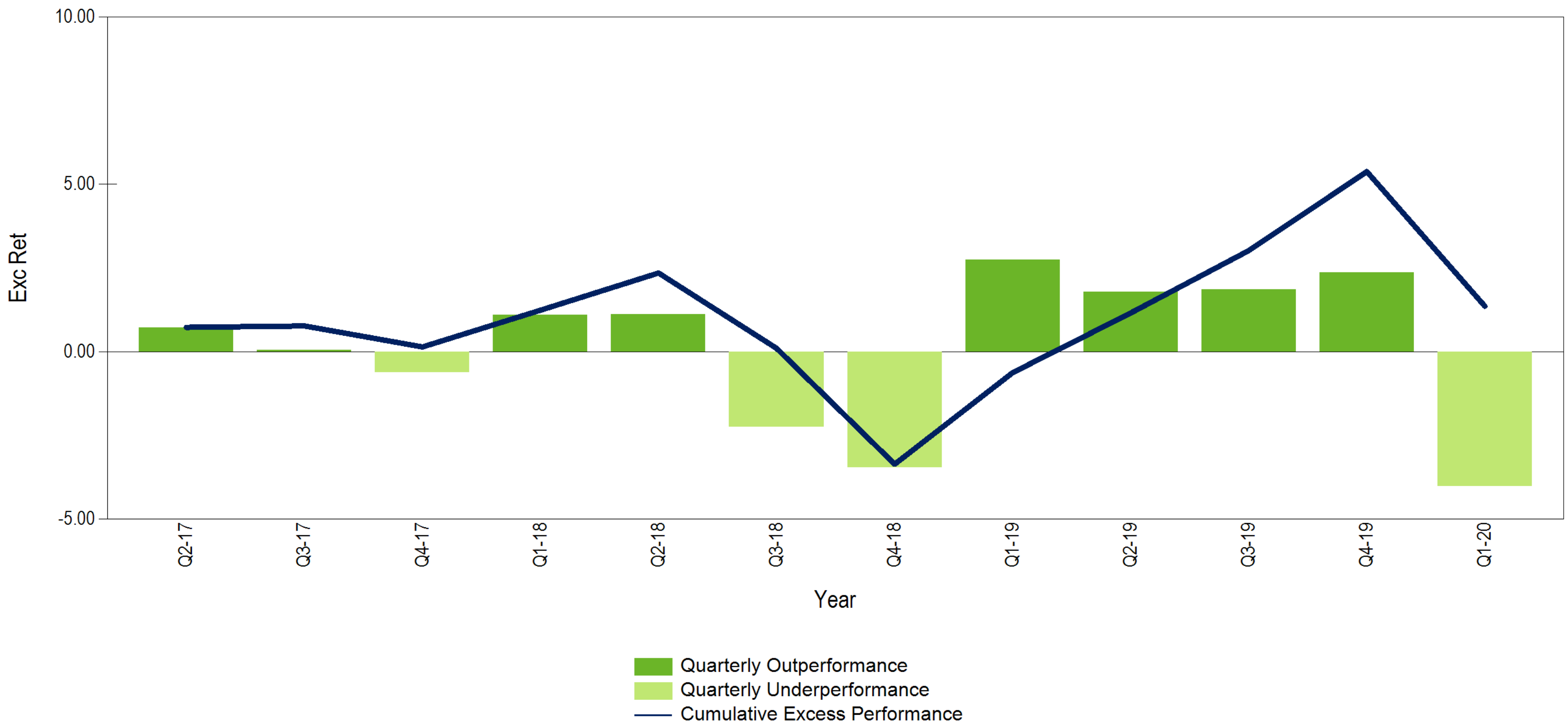




Los Angeles City Employees' Retirement System

BARROW HANLEY

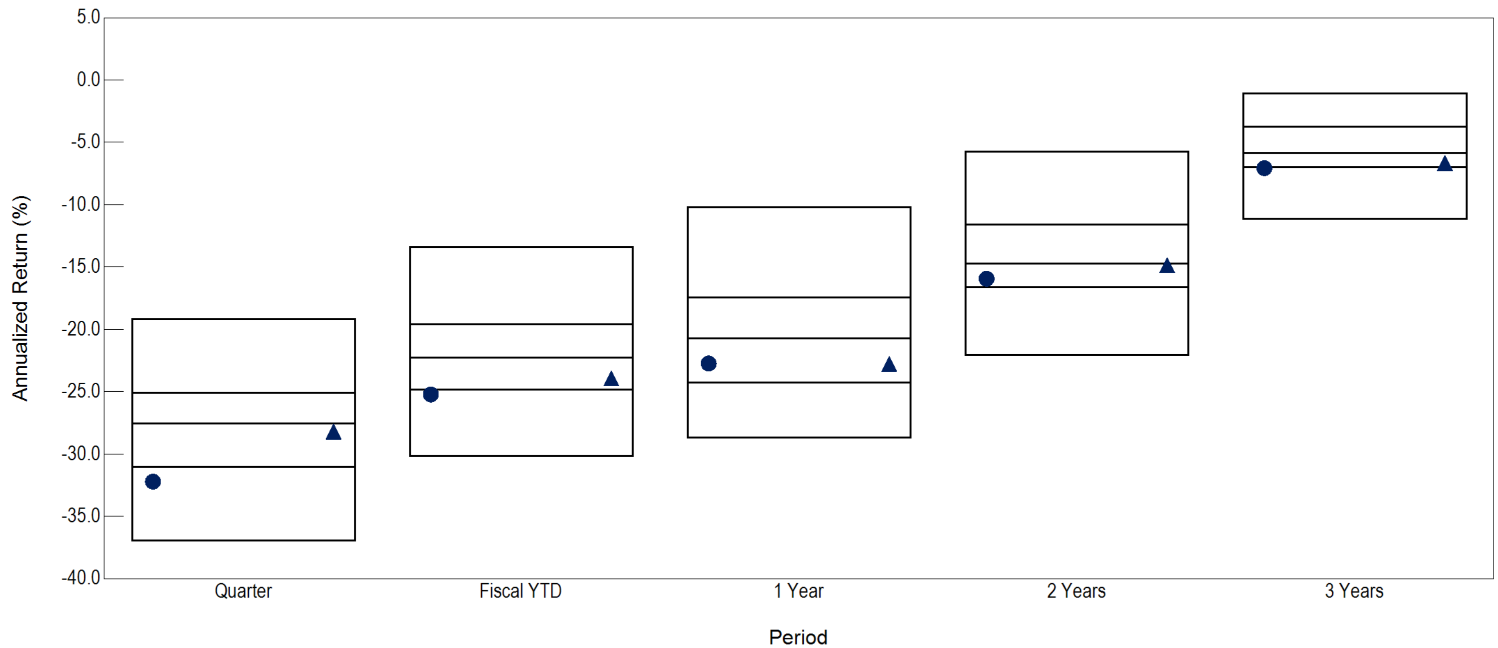
Quarterly and Cumulative Excess Performance



Los Angeles City Employees' Retirement System

BARROW HANLEY

Barrow Hanley vs. eV EAFE Value Equity Net

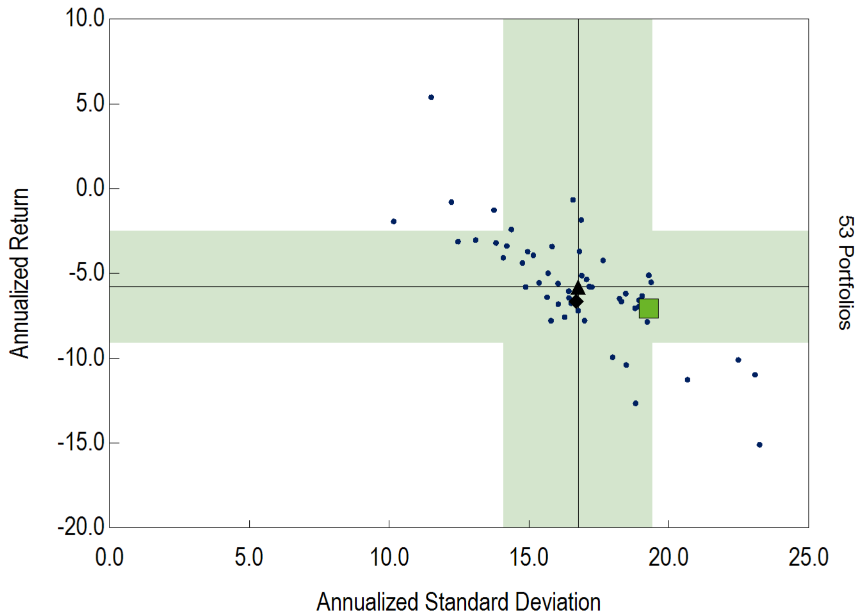


	Return (Rank)									
5th Percentile	-19.20		-13.41		-10.20		-5.73		-1.07	
25th Percentile	-25.05		-19.53		-17.41		-11.56		-3.72	
Median	-27.51		-22.20		-20.67		-14.66		-5.80	
75th Percentile	-31.00		-24.78		-24.21		-16.58		-6.95	
95th Percentile	-36.92		-30.14		-28.65		-21.99		-11.09	
# of Portfolios	58		58		58		55		53	
● Barrow Hanley	-32.22	(85)	-25.23	(80)	-22.74	(67)	-15.95	(73)	-7.07	(78)
▲ MSCI EAFE Value	-28.20	(58)	-23.93	(65)	-22.76	(67)	-14.85	(53)	-6.65	(69)

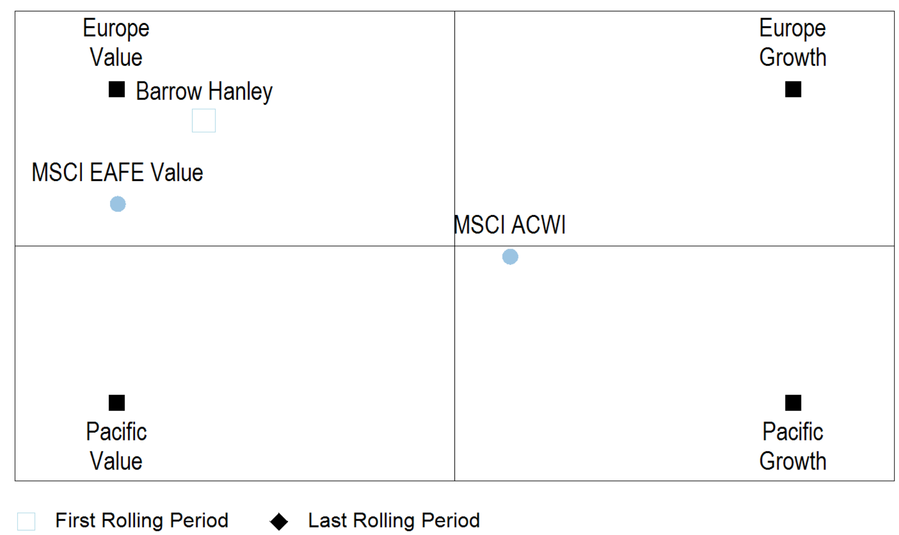
Los Angeles City Employees' Retirement System

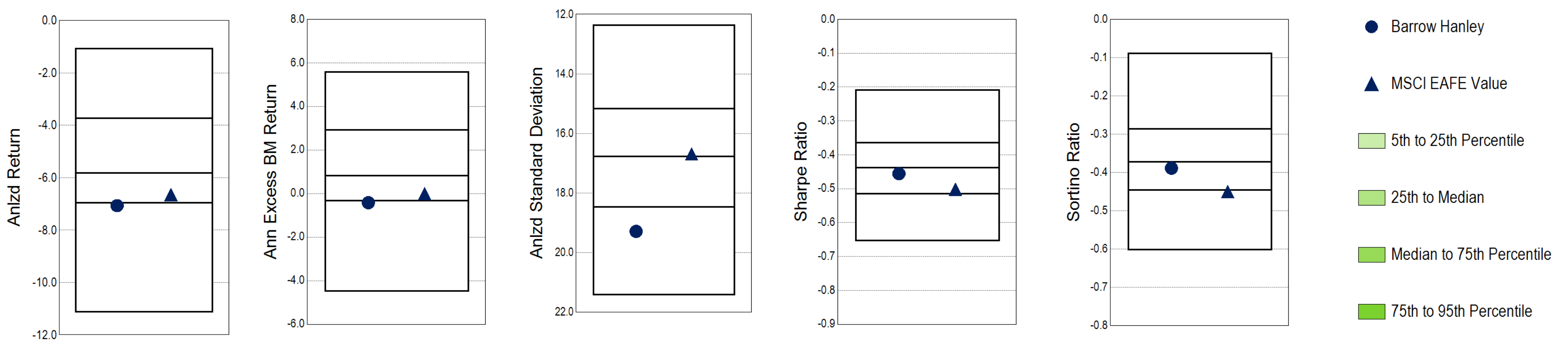
BARROW HANLEY

3 Year Risk Return



3 Year Style Map

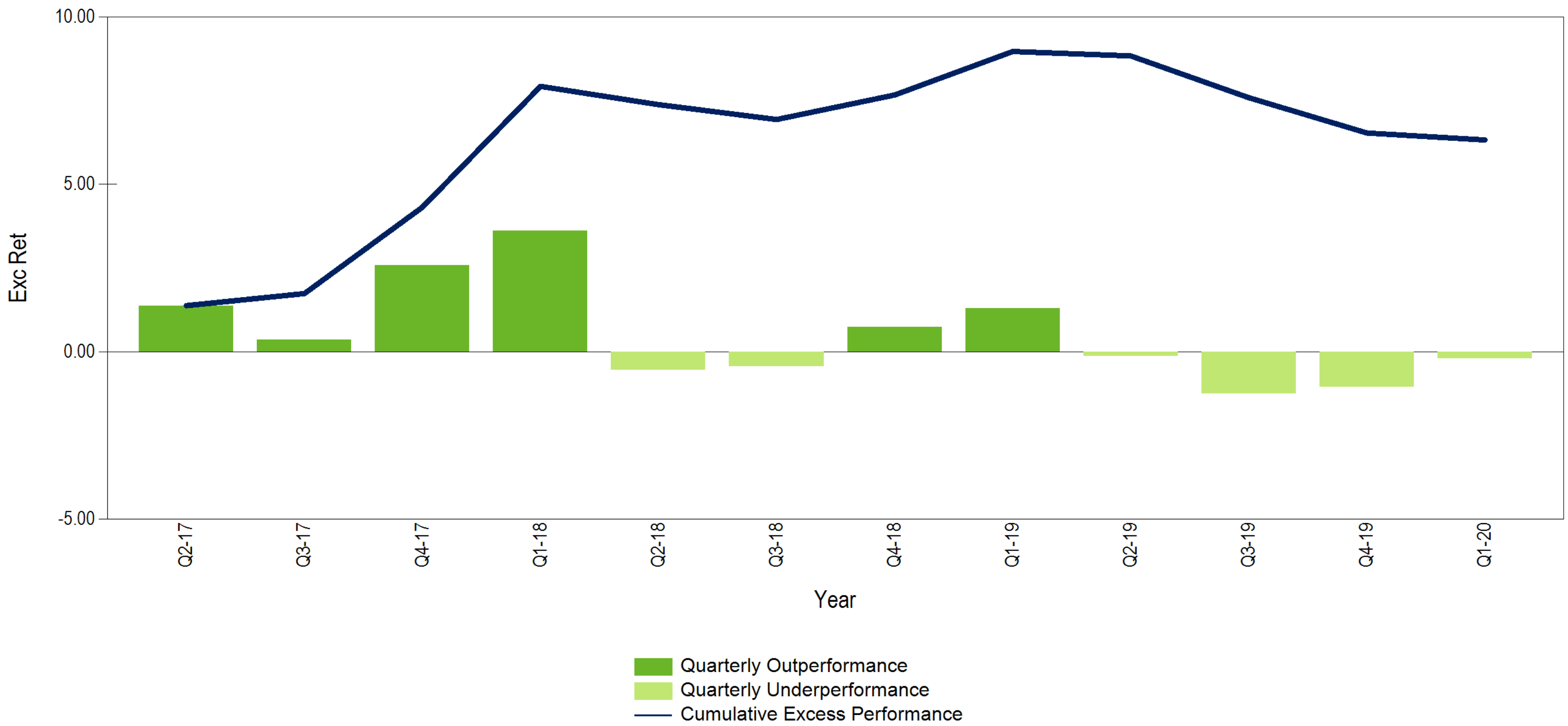




Los Angeles City Employees' Retirement System

LAZARD ASSET MANAGEMENT

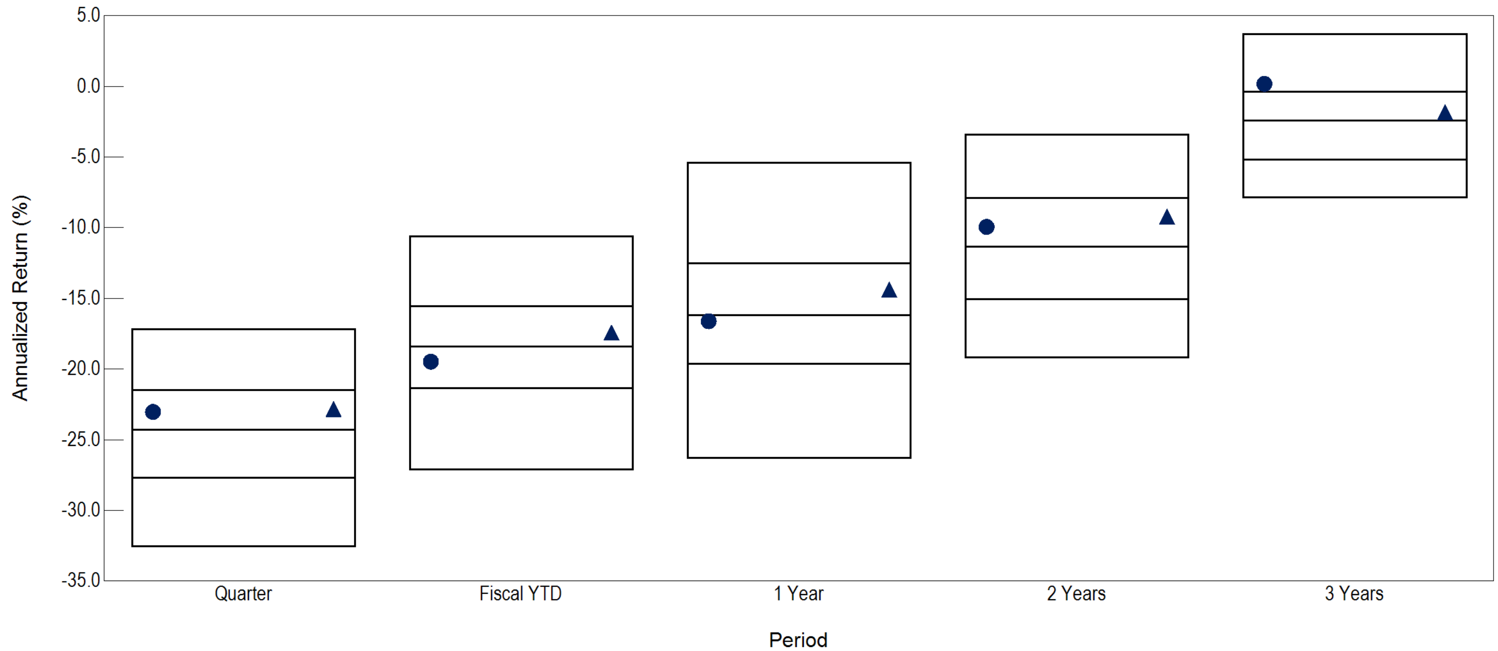
Quarterly and Cumulative Excess Performance



Los Angeles City Employees' Retirement System

LAZARD ASSET MANAGEMENT

Lazard Asset Management vs. eV All EAFE Equity Net

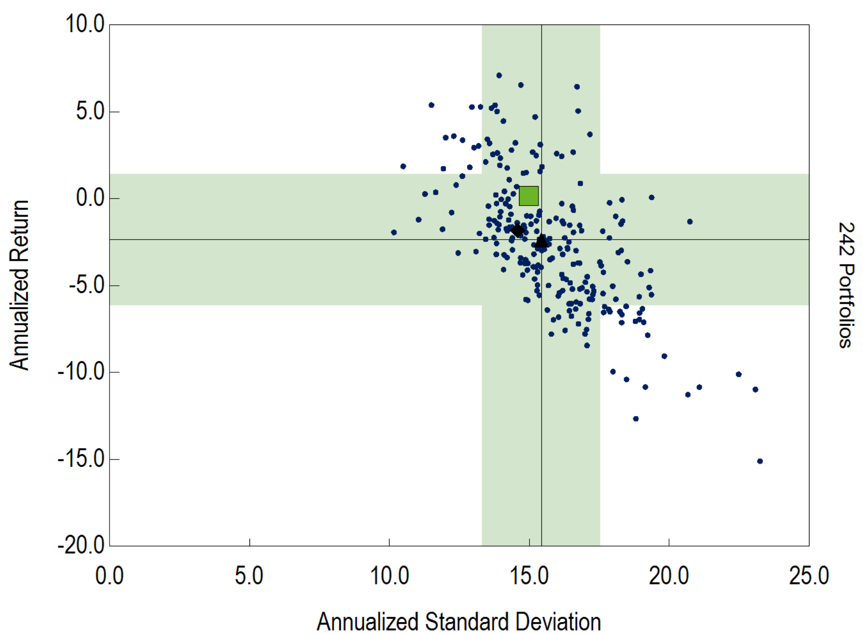


Return (Rank)	Quarter		Fiscal YTD		1 Year		2 Years		3 Years	
5th Percentile	-17.16		-10.63		-5.42		-3.41		3.70	
25th Percentile	-21.45		-15.50		-12.47		-7.86		-0.32	
Median	-24.25		-18.36		-16.14		-11.28		-2.36	
75th Percentile	-27.65		-21.31		-19.59		-14.99		-5.12	
95th Percentile	-32.50		-27.04		-26.25		-19.14		-7.79	
# of Portfolios	256		254		254		248		242	
● Lazard Asset Management	-23.04	(40)	-19.48	(59)	-16.62	(53)	-9.94	(40)	0.18	(22)
▲ MSCI EAFE	-22.83	(38)	-17.42	(38)	-14.38	(35)	-9.20	(34)	-1.82	(43)

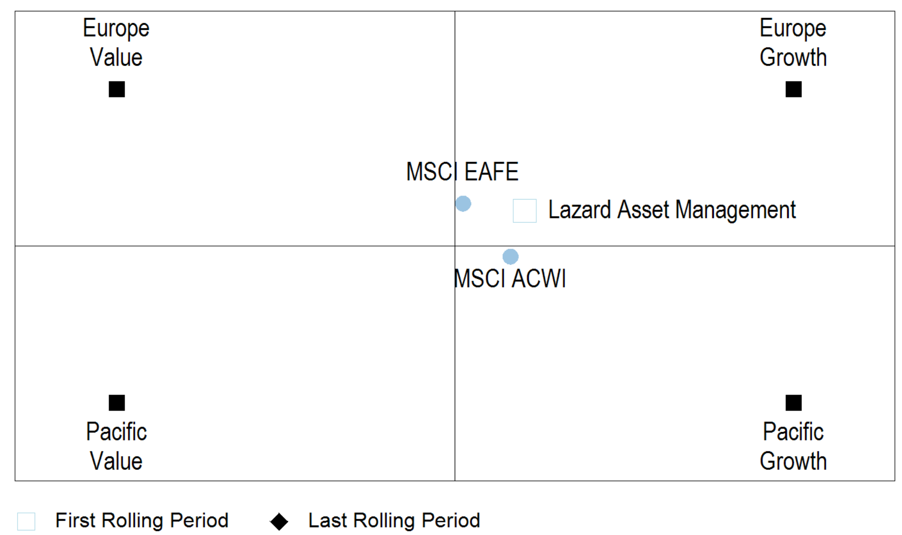
Los Angeles City Employees' Retirement System

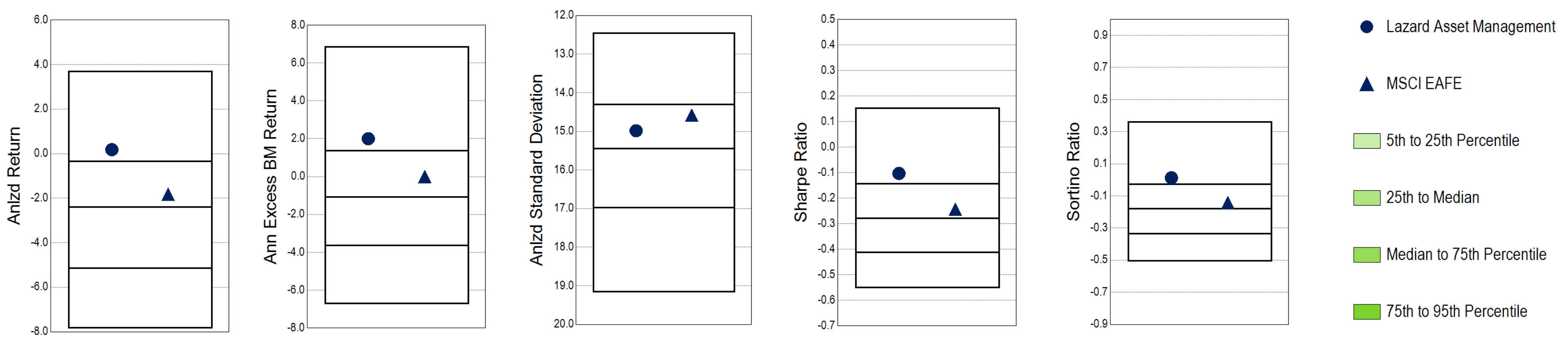
LAZARD ASSET MANAGEMENT

3 Year Risk Return



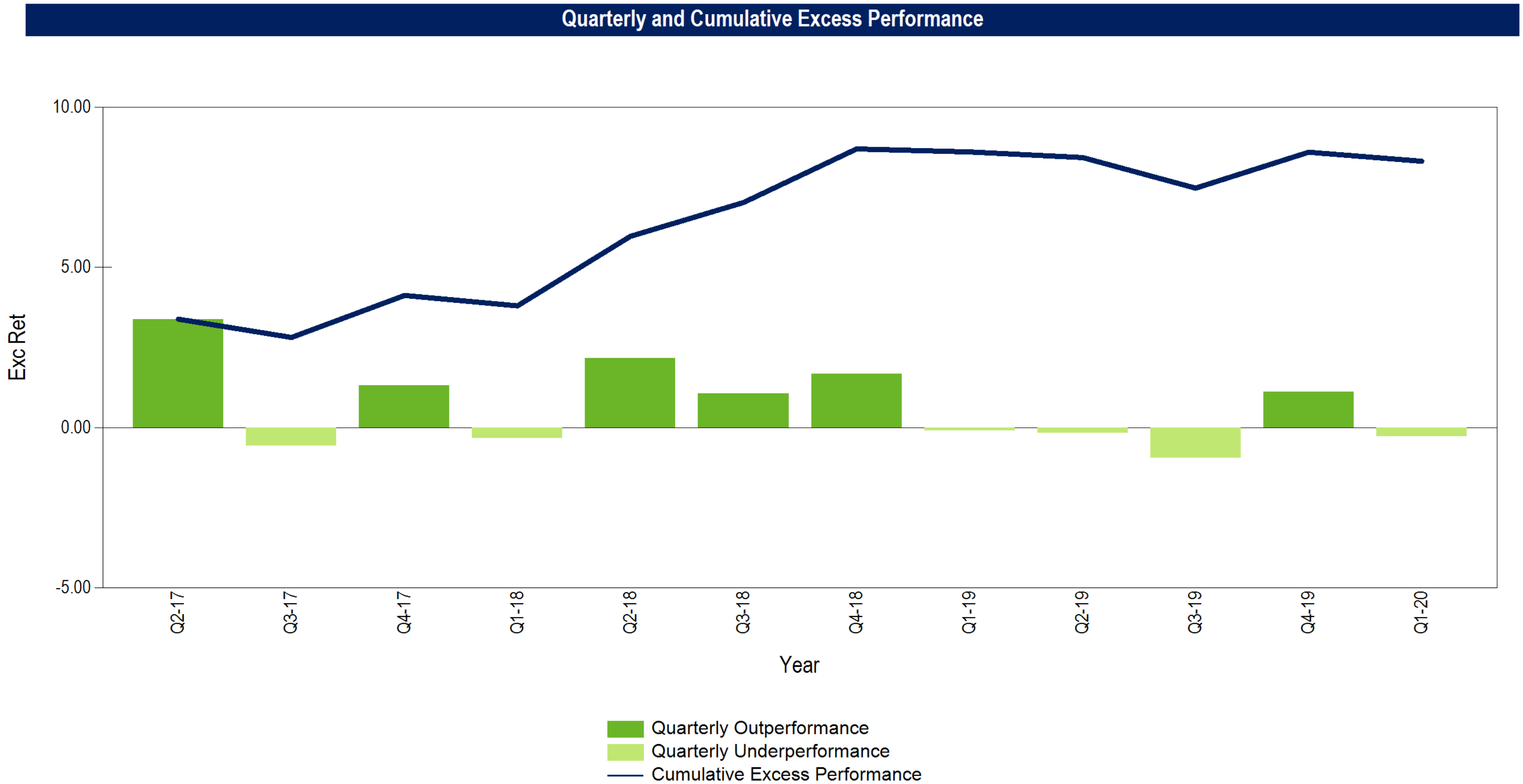
3 Year Style Map





Los Angeles City Employees' Retirement System

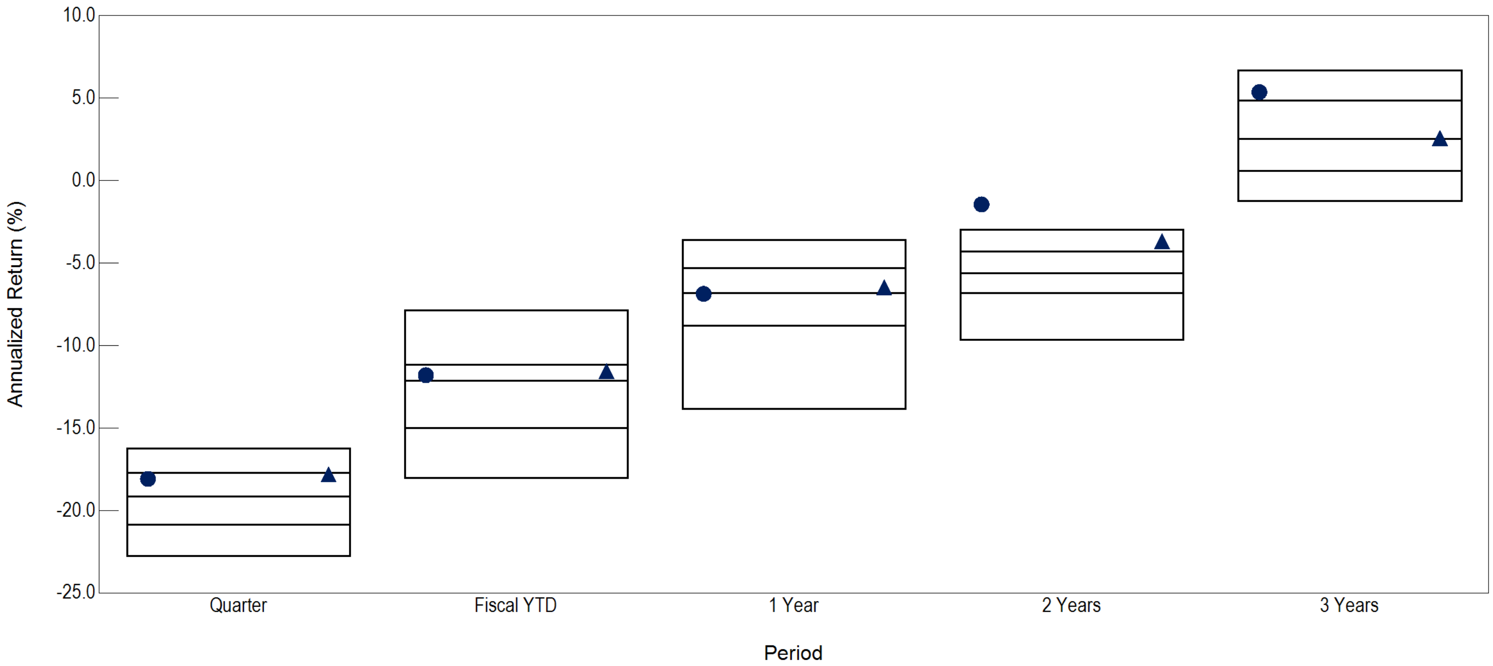
MFS INSTITUTIONAL ADVISORS



Los Angeles City Employees' Retirement System

MFS INSTITUTIONAL ADVISORS

MFS Institutional Advisors vs. eV EAFE All Cap Growth Net

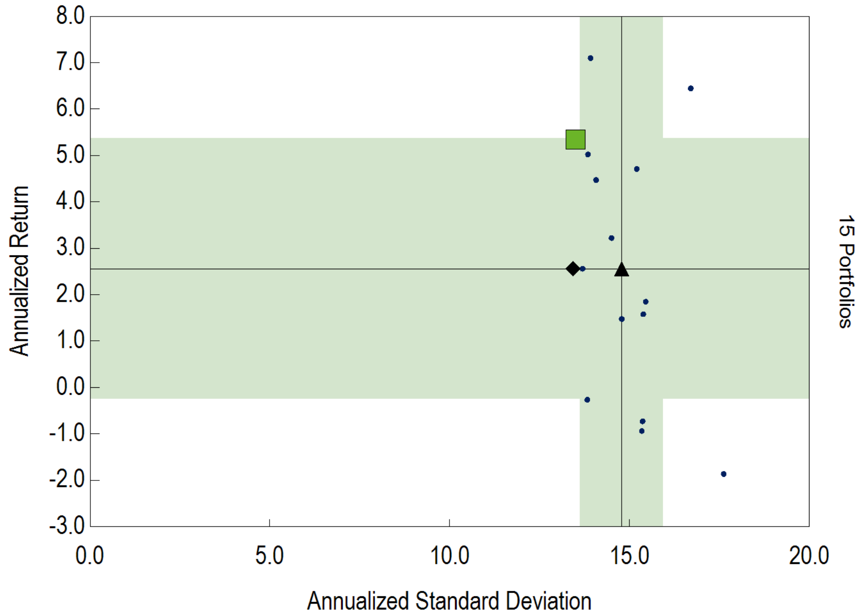


	Return (Rank)									
5th Percentile	-16.24		-7.89		-3.62		-2.98		6.64	
25th Percentile	-17.69		-11.13		-5.30		-4.26		4.87	
Median	-19.14		-12.11		-6.79		-5.60		2.56	
75th Percentile	-20.85		-14.99		-8.79		-6.79		0.60	
95th Percentile	-22.74		-18.02		-13.83		-9.61		-1.22	
# of Portfolios	15		15		15		15		15	
● MFS Institutional Advisors	-18.10	(41)	-11.81	(40)	-6.89	(54)	-1.47	(1)	5.34	(14)
▲ MSCI World ex USA Growth NR USD	-17.81	(32)	-11.57	(37)	-6.47	(42)	-3.69	(18)	2.55	(51)

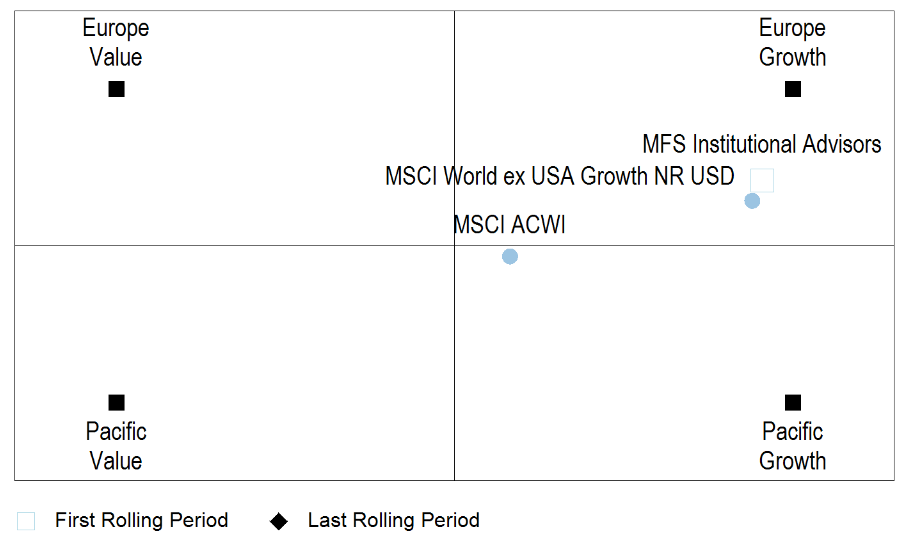
Los Angeles City Employees' Retirement System

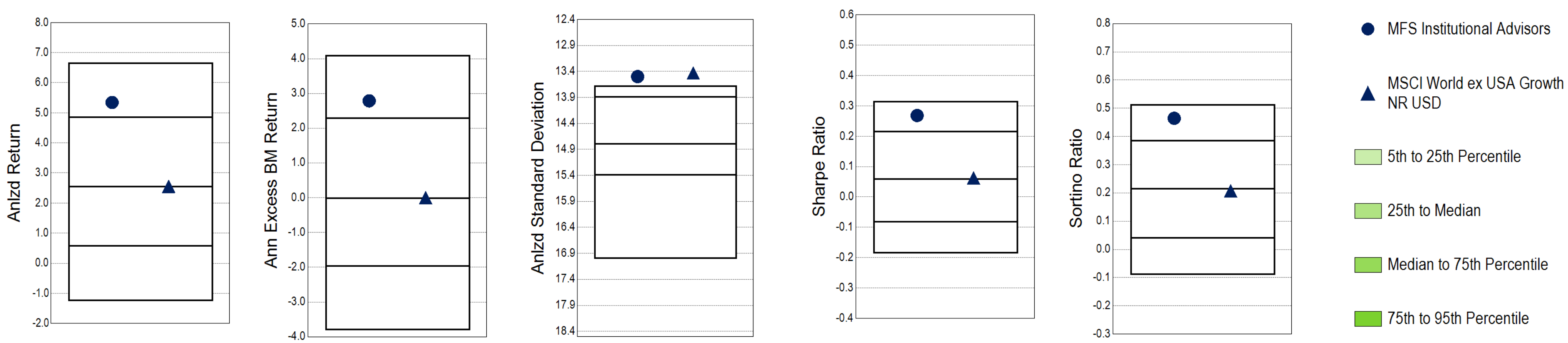
MFS INSTITUTIONAL ADVISORS

3 Year Risk Return



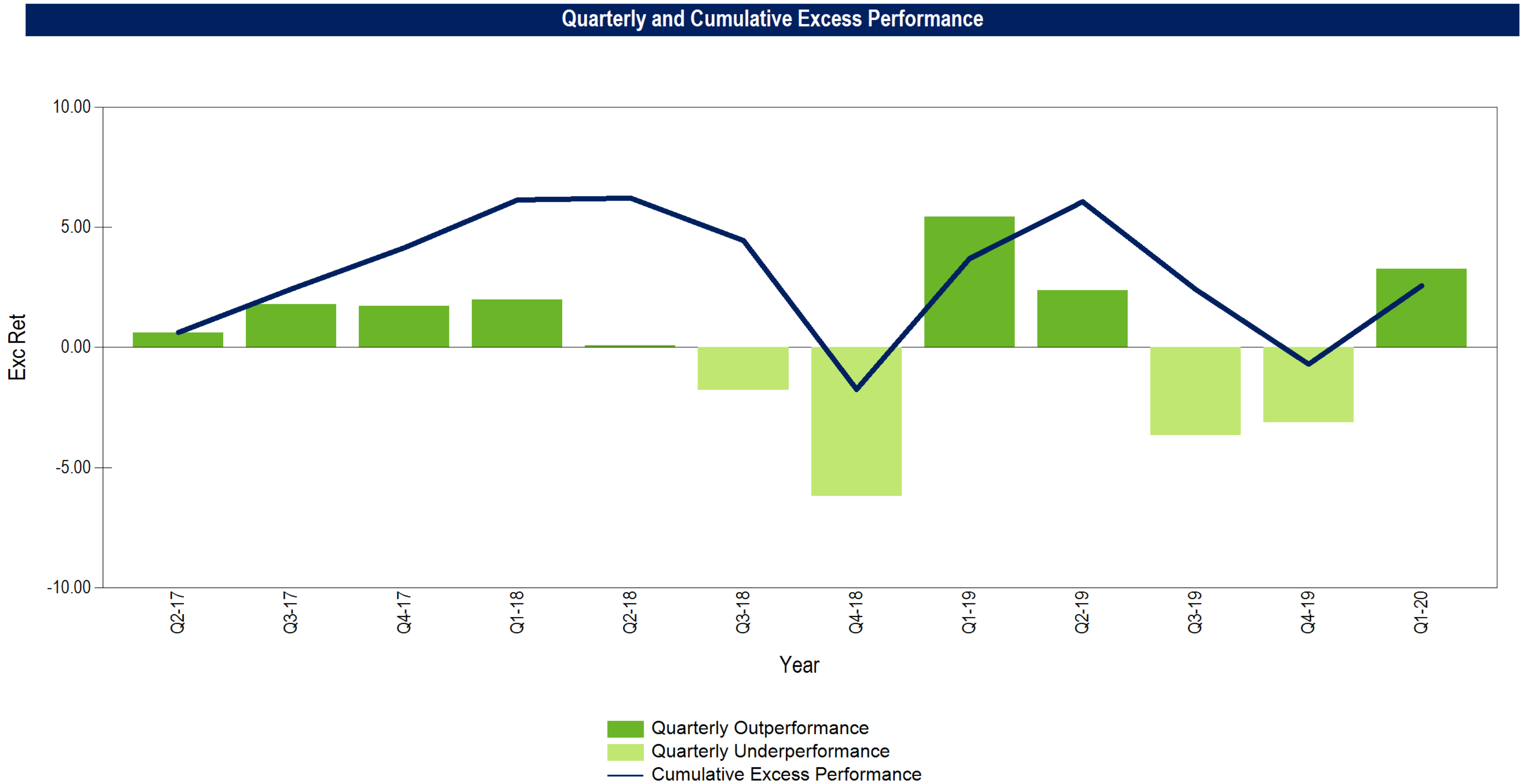
3 Year Style Map





Los Angeles City Employees' Retirement System

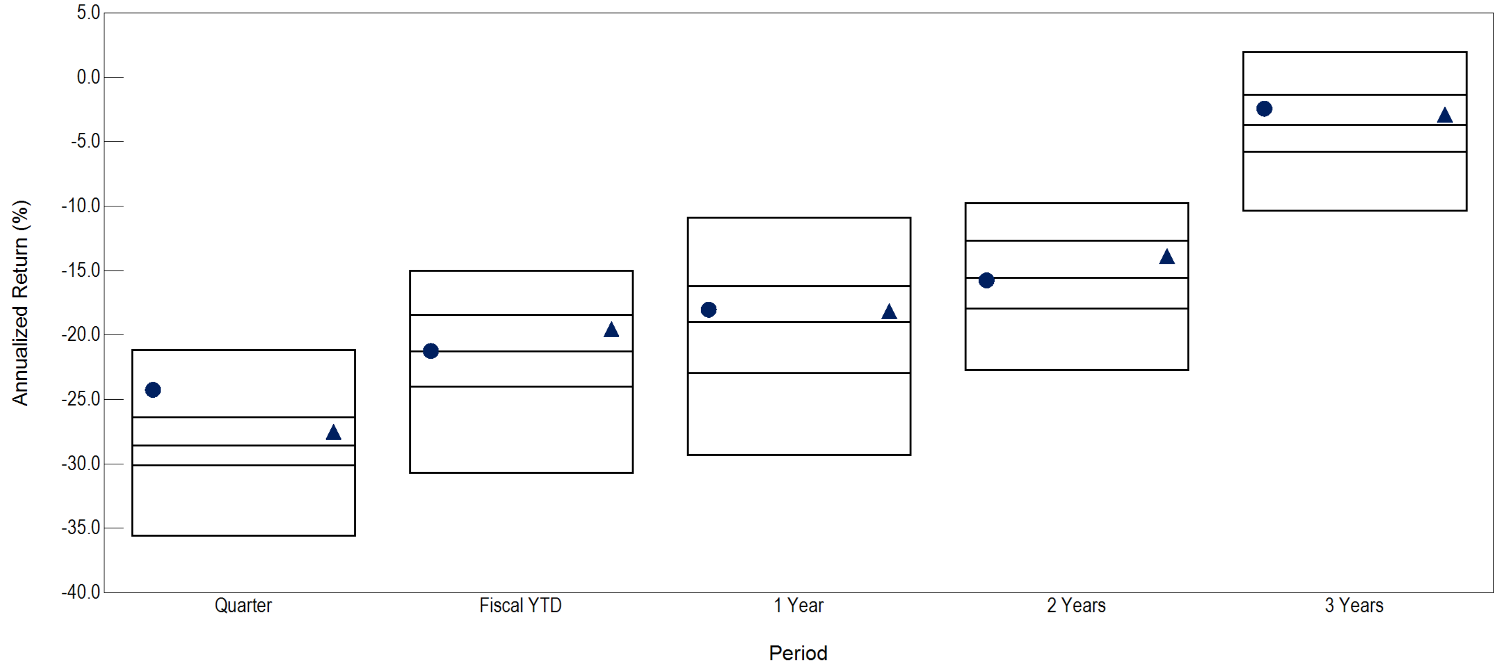
OBERWEIS ASSET MGMT



Los Angeles City Employees' Retirement System

OBERWEIS ASSET MGMT

Oberweis Asset Mgmt vs. eV EAFE Small Cap Equity Net

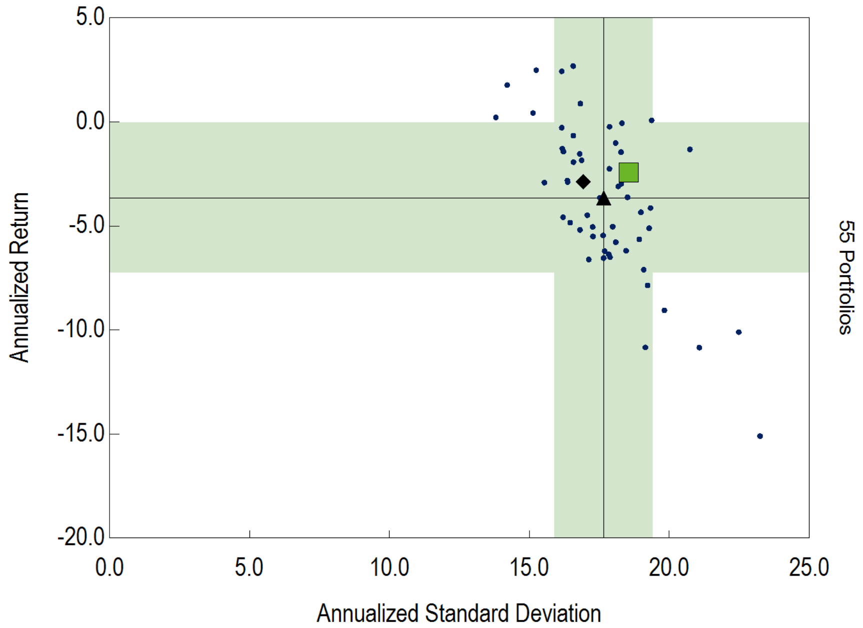


Return (Rank)	Quarter		Fiscal YTD		1 Year		2 Years		3 Years	
5th Percentile	-21.19		-15.02		-10.91		-9.76		1.97	
25th Percentile	-26.34		-18.41		-16.14		-12.64		-1.30	
Median	-28.52		-21.23		-18.94		-15.50		-3.64	
75th Percentile	-30.07		-23.94		-22.92		-17.89		-5.71	
95th Percentile	-35.53		-30.68		-29.26		-22.68		-10.32	
# of Portfolios	61		60		60		57		55	
● Oberweis Asset Mgmt	-24.26	(12)	-21.24	(51)	-18.03	(46)	-15.76	(52)	-2.43	(38)
▲ MSCI EAFE Small Cap	-27.52	(38)	-19.52	(40)	-18.15	(47)	-13.87	(29)	-2.88	(41)

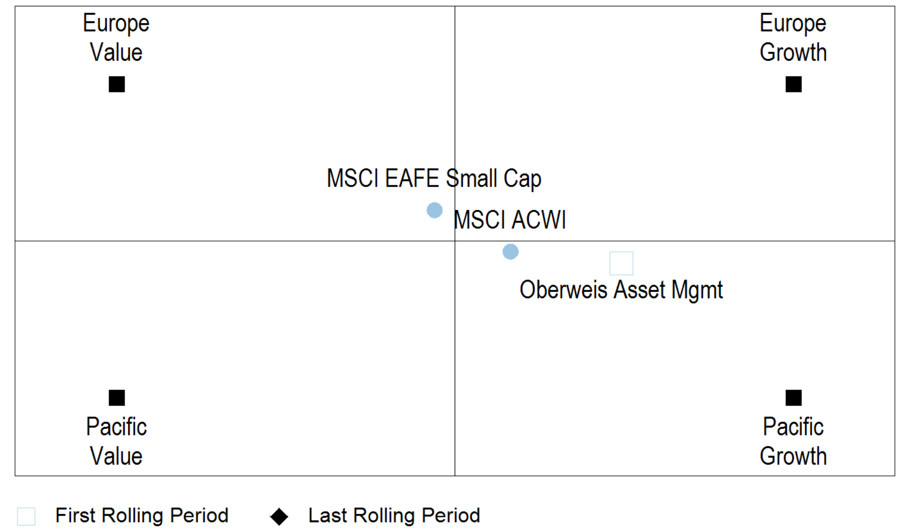
Los Angeles City Employees' Retirement System

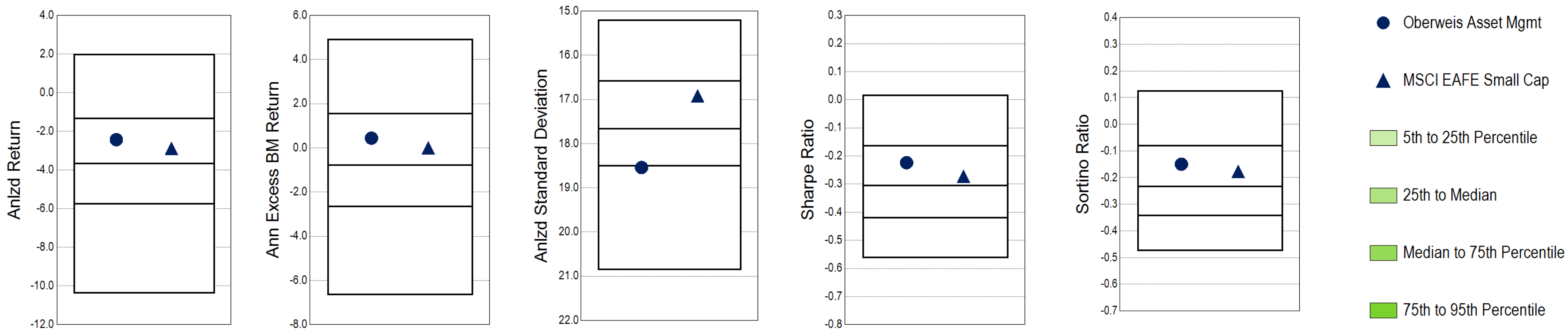
OBERWEIS ASSET MGMT

3 Year Risk Return



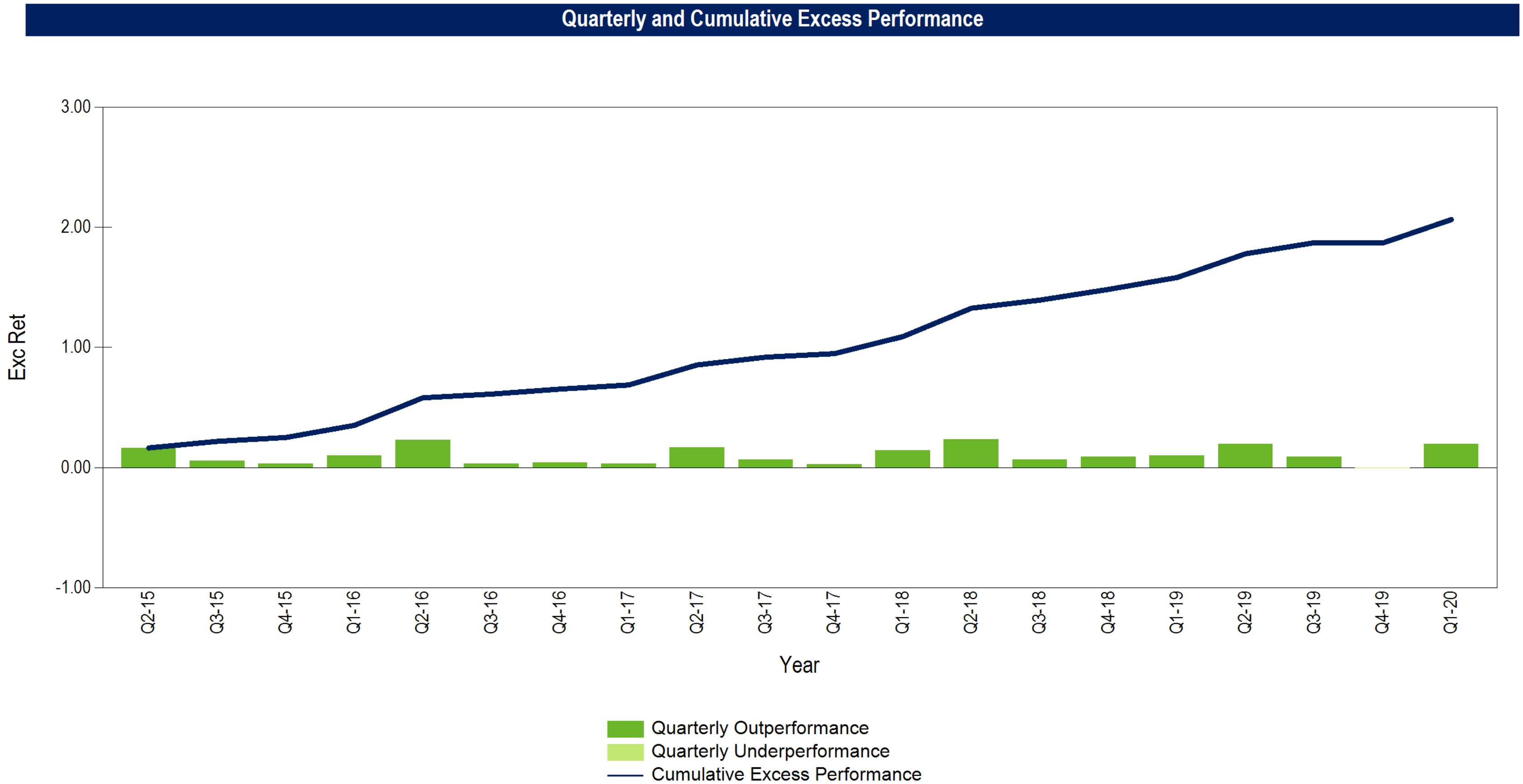
3 Year Style Map





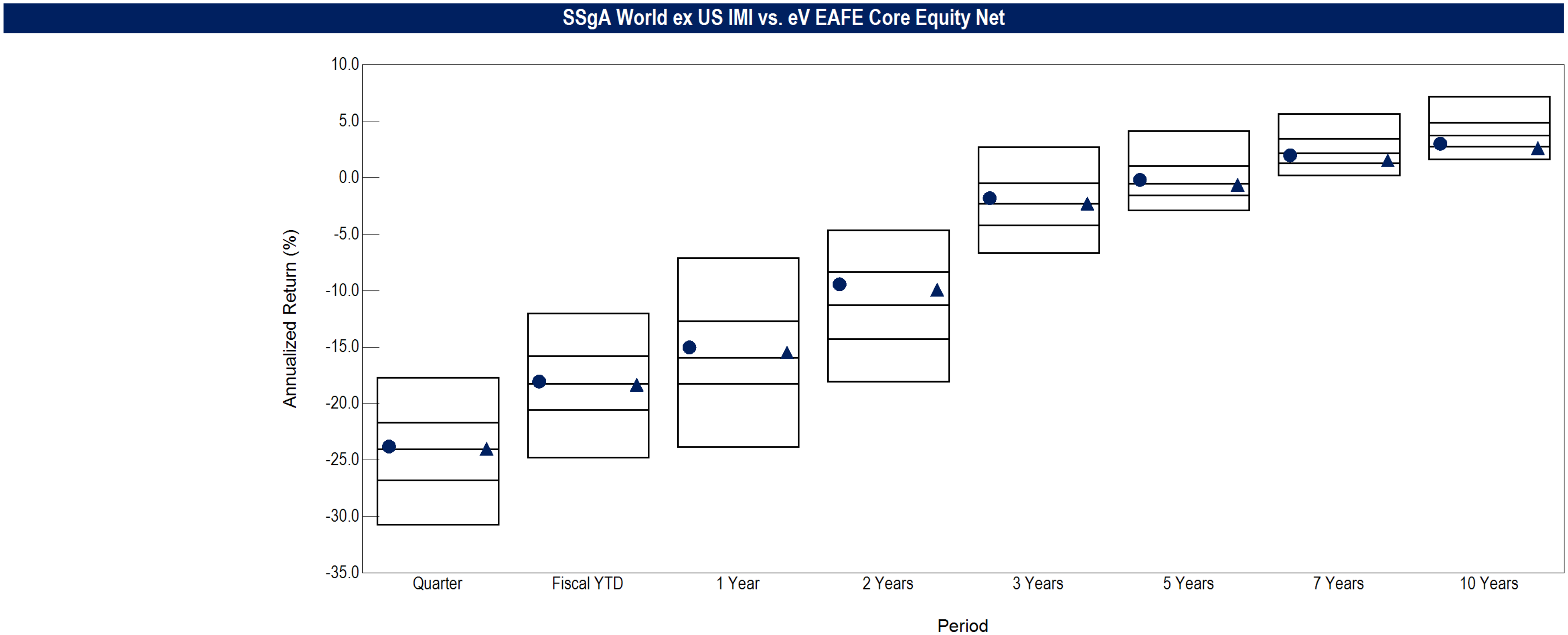
Los Angeles City Employees' Retirement System

SSGA WORLD EX US IMI



Los Angeles City Employees' Retirement System

SSGA WORLD EX US IMI

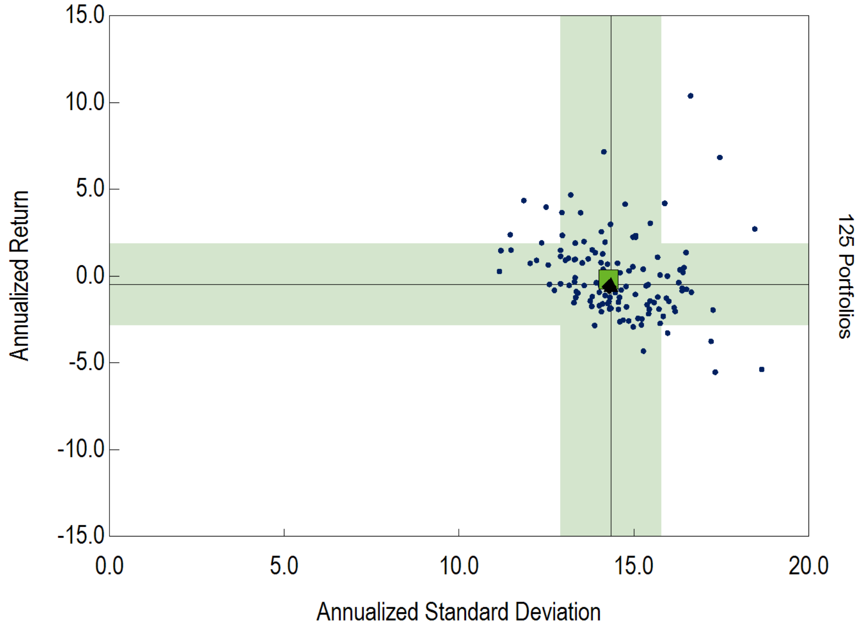


	Return (Rank)															
5th Percentile	-17.72		-12.05		-7.12		-4.67		2.68		4.12		5.62		7.18	
25th Percentile	-21.66		-15.77		-12.66		-8.31		-0.43		1.09		3.46		4.90	
Median	-23.99		-18.20		-15.89		-11.25		-2.25		-0.47		2.19		3.80	
75th Percentile	-26.75		-20.53		-18.22		-14.22		-4.16		-1.53		1.32		2.79	
95th Percentile	-30.70		-24.77		-23.80		-18.03		-6.61		-2.83		0.24		1.67	
# of Portfolios	149		147		147		145		143		125		105		87	
● SSgA World ex US IMI	-23.81	(49)	-18.06	(46)	-15.03	(41)	-9.44	(35)	-1.82	(45)	-0.20	(46)	1.98	(62)	3.00	(71)
▲ MSCI World ex USA IMI NR USD	-24.00	(51)	-18.34	(53)	-15.48	(47)	-9.91	(39)	-2.29	(53)	-0.62	(56)	1.55	(71)	2.61	(79)

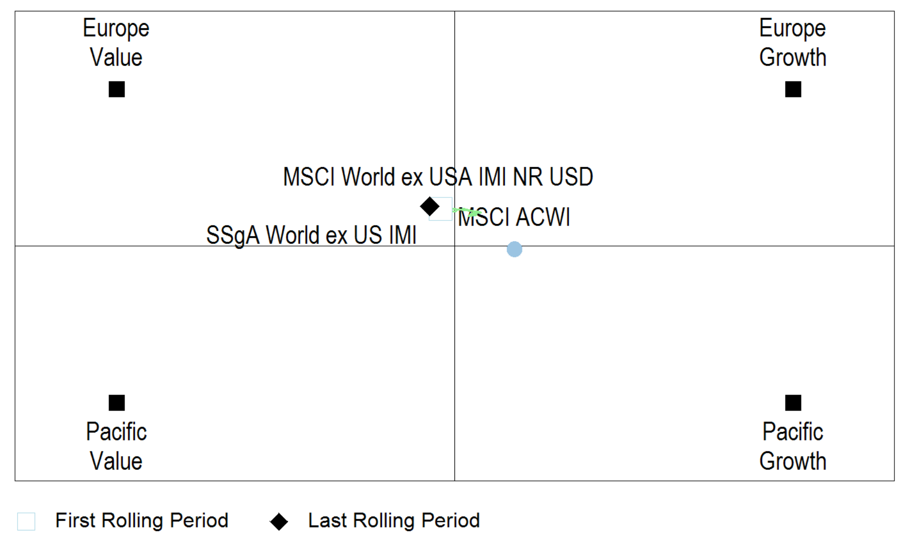
Los Angeles City Employees' Retirement System

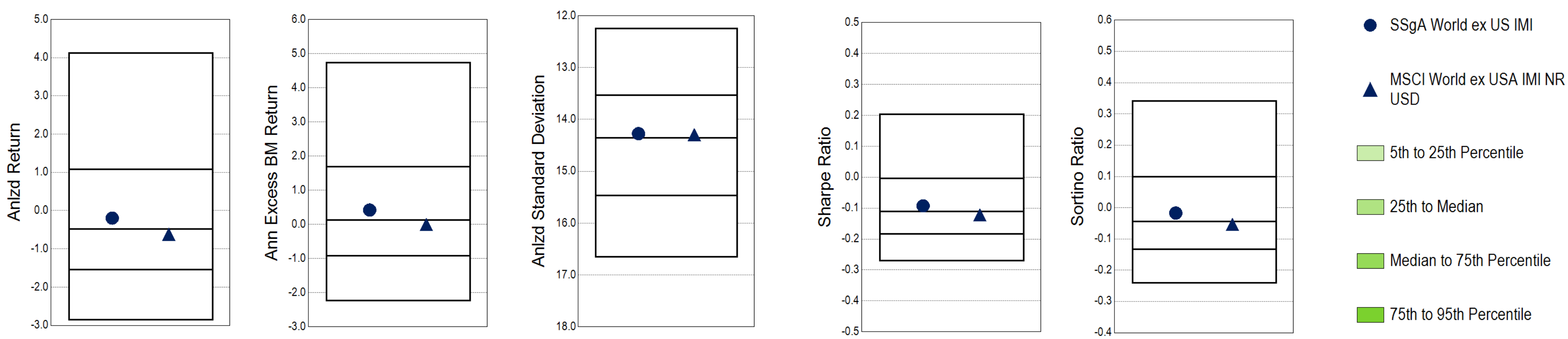
SSGA WORLD EX US IMI

5 Year Risk Return



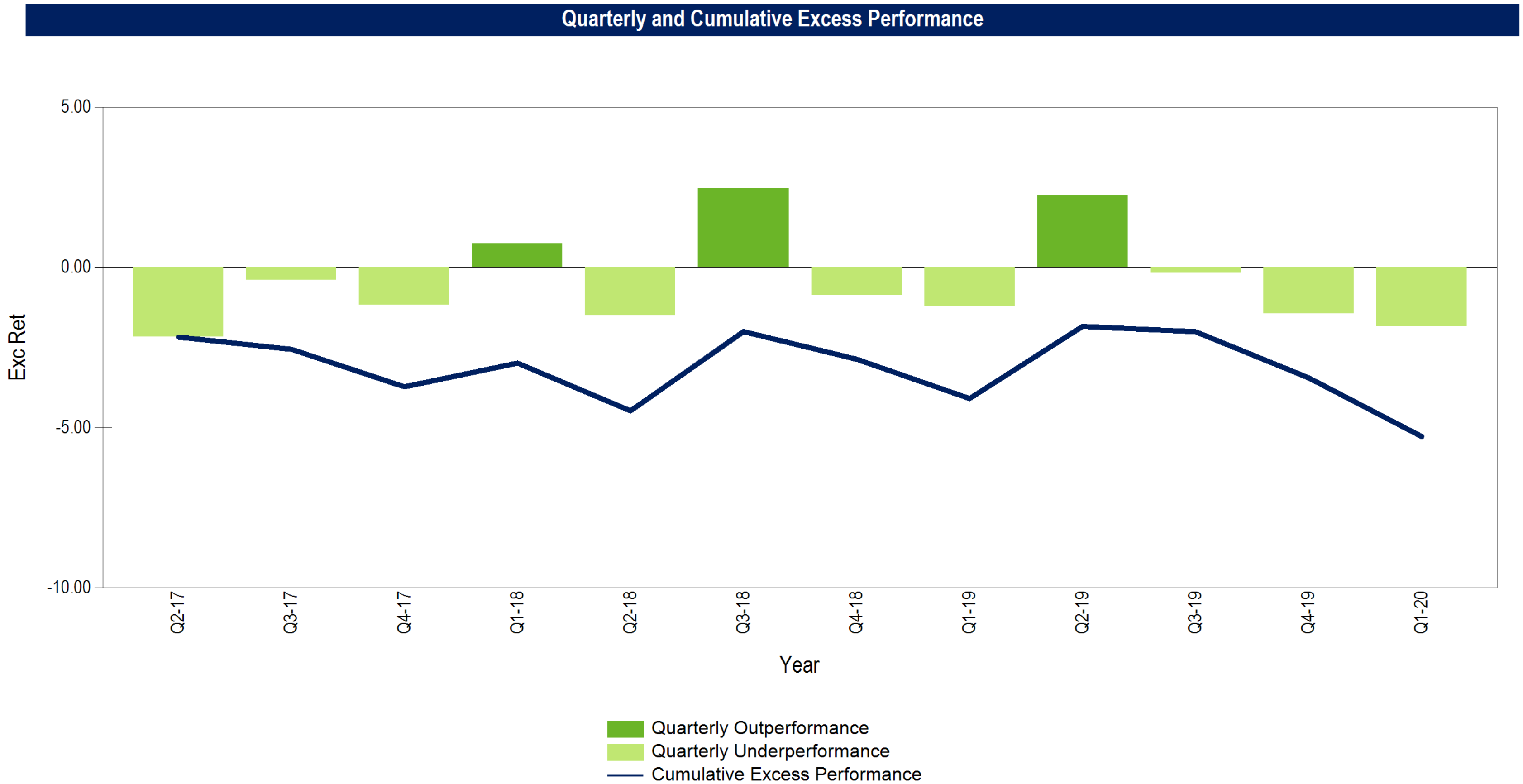
5 Year Style Map





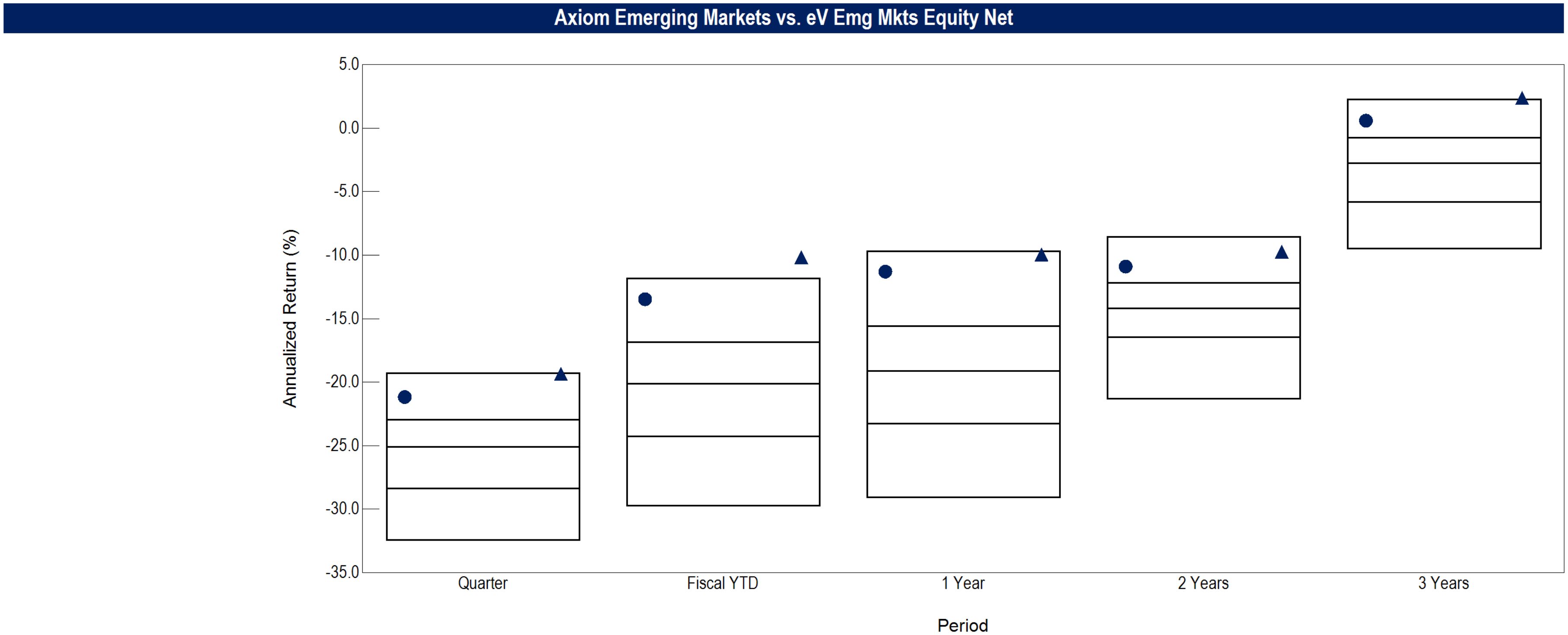
Los Angeles City Employees' Retirement System

AXIOM EMERGING MARKETS



Los Angeles City Employees' Retirement System

AXIOM EMERGING MARKETS

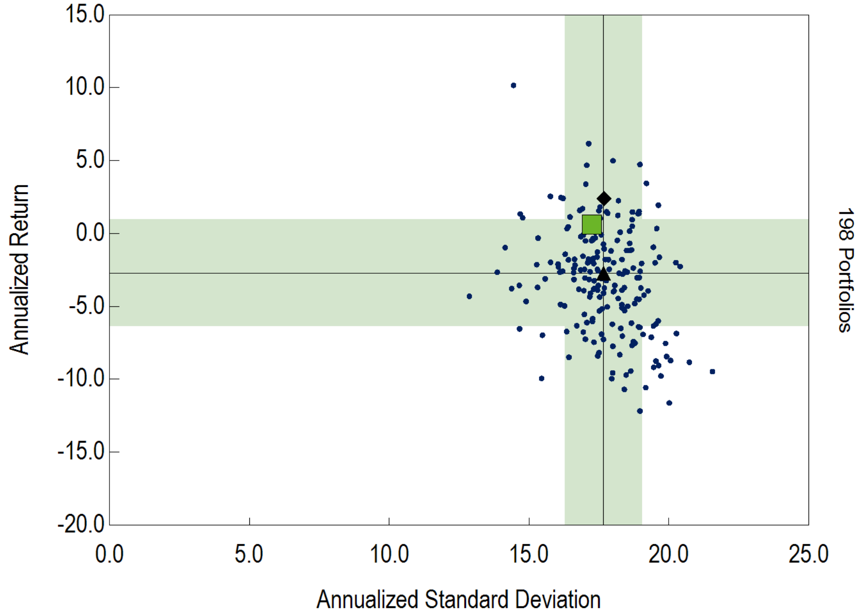


	Return (Rank)									
5th Percentile	-19.31		-11.83		-9.69		-8.55		2.27	
25th Percentile	-22.92		-16.80		-15.55		-12.13		-0.69	
Median	-25.05		-20.07		-19.10		-14.14		-2.71	
75th Percentile	-28.34		-24.21		-23.21		-16.43		-5.77	
95th Percentile	-32.37		-29.69		-29.04		-21.25		-9.44	
# of Portfolios	224		223		222		209		198	
● Axiom Emerging Markets	-21.17	(12)	-13.47	(9)	-11.29	(8)	-10.89	(18)	0.59	(16)
▲ MSCI Emerging Markets Growth NR USD	-19.34	(6)	-10.17	(2)	-9.94	(6)	-9.73	(10)	2.39	(5)

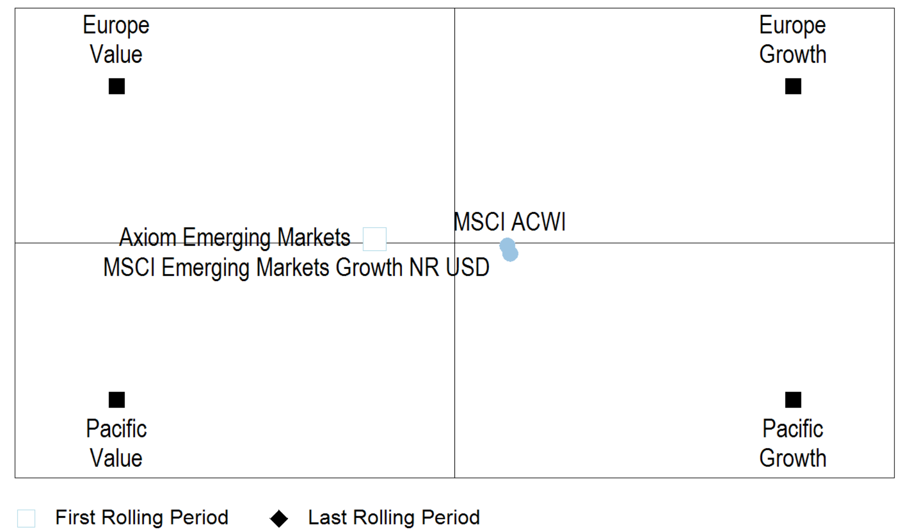
Los Angeles City Employees' Retirement System

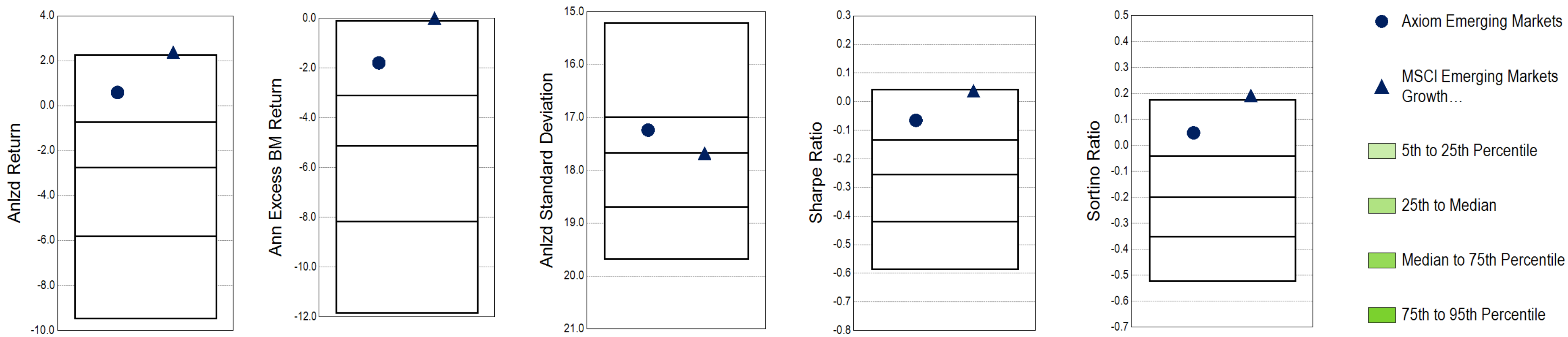
AXIOM EMERGING MARKETS

3 Year Risk Return



3 Year Style Map





Los Angeles City Employees' Retirement System

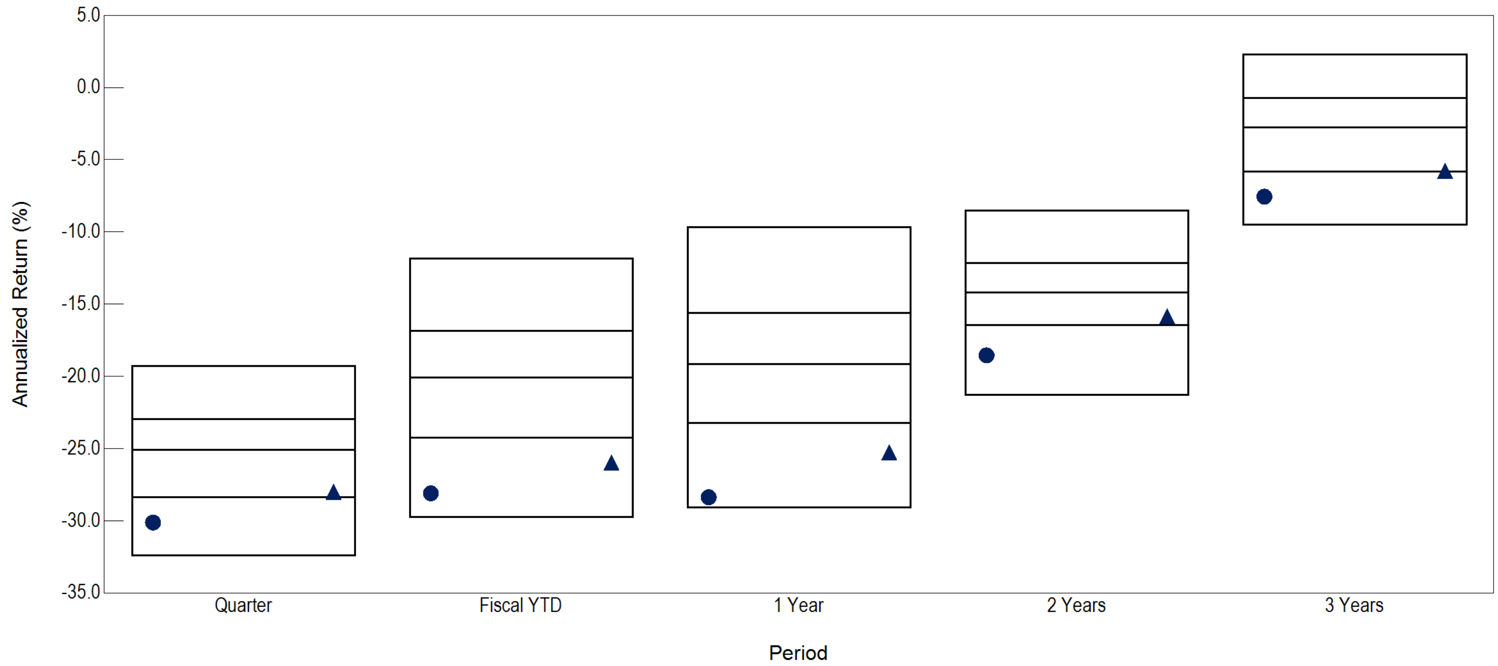
DFA EMERGING MARKETS

Quarterly and Cumulative Excess Performance

Los Angeles City Employees' Retirement System

DFA EMERGING MARKETS

DFA Emerging Markets vs. eV Emg Mkts Equity Net

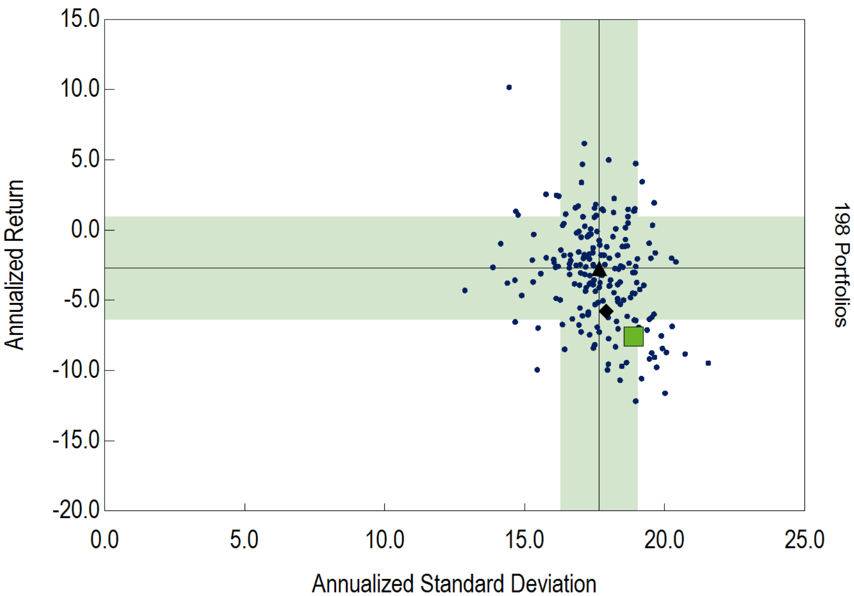


Return (Rank)	Quarter		Fiscal YTD		1 Year		2 Years		3 Years	
5th Percentile	-19.31		-11.83		-9.69		-8.55		2.27	
25th Percentile	-22.92		-16.80		-15.55		-12.13		-0.69	
Median	-25.05		-20.07		-19.10		-14.14		-2.71	
75th Percentile	-28.34		-24.21		-23.21		-16.43		-5.77	
95th Percentile	-32.37		-29.69		-29.04		-21.25		-9.44	
# of Portfolios	224		223		222		209		198	
● DFA Emerging Markets	-30.13	(85)	-28.11	(90)	-28.38	(92)	-18.55	(89)	-7.56	(89)
▲ MSCI Emerging Markets Value NR USD	-28.00	(74)	-25.97	(83)	-25.26	(82)	-15.85	(71)	-5.78	(76)

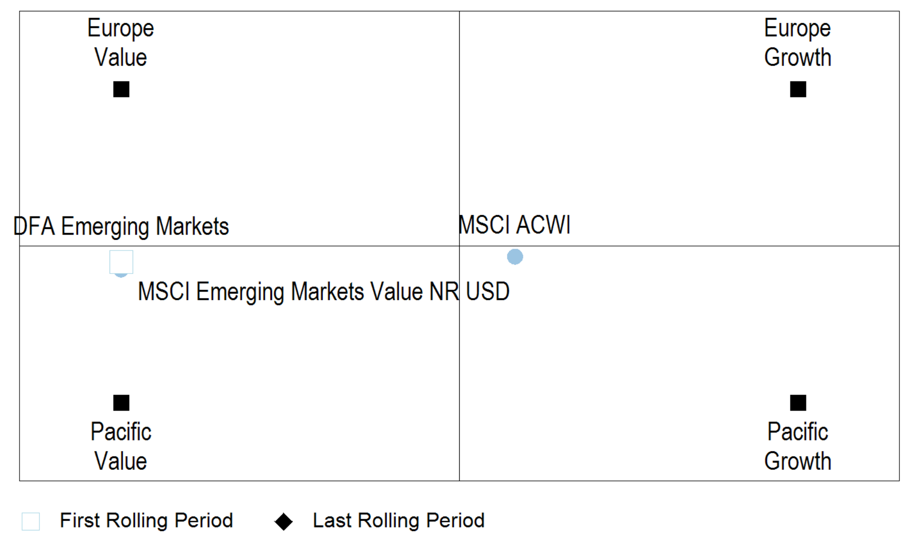
Los Angeles City Employees' Retirement System

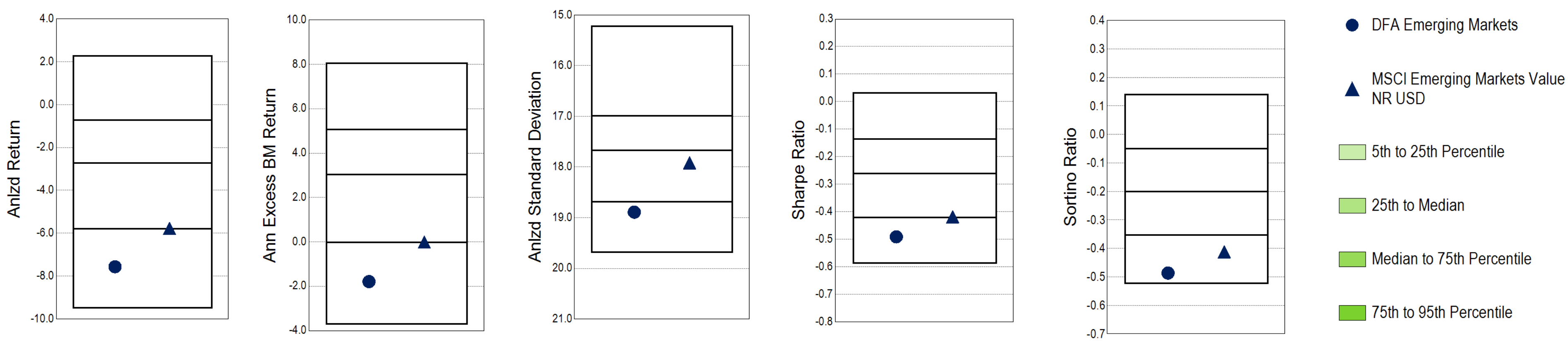
DFA EMERGING MARKETS

3 Year Risk Return



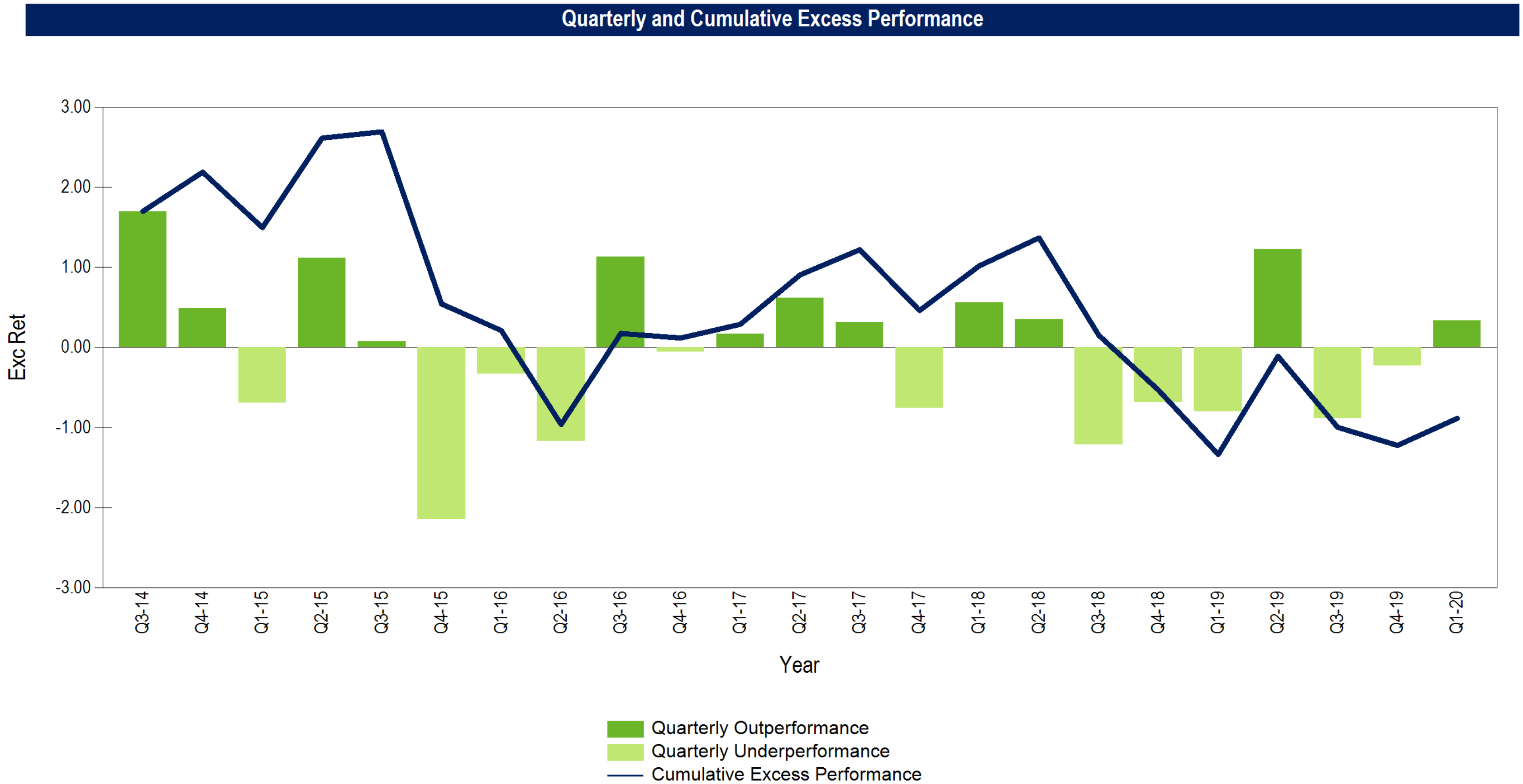
3 Year Style Map





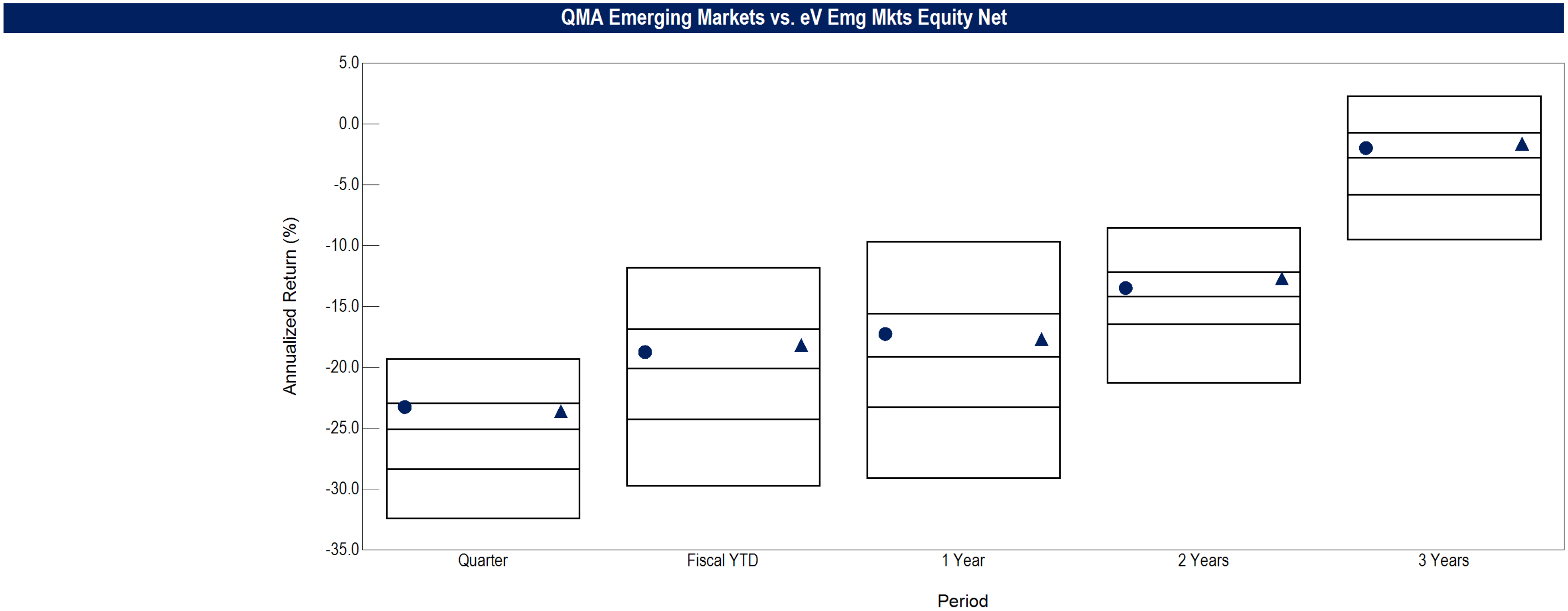
Los Angeles City Employees' Retirement System

QMA EMERGING MARKETS



Los Angeles City Employees' Retirement System

QMA EMERGING MARKETS

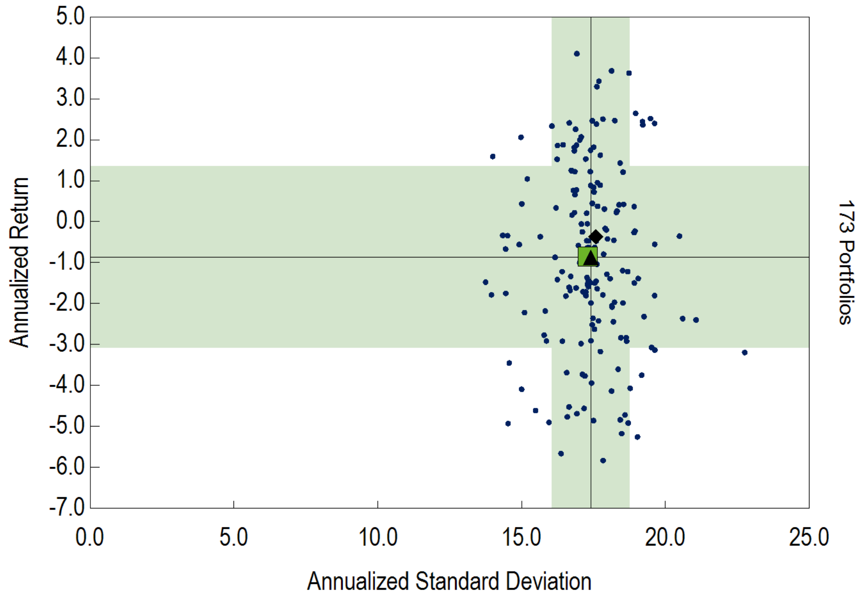


	Return (Rank)									
5th Percentile	-19.31		-11.83		-9.69		-8.55		2.27	
25th Percentile	-22.92		-16.80		-15.55		-12.13		-0.69	
Median	-25.05		-20.07		-19.10		-14.14		-2.71	
75th Percentile	-28.34		-24.21		-23.21		-16.43		-5.77	
95th Percentile	-32.37		-29.69		-29.04		-21.25		-9.44	
# of Portfolios	224		223		222		209		198	
● QMA Emerging Markets	-23.26	(30)	-18.75	(42)	-17.26	(38)	-13.49	(43)	-1.98	(37)
▲ MSCI Emerging Markets	-23.60	(35)	-18.18	(37)	-17.69	(40)	-12.70	(32)	-1.62	(32)

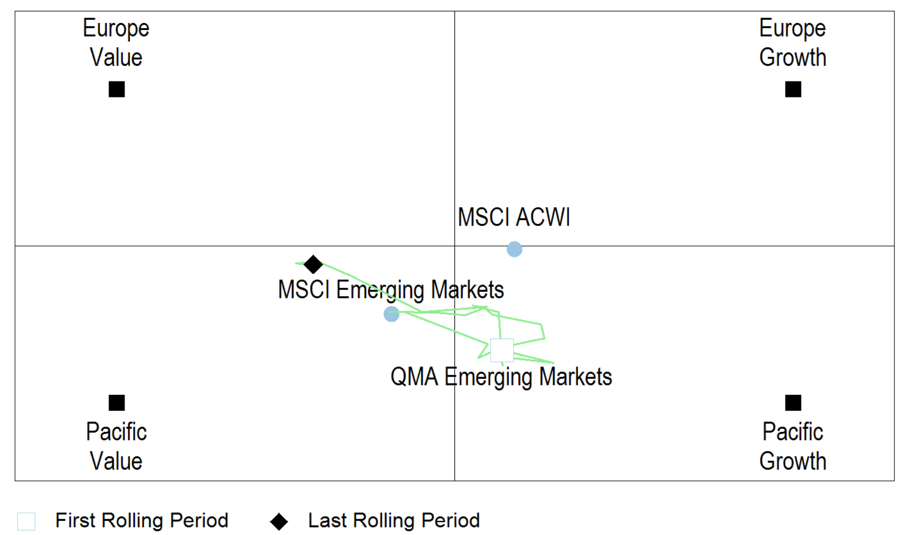
Los Angeles City Employees' Retirement System

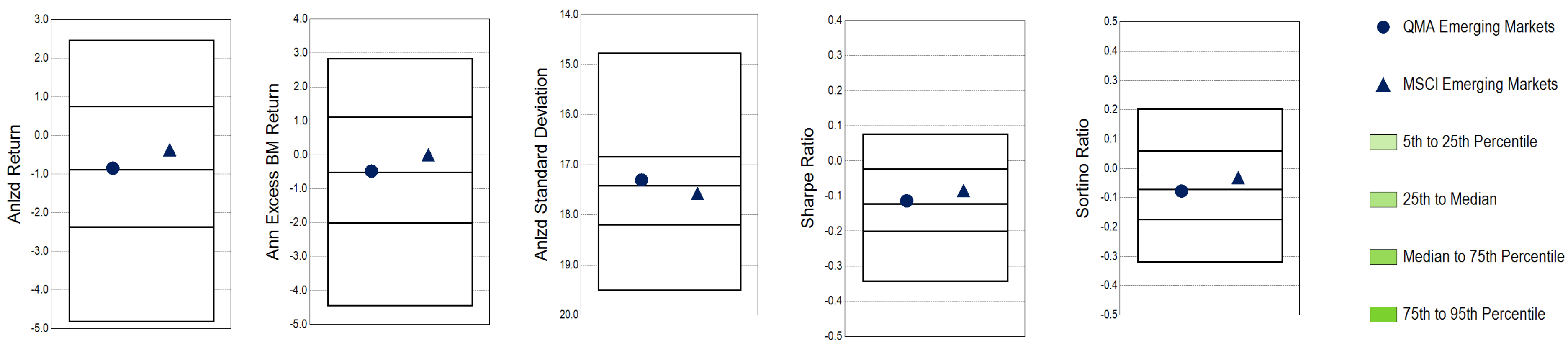
QMA EMERGING MARKETS

5 Year Risk Return



5 Year Style Map





CORE FIXED INCOME MANAGER PERFORMANCE

NEPC, LLC

Los Angeles City Employees' Retirement System

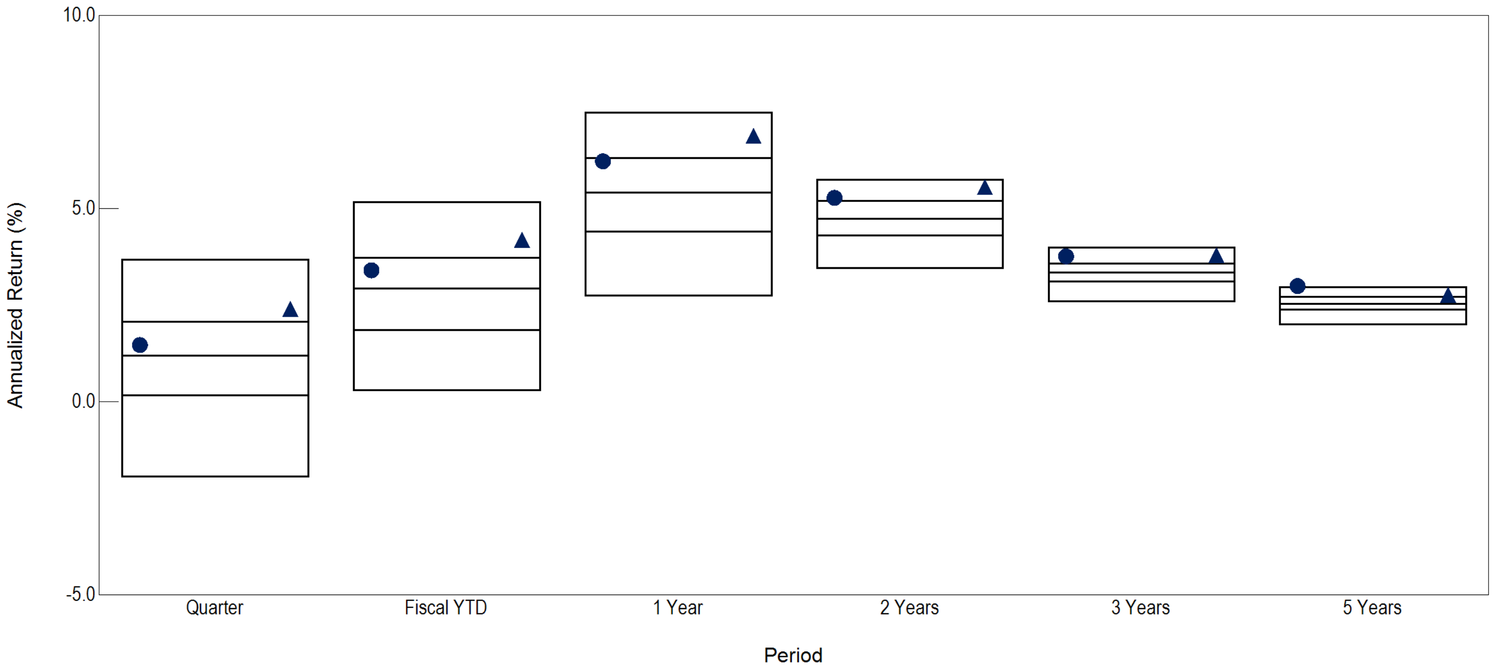
BAIRD ADVISORS

Quarterly and Cumulative Excess Performance

Los Angeles City Employees' Retirement System

BAIRD ADVISORS

Baird Advisors vs. eV US Interm Duration Fixed Inc Net

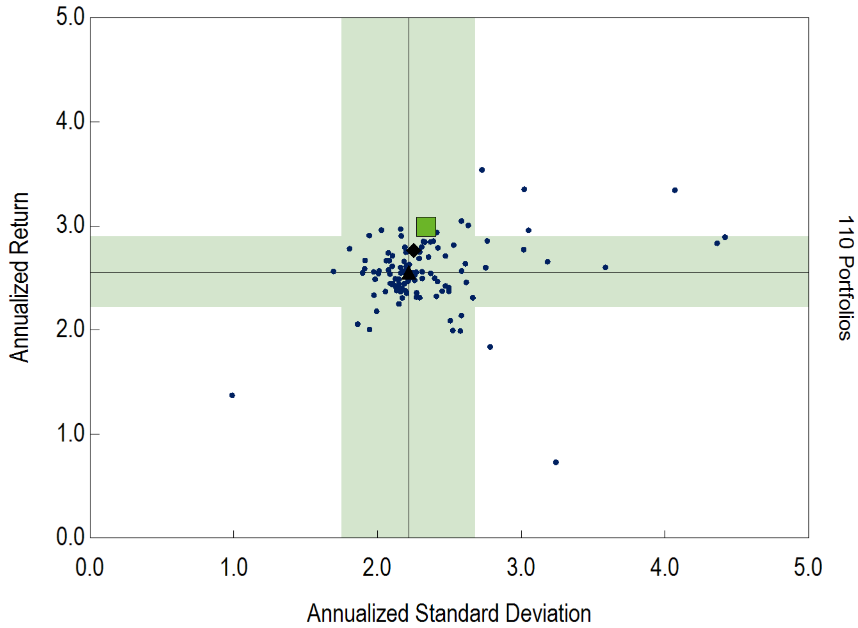


	Return (Rank)												
5th Percentile	3.68		5.17		7.49		5.74		3.99		2.97	
25th Percentile	2.09		3.75		6.33		5.21		3.59		2.73	
Median	1.21		2.94		5.43		4.74		3.36		2.56	
75th Percentile	0.18		1.87		4.41		4.32		3.13		2.41	
95th Percentile	-1.92		0.32		2.76		3.47		2.61		2.03	
# of Portfolios	115		115		115		113		111		110	
● Baird Advisors	1.47	(45)	3.40	(40)	6.22	(32)	5.28	(21)	3.76	(10)	2.99	(4)
▲ BBgBarc US Govt/Credit Int TR	2.40	(13)	4.19	(12)	6.88	(8)	5.55	(9)	3.79	(9)	2.76	(22)

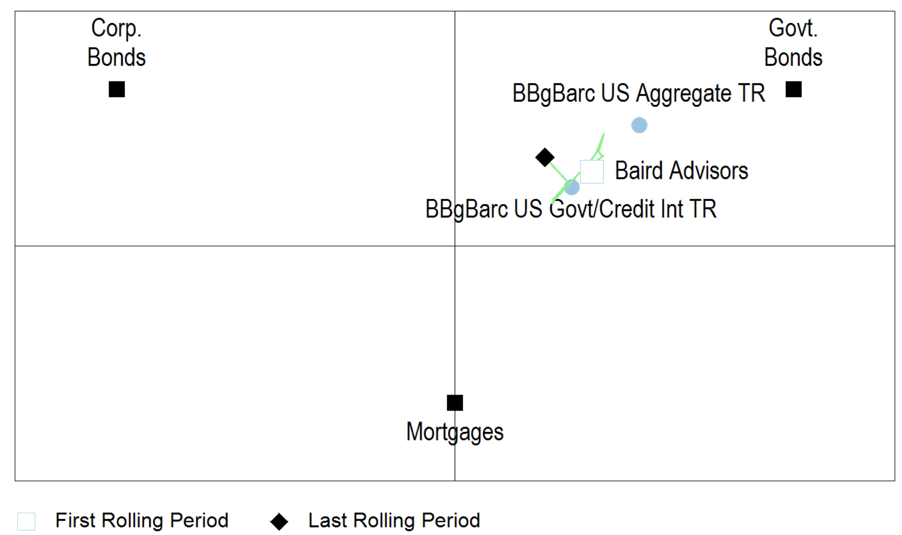
Los Angeles City Employees' Retirement System

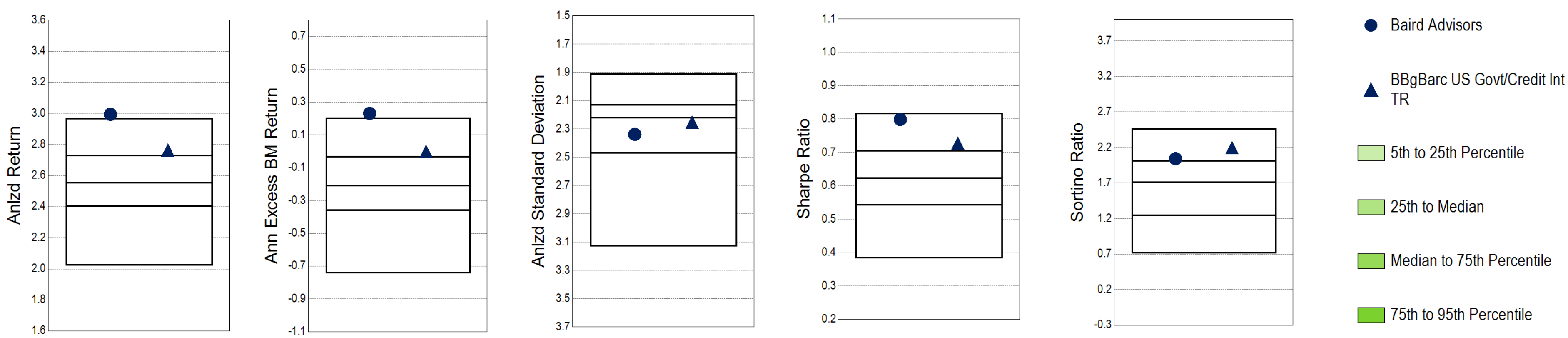
BAIRD ADVISORS

5 Year Risk Return



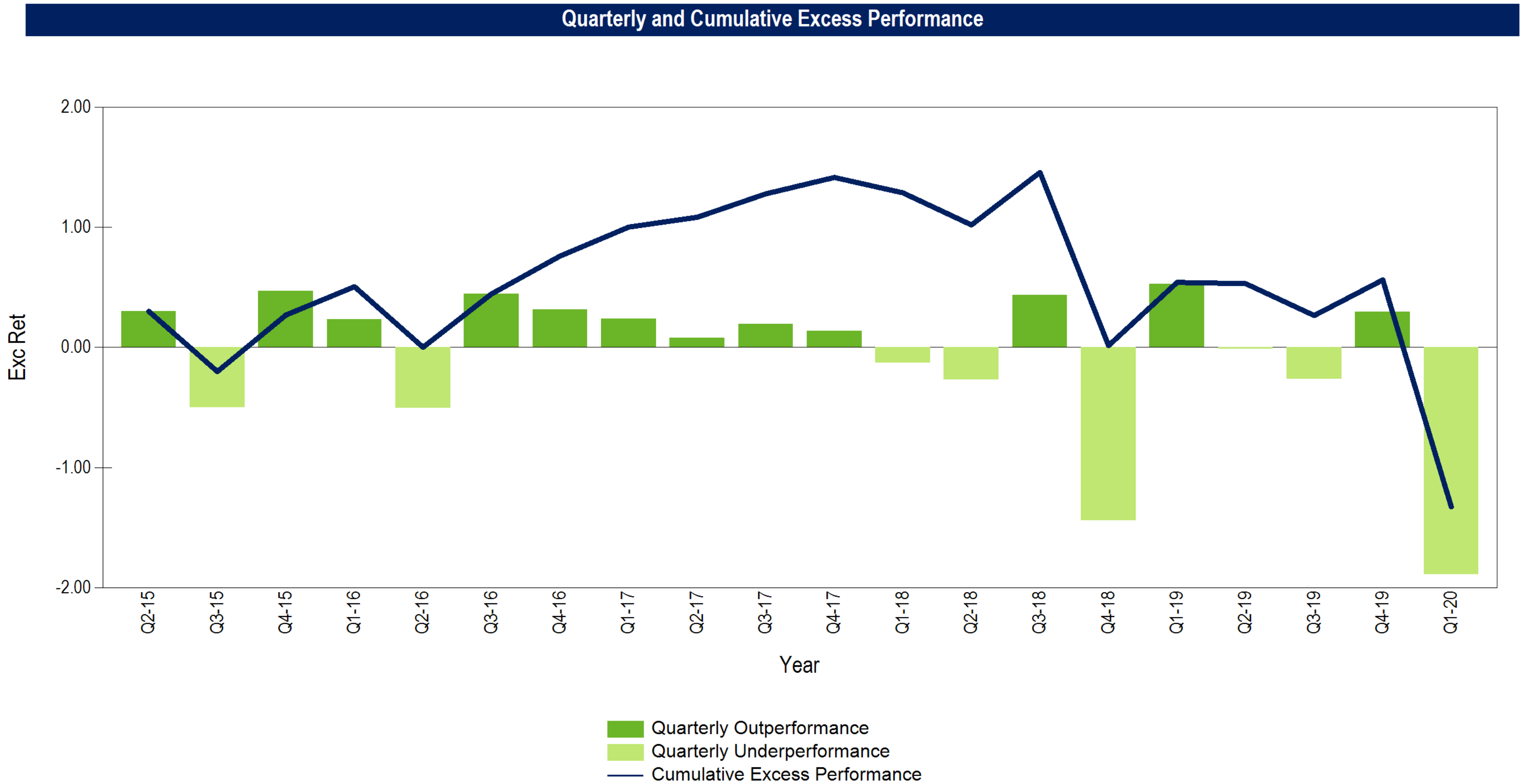
5 Year Style Map





Los Angeles City Employees' Retirement System

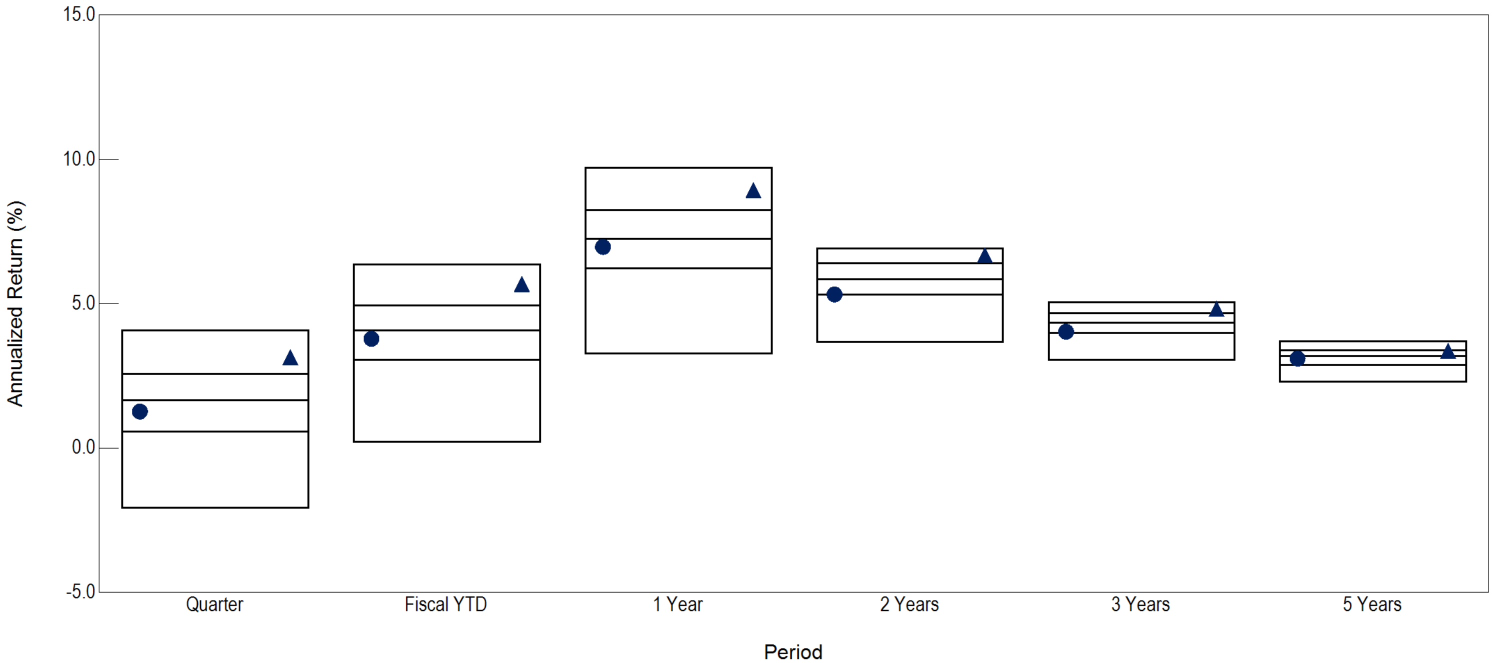
LM CAPITAL



Los Angeles City Employees' Retirement System

LM CAPITAL

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

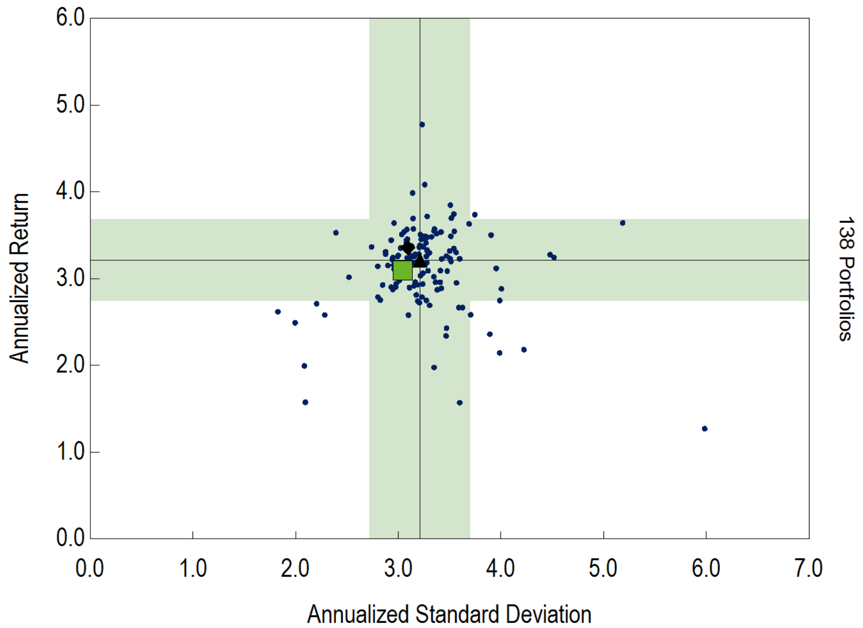


Return (Rank)	Quarter		Fiscal YTD		1 Year		2 Years		3 Years		5 Years	
5th Percentile	4.07		6.35		9.72		6.92		5.05		3.70	
25th Percentile	2.58		4.97		8.27		6.43		4.69		3.41	
Median	1.68		4.09		7.28		5.86		4.36		3.22	
75th Percentile	0.58		3.07		6.26		5.34		4.00		2.91	
95th Percentile	-2.06		0.23		3.29		3.69		3.08		2.32	
# of Portfolios	145		144		144		141		141		138	
● LM Capital	1.26	(62)	3.78	(60)	6.97	(59)	5.32	(77)	4.03	(74)	3.10	(62)
▲ Core Fixed Income Blend	3.15	(15)	5.68	(12)	8.93	(13)	6.68	(15)	4.82	(15)	3.36	(30)

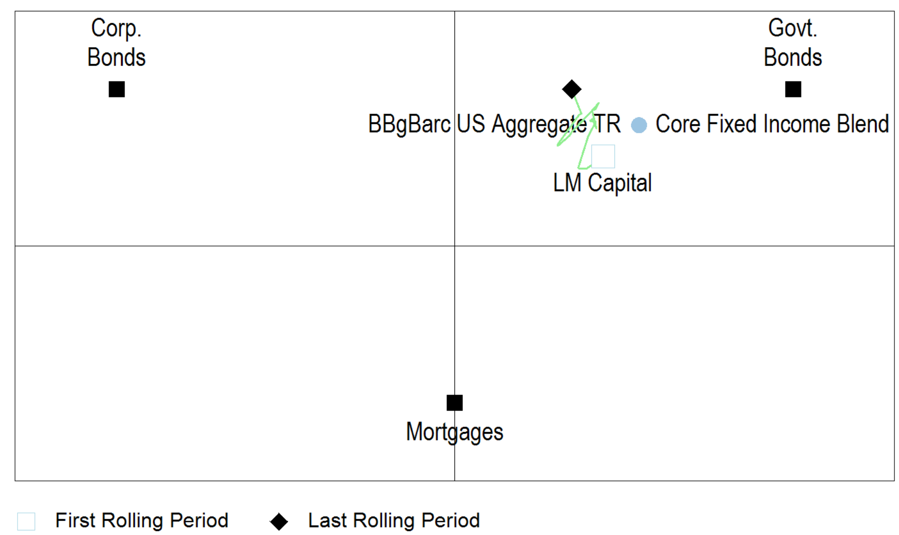
Los Angeles City Employees' Retirement System

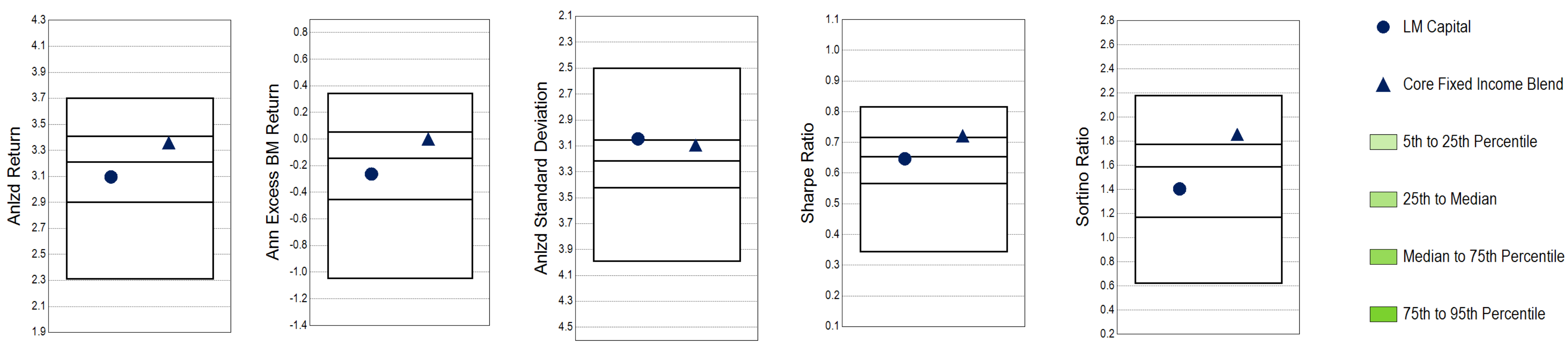
LM CAPITAL

5 Year Risk Return



5 Year Style Map

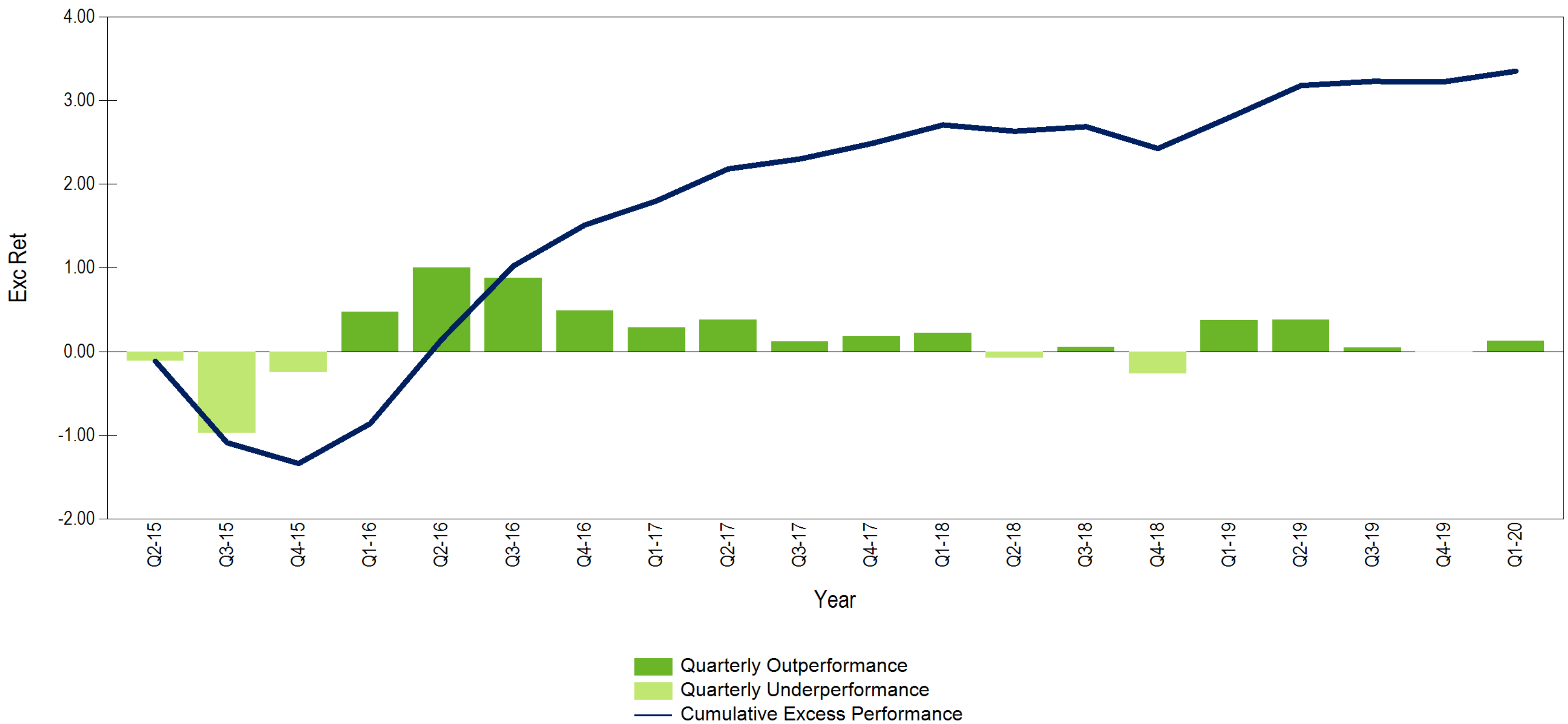




Los Angeles City Employees' Retirement System

LOOMIS SAYLES

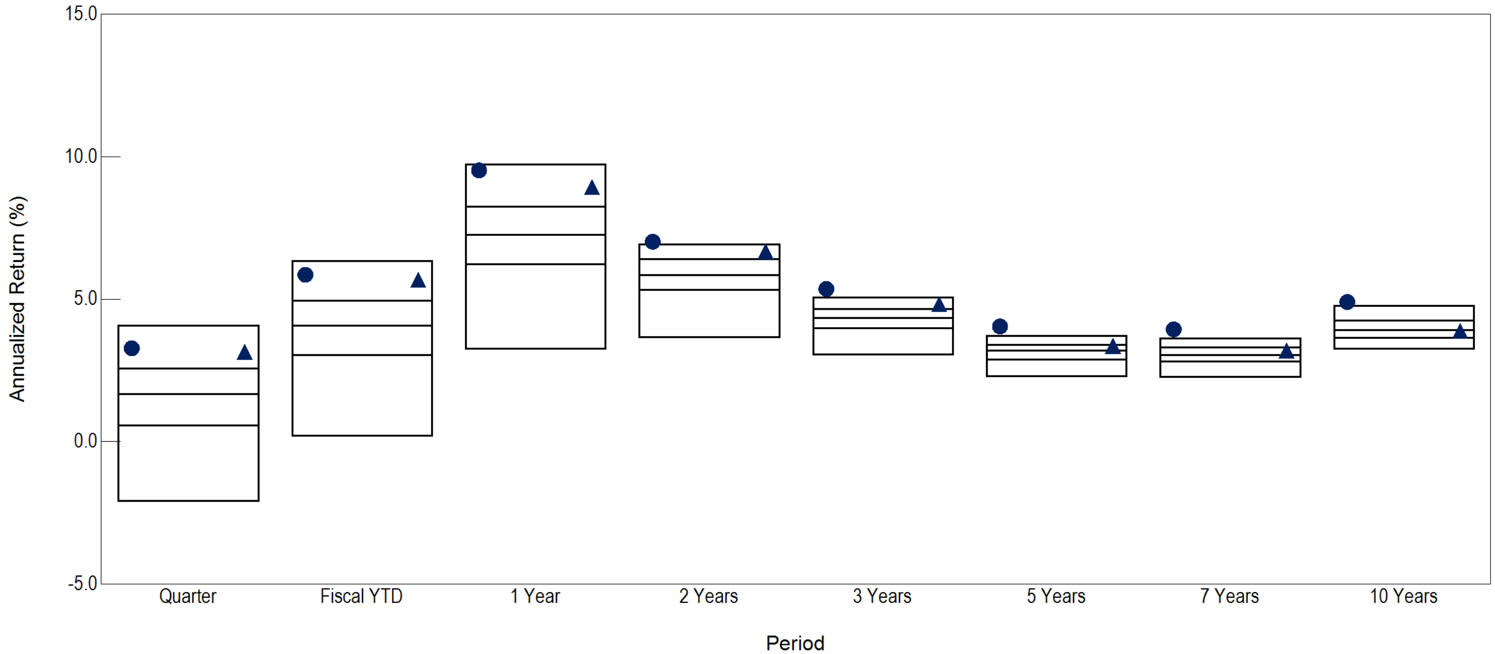
Quarterly and Cumulative Excess Performance



Los Angeles City Employees' Retirement System

LOOMIS SAYLES

Loomis Sayles vs. eV US Core Fixed Inc Net

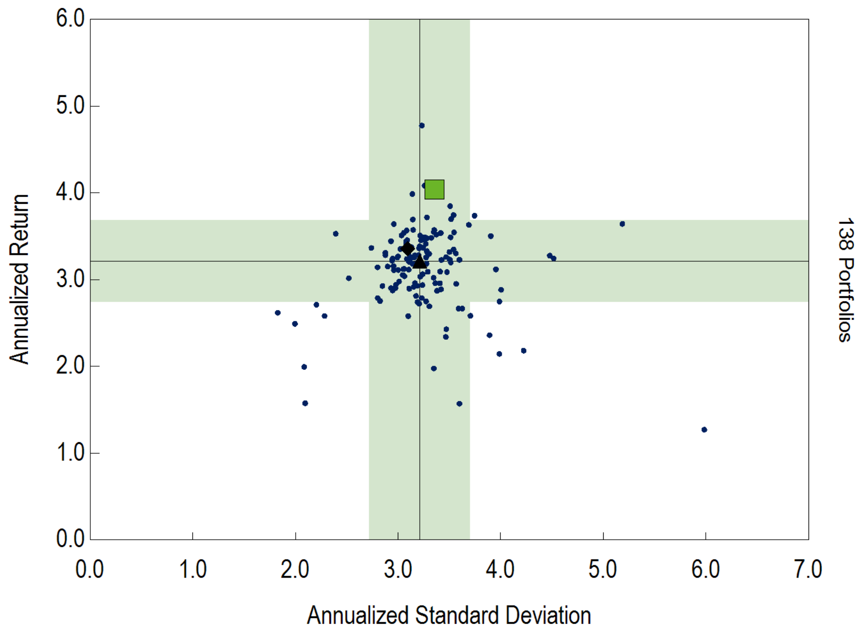


	Return (Rank)															
5th Percentile	4.07		6.35		9.72		6.92		5.05		3.70		3.62		4.76	
25th Percentile	2.58		4.97		8.27		6.43		4.69		3.41		3.33		4.27	
Median	1.68		4.09		7.28		5.86		4.36		3.22		3.06		3.94	
75th Percentile	0.58		3.07		6.26		5.34		4.00		2.91		2.83		3.67	
95th Percentile	-2.06		0.23		3.29		3.69		3.08		2.32		2.30		3.27	
# of Portfolios	145		144		144		141		141		138		136		125	
● Loomis Sayles	3.27	(13)	5.85	(10)	9.52	(6)	7.01	(5)	5.36	(3)	4.04	(2)	3.94	(1)	4.90	(2)
▲ BC US Agg LACERS custom	3.15	(15)	5.68	(12)	8.93	(13)	6.68	(15)	4.82	(15)	3.36	(30)	3.19	(39)	3.88	(56)

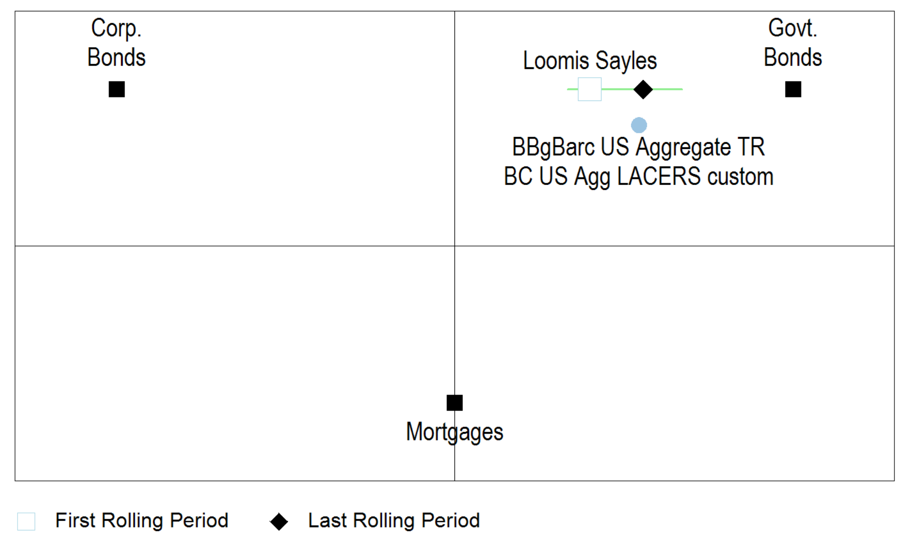
Los Angeles City Employees' Retirement System

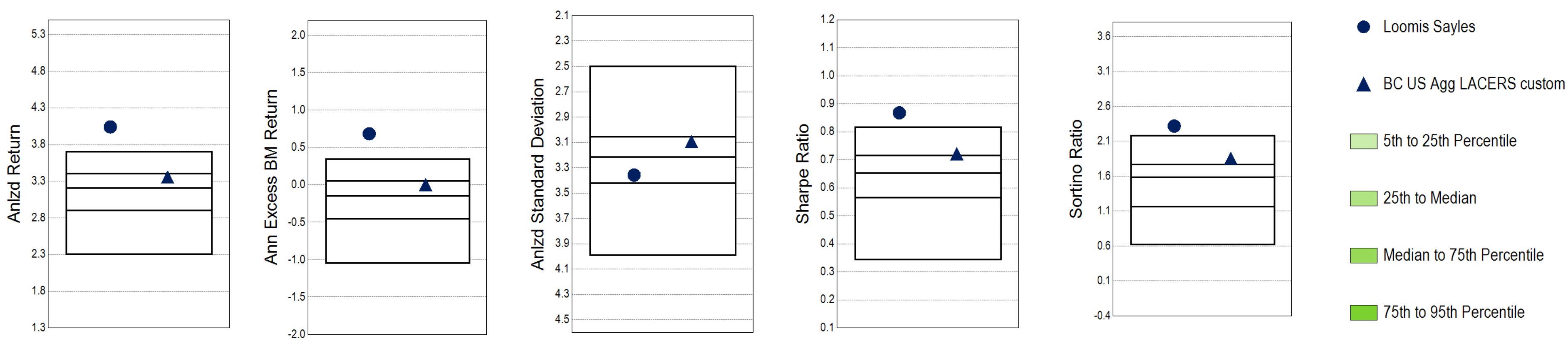
LOOMIS SAYLES

5 Year Risk Return



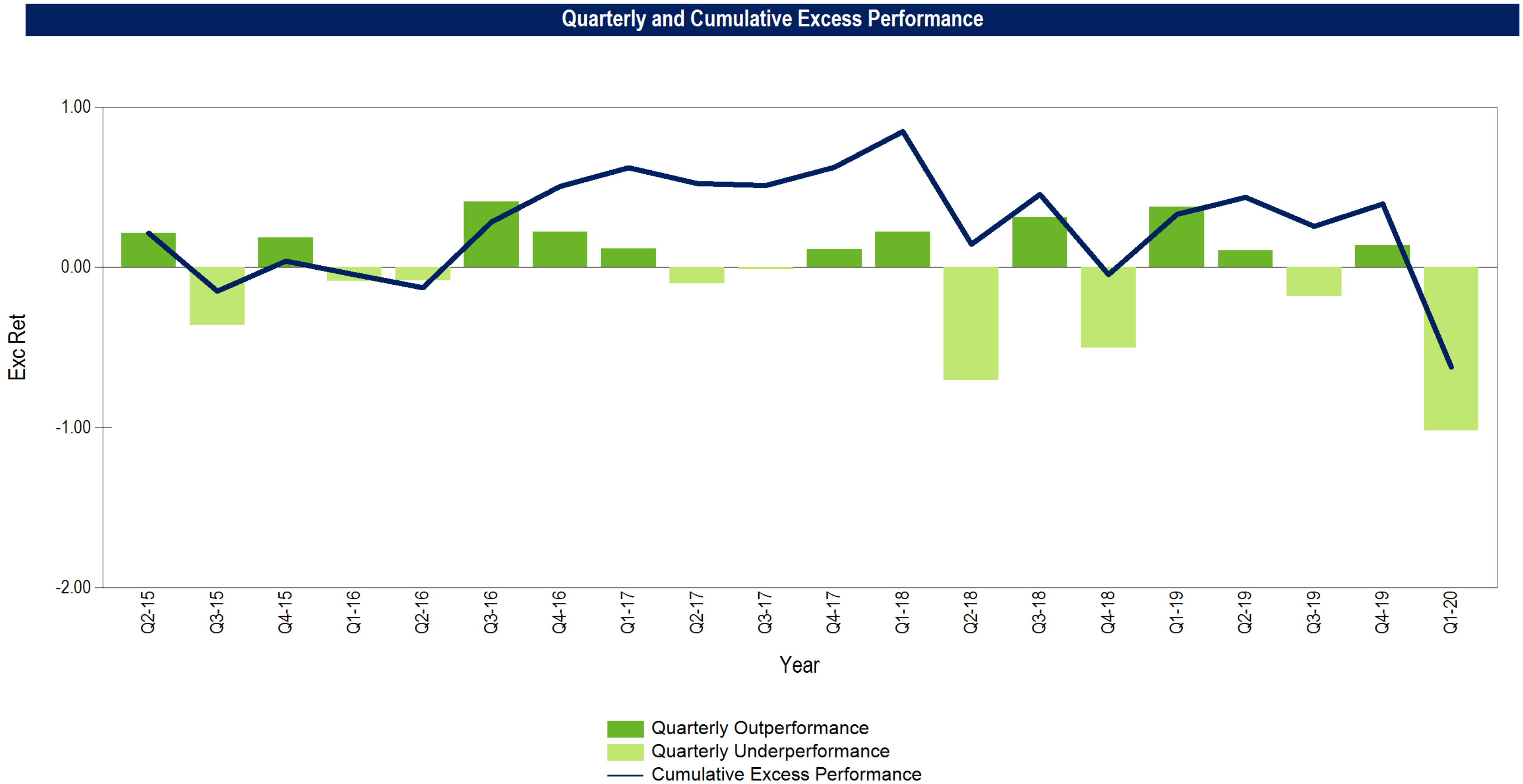
5 Year Style Map





Los Angeles City Employees' Retirement System

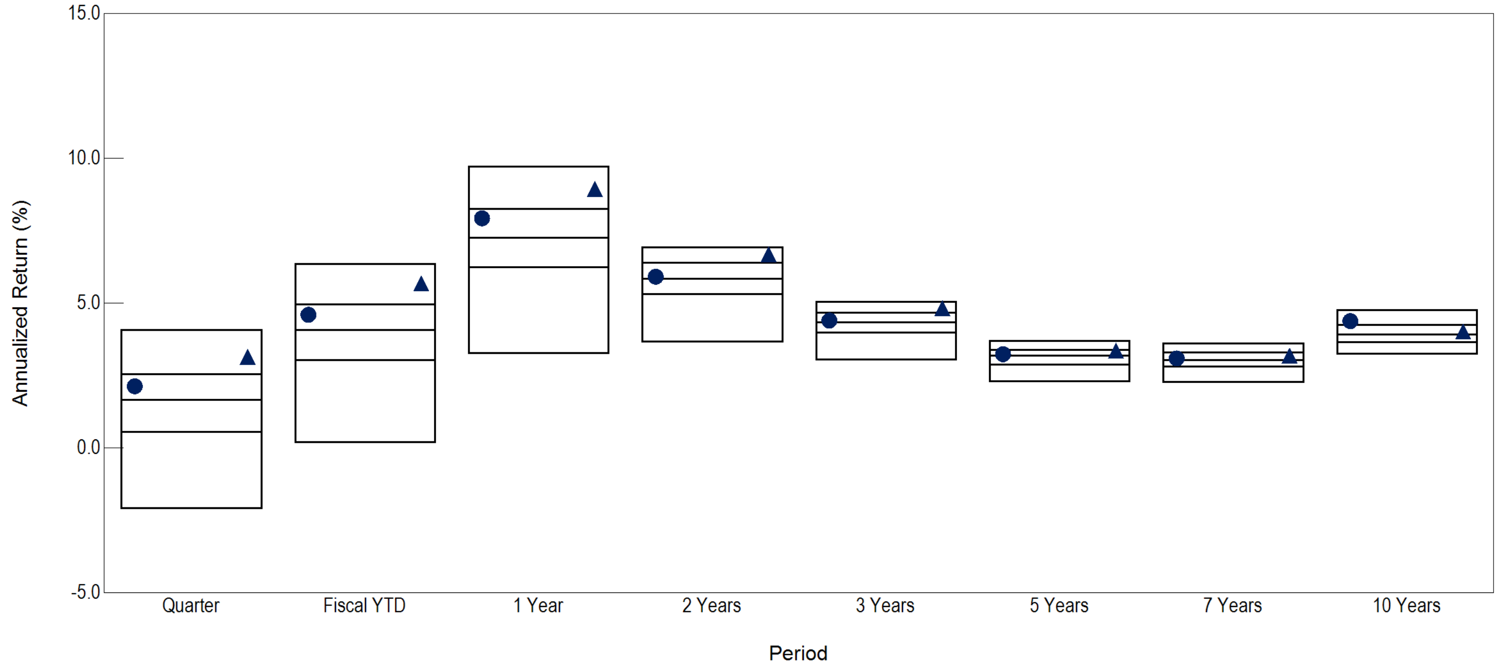
NEUBERGER BERMAN



Los Angeles City Employees' Retirement System

NEUBERGER BERMAN

Neuberger Berman vs. eV US Core Fixed Inc Net

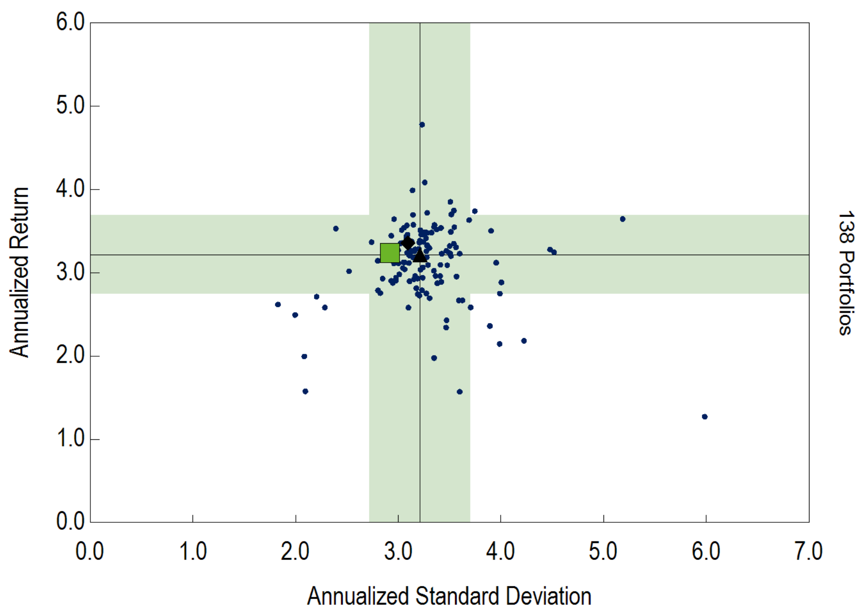


Return (Rank)	Quarter		Fiscal YTD		1 Year		2 Years		3 Years		5 Years		7 Years		10 Years	
5th Percentile	4.07		6.35		9.72		6.92		5.05		3.70		3.62		4.76	
25th Percentile	2.58		4.97		8.27		6.43		4.69		3.41		3.33		4.27	
Median	1.68		4.09		7.28		5.86		4.36		3.22		3.06		3.94	
75th Percentile	0.58		3.07		6.26		5.34		4.00		2.91		2.83		3.67	
95th Percentile	-2.06		0.23		3.29		3.69		3.08		2.32		2.30		3.27	
# of Portfolios	145		144		144		141		141		138		136		125	
● Neuberger Berman	2.13	(39)	4.60	(35)	7.93	(33)	5.91	(46)	4.40	(47)	3.24	(47)	3.09	(49)	4.38	(19)
▲ Core Fixed Income Blend	3.15	(15)	5.68	(12)	8.93	(13)	6.68	(15)	4.82	(15)	3.36	(30)	3.18	(40)	4.02	(47)

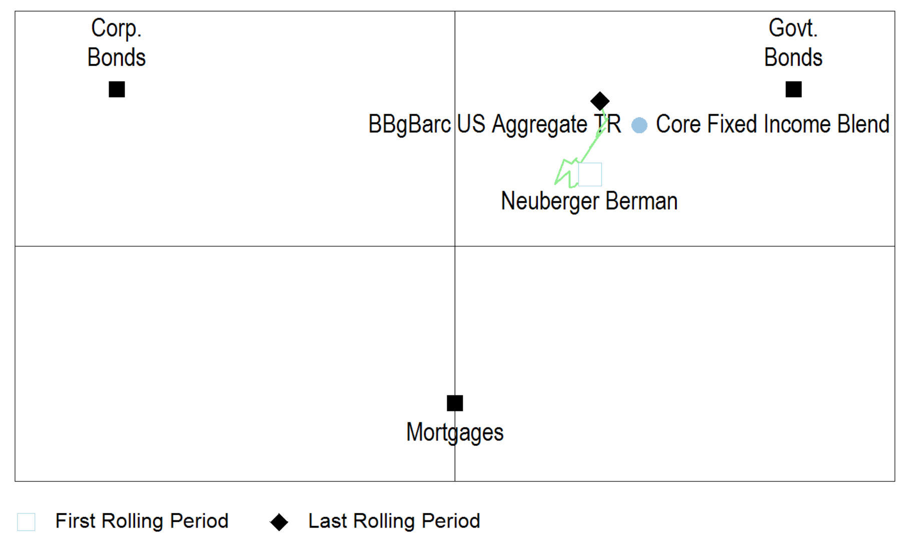
Los Angeles City Employees' Retirement System

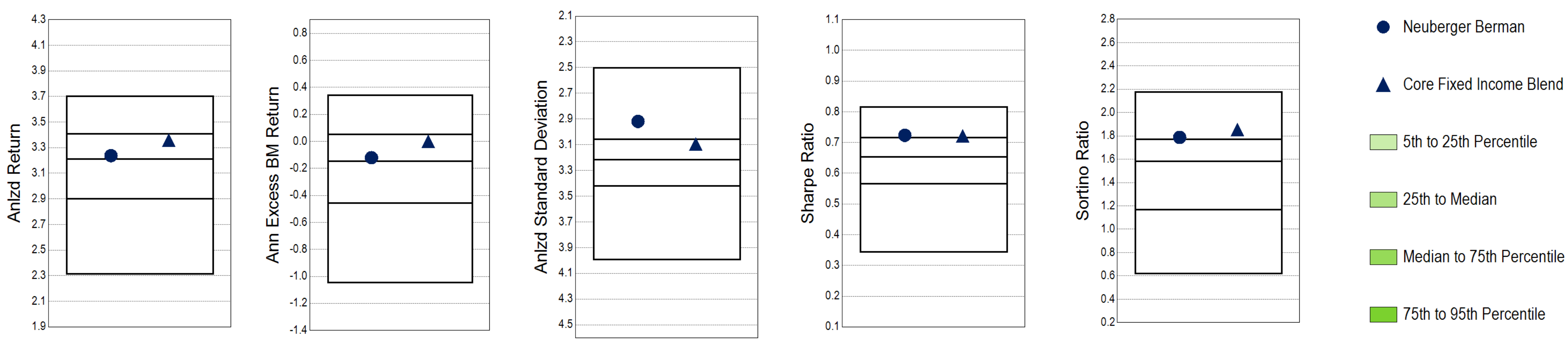
NEUBERGER BERMAN

5 Year Risk Return



5 Year Style Map

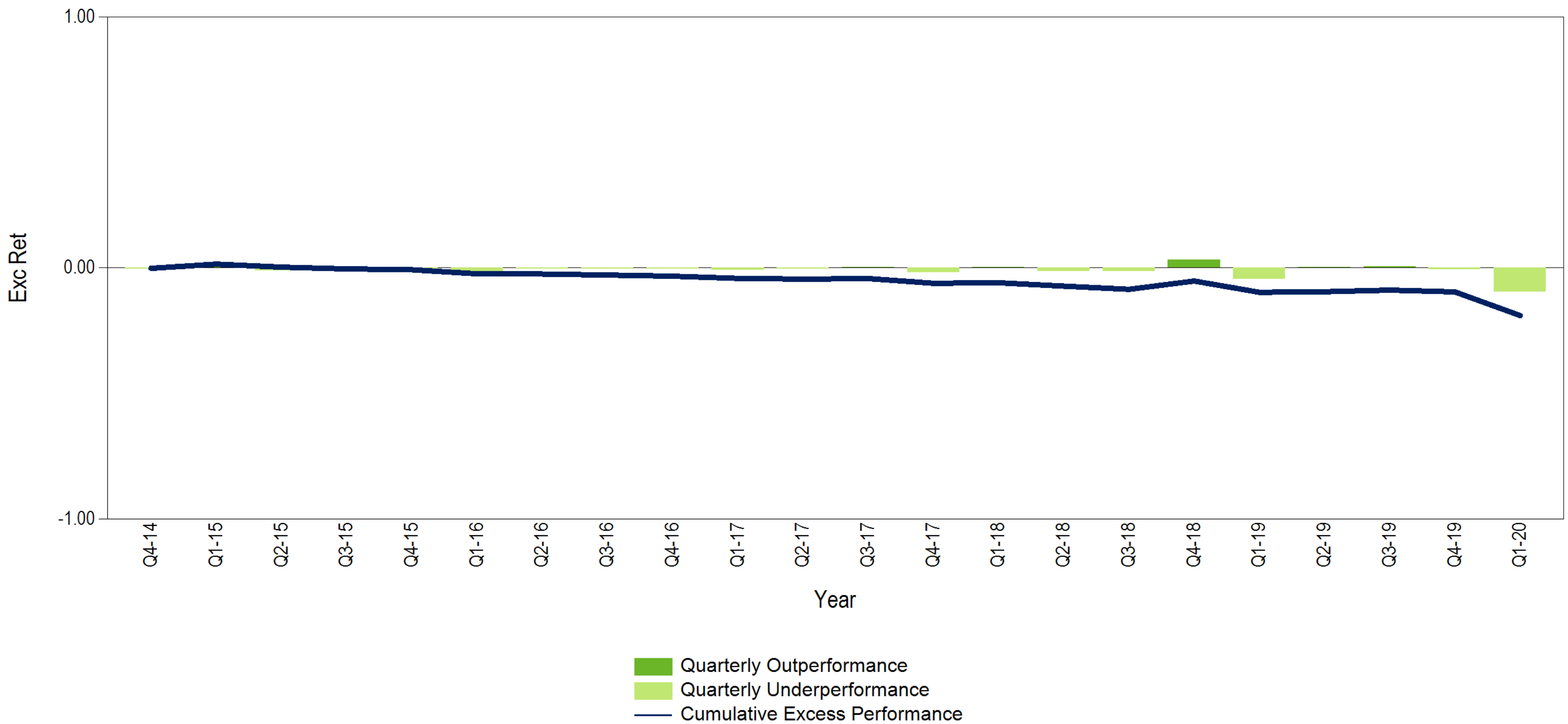




Los Angeles City Employees' Retirement System

SSGA U.S. AGGREGATE BOND

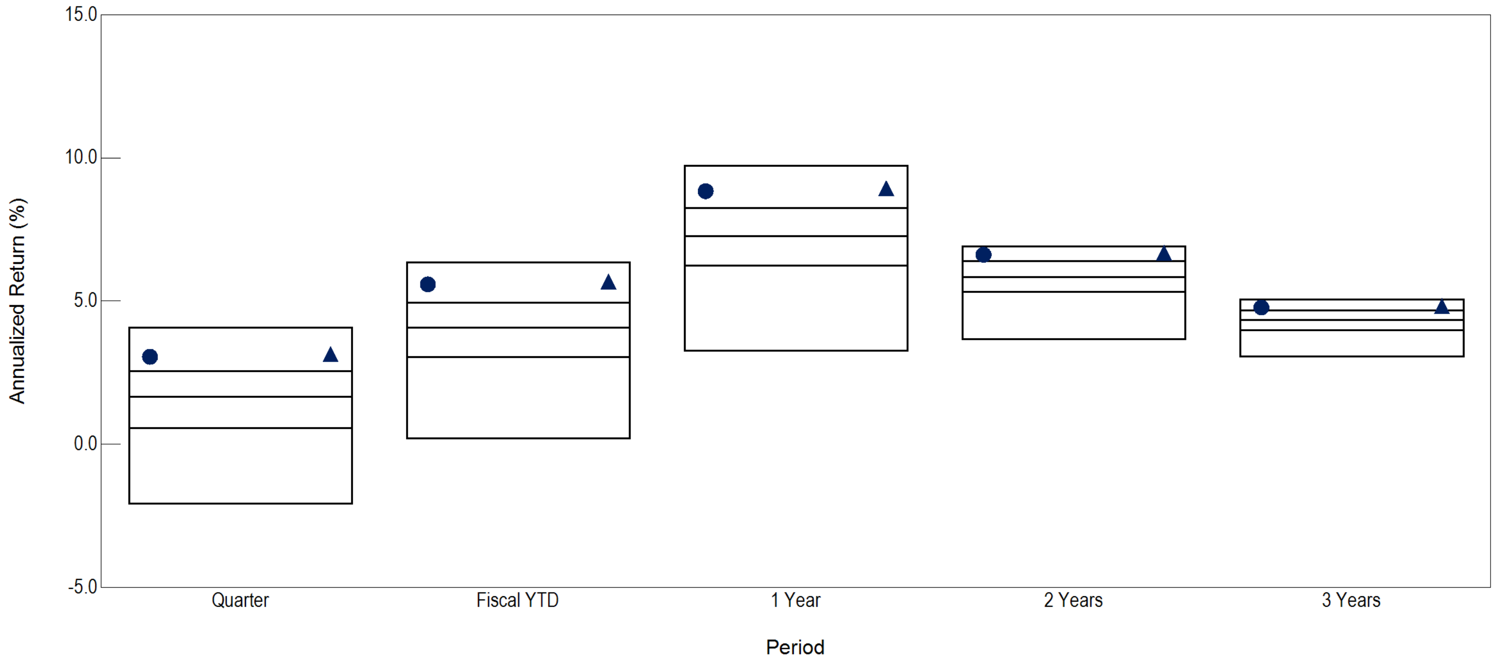
Quarterly and Cumulative Excess Performance



Los Angeles City Employees' Retirement System

SSGA U.S. AGGREGATE BOND

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

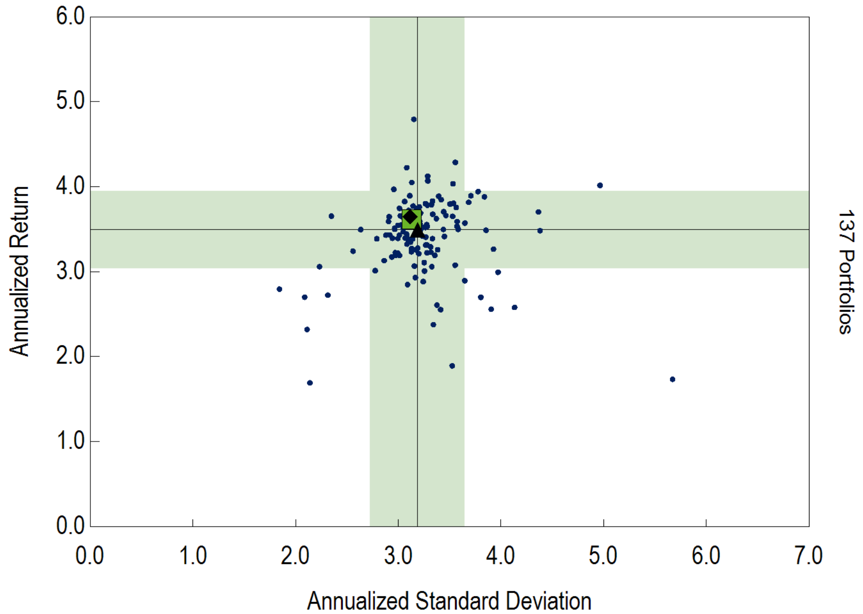


	Return (Rank)									
5th Percentile	4.07		6.35		9.72		6.92		5.05	
25th Percentile	2.58		4.97		8.27		6.43		4.69	
Median	1.68		4.09		7.28		5.86		4.36	
75th Percentile	0.58		3.07		6.26		5.34		4.00	
95th Percentile	-2.06		0.23		3.29		3.69		3.08	
# of Portfolios	145		144		144		141		141	
● SSgA U.S. Aggregate Bond	3.05	(16)	5.58	(13)	8.84	(16)	6.62	(16)	4.77	(17)
▲ BBgBarc US Aggregate TR	3.15	(15)	5.68	(12)	8.93	(13)	6.68	(15)	4.82	(15)

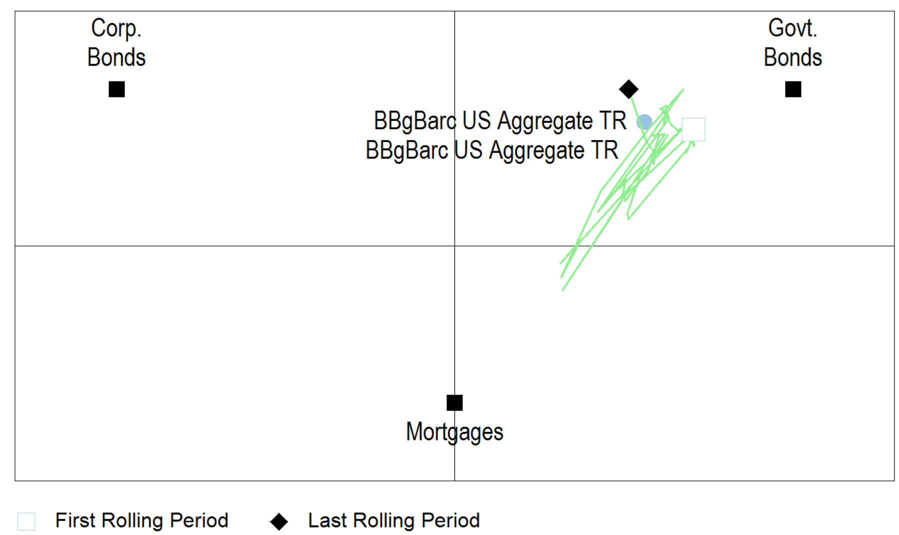
Los Angeles City Employees' Retirement System

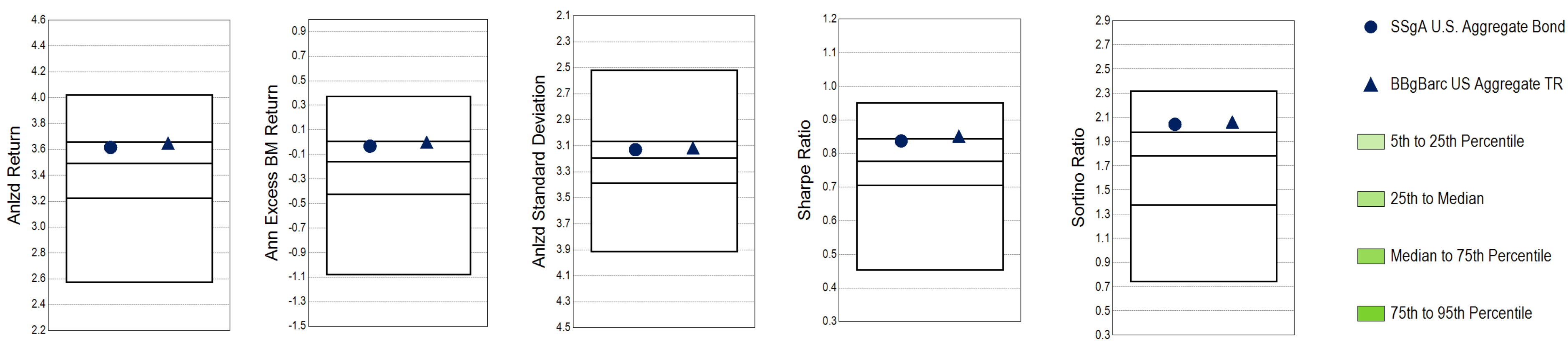
SSGA U.S. AGGREGATE BOND

Since Inception Risk Return



Since Inception Style Map





CREDIT OPPORTUNITIES MANAGER PERFORMANCE

NEPC, LLC

Los Angeles City Employees' Retirement System

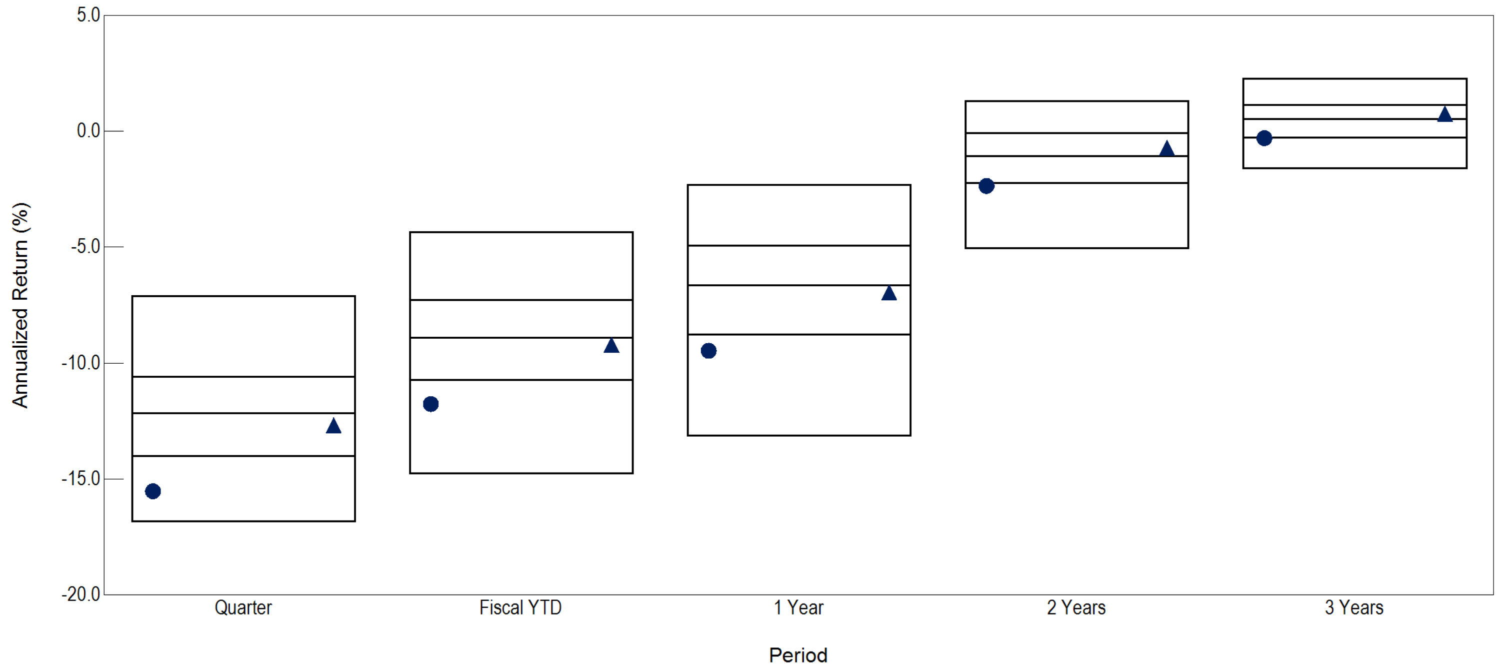
AEGON USA

Quarterly and Cumulative Excess Performance

Los Angeles City Employees' Retirement System

AEGON USA

AEGON USA vs. eV US High Yield Fixed Inc Net

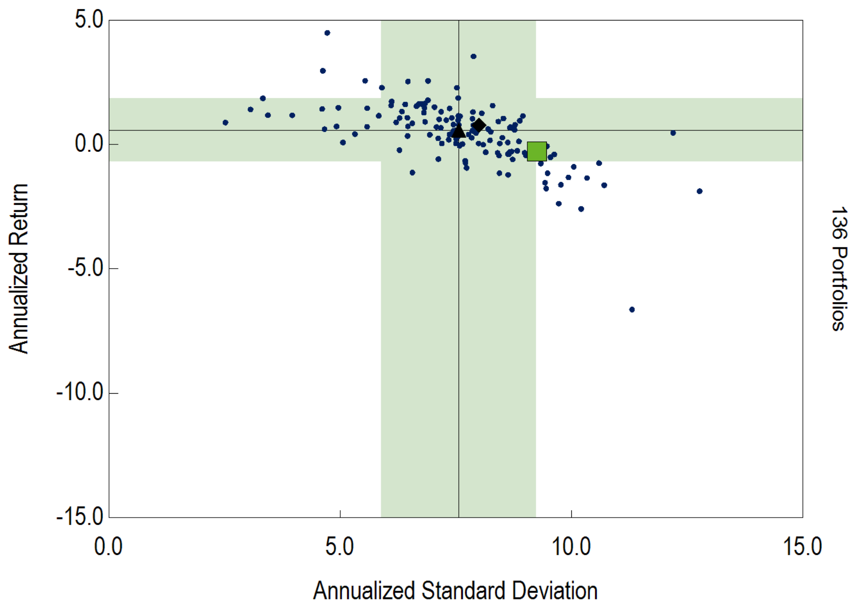


Return (Rank)	Quarter		Fiscal YTD		1 Year		2 Years		3 Years	
5th Percentile	-7.12		-4.36		-2.30		1.31		2.28	
25th Percentile	-10.57		-7.26		-4.89		-0.06		1.15	
Median	-12.13		-8.89		-6.62		-1.03		0.57	
75th Percentile	-13.98		-10.69		-8.74		-2.21		-0.24	
95th Percentile	-16.81		-14.72		-13.11		-5.01		-1.56	
# of Portfolios	144		142		142		140		136	
● AEGON USA	-15.53	(88)	-11.77	(84)	-9.47	(82)	-2.36	(78)	-0.29	(77)
▲ BBgBarc US High Yield 2% Issuer Cap TR	-12.68	(57)	-9.21	(57)	-6.94	(55)	-0.71	(43)	0.76	(41)

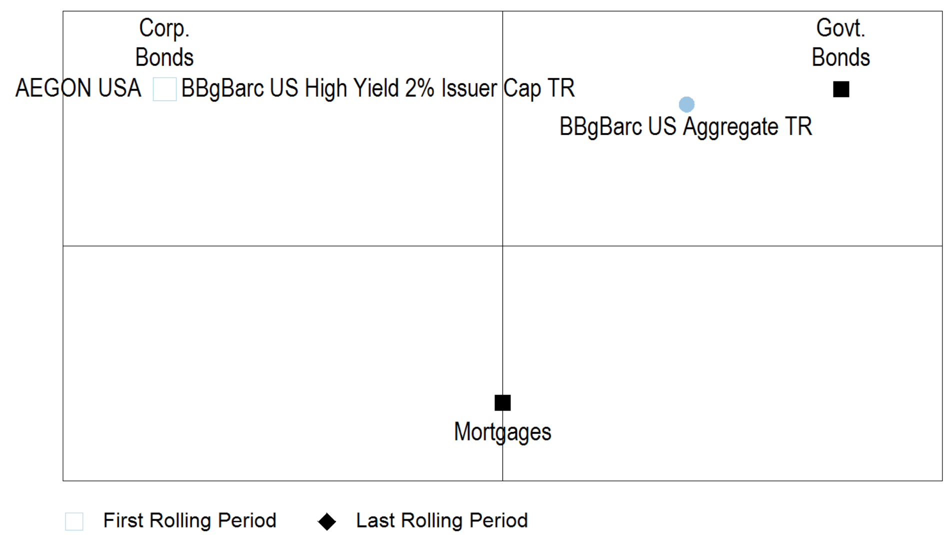
Los Angeles City Employees' Retirement System

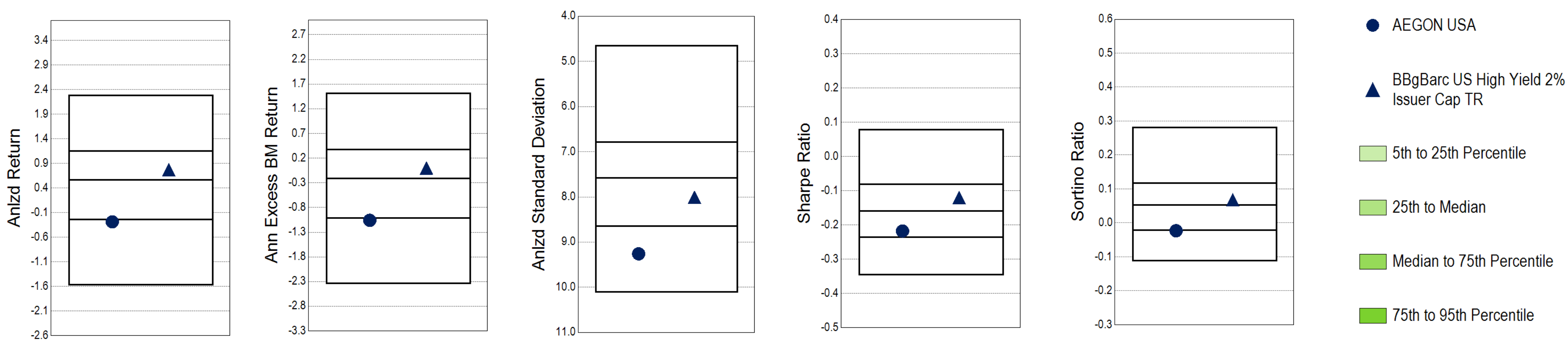
AEGON USA

3 Year Risk Return



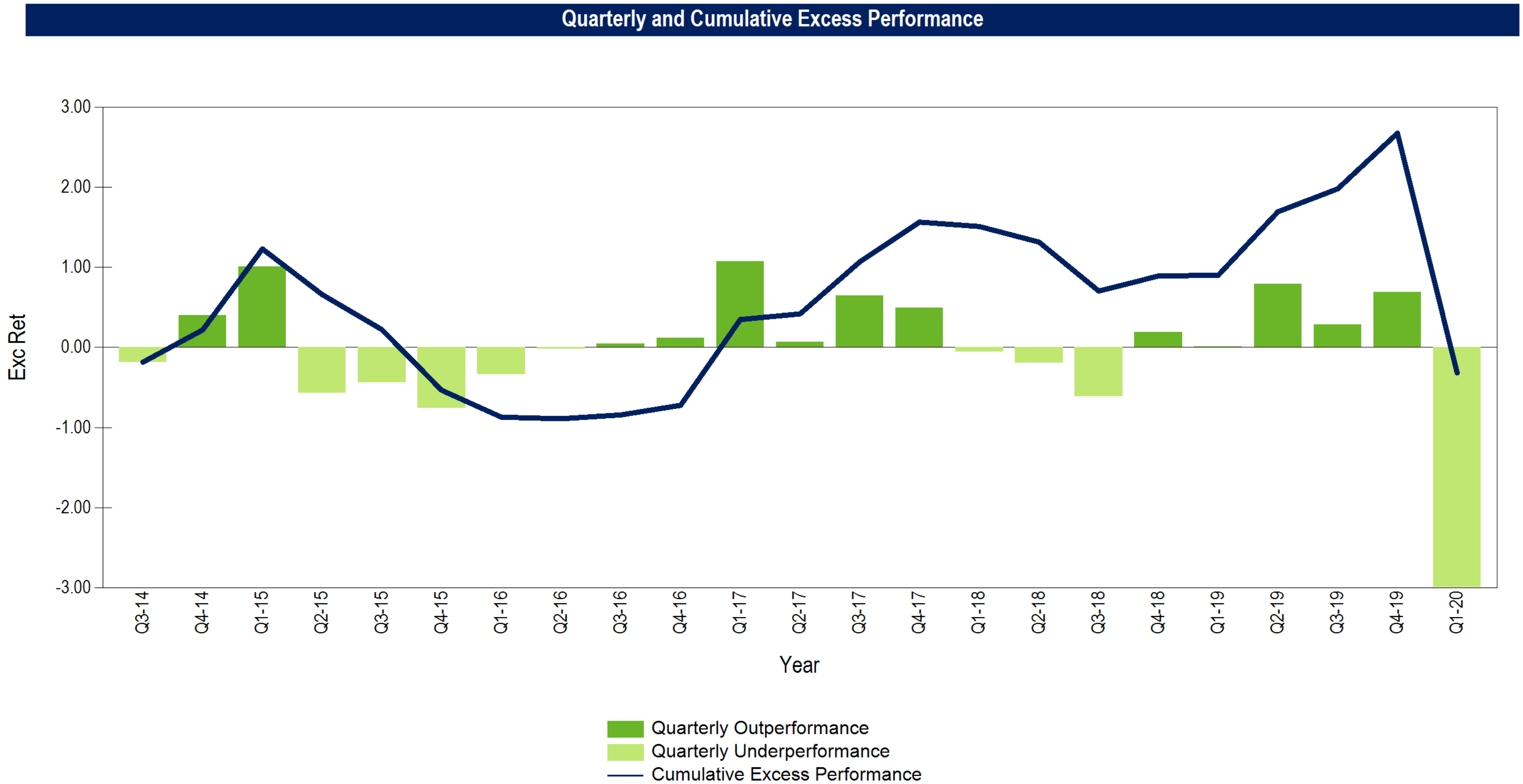
3 Year Style Map





Los Angeles City Employees' Retirement System

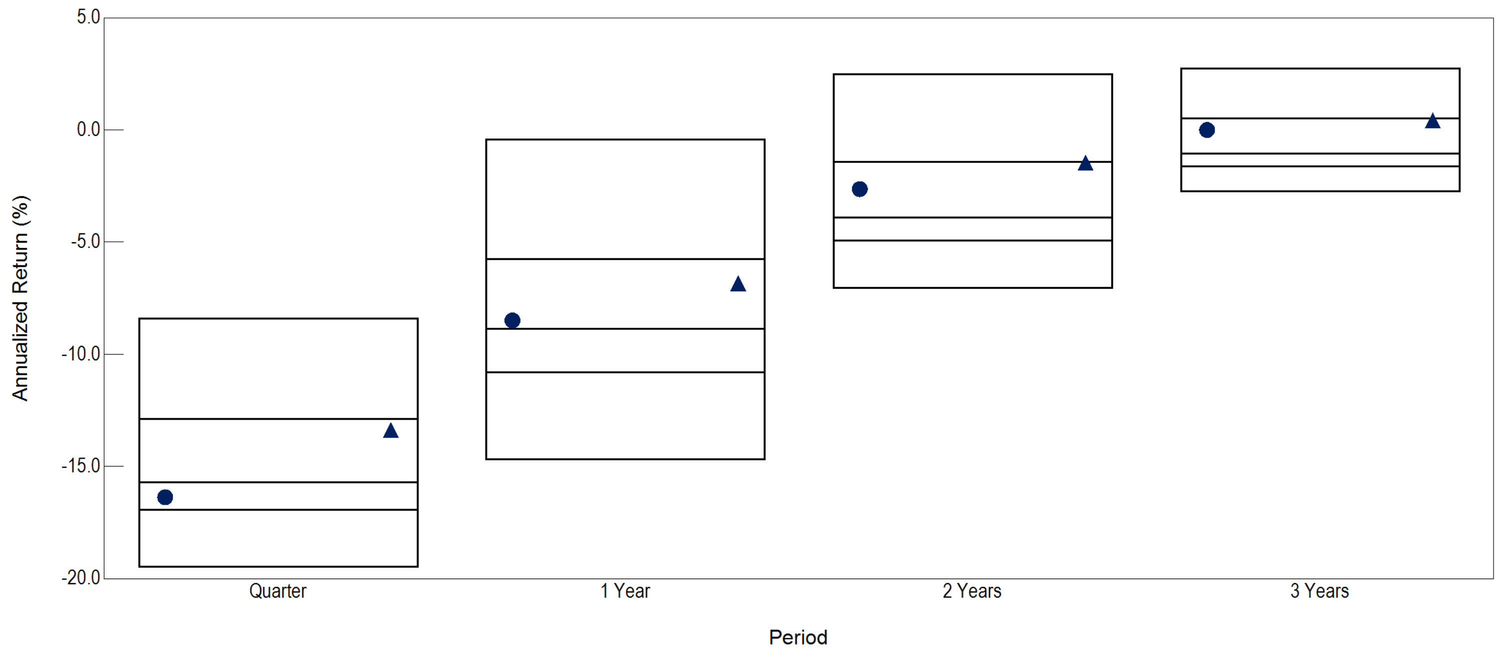
PRUDENTIAL EMERGING MARKETS



Los Angeles City Employees' Retirement System

PRUDENTIAL EMERGING MARKETS

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

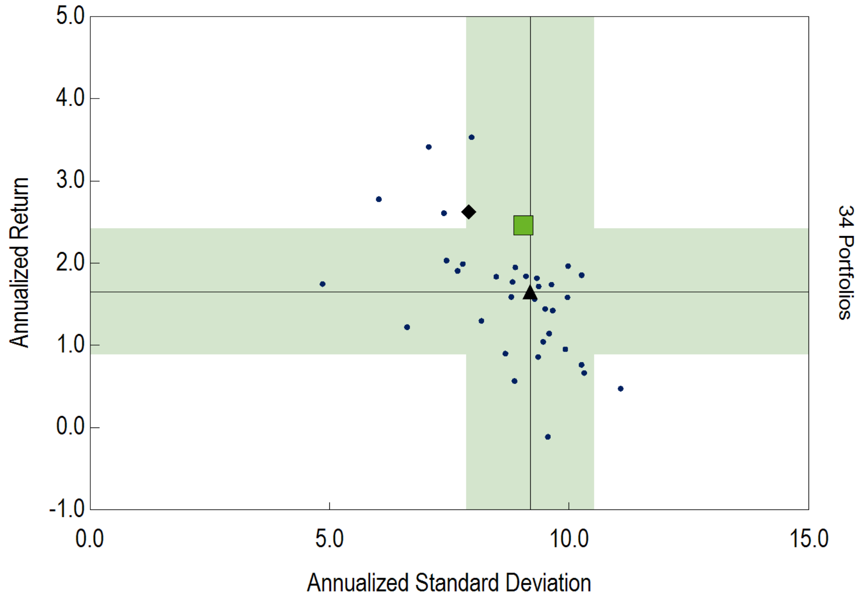


	Return (Rank)							
5th Percentile	-8.42		-0.42		2.48		2.72	
25th Percentile	-12.86		-5.72		-1.39		0.55	
Median	-15.67		-8.84		-3.87		-1.02	
75th Percentile	-16.91		-10.79		-4.90		-1.61	
95th Percentile	-19.45		-14.65		-7.02		-2.72	
# of Portfolios	42		42		39		38	
● Prudential Emerging Markets	-16.38	(67)	-8.50	(39)	-2.64	(34)	0.00	(32)
▲ JP Morgan EMBI Global Diversified	-13.38	(31)	-6.84	(30)	-1.47	(31)	0.42	(31)

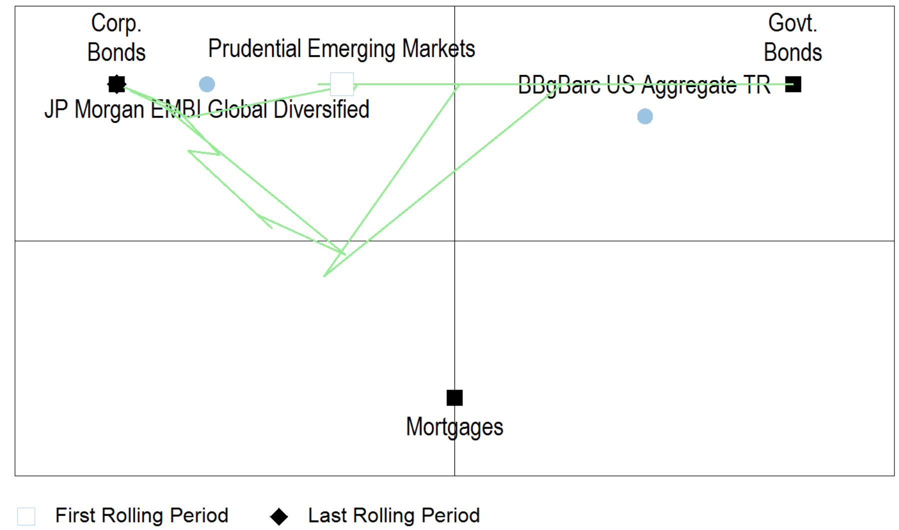
Los Angeles City Employees' Retirement System

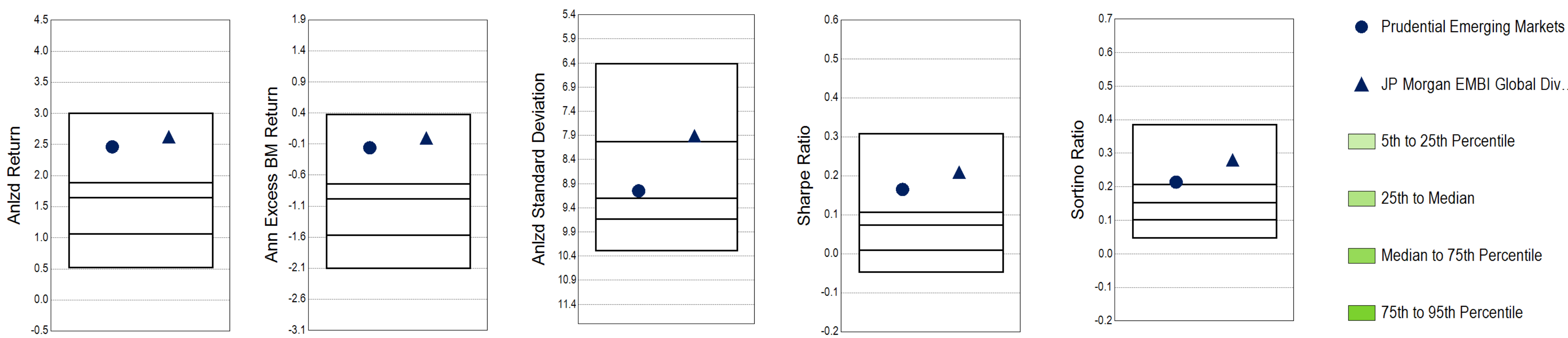
PRUDENTIAL EMERGING MARKETS

Since Inception Risk Return



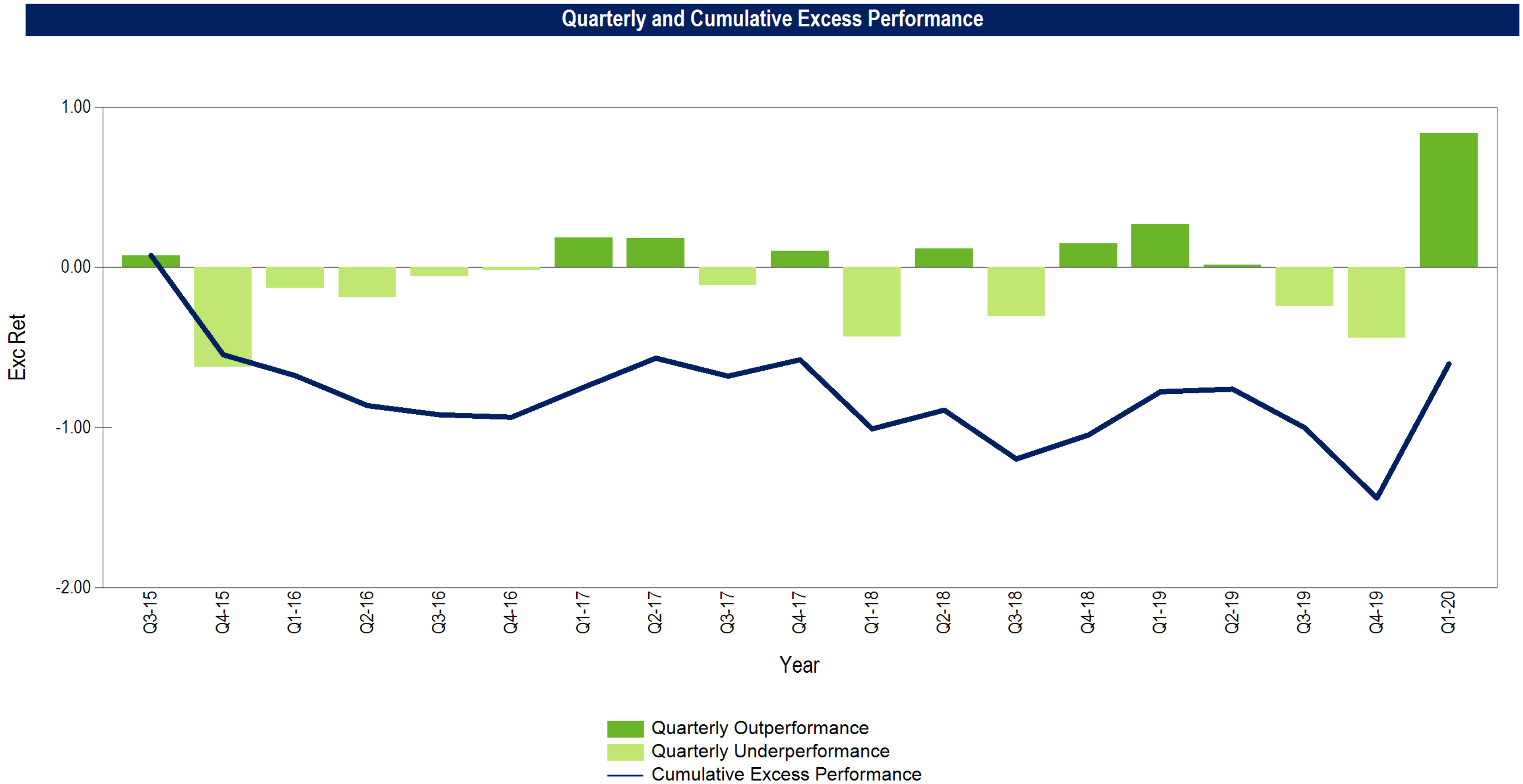
Since Inception Style Map





Los Angeles City Employees' Retirement System

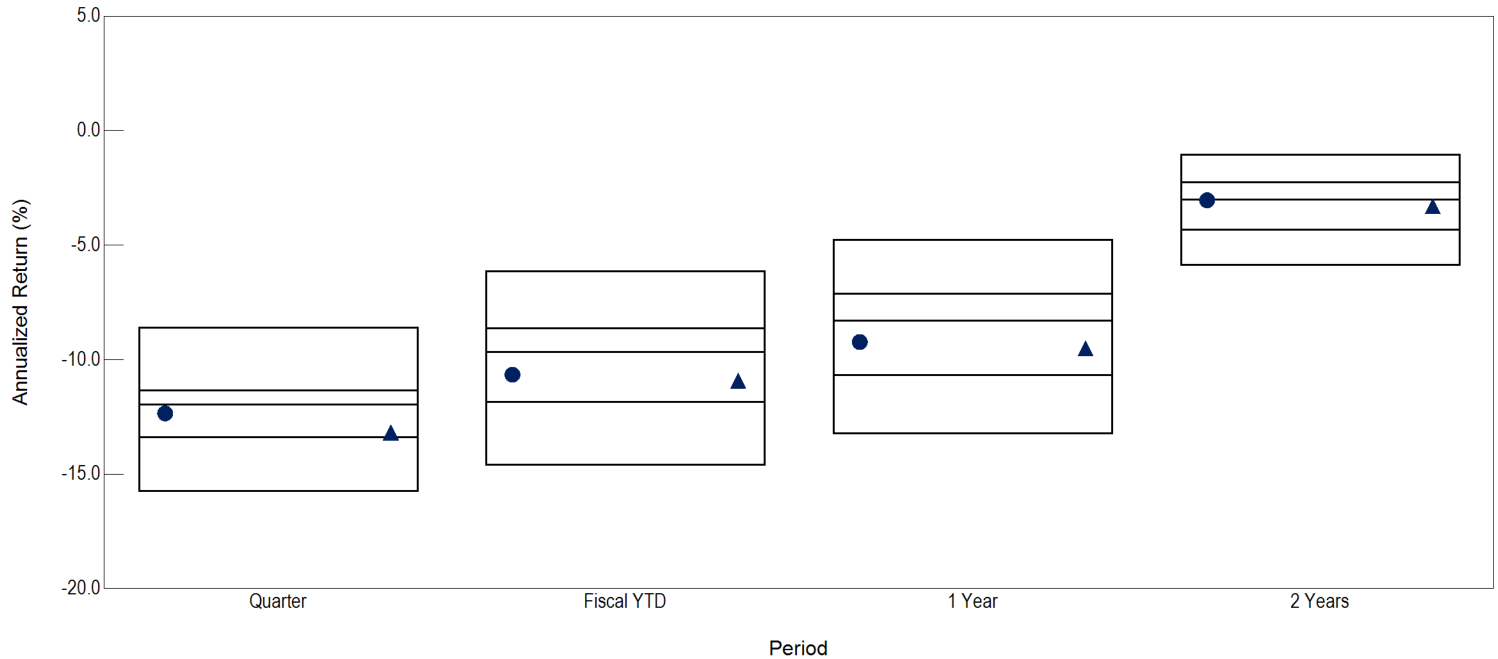
BAIN CAPITAL SENIOR LOAN FUND, LP



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

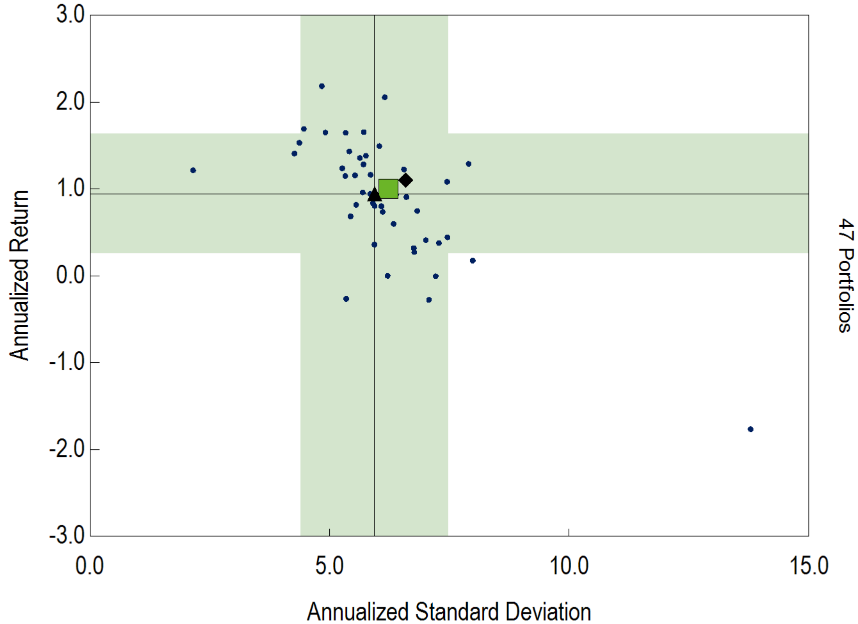


	Return (Rank)							
5th Percentile	-8.59		-6.16		-4.79		-1.06	
25th Percentile	-11.32		-8.60		-7.10		-2.23	
Median	-11.93		-9.64		-8.27		-2.98	
75th Percentile	-13.37		-11.82		-10.66		-4.30	
95th Percentile	-15.71		-14.58		-13.20		-5.84	
# of Portfolios	51		51		51		50	
● Bain Capital Senior Loan Fund, LP	-12.35	(60)	-10.66	(65)	-9.24	(62)	-3.05	(52)
▲ Credit Suisse Leveraged Loans	-13.19	(73)	-10.92	(67)	-9.51	(66)	-3.30	(57)

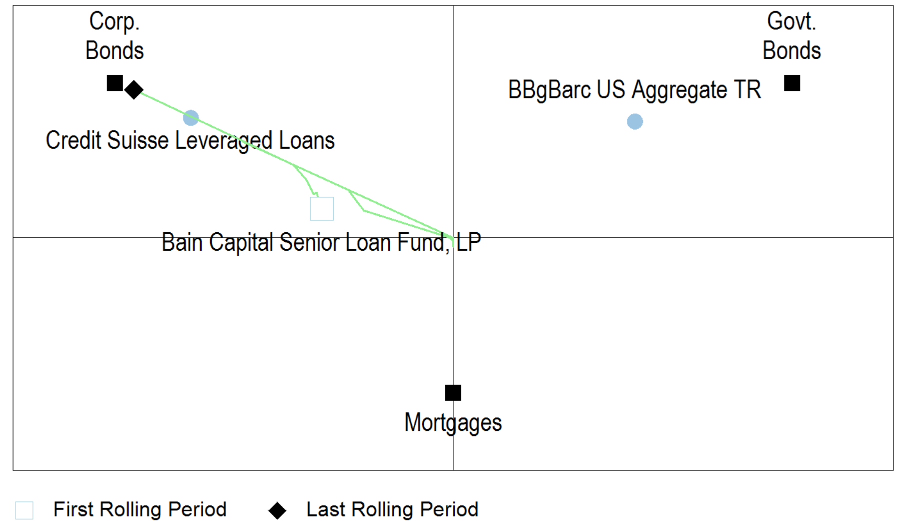
Los Angeles City Employees' Retirement System

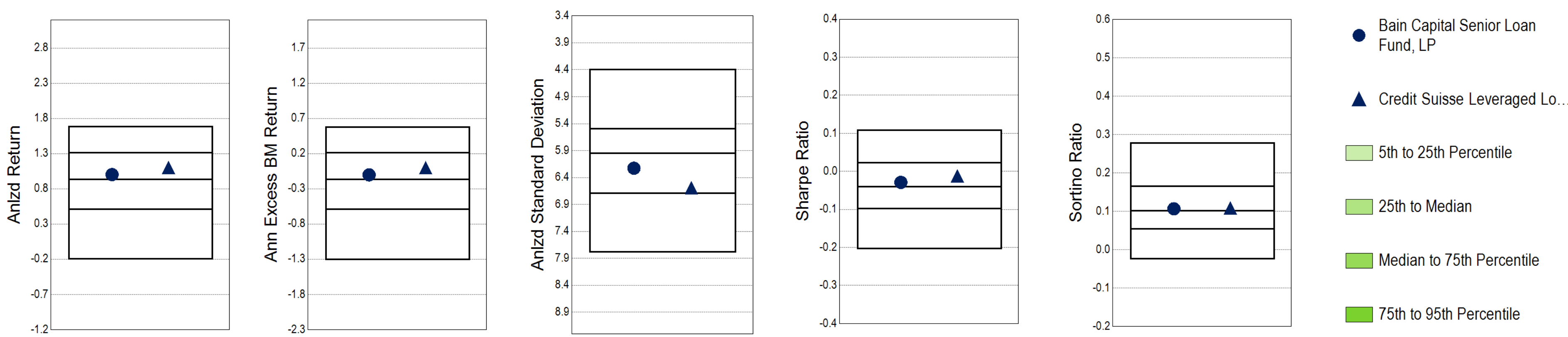
BAIN CAPITAL SENIOR LOAN FUND, LP

Since Inception Risk Return



Since Inception Style Map





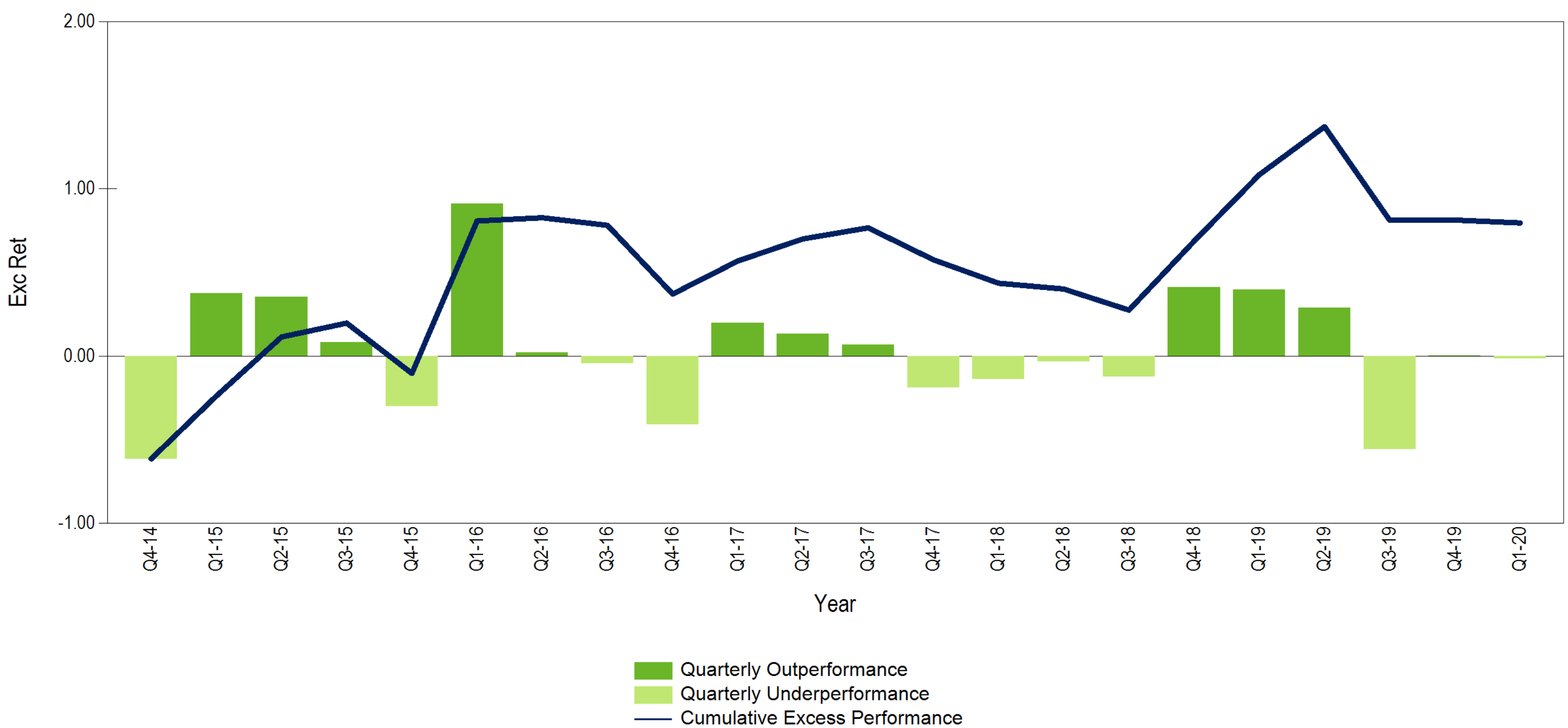
REAL ASSETS MANAGER PERFORMANCE

NEPC, LLC

Los Angeles City Employees' Retirement System

DFA US TIPS

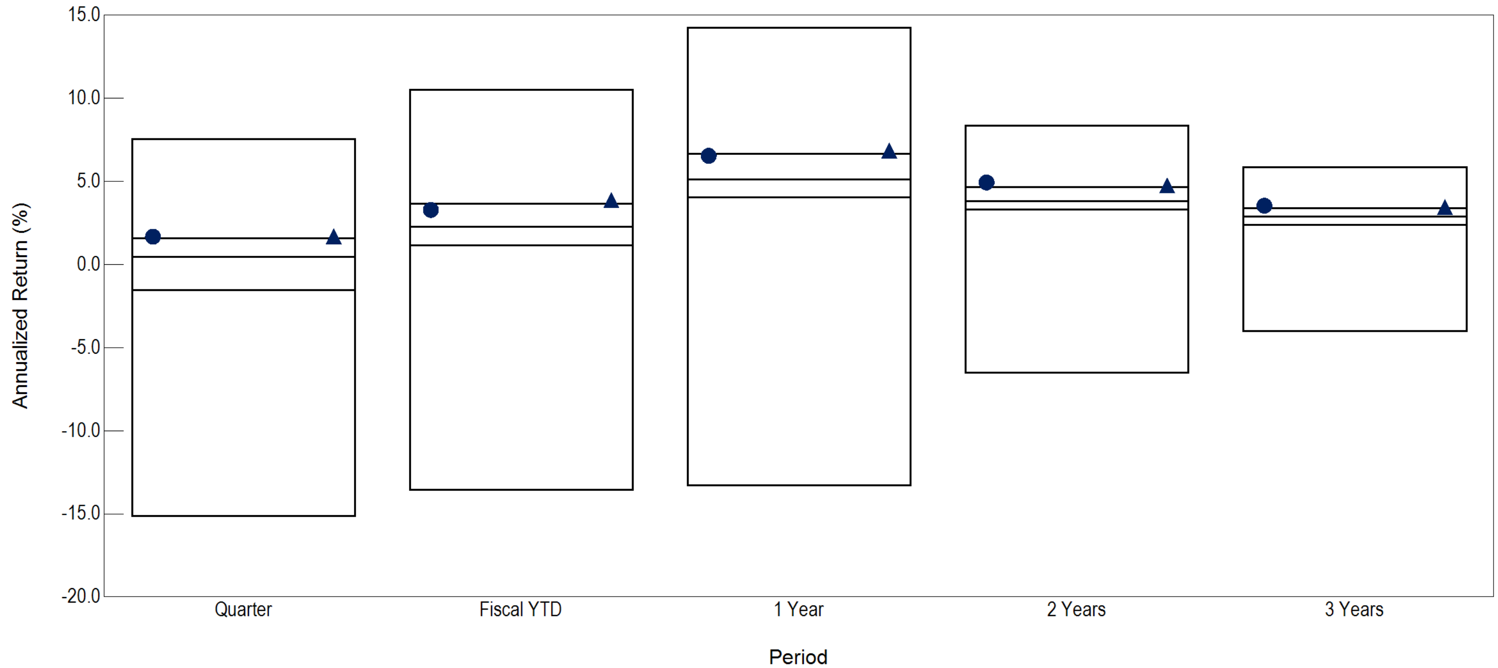
Quarterly and Cumulative Excess Performance



Los Angeles City Employees' Retirement System

DFA US TIPS

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

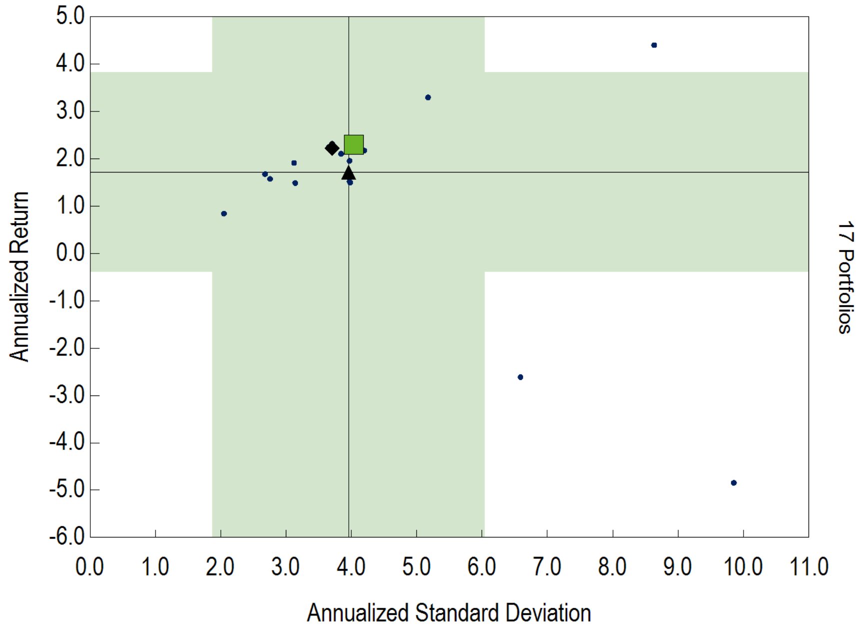


Return (Rank)	Quarter		Fiscal YTD		1 Year		2 Years		3 Years	
5th Percentile	7.54		10.51		14.25		8.35		5.86	
25th Percentile	1.63		3.68		6.69		4.69		3.43	
Median	0.51		2.31		5.14		3.85		2.93	
75th Percentile	-1.52		1.21		4.07		3.34		2.42	
95th Percentile	-15.11		-13.51		-13.26		-6.46		-3.96	
# of Portfolios	19		18		18		18		18	
● DFA US TIPS	1.68	(24)	3.28	(34)	6.54	(32)	4.94	(12)	3.54	(12)
▲ BBgBarc US TIPS TR	1.69	(23)	3.87	(20)	6.85	(19)	4.76	(16)	3.46	(15)

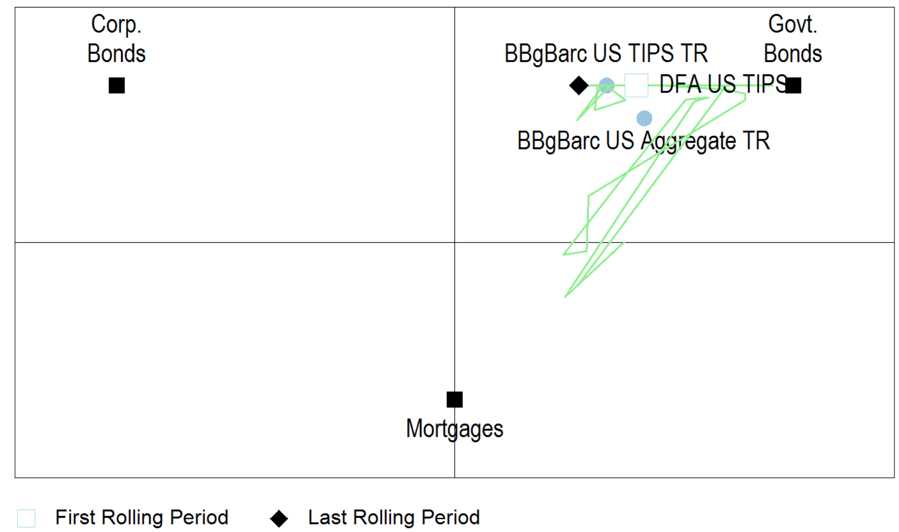
Los Angeles City Employees' Retirement System

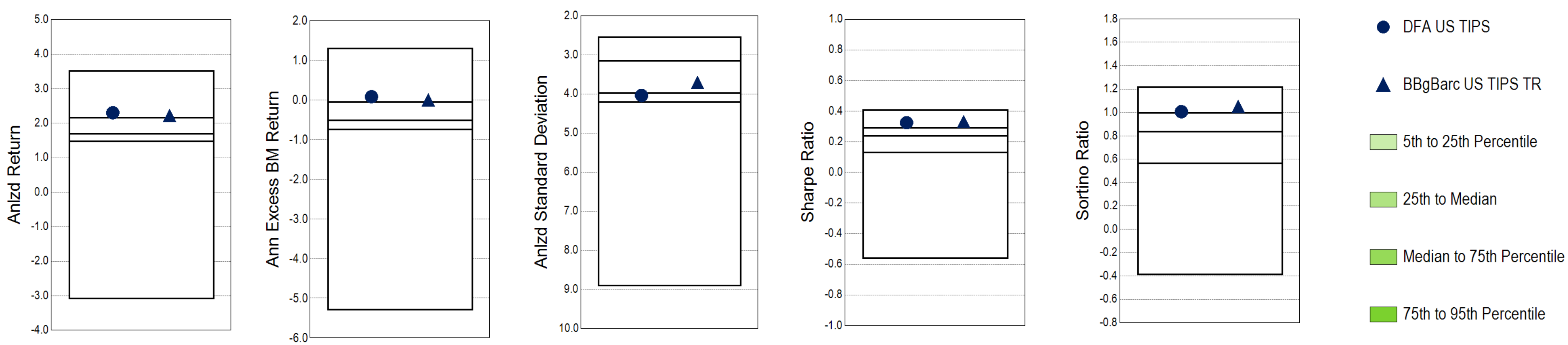
DFA US TIPS

Since Inception Risk Return



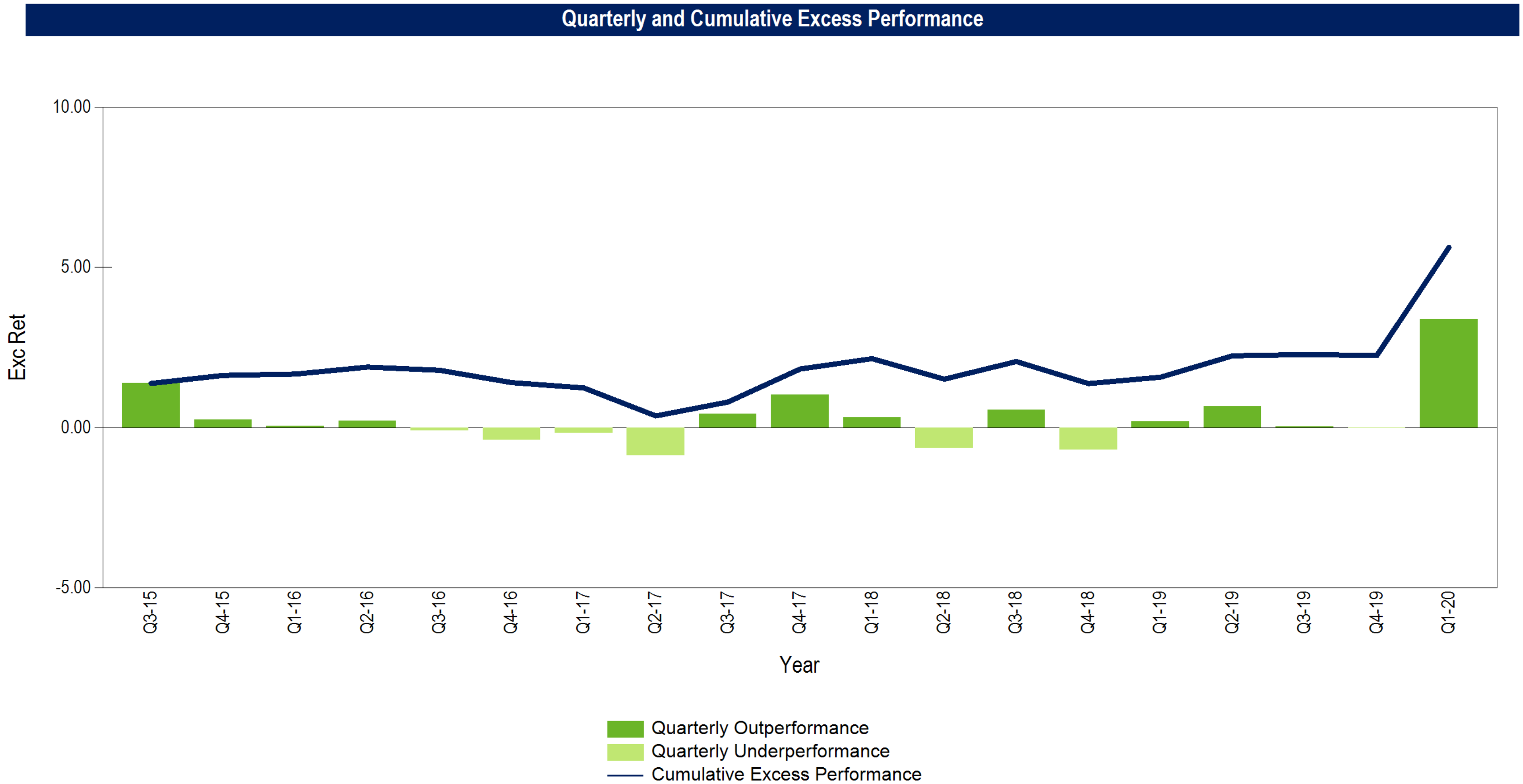
Since Inception Style Map





Los Angeles City Employees' Retirement System

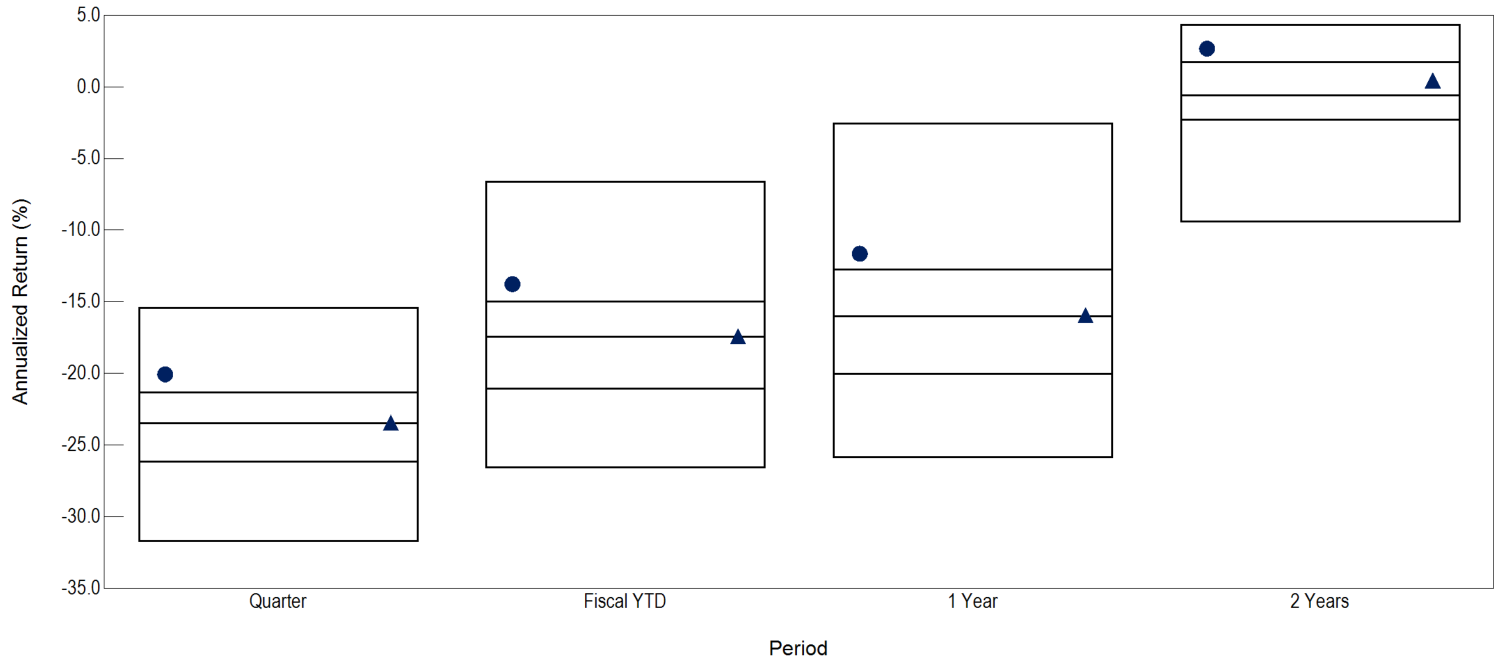
CENTERSQUARE US REAL ESTATE



Los Angeles City Employees' Retirement System

CENTERSQUARE US REAL ESTATE

CenterSquare US Real Estate vs. eV US REIT Net

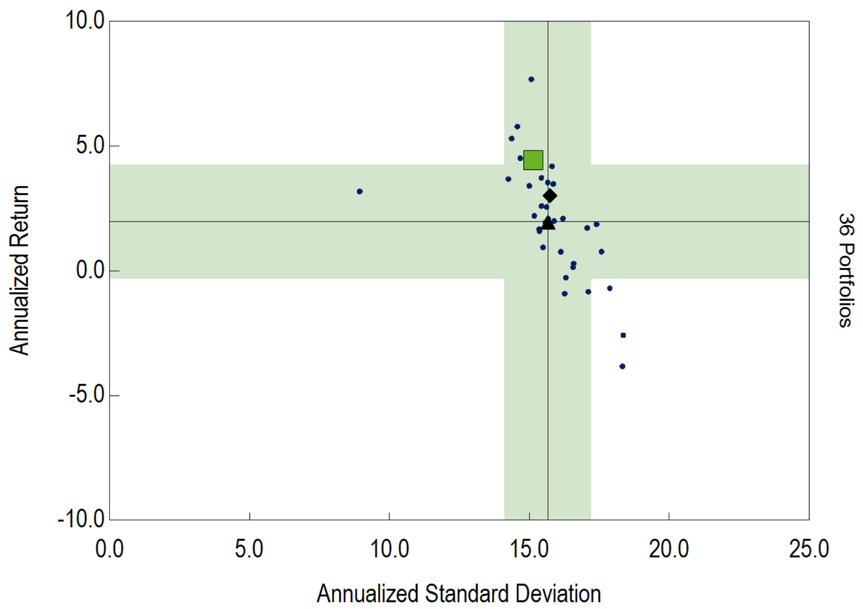


	Return (Rank)							
5th Percentile	-15.45		-6.64		-2.56		4.33	
25th Percentile	-21.29		-14.93		-12.70		1.77	
Median	-23.41		-17.40		-15.98		-0.53	
75th Percentile	-26.10		-21.01		-19.97		-2.24	
95th Percentile	-31.66		-26.52		-25.78		-9.34	
# of Portfolios	39		39		38		38	
● CenterSquare US Real Estate	-20.07	(19)	-13.77	(20)	-11.65	(23)	2.66	(18)
▲ FTSE NAREIT All Equity REIT	-23.44	(51)	-17.41	(51)	-15.93	(50)	0.45	(38)

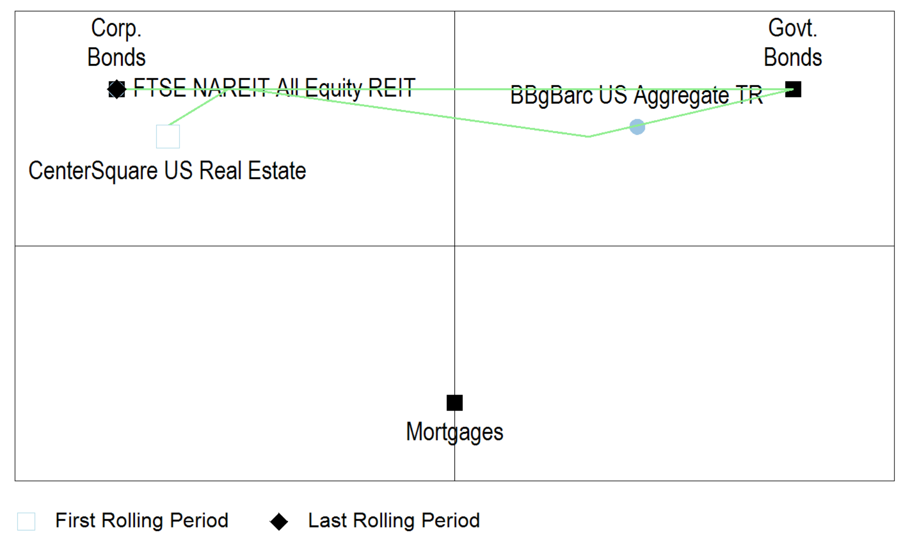
Los Angeles City Employees' Retirement System

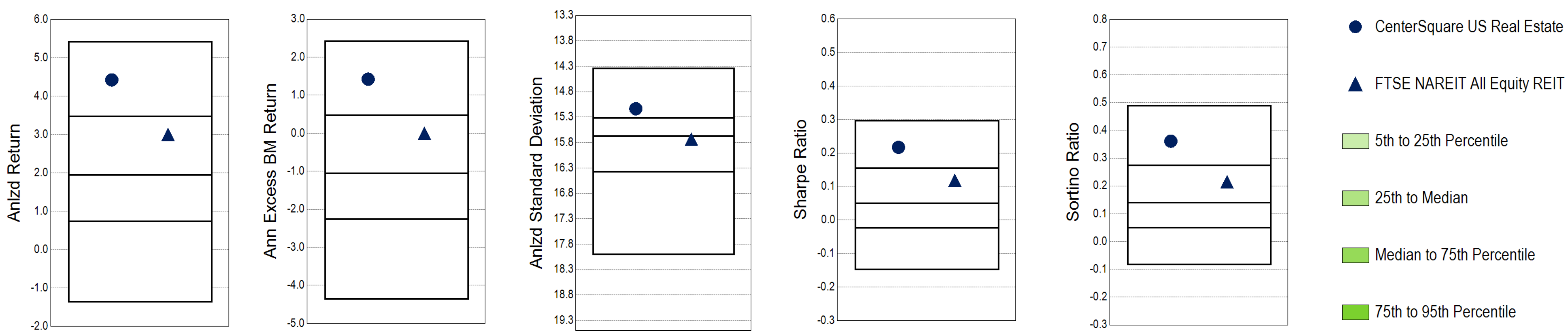
CENTERSQUARE US REAL ESTATE

Since Inception Risk Return



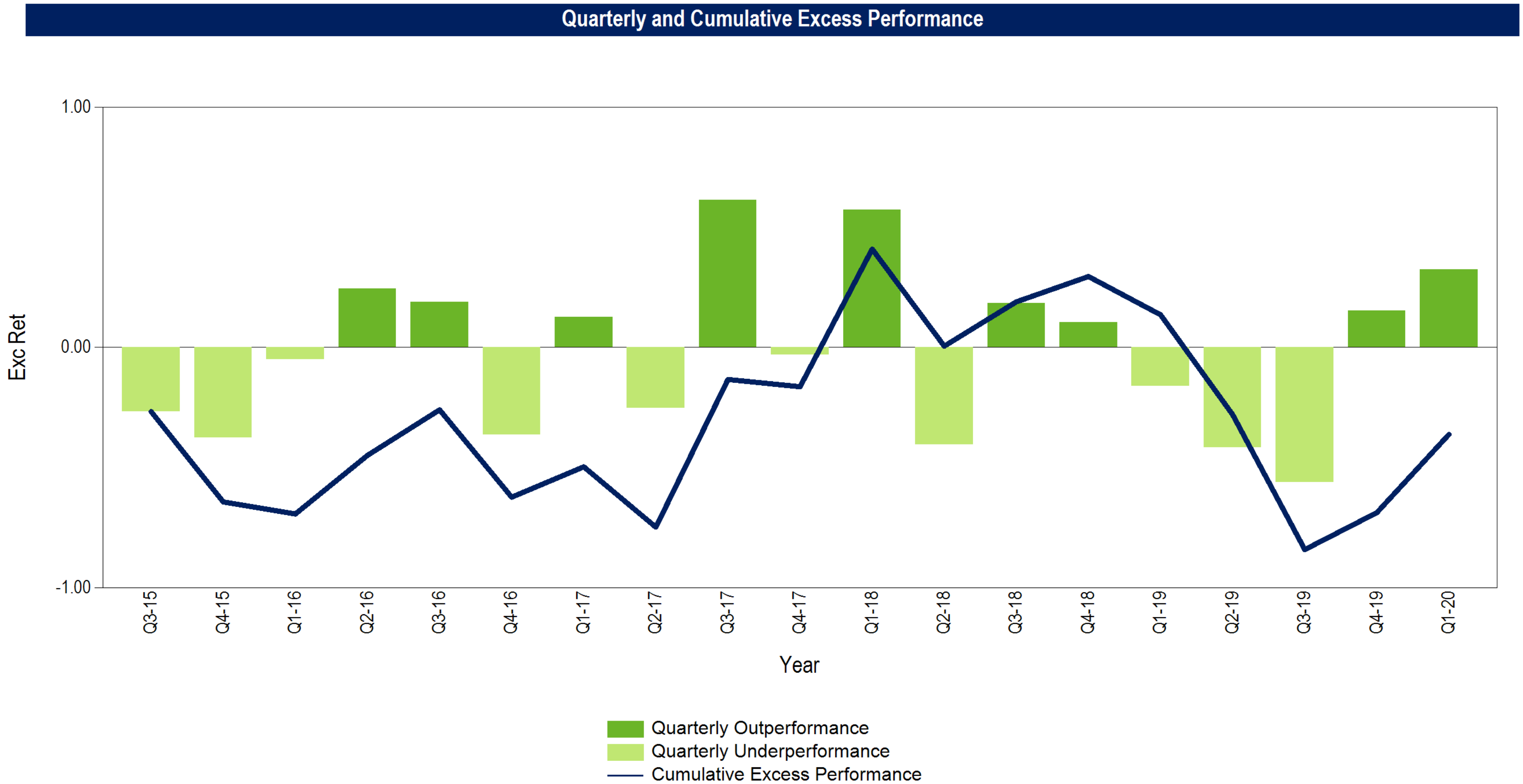
Since Inception Style Map





Los Angeles City Employees' Retirement System

CORE COMMODITY MGMT



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 udpated 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/Observations[1] – The total number of data points that make up a specified universe

Allocation Index[3] - 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 Effect[2] - 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 a 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.

Attribution[3] - 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 Maturity[4] - 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 Average[1] - 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) Attribution[1] - 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) Attribution[1] - 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.

Correlation[1] - 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: [1]InvestorForce, [2]Interaction Effect Performance Attribution, [3]NEPC, LLC, [4]Investopedia, [5]Hedgeco.net

GLOSSARY OF INVESTMENT TERMINOLOGY

Coupon[4] – 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 Effect[1] - Is the effect that changes in currency exchange rates over time affect excess performance.

Derivative Instrument[3] - 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 Deviation[1] - 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.

Duration[3] - 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 Ratio[1] – 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 Bond[3] - 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 Hurdle[5] – 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 Mark[4] - 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 Rate[4] - 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 Effects[2] - 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.

Median[3] - 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 Duration[3] - 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 Change[1] – Is the change in an investment after accounting for all Net Cash Flows.

Performance Fee[4] - 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: [1]InvestorForce, [2]Interaction Effect Performance Attribution, [3]NEPC, LLC, [4]Investopedia, [5]Hedgeco.net

GLOSSARY OF INVESTMENT TERMINOLOGY

Policy Index[3] - 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) Effect[2] - 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 rate[5] – is a hurdle rate that once beaten allows a fund manager to charge a performance fee based on the entire annualized return.

Tiered Fee[1] – 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 Effects[2] - 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 Return[1] - 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.

Universe[3] - The list of all assets eligible for inclusion in a portfolio.

Upside Deviation[1] – 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 Maturity[3] -The discount rate that equates the present value of cash flows, both principal and interest, to market price.

Data Source: [1]InvestorForce, [2]Interaction Effect Performance Attribution, [3]NEPC, LLC, [4]Investopedia, [5]Hedgeco.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.
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Reporting Methodology

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

LACERS
LOS ANGELES CITY EMPLOYEES' RETIREMENT SYSTEM

REPORT TO BOARD OF ADMINISTRATION **MEETING: JUNE 9, 2020**
From: Neil M. Guglielmo, General Manager **ITEM: VIII – D**

SUBJECT: **NOTIFICATION OF COMMITMENT OF UP TO $50 MILLION IN WATERTON RESIDENTIAL PROPERTY VENTURE XIV, L.P.**

ACTION: ☐ CLOSED: ☐ CONSENT: ☐ RECEIVE & FILE: ☒

Recommendation

That the Board receive and file this notice of the commitment of up to $50 million in Waterton Residential Property Venture XIV, L.P.

Discussion

On May 26, 2020, the Board, in closed session pursuant to Government Code Section 54956.81, approved a commitment of up to $50 million in the following private real estate fund: Waterton Residential Property Venture XIV, L.P. The investment closed on May 26, 2020. Board vote: Ayes 6 (Commissioners Annie Chao, Elizabeth Lee, Nilza Serrano, Sung Won Sohn, Vice President Michael Wilkinson, and President Cynthia Ruiz), Nays 0.

Strategic Plan Impact Statement

Investment in Waterton Residential Property Venture XIV, L.P. will allow LACERS to maintain exposure to diversified real estate, pursuant to the Real Estate Fiscal Year 2019-2020 Strategic Plan, which is expected to help LACERS optimize long-term risk adjusted investment returns (Goal IV).

Prepared By: Eduardo Park, Investment Officer II, Investment Division

RJ/BF/WL/EP:jp