Board of Administration Agenda

REGULAR MEETING **TUESDAY, AUGUST 14, 2018** **TIME: 10:00 A.M.** **MEETING LOCATION:** LACERS Ken Spiker Boardroom 202 West First Street, Suite 500 Los Angeles, California 90012-4401 Sign Language Interpreters, Communication Access Real-Time Transcription, Assistive Listening Devices, or other auxiliary aids and/or services may be provided upon request. To ensure availability, you are advised to make your request at least 72 hours prior to the meeting you wish to attend. Due to difficulties in securing Sign Language Interpreters, five or more business days' notice is strongly recommended. For additional information, please contact: Board of Administration Office at (213) 473-7169.	President: Cynthia M. Ruiz Vice President: Elizabeth L. Greenwood Commissioners: Elizabeth Lee, Sandra Lee, Nilza R. Serrano, Sung Won Sohn, Michael R. Wilkinson Manager-Secretary: Neil M. Guglielmo Executive Assistant: Ani Ghoukassian Legal Counsel: City Attorney's Office, Retirement Benefits Division

I. PUBLIC COMMENTS ON MATTERS WITHIN THE BOARD'S JURISDICTION

II. APPROVAL OF MINUTES FOR BOARD MEETING OF JULY 24, 2018, AND SPECIAL BOARD MEETING OF JULY 24, 2018, AND RECONSIDERATION OF APPROVAL OF MINUTES FOR BOARD MEETING OF JUNE 26, 2018 AND POSSIBLE BOARD ACTION

III. BOARD PRESIDENT VERBAL REPORT

IV. GENERAL MANAGER VERBAL REPORT

A. REPORT ON DEPARTMENT OPERATIONS

B. UPCOMING AGENDA ITEMS

V. CONSENT AGENDA

A. BENEFITS PAYMENTS APPROVED BY GENERAL MANAGER

B. MARKETING CESSATION NOTIFICATION

C. MONTHLY REPORT ON SEMINARS AND CONFERENCES FOR JUNE 2018

D. MONTHLY REPORT ON SEMINARS AND CONFERENCES FOR JULY 2018

E. TRAVEL AUTHORITY (REVISED) – COMMISSIONER ELIZABETH L. GREENWOOD; VALUE EDGE ADVISORS 2018 PUBLIC FUNDS FORUM, LAGUNA BEACH, CALIFORNIA; SEPTEMBER 4-6, 2018 AND POSSIBLE BOARD ACTION

F. TRAVEL AUTHORITY – COMMISSIONER CYNTHIA RUIZ; PRINCIPLES FOR RESPONSIBLE INVESTMENT (PRI) IN PERSON 2018, SAN FRANCISCO, CALIFORNIA; SEPTEMBER 12-14, 2018 AND POSSIBLE BOARD ACTION

G. RECEIVE AND FILE – COMMISSIONER SOHN BOARD EDUCATION EVALUATION ON THE MASSACHUSETTS INSTITUTE OF TECHNOLOGY PROFESSIONAL CERTIFICATE PROGRAM IN REAL ESTATE FINANCE AND DEVELOPMENT, CAMBRIDGE, MASSACHUSETTS, JUNE 10 - 15, 2018

H. RECEIVE AND FILE – COMMISSIONER CHAO BOARD EDUCATION EVALUATION ON THE MASSACHUSETTS INSTITUTE OF TECHNOLOGY PROFESSIONAL CERTIFICATE PROGRAM IN REAL ESTATE FINANCE AND DEVELOPMENT, CAMBRIDGE, MASSACHUSETTS, JUNE 12 - 15, 2018

I. INVESTIGATIVE SERVICES REQUEST FOR PROPOSAL – PROPOSER RECOMMENDATIONS AND POSSIBLE BOARD ACTION

VI. DISABILITY RETIREMENT APPLICATION(S)

A. CONSIDER THE DISABILITY RETIREMENT APPLICATION OF MICHAEL KARATSONYI AND POSSIBLE BOARD ACTION (HEARING)

B. CONSIDER THE RETURN TO WORK REQUEST FOR DISABILITY RETIREMENT RETIREE DIANA KEMPTON AND POSSIBLE BOARD ACTION (HEARING)

VII. COMMITTEE REPORT(S)

A. BENEFITS ADMINISTRATION COMMITTEE VERBAL REPORT ON THE MEETING OF AUGUST 14, 2018

VIII. BOARD/DEPARTMENT ADMINISTRATION

A. PROPOSED LIST OF PRE-APPROVED BOARD EDUCATIONAL SEMINARS FOR FISCAL YEAR 2018-19 AND POSSIBLE BOARD ACTION

B. RECOMMENDATION FOR CITY COUNCIL TO TAKE OPPOSE POSITION ON THE PUBLIC EMPLOYEE PENSION TRANSPARENCY ACT (PEPTA) AND POSSIBLE BOARD ACTION

IX. ACTUARIAL PROGRAM

A. CONTINUED CONSIDERATION OF PROPOSED ASSUMPTION CHANGES BASED ON ACTUARIAL EXPERIENCE STUDY AND POSSIBLE BOARD ACTION

X. INVESTMENTS

A. CHIEF INVESTMENT OFFICER VERBAL REPORT

B. CONTINUED DISCUSSION OF RISK BUDGETING, ASSET CLASS REVIEWS, AND ASSET ALLOCATION IMPLEMENTATION PLAN AND POSSIBLE BOARD ACTION

C. PRESENTATION BY THE TOWNSEND GROUP OF THE REAL ESTATE PORTFOLIO PERFORMANCE REVIEW FOR THE PERIOD ENDING DECEMBER 31, 2017

D. REAL ESTATE FISCAL YEAR 2018-19 STRATEGIC PLAN AND POSSIBLE BOARD ACTION

E. INVESTMENT MANAGER CONTRACT WITH EAM INVESTORS, LLC REGARDING THE MANAGEMENT OF AN ACTIVE U.S. SMALL CAP GROWTH EQUITIES PORTFOLIO AND POSSIBLE BOARD ACTION

F. CONTINUED DISCUSSION OF COMMITMENT OF UP TO $35 MILLION IN ALMANAC REALTY SECURITES VIII, LP AND POSSIBLE BOARD ACTION

XI. BENEFITS ADMINISTRATION

A. ANTHEM BLUE CROSS 2017 YEAR-END ACCOUNTING AND POSSIBLE BOARD ACTION

XII. OTHER BUSINESS

XIII. NEXT MEETING: The next Regular meeting of the Board is scheduled for Tuesday, August 28, 2018 at 10:00 a.m. in the LACERS Ken Spiker Boardroom, 202 West First Street, Suite 500, Los Angeles, CA 90012-4401.

XIV. ADJOURNMENT

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

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

July 24, 2018

10:04 a.m.

Agenda of: Aug. 14, 2018

Item No: II

PRESENT:	President:	Cynthia M. Ruiz
	Vice President	Michael R. Wilkinson
	Commissioners:	Elizabeth L. Greenwood Elizabeth Lee Sandra Lee Nilza R. Serrano Sung Won Sohn
	Manager-Secretary:	Neil M. Guglielmo
	Executive Assistant:	Ani Ghoukassian
	Legal Counsel:	Anya Freedman Joshua Geller

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

I

PUBLIC COMMENTS ON MATTERS WITHIN THE BOARD'S JURISDICTION – Public comment cards were received from the following: Mark Blunk, LACERS retiree, discussed Actuarial Assumptions. President Ruiz requested that written statements from Annie Chao, Angela Trinh, John Casselberry, Anna Vidal, Lorean Soo Hoo, Rhonda Ketay, Rina Segura, Mark Blunk, Nancy Cammarata, Fazeel Chauhan, Linda Nguyen, Theresa Jimenez, Becky Balbuena, and Jaime Escobar be entered into the record.

II

APPROVAL OF MINUTES FOR BOARD MEETING OF JULY 10, 2018 AND POSSIBLE BOARD ACTION – A motion to approve the minutes of July 10, 2018 was moved by Commissioner Greenwood, seconded by Commissioner Serrano, and adopted by the following vote: Ayes, Commissioners Greenwood, Elizabeth Lee, Sandra Lee, Serrano, Sohn, Vice President Wilkinson, and President Ruiz -7; Nays, None.

III

BOARD PRESIDENT VERBAL REPORT – President Ruiz attended and spoke at the 2018 AIF West Coast Women Investors' Session in July. Brinda Patel, Investment Division Intern, who attended the Conference with President Ruiz, shared her experience as an attendee. President Ruiz also announced that Board Committee Assignments will be ready by the end of the week.

IV

GENERAL MANAGER VERBAL REPORT

A. REPORT ON DEPARTMENT OPERATIONS – Neil Guglielmo, General Manager, discussed the following items:

- July retiree checks will include the 2.8% COLA.
- CPR/AED Training for LACERS staff was held last week.
- Mr. Guglielmo attended the Labor Committee Meeting.

B. RECEIPT OF CITY'S CONTRIBUTIONS FOR FISCAL YEAR 2018-19 – Neil Guglielmo, General Manager, discussed this item.

C. UPCOMING AGENDA ITEMS – Neil Guglielmo, General Manager, stated the Environmental, Social, and Governance (ESG) investing education will be presented to the Board in the next couple of months.

Items VI and VII taken out of order

VI

CONSENT AGENDA

A. RECEIVE AND FILE – LACERS CUSTOMER SERVICE SURVEY SEMI-ANNUAL REPORT, JANUARY – JUNE 2018 – President Ruiz congratulated staff on the exemplary results from the LACERS Customer Service Survey. This report was received by the Board and filed.

B. TRAVEL AUTHORITY – COMMISSIONER ELIZABETH L. GREENWOOD; VALUE EDGE ADVISORS' 2018 PUBLIC FUNDS FORUM, LAGUNA BEACH, CALIFORNIA; SEPTEMBER 4-6, 2018 AND POSSIBLE BOARD ACTION – Commissioner Sohn moved approval of the following Resolution:

TRAVEL AUTHORITY
VALUE EDGE 2018 PUBLIC FUNDS FORUM
SEPTEMBER 4-6, 2018
LAGUNA BEACH, CALIFORNIA

RESOLUTION 180724-A

WHEREAS, Board approval is required for all international travel requests and travel not included in the Approved List of Educational Seminars;

WHEREAS, the Approved List of Educational Seminars for Fiscal Year 2018-19 has not yet been adopted and this conference has not been included in previous Approved Lists of Educational Seminars, and therefore requires individual approval;

WHEREAS, the sound management of the assets and liabilities of a trust fund imposes a continuing need for all Board Members to attend professional and educational conferences, seminars, and other educational events that will better prepare them to perform their fiduciary duties;

THEREFORE, BE IT RESOLVED, that Commissioner Greenwood is hereby authorized to attend the Value Edge 2018 Public Funds Forum on September 4-6, 2018, in Laguna Beach, California;

BE IT FURTHER RESOLVED, that the reimbursement of up to $1,203.00 for Commissioner Greenwood is hereby authorized for reasonable expenses in connection with participation.

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

VII

Item VII-B taken out of order.

COMMITTEE REPORT(S)

B. BENEFITS ADMINISTRATION COMMITTEE VERBAL REPORT ON THE MEETING OF JULY 19, 2018 – Commissioner Wilkinson reported that the Benefits Administration Committee approved the Investigative Services Contract with two firms, were presented with the Year-End Accounting from Anthem Blue Cross, a report on health, vision, and dental contract renewals, and approved a software contract with Jellyvision to help members make healthcare decisions online.

A. INVESTMENT COMMITTEE VERBAL REPORT ON THE MEETING OF JULY 10, 2018 – Commissioner Sohn reported that the Investment Committee was presented with a report regarding Almanac Realty Securities and decided to table the item for a future meeting. In addition, a report from EAM Investors and the Strategic Plan regarding real estate was presented to the Committee.

V

BOARD GOVERNANCE

A. ELECTION OF BOARD OFFICERS FOR FISCAL YEAR 2018-19 AND POSSIBLE BOARD ACTION - Neil Guglielmo, General Manager called for nominations for the Office of President. Vice President Wilkinson nominated Commissioner Ruiz for the Office of President, which was seconded by Commissioner Serrano. Mr. Guglielmo asked if there were any further nominations, to which there was no response. Upon closing of the nomination process, Mr. Guglielmo called for votes in favor of Commissioner Ruiz as President for Fiscal Year 2018-19, to which responded: Ayes, Commissioners Greenwood, Elizabeth Lee, Sandra Lee, Serrano, Vice President Wilkinson, and President Ruiz -7; Nays, None. Commissioner Ruiz was elected to the Office of President for Fiscal Year 2018-19 until replaced or re-elected at the next Board Officer election.

Neil Guglielmo, General Manager called for nominations for the Office of Vice President. Commissioner Sandra Lee nominated Commissioner Greenwood for the Office of Vice President. Mr. Guglielmo asked if there were any further nominations, to which there was no response. Upon closing of the nomination process, Mr. Guglielmo called for votes in favor of Commissioner Greenwood as Vice President for Fiscal Year 2018-19, to which responded: Ayes, Commissioners Greenwood, Elizabeth Lee, Sandra Lee, Serrano, Sohn, Vice President Wilkinson, and President Ruiz -7; Nays, None. Commissioner Greenwood was elected to the Office of Vice President for Fiscal Year 2018-19 until replaced or re-elected at the next Board Officer election.

VIII

BOARD/DEPARTMENT ADMINISTRATION

A. CONSIDERATION OF ADJUSTMENT TO LACERS OFFICE HOURS AND POSSIBLE BOARD ACTION – Wendy Johnson, Chief Clerk and Sandra Ford-James, Senior Administrative Clerk with Health Benefits Administration & Communication Division presented this item to the Board. After further discussion, Commissioner Serrano moved approval, seconded by Vice President Wilkinson, and adopted by the following vote: Ayes, Commissioners Greenwood, Elizabeth Lee, Sandra Lee, Serrano, Sohn, Vice President Wilkinson, and President Ruiz -7; Nays, None.

B. TRIENNIAL BOARD POLICY REVIEW: THE BOARD'S GOVERNING STATUTES AND POSSIBLE BOARD ACTION – Commissioner Greenwood moved approval, seconded by Commissioner Elizabeth Lee, and adopted by the following vote: Ayes, Commissioners Greenwood, Elizabeth Lee, Sandra Lee, Serrano, Sohn, Vice President Wilkinson, and President Ruiz -7; Nays, None.

C. TRIENNIAL BOARD POLICY REVIEW: THE BOARD'S STATEMENT OF DUTIES AND RESPONSIBILITIES AND POSSIBLE BOARD ACTION – Commissioner Greenwood moved approval, seconded by Commissioner Elizabeth Lee, and adopted by the following vote: Ayes, Commissioners Greenwood, Elizabeth Lee, Sandra Lee, Serrano, Sohn, Vice President Wilkinson, and President Ruiz -7; Nays, None.

IX

ACTUARIAL PROGRAM

A. ACTUARIAL 101 EDUCATION PRESENTATION BY SEGAL COMPANY – Paul Angelo, Actuary with Segal Consulting and Todd Bouey, Assistant General Manager presented this item to the Board.

B. AD HOC ADJUSTMENT TO THE ASSET SMOOTHING METHOD AND POSSIBLE BOARD ACTION – Paul Angelo, Actuary with Segal Consulting and Todd Bouey, Assistant General

Manager presented this item to the Board. Commissioner Serrano moved approval, seconded by Vice President Wilkinson, and adopted by the following vote: Ayes, Commissioners Greenwood, Elizabeth Lee, Sandra Lee, Serrano, Sohn, Vice President Wilkinson, and President Ruiz -7; Nays, None.

C. GASB 68 AND GASB 75 ACTUARIAL VALUATIONS AS OF JUNE 30, 2017 AND POSSIBLE BOARD ACTION – Paul Angelo, Actuary with Segal Consulting and Todd Bouey, Assistant General Manager presented this item to the Board. Vice President Wilkinson moved approval, seconded by Commissioner Serrano, and adopted by the following vote: Ayes, Commissioners Greenwood, Elizabeth Lee, Sandra Lee, Serrano, Vice President Wilkinson, and President Ruiz -6; Nays, None.

President Ruiz adjourned the Regular Meeting at 11:21 a.m. for a break. President Ruiz reconvened the Regular Meeting at 11:32 a.m.

D. CONTINUED CONSIDERATION OF PROPOSED ASSUMPTION CHANGES BASED ON ACTUARIAL EXPERIENCE STUDY AND POSSIBLE BOARD ACTION – Paul Angelo, Actuary with Segal Consulting and Todd Bouey, Assistant General Manager presented this item to the Board. After further discussion, the Board decided to defer this item to the August 14, 2018, Board Meeting.

X

INVESTMENTS

A. CHIEF INVESTMENT OFFICER VERBAL REPORT – Bryan Fujita, Chief Operating Officer, reported on the fund portfolio, $17.72 billion as of July 23, 2018. He stated that Carolyn Smith and Kevin Novak from NEPC will be presenting to the Board on the Portfolio Performance Review and Risk Budgeting, Asset Class Reviews, and Asset Allocation Implementatio Plan. Robert Miranda and Felix Fels from Townsend Group will be presenting regarding the Real Estate Portfolio Performance Review. There will be a presentation regarding the Investment Manager Contract with EAM Investors. Mr. Fujita reported future agenda items are the Investment Policy Manual Review and request for authorization to release some Requests for Proposals.

B. PRESENTATION BY NEPC, LLC OF THE PORTFOLIO PERFORMANCE REVIEW REPORT FOR THE QUARTER ENDING MARCH 31, 2018 – Carolyn Smith, Partner at NEPC and Kevin Novak, Consultant at NEPC presented this item to the Board.

C. PRESENTATION BY NEPC, LLC REGARDING RISK BUDGETING, ASSET CLASS REVIEWS, AND ASSET ALLOCATION IMPLEMENTATION PLAN AND POSSIBLE BOARD ACTION – The Board decided to table this item.

D. PRESENTATION BY THE TOWNSEND GROUP OF THE REAL ESTATE PORTFOLIO PERFORMANCE REVIEW FOR THE PERIOD ENDING DECEMBER 31, 2017– The Board decided to table this item.

E. REAL ESTATE FISCAL YEAR 2018-19 STRATEGIC PLAN AND POSSIBLE BOARD ACTION – The Board decided to table this item.

F. INVESTMENT MANAGER CONTRACT WITH EAM INVESTORS, LLC REGARDING THE MANAGEMENT OF AN ACTIVE U.S. SMALL CAP GROWTH EQUITIES PORTFOLIO AND POSSIBLE BOARD ACTION – The Board decided to table this item.

XI

A. ANTHEM BLUE CROSS 2017 YEAR-END ACCOUNTING AND POSSIBLE BOARD ACTION – The Board decided to table this item.

B. INVESTIGATIVE SERVICES REQUEST FOR PROPOSAL-PROPOSER RECOMMENDATIONS AND POSSIBLE BOARD ACTION – The Board decided to table this item.

C. CONTRACT WITH JELLYVISION FOR BENEFIT DECISION-SUPPORT SOFTWARE AND POSSIBLE BOARD ACTION – Alex Rabrenovich, Chief Benefits Analyst, presented this item to the Board. Pursuant to a request from the Benefits Administation Committee, Mr. Rabrenovich stated that Jellyvision has advised him that they can add the bi-lingual option to the LACERS contract for an additional $25,000. Commissioner Greenwood moved approval as amended to add a bilingual option to the software for an additional cost of $25,000, seconded by Vice President Wilkinson, and adopted by the following vote: Ayes, Commissioners Greenwood, Elizabeth Lee, Sandra Lee, Serrano, Sohn, Vice President Wilkinson, and President Ruiz -7; Nays, None.

President Ruiz adjourned the Regular Meeting at 1:20 P.M. to convene in Closed Session

XII

DISABILITY RETIREMENT APPLICATION(S)

A. CLOSED SESSION PURSUANT TO GOVERNMENT CODE SECTION 54957(b) CONSIDERATION OF DISABILITY RETIREMENT BENEFIT FOR THOMAS ALLEN AND POSSIBLE BOARD ACTION

B. CLOSED SESSION PURSUANT TO GOVERNMENT CODE SECTION 54957(b) CONSIDERATION OF DISABILITY RETIREMENT BENEFIT FOR DEJI WANG AND POSSIBLE BOARD ACTION

President Ruiz reconvened the Regular Meeting at 1:21 P.M. and announced that during Closed Session the Board unanimously approved the Disability Retirement Applications for Thomas Allen and Deji Wang.

XIII

OTHER BUSINESS – There was no other business.

XIV

NEXT MEETING: The next Regular meeting of the Board is scheduled for Tuesday, August 14, 2018 at 10:00 a.m. in the LACERS Ken Spiker Boardroom, 202 West First Street, Suite 500, Los Angeles, CA 90012-4401.

XV

ADJOURNMENT – There being no further discussion before the Board, President Ruiz adjourned the meeting at 1:23 p.m.

Cynthia M. Ruiz
President

Neil M. Guglielmo
Manager-Secretary

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

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

July 24, 2018

1:37 P.M.

Agenda of: **Aug. 14, 2018**

Item No: **II**

PRESENT:	President:	Cynthia M. Ruiz
	Vice President	Michael R. Wilkinson
	Commissioners:	Elizabeth L. Greenwood Elizabeth Lee Sandra Lee Nilza R. Serrano Sung Won Sohn
	Manager-Secretary:	Neil M. Guglielmo
	Executive Assistant:	Ani Ghoukassian
	Legal Counsel:	Anya Freedman

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

I

LACERS STAFF INTRODUCTIONS AND INFORMAL PRESENTATIONS OF THEIR ROLES AND RESPONSIBILITIES TO THE BOARD – LACERS staff introduced themselves and discussed their specific roles and responsibilities to the Board Members.

II

NEXT MEETING: The next Regular meeting of the Board is scheduled for Tuesday, August 14, 2018 at 10:00 a.m. in the LACERS Ken Spiker Boardroom, 202 West First Street, Suite 500, Los Angeles, CA 90012-4401.

III

ADJOURNMENT – There being no further discussion before the Board, President Ruiz adjourned the meeting at 2:19 p.m.

Cynthia M. Ruiz
President

Neil M. Guglielmo
Manager-Secretary

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

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

June 26, 2018

10:07 a.m.

Agenda of: **Aug. 14, 2018**

Item No: **II**

PRESENT:	Vice President	Michael R. Wilkinson
	Commissioners:	Annie Chao Elizabeth L. Greenwood *(left at 12:09 p.m.)* Nilza R. Serrano *(left at 12:39 p.m.)* Sung Won Sohn Vacant Position
	Manager-Secretary:	Neil M. Guglielmo
	Executive Assistant:	Ani Ghoukassian
	Legal Counsel:	James Napier
ABSENT:	President:	Cynthia M. Ruiz

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

I

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

II

APPROVAL OF MINUTES FOR BOARD MEETING OF MAY 22, 2018 AND POSSIBLE BOARD ACTION – A motion to approve the minutes of May 22, 2018 was moved by Commissioner Chao, seconded by Commissioner Greenwood, and adopted by the following vote: Ayes, Commissioners Chao, Greenwood, Serrano, Sohn, and Vice President Wilkinson -5; Nays, None.

III

BOARD PRESIDENT VERBAL REPORT – Vice President Wilkinson recognized Commissioner Chao's service as a Board Member. Neil M. Guglielmo, General Manager, also recognized Commissioner Chao's contribution and service to the Board and presented her with a LACERS bag including a polo shirt and folio.

IV

GENERAL MANAGER VERBAL REPORT

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

- Rod June, Chief Investment Officer presented at the Girls Who Invest event held at the University of Notre Dame.
- The Board approved the Cost of Living increase on February 13, 2018, effective July 1, 2018
- The Family Death Benefit Plan contribution rate was reduced from $3.70 to $3.00 per month effective July 1, 2018.
- A notification letter was sent to members on June 15, 2018, regarding the MyLACERS Web Portal enrollment and pin number.
- LACERS staff are attending the Wellness Festival at the LA Mall on June 26, 2018.

B. UPCOMING AGENDA ITEMS – Neil M. Guglielmo, General Manager, stated Actuarial items will be presented to the Board on July 10, 2018. The Benefits Administration Committee will meet on July 19, 2018, and the agenda items include Retiree Health Plan Renewal Updates and the Year-End Accounting.

Commissioner Wilkinson requested information from staff on passive investing.

V

CONSENT AGENDA

A. BENEFITS PAYMENTS APPROVED BY GENERAL MANAGER – This report was received by the Board and filed.

B. MARKETING CESSATION NOTIFICATION – This report was received by the Board and filed.

C. RECEIVE AND FILE – EDUCATION AND TRAVEL EXPENDITURE REPORT FOR THE QUARTER ENDING MARCH 31, 2018 – This report was received by the Board and filed.

D. MONTHLY REPORT ON SEMINARS AND CONFERENCES FOR MARCH 2018 (REVISED) – This report was received by the Board and filed.

E. MONTHLY REPORT ON SEMINARS AND CONFERENCES FOR APRIL 2018 – This report was received by the Board and filed.

F. MONTHLY REPORT ON SEMINARS AND CONFERENCES FOR MAY 2018 – This report was received by the Board and filed.

G. RECEIVE AND FILE – COMMISSIONER SERRANO BOARD EDUCATION EVALUATION ON THE INTERNATIONAL FOUNDATION OF EMPLOYEE BENEFITS PLAN EVIDENCE, INSIGHT AND STRATEGY FOR OPTIMIZING HEALTH BENEFITS, BOSTON, MASSACHUSETTS, MAY 8 – 10, 2018 – This report was received by the Board and filed.

H. RECEIVE AND FILE – COMMISSIONER SUNG WON SOHN BOARD EDUCATION EVALUATION ON THE NATIONAL CONFERENCE ON PUBLIC EMPLOYEES RETIREMENT SYSTEMS TRUSTEE EDUCATIONAL SEMINAR AND ANNUAL CONFERENCE, NEW YORK, NEW YORK, MAY 12 – 16, 2018 – This report was received by the Board and filed.

VI

COMMITTEE REPORT(S)

A. AUDIT COMMITTEE VERBAL REPORT ON THE MEETING OF MAY 22, 2018 – Commissioner Chao stated the Audit Committee was presented with the Contract Amendment with Brown Armstrong and the Reliability of Internal Rate of Return Report.

B. AUDIT COMMITTEE – CONTRACT AMENDMENT WITH BROWN ARMSTRONG FOR FINANCIAL AUDIT SERVICES AND POSSIBLE BOARD ACTION – Wally Oyewole, Departmental Audit Manager, discussed this item with the Board. Approval was moved by Commissioner Serrano:

FOR FINANCIAL AUDIT SERVICES

<u>RESOLUTION 180626-A</u>

WHEREAS, in May 2016, following an unsuccessful request for proposal (RFP) process, the Board extended the contract with Brown Armstrong for two years to June 2018.

WHEREAS, staff now recommends extending the contract for two additional years to accommodate ongoing organizational changes, then releasing an RFP for external audit services in the fall of 2019; and,

WHEREAS, staff believe a two-year contract extension is optimal to allow staff to become proficient in the use of the recently implemented Pension Administration System which would help facilitate a smooth transition to a potential new external auditor; and,

WHEREAS, Brown Armstrong demonstrated high quality of their professional work and has been responsive in serving LACERS over the years; and,

WHEREAS, on May 22, 2018, the Audit Committee considered staff's report and recommend Board's approval.

NOW, THEREFORE, BE IT RESOLVED, that the Board hereby authorizes the General Manager to negotiate and execute a contract extension in accordance with the following services and terms:

<u>Company Name</u>: Brown Armstrong Accountancy Corporation

<u>Service Provided</u>: Financial Audit Services

<u>Duration</u>: 2 years – Audits of FY 2018 and FY 2019

<u>Total Fees</u>: Fixed Fees for 2 years Not to Exceed $195,000

Which motion was seconded by Commissioner Greenwood, and adopted by the following vote: Ayes, Commissioners Chao, Greenwood, Serrano, Sohn, and Vice President Wilkinson -5; Nays, None.

C. AUDIT COMMITTEE – INTERNAL AUDIT REPORT ON RELIABILITY OF INTERNAL RATE OF RETURN (IRR) REPORTED FOR LACERS PRIVATE EQUITY AND REAL ESTATE INVESTMENTS – Wally Oyewole, Departmental Audit Manager, discussed this item with the Board and the report was received by the Board and filed.

VII

BOARD/DEPARTMENT ADMINISTRATION

A. PROPOSED LIST OF PRE-APPROVED BOARD EDUCATIONAL SEMINARS FOR FISCAL YEAR 2018-19 AND POSSIBLE BOARD ACTION – After discussion and direction from the Board and staff, this item was deferred.

B. ADOPTION OF CERTIFIED RESULTS FROM 2018 EMPLOYEE MEMBER OF THE BOARD RUN-OFF ELECTION AND POSSIBLE BOARD ACTION – Commissioner Serrano moved approval, seconded by Commissioner Greenwood, and adopted by the following vote: Ayes, Commissioners Chao, Greenwood, Serrano, Sohn, and Vice President Wilkinson -5; Nays, None.

C. GENERAL MANAGER DESIGNEE SIGNATURE AUTHORITY AND POSSIBLE BOARD ACTION – Approval was moved by Commissioner Serrano:

SIGNATURE AUTHORITY
FOR GENERAL MANAGER DESIGNEES

RESOLUTION 180626-B

WHEREAS, the Board may delegate its authority to the General Manager to execute contracts and approve pension benefit payments under Los Angeles City Charter (LACC) Section 509(h); and

WHEREAS, the General Manager is authorized under LACC Section 509 to administer the affairs of the department as its Chief Administrative Officer; and,

WHEREAS, the General Manager determines it is in the best interest of the department to ensure department business is transacted expeditiously on occasions when he is absent or unable to act, through the assignment of signature authorities over specific areas of expertise;

NOW, THEREFORE, BE IT RESOLVED, that the Board hereby adopts the signature authority resolution for the General Manager designees, provided that if practicable, there is concurrence from the General Manager. Authority is assigned to the position, rather than the individual. This resolution shall be endorsed by the designees and should there be a change in personnel, a new endorsement certificate may be made and kept on file in the Board office; filed with any other necessary office of City government; or any agencies involved in processing LACERS' investment transactions and custodial responsibilities for the securities of LACERS. The proposed resolution will supersede any previously adopted resolutions related to General Manager designee signature authority and is effective upon adoption.

1. Assistant General Manager(s) – for the approval of contracts in compliance with the contracting limitations established in the LACC; approval of expenditures; and approval of benefit payments and related transactions;

2. Chief Benefits Analyst of Administrative Services Division – for the approval of contracts in compliance with the contracting limitations established in the LACC and approval of expenditures; and,

3. Chief Benefits Analyst of Retirement Services Division or Chief Benefits Analyst of Health Benefits Administration and Communications Division – for the approval of benefit payments and related transactions;

4. Chief Investment Officer or Investment Officer III – for the approval of investment transactions required within the scope of the contracts approved by the Board;

Endorsed: ___________________________________
Lita Payne
Assistant General Manager

Endorsed: ___________________________________
Todd Bouey
Assistant General Manager

Endorsed: ___________________________________
Dale Wong Nguyen
Chief Benefits Analyst of Administrative Services

Endorsed: ___________________________________
Karen Freire
Chief Benefits Analyst of Retirement Services

Endorsed: ___________________________________
Alex Rabrenovich
Chief Benefits Analyst of Health Benefits Administration and Communications

Endorsed: ___________________________________
Rodney June
Chief Investment Officer

Endorsed: ____________________________________
Bryan Fujita
Investment Officer III

Which motion was seconded by Commissioner Greenwood, and adopted by the following vote: Ayes, Commissioners Chao, Greenwood, Serrano, Sohn, and Vice President Wilkinson -5; Nays, None.

D. RECEIVE AND FILE – LEGISLATIVE UPDATE – Neil Guglielmo, General Manager and Dale Wong Nguyen, Chief Benefits Analyst presented this item to the Board. James Napier, Deputy City Attorney, presented an update on the case of Vincent Krolikowski v. San Diego City Employees' Retirement System. After further discussion, the report was received by the Board and filed.

VIII

INVESTMENTS

A. CHIEF INVESTMENT OFFICER VERBAL REPORT – Bryan Fujita, Chief Operating Officer, reported on the portfolio value, $16.98 Billion as of June 25, 2018. Mr. Fujita reported that Rod June, Chief Investment Officer, was on business travel and was joining the meeting via teleconference. The new Intern from Girls Who Invest program will be starting at LACERS on Monday, July 2, 2018. The Private Equity Consultant finalist interview is on the current Board Agenda. Future Agenda items include Investment Manager Contracts, Real Estate Strategic Plan for FY19, and Portfolio Advisers reporting on the Private Equity Performance Review.

B. PRIVATE EQUITY CONSULTANT FINALIST INTERVIEW AND POSSIBLE BOARD ACTION – Bryan Fujita, Chief Operating Officer and Wilkin Ly, Investment Officer II presented this item to the Board.

Commissioner Greenwood moved for approval of staff's recommendation. After further discussion and clarification, Vice President Wilkinson stated this motion is out of order due to confusion on the Board Agenda Item number being discussed. Vice President Wilkinson tabled this item for a future meeting.

Commissioner Serrano left the Regular Meeting at 12:09 p.m.

Vice President Wilkinson adjourned the Regular Meeting at 12:10 p.m. for a break. Vice President Wilkinson reconvened the Regular Meeting at 12:36 p.m.

Commissioner Sohn left the Regular Meeting at 12:39 p.m. Due to a lack of quorum item VIII-B was deferred.

C. PRESENTATION BY NEPC, LLC OF THE PORTFOLIO PERFORMANCE REVIEW REPORT FOR THE QUARTER ENDING MARCH 31, 2018 – This item was deferred due to lack of a quorum.

D. PRESENTATION BY NEPC, LLC REGARDING RISK BUDGETING, ASSET CLASS REVIEW, AND ASSET ALLOCATION IMPLEMENTATION PLAN AND POSSIBLE BOARD ACTION – This item was deferred due to lack of a quorum.

IX

LEGAL/LITIGATION

A. REQUEST FOR PROPOSAL FOR OUTSIDE TAX COUNSEL AND POSSIBLE BOARD ACTION – Due to a lack of quorum, the Board did not take action on this item.

X

A. CONSIDER THE DEFERRAL REQUEST FOR DISABILITY RETIREMENT APPLICATION OF MICHAEL KARATSONYI AND POSSIBLE BOARD ACTION – This item was deferred due to lack of a quorum.

B. ADOPTION OF FINDINGS OF FACT FOR APRIL MOYA HUBBARD AND POSSIBLE BOARD ACTION – This item was deferred due to lack of a quorum.

C. CLOSED SESSION PURSUANT TO GOVERNMENT CODE SECTION 54957(b) TO CONSIDER THE DISABILITY RETIREMENT APPLICATION OF LENFORD GEORGE AND POSSIBLE BOARD ACTION – This item was deferred due to lack of a quorum.

D. CLOSED SESSION PURSUANT TO GOVERNMENT CODE SECTION 54957(b) TO CONSIDER THE DISABILITY RETIREMENT APPLICATION OF PEDRO RIVERA AND POSSIBLE BOARD ACTION – This item was deferred due to lack of a quorum.

XI

OTHER BUSINESS – There was no other business.

XII

NEXT MEETING: The next Regular Meeting of the Board is scheduled for Tuesday, July 10, 2018, at 10:00 a.m., in the LACERS Ken Spiker Boardroom, 202 West First Street, Suite 500, Los Angeles, CA 90012-4401.

XIII

ADJOURNMENT – There being no further discussion before the Board, Vice President Wilkinson adjourned the meeting at 12:40 p.m.

Michael R. Wilkinson
Vice President

Neil M. Guglielmo
Manager-Secretary

BENEFIT PAYMENTS APPROVED BY GENERAL MANAGER: ITEM V-A

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
Abraham, Tony Wade	23	Dept. of Disability	Sr Mgmt Analyst
Aker, Ronald Charles	33	Police Dept. - Civilian	Sr Automotive Supvr
Albers, Mary G	33	Dept. of Airports	Exec Asst Airport
Alipio, Antonio S	17	PW - Sanitation	Maint Laborer
Asberry, Bruce	32	PW - Sanitation	Sr Window Cleaner
Banning, George	33	Dept. of Bldg. & Safety	Struct Engr Assoc
Bognot, Carmencita	40	Harbor Dept.	Architectural Assoc
Bonner, Anthony D	31	PW - Sanitation	Sr Window Cleaner
Bono, Larry M	35	PW - Sanitation	Instrument Mech
Brown, Maureen A	28	EWDD	Management Analyst
Bruton, Michele	38	Police Dept. - Civilian	Admin Clerk
Calderon, Marco A	30	PW - St. Maint.	Truck Operator/ One Man
Caraveo, Rosemary	30	PW - Engineering	Secretary
Casas, Otoniel A	24	PW - St. Tree Div.	Gardener Caretaker
Castro, Reynaldo	29	GSD - Bldg. Svcs.	Ch Bulid Operating Engr
Chan, Henry H	32	Office of Finance	Sr Tax Auditor
Chang, Huang Shih	30	PW - Engineering	Civil Eng Associate
Chang, Thomas T	30	Dept. of Transportation	Supvsg Trans Plannr
Chisolm, Cheryl	15	Dept. of Bldg. & Safety	PR Inspector
Clever, Rolf	38	PW - Engineering	Sr Civil Engr Draft Tec
Daly, Brian	16	Dept. of Rec. & Parks	Tree Surgeon
Davis, Glenn Edward	11	ITA	Commun Electrician
Deloera, Jose L	29	Dept. of Airports	Airports Mtce Supt
Dennis, Mary K	24	City Attorney's Office	Deputy City Attorney
Dugan, Richard Dennis	25	PW - Contract Admin	Constr Inspector
Duke, Anthony Levi	31	Dept. of Transportation	Traf Paint Sign Post
Durup, Elvin R	15	City Attorney's Office	City Atty Invest
Espinoza, George	32	PW - St. Maint.	Motor Sweeper Operator
Everett, Clayton W	31	PW - Engineering	Civil Eng Associate
Faust, Langdon L	12	Library Dept.	Sr Librarian
Foster, Roger	15	Dept. of Transportation	Parkg Meter Techn
Fukuda, Douglas A	32	GSD - Public Bldgs.	Carpenter
Garcia, Alicia R	20	Dept. of Airports	Gardener Caretaker
Garcia, Arturo	15	Harbor Dept.	Gardener Caretaker

Member Name	Service	Department	Classification
Garcia, Rafael	26	GSD - Fleet Services	Equip Mechanic
Gray, Francis A	10	Dept. of Airports	Air Cond Mech
Greeb, Kurt William	19	PW - Engineering	Civil Engineer
Grover, Edwin G	27	Office of the City Clerk	Sr Admin Clerk
Gulland, Ronald Wesley	9	PW - St. Tree Div.	Tree Surgeon Supvsr
Hall, Ronald E	30	Dept. of Airports	Airport Police Sgt
Haprov, Mark Kenneth	31	PW - Engineering	Sr Systems Analyst
Hardin, Glenn H	37	PW - Sanitation	Ref Coll Truck Opr
Hempel, Roger T	10	Dept. of Airports	Sup of Op
Henderson, Diana	40	Harbor Dept.	Management Analyst
Hernandez, Raul Cabrera	30	PW - Special Proj Constr	Street Svcs Supv
Hirahara, Kerry	32	Dept. of Bldg. & Safety	Sr Systems Analyst
Hovanessian, Armen D	31	Dept. of Transportation	Sr Transport Engineer
Johnson, Laymon	31	Police Dept. - Civilian	Sr C & I Analyst
Johnson, Robert I	31	Dept. of Airports	Ch Build Operatng Engr
Jones, Bryant	32	PW - Sanitation	Wastewater Manager
Jones, Neil	18	Housing	Accounting Clerk
Kaur, Gurmit	27	PW - Sanitation	Sr Admin Clerk
Kepford, Juanita	38	Police Dept. - Civilian	Detention Officer
Kiefer, Stephan A	9	Dept. of Bldg. & Safety	Sr. Build Inspector
Kimble, Batreace N	35	LA Housing Dept.	Fin Developmnt Off
Lai, Wing C	23	Dept. of Airports	Maint Laborer
Lara, Yolande M	30	Dept. of Airports	Secretary
Lynn, Timothy M	12	Dept. of Bldg. & Safety	Build Inspector
Madrid, Jose S	28	Dept. of Airports	Painter
Martinez, Maurice C	20	Dept. of Bldg. & Safety	Sr Build Inspector
Masters, Cheryl Ruth	19	Police Dept. - Civilian	Sr Mgmt Analyst
Mattison, Richard	17	Harbor Dept.	Port Electrical Mechanic
Mcallister, Juliette M	14	Dept. of Rec. & Parks	Admin Clerk
Mccaskill, Gary Hugh	5	Police Dept. - Civilian	Asst Inspector General
Meighan, Stephen Ronald	31	GSD - Materials Mgmt.	Storekeeper
Menjivar, Herminio	7	Dept. of Rec. & Parks	Special Prog Asst
Meyers, Bonnie L	9	Library Dept.	Messenger Clerk
Miranda, Sandra	31	Dept. of Airports	Commun Info Rep
Mizuhara, Richard K	26	Harbor Dept.	Land Surveying Asst
Molina, Michael David	11	Dept. of Airports	Deputy G M Airpt
Monette, William C	30	PW - Engineering	Land Surveying Asst
Moon, Regina Eum Jun	30	Police Dept. - Civilian	Accounting Clerk
Mounce, Kimberly S	21	Personnel Dept.	Background Investigator
Myers, David W	26	Fire Dept. - Civilian	Fire Protect Engineer
Mynhier, Mark Allen	34	Police Dept. - Civilian	Sr Photographer
Nguyen, Nga A	33	PW - Engineering	Pr Civil Engr Draf Tec

Member Name	Service	Department	Classification
Noblefranca, Zaldy Zaballa	27	Police Dept. - Civilian	Property Officer
Ochoa, Graciela	18	Dept. of Bldg. & Safety	Admin Clerk
Pandy, Carolyn Cherriemae	33	Personnel Dept.	Sr Admin Clerk
Pangilinan, Gil	13	PW - Contract Admin	Constr Inspector
Perea, William Charles	28	GSD - Fleet Services	Auto Body Bldr/Repairer
Perkins, Dennis Kaye	31	PW - Sanitation	W/Wtr Trmt Mech
Pfister, Gayland Duane	30	PW - Sanitation	W/Wtr Trmt Oper
Pradia, Russell Norman	10	PW - Solid Resource	Maint Laborer
Richter, John S	29	PW - Contract Admin	Sr Constr Inspector
Rozas, Clark D	13	PW - Contract Admin	Constr Inspector
Saidi, Gholam R	35	PW - Engineering	Civil Eng Associate
Salgado, Domingo J	22	PW - Sanitation	Admin Clerk
Shannon, Angelo	28	LA Housing Dept.	Housing Inspector
Smith, Edna L	14	Dept. of Transportation	Crossing Guard
Smith, Lee C	18	LA Housing Dept.	PR Inspector
Sneed, Dwight R	22	Police Dept. - Civilian	Sr Detention Ofcr
Snyder, Daniel E	33	LA Housing Dept.	PR Inspector
Soliman, Arthur Manalang	17	Dept. of Rec. & Parks	Accounting Clerk
Sullivan, Darrell Kent	15	PW - Sanitation	W/Wtr Trmt Elec
Torres, Rosa A	15	Police Dept. - Civilian	Secretary
Toszegi, Katalin	8	Dept. of Airports	Airport Guide
Vasquez, Yvette Christine	26	Police Dept. - Civilian	Pr Detention Ofcr
Vernon, Michael L	30	Dept. of Transportation	Sr Commun Operator
Vicknair, Colette Cecile	31	Dept. of Transportation	Traf Officer
Villanueva, Oscar	27	GSD - Materials Mgmt.	Storekeeper
Villasenor, Leopoldo L.	33	GSD - Fleet Services	Equipment Mechanic
Walters, Brian Eugene	28	Office of the City Clerk	Ch Mgmt Analyst
Wigginton, James Robert	26	GSD - Fleet Services	Heavy Duty Equip Mech
Willey, Dawn M	15	Library Dept.	Sr Librarian
Wingo, Donald Lyn	36	PW - Sanitation	Ref Coll Truck Opr
Wong, Elaine Giok	17	Police Dept. - Civilian	Admin Clerk
Wu, Anne H	32	ITA	Dir Of Comm Services
Wyatt, Dwayne	38	City Planning Dept.	City Planning Assoc
Yu, Sucy Kou	30	EWDD	Management Analyst

DEATH BENEFIT PAYMENTS

DECEASED	BENEFICIARY/PAYEE
TIER 1	
Abe, Yuriko	The Abe Trust for payment of the Accrued But Unpaid Retirement Allowance
Anderson, Lorraine F.	Lorraine F. Anderson Trust for payment of the Accrued But Unpaid Retirement Allowance
Balvanera, Armando C.	Luz Maria Sanchez Rodriguez for payment of the Accrued But Unpaid Retirement Allowance Unused Contributions
Becker, David C.	Karen Durone for payment of the Accrued But Unpaid Retirement Allowance Burial Allowance
Beecroft, Paul D.	Bart F. Beecroft for payment of the Accrued But Unpaid Retirement Allowance Burial Allowance
	Mary A. Johnston for payment of the Accrued But Unpaid Retirement Allowance Burial Allowance
Birchim, Barbara M.	Marie A. McDonald for payment of the Accrued But Unpaid Retirement Allowance
Bleibaum, Sara S.	Janice L. Bleibaum for payment of the Accrued But Unpaid Continuance Allowance Accrued But Unpaid Retirement Allowance Burial Allowance
	Kevin T. Bleibaum for payment of the Accrued But Unpaid Continuance Allowance Accrued But Unpaid Retirement Allowance Burial Allowance
Bohlmann, Patricia	Douglas E. Bohlmann for payment of the Accrued But Unpaid Retirement Allowance Burial Allowance

DECEASED	BENEFICIARY/PAYEE
	Patrick Cruz for payment of the

	Burial Allowance
Caldwell, Andrew L.	Michael A. Caldwell for payment of the Accrued But Unpaid Retirement Allowance
Campbell, Oscar D.	Vera O. Campbell for payment of the Accrued But Unpaid Retirement Allowance Burial Allowance
Casas, Camilo M. (Deceased Active)	Magdalena Hurtado De Casas for payment of the Service Retirement Survivorship Allowance
Casey, Floyd	Bobbie J. Casey for payment of the Accrued But Unpaid Retirement Allowance Burial Allowance
Cazares, Gloria	Carlos M. Cazares for payment of the Accrued But Unpaid Retirement Allowance
	John A. Cazares for payment of the Accrued But Unpaid Retirement Allowance Burial Allowance
Cobb, Dorothy J.	Carroll V. Cobb for payment of the Accrued But Unpaid Retirement Allowance Burial Allowance
	Rodney L. Cobb for payment of the Accrued But Unpaid Retirement Allowance Burial Allowance
Cobb, Joanne B.	Deborah L. Wheelock for payment of the Accrued But Unpaid Retirement Allowance
Crawford, Samuel A.	Brooksenell Lewis-Crawford for payment of the Accrued But Unpaid Retirement Allowance Burial Allowance
	Gloria E. Fain for payment of the Accrued But Unpaid Retirement Allowance

<u>DECEASED</u>	<u>BENEFICIARY/PAYEE</u>
Daukas, Richard	Richard Misheikis for payment of the Accrued But Unpaid Retirement Allowance

De Angelo, Marion	Brian McFadden for payment of the Accrued But Unpaid Retirement Allowance
Dixon, Ulysses	Deloris M. Brown for payment of the Accrued But Unpaid Retirement Allowance
	Karen L. Wilson for payment of the Accrued But Unpaid Retirement Allowance Burial Allowance
Douglas, Fred T.	Karen A. Riesinger for payment of the Accrued But Unpaid Retirement Allowance
Edilson, Maria Teresa	Sandra E. Smith for payment of the Accrued But Unpaid Retirement Allowance Burial Allowance Unused Contributions
Ellis, Catherine M.	Jocelyn Randall for payment of the Accrued But Unpaid Retirement Allowance
Engberg, Mary R.	Mary Ruth Engberg Trust for payment of the Accrued But Unpaid Retirement Allowance Burial Allowance
Escandon, Ignacio A.	Jerome Escandon for payment of the Accrued But Unpaid Retirement Allowance Burial Allowance
Freymuth, Victor S.	Allen G. Freymuth for payment of the Accrued But Unpaid Retirement Allowance Burial Allowance
Funk, Helen C.	Steven Zenos for payment of the Accrued But Unpaid Retirement Allowance
Gamez, Tomas	Gerardo D. Gamez for payment of the Accrued But Unpaid Retirement Allowance Burial Allowance
<u>DECEASED</u>	<u>BENEFICIARY/PAYEE</u>
Garcia, Emil O.	Wayne Paul Garcia for payment of the Burial Allowance
Gillette, Evalina B.	Daria J. Schroer for payment of the Accrued But Unpaid Retirement Allowance

Harvey, Robert R.	Rolanda Payton for payment of the Burial Allowance
	Star Taylor for payment of the Accrued But Unpaid Retirement Allowance Burial Allowance
Hongo, Louise T.	Garrett K. Hongo for payment of the Accrued But Unpaid Retirement Allowance Burial Allowance
Hunter, Gene R.	Demetra Pearson for payment of the Accrued But Unpaid Retirement Allowance Burial Allowance
Johnson, Gayle Ann	Jennifer A. Johnson De Cuir for payment of the Accrued But Unpaid Retirement Allowance Burial Allowance
Jones, Gladys	Suzanne E. Jones for payment of the Accrued But Unpaid Retirement Allowance
	William R. Jones for payment of the Accrued But Unpaid Retirement Allowance
Jones, Leauthrice	Martha L. Jones for payment of the Accrued But Unpaid Retirement Allowance
Knox, Villmous D. (Deceased Active)	Tanya Knox for payment of the Accumulated Contributions
	Cameron D. Knox for payment of the Accumulated Contributions
Levitan, Lynda Bess (Deceased Active)	Arnold B. Levitan for payment of the Service Retirement Survivorship Allowance
<u>DECEASED</u>	<u>BENEFICIARY/PAYEE</u>
Lyons, Helen	Winnie M. Jackson for payment of the Accrued But Unpaid Retirement Allowance
Lyons, John S.	Winnie M. Jackson for payment of the Burial Allowance
MacDonald, Blanche K.	Jack A. and Blanche K. MacDonald Family Trust

	for payment of the Accrued But Unpaid Retirement Allowance
Magat, Jesus Panlilio	Laura Giron Magat for payment of the Accrued But Unpaid Retirement Allowance Burial Allowance
Martin, Bobby J.	Terri Antonette Martin for payment of the Accrued But Unpaid Retirement Allowance Burial Allowance
Mc Laughlin, Peggy M.	Mark Casey Mc Laughlin for payment of the Accrued But Unpaid Retirement Allowance
Mittelbach, Frank G.	Paul Francis Mittelbach for payment of the Accrued But Unpaid Retirement Allowance
Ray, Darran Lee (Deceased Active)	Karen Ray for payment of the Accumulated Contributions Limited Pension
Richey, Norma A.	Susan M. Crowder for payment of the Accrued But Unpaid Retirement Allowance
Rios, Antonio E.	Anthony Rios-Scott for payment of the Accrued But Unpaid Retirement Allowance Burial Allowance
	Corinne Perez for payment of the Accrued But Unpaid Retirement Allowance
Roberts, William R.	Linda J. Marsa for payment of the Accrued But Unpaid Retirement Allowance Burial Allowance
<u>DECEASED</u>	<u>BENEFICIARY/PAYEE</u>
Rojo, Rosalia (Deceased Active)	Crystal Dee Votion for payment of the Accumulated Contributions
	Yvette Urcid for payment of the Accumulated Contributions
Russell, Anna K.	Sylvia R. Mcdonald for payment of the Accrued But Unpaid Retirement Allowance

Schindler, Lillian	Sondra Sacks for payment of the Accrued But Unpaid Retirement Allowance Burial Allowance
Schrader, Clifton W.	Steven W. Schrader for payment of the Accrued But Unpaid Retirement Allowance Burial Allowance
Seamster, Sirlester	Gloria Jean Mathews Seamster for payment of the Accrued But Unpaid Retirement Allowance Burial Allowance
Selmer, Jerome R.	Doris R. Selmer for payment of the Accrued But Unpaid Retirement Allowance Burial Allowance
Shinohara, Leo S.	Erica Shinohara for payment of the Accrued But Unpaid Retirement Allowance Burial Allowance
Siemers, Evangeline	Alexander Siemers for payment of the Accrued But Unpaid Retirement Allowance
Spencer, John M. (Deceased Active)	Irene Emily Spencer for payment of the Accumulated Contributions
Takashima, Reiko	Yuji Takashima for payment of the Accrued But Unpaid Retirement Allowance
Tondreault, Philip A.	Korla Gina Tondreault for payment of the Accrued But Unpaid Retirement Allowance Burial Allowance
DECEASED	BENEFICIARY/PAYEE
Umali, Rolando San Luis	Sonia Umali for payment of the Accrued But Unpaid Retirement Allowance Burial Allowance
Valdez, Azucena	Judith M. Trees for payment of the Accrued But Unpaid Retirement Allowance
	Royce L. Trees for payment of the Accrued But Unpaid Retirement Allowance
Walpert, Kenneth D.	Virginia E. Walpert for payment of the

	Accrued But Unpaid Retirement Allowance Burial Allowance
Williams, Althamese L.	Joanna M. Williams for payment of the Accrued But Unpaid Retirement Allowance
Yen, Nancy (Deceased Active)	Tracy Ng for payment of the Accumulated Contributions
Zlatich, Sally A.	Tyler John Sutherland for payment of the Accrued But Unpaid Retirement Allowance

<u>TIER 3</u>
None

LACERS
LOS ANGELES CITY EMPLOYEES' RETIREMENT SYSTEM
Securing Your Tomorrows

Agenda of: AUGUST 14, 2018

Item No: V-B

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 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.

Attachments 3 through 5 detail all other departmental contracts, and are provided for informational purposes only.

Attachments:
1) Contracts Under Consideration for Renewal
2) Active RFPs and RFQs
3) List of All Current Contracts
4) Outside Counsel Contracts
5) Contracts Less Than One Year and $20,000

ATTACHMENT 1

CONTRACTS UNDER CONSIDERATION FOR RENEWAL (MARKETING CESSATION NOTIFICATION)

NO.	VENDOR / CONSULTANT	DESCRIPTION	INCEPTION DATE	EXPIRATION DATE	MARKETING CESSATION STATUS	RESTRICTED PERIOD*	
						START	END
INVESTMENTS							
1	EAM Investors, LLC	Active U.S. Small Cap Growth Equities	10/1/2015	9/30/2018	Contract expires on 9/30/2018	4/1/2018	3/30/2019
2	AJO, LP	Active Large Cap Value Equities	11/1/2010	10/31/2018	Contract expires on 10/31/2018	7/1/2018	4/31/2019
HEALTH BENEFITS							
3	Anthem 2018	Medical HMO & PPO	1/1/2018	12/31/2018	Board approved on 8/22/2017; Contract under review for execution.	9/30/2017	3/31/2018
4	Kaiser 2018	Medical HMO	1/1/2018	12/31/2018	Board approved on 8/22/2017; Contract under review for execution.	9/30/2017	3/31/2018
5	SCAN 2018	Medical HMO	1/1/2018	12/31/2018	Board approved on 8/22/2017; Contract under review for execution.	9/30/2017	3/31/2018
6	UnitedHealthcare 2018	Medical HMO	1/1/2018	12/31/2018	Board approved on 8/22/2017; Contract under review for execution.	9/30/2017	3/31/2018
7	Delta Dental 2018	Dental PPO and HMO	1/1/2018	12/31/2018	Board approved on 8/22/2017; Contract under review for execution.	9/30/2017	3/31/2018
8	Anthem Blue View Vision 2018	Vision Services Contract	1/1/2018	12/31/2018	Board approved on 8/22/2017; Contract under review for execution.	9/30/2017	3/31/2018

ATTACHMENT 1

COMMUNICATIONS							
9	Imagine That Design Studio	Graphic Design Services	New		Board Approved on 5/22/2018; Contract under review for execution.	3/1/2018	9/30/2018
ADMINISTRATIVE SERVICES							
10	Travers Cresa	Real Estate Services	1/1/2018	12/31/2020	Board Approved on 11/28/2017; Contract under review for execution.	10/1/2017	3/31/2021
INTERNAL AUDIT							
11	Brown Armstrong	External Audit Consulting Services	6/15/2011	6/14/2018	Supplemental Contract approved by Board on 6/26/2018.	3/15/2018	9/15/2018

*RESTRICTED PERIOD

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.

LOS ANGELES CITY EMPLOYEES' RETIREMENT SYSTEM CONTRACTS LIST
FOR THE AUGUST 14, 2018 BOARD MEETING

ACTIVE RFPs AND RFQs* (MARKETING CESSATION NOTIFICATION)

NO.	DESCRIPTION	MARKETING CESSATION STATUS AND VENDOR RESPONSES
		INVESTMENTS
1	Investment Transition Management Services	**RFP Release Date:** December 12, 2016
		Submission Deadline: February 13, 2017
		Status: Board awarded contracts to Abel Noser, LLC; BlackRock Institutional Trust Company, N.A.; Citigroup Global Markets Inc.; Loop Capital Markets LLC; Macquarie Capital (USA) Inc.; and Penserra Transition Management LLC; on August 22, 2017.
		List of Respondents: Abel Noser, LLC; BlackRock Institutional Trust Company, N.A.; Citigroup Global Markets Inc.; Loop Capital Markets LLC; Macquarie Capital (USA) Inc.; Northern Trust Investments Inc.; Pavilion Global Markets Ltd.; Penserra Transition Management LLC; Russell Investments Implementation Services, LLC; State Street Bank and Trust Company
2	Investigative Services	**RFP Release Date:** April 4, 2018
		Submission Deadline: April 26, 2018
		Status: Evaluating proposals
		List of Respondents: Digistream Investigations, Frasco, G4S Compliance & Investigations, TruView BSI, LLC
3	Outside Tax Counsel	**RFP Release Date:** June 27, 2018
		Submission Deadline: July 20, 2018
		Status: Evaluating proposals
		List of Respondents:

* 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.

LOS ANGELES CITY EMPLOYEES' RETIREMENT SYSTEM CONTRACTS LIST
FOR THE AUGUST 14, 2018 BOARD MEETING

LIST OF ALL CURRENT CONTRACTS

NO.	VENDOR / CONSULTANT	DESCRIPTION	INCEPTION DATE	EXPIRATION DATE
		INVESTMENTS		
1	EAM Investors, LLC	Active U.S. Small Cap Growth Equities	10/1/2015	9/30/2018
2	AJO, LP	Active Large Cap Value Equities	11/1/2010	10/31/2018
3	LM Capital Group, LLC	Active Domestic Fixed Income	3/1/2011	2/28/2019
4	Robert W. Baird & Co., Inc.	Active Domestic Fixed Income	3/1/2011	2/28/2019
5	AEGON USA Investment Management, LLC	Active U.S. High Yield Fixed Income	4/1/2016	3/31/2019
6	Loomis, Sayles & Company, L.P.	Active Core Domestic Fixed Income	8/1/2011	7/31/2019
7	Barrow, Hanley, Mewhinney & Strauss, LLC	Active Non-U.S. Equities Developed Markets Value	10/1/2013	9/30/2019
8	Lazard Asset Management, LLC	Active Non-U.S. Equities Developed Markets Core	10/1/2013	9/30/2019
9	MFS Institutional Advisors, Inc.	Active Non-U.S. Equities Developed Markets Growth	10/2/2013	9/30/2019
10	Axiom International Investors, LLC	Active Growth Non-U.S. Emerging Markets Equities	1/1/2014	12/31/2019
11	Quantitative Management Associates, LLC	Active Core Non-U.S. Emerging Markets Equities	1/1/2014	12/31/2019
12	Oberweis Asset Management, Inc.	Active Non-U.S. Small Cap Equities	1/1/2014	12/31/2019
13	AQR Capital Management, LLC	Active Non-U.S. Small Cap Equities	2/1/2014	1/31/2020
14	Panagora Asset Management, Inc.	Active Domestic Small Cap Value Equity	2/1/2012	1/31/2020
15	Prudential Investment Management, Inc.	Active Emerging Market Debt	3/1/2014	2/28/2020
16	BlackRock Institutional Trust, N.A.	Multi Passive Index	6/1/2013	5/31/2020
17	Principal Global Investors, LLC	Active U.S. Mid Cap Core Equities	7/1/2014	6/30/2020
18	Dimensional Fund Advisors, LP	Active Non-U.S. Equities Emerging Markets Value	7/1/2014	6/30/2020

LOS ANGELES CITY EMPLOYEES' RETIREMENT SYSTEM CONTRACTS LIST
FOR THE AUGUST 14, 2018 BOARD MEETING

LIST OF ALL CURRENT CONTRACTS

NO.	VENDOR / CONSULTANT	DESCRIPTION	INCEPTION DATE	EXPIRATION DATE
19	Dimensional Fund Advisors, LP	Active U.S. Treasury Inflation Protected Securities ("TIPS")	7/1/2014	6/30/2020
20	Neuberger Berman Fixed Income LLC	Active Core Fixed Income	7/1/2013	6/30/2020
21	Rhumbline Advisors	U.S. Equity Index Funds	4/1/2016	3/31/2021
22	CenterSquare Investment Management, Inc.	Active U.S. REITs	4/1/2018	3/31/2021
23	State Street Bank and Trust Company	Multi Passive Index	6/1/2013	5/31/2021
24	CoreCommodity Management, LLC	Active Long-Only Commodities	6/1/2015	5/31/2021
25	Bain Capital Senior Loan Fund, L.P.	Active U.S. Bank Loans	7/1/2018	6/30/2021
26	The Northern Trust Company	Master Custody Services	8/1/2018	7/31/2021
27	The Northern Trust Company	Compliance Analyst Service and/or Event Analyst Services	8/1/2018	7/31/2021
28	The Northern Trust Company	Risk Services	8/1/2018	7/31/2021
29	The Northern Trust Company	Integrated Disbursement Service	8/1/2018	7/31/2021
30	The Northern Trust Company	Private Monitor Analytical Services (Core Services)	8/1/2018	7/31/2021
31	The Northern Trust Company	Securities Lending Services	8/1/2018	7/31/2021
32	Townsend Holdings LLC	Real Estate Consulting Services	4/1/2014	3/31/2022
33	State Street Global Advisors	MSCI World Ex-U.S. IMI Index	7/1/2014	6/30/2022
34	NEPC, LLC	General Pension Fund Consulting Services	7/1/2017	6/30/2022
35	Institutional Shareholder Services Inc.	Proxy Voting Analysis Services	3/1/2018	2/28/2023
36	TorreyCove Capital Partners LLC	Private Equity Consulting Services	7/25/2018	7/24/2023

LOS ANGELES CITY EMPLOYEES' RETIREMENT SYSTEM CONTRACTS LIST
FOR THE AUGUST 14, 2018 BOARD MEETING

LIST OF ALL CURRENT CONTRACTS

NO.	VENDOR / CONSULTANT	DESCRIPTION	INCEPTION DATE	EXPIRATION DATE
HEALTH BENEFITS				
37	Anthem 2017	Medical HMO & PPO	1/1/2017	12/31/2017
38	Kaiser 2017	Medical HMO	1/1/2017	12/31/2017
39	SCAN 2017	Medical HMO	1/1/2017	12/31/2017
40	UnitedHealthcare 2017	Medical HMO	1/1/2017	12/31/2017
41	Anthem Blue View Vision 2017	Vision Services Contract	1/1/2017	12/31/2017
42	Delta Dental 2017	Dental PPO and HMO	1/1/2016	12/31/2019
43	Keenan & Associates	Health and Welfare Consultant	3/1/2018	2/28/2021
COMMUNICATIONS				
44	California Marketing	Printing, Mailing and Ful;fillment	7/1/2018	6/30/2018
45	KES Mail, Inc.	Printing, Mailing and Fulfillment	7/1/2018	6/302021
RETIREMENT SERVICES				
46	CoventBridge	Investigative Services	9/1/2014	8/31/2018
47	Frasco Investigative Services	Investigative Services	9/1/2014	8/31/2018
48	Medical Support Los Angeles	Disability Services	1/1/2015	12/31/2020
49	QTC Medical Group	Disability Services	1/1/2015	12/31/2020

LOS ANGELES CITY EMPLOYEES' RETIREMENT SYSTEM CONTRACTS LIST
FOR THE AUGUST 14, 2018 BOARD MEETING

LIST OF ALL CURRENT CONTRACTS

NO.	VENDOR / CONSULTANT	DESCRIPTION	INCEPTION DATE	EXPIRATION DATE
SYSTEMS				
50	Levi, Ray & Shoup, Inc.	PensionGold Secure Business Continuance Planning Services	1/8/2018	1/7/2019
51	Levi, Ray & Shoup, Inc.	PensionGold Version 3 - Professional Services Agreement	3/1/2013	2/28/2019
52	Linea Solutions	Pension Admnistration System Consultant	6/1/2012	3/31/2019
53	Levi, Ray & Shoup, Inc.	PensionGold Version 3 - Maintenance and Support Agreement	5/24/2017	5/23/2022
54	Levi, Ray & Shoup, Inc.	PensionGold Version 2 - Maintenance, Support, and Business Continuance Services	7/1/2014	2/28/2024
55	Levi, Ray & Shoup, Inc.	Pension Gold Version 2 - License Agreement	1/27/1997	Perpetuity
56	Levi, Ray & Shoup, Inc.	PensionGold Version 3 - License Agreement	3/1/2013	Perpetuity
ADMINISTRATIVE SERVICES				
57	The Segal Company	Actuarial Consulting Services	8/1/2012	7/31/2019
58	Cortex Applied Research Inc.	Board Governance Consulting Services	6/13/2017	6/12/2020
59	Mosaic Governance Advisors, LLC	Board Governance Consulting Services	6/13/2017	6/12/2020
60	Onni Times Square, L.P.	Office Lease	8/1/2012	3/31/2023

LOS ANGELES CITY EMPLOYEES' RETIREMENT SYSTEM CONTRACTS LIST
FOR THE AUGUST 14, 2018 BOARD MEETING

OUTSIDE COUNSEL CONTRACTS
(NON-MARKETING CESSATION NOTIFICATION)

NO.	VENDOR / CONSULTANT	DESCRIPTION	INCEPTION DATE	EXPIRATION DATE	DEPARTMENT MANAGING CONTRACT
1	Morgan Lewis & Bockius LLP	Legal Services - Litigation	10/4/2012	Termination of Litigation	Office of the City Attorney
2	Reed Smith	Legal Services - Tax Law	4/16/2016	3/14/2019	Office of the City Attorney
3	Nossaman, LLP	Legal Services - Real Estate and Alternative Investments	6/16/2016	6/15/2019	Office of the City Attorney
4	Berstein Litowitz Berger & Grossman LLP	Securities Monitoring	3/1/2018	2/28/2021	Office of the City Attorney
5	Bleichmar Fonti & Auld LLP	Securities Monitoring	3/1/2018	2/28/2021	Office of the City Attorney
6	Labaton Sucharow LLP	Securities Monitoring	3/1/2018	2/28/2021	Office of the City Attorney
7	Nossaman LLP	Legal Services - Fiduciary Law	3/19/2018	3/18/2021	Office of the City Attorney

LOS ANGELES CITY EMPLOYEES' RETIREMENT SYSTEM CONTRACTS LIST
FOR THE AUGUST 14, 2018 BOARD MEETING

CONTRACTS LESS THAN ONE YEAR AND $20,000 (NON-MARKETING CESSATION NOTIFICATION)

NO.	VENDOR / CONSULTANT	DESCRIPTION	INCEPTION DATE	EXPIRATION DATE
RETIREMENT SERVICES				
1	Life Status 360	Death Auditing	9/17/2009	month-to-month
COMMUNICATIONS				
2	Higher Ground	Service Center Call Recording Services	9/23/2014	year-to-year
ADMINISTRATIVE SERVICES				
3	Linea Solutions	Consulting and Technical Services	6/1/2018	12/31/2018
4	Time Warner	Internet Service Provider	8/30/2012	month-to-month
5	MIR3/OnSolve	Automated Call Out System	1/17/2014	year-to-year
6	Iron Mountain	Onsite Confidential Document Shredding	7/1/2014	month-to-month
7	Agility Recovery	Business Continuity Services	10/1/2015	year-to-year

Agenda of:	AUG. 14, 2018
Item No:	V-C

MONTHLY REPORT ON SEMINARS AND CONFERENCES ATTENDED BY BOARD MEMBERS ON BEHALF OF LACERS (FOR THE MONTH OF JUNE 2018)

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

BOARD MEMBER:

President Cynthia M. Ruiz
Vice President Michael R. Wilkinson

Commissioner Annie Chao
Commissioner Elizabeth L. Greenwood
Commissioner Nilza R. Serrano
Commissioner Sung Won Sohn

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

Agenda of:	**AUG. 14, 2018**
Item No:	**V-D**

**MONTHLY REPORT ON SEMINARS AND CONFERENCES
ATTENDED BY BOARD MEMBERS ON BEHALF OF LACERS
(FOR THE MONTH OF JULY 2018)**

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

BOARD MEMBER:

President Cynthia M. Ruiz

DATE(S) OF EVENT	SEMINAR / CONFERENCE TITLE	EVENT SPONSOR (ORGANIZATION)	LOCATION (CITY, STATE)
07/18/18	**AIF West Coast Forum**	AIF Institute	Los Angeles, CA

LACERS
LOS ANGELES CITY EMPLOYEES' RETIREMENT SYSTEM

Report to Board of Administration

From: Neil M. Guglielmo, General Manager

Neil M. Guglielmo

Agenda of: **AUGUST 14, 2018**

ITEM: **V-E**

SUBJECT: **TRAVEL AUTHORITY (REVISED) – COMMISSIONER ELIZABETH L. GREENWOOD; VALUE EDGE ADVISORS 2018 PUBLIC FUNDS FORUM, LAGUNA BEACH, CALIFORNIA; SEPTEMBER 4-6, 2018 AND POSSIBLE BOARD ACTION**

Recommendation:

That the Board authorize Commissioner Elizabeth L. Greenwood to attend the Value Edge Advisors 2018 Public Funds Forum on September 4-6, 2018 (travel dates September 4-6, 2018) in Laguna Beach, California; and authorize the reimbursement of up to $1548.00 for Commissioner Greenwood for reasonable expenses in connection with participation.

Discussion:

Commissioner Greenwood has expressed interest in attending the above-mentioned educational conference, and this Board report is prepared on her behalf. Commissioner Greenwood has also been provided a copy of LACERS Board Education and Travel Policy.

Pursuant to the Board Education and Travel Policy (Policy), Board approval is necessary for this travel request because the Approved List of Educational Seminars for Fiscal Year 2018-19 has not been adopted. Additionally, this conference has not been included in previous Approved Lists of Educational Seminars.

This request was presented and approved by the Board at the July 24, 2018, Board Meeting. Pursuant to the response letter from Value Edge Advisors, the registration fee cannot be 100% waived, and therefore the discounted registration fee will be $345.00. This will increase the reimbursement from $1203.00 to $1548.00.

Strategic Plan Impact Statement:

As stipulated in the Policy, the sound management of the assets and liabilities of a trust fund imposes a continuing need for all Board Members to attend professional and educational conferences, seminars, and other educational events that will better prepare them to perform their fiduciary duties.

For Fiscal Year 2018-19, Commissioner Greenwood has an education travel balance of $10,000.00

This report was prepared by Ani Ghoukassian, Commission Executive Assistant.

Attachments: 1) Letter from Value Edge Advisors
2) Estimate of Reimbursable Expenses
3) Tentative Schedule/Agenda
4) Proposed Resolution

ValueEdge
ADVISORS

Richard A. Bennett
President and CEO

August 1, 2018

VIA EMAIL

Ms. Elizabeth L. Greenwood
Trustee
Los Angeles City Employees' Retirement System
1147 Englander Street
San Pedro, CA 90731

Re: *Protecting Portfolio Value 2018 Public Funds Forum*

Dear Ms. Greenwood:

Thank you for your interest in the 2018 Public Funds Forum from September 4-6, 2018, at the Montage Resort in Laguna Beach, California. You are currently registered for the conference and have chosen not to participate in a networking activity the afternoon of September 6. Your confirmation number is **13016**.

We have received your request for a registration fee waiver, and pursuant to the California Political Reform Act, Gilardi & Co. LLC is pleased to grant you a registration waiver valued at $470. While our outside counsel has preliminarily determined that acceptance of the waiver is in accordance with the applicable ethics laws in your jurisdiction, we strongly recommend that you consult with your employing entity's ethics counsel for review and approval. The discounted registration fee is $345. Please remit payment of $345 no later than August 10, 2018, to hold your reservation at the conference. Please make checks payable to ValueEdge Conferences and reference your registration confirmation number and taxpayer identification number 47-1701723 on your check. Please send your check to the attention of Lisa Gorjestani at 26500 W. Agoura Rd., Suite 725, Calabasas, California 91302. If you would like to pay by credit card, please fill out the attached credit card authorization form.

A discounted block of rooms has been reserved at the Montage Resort for the conference. Please call 1 (866) 271-6953 to reserve your room and receive a discounted rate of $350 per night (not including applicable taxes). The Montage Resort is approximately a 30-minute drive from Orange County's John Wayne Airport. Directions are attached. Taxis, shuttles and various car rental agencies are readily available and located in the ground transportation area at the airport.

Conference registration begins on Tuesday, September 4, 2018, from 1:00 p.m. – 4:30 p.m., and opening remarks will begin at 6:00 p.m. Business casual attire is appropriate for the conference sessions and the Luau Networking Dinner. Cocktail attire is appropriate for the Studio 54 Networking Dinner. For the most current information regarding the conference itinerary, sessions agenda, speakers, and networking activities, please visit www.publicfundsforum.com. If you have any questions about the conference or payments, please feel free to call Lisa Gorjestani at (310) 476-8108.

We are honored that you are participating in the 2018 Public Funds Forum and look forward to seeing you in September!

Sincerely,

Rick Bennett

RICHARD A. BENNETT
President & CEO
ValueEdge Advisors

CITY OF LOS ANGELES
Intra-Departmental Correspondence

DATE: August 2, 2018

TO: Accounting Section
City Employees' Retirement System

FROM: Ani Ghoukassian, Commission Executive Assistant I
Board of Administration

SUBJECT: ESTIMATE OF REIMBURSABLE EXPENSES - REVISED

Name of Attendee Title	ELIZABETH L. GREENWOOD, COMMISSIONER LACERS Board of Administration	
Event	2018 Public Funds Forum	
Organization	Value Edge Advisors	
Date(s) of Event	September 4-6, 2018 (Travel dates September 4-6, 2018)	
Location of Event	Laguna Beach, CA	
ESTIMATED EXPENSES:	Registration:	$345.00
	Hotel: $400.00 per night (2 nights) excluding tax	$800.00
	Meal/Incidental Allowances: $48 per day x 1 day $33 per day x 1 day $21 per day x 1 day	$102.00
	Roundtrip Mileage: (112 miles x $.545)	$61.00
	Parking: ($50 per day) x 3 days	$150.00
	Miscellaneous: ($30 per day) x 3 days	$90.00
	TOTAL ESTIMATE:	**$1548.00**

HOME CONFERENCE ITINERARY SESSIONS AGENDA NETWORKING ACTIVITIES LAGUNA BEACH REGISTRATION

Join us for three days of educational sessions and networking activities with experts who will cover topics ranging from methods for improving portfolio assessment, manager selection, risk management, fulfillment of fiduciary duties, global investment strategy, and approaches for maximizing portfolio returns.

James Comey

Director, FBI (2013-2017)

Richard A. Bennett

President & CEO, ValueEdge Advisors

Nell Minow

Vice Chair, ValueEdge Advisors

Jay Leno

American Comedian, Actor, Philanthropist and Television Host

CELEBRATING 10 YEARS 2009-2018

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HOME CONFERENCE ITINERARY SESSIONS AGENDA NETWORKING ACTIVITIES LAGUNA BEACH REGISTRATION

ValueEdge Advisors'
2018
Public Funds Forum
September 4–6 | Montage Laguna Beach | Laguna Beach, California

SESSIONS AGENDA

TUESDAY, SEPTEMBER 4, 2018

Check-In and Registration
1:00 pm - 4:30 pm

Opening Remarks
4:00 pm - 4:15 pm

Session 1: The Ethical Leader
6:15 pm - 7:15 pm

After a decades-long career in public service, James Comey will share what good, ethical leadership looks like, how it drives sound decisions, and offer a road map for ethical leadership even in the most challenging and uncertain of circumstances. Comey will also shed light upon the thinking behind his own decisions, and share his thoughts on why leaders should be laser-focused on a core set of principles, chief among them truth, transparency, and decency.

SPEAKER: James Comey, introduced by Paul J. Geller

James Comey

James Comey
Director
Federal Bureau of Investigation (2013-2017)

James Comey led the Federal Bureau of Investigation from 2013 to 2017, appointed to the post by President Barack Obama. His tenure was tested by new forces within and outside America's borders. He oversaw the federal response to mass shootings in San Bernardino in December 2015 and at Pulse nightclub in Orlando the following June, at the time the deadliest in the country's history. He also worked to address key leadership, agility, and diversity issues within the Bureau.

Click to read Complete bio.

Paul J. Geller

Paul J. Geller
Partner
Robbins Geller Rudman & Dowd LLP

Paul Geller, Managing Partner of Robbins Geller Rudman & Dowd LLP's Boca Raton, Florida office, is a Founding Partner of the firm, a member of its Executive and Management Committees and head of the firm's Consumer Practice Group. Mr. Geller's 25 years of litigation experience is broad, and he has handled cases in each of the firm's practice areas. Notably, before devoting his practice to the representation of consumers and investors, he defended companies in high-stakes class action litigation, providing him an invaluable perspective. Mr. Geller has tried bench and jury trials on both the plaintiffs' and defendants' sides, and has argued before numerous state, federal and appellate courts throughout the country.

Click to read Complete bio.

Luau Networking Dinner
7:15 pm - 10:00 pm

WEDNESDAY, SEPTEMBER 5, 2018

Breakfast
7:00 am - 8:00 am

Session 2: Risk and Return, Leadership and Governance, in a Volatile World
8:00 am - 8:45 am

Visionary investor, business leader and advocate for the advancement of governance, Mac Van Wielingen will explore the critical role of leadership and governance in a time of accelerating and confronting change. Mr. Van Wielingen calls for a deep re-assessment of the role of the board and a re-conceptualization of corporate governance, with profound implications to all who have a stake in the integrity and effectiveness of capital allocation and the management of risk in financial markets.

SPEAKER: Mac Van Wielingen

Mac Van Wielingen

Mac Van Wielingen
Founder and Director
ARC Financial Corp.

Mac Van Wielingen has a unique and extensive base of experience as an entrepreneur, builder of companies, corporate director, and as a self-described "student of business leadership." He is the founder and current director of ARC Financial, the largest private equity manager in Canada focused on the energy sector which has invested in over 180 businesses. Mr. Van Wielingen is the former Chair of the Board of Alberta Investment Management Corporation (AIMCo), where he joined as an original director in 2007, and which today manages over $100 billion. He is the founder and former Chair of ARC Resources, a leading, publicly listed oil and gas company in Canada's energy sector. While serving as Chairman, ARC Resources was ranked #1 in Brendan Wood International's Shareholder Confidence Index in the Energy and Power Group. Most recently, he co-founded and chairs Viewpoint Investment Partners, an investment management company offering a foundational, global investment alternative for high net-worth families and institutional investors.

Click to read Complete bio.

Session 3: Global Markets Roundup
8:45 am - 10:00 am

International experts and experienced asset managers cover the issues facing investors protecting their rights around the world, including international monitoring, foreign recoveries, claims funding for securities traded on non-U.S. exchanges, and third party funding issues.

SPEAKERS: David Chun, Magnus Furugard, Deborah Gilshan, FCIS and Sacha Sadan, moderated by Patrick W. Daniels

David Chun

David Chun
Chief Executive Officer and Founder
Equilar, Inc.

David Chun has led Equilar since its inception and has become one of the most respected and trusted names in the corporate governance industry. Mr. Chun has been recognized as one of the "100 Most Influential Players in Corporate Governance" by the National Association of Corporate Directors (NACD).

Click to read Complete bio.

Magnus Furugard

Magnus Furugard
Founder and Chairman of the Board
GES International

Magnus Furugard is the Founder and Chairman of the Board of GES International. Before joining GES' Board, he stood at the helm of the company as President and Managing Director for 23 years. He now focuses on business and product development as well as strategic consulting to clients.

Click to read Complete bio.

Deborah Gilshan, FCIS
ESG Investment Director, Aberdeen Standard Investments
Founder of The 100% Club & Co-Chair, 30% Club UK Investor Group

Deborah Gilshan has 17.5 years of experience in investment stewardship. Her areas of specialism include corporate governance, executive pay, diversity (with a deep expertise on gender diversity), corporate culture, sustainability and market policy work to protect and improve the rights of shareholders. Ms. Gilshan is a regular commentator and speaker on investment stewardship and her work has featured in the *Financial Times*, the *New York Times*, and other mainstream financial media.

Click to read Complete bio.

Deborah Gilshan, FCIS

Sacha Sadan
Director of Corporate Governance
Legal & General Investment Management

Sacha Sadan is the Director of Corporate Governance and on the Board at Legal & General Investment Management (LGIM), one of the largest asset managers in Europe. In September 2016, he was recognized in the *Financial Times* as one of "The 30 most influential people in the City of London," crediting him as one of the leading architects of 2012's "shareholder spring." At LGIM, Mr. Sadan has overall responsibility for corporate governance areas including Environment Social Governance (ESG). He regularly collaborates with other investors as well as governments and regulators.

Sacha Sadan

Click to read Complete bio.

Patrick W. Daniels
Partner
Robbins Geller Rudman & Dowd LLP

Patrick W. Daniels is a founding and managing partner in Robbins Geller Rudman & Dowd LLP's San Diego office. Mr. Daniels is widely recognized as a leading corporate governance and investor advocate. The *Daily Journal*, the leading legal publisher in California, named him one of the 20 most influential lawyers in California under 40 years of age. Additionally, the Yale School of Management's Millstein Center for Corporate Governance and Performance awarded Mr. Daniels its "Rising Star of Corporate Governance" honor for his outstanding leadership in shareholder advocacy and activism.

Patrick W. Daniels

Click to read Complete bio.

Networking Break
10:00 am - 10:15 am

Session 4: Responsible Investment Bootcamp
10:15 am - 11:00 am

Pension funds are facing new responsibilities and opportunities in sustainability and responsible investing. How are leading funds responding to the challenge?

SPEAKERS: Kevin Thomas and Ted White, moderated by Nell Minow

Kevin Thomas
Director of Shareholder Engagement
Shareholder Association for Research & Education (SHARE)

Kevin Thomas is the Director of Shareholder Engagement at the Shareholder Association for Research & Education (SHARE). SHARE is a Canadian leader in responsible investment services, providing shareholder engagement, proxy voting, research and education, and policy advocacy to a growing network of Canadian institutional investors with more than $22 billion in assets under management.

Kevin Thomas

Click to read Complete bio.

Ted White
Managing Director
Legion Partners Asset Management

Ted White is co-founder and a Managing Director of Legion Partners Asset Management. Prior to founding Legion Partners, Mr. White most recently served in various functions with Knight Vinke Asset Management, a European-based activist fund manager.

Ted White

Click to read Complete bio.

Nell Minow

Nell Minow
Vice Chair
ValueEdge Advisors

Nell Minow is Vice Chair of ValueEdge Advisors. She was Co-Founder and Director of GMI Ratings from 2010 to 2014, and was Editor and Co-Founder of its predecessor firm, The Corporate Library, from 2000 to 2010. Prior to co-founding The Corporate Library, Ms. Minow was a Principal of LENS, a $100 million investment firm that took positions in underperforming companies and used shareholder activism to increase their value.

Click to read Complete bio.

Session 5: Lessons in Leadership
11:00 am - 12:00 pm

A seasoned Chief Executive Officer and corporate director discusses best practices for effective leadership, corporate governance, an empowering workplace, and shareowner engagement.

SPEAKER: Garry Ridge, introduced by Richard A. Bennett

Garry Ridge

Garry Ridge
President, Chief Executive Officer and Director
WD-40 Company

As Chief Executive Officer and a member of the board of directors of WD-40 Company, Garry Ridge is responsible for developing and implementing high-level strategies, all operations, and the oversight of all relationships and partnerships for the company.

Click to read Complete bio.

Richard A. Bennett

Richard A. Bennett
President & Chief Executive Officer
ValueEdge Advisors

Richard A. Bennett is President and Chief Executive Officer of ValueEdge Advisors, a firm founded in the summer of 2014 to help institutional investors engage with their portfolio companies. From 2006, Mr. Bennett served as Chief Executive Officer and then Chairman of GMI Ratings and its predecessor, The Corporate Library, a globally recognized investment research firm specializing in corporate governance and ESG with offices in London, New York, San Diego and Portland, Maine.

Click to read Complete bio.

Lunch
12:00 pm - 1:00 pm

Session 6: When Governance Fails
1:00 pm - 2:00 pm

SPEAKER: Andrew S. Fastow, moderated by Peter Crudo

Andrew S. Fastow

Andrew S. Fastow
Former Chief Financial Officer
Enron Corp.

Enron's former Chief Financial Officer, Andrew S. Fastow, will make observations about how the ambiguity and complexity of laws and regulations breeds opportunity for problematic decisions. Additionally, he will discuss what questions corporate directors, management, attorneys, fraud examiners and auditors should ask in order to ensure that their institutions not only follow the rules, but uphold the principles behind them.

Click to read Complete bio.

Peter Crudo
Chief Executive Officer
Gilardi & Co. LLC

Peter Crudo is the CEO of Gilardi & Co. LLC. In this role, he oversees all aspects of Gilardi's strategic and corporate development. Mr. Crudo also brings a unique perspective to his duties, as he has worked both as an attorney in private practice and as a senior level management member in both private and public technology companies. During his tenure as CEO, Gilardi has served as the claims administrator on some of the largest and most complicated settlements in history, including *Enron*, *AOL Time Warner*, *Household* and *Xerox*.

Peter Crudo

Click to read Complete bio.

Session 7: Recoveries and Remedies: Protecting Your Portfolio Through Securities Litigation
2:00 pm - 3:00 pm

Leading securities lawyers and financial experts discuss how the use of securities litigation by pension funds can improve returns, reduce risk, deter fraud, and reform troubled companies.

SPEAKERS: Frank Partnoy and Darren J. Robbins

Frank Partnoy

Frank Partnoy
Professor
U.C. Berkeley School of Law

Professor Frank Partnoy is a law professor at U.C. Berkeley School of Law. After graduating from Yale Law School, he worked as a derivatives structurer at Morgan Stanley and CS First Boston and wrote *F.I.A.S.C.O.: Blood in the Water on Wall Street*, a best-selling book about his experiences there. He also was a lawyer at Covington & Burling and a law professor for 21 years at the University of San Diego. He has published more than two dozen scholarly articles, and has written numerous pieces for *The Atlantic*, *The New York Times* and the *Financial Times*.

Click to read Complete bio.

Darren J. Robbins
Partner
Robbins Geller Rudman & Dowd LLP

Darren J. Robbins is a founding partner of Robbins Geller Rudman & Dowd LLP. Over the last two decades, Mr. Robbins has served as lead counsel in more than 100 securities actions and has recovered billions of dollars for injured shareholders. One of the hallmarks of Mr. Robbins' practice has been his focus on corporate governance reform.

Darren J. Robbins

Click to read Complete bio.

Session 8: General Counsel's Roundtable
3:00 pm - 4:00 pm

From accounting practices and disclosures, to cybersecurity and data privacy, to human resources and employment practices, the role of the fund general counsel/CCO has growing strategic and operational implications to successful fund management. Seasoned fund officers in law and compliance share perspectives on the evolving demands on their jobs in public policy debates, investment mandates, stakeholder relations, securities litigation, and fund governance.

SPEAKERS: Michael P. Calabrese, Johnny Tran and Jennifer Zahry, moderated by David B. Wescoe

Michael P. Calabrese
Chief Counsel
San Bernardino County Employees' Retirement Association (SBCERA)

Michael P. Calabrese joined the San Bernardino County Employees' Retirement Association (SBCERA) as Chief Counsel in December 2013. He is responsible for providing responsible and complex legal support to the Board of Retirement and in-house counsel to SBCERA regarding legal, policy and legislative issues.

Michael P. Calabrese

Click to read Complete bio.

Johnny Tran
General Counsel and Chief Compliance Officer
San Diego City Employees' Retirement System (SDCERS)

Johnny Tran is the General Counsel and Chief Compliance Officer for the San Diego City Employees' Retirement System. In those roles, he oversees all legal matters affecting the $8 billion system and its 20,000 members. He is a regular speaker at conferences related to public pension systems. Previously, Mr. Tran was a civil litigator in private practice.

Johnny Tran

Click to read Complete bio.

Jennifer Zahry
General Counsel
Kern County Employees' Retirement Association (KCERA)

Jennifer Zahry has been the General Counsel for the Kern County Employees' Retirement Association since 2013. She advises the KCERA staff and Board of Retirement on all issues affecting the plan. As KCERA's first in-house counsel, she has developed processes and provided training to assist in identifying and resolving legal issues.

Jennifer Zahry

Click to read Complete bio.

David B. Wescoe
Chief Executive Officer
San Diego County Employees Retirement Association (SDCERA)

David Wescoe is an experienced and successful legal, financial, operational and investment professional who has served as General Counsel, Chief Financial Officer and Chief Executive Officer for public and private companies, including Chief Executive Officer of two multi-billion dollar pension plans and one of the country's largest independent broker-dealers.

David B. Wescoe

Click to read Complete bio.

Cocktail Reception
6:30 pm - 7:30 pm

Studio 54 Networking Dinner
7:30 pm - 12:00 am

THURSDAY, SEPTEMBER 6, 2018

Breakfast
7:00 am - 8:00 am

Session 9: Best Practices in Fund Governance
8:00 am - 9:00 am

Pension fund leaders share innovative insights and information on what works best in fund management and stakeholder accountability.

SPEAKERS: Annalisa Barrett, Michael D. Herrera and Michael P. McCauley

Annalisa Barrett
Senior Advisor
ValueEdge Advisors

Annalisa Barrett is a Clinical Professor of Finance at the University of San Diego's School of Business Administration. She teaches graduate courses in Corporate Governance and undergraduate courses in Financial Management, Financial Statement Analysis, and Personal Finance. Her research interests focus on corporate governance practices, board composition, and director demographics.

Annalisa Barrett

Click to read Complete bio.

Michael D. Herrera
Senior Staff Counsel
Los Angeles County Employees Retirement Association (LACERA)

Michael D. Herrera joined the Los Angeles County Employees Retirement Association (LACERA) in 1999. As a Senior Staff Counsel, Mr. Herrera serves as a legal advisor to the fund, its Boards, and staff. He also represents the fund in complex litigation and administrative proceedings, and assists in overseeing the fund's global securities litigation program, including evaluation and prosecution of domestic and international securities cases. With over 165 thousand members and $56 billion in assets under management, LACERA is the largest county retirement system in the United States.

Michael D. Herrera

Click to read Complete bio.

Michael P. McCauley

Michael P. McCauley
Senior Officer, Investment Programs & Governance
State Board of Administration (SBA) of Florida

Michael McCauley's primary responsibilities include active strategies within corporate governance as well as investment program management for the Florida PRIME™ investment pool and other non-pension investment mandates totaling over $11 billion. He also is a member of the SBA's Senior Leadership Working Group, responsible for investment and operational oversight across all SBA portfolios.

Click to read Complete bio.

Session 10: The War on Opioids
9:00 am - 10:00 am

From scandals in drug pricing to the opioid epidemic to tax inversions, Big Pharma is in the crosshairs of public policy, securities litigation, and shareowner engagement. What is the role of the pension fund?

SPEAKERS: Meredith Miller, Aelish Marie Baig, Mark J. Dearman and Dr. Anna Lembke, moderated by Paul J. Geller

Meredith Miller

Meredith Miller
Chief Corporate Governance Officer
UAW Retiree Medical Benefits Trust

Meredith Miller is the Chief Corporate Governance Officer of the UAW Retiree Medical Benefits Trust ("Trust"). The Trust was established in 2010 as a Voluntary Employee Beneficiary Association (VEBA) to pay the medical benefits for 700,000 UAW retirees. The Trust is the largest non-governmental provider of retiree health in the U.S. and has assets of $59 billion.

Click to read Complete bio.

Aelish Marie Baig

Aelish Marie Baig
Partner
Robbins Geller Rudman & Dowd LLP

Aelish Marie Baig is a partner in Robbins Geller Rudman & Dowd LLP's San Francisco office. She specializes in federal securities and consumer class actions. She focuses primarily on securities fraud litigation on behalf of individual and institutional investors, including state and municipal pension funds, Taft-Hartley funds, and private retirement and investment funds. Baig has litigated a number of cases through jury trial, resulting in multi-million dollar awards and settlements for her clients and has prosecuted securities fraud, consumer and derivative actions obtaining millions of dollars in recoveries against corporations such as Wells Fargo, Verizon, Celera, Pall and Prudential. Ms. Baig is currently litigating the opioid case on behalf of cities and states around the country.

Click to read Complete bio.

Mark J. Dearman

Mark J. Dearman
Partner
Robbins Geller Rudman & Dowd LLP

Mark Dearman is a partner in Robbins Geller Rudman & Dowd LLP's Boca Raton office, where his practice focuses on consumer fraud, securities fraud, mass torts, antitrust, whistleblower and corporate takeover litigation. Mr. Dearman is currently litigating the opioid case on behalf of cities and states around the country. His extensive defense background and trial experience is a unique asset utilized in protecting the rights of those who have been harmed by corporate misconduct.

Click to read Complete bio.

Dr. Anna Lembke
Associate Professor and Chief of Addiction Medicine
Stanford University School of Medicine

Dr. Anna Lembke was one of the first in the medical community to sound the alarm regarding opioid overprescribing and the opioid epidemic. In 2016, she published her best-selling book on the prescription drug epidemic, *Drug Dealer, MD: How Doctors Were Duped, Patients Got Hooked, and Why It's So Hard to Stop*, that combines case studies with public policy, cultural anthropology, and neuroscience to explore the complex relationship between doctors and patients around

Dr. Anna Lembke

prescribing controlled drugs, the science of addiction, and the barriers to successfully addressing prescription drug misuse and addiction.

Click to read Complete bio.

Paul J. Geller

Paul J. Geller
Partner
Robbins Geller Rudman & Dowd LLP

Paul Geller, Managing Partner of Robbins Geller Rudman & Dowd LLP's Boca Raton, Florida office, is a Founding Partner of the firm, a member of its Executive and Management Committees and head of the firm's Consumer Practice Group. Mr. Geller's 25 years of litigation experience is broad, and he has handled cases in each of the firm's practice areas. Notably, before devoting his practice to the representation of consumers and investors, he defended companies in high-stakes class action litigation, providing him an invaluable perspective. Mr. Geller has tried bench and jury trials on both the plaintiffs' and defendants' sides, and has argued before numerous state, federal and appellate courts throughout the country.

Click to read Complete bio.

Session 11: Emerging Issues in Investing and Governance
10:15 am - 11:00 am

Perceptive thinkers and veteran practitioners discuss the changing landscape of pension fund management, investment stewardship, and boardroom practices.

SPEAKERS: Amy Borrus, Guy Jubb and Andrew Winden, moderated by Richard A. Bennett

Amy Borrus

Amy Borrus
Deputy Director
Council of Institutional Investors (CII)

Amy Borrus is Deputy Director of the Council of Institutional Investors (CII), a nonprofit, nonpartisan U.S. association of employee benefit funds, state and local entities charged with investing public assets, foundations and endowments, with combined assets in excess of $3.5 trillion, that promotes good corporate governance and strong shareholder rights.

Click to read Complete bio.

Guy Jubb

Guy Jubb
Honorary Professor
University of Edinburgh Business School

Guy Jubb is an Honorary Professor at the University of Edinburgh Business School. Previously, Mr. Jubb was the Global Head of Governance & Stewardship at Standard Life Investments (SLI), where he was responsible for the worldwide application of SLI's governance and stewardship principles and policy guidelines.

Click to read Complete bio.

Andrew Winden

Andrew Winden
Fellow, Rock Center for Corporate Governance
Lecturer in Law, Stanford Law School

Andrew Winden is a Fellow at the Rock Center for Corporate Governance and a Lecturer in Law at Stanford Law School. Mr. Winden writes about corporate governance and entrepreneurship, capital markets and securities regulation, climate change and sustainability and business transactions. He teaches the course Mergers, Acquisitions and other Complex Transactions.

Click to read Complete bio.

Richard A. Bennett
President & Chief Executive Officer
ValueEdge Advisors

Richard A. Bennett

Richard A. Bennett is President and Chief Executive Officer of ValueEdge Advisors, a firm founded in the summer of 2014 to help institutional investors engage with their portfolio companies. From 2006, Mr. Bennett served as Chief Executive Officer and then Chairman of GMI Ratings and its predecessor, The Corporate Library, a globally recognized investment research firm specializing in corporate governance and ESG with offices in London, New York, San Diego and Portland, Maine.

Click to read Complete bio.

Session 12: JayWalking in the Trump Era
11:00 am - 12:00 pm

An acclaimed late-night TV show host and admired stand-up comedian shares his view of government, politics, and the economy in America.

SPEAKER: Jay Leno, moderated by Paul J. Geller

Jay Leno

Jay Leno
American Comedian, Actor, Philanthropist and Television Host

Jay Leno's late night television ratings domination included more than two decades of *The Tonight Show with Jay Leno,* winning every consecutive quarter of his hosting over the past 19 years. After resuming hosting the 11:35 PM program following a one-time brief interruption of these duties, Mr. Leno once again took the show to the top, leading all of the ensuing quarters handily for another three years. Under his helm, the show was honored by the Television Academy with an Emmy for "Outstanding Comedy, Variety or Music Series." *The Tonight Show* has also taken home the trophy for "Favorite Late Night Show" in the annual TV Guide Awards determined by voting viewers, and Mr. Leno was recently installed in the Television Academy's Broadcast Hall of Fame.

Click to read Complete bio.

Paul J. Geller

Paul J. Geller
Partner
Robbins Geller Rudman & Dowd LLP

Paul Geller, Managing Partner of Robbins Geller Rudman & Dowd LLP's Boca Raton, Florida office, is a Founding Partner of the firm, a member of its Executive and Management Committees and head of the firm's Consumer Practice Group. Mr. Geller's 25 years of litigation experience is broad, and he has handled cases in each of the firm's practice areas. Notably, before devoting his practice to the representation of consumers and investors, he defended companies in high-stakes class action litigation, providing him an invaluable perspective. Mr. Geller has tried bench and jury trials on both the plaintiffs' and defendants' sides, and has argued before numerous state, federal and appellate courts throughout the country.

Click to read Complete bio.

Closing Remarks
12:00 pm - 12:10 pm

Lunch and Networking Activities: Cooking in the Canyon, Dolphin Safari, Golf at Monarch Beach and Guided Hiking
12:30 pm - 5:30 pm

CLE CREDIT HAS BEEN REQUESTED IN ALL MCLE JURISDICTIONS.
CLICK HERE FOR INFORMATION REGARDING CPE CREDIT.

TRAVEL AUTHORITY
VALUE EDGE 2018 PUBLIC FUNDS FORUM
SEPTEMBER 4-6, 2018
LAGUNA BEACH, CALIFORNIA

PROPOSED RESOLUTION

WHEREAS, Board approval is required for all international travel requests and travel not included in the Approved List of Educational Seminars;

WHEREAS, the Approved List of Educational Seminars for Fiscal Year 2018-19 has not yet been adopted and this conference has not been included in previous Approved Lists of Educational Seminars, and therefore requires individual approval;

WHEREAS, the sound management of the assets and liabilities of a trust fund imposes a continuing need for all Board Members to attend professional and educational conferences, seminars, and other educational events that will better prepare them to perform their fiduciary duties;

THEREFORE, BE IT RESOLVED, that Commissioner Greenwood is hereby authorized to attend the Value Edge 2018 Public Funds Forum on September 4-6, 2018, in Laguna Beach, California;

BE IT FURTHER RESOLVED, that the reimbursement of up to $1548.00 for Commissioner Greenwood is hereby authorized for reasonable expenses in connection with participation.

LACERS
LOS ANGELES CITY EMPLOYEES' RETIREMENT SYSTEM

Report to Board of Administration

Agenda of: **AUGUST 14, 2018**

Cita Payne for

From: Neil M. Guglielmo, General Manager

ITEM: **V-F**

SUBJECT: **PRINCIPLES FOR RESPONSIBLE INVESTMENT (PRI) IN PERSON 2018, SAN FRANCISCO, CALIFORNIA; SEPTEMBER 12 – 14, 2018**

Recommendation:

That the Board authorize Commissioner Ruiz to attend the Principles for Responsible Investment (PRI) in Person 2018 on September 12-14, 2018 (travel dates, September 12-14, 2018) in San Francisco, California; and authorize the reimbursement of up to $1,327 for reasonable expenses in connection with participation.

Discussion:

Commissioner Cynthia M. Ruiz has expressed interest in attending the above-mentioned educational conference, and this Board report is prepared on her behalf. Commissioner Ruiz also has been provided a copy of LACERS Board Education and Travel Policy.

Pursuant to the Board Education and Travel Policy (Policy), Board approval is necessary for this travel request because this conference was not pre-approved with the adoption of the Approved List of Educational Seminars for Fiscal Year 2018-19.

Strategic Plan Impact Statement:

As stipulated in the Policy, the sound management of the assets and liabilities of a trust fund imposes a continuing need for all Board Members to attend professional and educational conferences, seminars, and other educational events that will better prepare them to perform their fiduciary duties.

For Fiscal Year 2018-19, Commissioner Ruiz has an educational travel balance of $10,000.

This report was prepared by Ani Ghoukassian, Commission Executive Assistant.

Attachments: 1) Estimate of Reimbursable Expenses
2) Tentative Schedule/Agenda
3) Proposed Resolution

CITY OF LOS ANGELES
Intra-Departmental Correspondence

DATE: August 7, 2018

TO: Accounting Section
City Employees' Retirement System

FROM: Ani Ghoukassian, Commission Executive Assistant
Board of Administration

SUBJECT: ESTIMATE OF REIMBURSABLE EXPENSES

Name of Attendee Title	CYNTHIA M. RUIZ, Commissioner LACERS Board of Administration	
Event	Principles for Responsible Investment (PRI) in Person 2018	
Organization	PRI	
Date(s) of Event	September 12-14, 2018 (September 12-14, 2018)	
Location of Event	San Francisco, California	
ESTIMATED EXPENSES:	Registration: (Fee waived for Trustees)	$0
	Hotel: $350.00 per night (2 nights) (including tax)	$700.00
	Commercial Airline:	$121.00
	Meals/Incidental Allowances: Sept. 12: $56.00 Sept. 13: $56.00 Sept. 14: $56.00	$168.00
	Taxi: Home to Airport-roundtrip ($128.00) Taxi: Airport to Hotel-roundtrip ($120.00)	$248.00
	Miscellaneous: ($30 per day) x 3 days	$90.00
	TOTAL ESTIMATE:	**$1,327.00**

TRAVEL AUTHORITY
PRINCIPLES FOR RESPONSIBLE INVESTMENT (PRI) IN PERSON 2018
SEPTEMBER 12-14, 2018
SAN FRANCISCO, CALIFORNIA

PROPOSED RESOLUTION

WHEREAS, Board approval is required for all international travel requests and travel not included in the Approved List of Educational Seminars;

WHEREAS, the Principles for Responsible Investment (PRI) in Person 2018 in San Francisco, California is not included in the Approved List of Educational Seminars authorized by the Board Education and Travel Policy for Fiscal Year 2018-19, and therefore requires individual approval;

WHEREAS, the sound management of the assets and liabilities of a trust fund imposes a continuing need for all Board Members to attend professional and educational conferences, seminars, and other educational events that will better prepare them to perform their fiduciary duties;

THEREFORE, BE IT RESOLVED, that Commissioner Ruiz is hereby authorized to attend the Principles for Responsible Investment (PRI) in Person 2018 on September 12-14, 2018 in San Francisco, California.

BE IT FURTHER RESOLVED, that the reimbursement of up to $1,327 is hereby authorized for reasonable expenses in connection with participation.

PRI in Person: The world's leading responsible investment conference

Registration for PRI in Person is closed

Please click here to add your details to the waitlist.

We are now in the process of offering any returned tickets to signatories on the waitlist. If we are able to offer you a place at the conference, we will notify you as early as possible so that you may arrange your travel and accommodation.

PRI in Person is the leading global conference on responsible investment, offering a platform for PRI signatories and other investment professionals to learn, network and collaborate in person over a three day period. The annual event allows attendees to discuss topical issues and share experiences from their own organisation and region with peers from around the world.

We are delighted that the 2018 conference will run alongside the Global Climate Action Summit, a major event organised by the State of California, which will bring together leaders from government, business and the global community to inspire greater global ambition to act on climate. In line with this, investor action on climate change will be a key focus for PRI in Person 2018, but we will also cover a wide range of other themes including ESG integration, active ownership and emerging E, S and G issues.

We would like to thank MFS for being our Lead partner for PRI in Person 2018.

Past conference highlights

Click here for highlights from previous PRI in Person conferences, including video and audio records, conference photos and the official conference highlights report.

Conference Details

When

Wednesday, 12 September, 2018 - Friday, 14 September, 2018

Where

San Francisco Marriott Marquis
780 Mission St
San Francisco, California 94103
USA
+1 415-896-1600

Organiser

PRI Events

Read the PRI's privacy policy

Lead partner:

MFS

There is a wide ranging programme of side events taking place alongside PRI in Person. To view these please click here.

Agenda*

WEDNESDAY 12 SEPTEMBER	
07.45	Early registration for asset owner meeting attendees
08.00	Global Asset Owner Meeting
09.15	General registration and coffee
10.45 - 12.15	**Signatory General Meeting**
12.15 - 13.15	Lunch
13.15 - 13.25	**MC's opening remarks**
13.25 - 13.35	**Welcome from Lead Partner** ***Carol Geremia**, President, MFS Investment Management*
13.35 - 14.15	**Keynote address** ***Former Vice President Al Gore**, Co-Founder and Chairman, Generation Investment Management*
14.15 - 15.10	**Avoiding a disruptive transition: investor action on climate change** ***Gerald Cartigny**, CIO, MN* ***Eva Halvarsson**, CEO, AP2* *Moderated by **Martin Skancke**, Chair, PRI*
15.10 - 15.40	Networking coffee break
15.40 - 16.35	**Shifting the trillions: how are investors identifying new low carbon opportunities?** ***Peter Borgdorff**, CEO, PFZW* ***Angela Emslie**, Chair, HESTA* ***Sau Kwan**, President, E Fund Management* ***Beth Richtman**, Managing Investment Director, CalPERS* ***Guenther Thallinger**, Member of the Board of Management, Allianz* *Moderated by **Sagarika Chatterjee**, Head of Climate Policy, PRI*
16.35 - 16.40	**MC's summary**
16.40 - 16.50	Session changeover
16.50 - 17.50 **Breakout 1**	**A. Embedding diversity in corporate strategy and culture** We often think of diversity in terms of gender or race, but from a corporate governance perspective, there is increasing focus on diversity of skills and opinions. This panel will unpick the different ideas we have about diversity – using recent sexual harassment scandals as points of reference - and look at how we can bring these ideas together to better understand companies' approaches to diversity from an investment perspective. ***John Hoeppner**, Head of US Stewardship and Sustainable Investments, LGIMA* ***Priya Mathur**, President, CalPERS Board of Administration* **B. What employers really need: the missing link between RI and financial education** Modern portfolio theory is core to finance and how we invest, but in its practical application ESG factors are merely "externalities," therefore how can responsible investment ever become "investment" if education treats RI as a module – or does not feature at all? What do responsible investors actually want from their raw recruits? What change will millennials bring to education, industry and practice? Two shortlisted students from PRI's annual essay competition will present to a jury panel and the audience who will vote for the winner. **C. Building bridges over troubled water: identifying and managing water risk in the catchment** This session will: • Explore the complexities of the local operating context for companies and identify physical, reputational and regulatory water risks at the catchment level using California as a backdrop • Discuss how companies are identifying and addressing water risk • Report back from the California water risks investor field trip taking place before the conference

	***Sebastien Thevoux-Chabuel**, ESG Analyst / Portfolio Manager, Comgest* *Moderated by **Louise Davidson**, Chief Executive Officer, ACSI*	***Mikael Homanen**, PhD Candidate, Cass Business School* ***Roger Otten**, Senior Policy Advisor Investments, ABP*	***Piet Klop**, Senior Advisor Responsible Investment, PGGM* ***Jason Morrison**, President, Pacific Institute; Head, CEO Water Mandate* *Moderated by **Gemma James**, Senior Manager, Environmental Issues, PRI*
18.45	Transportation to Welcome Reception		
19.00 - 22.00	**Welcome Reception**		

THURSDAY 13 SEPTEMBER

8.30	Arrival Coffee		
09.00 - 10.00 **Breakout 2**	**A. ESG in FI investing: assessing risks through credit ratings and sustainability scores** As well as reviewing the progress that fixed income investors and credit rating agencies are making through the PRI ESG in Credit Ratings Initiative, this session will address: • Drivers and barriers for further ESG consideration in credit risk analysis • Existing tools (credit ratings, sustainability scores) to evaluate ESG investment risks • How is the availability, scope and application of these instruments likely to evolve ***Nikki Gwilliam-Beeharee**, Director of Research, Vigeo Eiris* ***James Rich**, Portfolio Manager, Aegon Asset Management* ***Mervyn Tang**, Head of Fixed Income, ESG Research, MSCI* ***Michael Wilkins**, Head of Sustainable Finance Group, S&P Global Ratings* *Moderated by **My-Linh Ngo**, Head of ESG Investment Risk, BlueBay Asset Management* *Introductory remarks by **Carmen Nuzzo**, Senior Consultant, Credit Ratings Initiative, PRI*	**B. TCFD scenario analysis: what does best practice look like?**	**C. Responsible investment risks and opportunities in Latin America** The responsible investment arena in Latin America has been quiet, but the tide is turning. This panel will look at how the region is moving ahead in topics like SDG related investments, green bonds and better corporate governance to fight corruption. We will discuss case studies from across the region including: • Mexico's green investment revolution - $10bn green bonds issued since 2016 • SDG-related investment opportunities in Colombia – one of the first countries in the world to align its government planning agenda with the Goals • Solar power opportunities in Chile • Brazil's corporate Sustainability Index (ISE) ***Sonia Consiglio Favaretto**, Director – Press, Sustainability, Communication and Social Investment, B3* ***Juan Luis Rivera**, Portfolio Manager, Moneda Asset Management* ***Ursula Wilhelm**, Head of Investor Relations, ESG & Financial Intelligence, Banorte* *Moderated by **Eduardo Atehortua**, Head of Latin America (ex Brazil), PRI*
10.00 - 10.15	Session changeover		
10.15 - 11.15 **Breakout 3**	**A. Climate risk beyond fossil fuels: the importance of forest management** Historically, investors have focused on climate risks associated with the oil, gas and utilities sectors. But agriculture is also responsible for an enormous global ecological footprint, including half of all deforestation. Despite hundreds of companies committing to remove deforestation from their supply chains, vast areas continue to be cleared for soy, beef, palm oil and other commodities. This panel will present a wider perspective of climate risk by highlighting how forest destruction at current levels could create a catastrophe for the global climate. It will also	**B. Overcoming barriers to ESG integration in equities and bonds** In parallel with the launch of reports by CFA Institute and PRI, practitioners that invest in equities, corporate bond and sovereign debt will discuss their barriers to ESG integration, including: • Limited comparable and historical ESG data • Lack of company culture to support ESG integration • Concerns around negative investment performance ***Andrew Canter**, Chief Investment Officer, Futuregrowth Asset Management* ***Christopher Greenwald**, Head of*	**C. Safeguarding the rights of indigenous peoples: the role of investors** Through their operations, companies may have adverse or negative impacts on the rights and livelihoods of indigenous people. However when managed well, relationships with local communities contribute to companies maintaining their 'social licence' to operate. This session will shed light on the role that investors can play in promoting responsible business conduct, hearing various perspectives on how this may be effectively achieved. ***Tim Goodman**, Associate Director, Corporate Engagement, Hermes EOS*

	address approaches that the financial and corporate sectors can take to managing these issues. ***Johnny Brom**, Chief Investment Officer, Sail Ventures* ***Stewart Lindsay**, Vice President, Global Corporate Affairs, Bunge* ***Carlos Nobre**, Institute for Advanced Studies, Universtity of São Paulo, and Senior Fellow, WRI Brazil* ***Lucian Peppelenbos**, Senior Responsible Investment & Governance Specialist, APG Asset Management* *Moderated by **Danielle Carreira**, Senior Manager, Environmental Issues, PRI*	*Sustainable Investment Research, UBS* ***Mary Jane McQuillen**, Managing Director & Portfolio Manager, ESG Investment Program, ClearBridge Investments* ***Matt Orsagh**, Director, Capital Markets Policy, CFA Institute* ***Lupin Rahman**, Global Head of Sovereign Credit, PIMCO* *Moderated by **Michelle Clayman**, Managing Partner & Chief Investment Officer, New Amsterdam Partners*	*Moderated by **Delaney Greig**, Manager of Shareholder Engagement and Policy, SHARE*
11.15 - 11.45	Networking coffee break		
11.45 - 12.45 **Breakout 4**	**A. The changing face of labour: tackling modern slavery and precarious work** This session will explore the rapidly-changing face of labour – from the resilience of modern slavery to the emergence of new forms of precarious work. The panel will address the implications of these issues and the risks they present and how investors can contribute to tackling them across different markets, sectors and asset classes. ***Michael Hall**, ESG Manager, Development Partners International* ***Lai Ly**, Head of ESG Analysis, Amundi* *Moderated by **David Schilling**, Senior Program Director – Human Rights & Resources, Interfaith Center on Corporate Responsibility*	**B. Implementing responsible investment strategies for passive portfolios** This session will give you an insight into: • Are rule-based passive investments compatible with responsible investments? • How are investors incorporating ESG into rule-based passive investments? • What are the current boundaries when incorporating ESG into passive investments? • Current practices investors adapt to support ESG in rule-based Investments. ***Majdi Chammas**, Head of External Management, AP1* ***Jessica Huang**, Director of Sustainable Investment, BlackRock* ***Laura Nishikawa**, Head of Fixed Income ESG Research, MSCI* ***Nathalie Wallace**, ESG Investment Strategist, State Street Global Advisors* *Moderated by **Catherine Chen**, Senior Manager, Asset Owners, PRI*	**C. Tax transparency: the future of disclosure** ***Rob Wilson**, Research Analyst, MFS Investment Management* *Moderated by **Michelle De Cordova**, Director, Corporate Engagements & Public Policy, NEI Investments*
12.45 - 13.30	Lunch		
13.30 - 13.35	**Plenary sessions recommence**		
13.35 - 14.25	**Responsible investment in an age of political divergence: how policymakers in Europe, Asia and the Americas are responding** ***Amy Borrus**, Deputy Director, Council of Institutional Investors* ***Ronan Ryan**, President and Co-Founder, IEX* *Moderated by **Nathan Fabian**, Director of Policy & Research, PRI*		
14.25 - 14.45	**Interview: ESG in private equity** ***Elizabeth Lowery**, Managing Director, Sustainability and ESG, TPG* ***Jon Winkelreid**, Co-CEO, TPG* *Moderated by **Tanya Carmichael**, Managing Director and Head of Global Funds, Ontario Teachers' Pension Plan (OTPP)*		
14.45 - 15.30	**Convincing the sceptics: quantifying and communicating the link between ESG and performance** ***Rick Davis**, Partner, Pegasus Capital Advisors* ***Ben Yeoh**, Senior Portfolio Manager, RBC GAM* ***Dave Zellner**, CIO, Wespath* *Moderated by **Emma Cusworth**, Freelance Journalist*		
15.30 - 16.00	Networking coffee break		
16.00 - 16.50	**Levers, levels and learning: how can investors respond to economic inequality?** ***Fiona Reynolds**, CEO, PRI* ***David Wood**, Adjunct Lecturer in Public Policy and Director of the Initiative for Responsible Investment, Harvard University*		

16.50 - 17.40

Sustainable Development Goals: emerging practices across asset classes
Peter Elam Hakansson*, Chairman and CEO, East Capital*
Scott Mather*, CIO, PIMCO*
Kevin Uebelein*, CEO, AIMCo*
Moderated by ***Priya Mathur****, President, CalPERS Board of Administration*

17.40 - 17.45

MC's summary

17.45

Free time

18.45

Transportation to Dinner

19.00 - 22.00

Networking Dinner

FRIDAY 14 SEPTEMBER

8.30

Arrival coffee

09.00 - 10.00
Breakout 5

A. Financial innovation for better buildings

- PACE – a model for financing energy efficiency upgrades
- Green mortgages: securitisation, standards & default mitigation
- Positive impact: a framework for monitoring and reporting change

Dara Friedman*, Senior Vice President Portfolio Management, Bentall Kennedy*
Chrissa Pagitsas*, Director, Green Financing Business, Fannie Mae*
Moderated by ***Chris Pyke****, Research Officer, US Green Building Council*

B. Using disclosure frameworks to push the boundaries of ESG integration
This panel will take an in-depth look at the ESG data landscape and showcase how leading investors have applied disclosure frameworks to integrate ESG creatively across asset classes. Topics for discussion will include:

- How has investors' thinking on ESG integration evolved over the last five years?
- What is available now in terms of information and data tools, and how does this match up with what investors are looking for in different asset classes and markets?
- From SASB to the SDGs: how have investors used multiple frameworks effectively to bridge the gap between financial materiality and impact?

Christopher Ailman*, CIO, CalSTRS*
Amisha Parekh*, Senior Product Strategist, Sustainable Finance, Bloomberg*
John Streuer*, CEO, Calvert*
Moderated by ***Janine Guillot****, Director of Capital Markets Policy and Outreach, Sustainability Accounting Standards Board*

C. Social responsibility in the technology sector: what is the role of investors?
The emergence of new business models in the tech sector has brought about new challenges to the rights of both workers and end-users. The lack of pre-existing rules and legal frameworks regulating the operations of these companies has also meant that they have had to self-define the breadth and depth of their corporate social responsibility mandate. Often, these companies envision their main mission as serving society either by connecting people or by offering life-changing services but they have often proven to be lacking the necessary oversight to anticipate the adverse impact that their activities might have on the medium to long-term. Given the lack of regulations around tech companies' activities, how can investors step in to promote more socially responsible behaviour from the tech sector?
Jonas Kron*, Senior VP, Director of Shareholder Advocacy, Trillium Asset Management*
Rob Wilson*, Research Analyst, MFS Investment Management*

Moderated by ***Michael Connor****, Executive Director, Open Mic*

10.00 - 10.15

Session changeover

10.15 - 11.15
Breakout 6

A. Creating impact through infrastructure investments

- Can you create impact through upgrading operational infrastructure? Compare and contrast between greenfield and brownfield investment.
- Linking infrastructure investment to the SDGs – is it all about the services infrastructure provides?

Delilah Rothenberg*, Operating Advisor, ESG & Impact, Pegasus Capital Advisors*

B. Investment consultants: the final frontier for responsible investment
The PRI believes the full suite of investment consultants' services should be reviewed from an ESG perspective. But in too many cases, consultants and their clients simply don't talk about ESG issues. Presenting three joint case studies from consultants and their clients, this session will ask, what is changing?

C. Cyber security: perspectives on governance and privacy
David Sneyd*, Vice President, Governance & Sustainable Investment, BMO Global Asset Management*

	*Moderated by **Martin Ewald**, Director, Head of Investment Strategy, Infrastructure Equity, Allianz Global Investment*	***Helga Birgden**, Partner, Mercer* ***Craig Bitman**, Partner, Morgan Lewis* ***Daniel Ingram**, VP Responsible Investment, Wilshire Associates* ***Meredith Jones**, Partner, Aon* *Moderated by **Will Martindale**, Head of Policy, PRI*	
11.15 - 11.45	Networking coffee break		
11.45 - 11.50	**Plenary sessions recommence**		
11.50 - 12.35	**How is technology shaping responsible investment?**		
12.35 - 13.10	**Keynote address** ***Paul Polman**, CEO, Unilever*		
13.10- 13.30	**Closing remarks**		
13.30 - 14.00	**Grab & go lunch**		

**Please note, the agenda is subject to change.*

LOS ANGELES CITY EMPLOYEES' RETIREMENT SYSTEM (LACERS)
BOARD MEMBER EDUCATION EVALUATION FORM

Board Member Name:	Sung Won Sohn
Conference/Seminar Title	MIT Real Estate School
Date	**06/10/18 – 06/15/18**
Location (City/State)	**Cambridge, MA**
TOTAL EDUCATION HOURS:	**40 hours**
Level of complexity of the Conference/Seminar:	☐ **Introductory** ☒ **Intermediate** ☐ **Advanced** ☐ **Others:** ____________
Conference/Seminar Category:	☒ **Finance/Investments** ☐ **Benefits (Retirement/Healthcare)** ☐ **Legislative/Fiduciary Law** ☐ **Corporate Governance** ☐ **Others:** ____________

SEMINAR CONTENT

Please provide an evaluation on the quality of the conference or seminar and its relevance to you as a Board member.

1. What letter grade would you give to the overall educational value of the conference/seminar? ***Rate seminar with A (excellent), B (very good), C (good), D (not beneficial).***	A ☒ B ☐ C ☐ D ☐ Comments: ____________
2. Would you recommend your fellow trustees attend this conference?	Never ☐ At least Once ☒ Annually ☐ Every other year ☐ Other ☐ Comments: ____________
3. Do you feel the conference was a good use of your time?	☒ Yes ☐ No Why? Learned a lot of new skills.________
4. Are there other conferences addressing this subject area that you feel would be a better investment than this conference?	☐ Yes ☒ No Please provide the name/title of the recommended conference: ____________

Additional Comments:
____
____

LOS ANGELES CITY EMPLOYEES' RETIREMENT SYSTEM (LACERS)
BOARD MEMBER EDUCATION EVALUATION FORM

Board Member Name:	Annie Chao
Conference/Seminar Title	MIT Center for Real Estate: Evaluating Real Estate Markets and Real Estate Finance Advanced
Date	**6/12/18 – 6/16/18**
Location (City/State)	**Boston, MA**
TOTAL EDUCATION HOURS:	**24 Hours**
Level of complexity of the Conference/Seminar:	☐ **Introductory** ☒ **Intermediate** ☒ **Advanced** ☐ **Others:** ______
Conference/Seminar Category:	☒ **Finance/Investments** ☐ **Benefits (Retirement/Healthcare)** ☐ **Legislative/Fiduciary Law** ☐ **Corporate Governance** ☐ **Others:** ______

SEMINAR CONTENT

Please provide an evaluation on the quality of the conference or seminar and its relevance to you as a Board member.

1. What letter grade would you give to the overall educational value of the conference/seminar? ***Rate seminar with A (excellent), B (very good), C (good), D (not beneficial).***	A ☒ B ☐ C ☐ D ☐ Comments: ______
2. Would you recommend your fellow trustees attend this conference?	Never ☐ At least Once ☒ Annually ☐ Every other year ☐ Other ☐ Comments: ______
3. Do you feel the conference was a good use of your time?	☒ Yes ☐ No Why? ______
4. Are there other conferences addressing this subject area that you feel would be a better investment than this conference?	☐ Yes ☒ No Please provide the name/title of the recommended conference: ______

Additional Comments:

______

______

LACERS
LOS ANGELES CITY EMPLOYEES' RETIREMENT SYSTEM

Report to Board of Administration

From:	Benefits Administration Committee Michael R. Wilkinson, Chairperson Cynthia M. Ruiz Nilza R. Serrano	Agenda of:	**AUGUST 14, 2018**
		ITEM:	**V-I**

SUBJECT: **INVESTIGATIVE SERVICES REQUEST FOR PROPOSAL - PROPOSER RECOMMENDATIONS AND POSSIBLE BOARD ACTION**

Recommendation

That the Board:

(1) Approve staff's recommendation and award investigative services contracts to FRASCO Inc. and TruView BSI LLC., and;

(2) Authorize the General Manager to negotiate terms and conditions and execute contract(s) with the chosen firms in an amount not to exceed $100,000 per contract, per year for a three-year period.

Discussion

At the July 19, 2018 meeting, the Committee discussed and approved the staff recommendations on the Request for Proposal (RFP) for an investigative service provider(s). The Committee report is attached.

Strategic Plan Impact Statement

This contract award to provide investigative services conforms to the Strategic Plan Benefit Delivery Goal of ensuring accurate delivery of member benefits. Such services ensure that the monthly retirement benefits LACERS provides are going to the intended recipients.

This report was prepared by Ferralyn Sneed, Senior Management Analyst, Retirement Services Division.

KF:FS

Attachments: 1) Report to the Benefits Administration Committee
2) Proposed Resolution

CONTRACT AWARD TO FRASCO, INC. AND TRUVIEW BSI, LLC
TO PROVIDE INVESTIGATIVE SERVICES

PROPOSED RESOLUTION

WHEREAS, LACERS utilizes investigative firms to provide affordable professional investigative services;

WHEREAS, the use of investigative service firms is part of LACERS proactive risk management strategy;

WHEREAS, on July 19, 2018, the Benefits Administration Committee reviewed the qualifications and services provided by FRASCO, Inc. and TruView BSI, LLC and the recommendations of staff;

WHEREAS, the Committee found that the work of providing investigative services is more feasibly performed by a contractor than City employees;

WHEREAS, the Committee, after some discussion, concluded FRASCO, Inc. and TruView BSI, LLC were the most qualified respondents to provide investigative services to LACERS;

NOW, THEREFORE BE IT RESOLVED, that the Board:

1) Approves contract awards to FRASCO, Inc. and TruView BSI, LLC for investigative services; and,

2) Authorizes the General Manager to negotiate terms and execute the contracts with the chosen providers in an amount not to exceed $100,000 per contract per year, for three years.

July 24, 2018

LACERS
LOS ANGELES CITY EMPLOYEES'
RETIREMENT SYSTEM

Report to Benefits Administration Committee

Karen Freire

From: Karen Freire, Chief Benefits Analyst

Agenda of: **JULY 19, 2018**

ITEM: III

SUBJECT: **REQUEST FOR PROPOSAL INVESTIGATIVE SERVICES PROPOSER RECOMMENDATIONS**

Recommendation

That the Committee review, provide comments, and recommend the Board:

(1) Approve staff's recommendation to award investigative services contracts to FRASCO, Inc. and TruView BSI, LLC; and,

(2) Authorize the General Manager to negotiate terms and conditions and execute contract(s) with the chosen firms in an amount not to exceed $100,000 each contract per year, for a three-year period.

Discussion

On March 27, 2018, the Board approved the release of a Request for Proposal (RFP) for investigative services. The purpose of the RFP was to secure professional and affordable investigative services to assist LACERS in the administration of retirement benefits, as a component of the Department's overall security measures to safeguard both the plan and its' Members. The RFP was released on April 4, 2018, with proposals due on May 11, 2018. The RFP was advertised on the LACERS website, the Daily Journal, and emailed to 30 investigative services firms. LACERS received four proposals.

The selected proposer will provide affordable professional investigative services, including but not limited to the following: (1) conduct both domestic and international in-person Alive and Well checks on Members or beneficiaries who have been unresponsive to both written and verbal communication from LACERS; (2) serve as the outsource contractor for the biennial Alive and Well audit; (3) conduct Sub Rosa surveillance; (4) determine the status of retirees and beneficiaries on the outstanding check roster; (5) assist with fraud investigations; and, (6) prepare written reports detailing the results or outcome of any and all investigations performed on behalf LACERS.

Evaluation of Proposals

Proposals were evaluated and scored based on a review of: (1) qualifications, experience and investigation team; (2) coverage area and location of the investigators; (3) clarity of questionnaire responses and thoroughness of sample reports; (4) references and contracting history; (5) pricing structure; and, (6) administration and other services being offered.

Criteria	Points
Qualifications and Experience of Team/Firm	20
Experience providing Alive and Well checks (individual and outsourced)	20
Coverage Area	20
Clarity of Responses	20
References provided/ contract history	15
Pricing Structure	20
Miscellaneous or No cost bonus services	5
Administration	5
Other services	5
Total	130

All four proposers met the required minimum qualifications of being in business for at least five years, providing investigative services comparable to those detailed in the RFP. The four proposers, DigiStream Investigations, FRASCO, Inc., G4S Compliance & Investigations, and TruView BSI, LLC, all utilize both conventional field investigative methodologies and a broad array of electronic database analytics. The proposers all have trained staff who are seasoned investigators with the appropriate expertise and skill levels to meet LACERS service requirements. All four firms have been under contract in various degrees with state, federal, and local government agencies performing alive and well checks, background checks, covert and overt surveillance, Sub Rosa surveillance, fraud investigations, and workers' compensation claim investigations.

The firms provide nationwide service coverage and can perform investigations worldwide through either a company field office or through a network of private investigation partners. The following is a summary of each firm's location and service capabilities:

- FRASCO, Inc. is based in Burbank, TruView BSI, LLC and DigiStream Investigations have offices located in Los Angeles County, and G4S Compliance & Investigations' North American headquarters is located in North Carolina.
- DigiStream Investigations' investigative services abroad are limited. The firm primarily relies on desktop databases and its' proprietary software to determine a subject's status or whereabouts. DigiStream Investigations has partnered with international investigative firms, but on a limited basis.
- G4S Compliance & Investigations is a global company with licensed investigators in all 50 states and 100 countries around the world.
- TruView BSI, LLC operates in all 50 states and has operational capabilities in 125 countries.
- FRASCO, Inc. indicated its international footprint includes the nine countries listed in the RFP; however, the firm did not provide the total number of countries it services.

Alive and Well check fees ranged from an hourly domestic rate of $69 per hour to $125 per hour or a flat rate of $325. International Alive and Well fees range from $195 to $350 per hour; however, international pricing can run higher depending on the country. TruView BSI, LLC and FRASCO, Inc. were rated the top firms in terms of best overall value for the services offered. The pricing structure in relation to the proposed services submitted by DigiStream Investigations and G4S Compliance & Investigations were the least competitive when compared to the top two rated firms.

Recommendation

Staff recommends awarding contracts to two firms: FRASCO, Inc. and TruView BSI, LLC. By awarding contracts to two well-qualified firms, LACERS will have the flexibility to use both firms to ensure optimum investigative coverage both domestically and internationally. Utilizing two firms will also ensure service continuity should it become necessary to terminate the services of one contractor. Engaging investigative service firms will reduce the processing and review time of the biennial Alive and Well audit, aid in readily locating incapacitated Members/benefit recipients, and minimize the number of benefit payments obtained fraudulently by nonbeneficiaries. Most importantly, the use of investigative services firms will provide value through time savings, efficiency, and assist LACERS in meeting its' strategic plan goal of accurate and timely delivery of benefits.

Strategic Plan Impact Statement

This contract award to provide investigative services conforms to the Benefit Delivery goal of ensuring accurate and timely delivery of member benefits. Such services ensure that the monthly retirement benefits LACERS provides are going to the intended recipient.

This report was prepared by Ferralyn Sneed, Sr. Management Analyst of the Retirement Services Division.

KF:FS

Attachment:

1) Investigative Services - RFP Recap Level 1 Review

LOS ANGELES CITY EMPLOYEES' RETIREMENT SYSTEM (LACERS)
HEALTH AND WELFARE RFP RECAP

LEVEL 1 REVIEW ATTACHMENT 1

RFP Requirements	DigiStream Investigations	FRASCO, Inc.	G4S Compliance & Investigations	TruView BSI, LLC
Address	PO Box 7369 Torrance, CA 90504	215 W. Alameda Ave Burbank, CA 91502	910 Paverstone Dr Raleigh, NC 27615	444 E. Huntington Dr., Suite 305 Arcadia, CA 91006
Phone	310-374-1091	877-372-7261	800-927-0456	714-551-0111
Fax				
E-mail				
A. Cover Letter				
Key Personnel	Brent Sims	Richard Smith	Russ Buchanan	Nicholas Auletta
Phone/Cell/Fax	(p) 310-374-1091 (f) 800-866-9686	(p) 877-372-7261 x224 (f) 877-734-6478	(p) 800-927-0456 (f) 800-927-2239	(p) 516-289-0273
Email	bsims@digistream.com	richard@frasco.com	russ.buchanan@usa.g4s.com	nmauletta@truviewbsi.com
Key Personnel	Amanda Bright	Peter Goul	Tamara Warner	
Phone/Cell/Fax	(p) 310-374-1091 (f) 800-866-9686	(p) 877-372-7261 x248	(p) 916-468-9200 (f) 888-501-7017	
Email	abright@digistream.com	pgoul@frasco.com	tamara.warner@usa.g4s.com	
Additional Staff			Vicki DeHerrera	
Acknowledgement and acceptance of terms and conditions	Yes	Yes	Yes	Yes
B. Proposal Items				
1. Experience and Qualifications				
a. Profile of proposer, etc.	Yes	Yes	Yes	Yes
b. Qualifications and experience of key personnel	Staff resumes included in Exhibits	Staff biographies included in Exhibits	See questionnaire #B6 (biographies) & Attachments F & G (resumes)	See questionnaire #B6 (biographies)
2. Experience with similar contracts				
1	LACERA	Los Angeles City Attorney	Los Angeles Unified School District	New York State Office of the State Comptroller
2	County of Los Angeles	California Insurance Guarantee Association (CIGA)	Los Angeles Metropolitan Transit Authority	New York Waterway
3	Ports of Los Angeles	State Compensation Insurance Fund (SCIF)	National Parks Services	Catholic Charities of the Diocese of Albany
3. References	List of City of LA representatives available upon request	List available upon request	No	Yes
				New York State Office of the State Comptroller - John Cooper
				Nassau County Department of Social Services - John Faust
				Los Angeles Department of Water and Power - Charlie Maranan
4. Project Proposal	Yes	Yes	Yes	Yes
5. Annual Report/Financial Statement	Available upon acceptance	Yes	Yes	Partial; will be available soon
6. Proposed Fee Schedule	Yes	Yes	Yes	Yes
7. Questionnaire Responses	Yes	Yes	Yes	Yes

LOS ANGELES CITY EMPLOYEES' RETIREMENT SYSTEM (LACERS)
HEALTH AND WELFARE RFP RECAP

LEVEL 1 REVIEW ATTACHMENT 1

RFP Requirements	DigiStream Investigations	FRASCO, Inc.	G4S Compliance & Investigations	TruView BSI, LLC
C. General Requirements and Compliance Documents				
1. Warranty/Affidavit	Yes	Yes	Yes - only signed by one - needs two if corporation	Yes
2. Bidder Certification	Yes	Yes	Yes	Yes
3. Prohibited Contributors	Yes	Yes	Yes	Yes
4. Requested Exceptions to standard provisions	N/A	N/A	N/A	N/A
D. Exhibits				
1. Org Chart of Parent/Subsidiary	N/A	Yes	Yes	N/A
2. Org Chart of Project Team	Yes	Yes	Yes	Yes
3. Business Continuity Plan	Yes	Yes (not attached); list of security measures included	Yes (high-level summary)	List of security measures
4. Report Samples	Yes	Yes	Yes	Yes
5. Other Materials (if any)	Business Continuity Plan; staff resumes; Disclosure Form; Required Insurance Form	Disclosure Form; Required Insurance Form; Certificate of Liability Insurance	Digital Dashboard Process; Scorecard Summary; Required Insurance Form; Disclosure Form; Certificate of Liability Insurance	Tax Registration Certificate; Disclosure Form; Required Insurance Form; Certificate of Liability Insurance

LACERS
LOS ANGELES CITY EMPLOYEES'
RETIREMENT SYSTEM

Report to Board of Administration

From: Neil M. Guglielmo, General Manager

Agenda of: **AUGUST 14, 2017**

ITEM: **VIII-A**

SUBJECT: **PROPOSED LIST OF PRE-APPROVED BOARD EDUCATIONAL SEMINARS FOR FISCAL YEAR 2018-19 AND POSSIBLE BOARD ACTION**

Recommendation:

That the Board approve the Proposed Pre-Approved List of Educational Seminars for FY 2018-19.

Discussion:

The LACERS' Board Education Travel Policy is intended to affirm education as an essential component of a trustee's fiduciary responsibility. The aim of the policy is to ensure that each Trustee fulfils the "Prudent Person Standard" requisite by developing and maintaining their knowledge of public pension administration through exposure to current benefit, financial, and policy information to develop a sound understanding of issues and topics that may directly impact LACERS. This fiduciary responsibility imposes a continuing need for Board Members to attend professional and educational conferences, seminars, and other educational events. Pursuant to the Policy, the maximum annual allocation for Trustee is $10,000 for conference and other travel expenses.

Prior to the beginning of each fiscal year, the Board pre-approves, for administrative efficiency, the travel authority for a list of designated conferences/educational seminars. This list will include all conferences deemed by the Board to meet the standard of having a solid reputation for quality program content. The Proposed List of Pre-Approved Educational Seminars for Fiscal Year 2018-19, incorporates all the conferences from the previous year's pre-approved list.

Also attached to this report are conferences that were brought to the Board for consideration and approved on a case-by-case basis. These conferences may be included, in part or whole, in the designated list of pre-approved educational seminars for the coming fiscal year, at the discretion of the Board based on the standards indicated above. Attachment A will be updated regularly for any technical changes and when dates for approved educational seminars are confirmed.

Pursuant to the Board Meeting on June 26, 2018, the following conferences were requested by Board Members to add to the Pre-Approved List: Women's Alternative Investment Summit, November 8 - 9, 2018 and Western Economic Association International 94th Annual Conference, June 28 – July 2, 2019. As per the Board Policy, Article II, Section 1.0, Board Members shall attend conferences or seminars that have a solid reputation for quality program content; i.e., agendas with a minimum of five hours of substantive educational content. Content shall not be geared toward marketing or the promotion of investment management and related sponsors. Topics covered during the conference or seminar must be related to the pension fund industry. Conferences not adopted in the Pre-Approved List of Educational Seminars for Fiscal Year 2018-19 will require discrete Board approval.

This report was prepared by Ani Ghoukassian, Commission Executive Assistant.

Attachments: A) Proposed List of Educational Seminars for Fiscal Year 2018-19
B) Additional Educational Seminars Approved by the Board during Fiscal Year 2017-18

ATTACHMENT A

LOS ANGELES CITY EMPLOYEES' RETIREMENT SYSTEM
LIST OF EDUCATIONAL SEMINARS – FISCAL YEAR 2018-19

*****_Local Conference_

CONFERENCE / SEMINAR / MEETING	SUBJECT MATTER	TRUSTEE EVALUATION		
		TRUSTEE RATING Rate seminar with:		LEVEL
		A	*Excellent*	▪ *Introductory* ▪ *Intermediate* ▪ *Advanced*
		B	*Very Good*	
		C	*Good*	
		D	*Not Beneficial*	
California Association of Public Retirement Systems (**CALAPRS**) – General Assembly ▪ March 2 - 5, 2019 (Monterey, CA)	▪ Benefits Admin ▪ Investments ▪ Corporate Governance ▪ Audit & Strategic Planning	**A**	(Sohn, 2016) (Wilkinson, 2018)	Intermediate
CALAPRS – Principles of Pension Management For Trustees ▪ August 27 – 30, 2018 (Malibu, CA)* ▪ 2019 Dates and Location TBD	▪ Benefits Admin ▪ Investments ▪ Corporate Governance ▪ Audit & Strategic Planning	**A**	(Lee, Serrano, Wilkinson 2015)	Intermediate
CALAPRS – Advanced Principles of Pension Management For Trustees ▪ 2018 and 2019 Dates and Location TBD	▪ Benefits Admin ▪ Investments ▪ Corporate Governance ▪ Audit & Strategic Planning	**A**	(Lee, 2017)	Advanced
CALAPRS – Trustees' Roundtable ▪ October 26, 2018 (Glendale, CA)* ▪ 2019 Dates and Location TBD	▪ Benefits Admin ▪ Investments ▪ Corporate Governance ▪ Audit & Strategic Planning	**B**	(Chao, 2016)	Intermediate
Council of Institutional Investors (**CII**) – Conferences ▪ **Fall Conference:** October 24 – 26, 2018 (Boston, MA) ▪ **Spring Conference:** March 4 -6, 2019 (Washington, DC)	▪ Benefits Admin ▪ Investments ▪ Corporate Governance ▪ Audit & Strategic Planning	**A** **B**	(Chao, 2017) (Wilkinson 2015)	Intermediate Advanced

International Foundation of Employee Benefit Plans (**IFEBP**) – Trustees And Administrators Institute ▪ 2018 and 2019 Dates and Location TBD	▪ Benefits Admin ▪ Investments ▪ Plan Admin			
International Foundation of Employee Benefit Plans (**IFEBP**) – Health Care Management Conference ▪ 2018 and 2019 Dates and Location TBD	▪ Benefits Admin			
International Foundation of Employee Benefit Plans (**IFEBP**) – New Trustees Institute ▪ **Level I: Core Concepts:** October 13 – 15, 2018 (New Orleans, LA) ▪ **Level II: Concepts in Practice:** October 13 - 14, 2018 (New Orleans, LA)	▪ Benefits Admin ▪ Investments ▪ Plan Admin			
International Foundation of Employee Benefit Plans (**IFEBP**) – The Wharton School Advanced Investments Management ▪ 2018 and 2019 Dates and Location TBD	▪ Investments ▪ Corporate Governance			
International Foundation of Employee Benefits Plan (**IFEBP**) – The Wharton School Portfolio Concepts and Management Course ▪ 2018 and 2019 Dates and Location TBD	▪ Investments			
National Conference on Public Employee Retirement Systems (**NCPERS**) – Annual Conference & Exhibition ▪ 2019 Dates and Location TBD	▪ Benefits Admin ▪ Investments ▪ Corporate Governance	**A** **B**	(Wilkinson, 2017) (Ruiz, 2016) (Sohn, 2018)	Intermediate
National Conference on Public Employee Retirement Systems (**NCPERS**) – Trustee Educational Seminar (TEDS) ▪ 2019 Dates and Location TBD	▪ Benefits Admin ▪ Investments ▪ Corporate Governance	**A**	(Sohn, 2018)	Intermediate

National Conference on Public Employee Retirement Systems (**NCPERS**) – Legislative Conference ▪ 2018 and 2019 Dates and Location TBD	▪ Benefits Admin ▪ Investments ▪ Corporate Governance			
Pension Real Estate Association (**PREA**) Spring Conference ▪ March 14 – 15, 2019 (Dallas, TX)	▪ Investments	**A**	(Chao, 2017) (Lee, 2018)	Intermediate
Pension Real Estate Association (**PREA**) Annual Institutional Investor Conference ▪ October 3 – 5, 2018 (Boston, MA)	▪ Investments	**A**	(Chao, 2017)	Intermediate
State Association of County Retirement Systems (**SACRS**) Conference ▪ **Fall Conference**: November 13 – 16, 2018 (Indian Wells, CA)* ▪ **Spring Conference**: May 7 – 10, 2019 (Lake Tahoe, CA)	▪ Benefits Admin ▪ Investments ▪ Corporate Governance	**A** **B**	(Wilkinson, 2015 and 2017) (Chao, 2017)	Intermediate
State Association of County Retirement Systems (**SACRS**) / **UC Berkeley Program** – Public Pension Investment Management Program ▪ July 15 – 18, 2018 (Berkeley, CA)	▪ Investments	**A**	(Wilkinson, 2015)	
Western Economic Association International – Annual Conference ▪ June 28 – July 2, 2019 (San Francisco, CA)	▪ Investments			
Women's Alternative Investment Summit ▪ November 8 – 9, 2018 (New York, NY)	▪ Investments			
Women's Private Equity Summit ▪ March 13 - 15, 2018 (Dana Point, CA)	▪ Investments			

ATTACHMENT B

LOS ANGELES CITY EMPLOYEES' RETIREMENT SYSTEM

ADDITIONAL EDUCATIONAL SEMINARS APPROVED BY THE BOARD FY 2017-18

CONFERENCE TITLE	DATE(S)	LOCATION	COMMISSIONER
Robert F. Kennedy Compass Conference	November 14 -15, 2017	New York, NY	Greenwood
Western Economic Association International Conference	January 10 – 15, 2018	Newcastle, Australia	Sohn
Pension Bridge Annual Conference	March 10 – 11, 2018	San Francisco, CA	Ruiz
International Foundation of Employee Benefit Plans Executive Education Program in Evidence, Insight and Strategy for Optimizing Health Benefits	May 8 – 10, 2018	Boston, MA	Serrano
Massachusetts Institute of Technology Professional Certificate Program in Real Estate Finance and Development	June 11 – 15, 2018	Cambridge, MA	Chao, Sohn

LACERS
LOS ANGELES CITY EMPLOYEES' RETIREMENT SYSTEM

Report to Board of Administration

Lita Payne for

From: Neil M. Guglielmo, General Manager

Agenda of: **AUGUST 14, 2018**

ITEM: **VIII-B**

SUBJECT: **RECOMMENDATION FOR CITY COUNCIL TO TAKE OPPOSE POSITION ON THE PUBLIC EMPLOYEE PENSION TRANSPARENCY ACT (PEPTA) AND POSSIBLE BOARD ACTION**

Recommendation:

That the Board:
1) Approve the proposed letter to City Council opposing the Public Employee Pension Transparency Act (PEPTA);
2) Direct staff, working with City Attorney's Office, to coordinate with the Los Angeles Fire and Police Pensions, the Water and Power Employees' Retirement Plan, the City Administrative Office, the Chief Legislative Analyst's Office, the Mayor and City Council to oppose this Federal bill.

Discussion:

On July 10, 2018, staff briefed the Board on the concern of a number of public pension associations and public pension systems over the reintroduction of the Public Employee Pension Transparency Act ("PEPTA" also known as HR 6290) in the 115th Congress. The bill creates an undue burden on the City's pension systems, by requiring reporting to the U.S. Treasury using mandated valuation methods and assumptions that would not only be inconsistent with the current Governmental Accounting Standard Board (GASB), and the plan's actuarial assumptions, but would severely understate the funded status of our plans. Further, non-compliance with this reporting method would impose a severe penalty on the plan sponsor in the form of the inability to issued tax-exempt bonds during any period of non-compliance.

The Board directed staff to take steps to secure an official City position to oppose the bill. The proposed opposition letter is attached for the Board's review. City Attorney has reviewed the letter and provided revisions.

The report was prepared by Dale Wong-Nguyen, Chief Benefits Analyst, Administrative Services Division.

NG:DWN:CK

Attachment: Proposed PEPTA Opposition Letter

August xx, 2018

The Honorable Members of the Los Angeles City Council
City Hall, Room 395
Los Angeles, California 90012

RE: OPPOSITION TO THE PUBLIC EMPLOYEE PENSION TRANSPARENCY ACT

Dear Honorable Members:

On behalf of the Los Angeles City Employees' Retirement System Board of Administration, I write to relay our strong opposition to H.R. 6290, the Public Employee Pension Transparency Act (PEPTA), which Congressman Devin Nunes (R-CA) re-introduced on June 28, 2018. This legislation would impose inappropriate, costly, and burdensome unfunded federal mandates on sovereign States and local governments. Critically, it would also threaten the tax-exempt status of their municipal bonds. PEPTA would prohibit states and localities from issuing tax-exempt bonds unless they file annual PEPTA compliant reports on their public pension systems to the U.S. Treasury Department. I respectfully request that the Los Angeles City Council take a position to oppose this bill and any attempts to include its harmful provisions in other legislation.

PEPTA does not save taxpayer dollars, protect employee pension benefits, improve state and local retirement system funding, or provide decision-useful information to policymakers. Rather, it creates an expensive federal bureaucracy and imposes red tape on government operations that will only serve to divert taxpayer resources from other priorities. State and local governments have the fiscal responsibility for their retirement programs, have comprehensive oversight and reporting requirements in place, and have recently taken additional steps to strengthen their retirement systems:

- The Governmental Accounting Standards Board (GASB), which sets public pension accounting and reporting standards, has recently reviewed and significantly modified required financial disclosures, including recording unfunded pension liabilities on state and local government balance sheets. GASB considered and rejected the assumptions and calculations proposed by PEPTA as inappropriate for governmental entities.

- The financial condition of a pension plan, including its funded status and necessary contributions, must be certified by enrolled actuaries that adhere to Actuarial Standards of

Practice (ASOPs) maintained by the Actuarial Standards Board (ASB). The ASB is currently considering amendments to ASOPs applicable to pensions, including changes relating to assumptions and disclosures.

The Los Angeles City Employees' Retirement System's ("LACERS") financial information is transparent, compliant with reporting standards, audited, and available online at lacers.org. LACERS also provides required financial data to the California State Controller, who posts it online. LACERS has been routinely recognized for its financial stewardship and reporting:

- Received the Certificate of Achievement for Excellence in Governmental Accounting and Financial Reporting by the Government Finance Officers Association (GFOA) of the United States and Canada for Comprehensive Annual Financial Report (CAFR) from 1999 to the present;

- Received the Public Pension Standards Award For Funding and Administration by the Public Pension Coordinating Council from 2013 to the present;

- Received the Quality and Productivity Award by the City of Los Angeles Quality and Productivity Commission for successful participation in the Federal Early Retiree Reinsurance Program (ERRP), resulting in reimbursements totaling $5.9 million for claims associated with early retiree medical plans; and,

- The Pew Charitable Trusts commended LACERS in its 2013 report, *A Widening Gap in Cities --- Shortfalls in Funding for Pensions and Retiree Health Care*. LACERS was recognized as a "bright spot" for prefunding retiree health care.

The Los Angeles City Employees' Retirement System continues to provide benefits without interruption to more than 44,000 current and former employees and their beneficiaries. The federal government has no financial obligation for state and local pensions and imposing onerous federal regulations serves no constructive purpose. We request that the City oppose this harmful legislation and any congressional consideration of its provisions.

Should you have any questions or require further information, please do not hesitate to contact me at (213) 473-7280.

Sincerely,

Neil M. Guglielmo
General Manager

NMG:TB:DWN:CK

LACERS
LOS ANGELES CITY EMPLOYEES'
RETIREMENT SYSTEM

Report to Board of Administration

From: Neil M. Guglielmo, General Manager

Agenda of: **AUGUST 14, 2018**

ITEM: **IX-A**

SUBJECT: **CONTINUED CONSIDERATION OF PROPOSED ASSUMPTION CHANGES BASED ON ACTUARIAL EXPERIENCE STUDY AND POSSIBLE BOARD ACTION**

Recommendation

That the Board, as recommended by LACERS' consulting actuary, Segal Consulting (Segal):

1) Introduce an assumption to reflect Cost-of-Living-Adjustment (COLA) benefits on a prospective basis beginning July 1, 2019, when a Member elects an optional form of benefit;
2) Adopt the Demographic Assumptions (Appendix B of the Segal Actuarial Experience Study dated June 29, 2018), inclusive of a change to the mortality tables from static to generational;
3) Adopt the Economic Assumptions (Appendix B of the Segal Actuarial Experience Study dated June 29, 2018), inclusive of a 7.00% net investment rate of return and a 2.75% inflation rate.

Discussion

Consideration of the Actuarial Experience Study was continued from the Board meetings of July 10 and July 24, 2018 to provide further occasion for Board Members to discuss the Experience study and Board reports with the staff and LACERS' consulting actuary, Segal.

Staff has also since obtained legal guidance on the actuary's recommendation to reflect Cost-of-Living-Adjustment (COLA) benefits when a Member elects an optional form of benefit[1] (pages 33-34 of the Segal Actuarial Experience Study dated June 29, 2018). At the time of retirement, the Member is informed of their retirement allowance and is presented with a menu of options they can elect so long as their monthly benefit and election(s) total the actuarial equivalent of their unmodified retirement allowance. For example, a Tier 1 Member may elect to provide, upon their death, a 100% survivorship benefit to a spouse/domestic partner. Given a 50% continuance to a spouse/domestic partner is included in the unmodified retirement allowance, the additional continuance amount is paid for with a reduction in the Member's lifetime monthly benefit payment using the current actuarial assumptions (mortality and investment rate of return) to provide the actuarial equivalent of the unmodified retirement allowance.

[1] Optional Forms of benefits includes any voluntary elections made by the Member, such as an Allowance to a Designated Beneficiary (Tier 1 LAAC 4.1014; Tier 3 LAAC 4.1080.13); and Optional Allowance to Specified Survivors (LAAC 4.1015; Tier 3 LAAC 4.10.80.14).

Segal reports that the current calculation is only actuarially equivalent if we assume that there are no COLA benefits paid under the optional forms, however COLAs are provided to the Members and their survivors, resulting is a slight subsidy to Members who elected an optional retirement allowance. Segal advised LACERS to seek legal advice before adopting this change because they understood that the majority of their California pension system clients who fall under the 1937 Act County Employees Retirement Law (CERL)[2] may have legal impediments to adopting a change of this nature. In consultation with our legal counsel, the concern was raised as to whether this long-standing and broadly-applied practice of not including the COLA in the calculation would be interpreted by some to be a vested right. Legal counsel advised that that adopting Segal's recommendation starting July 1, 2019 will not impact any vested rights or benefits. Further, that the Los Angeles Administrative Code sections for the various optional allowances clearly states that the "actuarial equivalent" standard is to be used, therefore the Board has the authority to enact this recommendation of the actuary. Staff recommends that this change to the calculation be implemented prospectively only, for any selection of optional forms of benefit on or after July 1, 2019, coinciding with the other assumption changes resulting from this Experience Study. The July 1, 2019 date will provide the necessary time to revise, verify, and test the calculation that will need to be programmed into the pension administration system.

This report was prepared by Dale Wong-Nguyen, Chief Benefits Analyst, Administrative Services Division.

NG:TB:DWN

Attachment: July 24, 2018 Report to the Board on CONTINUED CONSIDERATION OF PROPOSED ASSUMPTION CHANGES BASED ON ACTUARIAL EXPERIENCE STUDY AND POSSIBLE BOARD ACTION

[2] "CERL" is a governing statute that applies to most California counties retirement benefits. It does not apply to LACERS, which is governed by the Los Angeles City Charter.

LACERS
LOS ANGELES CITY EMPLOYEES' RETIREMENT SYSTEM

Report to Board of Administration

Agenda of: **JULY 24, 2018**

From: Neil M. Guglielmo, General Manager

ITEM: **IX-D**

SUBJECT: **CONTINUED CONSIDERATION OF PROPOSED ASSUMPTION CHANGES BASED ON ACTUARIAL EXPERIENCE STUDY AND POSSIBLE BOARD ACTION**

Recommendation

That the Board adopt the following actuarial assumptions, as recommended by LACERS' consulting actuary, Segal Consulting:

1. **Inflation Rate:** Reduce the rate from 3.00% to 2.75%.
2. **Crediting Rate:** Reduce the rate from 3.00% to 2.75%.
3. **Investment Return:** Reduce the rate from 7.25% to 7.00%, net of investment expense and administrative expense.
4. **Individual Salary Increases:** Lower slightly overall –
   - Reduce the current inflationary salary increase assumption from 3.00% to 2.75%.
   - Maintain the real across-the-board salary increase at 0.50%.
   - Adjust the Promotional Merit Increases as contained in Appendix B of the attached Actuarial Experience Study report.
5. **Retirement Rates:** Anticipate earlier retirements for active members overall –
   - For active members, adjust the current retirement rates as contained in Appendix B of the attached Actuarial Experience Study report.
   - For active and inactive members, decrease the current assumption that male retirees are four years older than their spouses to a three-year age difference and maintain the current assumption that female retirees are two years younger than their spouses.
   - For inactive vested members, increase the assumed retirement age of deferred vested members from 58 to 59.
   - For future inactive vested members, maintain the current assumption that 5% of LACERS' members who terminate employment in the future will continue to work at a reciprocal system.
   - For all reciprocal members, lower the compensation increase assumption from 3.90% to 3.85%.
6. **Mortality Rates:** Anticipate longer life expectancy –
   - For healthy pensioners and all beneficiaries, change from the current RP-2000 Combined Healthy Mortality Tables for service retirements to the Headcount-Weighted

RP-2014 Healthy Annuitant Mortality Table projected generationally with the two-dimensional mortality improvement scale MP-2017.

- For disability retirements, change from the current RP-2000 Combined Healthy Mortality Tables to the Headcount-Weighted RP-2014 Disabled Retiree Mortality Table projected generationally with the two-dimensional mortality improvement scale MP-2017.
- For pre-retirement mortality, change from the current post-retirement mortality tables to the Headcount-Weighted RP-2014 Employee Mortality Table times 90 percent, projected generationally with the two-dimensional mortality improvement scale MP-2017.

7. **Termination Rates:** Anticipate slightly less terminations for Members with fewer than five years of employment service, and more terminations for Members with five or more years of employment service. Adjust the current termination rates as contained in Appendix B of the attached Actuarial Experience Study report.
8. **Disability Incidence Rate:** Anticipate slightly less disablements. Adjust the current disability incidence rates as contained in Appendix B of the attached Actuarial Experience Study report.
9. **Other Miscellaneous Assumptions:** As shown in Appendix B of the attached Actuarial Experience Study report.

Discussion

At the Board Meeting of July 10, 2018, the Board considered the Actuarial Experience Study conducted by Segal Consulting (Segal), as well as the assumption changes recommended by Segal. The Board requested that Segal provide additional information regarding the estimated cost impact associated with the proposed assumption changes, summarized in Table 1; and possible phase-in methods to mitigate the cost impact, summarized in Table 2.

Table 1: Cost Impact of Assumption Changes

	Current Assumptions	Segal Recommended OPTION		Static Mortality Table OPTION		Non-Economic Only OPTION	
		Assumption Changes	Cost as a % of Payroll	Assumption Changes	Cost as a % of Payroll	Assumption Changes	Cost as a % of Payroll
Economic							
Interest	7.25%	7.00%	3.14%	7.00%	3.14%	7.25%	0%
Inflation	3.00%	2.75%	(1.51)%	2.75%	(1.51)%	3.00%	0%
Subtotal			1.63%		1.63%		0%
Non-Economic							
Mortality	Static Table	Generational	2.12%	Static with increased margin	2.05%	Generational	2.12%
Other			(0.35)%		(0.35)%		(0.35)%
Subtotal			1.77%		1.70%		1.77%
Grand Total			**3.40%**		**3.33%**		**1.77%**

Staff supports Segal's recommended assumption changes which includes the adoption of the generational mortality table. The generational mortality tables more accurately reflect the System's mortality experience. The cost impact of the difference between generational and static with increased margin mortality is minimal at 7 basis points.

Table 2: Contribution Increases With and Without Phase-In
Payment at the Beginning of the Year

Fiscal Year	Without Phase-in	Two-Year With Phase-In	Three-Year With Phase-In	Five-Year With Phase-In
2019-20	**3.40%**	1.70%	1.14%	0.68%
2020-21	3.40%	**3.55%**	2.46%	1.60%
2021-22	3.40%	N/A	**3.70%**	2.46%
2022-23	3.40%	N/A	N/A	3.26%
2023-24	3.40%	N/A	N/A	**4.00%**
Estimated Additional Attributable Interest*	$0	$23.2M	$43.1M	$74.5M

*Additional interest attributable to the contribution shortfall that would accumulate over the 15-year amortization period used for actuarial losses based on 7 percent interest rate.

The phase-in scenarios to mitigate the cost impact are reflected in Table 2. The City may request a phase-in for the Board to consider prior to adoption of the Fiscal Year 2019-20 City Budget.

The Board also instructed staff to seek a legal review of and report back on introduction of an assumption to reflect Cost-of-Living-Adjustment (COLA) benefits in determining actuarial equivalence when a member elects an optional form of benefit at retirement. Staff will provide a separate report on this item when the review has been completed.

This report was prepared by Todd Bouey, Assistant General Manager, Administrative Operations.

NG:TB:DWN

Attachment: 1) July 19, 2018 Letter from Segal regarding Phase-In of Incremental City Contribution Rates
2) July 10, 2018 Board Report on Experience Study 2014-2017
3) July 24, 2018 Segal Slide Presentation – 2nd Discussion of 2018 Actuarial Experience Study

ATTACHMENT 1

Segal Consulting

100 Montgomery Street Suite 500 San Francisco, CA 94104-4308
T 415.263.8200 www.segalco.com

July 19, 2018

Mr. Neil Guglielmo
General Manager
Los Angeles City Employees' Retirement System
202 West First Street, Suite 500
Los Angeles, CA 90012-4401

Re: Los Angeles City Employees' Retirement System
Response to the Board's Request for Phase-In of the Cost Impact of the Proposed New Actuarial Assumptions in the 2017 Experience Study

Dear Neil:

On July 10, 2018, the Board discussed the possibility of phasing in the cost impact of the proposed new actuarial assumptions recommended in the June 30, 2017 triennial experience study on the City's retirement and health plan contributions beginning with the 2019-2020 fiscal year.[1] Subsequent to the July 10 Board meeting, LACERS' staff discussed several possible phase-in scenarios with Segal Consulting ("Segal") including a two-, three- and five-year phase-in.

LACERS' staff noted that LACERS used a five-year phase-in to provide temporary contribution rate relief from the assumption changes adopted in the June 30, 2011 triennial experience study. However, staff also noted that the use of the five-year phase-in followed a period of extraordinary economic circumstances (i.e., the recessionary downturn of the economy beginning 2008/2009).

Segal cautions that the phase-in period of the contribution rate impact of assumption changes should be no longer than the time until the next regular experience study.[2] This is to avoid overlapping phase-in periods from sequential experience studies. As you know, LACERS' regular experience study period is every three years. However, at the direction of LACERS' staff, we are including five-year phase-in information herein for informational purposes only, along with the two- and three-year phase-in.

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[1] Any changes in actuarial assumptions resulting from the 2017 experience study will first be reflected in the upcoming June 30, 2018 valuations (note that the contribution rates developed in the June 30, 2018 valuations will be effective for Fiscal Year 2019-2020). However, for illustrative purposes we have estimated the effect of these proposed assumption changes as if they applied in the June 30, 2017 valuations, since the June 30, 2018 valuations have only just begun. These estimated costs are the basis for the results in this letter.

[2] See for example the discussion of "direct rate smoothing" in the Conference of Consulting Actuaries Public Plans Community "White Paper" on Actuarial Funding Policies and Practices for Public Pension Plans, October 2014.

The recommended (i.e., pre-phase-in) contribution rates for Fiscal Year 2019-2020 will be developed in Segal's June 30, 2018 impending valuation reports. This letter provides an estimate of the incremental "phased-in" contribution rates for Fiscal Year 2019-2020 and an analysis of the future contribution rate impact of a two-, three- or five-year phase-in.

INCREMENTAL PHASE-IN CONTRIBUTION RATES FOR 2019-2020

Table A below shows the estimated full impact of all of the proposed actuarial assumptions on the City's retirement and health plan contributions for Fiscal Year 2019-2020, assuming payment at the beginning of the year, on July 15, 2019, or at the end of each pay period. This is the portion of the contribution rates to be developed in the upcoming June 30, 2018 valuations that would be phased-in over either two or three years.

Table A

Plan:	Estimated Full Impact of the Proposed New Actuarial Assumptions (percentage of payroll)		
	Beginning of Year	July 15	End of Pay Periods
Retirement	2.42%	2.43%	2.50%
Health	0.98%	0.98%	1.01%
Total	3.40%	3.41%	3.51%

To illustrate the dollar magnitude of the rate impact on an estimated payroll of $2.2 billion,[3] the 3.40% beginning of year rate increase would increase contributions by $74.8 million for Fiscal Year 2019-2020.

The increases in the City contribution rates for the first year of the phase-in are simply one-half of the rates shown in Table A for a two-year phase-in, one-third of those rates for a three-year phase-in, or one-fifth of those rates for a five-year phase-in. These first-year phase-in rates are shown below in Tables B-1 (two-year phase-in), B-2 (three-year phase-in), and B-3 (five-year phase-in), and they would apply to contributions for Fiscal Year 2019-2020:

Table B-1 (Two-Year Phase-In)

Plan:	First-Year Phase-In of the Impact of the Proposed New Actuarial Assumptions (percentage of payroll)		
	Beginning of Year	July 15	End of Pay Periods
Retirement	1.21%	1.21%	1.25%
Health	0.49%	0.49%	0.51%
Total	1.70%	1.70%	1.76%

[3] Reflects two annual increases of 3.25% in the 2017/2018 projected payroll estimated under the actuarial assumptions recommended in the June 30, 2017 triennial experience study.

Table B-2 (Three-Year Phase-In)

Plan:	First-Year Phase-In of the Impact of the Proposed New Actuarial Assumptions (percentage of payroll)		
	Beginning of Year	July 15	End of Pay Periods
Retirement	0.81%	0.81%	0.84%
Health	0.33%	0.33%	0.34%
Total	1.14%	1.14%	1.18%

Table B-3 (Five-Year Phase-In)

Plan:	First-Year Phase-In of the Impact of the Proposed New Actuarial Assumptions (percentage of payroll)		
	Beginning of Year	July 15	End of Pay Periods
Retirement	0.48%	0.48%	0.50%
Health	0.20%	0.20%	0.21%
Total	0.68%	0.68%	0.71%

Note that the actual rate impact for the remaining years of the phase-in would be slightly higher than simply adding another one-half (for the two-year phase-in), another one-third (for the three-year phase-in), or another one-fifth (for the five-year phase-in) of the full increases to the contribution rates for the preceding year. This is due to having to make up for the portion of the total contribution rate increase that would not be paid because of the phase-in, including interest at the assumed rate of 7.00%.

The actual cumulative increase in the City contribution rate due to the phase-in for the remaining years would be reflected in the new contribution rates determined at the time of each such future valuation. We have provided below in Tables C-1 (two-year phase-in), C-2 (three-year phase-in), and C-3 (five-year phase-in) an estimate of these cumulative increases, with and without the phase-in, assuming payment by the employer at the beginning of the year. These results illustrate the additional interest cost due to the phase-in.

Table C-1: Cumulative Contribution Increases Under Two-Year Phase-In; Payment at the Beginning of the Year

Fiscal Year	Pension Plan		Retiree Health Plan		Total	
	Without Phase-in	With Phase-in	Without Phase-in	With Phase-in	Without Phase-in	With Phase-in
2019/20	2.42%	1.21%	0.98%	0.49%	3.40%	1.70%
2020/21	2.42%	2.53%	0.98%	1.02%	3.40%	3.55%

Table C-2: Cumulative Contribution Increases Under Three-Year Phase-In; Payment at the Beginning of the Year

Fiscal Year	Pension Plan		Retiree Health Plan		Total	
	Without Phase-in	With Phase-in	Without Phase-in	With Phase-in	Without Phase-in	With Phase-in
2019/20	2.42%	0.81%	0.98%	0.33%	3.40%	1.14%
2020/21	2.42%	1.75%	0.98%	0.71%	3.40%	2.46%
2021/22	2.42%	2.63%	0.98%	1.07%	3.40%	3.70%

Table C-3: Cumulative Contribution Increases Under Five-Year Phase-In; Payment at the Beginning of the Year

Fiscal Year	Pension Plan		Retiree Health Plan		Total	
	Without Phase-in	With Phase-in	Without Phase-in	With Phase-in	Without Phase-in	With Phase-in
2019/20	2.42%	0.48%	0.98%	0.20%	3.40%	0.68%
2020/21	2.42%	1.14%	0.98%	0.46%	3.40%	1.60%
2021/22	2.42%	1.75%	0.98%	0.71%	3.40%	2.46%
2022/23	2.42%	2.33%	0.98%	0.93%	3.40%	3.26%
2023/24	2.42%	2.85%	0.98%	1.15%	3.40%	4.00%

In Table D below, we have provided the reduction in contributions due to the phase-in, under each of the phase-in scenarios. The amounts in Table D below represent the difference between (a) employer contributions assuming the full cost of the proposed new assumptions are paid each year, and (b) employer contributions assuming the phased-in costs are paid each year.

Table D: Reduction in Contributions due to Phase-In (Dollars in Millions; Assumes Payments at the Beginning of the Year)

Fiscal Year	Two-Year Phase-In	Three-Year Phase-In	Five-Year Phase-In
2019/20	$35.0	$46.6	$56.0
2020/21	N/A	19.9	38.3
2021/22	N/A	N/A	20.7
2022/23	N/A	N/A	3.3
2023/24	N/A	N/A	N/A

As the contribution reduction amounts provided above represent an actuarial loss, we have provided in Table E below the additional interest amounts that would accumulate over the 15-year amortization period currently used for actuarial losses.

Table E: Additional Interest Attributable to Contribution Shortfall
(Dollars in Millions; Assumes Payments at the Beginning of the Year)

Two-Year Phase-In	Three-Year Phase-In	Five-Year Phase-In
$23.2	$43.1	$74.5

Unless otherwise noted above, these results reflect the same plan provisions and methods from the June 30, 2017 actuarial valuations. The actuarial calculations involved in determining these results were completed under the supervision of Andy Yeung, ASA, MAAA, FCA, EA.

We look forward to discussing these results with the Board. If you have any questions, please let us know.

Sincerely,

Paul Angelo, FSA, MAAA, FCA, EA
Senior Vice President and Actuary

Andy Yeung, ASA, MAAA, FCA, EA
Vice President and Actuary

DNA/bbf

LACERS
LOS ANGELES CITY EMPLOYEES'
RETIREMENT SYSTEM

ATTACHMENT 2

Report to Board of Administration

From: Neil M. Guglielmo, General Manager

Agenda of: **JULY 10, 2018**

ITEM: **X-B**

SUBJECT: **ANALYSIS OF ACTUARIAL EXPERIENCE DURING THE PERIOD FROM JULY 1, 2014 THROUGH JUNE 30, 2017 AND POSSIBLE BOARD ACTION**

Recommendation

That the Board consider the following actuarial assumptions, as recommended by LACERS' consulting actuary, Segal Consulting (Segal):

1. **Inflation Rate:** Reduce the rate from 3.00% to 2.75%.
2. **Crediting Rate:** Reduce the rate from 3.00% to 2.75%.
3. **Investment Return:** Reduce the rate from 7.25% to 7.00%, net of investment expense and administrative expense.
4. **Individual Salary Increases:** Lower slightly overall –
    - Reduce the current inflationary salary increase assumption from 3.00% to 2.75%.
    - Maintain the real across-the-board salary increase at 0.50%.
    - Adjust the Promotional Merit Increases as contained in Appendix B of the attached Actuarial Experience Study report.
5. **Retirement Rates:** Anticipate earlier retirements for active members overall –
    - For active members, adjust the current retirement rates as contained in Appendix B of the attached Actuarial Experience Study report.
    - For active and inactive members, decrease the current assumption that male retirees are four years older than their spouses to a three-year age difference and maintain the current assumption that female retirees are two years younger than their spouses.
    - For inactive vested members, increase the assumed retirement age of deferred vested members from 58 to 59.
    - For future inactive vested members, maintain the current assumption that 5% of LACERS' members who terminate employment in the future will continue to work at a reciprocal system.
    - For all reciprocal members, lower the compensation increase assumption from 3.90% to 3.85%.
6. **Mortality Rates:** Anticipate longer life expectancy –
    - For healthy pensioners and all beneficiaries, change from the current RP-2000 Combined Healthy Mortality Tables for service retirements to the Headcount-Weighted

RP-2014 Healthy Annuitant Mortality Table projected generationally with the two-dimensional mortality improvement scale MP-2017.

- For disability retirements, change from the current RP-2000 Combined Healthy Mortality Tables to the Headcount-Weighted RP-2014 Disabled Retiree Mortality Table projected generationally with the two-dimensional mortality improvement scale MP-2017.
- For pre-retirement mortality, change from the current post-retirement mortality tables to the Headcount-Weighted RP-2014 Employee Mortality Table times 90 percent, projected generationally with the two-dimensional mortality improvement scale MP-2017.

7. **Termination Rates:** Anticipate slightly less terminations for Members with fewer than five years of employment service, and more terminations for Members with five or more years of employment service. Adjust the current termination rates as contained in Appendix B of the attached Actuarial Experience Study report.
8. **Disability Incidence Rate:** Anticipate slightly less disablements. Adjust the current disability incidence rates as contained in Appendix B of the attached Actuarial Experience Study report.
9. **Other Miscellaneous Assumptions:** As shown in Appendix B of the attached Actuarial Experience Study report.

It is additionally recommended that the Board request Segal to provide a breakdown of estimated employer costs by assumption change as well as present potential options for employer payment phase-in.

It is further recommended that the Board instruct staff to seek a legal review of and report back on introduction of an assumption to reflect Cost-of-Living-Adjustment (COLA) benefits in determining actuarial equivalence when a member elects an optional form of benefit at retirement.

Discussion:

Actuarial assumptions are used in the actuarial valuation process for measuring the costs/liabilities of the plan and the contribution requirements of the plan sponsor. While the City Charter requires that an actuarial experience study be completed every five years, the typical timeframe between experience studies for LACERS has been three years. LACERS' last full experience study was conducted in 2014. In May 2015, the Board approved a change in the timing for the completion of the subsequent experience study from 2017 to the first half of 2018 to help alleviate the tight time frames between the adoption of any assumption changes following the triennial experience study, and the immediate implementation of those changes for the actuarial valuation. Further, in March 2017 the Board adopted a two-phase approach to the current triennial experience study:

Phase A – Economic assumptions, including investment return, inflation, salary increase, and Cost-of-Living Adjustment (COLA) were reviewed in 2017. Changed economic assumptions were included in the June 30, 2017 actuarial valuation and reflected in the City contribution rates for fiscal year 2018-19.

Phase B – Demographic assumptions, such as termination, retirement, and mortality, were to be and have been conducted in the first half of 2018.

Phase A review was conducted from July through September 2017, wherein the Board considered actuarial assumption changes following a review of economic assumptions. Ultimately three options for assumption changes were presented by the consulting actuary Segal Consulting (Segal):

Recommended: 7.00% investment rate of return assumption
3.00% price inflation

Alternative 1: 7.25% investment rate of return assumption
3.00% inflation
Conduct full actuarial experience study in 2018, including both economic and demographic assumptions

Alternative 2: 7.00% investment rate of return assumption
2.75% inflation

The Board adopted Alternative 1 in order to allow for inclusion of a then pending asset/liability study and asset allocation exercise being undertaken by LACERS' new general fund investment consultant (NEPC) and LACERS' staff. Thus the investment rate of return assumption was reduced from 7.50 to 7.25 percent pending further analysis. Based on the Board's decision at the Board meeting of September 26, 2017, a full experience study is presently before the Board for action, including updated economic assumptions reflecting the most current targeted asset allocations.

Based on the additional analysis, Segal is now recommending reducing the investment rate of return assumption from 7.25 to 7.00 percent along with an inflation rate reduction from 3.00 to 2.75 percent. The investment rate of return confidence level would increase from 57 to 58 percent. Another major change is the treatment of mortality rates by going to a more contemporary model, although the industry is moving toward an even newer mortality rate model more specific to public sector plans with new tables expected to be available within the next year. These new tables may be considered in the next experience study.

Segal's estimated costs to the employer if all the recommended assumptions are adopted is 2.42 percent of payroll for the Retirement Plan and .98 percent of payroll for the Health Plan (based on contribution rates payable at the beginning of the year).

Paul Angelo of Segal Consulting will be in attendance at the Board meeting to present the report.

This report was prepared by Todd Bouey, Assistant General Manager, Administrative Operations.

NG:TB:DWN

Attachment: Analysis of the Actuarial Experience Study during the period July 1, 2014 through June 30, 2017 prepared by Segal Consulting

Segal Consulting

Los Angeles City Employees' Retirement System

ACTUARIAL EXPERIENCE STUDY

Analysis of Actuarial Experience
During the Period
July 1, 2014 through June 30, 2017

Segal Consulting

100 Montgomery Street Suite 500 San Francisco, CA 94104-4308
T 415.263.8200 www.segalco.com

June 29, 2018

Board of Administration
Los Angeles City Employees' Retirement System
202 W. First Street, Suite 500
Los Angeles, CA 90012-4401

Re: Review of Actuarial Assumptions for the June 30, 2018 Actuarial Valuation

Dear Members of the Board:

We are pleased to submit this report of our review of the actuarial experience for the Los Angeles City Employees' Retirement System. This study utilizes the census data for the period July 1, 2014 to June 30, 2017 and provides the proposed actuarial assumptions, both economic and demographic, to be used in the June 30, 2018 valuation.

Please note that our recommended assumptions unique to the health program (e.g., health care trend assumption) will be provided in a separate letter later this year.

We are members of the American Academy of Actuaries and we meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion herein.

We look forward to reviewing this report with you and answering any questions you may have.

Sincerely,

Paul Angelo, FSA, MAAA, FCA, EA
Senior Vice President and Actuary

Andy Yeung, ASA, MAAA, FCA, EA
Vice President and Actuary

JRC/bqb

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Table of Contents

Actuarial Experience Study
Analysis of Actuarial Experience
During the Period July 1, 2014 through June 30, 2017

I. Introduction, Summary, and Recommendations

To project the cost and liabilities of the Retirement System, assumptions are made about all future events that could affect the amount and timing of the benefits to be paid and the assets to be accumulated. Each year actual experience is compared against the projected experience, and to the extent there are differences, the future contribution requirement is adjusted.

If assumptions are modified, contribution requirements are adjusted to take into account a change in the projected experience in all future years. There is a great difference in both philosophy and cost impact between recognizing the actuarial deviations as they occur annually and changing the actuarial assumptions. Taking into account one year's gains or losses without making a change in the assumptions means that year's experience is treated as temporary and that, over the long run, experience will return to what was originally assumed. Changing assumptions reflects a basic change in thinking about the future, and it has a much greater effect on the current contribution requirements than recognizing gains or losses as they occur.

The use of realistic actuarial assumptions is important in maintaining adequate funding, while paying the promised benefit amounts to participants already retired and to those near retirement. The actuarial assumptions used do not determine the "actual cost" of the plan. The actual cost is determined solely by the benefits and administrative expenses paid out, offset by investment income received. However, it is desirable to estimate as closely as possible what the actual cost will be so as to permit an orderly method for setting aside contributions today to provide benefits in the future, and to maintain equity among generations of participants and taxpayers.

This study was undertaken in order to review the economic and demographic actuarial assumptions and to compare the actual experience with that expected under the current assumptions during the three-year experience period from July 1, 2014 through June 30, 2017. The study was performed in accordance with Actuarial Standard of Practice (ASOP) No. 27 "Selection of Economic Assumptions for Measuring Pension Obligations" and ASOP No. 35 "Selection of Demographic and Other Non-Economic Assumptions for Measuring Pension Obligations." These Standards of Practice put forth guidelines for the selection of the various actuarial assumptions utilized in a pension plan actuarial valuation. Based on the study's results and expected future experience, we are recommending various changes in the current actuarial assumptions.

We are recommending changes in the assumptions for inflation, investment return, crediting rate for employee contributions, cost-of-living adjustments (COLA), promotional and merit salary increases, retirement from active employment, spouse age differences, retirement age for deferred vested members, reciprocal salary increases, pre-retirement mortality, healthy life post-retirement mortality, disabled life post-retirement mortality, termination, and disability. We are also recommending, subject to legal review, introduction of an assumption to reflect COLA benefits in determining actuarial equivalence when a member elects an optional form of benefit at retirement.

Our recommendations for the major actuarial assumption categories are as follows:

Pg #	Actuarial Assumption Categories	Recommendation
9	**Inflation:** Future increases in the Consumer Price Index (CPI) which drives investment returns and active member salary increases, as well as cost-of-living adjustments (COLAs) for retirees. **Crediting Rate for Employee Contributions:** Future increases in the account balance of a member between the date of the valuation and the date of separation from active service.	Reduce the inflation assumption from 3.00% to 2.75% per annum as discussed in Section III(A). (For Tier 3 retirees, the COLA assumption would remain at 2.00% per annum.) Reduce the interest crediting rate for employee contributions from 3.00% to 2.75% per annum as discussed in Section III(A).
12	**Investment Return:** The estimated average net rate of return on current and future assets of the System as of the valuation date. This rate is used to discount liabilities.	Reduce the investment return assumption from 7.25% to 7.00% per annum as discussed in Section III(B).
21	**Individual Salary Increases:** Increases in the salary of a member between the date of the valuation to the date of separation from active service. This assumption has three components: • Inflationary salary increases • Real "across the board" salary increases • Promotional and merit increases	Reduce the current inflationary salary increase assumption from 3.00% to 2.75% and maintain the current real "across the board" salary increase assumption at 0.50%. This means that the combined inflationary and real "across the board" salary increases will decrease from 3.50% to 3.25%. Change the promotional and merit increases to those developed in Section III(C). Future promotional and merit salary increases are higher under the proposed assumptions. The total salary increases (taking into account all three components) are slightly lower under the proposed assumptions.
25	**Retirement Rates:** The probability of retirement at each age at which participants are eligible to retire. **Other Retirement Related Assumptions including:** • Percent married and spousal age differences for members not yet retired • Retirement age for inactive vested members • Future reciprocal members and reciprocal salary increases	For active members, adjust the current retirement rates to those developed in Section IV(A). Overall, the recommended assumptions will anticipate earlier retirements for active members. For active and inactive members, decrease the current assumption that male retirees are four years older than their female spouses to a three-year age difference, and maintain the current age difference assumption for female retirees. For inactive vested members, increase the assumed retirement age from 58 to 59. For future inactive vested members, maintain the percentage assumed to work at a reciprocal system at 5%. For all reciprocal members, lower the compensation increase assumption from 3.90% to 3.85% per annum.

Pg #	Actuarial Assumption Categories	Recommendation
29 35	**Mortality Rates:** The probability of dying at each age. Mortality rates are used to project life expectancies.	For healthy pensioners and all beneficiaries, change from the RP-2000 Combined Healthy Mortality Table projected statically with Scale BB to 2020, with a one-year setback for males and with no setback for females, to the Headcount-Weighted RP-2014 Healthy Annuitant Mortality Table projected generationally with the two-dimensional mortality improvement scale MP-2017. For disabled pensioners, change from the RP-2000 Combined Healthy Mortality Table projected statically with Scale BB to 2020, with a seven-year set forward for males and an eight-year set forward for females, to the Headcount-Weighted RP-2014 Disabled Retiree Mortality Table projected generationally with the two-dimensional mortality improvement scale MP-2017. For pre-retirement mortality, change from the current post-retirement mortality tables to the Headcount-Weighted RP-2014 Employee Mortality Table times 90%, projected generationally with the two-dimensional mortality improvement scale MP-2017. The recommended assumptions will anticipate longer life expectancy. Introduce an assumption to reflect COLA benefits in determining actuarial equivalence when a member elects an optional form of benefit at retirement.
37	**Termination Rates:** The probability of leaving employment at each age and receiving either a refund of contributions or a deferred vested retirement benefit.	Adjust the current termination rates to those developed in Section IV(D). The recommended assumption will anticipate slightly less terminations for members with fewer than five years of employment service, and more terminations for members with five or more years of employment service.
40	**Disability Incidence Rates:** The probability of becoming disabled at each age.	Adjust the current disability incidence rates to those developed in Section IV(E). The recommended assumption will anticipate slightly less disablements.

We have estimated the impact of the proposed assumption changes as if they were applied to the June 30, 2017 actuarial valuation. In particular, if all of the proposed assumption changes were implemented, the aggregate employer rate would have increased by 2.42% of payroll for the Retirement Plan and 0.98% of payroll for the Health Plan (based on contribution rates payable at the beginning of the year). Of the various assumption changes, the most significant cost impact is from the investment return assumption change and the mortality assumption change.

Section II provides some background on the basic principles and methodology used for the experience study and for the review of the economic and demographic actuarial assumptions. A detailed discussion of each assumption and reasons for the proposed changes are found in Section III for the economic assumptions and Section IV for the demographic assumptions. The cost impact of the proposed changes is detailed in Section V.

II. Background and Methodology

In this report, we analyzed both economic and demographic ("non-economic") assumptions. The primary economic assumptions reviewed are inflation, investment return, and salary increases. Demographic assumptions include the probabilities of certain events occurring in the population of members, referred to as "decrements," e.g., termination from service, disability retirement, service retirement, and death before and after retirement. In addition to decrements, other demographic assumptions reviewed in this study include the percentage of members with an eligible spouse or domestic partner, spousal age difference, percent of members assumed to go on to work for a reciprocal system, and reciprocal salary increases.

Economic Assumptions

Economic assumptions consist of:

- **Inflation:** Increases in the price of goods and services. The inflation assumption reflects the basic return that investors expect from securities markets. It also reflects the expected basic salary increase for active employees and drives increases in the allowances of retired members.

- **Investment Return:** Expected long-term rate of return on the System's investments after administrative and investment expenses. This assumption has a significant impact on contribution rates.

- **Salary Increases:** In addition to inflationary increases, it is assumed that salaries will also grow by "across the board" real pay increases in excess of price inflation. It is also assumed that employees will receive raises above these average increases as they advance in their careers. These are commonly referred to as promotional and merit increases. Payments to amortize any Unfunded Actuarial Accrued Liability (UAAL) are assumed to increase each year by the price inflation rate plus any "across the board" real pay increases that are assumed.

The setting of these economic assumptions is described in Section III.

Demographic Assumptions

In order to determine the probability of an event occurring, we examine the "decrements" and "exposures" of that event. For example, taking termination from service, we compare the number of employees who actually terminate in a certain age and/or service category (i.e., the number of "decrements") with those "who could have terminated" (i.e., the number of "exposures"). For example, if there were 500 active employees in the 20-24 age group at the beginning of the year and 50 of them terminate during the year, we would say the probability of termination in that age group is 50 ÷ 500 or 10%.

The reliability of the resulting probability is highly dependent on both the number of decrements and the number of exposures. For example, if there are only a few people in a high age category at the beginning of the year (number of exposures), we would not lend as much credibility to the probability of termination developed for that age category, especially if it is out of line with the pattern shown for the other age groups. Similarly, if we are considering the death decrement, there may be a large number of exposures in, say, the age 20-24 category, but very few decrements (actual deaths); therefore, we would not be able to rely heavily on the probability developed for that category.

One reason we use several years of experience for such a study is to have more exposures and decrements, and therefore more statistical reliability. Another reason for using several years of data is to smooth out fluctuations that may occur from one year to the next. However, we also calculate the rates on a year-to-year basis to check for any trend that may be developing in the later years.

III. Economic Assumptions

A. Inflation

Unless an investment grows at least as fast as prices increase, investors will experience a reduction in the inflation-adjusted value of their investment. There may be times when "riskless" investments return more or less than inflation, but over the long term, investment market forces will generally require an issuer of fixed income securities to maintain a minimum return which protects investors from inflation.

The inflation assumption is long term in nature, so our analysis included a review of historical information. Following is an analysis of 15- and 30-year moving averages of historical inflation rates:

HISTORICAL CONSUMER PRICE INDEX – 1930 TO 2017[1]
(U.S. City Average - All Urban Consumers)

	25th Percentile	Median	75th Percentile
15-year moving averages	2.4%	3.4%	4.5%
30-year moving averages	3.0%	3.8%	4.8%

The average inflation rates have continued to decline gradually over the last several years due to the relatively low inflationary period over the past two decades. Also, the later of the 15-year averages during the period are lower as they do not include the high inflation years of the mid-1970s and early 1980s.

Based on information found in the Public Plans Data website, which is produced in partnership with the National Association of State Retirement Administrators (NASRA), the median inflation assumption used by 168 large public retirement funds[2] in their 2016 fiscal year valuations was 3.00%. In California, CalPERS, CalSTRS, Contra Costa County, Los Angeles County, Orange County and three other 1937 Act CERL systems use an inflation assumption of 2.75%, one other 1937 Act CERL system uses an inflation assumption of 2.90%, two other 1937 Act CERL systems use an inflation assumption of 2.50%, and eleven other 1937 Act CERL systems use an inflation assumption of 3.00%.

LACERS' investment consultant, New England Pension Consultants (NEPC), anticipates an annual inflation rate of 2.75%, while the average inflation assumption provided by NEPC and six other investment advisory firms retained by Segal's California public sector clients was 2.36%. Note that, in general, investment consultants use a time horizon[3] for this assumption that is shorter than the time horizon of the actuarial valuation.

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1 Source: Bureau of Labor Statistics – Based on CPI for All items in U.S. city average, all urban consumers, not seasonally adjusted (Series Id: CUUR0000SA0)

2 Among 168 large public retirement funds, the inflation assumption was not available for 14 of the public retirement funds in the survey data.

3 The time horizon used by the seven investment consultants included in our review generally ranges from 10 years to 30 years and NEPC uses 30 years.

To find a forecast of inflation based on a longer time horizon, we referred to the 2017 report on the financial status of the Social Security program.[4] The projected average increase in the Consumer Price Index (CPI) over the next 75 years under the intermediate cost assumptions used in that report was 2.60%. Besides projecting the results under the intermediate cost assumptions using an inflation assumption of 2.60%, alternative projections were also made using a lower and a higher inflation assumption of 2.00% and 3.20%, respectively.

We also compared the yields on the thirty-year inflation indexed U.S. Treasury bonds to comparable traditional U.S. Treasury bonds.[5] As of April 2018, the difference in yields is about 2.14%, which provides a measure of market expectations of inflation.

Based on all of the above information, we recommend that the current 3.00% annual inflation assumption be reduced to 2.75% for the June 30, 2018 actuarial valuation.

The setting of the inflation assumption using the information outlined above is a somewhat subjective process, and Segal does not apply a specific weight to each of the metrics in determining our recommended inflation assumption. Based on a consideration of all these metrics, we have recently been recommending the same 2.75% inflation assumption in our experience studies for our California based public retirement system clients. As discussed on the previous page of this report, several large California public retirement systems have recently adopted a 2.75% inflation assumption in their valuations, including six county retirement systems.

Crediting Rate for Employee Contributions

We note that the interest crediting rate for employee contributions is based on the average rates of a five-year U.S. Treasury Note. Currently, an assumption of 3.00% is used to approximate that crediting rate, and the 3.00% crediting rate assumption is tied to the current inflation assumption.

In conjunction with our recommendation to lower the current 3.00% annual inflation assumption to 2.75% for the June 30, 2018 valuation, as discussed above, and assuming the Board wishes to maintain the linkage between the two, we would also recommend that the assumed interest crediting rate for employee contributions be lowered from 3.00% to 2.75%.

Retiree Cost of Living Increases

In our June 30, 2017 economic assumptions study, consistent with the 3.00% annual inflation assumption adopted by the Board for that valuation, the Board maintained the 3.00% retiree cost-of-living adjustment for Tier 1 and a 2.00% retiree cost-of-living adjustment for Tier 3.

4 Source: Social Security Administration – The 2017 Annual Report of the Board of Trustees of the Federal Old-Age and Survivors Insurance and Federal Disability Insurance Trust Funds

5 Source: Board of Governors of the Federal Reserve System

Consistent with our recommended inflation assumption, we also recommend reducing the current assumption to value the post-retirement COLA benefit from 3.00% to 2.75% per year for Tier 1,[6] while maintaining the current assumption of 2.00% per year for Tier 3.

In developing the COLA assumption, we also considered the results of a stochastic approach that would attempt to account for the possible impact of low inflation that could occur before COLA banks (applicable to Tier 1 only) are able to be established for the member. Although the results of this type of analysis might justify the use of a COLA benefit assumption lower than 2.75%, we are not recommending that at this time. The reasons for this conclusion include the following:

- The results of the stochastic modeling are significantly dependent on assuming that lower levels of inflation will persist in the early years of the projections. If this is not assumed, then the stochastic modeling will produce results similar to our proposed COLA assumptions.

- Using a lower long-term COLA assumption based on a stochastic analysis would mean that an actuarial loss would occur even when the inflation assumption of 2.75% is met in a year. We question the reasonableness of this result.

We do not see the stochastic possibility of COLAs averaging less than those predicted by the assumed rate of inflation as a reliable source of cost savings that should be anticipated in our COLA assumptions. Therefore, we continue to recommend setting the COLA assumptions based on the long-term annual inflation assumption, as we have in prior years.

6 For current retirees and beneficiaries, we would utilize the accumulated COLA banks to value annual 3.00% COLA increases to Tier 1 members as long as the COLA banks are available.

B. Investment Return

The investment return assumption is comprised of two primary components, inflation and real rate of investment return, with adjustments for administrative and investment expenses and risk.

Real Rate of Investment Return

This component represents the portfolio's incremental investment market returns over inflation. Theory has it that as an investor takes a greater investment risk, the return on the investment is expected to also be greater, at least in the long run. This additional return is expected to vary by asset class and empirical data supports that expectation. For that reason, the real rate of return assumptions are developed by asset class. Therefore, the real rate of return assumption for a retirement system's portfolio will vary with the Board's asset allocation among asset classes.

The following is the System's current target asset allocation and the assumed real rate of return assumptions by asset class. The first column of real rate of return assumptions are determined by reducing NEPC's total or "nominal" 2018 return assumptions by their assumed 2.75% inflation rate. The second column of returns (except for Additional Public Real Assets, Real Estate Investment Trust (REIT), Private Debt, and Private Equity) represents the average of a sample of real rate of return assumptions. The sample includes the expected annual real rate of return provided to us by NEPC and six other investment advisory firms retained by Segal's public sector clients. We believe these averages are a reasonable consensus forecast of long-term future market returns in excess of inflation.[7]

[7] Note that, just as for the inflation assumption, in general the time horizon used by the investment consultants in determining the real rate of return assumption is shorter than the time horizon encompassed by the actuarial valuation.

LACERS' TARGET ASSET ALLOCATION AND ASSUMED ARITHMETIC REAL RATE OF RETURN ASSUMPTIONS BY ASSET CLASS AND FOR THE PORTFOLIO

Asset Class	Percentage of Portfolio	NEPC's Assumed Real Rate of Return[8]	Average Assumed Real Rate of Return from a Sample of Consultants to Segal's California Public Sector Clients[9]
U.S. Large Cap Equity	14.00%	6.08%	5.32%
U.S. Small Cap Equity	5.00%	6.89%	6.07%
Developed Int'l Large Cap Equity	17.00%	6.89%	6.67%
Developed Int'l Small Cap Equity	3.00%	7.31%	7.14%
Emerging Market Equity	7.00%	9.72%	8.87%
Core Bond	13.75%	1.17%	1.04%
High Yield Bond	2.00%	3.51%	3.09%
Bank Loan	2.00%	3.12%	3.00%
TIPS	3.50%	1.20%	0.97%
Emerging Market Debt (External)	4.50%	3.01%	3.44%
Real Estate	7.00%	5.10%	4.68%
Cash	1.00%	0.00%	0.01%
Commodities	1.00%	4.34%	3.36%
Additional Public Real Assets	1.00%	4.76%	4.76%[10]
Real Estate Investment Trust (REIT)	0.50%	5.91%	5.91%[10]
Private Debt	3.75%	5.50%	5.50%[10]
Private Equity	14.00%	8.97%	8.97%[10]
Total	**100.00%**	**5.68%**	**5.37%**

The above are representative of "indexed" returns and do not include any additional returns ("alpha") from active management. This is consistent with the Actuarial Standard of Practice No. 27, Section 3.8.3.d, which states:

> "Investment Manager Performance - Anticipating superior (or inferior) investment manager performance may be unduly optimistic (or pessimistic). The actuary should not assume that superior or inferior returns will be achieved, net of investment expenses, from an active investment management strategy compared to a passive investment management strategy unless the actuary believes, based on relevant supporting data, that such superior or inferior returns represent a reasonable expectation over the measurement period."

The following are some observations about the returns provided above:

8 Derived by reducing NEPC's nominal rate of return assumptions by their assumed 2.75% inflation rate. These returns are net of active management fees.

9 These are based on the projected arithmetic returns provided by NEPC and six other investment advisory firms serving the city retirement system of Los Angeles and 16 other city and county retirement systems in California. These return assumptions are gross of any applicable investment expenses, except for NEPC's returns as noted in the footnote above.

10 For these asset classes, NEPC's assumption is applied in lieu of the average because there is a larger disparity in returns for these asset classes among the firms surveyed and using NEPC's assumption should more closely reflect the underlying investments made specifically for LACERS.

1. The investment consultants to our California public sector clients have each provided us with their expected real rates of return for each asset class, over various future periods of time. However, in general, the returns available from investment consultants are projected over time periods shorter than the durations of a retirement plan's liabilities.

2. Using a sample average of expected real rate of returns allows the System's investment return assumption to reflect a broader range of capital market information and should help reduce year-to-year volatility in the investment return assumption.

3. Therefore, we recommend that the 5.37% portfolio real rate of return be used to determine the System's investment return assumption. This is 0.10% lower than the return that was used one year ago in the review to prepare the recommended investment return assumption for the June 30, 2017 valuation. The difference is primarily due to changes in the System's target asset allocation.

System Expenses

For funding purposes, the real rate of return assumption for the portfolio needs to be adjusted for investment and administrative expenses expected to be paid from investment income. We understand that as a result of a prior internal audit at LACERS, starting with fiscal year ended June 30, 2014, two items (i.e., Real Estate management fees and expenses, and Private Equity management fees and expenses) have been reclassified by LACERS and are now included as part of the investment management fees. Additionally, in preparing our June 30, 2017 economic assumptions report, we understand NEPC returns to be gross of active management fees. On a gross of active management fees basis, the following table provides these expenses in relation to the actuarial value of assets for the four years ending June 30, 2017, for informational purposes only.

ADMINISTRATIVE AND INVESTMENT EXPENSES AS A PERCENTAGE OF ACTUARIAL VALUE OF ASSETS GROSS OF ACTIVE MANAGEMENT FEES (Dollars in 000's)

Year Ending June 30	Actuarial Value of Assets[11]	Administrative Expenses[12]	Investment Expenses[13]	Administrative %	Investment %	Total %
2014	$12,935,503	$15,765	56,189	0.12%	0.43%	0.55%
2015	13,895,589	19,878[14]	62,595	0.14	0.45	0.59
2016	14,752,103	19,727[14]	66,540	0.13	0.45	0.58
2017	15,686,973	20,244	71,844	0.13	0.46	0.59
					Four-Year Average:	**0.58%**

[11] At end of plan year.

[12] Note that some California public retirement systems (including LAFPP) have taken the approach of including an explicit charge for administrative expenses instead of a reduction in the investment return assumption to implicitly defray the administrative expenses.

[13] Includes investment management expenses and investment related administrative expense, gross of expenses associated with private equity.

[14] Includes LACERS' share of the City's pension contributions of approximately $2.9 million for the year ended June 30, 2015 and $3.3 million for the year ended June 30, 2016.

Based on updated information provided by NEPC for this study and for another public retirement system client that uses NEPC as their investment consultant, we understand that the capital market assumptions for Private Equity is already net of active management fees. Accordingly, we have netted out the Private Equity management fees and expenses from the table above and the results are provided on the table below.

ADMINISTRATIVE AND INVESTMENT EXPENSES AS A PERCENTAGE OF ACTUARIAL VALUE OF ASSETS NET OF ACTIVE MANAGEMENT FEES (Dollars in 000's)

Year Ending June 30	Actuarial Value of Assets[15]	Administrative Expenses[16]	Investment Expenses[17]	Administrative %	Investment %	Total %
2014	$12,935,503	$15,765	$36,045	0.12%	0.28%	0.40%
2015	13,895,589	19,878[18]	42,278	0.14	0.30	0.44
2016	14,752,103	19,727[18]	39,926	0.13	0.27	0.40
2017	15,686,973	20,244[18]	40,006	0.13	0.26	0.39
			Four-Year Average	**0.13%**	**0.28%**	**0.41%**
			Recommendation	**0.15%**	**0.25%**	**0.40%**

Based on this experience, we recommend that the System's future expense component of the investment return assumption be decreased from 0.60% to 0.40%.

Note related to investment expenses paid to active managers – As cited above, under Section 3.8.3.d of ASOP No. 27, the effect of an active investment management strategy should be considered "net of investment expenses…unless the actuary believes, based on relevant supporting data, that such superior or inferior returns represent a reasonable expectation over the measurement period." For LACERS, about 1/3 of the investment expenses were paid for expenses associated with active managers, during the year ended June 30, 2017.

We have not performed a detailed analysis to measure how much of the investment expenses paid to active managers might have been offset by additional returns ("alpha") earned by that active management, nor are we aware of any study done by NEPC to quantify such alpha.

As noted above, we have excluded investment expenses associated with private equity. We could work with the LACERS' staff to determine whether future studies might potentially further exclude additional investment expenses for active managers that are expected to be offset by investment returns. For now, we will continue to use the current approach that any "alpha" that may be identified would be treated as an increase in the risk adjustment and corresponding

15 At end of plan year.

16 Note that some California public retirement systems (including LAFPP) have taken the approach of including an explicit charge for administrative expenses instead of a reduction in the investment return assumption to implicitly defray the administrative expenses.

17 Includes investment management expenses and investment related administrative expense, net of expenses associated with private equity.

18 Includes LACERS' share of the City's pension contributions of approximately $2.9 million for the year ended June 30, 2015, $3.3 million for the year ended June 30, 2016, and $3.2 million for the year ended June 30, 2017.

confidence level. For example, 0.25% of alpha would increase the confidence level by 3% (see discussions that follow on definitions of risk adjustment and confidence level).

Risk Adjustment

The real rate of return assumption for the portfolio is adjusted to reflect the potential risk of shortfalls in the return assumptions. The System's asset allocation determines this portfolio risk, since risk levels are driven by the variability of returns for the various asset classes and the correlation of returns among those asset classes. This portfolio risk is incorporated into the real rate of return assumption through a risk adjustment.

The purpose of the risk adjustment (as measured by the corresponding confidence level) is to increase the likelihood of achieving the actuarial investment return assumption in the long term.[19] This is consistent with our experience that retirement plan fiduciaries would generally prefer that returns exceed the assumed rate more often than not.

The 5.37% expected real rate of return developed earlier in this report was based on expected mean or average arithmetic returns. In our model, the confidence level associated with a particular risk adjustment represents the likelihood that future investment earnings would equal or exceed the assumed earnings over a 15-year period on an expected value basis.[20] For example, if we set our real rate of return assumption using a risk adjustment that produces a confidence level of 60%, then there would be a 60% chance (6 out of 10) that the actual earnings over 15 years will be equal to or greater than the expected earnings. The 15-year time horizon represents an approximation of the "duration" of the fund's liabilities, where the duration of a liability represents the sensitivity of that liability to interest rate variations. Note that, based on the investment return assumptions recently adopted by systems that have been analyzed under this model, we observe a confidence level generally in the range of 50% to 60%.

Last year the Board opted to lower the investment return assumption from 7.50% to 7.25%, which implied a risk adjustment of 0.62%. Together with an annual portfolio standard deviation of 13.2% (provided by NEPC in 2017), this reflected a confidence level of about 57% that the actual earnings over 15 years would not be less than the expected earnings, assuming that the distribution of returns over that period follows the normal statistical distribution.[21]

If we use the same 57% confidence level from our last study to set this year's risk adjustment, based on the current long-term portfolio standard deviation of 13.13% provided by NEPC in 2018, the corresponding risk adjustment would be 0.62%. Together with the other investment return components, this would result in an investment return assumption of 7.10%, which is lower than the current assumption of 7.25%. Based on the general practice of using one-quarter percentage point increments for economic assumptions, we evaluated the effect on the confidence level of a 7.00% investment return assumption. In particular, a net investment return

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19 This type of risk adjustment is sometimes referred to as a "margin for adverse deviation."

20 If a retirement system uses the expected arithmetic average return as the discount rate in the funding valuation, that retirement system is expected to have no surplus or asset shortfall relative to its expected obligations assuming all actuarial assumptions were met in the future.

21 Strictly speaking, future compounded long-term investment returns will tend to follow a log-normal distribution. However, we believe the normal distribution assumption is reasonable for purposes of setting this type of risk adjustment.

assumption of 7.00%, together with the other investment return components, would produce a risk adjustment of 0.72%, which when rounded corresponds to a confidence level of 58%. This is a slightly higher confidence level implicit in the investment return assumption adopted by the Board in the last study. For comparison, the confidence level associated with a 7.25% investment return assumption is 55%.

The table below shows LACERS' investment return assumptions, the risk adjustments and corresponding confidence levels for the current and prior studies.

HISTORICAL INVESTMENT RETURN ASSUMPTIONS, RISK ADJUSTMENTS AND CONFIDENCE LEVELS BASED ON ASSUMPTIONS ADOPTED BY THE BOARD

Year Ending June 30	Investment Return	Risk Adjustment	Corresponding Confidence Level
2005	8.00%	1.14%	65%
2008	8.00%	1.29%	66%
2011	7.75%	0.57%	57%
2014 (Alternative)	7.75%	0.69%	58%
2014 (Adopted)	7.50%	0.94%	61%
2014 (Adopted Value with Restated Expense Adjustment)	7.50%	0.74%	59%
2017 (Recommended)	7.00%	0.87%	60%
2017 (Alternative; Adopted)	7.25%	0.62%	57%
2018 (Recommended)	7.00%	0.72%	58%

As we have discussed in prior years, the risk adjustment model and associated confidence level is most useful as a means for comparing how the System has positioned itself relative to risk over periods of time.[22] The use of a confidence level of 58% should be considered in context with other factors, including:

- The confidence level is more of a relative measure than an absolute measure, and so can be reevaluated and reset for future comparisons.
- A lower level of inflation should reduce the overall risk of failing to meet the investment return assumption.
- The confidence level is based on the standard deviation of the portfolio that is determined and provided to us by NEPC. The standard deviation is a statistical measure of the future volatility of the portfolio and so is itself based on assumptions about future portfolio volatility and can be considered somewhat of a "soft" number.
- While a confidence level of 58% is at the upper end of the range of about 50% to 60% that corresponds to the risk adjustments used by most of Segal's other California public

[22] In particular, it would not be appropriate to use this type of risk adjustment as a measure of determining an investment return rate that is "risk-free."

retirement system clients, the level is in-line with how LACERS' has positioned itself historically.

- Most public retirement systems that have recently reviewed their investment return assumptions have seen decreases in their confidence level even though they adopted more conservative investment return assumptions for their valuations.

- As with any model, the results of the risk adjustment model should be evaluated for reasonableness and consistency. This is discussed in the later section on "Comparison with Other Public Retirement Systems".

Recommended Investment Return Assumption

Taking into account the factors above, we have developed our recommended investment return assumption for LACERS' consideration. Our recommendation is to reduce the net investment return assumption from 7.25% to 7.00%. As noted above, this return implies a risk adjustment of 0.72%, reflecting a confidence level of 58% that the actual arithmetic average return over 15 years would not fall below the assumed return. This reduction in the net investment return assumption from 7.25% to 7.00% reflects the 0.25% lower inflation expectation, the 0.10% decrease in the portfolio's real rate of return, the 0.20% "saving" as a result of a decrease in the expense assumption resulting from a clarification received from NEPC that their assumed returns provided are net of active management fees,[23] and a 0.10% increase in the risk adjustment.

The following table summarizes the components of the investment return assumption developed in the previous discussion. For comparison purposes, we have also included similar values from prior studies.

23 In preparing our June 30, 2017 economic assumptions report, NEPC returns were assumed to be gross of active management fees.

CALCULATION OF INVESTMENT RETURN ASSUMPTION

Assumption Component	June 30, 2018 Recommended Value	June 30, 2017 Adopted Value	June 30, 2014 Adopted Value With Restated Expense Adjustment	June 30, 2014 Adopted Value
Inflation	2.75%	3.00%	3.25%	3.25%
Plus Portfolio Real Rate of Return	5.37%	5.47%	5.59%	5.59%
Minus Expense Adjustment	(0.40%)	(0.60%)	(0.60%)	(0.40%)
Minus Risk Adjustment	(0.72%)	(0.62%)	(0.74%)	(0.94%)
Total	**7.00%**	**7.25%**	**7.50%**	**7.50%**
Confidence Level	**58%**	**57%**	**59%**	**61%**

Based on this analysis, we recommend that the investment return assumption be decreased from 7.25% to 7.00% per annum.

We also recommend that the same investment return assumption that is adopted by the Board for funding purposes be used for GASB financial reporting purposes. For GASB financial reporting purposes, the investment return assumption would be considered net of investment expenses only, which would increase the risk adjustment.

Comparing with Other Public Retirement Systems

One final test of the recommended investment return assumption is to compare it against those used by other public retirement systems, both in California and nationwide.

We note that a 7.00% investment return assumption is becoming more common among California public sector retirement systems. In particular, seven County employees' retirement systems (Contra Costa, Fresno, Marin, Mendocino, Orange, Sacramento, and Santa Barbara) use a 7.00% earnings assumption. Furthermore, the CalPERS Board has approved a reduction in the earnings assumption to 7.00%. In addition, CalSTRS recently adopted a 7.00% earnings assumption for the 2017 valuation. With the exception of the retirement systems stated above, most of the public sector retirement systems in California are using a 7.25% earnings assumption. Both LADWP and LAFPP have adopted a 7.25% assumption.

The following table compares LACERS' recommended net investment return assumption against those of the nationwide public retirement systems that participated in the National Association of State Retirement Administrators (NASRA) 2017 Public Fund Survey for 168 large public retirement funds[24] in their 2016 fiscal year valuations:

[24] Among 168 large public retirement funds, the investment return assumption was not available for 12 of the public retirement funds in the survey data.

		NASRA 2016 Public Fund Survey[25]		
Assumption	LACERS	Low	Median	High
Net Investment Return	7.00%	6.50%	7.50%	8.50%

The detailed survey results show that more than one-half of the systems have an investment return assumption in the range of 6.75% to 7.50%, and over half of those systems have used an assumption of 7.50%. The survey also notes that several plans have reduced their investment return assumption during the last year. State systems outside of California tend to change their economic assumptions less frequently and so may lag behind emerging practices in this area.

In summary, we believe that both the risk adjustment model and other considerations indicate a lower earnings assumption. The recommended assumption of 7.00% is consistent with the System's current practice.

25 Public Plans Data website – Produced in partnership with the National Association of State Retirement Administrators (NASRA)

C. Salary Increase

Salary increases impact plan costs in two ways: (i) by increasing members' benefits (since benefits are a function of the members' highest average pay) and future normal cost collections; and (ii) by increasing total active member payroll which in turn generates lower UAAL contribution rates. The components of the salary increase assumptions are discussed below:

As an employee progresses through his or her career, increases in pay are expected to come from three sources:

1. **Inflation:** Unless pay grows at least as fast as consumer prices grow, employees will experience a reduction in their standard of living. There may be times when pay increases lag or exceed inflation, but over the long term, labor market forces may require an employer to maintain its employees' standards of living.

   As discussed earlier in this report, we are recommending that the assumed rate of inflation be reduced from 3.00% to 2.75% per annum. This inflation component is used as part of the salary increase assumption.

2. **Real "Across the Board" Pay Increases:** These increases are typically termed productivity increases since they are considered to be derived from the ability of an organization or an economy to produce goods and services in a more efficient manner. As that occurs, at least some portion of the value of these improvements can provide a source for pay increases. These increases are typically assumed to extend to all employees "across the board". The State and Local Government Workers Employment Cost Index produced by the Department of Labor provides evidence that real "across the board" pay increases have averaged about 0.6% - 0.8% annually during the last ten to twenty years.

   We also referred to the annual report on the financial status of the Social Security program published in July 2017. In that report, real "across the board" pay increases are forecast to be 1.2% per year under the intermediate assumptions.

   The real pay increase assumption is generally considered a more "macroeconomic" assumption that is not necessarily based on individual plan experience. However, recent salary experience with public systems in California as well as anecdotal discussions with plans and plan sponsors indicate lower future real wage growth expectations for public sector employees. We note that for LACERS' active members, the actual average inflation plus "across the board" increase (i.e., wage inflation) over the six-year period ending June 30, 2017 was 1.99%.

Valuation Date	Actual Average Increase[26]	Actual Change in CPI[27]
June 30, 2012	1.35%	2.67%
June 30, 2013	3.50%	2.04%
June 30, 2014	4.61%[28]	1.08%
Three-Year Average	**3.15%**	**1.93%**
June 30, 2015	0.99%	1.35%
June 30, 2016	0.87%	0.91%
June 30, 2017	0.59%	1.89%
Three-Year Average	**0.82%**	**1.38%**
Six-Year Average	**1.99%**	**1.66%**

Considering these factors, we recommend maintaining the real "across the board" salary increase assumption at 0.50%. This means that the combined inflation and "across the board" salary increase assumption will decrease from 3.50% to 3.25%.

3. **Promotional and Merit Increases:** As the name implies, these increases come from an employee's career advances. This form of pay increase differs from the previous two, since it is specific to the individual. For LACERS, there are service-specific promotional and merit increases.

   The annual promotional and merit increases are determined by measuring the actual increases received by members over the experience period, net of the inflationary and real "across the board" pay increases. This is accomplished by:

   a. Measuring each continuing member's actual salary increase over each year of the experience period;

   b. Excluding any members with increases of more than 50% or decreases of more than 10% during any particular year;

   c. Categorizing these increases according to member demographics;

   d. Removing the wage inflation component from these increases (assumed to be equal to the increase in the members' average salary during the year);

   e. Averaging these annual increases over the experience period; and

   f. Modifying current assumptions to reflect some portion of these measured increases reflective of their "credibility."

[26] Reflects the increase in average salary for members at the beginning of the year versus those at the end of the year. It does not reflect the average salary increases received by members who worked the full year.

[27] Based on the change in the annual average CPI for the Los Angeles-Riverside-Orange County Area compared to the prior year. Note that in January 2018, the Bureau of Labor Statistics introduced a new geographic area sample for the CPI, and as part of the new sample, Los Angeles (Los Angeles-Long Beach-Anaheim Area) and Riverside have separate indexes.

[28] Restated after the June 30, 2014 valuation data was finalized.

To be consistent with the other economic assumptions, these promotional and merit assumptions should be used in combination with the 3.25% assumed inflation and 0.50% real "across the board" increases.

The following table shows the actual average promotional and merit increases by years of service over the three-year period from July 1, 2014 through June 30, 2017 along with the actual average increases based on combining the current three-year period with the three years from the prior experience study covering July 1, 2011 through June 30, 2014. The current and proposed assumptions are also shown. The actual increases for the most recent three-year period were reduced by the actual average inflation plus "across the board" increase (i.e., wage inflation, estimated as the increase in average salaries) for each year over the current three-year experience period (0.82% on average).[29]

PROMOTIONAL AND MERIT INCREASES

	Rate (%)			
Years of Service	**Current Assumption**	**Actual Average Increase (Last 3 Years)**	**Actual Average Increase from Current and Prior Study**	**Proposed Assumption**
Less than 1	6.50	7.69	6.09	6.50
1	6.20	8.15	7.28	6.40
2	5.10	7.22	6.05	5.50
3	3.10	4.74	3.70	3.30
4	2.10	3.75	2.82	2.40
5	1.10	2.97	2.08	1.50
6	1.00	2.52	1.73	1.30
7	0.90	2.18	1.56	1.20
8	0.70	2.16	1.41	1.00
9	0.60	2.15	1.34	0.90
10 & Over	0.40	1.71	0.98	0.60

Chart 1 provides a graphical comparison of the actual promotional and merit increases, compared to the proposed and current assumptions. The chart also show the actual promotional and merit increases based on an average of both the current and previous three-year experience periods. This is discussed below.

We realize that the most recent three-year experience period may not be typically indicative of future long-term promotional and merit salary increases. Therefore, we also examined the promotional and merit salary experience from the prior experience study. We believe that when the experience from the last two studies are combined into an average result, it provides a more reasonable representation of potential future promotional and merit salary increases over the long term. Nevertheless, in our proposed changes to promotional and merit salary increases, we have still given relatively less weight, roughly one-third, to the actual average increases during the last two studies.

29 The actual increases for the prior three-year period were reduced by 3.15% each year, on average.

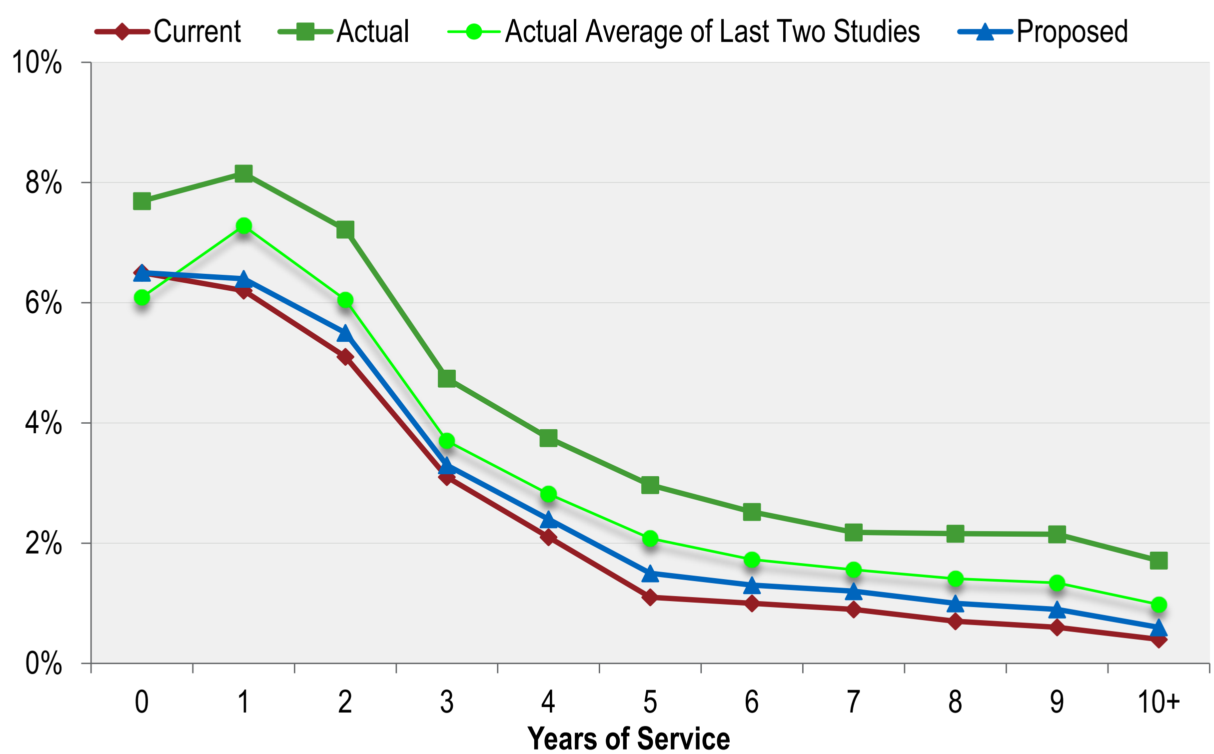
Based on this experience, we are proposing increases overall in the promotional and merit salary increases. The recommended promotional and merit salary increases range from 6.50% to 0.60%. When combined with the recommended inflation and real "across the board" pay increase assumptions herein, the recommended promotional and merit salary increases result in a slight reduction in the total salary increases, based on the demographics of active members as of June 30, 2017.

Active Member Payroll

Projected active member payrolls are used to develop the UAAL contribution rate. Future values are determined as a product of the number of employees in the workforce and the average pay for all employees. The average pay for all employees increases only by inflation and real "across the board" pay increases. The merit and promotional increases are not an influence, because this average pay is not specific to an individual.

We recommend that the active member payroll increase assumption be decreased from 3.50% to 3.25% annually, consistent with the recommended inflation plus real "across the board" salary increase assumptions.

CHART 1: PROMOTIONAL AND MERIT SALARY INCREASE RATES



IV. Demographic Assumptions

A. Retirement Rates

The age at which a member retires from service (i.e., who did not retire on a disability pension) will affect both the amount of the benefits that will be paid to that member as well as the period over which funding must take place.

Tier 1

The following table shows the observed retirement rates based on the actual experience during Fiscal Years 2014/2015, 2015/2016 and 2016/2017, for Tier 1 only. Also shown are the current assumed rates, plus the rates we propose to the Board.

Based on the observed experience, the proposed retirement rates for Tier 1 have been increased from the current rates to reflect earlier retirements.

	Rate of Retirement (%)					
	Current Rate of Retirement		Actual Rate of Retirement		Proposed Rate of Retirement	
Age	Non-55/30	55/30	Non-55/30	55/30	Non-55/30	55/30
50	6.0	0.0	6.4	0.0	6.0	0.0
51	3.0	0.0	1.5	0.0	3.0	0.0
52	3.0	0.0	2.2	0.0	3.0	0.0
53	3.0	0.0	2.8	0.0	3.0	0.0
54	16.0	0.0	18.8	0.0	17.0	0.0
55	6.0	20.0	6.1	28.2	6.0	24.0
56	6.0	14.0	5.5	17.7	6.0	16.0
57	6.0	14.0	5.6	16.9	6.0	16.0
58	6.0	14.0	4.9	18.5	6.0	16.0
59	6.0	14.0	5.5	20.3	6.0	16.0
60	6.0	14.0	7.6	16.1	7.0	16.0
61	6.0	14.0	6.7	10.0	7.0	16.0
62	7.0	15.0	9.4	15.8	7.0	16.0
63	7.0	15.0	8.1	17.0	7.0	16.0
64	7.0	16.0	5.5	18.5	7.0	16.0
65	12.0	17.0	12.9	31.3	13.0	20.0
+66	12.0	17.0	12.6	23.8	13.0	20.0
67	12.0	17.0	14.3	20.8	13.0	20.0
68	12.0	17.0	16.0	11.6	13.0	20.0
69	12.0	17.0	18.7	19.6	13.0	20.0
70	100.0	100.0	12.5	16.9	100.0	100.0

Tier 3

Adjustments have been made to the rates for Tier 3 even though there have been no retirements from Tier 3. The rates for this tier were initially developed based, in part, on the benefit level comparisons to Tier 1, and the Tier 1 retirement rates have been changed significantly enough in this report to warrant a change to the Tier 3 rates. The proposed rates are as follows:

	Rate of Retirement (%)			
	Current Rate of Retirement		Proposed Rate of Retirement	
Age	**Non-55/30**	**55/30**	**Non-55/30**	**55/30**
50	6.0	0.0	6.0	0.0
51	3.0	0.0	3.0	0.0
52	3.0	0.0	3.0	0.0
53	3.0	0.0	3.0	0.0
54	15.0	0.0	16.0	0.0
55	0.0(1)	19.0	0.0(1)	23.0
56	0.0(1)	13.0	0.0(1)	15.0
57	0.0(1)	13.0	0.0(1)	15.0
58	0.0(1)	13.0	0.0(1)	15.0
59	0.0(1)	13.0	0.0(1)	15.0
60	5.0	13.0	6.0	15.0
61	5.0	13.0	6.0	15.0
62	6.0	14.0	6.0	15.0
63	6.0	14.0	6.0	15.0
64	6.0	15.0	6.0	15.0
65	11.0	16.0	12.0	19.0
66	11.0	16.0	12.0	19.0
67	11.0	16.0	12.0	19.0
68	11.0	16.0	12.0	19.0
69	11.0	16.0	12.0	19.0
70	100.0	100.0	100.0	100.0

(1) *Not eligible to retire under the provisions of the Tier 3 plan.*

Chart 2 compares actual experience with the current and proposed rates of retirement, for Tier 1 members with less than 30 years of service or less than age 55.

Chart 3 compares actual experience with the current and proposed rates of retirement for Tier 1 members with at least 30 years of service and at least age 55.

Deferred Vested Members

In prior valuations, inactive vested members were assumed to retire at age 58. The average age at retirement over the current three-year experience study period was 59.0, while the average age for the prior three-year experience study period was 59.5. We recommend increasing the assumed retirement age for inactive vested participants from 58 to 59.

Reciprocity

Based on data available from current inactive vested participants, there is a much lower incidence of members who went to work for a reciprocal system when compared to that observed at our other California public retirement systems. We have observed that, at the end of the experience study period as of June 30, 2017, about 4% of the inactive vested membership has worked for a reciprocal system. Therefore, we recommend maintaining the reciprocity assumption of 5% for the June 30, 2018 valuation. We will continue to monitor this assumption in future valuations.

For reciprocal members, we recommend lowering the compensation increase assumption slightly from 3.90% to 3.85% per annum, consistent with the recommended salary increase assumptions for active members discussed earlier, and reflecting the recommended promotional and merit increase assumption for members with 10 or more years of service.

Survivor Continuance under the Unmodified Option

In prior Retirement Plan valuations, it was assumed that 76% of all active male members and 50% of all active female members would be married or have a domestic partner eligible for the 50% automatic retirement continuance benefit when they retired from Tier 1. According to the experience of members who retired during the last three years, about 77% of all male members and 51% of all female members were married at retirement. We recommend maintaining the current marriage/domestic partner assumptions for Tier 1 and using the same assumption for Tier 3.

Observed experience for members who retired during the last three years indicates that female spouses were about two years younger than their male-member spouses, and male spouses were about three years older than their female-member spouses, on average. On this basis, we recommend maintaining the current assumption that female spouses are two years younger than their male-member spouses and decreasing the current assumption that male spouses are four years older than their female-member spouses to a three-year age difference. Spouses are assumed to be of the opposite sex to the member.

CHART 2: RETIREMENT RATES – TIER 1 "NON-55/30"

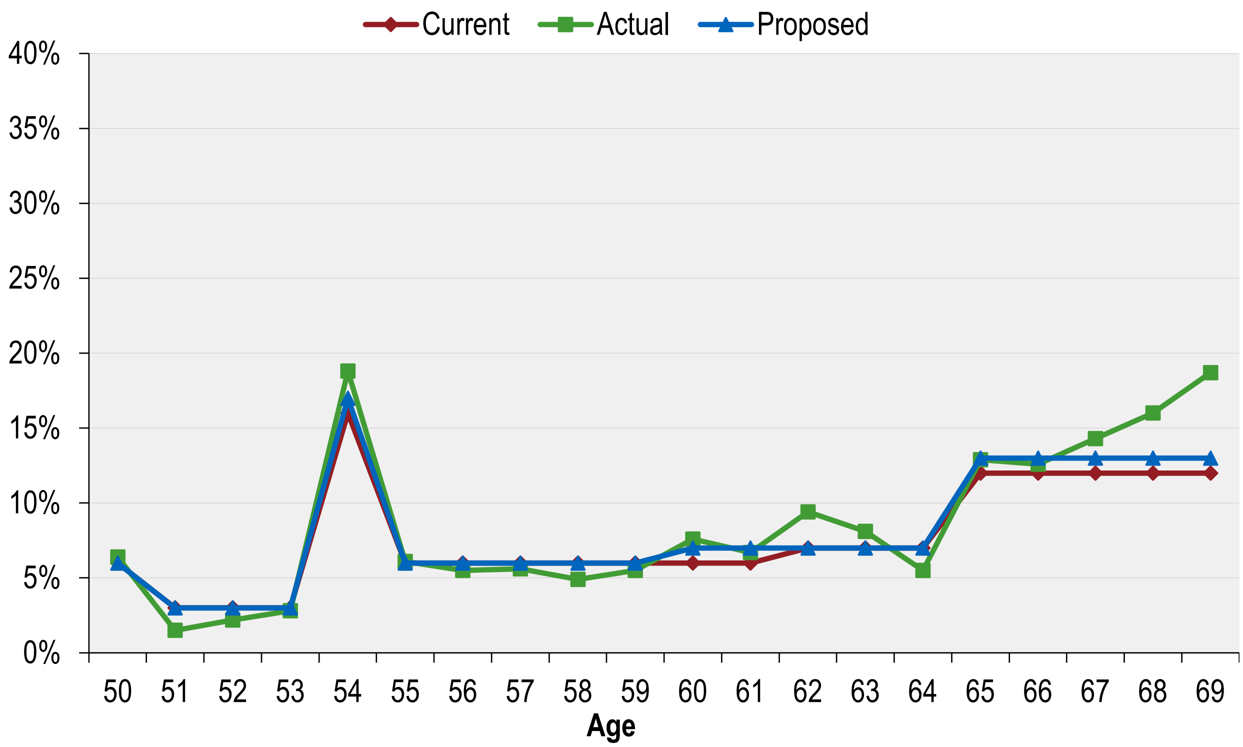
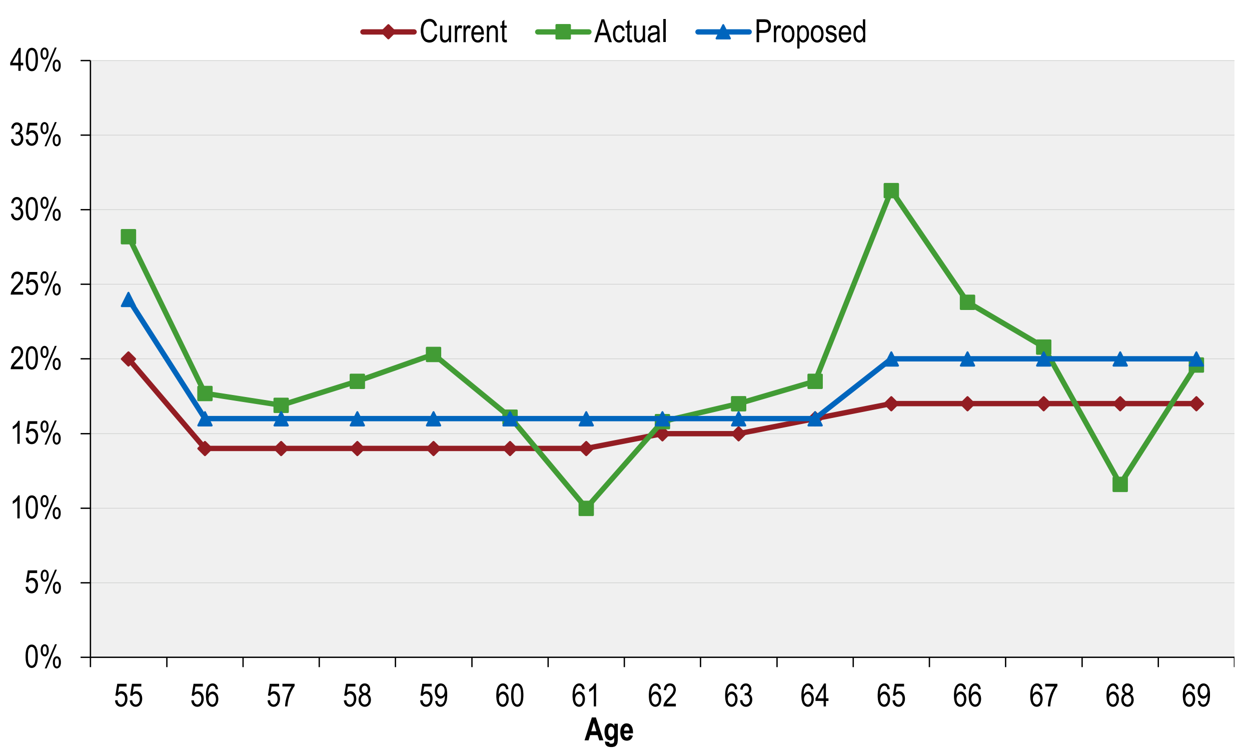


CHART 3: RETIREMENT RATES – TIER 1 "55/30"



B. Mortality Rates - Healthy

The “healthy” mortality rates project the life expectancy of a member who retires from service (i.e., who did not retire on a disability pension). Also, the “healthy” pre-retirement mortality rates project what proportion of members will die before retirement. The table currently being used for post-service retirement mortality rates is the RP-2000 Combined Healthy Mortality Table projected statically with Scale BB to 2020, set back one year for males and with no setback for females. Beneficiaries are assumed to have the same mortality of a member of the opposite sex who has taken a service (non-disabled) retirement.

The Society of Actuaries (SOA) has published the RP-2014 family of mortality tables and associated mortality improvement scales. Within that family of mortality tables, there are mortality rates developed for annuitants on a “headcount” weighted basis that weight all retirees at the same age the same way without regard to the level of benefits those annuitants are receiving from a retirement plan. Mortality rates are also developed for annuitants on a “benefit” weighted basis, with higher credibility assigned to experience from annuitants receiving larger benefits. However, we note that the RP-2014 benefit-weighted mortality table was prepared without any data from public and multi-employer pension plans. As a result, the headcount-weighted basis is the approach currently used by Segal for its California public system clients (including LACERS).

The SOA is in the process of collecting data from public sector plans so that they can develop mortality tables based on public sector experience comparable to the RP-2014 mortality tables developed using data collected from private and multi-employer plans. It is our understanding that those mortality tables will be available in 2018/2019. We will include a discussion with the Board on whether to consider the benefit-weighted mortality rates in the next experience study after those public sector experience mortality tables become available.

As for the mortality improvement scales, they can be applied in one of two ways. Historically, the more common application has been to use a “static” approach to anticipate a fixed level of mortality improvement for all annuitants receiving benefits from a retirement plan. This is in contrast to a “generational” approach where each future year has its own mortality table that reflects the forecasted improvements, using the published improvement scales. While the static approach is still used by some of Segal’s California public system clients, as well as CalPERS, the “generational” approach is the emerging practice within the actuarial profession.

A generational mortality table provides dynamic projections of mortality experience for each cohort of retirees. For example, the mortality rate for someone who is 65 next year will be slightly less than for someone who is 65 this year. In general, using generational mortality anticipates increases in the cost of the Plan over time as participants’ life expectancies are projected to increase. This is in contrast to updating a static mortality assumption with each experience study as we have proposed in prior experience studies.

We understand that the Retirement Plans Experience Committee of the Society of Actuaries (RPEC) intends to publish annual updates to their mortality improvement scales. Improvement scale MP-2017 is the latest improvement scale available. We recommend that given the trend in the retirement industry to move towards generational mortality, it would be reasonable for the Board to adopt the Headcount-Weighted RP-2014 mortality table (adjusted for LACERS’ experience), and project the mortality improvement generationally using the MP-2017 mortality improvement scale.

As an illustration of the relative impact of these approaches, we have provided in the table below the approximate change in the total employer contribution rate for the Retirement Plan only based on the different approaches to build in margin for future mortality improvements.

	Employer Contribution Rate Impact
Headcount Weighted RP-2014 Family of Tables – Static Approach With Increased Margin[30]	1.70% of payroll
Benefit Weighted RP-2014 Family of Tables – Static Approach Without Increased Margin	1.80% of payroll
Headcount Weighted RP-2014 Family of Tables – Generational Approach	**1.76% of payroll**
Benefit Weighted RP-2014 Family of Tables – Generational Approach	3.12% of payroll

In order to provide more credibility to our analysis, we have used experience for a six-year period by using data from the current (from July 1, 2014 to June 30, 2017) and the last demographic experience study (from July 1, 2011 to June 30, 2014) to analyze this assumption.

Pre-Retirement Mortality

In prior experience studies, the pre-retirement mortality rates for active members were set equal to the post-retirement mortality rates for retirees since the actual number of deaths among active members was generally not large enough to provide a statistically creditable analysis. However, this approach is not compatible with our current proposal because the post-retirement RP-2014 Healthy Annuitant tables do not include rates for ages below 50.

From the RP-2014 family of tables, we recommend that pre-retirement mortality follow the Headcount-Weighted RP-2014 Employee Mortality Table (separate tables for males and females) times 90%, projected generationally with the two-dimensional improvement scale MP-2017. The 90% scaling factor is to account for the lower incidences of observed pre-retirement death on the workforce relative to the standard table.

Post-Retirement Mortality (Service Retirements)

Our analysis starts with a table that shows, among all retired members, the actual deaths compared to the expected deaths under the current assumptions for the last six years. We also show the deaths under proposed assumptions. In prior years we have generally set the mortality assumption using a static mortality improvement projection so that actual deaths will be at least 10% greater than those assumed. As noted above, we are recommending the use of a generational mortality table rather than static approach. A generational mortality table incorporates a more explicit assumption for future mortality improvement. Accordingly, the goal is to start with a mortality table that closely matches the current experience (without a margin for

[30] Includes an increased margin of 20% instead of a margin of 10% that we have used in our experience studies in the past.

future mortality improvement), and then reflect mortality improvement by projecting lower mortality rates in future years. That is why the current actual to expected ratio shown in the table below for healthy pensioners and all beneficiaries is 101%. In future years, these ratios would remain around 101%, as long as actual mortality improves at the same rate as anticipated in the generational mortality improvement scale. The actual deaths compared to the expected deaths under the current and proposed assumptions for the last six years are as follows:

	Healthy Pensioners		
	Current Expected Deaths	Actual Deaths	Proposed Expected Deaths
Male	1,673	1,929	1,931
Female	590	575	624
Total	**2,263**	**2,504**	**2,555**
Actual / Expected	111%		98%

The experience from the last six years including healthy retirees and all beneficiaries is as follows:

	Healthy Pensioners and All Beneficiaries		
	Current Expected Deaths	Actual Deaths	Proposed Expected Deaths
Male	1,742	2,020	2,011
Female	1,581	1,672	1,657
Total	**3,323**	**3,692**	**3,668**
Actual / Expected	111%		101%

The ratio of actual to current expected deaths was 111%. We recommend updating the current table to the Headcount-Weighted RP-2014 Healthy Annuitant Mortality Table (separate tables for males and females) projected generationally with the two-dimensional mortality improvement scale MP-2017. These changes will bring the actual to expected ratio to 101%.

All of this is consistent with ASOP 35 as we anticipate expected future improvement in life expectancy using the generational approach.

Chart 4 compares actual to expected deaths under the current and proposed assumptions over the past six years. Experience shows that there were more deaths than predicted by the current table.

Chart 5 shows the life expectancies (i.e., expected future lifetime) under the current and the proposed tables.

The expected deaths and life expectancies under the proposed generational mortality table are based on mortality rates from 2014, which is the base year of the table. In practice, life expectancies will be increased after applying the mortality improvement scale.

CHART 4: POST-RETIREMENT DEATHS HEALTHY PENSIONERS AND ALL BENEFICIARIES (JULY 1, 2011 THROUGH JUNE 30, 2017)

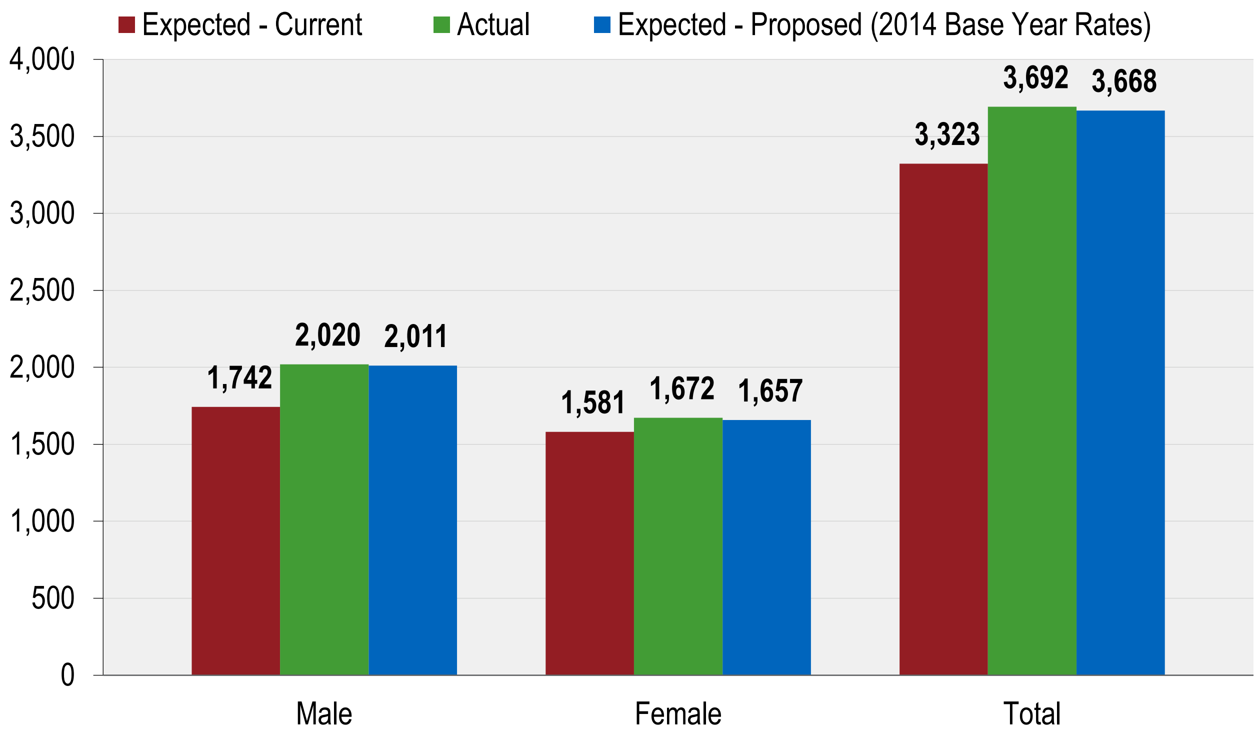
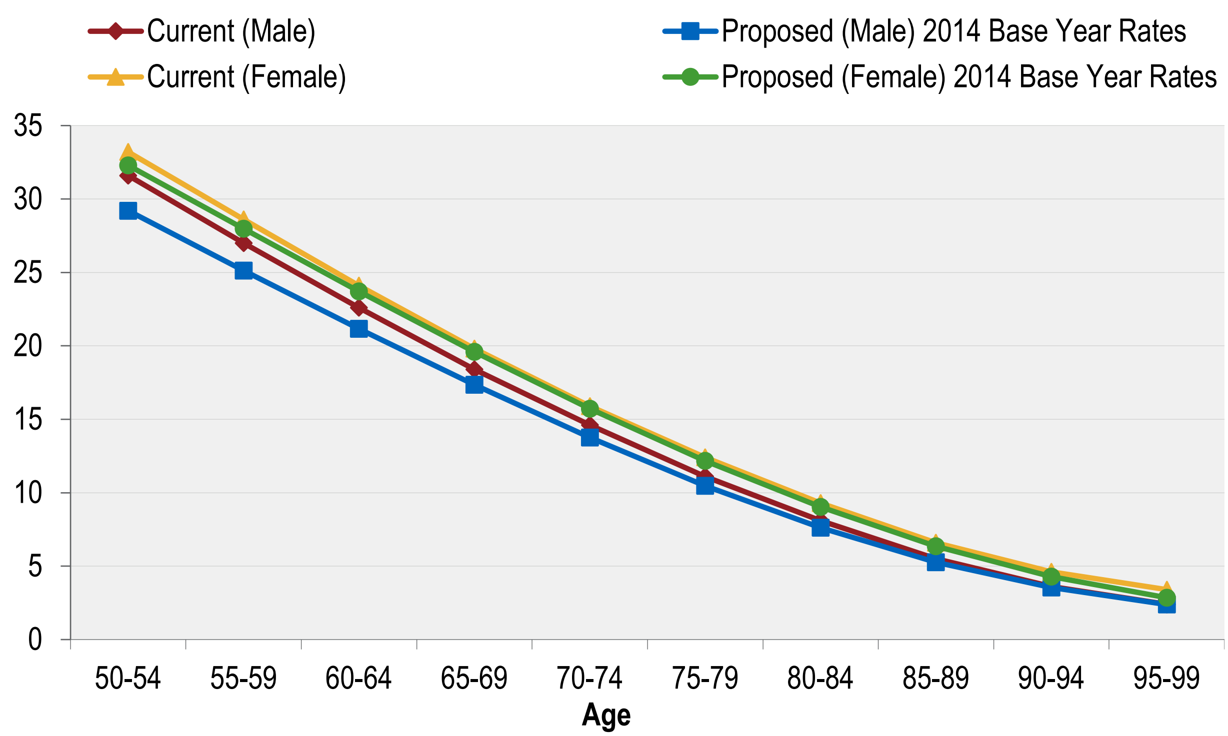


CHART 5: LIFE EXPECTANCIES HEALTHY PENSIONERS AND ALL BENEFICIARIES



Post-Service Retirement Mortality for Determining Actuarial Equivalences

For purposes of determining actuarial equivalences, such as for determining optional forms of benefits, the System is currently using the following mortality tables:

Service Retirement

- Members: RP-2000 Combined Healthy Mortality Table projected with Scale BB to 2020, set back one year for males and with no setback for females, weighted 60% male and 40% female

- Beneficiaries: RP-2000 Combined Healthy Mortality Table projected with Scale BB to 2020, set back one year for males and with no setback for females, weighted 40% male and 60% female

Disability Retirement

- Members: RP-2000 Combined Healthy Mortality Table projected with Scale BB to 2020, set forward seven years for males and set forward eight years for females, weighted 60% male and 40% female

- Beneficiaries: RP-2000 Combined Healthy Mortality Table projected with Scale BB to 2020, set back one year for males and with no setback for females, weighted 40% male and 60% female

In prior experience studies, for determining actuarial equivalences, our recommendation for mortality tables was based on the post-retirement mortality we recommended for service retirement and disability retirement with a static scale to anticipate future mortality improvement. However, given that our current recommendation for post-retirement mortality now includes a generational mortality improvement scale, there are some administrative issues that we may need to resolve with LACERS and its vendor maintaining the pension administration software before we would recommend a comparable generational scale to anticipate future mortality improvement. We will provide a recommendation to LACERS for use in reflecting mortality improvement for determining actuarial equivalences after we have those discussions with LACERS and its vendor.

Recommended Introduction of an Assumption to Reflect COLA Benefits when a Member Elects an Optional Form of Benefit

Based on current practice, the investment return and mortality assumptions approved for this experience study will be used effective July 1, 2019 to determine the benefits payable under an optional form of benefit. For instance, a married member may choose an actuarially reduced benefit so that he/she can provide a larger continuance (such as 100%) instead of the 50% continuance payable by LACERS under the unmodified option.

Under current practice, we understand that the benefits calculated under an optional form do not include an assumption to reflect the plan’s provision that provides a cost-of-living adjustment benefit. This means that the unmodified retirement allowance and the optional form of benefit are only actuarially equivalent assuming no COLA benefits are paid under either form. As far as we know, this has always been the practice for LACERS. We understand that it is the current practice for most of the retirement systems covered under California's 1937 Act County Employees Retirement Law.[31]

The current practice of excluding the COLA assumption in calculating benefit amounts under optional forms of payment results in higher benefit amounts payable under an optional retirement allowance as compared to the benefit amount that would result if the COLA assumption were included. This is because the value of the future COLAs expected to be paid over both the lives of the member and the beneficiary are proportionately greater than the value of the future COLAs expected to be paid over just the member's life. Since members (and their survivors) actually do receive COLAs, this policy results in a slight subsidy to members whenever they elect an optional retirement allowance.

For the annual actuarial valuation, the current practice of excluding the COLA assumption in the optional forms of benefit calculations means that there would be a small actuarial loss when a member retires and elects one of the optional forms and starts collecting COLA benefits. For the valuation, these actuarial losses are currently being recognized as they occur.

It should be noted that absent any contrary legal guidance based on the length of time the current practice has been in place, if the Board wants to eliminate these specific losses related to COLAs and optional forms of payment, then the most direct way would be to include a COLA assumption in the optional form calculations that matches the COLA assumption used in the actuarial valuation.

[31] It is our general observation that there are far fewer participants in the 1937 Act counties electing an optional form of benefit. This is because those participants would generally have to forfeit the value of the 60% automatic continuance provided to their spouse/domestic partner.

C. Mortality Rates - Disabled

Since mortality rates for disabled members can vary from those of healthy members, a different mortality assumption is often used. The table currently being used is the RP-2000 Combined Healthy Mortality Table (separate tables for males and females) projected statically with Scale BB to 2020, set forward seven years for males and set forward eight years for females.

The number of actual deaths compared to the number expected under the current and proposed assumption for the last six years are as provided in the table below.

	Disabled Pensioners		
	Current Expected Deaths	**Actual Deaths**	**Proposed Expected Deaths**
Male	136	142	150
Female	46	52	47
Total	**182**	**194**	**197**
Actual / Expected	107%		98%

Based on the actual experience, we recommend changing the mortality table for disabled members to the Headcount-Weighted RP-2014 Disabled Retiree Mortality Table (separate tables for males and females), projected generationally with the two-dimensional mortality improvement scale MP-2017. This will bring the actual to expected ratio to 98%.

Chart 6 compares actual to expected deaths under both the current and proposed assumptions for disabled members over the last six years. Experience shows that there were more deaths than predicted by the current table.

Chart 7 shows the life expectancies under both the current and proposed tables for disabled members.

CHART 6: POST-RETIREMENT DEATHS
DISABLED MEMBERS
(JULY 1, 2011 THROUGH JUNE 30, 2017)

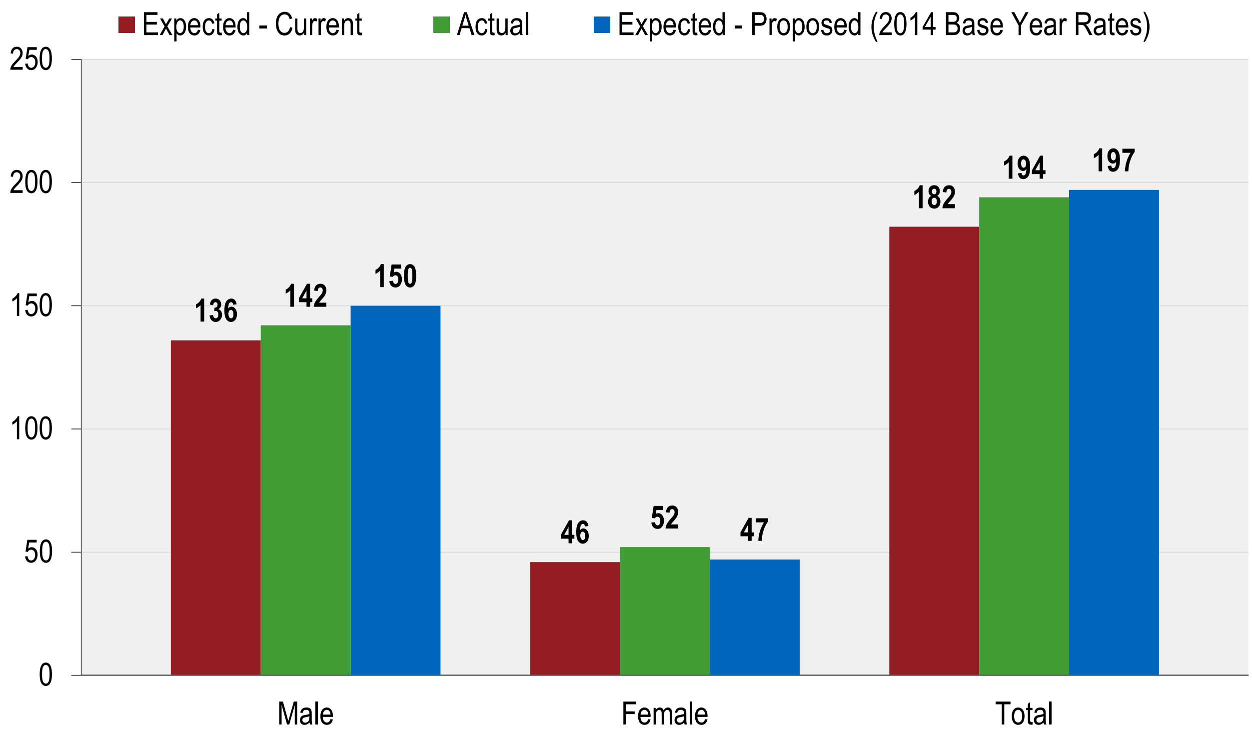
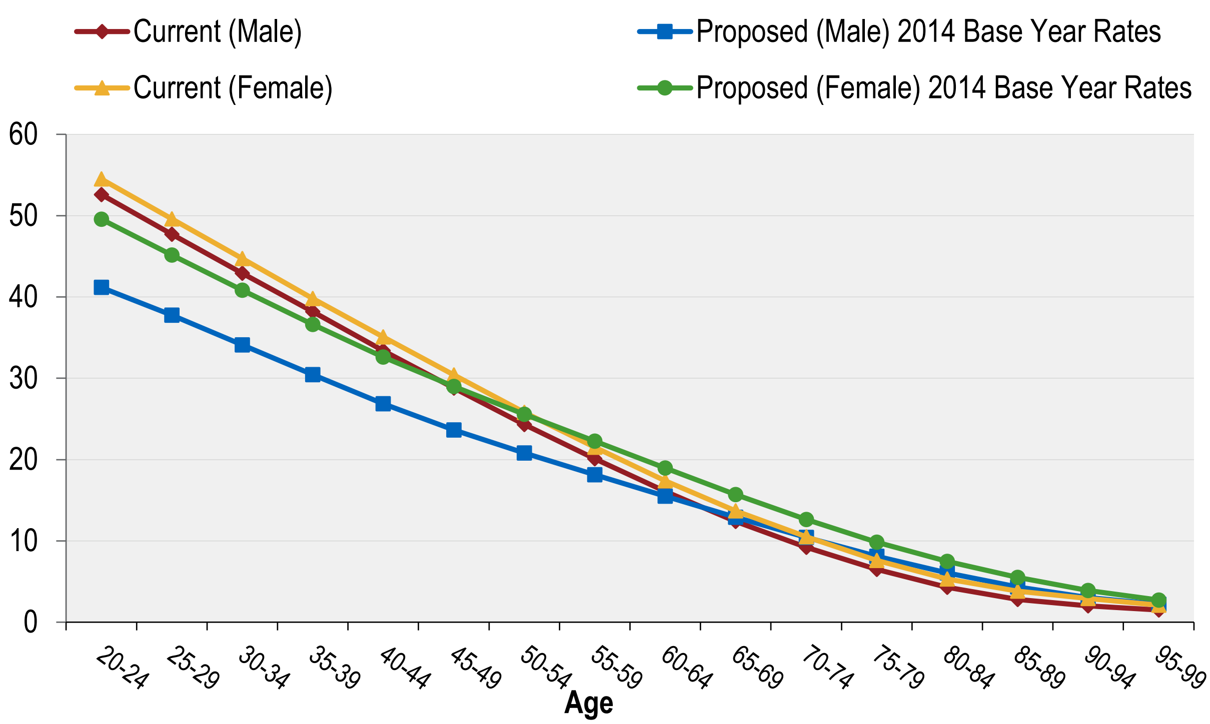


CHART 7: LIFE EXPECTANCIES
DISABLED MEMBERS



D. Termination Rates

Termination rates include all terminations for reasons other than death, disability, or retirement. Under the current assumptions all members who terminate with less the five years of service are assumed to receive a refund of contributions. For members who terminate with over five years of service, the member is assumed to choose between a refund of contributions or a deferred vested benefit, whichever option is more valuable.

The termination experience over Fiscal Years 2014/2015, 2015/2016, and 2016/2017 between those members with under five years of service and those with five or more years of service is shown below:

Rates of Termination – Under Five Years of Service

	Termination Rate (%)		
Years of Service	**Current Rate**	**Actual Rate**	**Proposed Rate**
Less than 1	13.25	10.84	12.00
1	11.00	9.28	10.00
2	8.75	9.43	9.00
3	7.25	9.35	8.25
4	5.75	9.99	7.75

Rates of Termination – Five or More Years of Service

	Termination Rate (%)*		
Age	**Current Rate**	**Actual Rate**	**Proposed Rate**
20 – 24	5.75	0.00	7.00
25 – 29	5.75	10.92	7.00
30 – 34	5.75	7.55	7.00
35 – 39	4.25	5.02	4.50
40 – 44	3.00	3.76	3.50
45 – 49	2.50	2.70	3.00
50 – 54	2.50	2.29	2.50
55 – 59	2.25	10.87	2.50
60 – 64	2.25	10.20	2.50

** At central age in age range shown.*

Chart 8 compares actual to expected terminations of the past three years for both the current and proposed assumptions.

Chart 9 shows the current and proposed termination rates for members with less than five years of service. Chart 10 shows the current and proposed termination rates for members with five or more years of service.

Based upon the recent experience, the proposed termination rates have been increased at most service and age categories.

Note that we have also studied termination rates based on service only rather than the current structure of age-based rates after five years of service (and service-based rates before then), and we have determined that either basis is reasonable. We propose that the current structure of age-based rates after five years of service be retained for the June 30, 2018 valuation, but we will continue to monitor this assumption in the future.

We continue to assume that members who terminate with over five years of service will choose between a refund of contributions and a deferred vested benefit, whichever is more valuable. We also continue to assume that all termination rates are zero for all members eligible and assumed to retire, that is, members eligible to retire at termination will retire rather than defer their benefit.

As we note in the next Subsection E regarding disability incidence rates, the observed disability experience includes members who went from inactive (i.e., terminated) status to disability status. In order to remove the effect of double counting members as both terminations one year and disabilities a subsequent year, we have removed an equal number of inactive to disability records over the experience study period from the active to termination experience herein.

CHART 8: ACTUAL NUMBER OF TERMINATIONS COMPARED TO EXPECTED

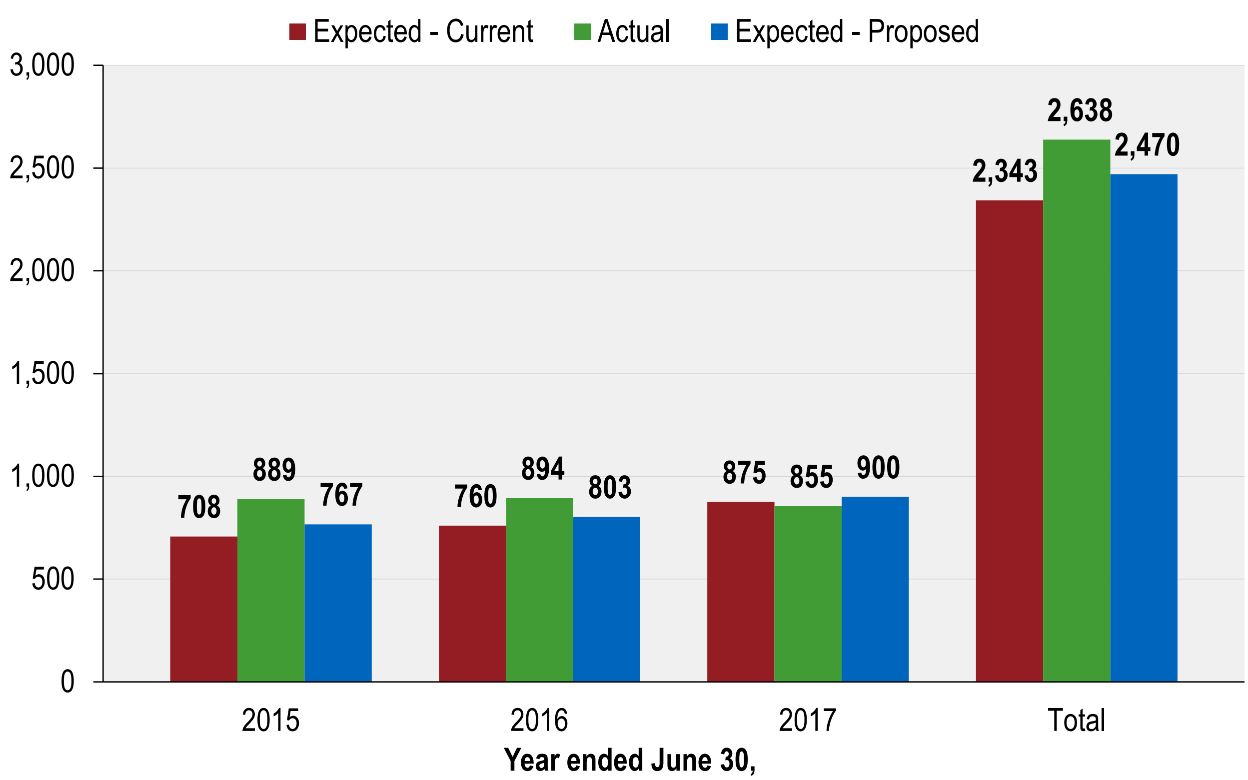


CHART 9: TERMINATION RATES
(UNDER FIVE YEARS OF SERVICE)

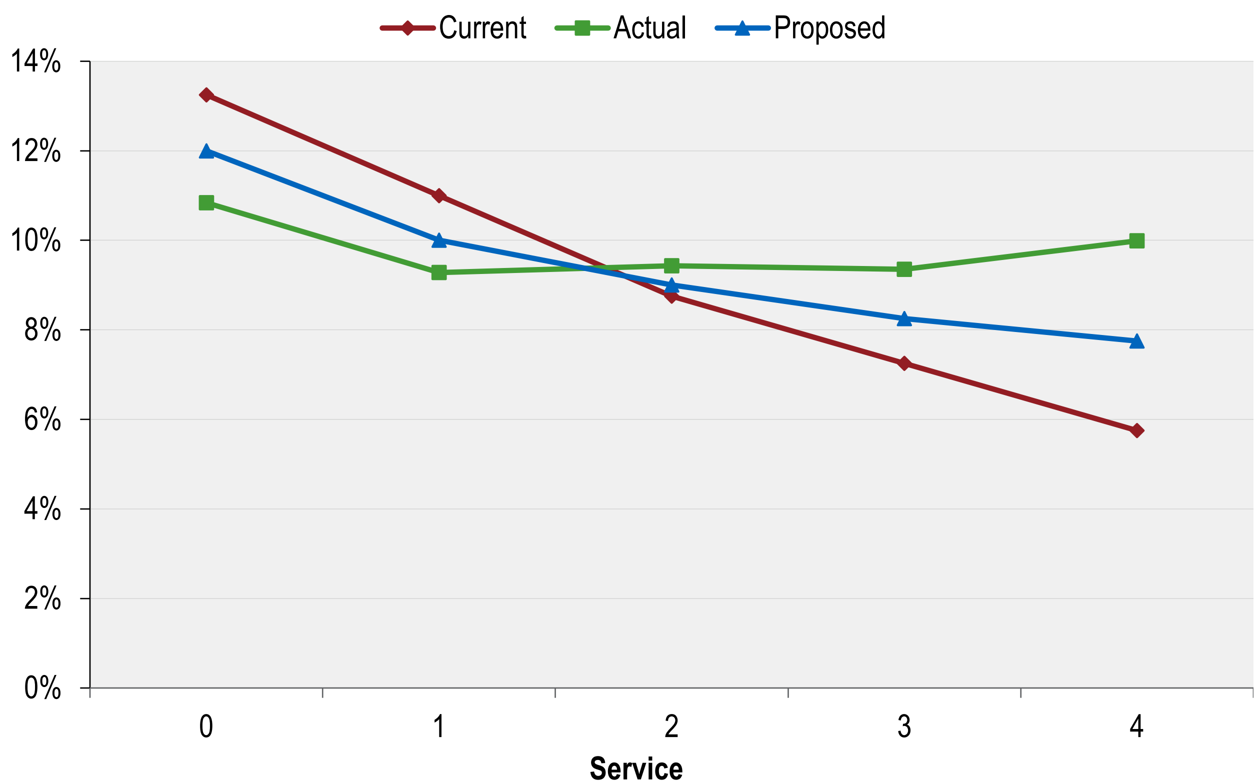
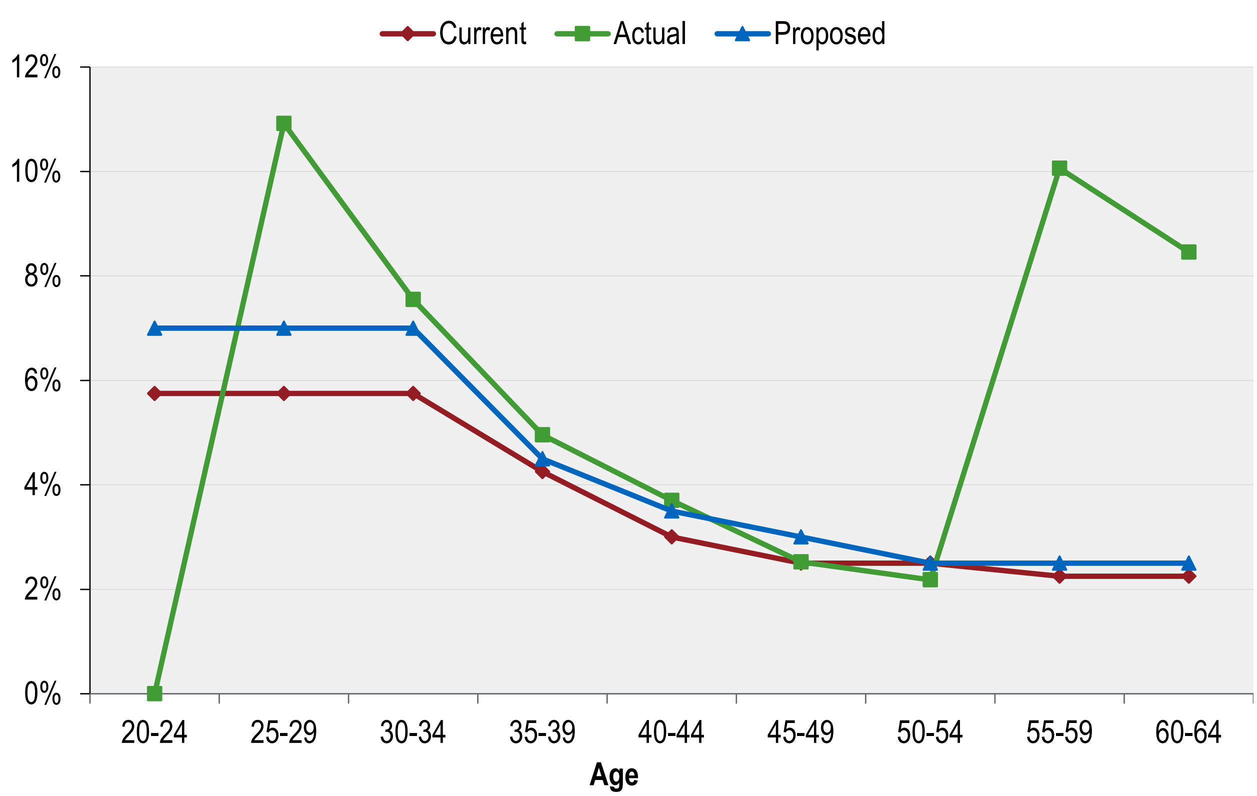


CHART 10: TERMINATION RATES
(FIVE OR MORE YEARS OF SERVICE)



E. Disability Incidence Rates

When a member becomes disabled, he or she is generally entitled to a monthly benefit equal to 1/3 of their final average monthly compensation. The following summarizes the actual incidence of Tier 1 disabilities over the past three years compared to the current and proposed assumptions:[32]

Rates of Disability Incidence

	Disability Incidence Rate* (%)		
Age	**Current Rate**	**Observed Rate**	**Proposed Rate**
20 – 24	0.00	0.00	0.00
25 – 29	0.01	0.00	0.01
30 – 34	0.04	0.00	0.03
35 – 39	0.06	0.06	0.06
40 – 44	0.11	0.05	0.08
45 – 49	0.17	0.18	0.17
50 – 54	0.20	0.10	0.20
55 – 59	0.20	0.15	0.20
60 – 64	0.20	0.32	0.20
65 – 69	0.20	0.43	0.20

* *At central age in age range shown.*

Proposed rates for age ranges after 45-49 have been developed, in part, by aggregating experience for ages 50-69.

Chart 11 compares the actual number of disabilities over the past three years to that expected under both the current and proposed assumptions. The proposed disability rates were lowered slightly, since the observed experience over the past three years was lower than the expected experience.

Chart 12 shows actual disablement rates, compared to the assumed and proposed rates for all members.

32 The Tier 1 experience shown above reflects actual disabilities from the prior years' status of mostly inactive membership. Note that there was no disability experience for Tier 3 members over the experience study period.

CHART 11: ACTUAL NUMBER OF DISABILITIES COMPARED TO EXPECTED

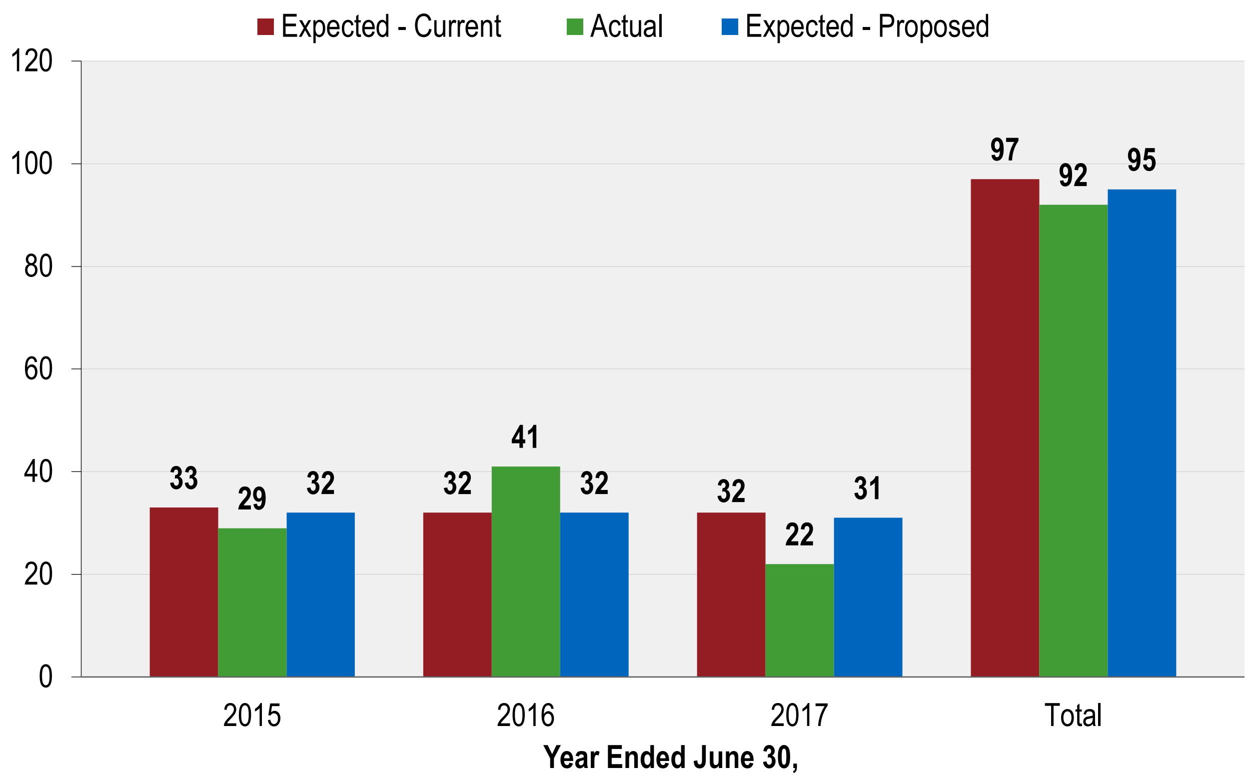
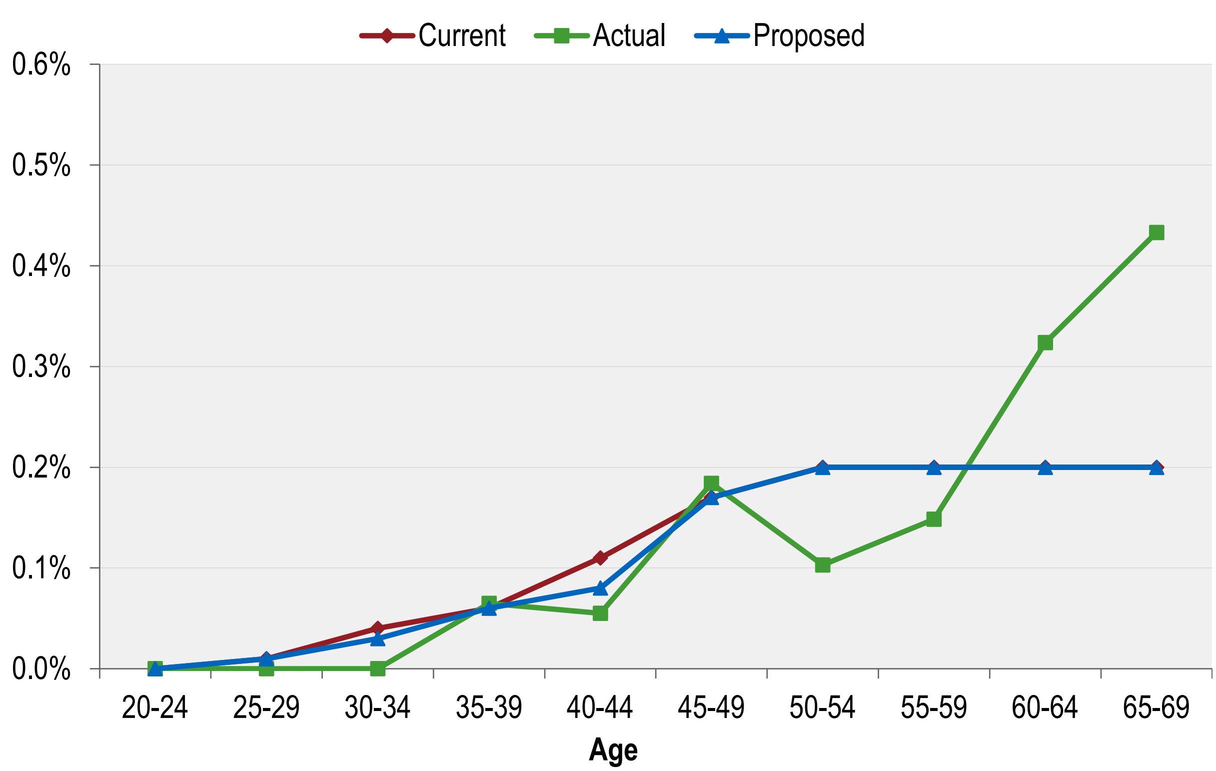


CHART 12: DISABILITY INCIDENCE RATES



V. Cost Impact

Retirement Plan

The table below shows the changes in the total normal cost and actuarial accrued liability for the Retirement Plan due to the proposed assumption changes, as if they were applied in the June 30, 2017 actuarial valuation. If all of the proposed assumption changes were implemented, the total normal cost for the Retirement Plan would have increased by about $13.8 million and the actuarial accrued liability would have increased by about $513.5 million. The funded percentage would have decreased from 71.40% to 69.46%.

	Change in Plan Liabilities as of June 30, 2017		
	Current Assumptions	Recommended Assumptions	Increase / (Decrease)
Total Normal Cost	$352,282,612	$366,080,573	$13,797,961
Actuarial Accrued Liability	$18,458,187,953	$18,971,707,930	$513,519,977

If all of the proposed assumption changes were implemented, the aggregate beginning-of-the year employer contribution rate would have increased by 2.42% of payroll under the recommended assumptions.

	Employer Contribution Rate Impact (% of Payroll at Beginning of the Year)
Contributions	Recommended Assumptions
Normal Cost	0.68%
UAAL	1.74%
Total	**2.42%**

Health Plan

The table below shows the changes in the total normal cost and actuarial accrued liability for the Health Plan due to the proposed assumption changes, as if they were applied in the June 30, 2017 actuarial valuation. If all of the proposed assumption changes were implemented, the total normal cost for the Health Plan would have increased by about $8.6 million and the actuarial accrued liability would have increased by about $188.8 million. The funded percentage would have decreased from 81.12% to 76.33%.

	Change in Plan Liabilities as of June 30, 2017		
	Current Assumptions	Recommended Assumptions	Increase / (Decrease)
Total Normal Cost	$74,610,881	$83,240,895	$8,630,014
Actuarial Accrued Liability	$3,005,806,234	$3,194,589,163	$188,782,929

If all of the proposed assumption changes were implemented, the aggregate beginning-of-the year employer contribution rate would have increased by 0.98% of payroll under the recommended assumptions.

	Employer Contribution Rate Impact (% of Payroll at Beginning of the Year)
Contributions	**Recommended Assumptions**
Normal Cost	0.43%
UAAL	0.55%
Total	**0.98%**

Appendix A: Current Actuarial Assumptions

Economic Assumptions

Net Investment Return:	7.25%, net of investment and administrative expenses.
Consumer Price Index:	Increase of 3.00% per year; benefit increases due to CPI subject to 3.00% maximum for Tier 1 and 2.00% maximum for Tier 3.
Employee Contribution Crediting Rate:	Based on average of 5-year Treasury note rate. An assumption of 3.00% is used to approximate that crediting rate.
Payroll Growth:	Inflation of 3.00% per year plus “across the board” real salary increases of 0.50% per year.
Increases in Internal Revenue Code Section 401(a)(17) Compensation Limit:	Increase of 3.00% per year from the valuation date.

Individual Salary Increases

Annual Rate of Compensation Increase (%) **Inflation:** 3.00% per year; plus “across the board” real salary increases of 0.50% per year; plus the following promotional and merit increases:	
Years of Service	**Percentage Increase**
Less than 1	6.50
1	6.20
2	5.10
3	3.10
4	2.10
5	1.10
6	1.00
7	0.90
8	0.70
9	0.60
10 and Over	0.40

Appendix A: Current Actuarial Assumptions

Demographic Assumptions

Mortality Rates – Healthy

- RP-2000 Combined Healthy Mortality Table projected with Scale BB to 2020, set back one year for males and with no setback for females.

Mortality Rates – Disabled

- RP-2000 Combined Healthy Mortality Table projected with Scale BB to 2020, set forward seven years for males and set forward eight years for females.

Mortality Rates – Beneficiaries

- RP-2000 Combined Healthy Mortality Table projected with Scale BB to 2020, set back one year for males and with no setback for females.

Mortality Rates Before Retirement

- RP-2000 Combined Healthy Mortality Table projected with Scale BB to 2020, set back one year for males and with no setback for females.

The above mortality tables contain about a 10% margin, based on actual to expected deaths, as a provision to reflect future mortality improvement, based on a review of mortality experience as of the measurement date.

Disability Incidence Rates

	Rate (%)
Age	Disability Rate
25	0.01
30	0.03
35	0.05
40	0.09
45	0.15
50	0.19
55	0.20
60	0.20

Appendix A: Current Actuarial Assumptions

Termination Rates

	Rate (%)
Years of Service	**Less than 5 Years of Service**
Less than 1	13.25
1	11.00
2	8.75
3	7.25
4	5.75

	Rate (%)
Age	**5 of More Years of Service***
25	5.75
30	5.75
35	4.85
40	3.50
45	2.70
50	2.50
55	2.35
60	2.25

** Termination rates are zero for members eligible and assumed to retire.*

Appendix A: Current Actuarial Assumptions

Retirement Rates

	Rate (%)			
	Tier 1		Tier 3	
Age	Non-55/30	55/30	Non-55/30	55/30
50	6.0	0.0	6.0	0.0
51	3.0	0.0	3.0	0.0
52	3.0	0.0	3.0	0.0
53	3.0	0.0	3.0	0.0
54	16.0	0.0	15.0	0.0
55	6.0	20.0	0.0(1)	19.0
56	6.0	14.0	0.0(1)	13.0
57	6.0	14.0	0.0(1)	13.0
58	6.0	14.0	0.0(1)	13.0
59	6.0	14.0	0.0(1)	13.0
60	6.0	14.0	5.0	13.0
61	6.0	14.0	5.0	13.0
62	7.0	15.0	6.0	14.0
63	7.0	15.0	6.0	14.0
64	7.0	16.0	6.0	15.0
65	12.0	17.0	11.0	16.0
66	12.0	17.0	11.0	16.0
67	12.0	17.0	11.0	16.0
68	12.0	17.0	11.0	16.0
69	12.0	17.0	11.0	16.0
70	100.0	100.0	100.0	100.0

(1) Not eligible to retire under the provisions of the Tier 3 plan.

Retirement Age and Benefit for Inactive Vested Participants:	Pension benefit paid at the later of age 58 or the current attained age. For reciprocals, 3.90% compensation increases per annum.
Exclusion of Inactive Members:	All inactive participants are included in the valuation.
Unknown Data for Members:	Same as those exhibited by members with similar known characteristics. If not specified, members are assumed to be male.
Percent Married/Domestic Partner:	76% of male members; 50% of female members.

Appendix A: Current Actuarial Assumptions

Age of Spouse:	Male retirees are assumed to be 4 years older than their female spouses. Female retirees are assumed to be 2 years younger than their male spouses.
Benefit Election:	Married participants are assumed to elect the 50% Joint and Survivor Cash Refund Annuity and non-married participants are assumed to elect the Single Life Cash Refund Annuity.
Service:	Employment service is used for eligibility determination purposes. Benefit service is used for benefit calculation purposes.
Future Benefit Accruals:	1.0 year of service per year.
Other Reciprocal Service:	5% of future inactive vested members are assumed to work at a reciprocal system.

Appendix B: Proposed Actuarial Assumptions

Economic Assumptions

Net Investment Return:	7.00%, net of investment and administrative expenses.
Consumer Price Index:	Increase of 2.75% per year; benefit increases due to CPI subject to 3.00% maximum for Tier 1 and 2.00% maximum for Tier 3.
Employee Contribution Crediting Rate:	Based on average of 5-year Treasury note rate. An assumption of 2.75% is used to approximate that crediting rate.
Payroll Growth:	Inflation of 2.75% per year plus "across the board" real salary increases of 0.50% per year.
Increases in Internal Revenue Code Section 401(a)(17) Compensation Limit:	Increase of 2.75% per year from the valuation date.

Individual Salary Increases

Annual Rate of Compensation Increase (%) **Inflation:** 2.75% per year; plus "across the board" real salary increases of 0.50% per year; plus the following promotional and merit increases:	
Years of Service	**Percentage Increase**
Less than 1	6.50
1	6.40
2	5.50
3	3.30
4	2.40
5	1.50
6	1.30
7	1.20
8	1.00
9	0.90
10 and Over	0.60

Appendix B: Proposed Actuarial Assumptions

Demographic Assumptions

Mortality Rates – Healthy

- Headcount-Weighted RP-2014 Healthy Annuitant Mortality Table (separate tables for males and females) projected generationally with the two-dimensional mortality improvement scale MP-2017.

Mortality Rates – Disabled

- Headcount-Weighted RP-2014 Disabled Retiree Mortality Table (separate tables for males and females) projected generationally with two-dimensional mortality improvement scale MP-2017.

Mortality Rates – Beneficiaries

- Headcount-Weighted RP-2014 Healthy Annuitant Mortality Table (separate tables for males and females) projected generationally with the two-dimensional mortality improvement scale MP-2017.

Mortality Rates Before Retirement

- Headcount-Weighted RP-2014 Employee Mortality Table (separate tables for males and females) times 90%, projected generationally with the two-dimensional improvement scale MP-2017.

The RP-2014 mortality tables and adjustments as shown above reflect the mortality experience as of the measurement date. The generational projection is a provision for future mortality improvement.

Appendix B: Proposed Actuarial Assumptions

Disability Incidence Rates

	Rate (%)
Age	Disability Rate
25	0.01
30	0.02
35	0.05
40	0.07
45	0.13
50	0.19
55	0.20
60	0.20

Termination Rates

	Rate (%)
Years of Service	Less than 5 Years of Service
Less than 1	12.00
1	10.00
2	9.00
3	8.25
4	7.75

	Rate (%)
Age	5 of More Years of Service*
25	7.00
30	7.00
35	5.50
40	3.90
45	3.20
50	2.70
55	2.50
60	2.50

** Termination rates are zero for members eligible and assumed to retire.*

Retirement Rates

	Rate (%)			
	Tier 1		Tier 3	
Age	Non-55/30	55/30	Non-55/30	55/30
50	6.0	0.0	6.0	0.0
51	3.0	0.0	3.0	0.0
52	3.0	0.0	3.0	0.0
53	3.0	0.0	3.0	0.0
54	17.0	0.0	16.0	0.0
55	6.0	24.0	0.0(1)	23.0
56	6.0	16.0	0.0(1)	15.0
57	6.0	16.0	0.0(1)	15.0
58	6.0	16.0	0.0(1)	15.0
59	6.0	16.0	0.0(1)	15.0
60	7.0	16.0	6.0	15.0
61	7.0	16.0	6.0	15.0
62	7.0	16.0	6.0	15.0
63	7.0	16.0	6.0	15.0
64	7.0	16.0	6.0	15.0
65	13.0	20.0	12.0	19.0
66	13.0	20.0	12.0	19.0
67	13.0	20.0	12.0	19.0
68	13.0	20.0	12.0	19.0
69	13.0	20.0	12.0	19.0
70	100.0	100.0	100.0	100.0

(1) *Not eligible to retire under the provisions of the Tier 3 plan.*

Retirement Age and Benefit for Inactive Vested Participants:	Pension benefit paid at the later of age 59 or the current attained age. For reciprocals, 3.85% compensation increases per annum.
Exclusion of Inactive Members:	All inactive participants are included in the valuation.
Unknown Data for Members:	Same as those exhibited by members with similar known characteristics. If not specified, members are assumed to be male.
Percent Married/Domestic Partner:	76% of male members; 50% of female members.

Appendix B: Proposed Actuarial Assumptions

Age of Spouse:	Male retirees are assumed to be 3 years older than their female spouses. Female retirees are assumed to be 2 years younger than their male spouses.
Benefit Election:	For married participants, 50% are assumed to elect the 50% Joint and Survivor Cash Refund Annuity and the other 50% are assumed to elect an 85% Joint and Survivor Cash Refund Annuity. For non-married participants, 100% are assumed to elect the Single Life Cash Refund Annuity.
Service:	Employment service is used for eligibility determination purposes. Benefit service is used for benefit calculation purposes.
Future Benefit Accruals:	1.0 year of service per year.
Other Reciprocal Service:	5% of future inactive vested members are assumed to work at a reciprocal system.

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ATTACHMENT 3

Segal Consulting

Los Angeles City Employees' Retirement System

2nd Discussion of 2018 Actuarial Experience Study

July 24, 2018

Paul Angelo, FSA

Andy Yeung, ASA

Segal Consulting, San Francisco

5545356v2

Selection of Actuarial Assumptions Discussed on July 10, 2018

- Objective, long term
- Recent experience or future expectations
  - Demographic: recent experience
  - Economic: not necessarily!
- Client specific or not
- Consistency among assumptions
- Desired pattern of cost incidence
  - Good assumptions produce level cost
  - Beware “<u>results based</u>” assumptions!

- Full July 10 presentation included as an Appendix

Always remember

C + I = B + E

Contributions + Investment Income

equals

Benefit Payments + Expenses

- Actuarial valuation determines the current or “measured” cost, not the ultimate cost
- Assumptions and funding methods affect only the timing of costs

Demographic Assumptions - Recommended

- Retirement rates:
  - More retirements than expected
- Termination rates:
  - Slight overall reduction in current rates for members with fewer than 5 years of service
  - Increase in current rates for members with 5 or more years of service
- Disability incidence:
  - Slight reduction in current rates

Demographic Assumptions - Recommended

- Other Retirement related assumptions:
  - Reduce spouse age difference from 4 years to 3 years for male members
  - Increase the assumed retirement age for current inactive vested members from 58 to 59
- Merit and promotional salary increases:
  - Individual salary increases above growth in average salaries
  - Based on years of service
  - Currently 6.50% (0-1 years) to 0.40% (10+ years)
    - Recommend small increase at most years of service categories

Demographic Assumptions – Recommended

- Recommend generational mortality
  - Small difference in cost between current static and recommended generational approach to reflect mortality improvement
  - Each future year has its own mortality table that reflects forecasted mortality improvements at every age
    - Probability of dying depends not only on age and sex but also what year it is
    - Younger participants have more future mortality improvement built in than older participants
    - Current year table reflects recent actual experience, with no margin
  - Recommendation: Headcount Weighted RP-2014, projected generationally using Scale MP-2017

Economic Assumptions - Recommended

- Price inflation (CPI)
  - Decrease from 3.00% to 2.75%
- Salary increases
  - Decrease price inflation from 3.00% to 2.75%
  - Maintain “Across the Board” real wage growth at 0.50%
  - Total wage inflation reduced from 3.50% to 3.25%
  - Merit and Promotional: small increase in rates
  - Net impact on assumed future salary increases: slight decrease
- Investment return: Decrease from 7.25% to 7.00%
  - Reflects lower inflation component
  - No change in net real return component

Economic Assumptions - Recommended

	Recommended		6/30/17 Valuation		6/30/14 Valuation	
	Return	Pay	Return	Pay	Return	Pay
Price Inflation	2.75%	2.75%	3.00%	3.00%	3.25%	3.25%
Real Wages	n/a	0.50%	n/a	0.50%	n/a	0.75%
Merit (10+ years)	n/a	0.60%	n/a	0.40%	n/a	0.40%
Net Real Return	4.25%	n/a	4.25%	n/a	4.25%	n/a
Total	7.00%	3.85%	7.25%	3.90%	7.50%	4.40%

Comparison of Economic Assumptions with Other CA Public Retirement Plans as of June 2018

Plan	Inflation Assumption	Net Real Rate of Return	Investment Return Assumption
LACERS (Recommended)	2.75%	4.25%	7.00%
Los Angeles Police & Fire	3.00%	4.25%	7.25%
Los Angeles DWP	3.00%	4.25%	7.25%
Alameda County	3.00%	4.25%	7.25%
Imperial County	3.00%	4.25%	7.25%
Kern County	3.00%	4.25%	7.25%
San Bernardino County	3.00%	4.25%	7.25%
San Diego County	3.00%	4.25%	7.25%
Sonoma County	3.00%	4.25%	7.25%
Stanislaus County	3.00%	4.25%	7.25%
Tulare County	3.00%	4.25%	7.25%
San Joaquin County	2.90%	4.35%	7.25%
Los Angeles County	2.75%	4.50%	7.25%
Ventura County	2.75%	4.50%	7.25%
Merced County	2.50%	4.75%	7.25%
Fresno County	3.00%	4.00%	7.00%
Mendocino County	3.00%	4.00%	7.00%
Sacramento County	3.00%	4.00%	7.00%
Contra Costa County	2.75%	4.25%	7.00%
Marin County	2.75%	4.25%	7.00%
Orange County	2.75%	4.25%	7.00%
Santa Barbara County	2.75%	4.25%	7.00%
San Mateo County	2.50%	4.25%	6.75%

Anticipated Cost Impact
Modeled as of June 30, 2017 for illustration

- Increase in aggregate employer contribution rate = 3.40% of pay
  - Increase in aggregate employer Normal Cost = 1.11% of pay
  - Increase in aggregate employer UAAL rate = 2.29% of pay
- Economic assumptions cost impact
  - Interest Rate: 7.25% to 7.00% = 3.14% of pay
  - Discount Rate: 3.00% to 2.75% = (1.51)% of pay
- Demographic assumptions (non-economic) cost impact
  - Mortality:
    - Generational (recommended) = 2.12% of pay
    - Static with increased margin = 2.05% of pay
  - Other: (0.35)% of pay

Anticipated Cost Impact – Further Breakdown
Modeled as of June 30, 2017 for illustration

	Cost Impact		
	Retirement	Health	Total
Economic			
Interest (7.25% to 7.00%)	2.60%	0.54%	3.14%
Inflation (3.00% to 2.75%)	(1.56)%	0.05%	(1.51)%
Subtotal	1.04%	0.59%	1.63%
Non-Economic			
Mortality - Generational	1.76%	0.36%	2.12%
Other	(0.38)%	0.03%	(0.35)%
Subtotal	1.38%	0.39%	1.77%
Grand Total	2.42%	0.98%	3.40%

Phase-In Cost Impact: Two, Three, or Five Years

- Based on recommended assumptions
- Phase-in period no longer than time until next regular experience study (three years for LACERS)
  - Avoids overlapping phase-in periods
- Contribution rate impact for retirement and health plans combined

		Phase-In Period		
Fiscal Year	No Phase-In	Two-Year	Three-Year	Five-Year
2019/20	3.40%	1.70%	1.14%	0.68%
2020/21	3.40%	3.55%	2.46%	1.60%
2021/22	3.40%	3.55%	3.70%	2.46%
2022/23	3.40%	3.55%	3.70%	3.26%
2023/24	**3.40%**	**3.55%**	**3.70%**	**4.00%**

Introduce COLA Assumption for Calculating Optional Retirement Allowances

- Recommend introducing assumption to reflect COLA benefits in determining actuarially equivalent optional benefit amounts
  - Starting in 2019/2020 Plan Year, subject to legal review
  - Admin. Code requirement for no change in “liability of the system”
- Hypothetical Tier 1 examples based on current actuarial assumptions (i.e., before reflecting recommended assumption changes from the triennial experience study)

	Sample #1			**Sample #2**	
	Without COLA Assumption	With COLA Assumption		Without COLA Assumption	With COLA Assumption
Ages at Retirement	Member: 60; Spouse: 60			Member: 60; Spouse: 50	
Unmodified Benefit	$1,000	$1,000		$1,000	$1,000
100% Continuance	$951	$936		$930	$900

DISCUSSION

Appendix:

July 10, 2018 Presentation on
Actuarial Experience Study,
including "Actuarial 101"

Segal Consulting

Los Angeles City Employees' Retirement System

Actuarial 101 & Actuarial Experience Study

July 10, 2018

Paul Angelo, FSA

Andy Yeung, ASA

Segal Consulting, San Francisco

What goes into an Actuarial Valuation?

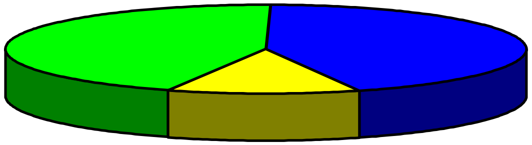
Member Data

Financial Data

Actuarial Valuation

Plan Provisions

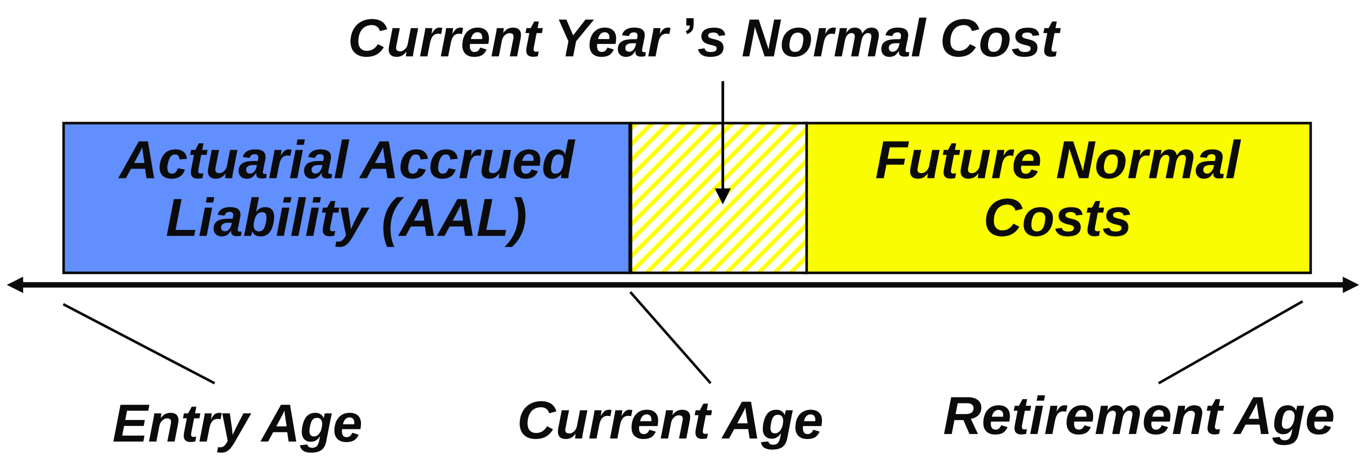
Funding Policies



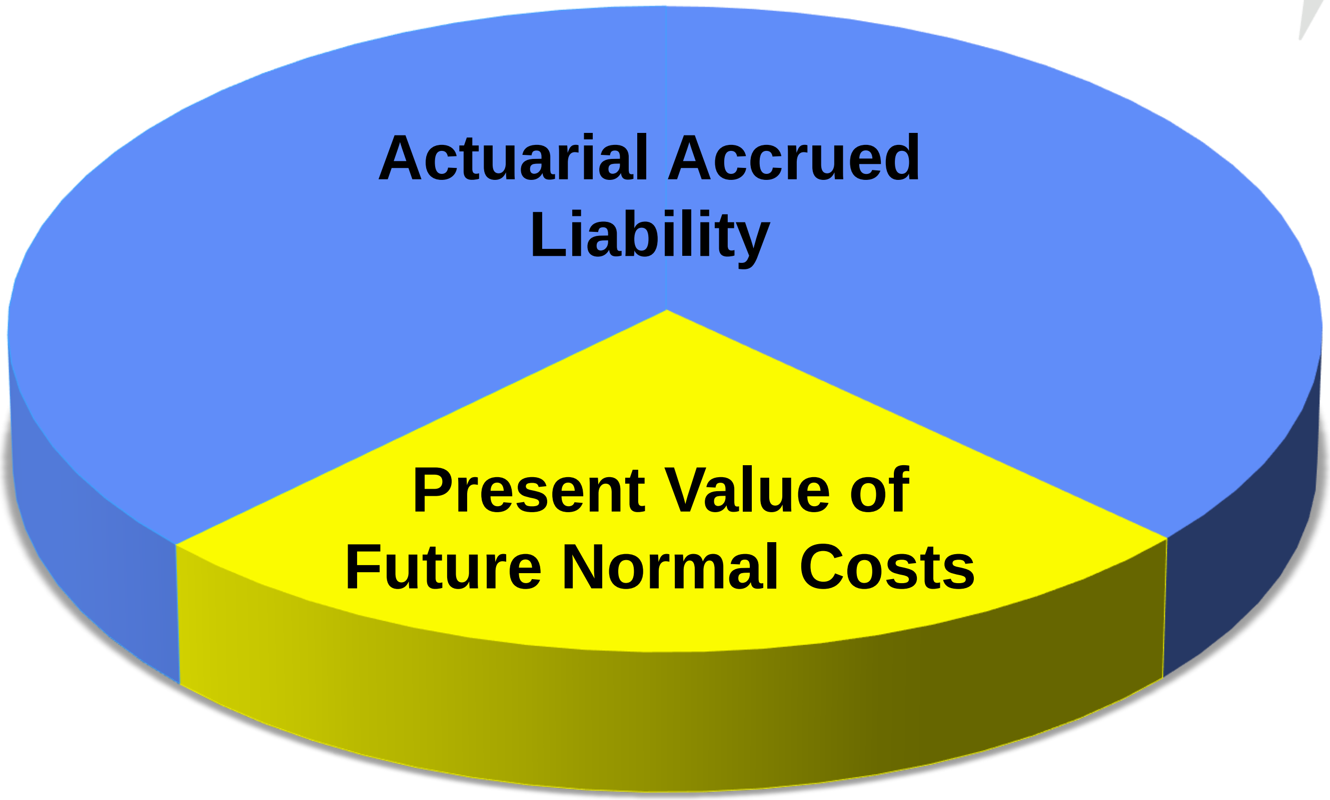
Actuarial Assumptions

Funding Retirement Benefits – Actuarial Terminology

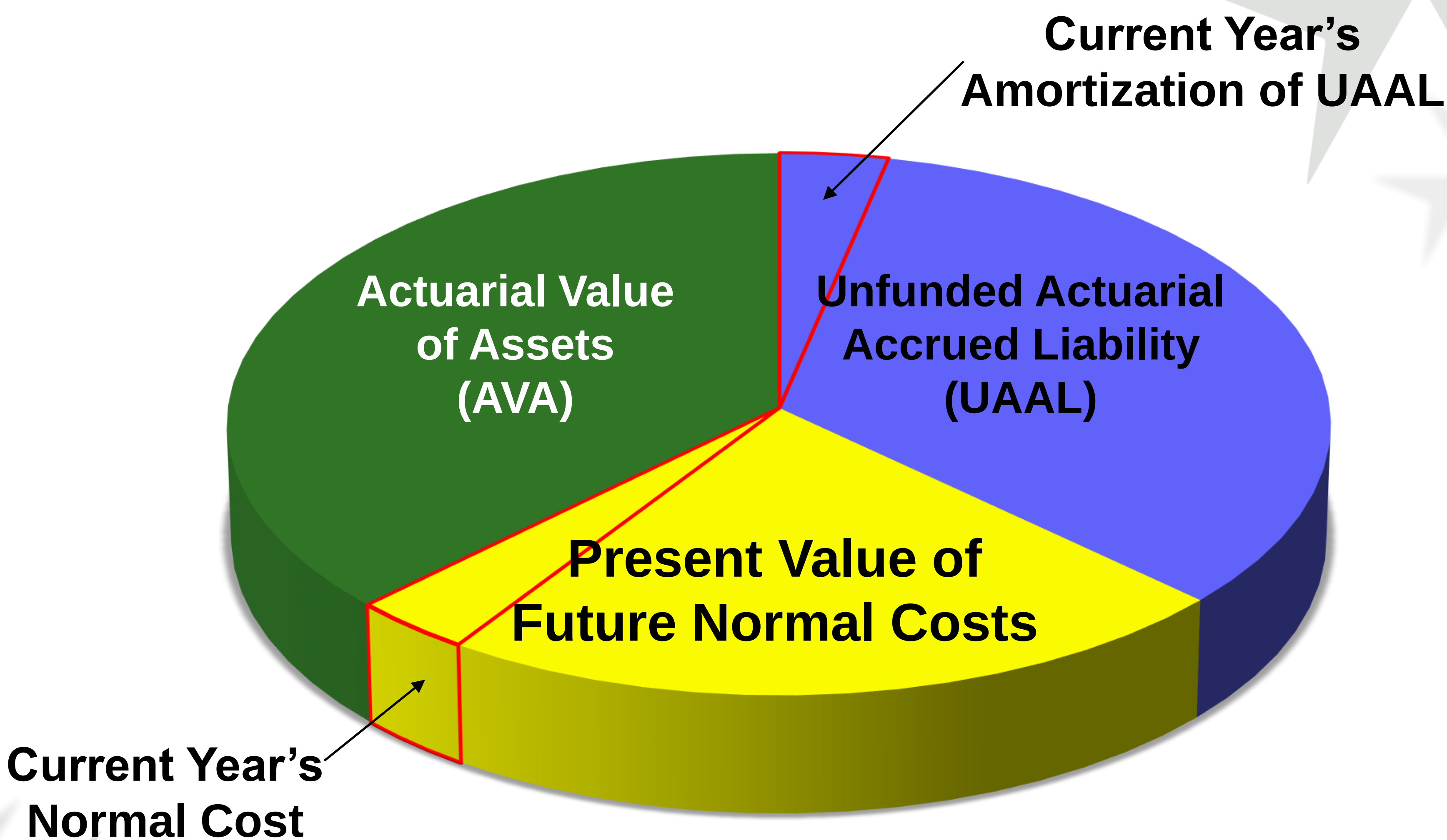
- **The Normal Cost is the portion of the long term cost allocated to a year of service**—only active members have a current Normal Cost
- **The Actuarial Accrued Liability (AAL) measures the Normal Costs from past years**—for retired members, the AAL is the entire value of their benefit



Present Value of Future Benefits – Entire Plan



Funding Retirement Benefits – Contribution Elements



Actuarial Assumptions

- Actuarial assumptions – two kinds
  - Demographic
    - When benefits will be payable
    - Amount of benefits
  - Economic
    - How assets grow
    - How salaries increase

Demographic Assumptions

- Rates of "decrement"
  - Termination, mortality, disability, retirement
  - Mortality
    - Before and after retirement
    - Service, disability, beneficiary
- Percent married
- Member/spouse age difference

Economic Assumptions

- Inflation - component, plus COLA
- Investment return
  - Real return
- Salary increases
  - Real wage increases ("across the board")
  - Merit and promotion

Selection of Actuarial Assumptions

- Objective, long term
- Recent experience or future expectations
  - Demographic: recent experience
  - Economic: not necessarily!
- Client specific or not
- Consistency among assumptions
- Desired pattern of cost incidence
  - Good assumptions produce level cost
  - Beware “results based” assumptions!

Always remember

$$C + I = B + E$$

<u>C</u>ontributions + <u>I</u>nvestment Income

equals

<u>B</u>enefit Payments + <u>E</u>xpenses

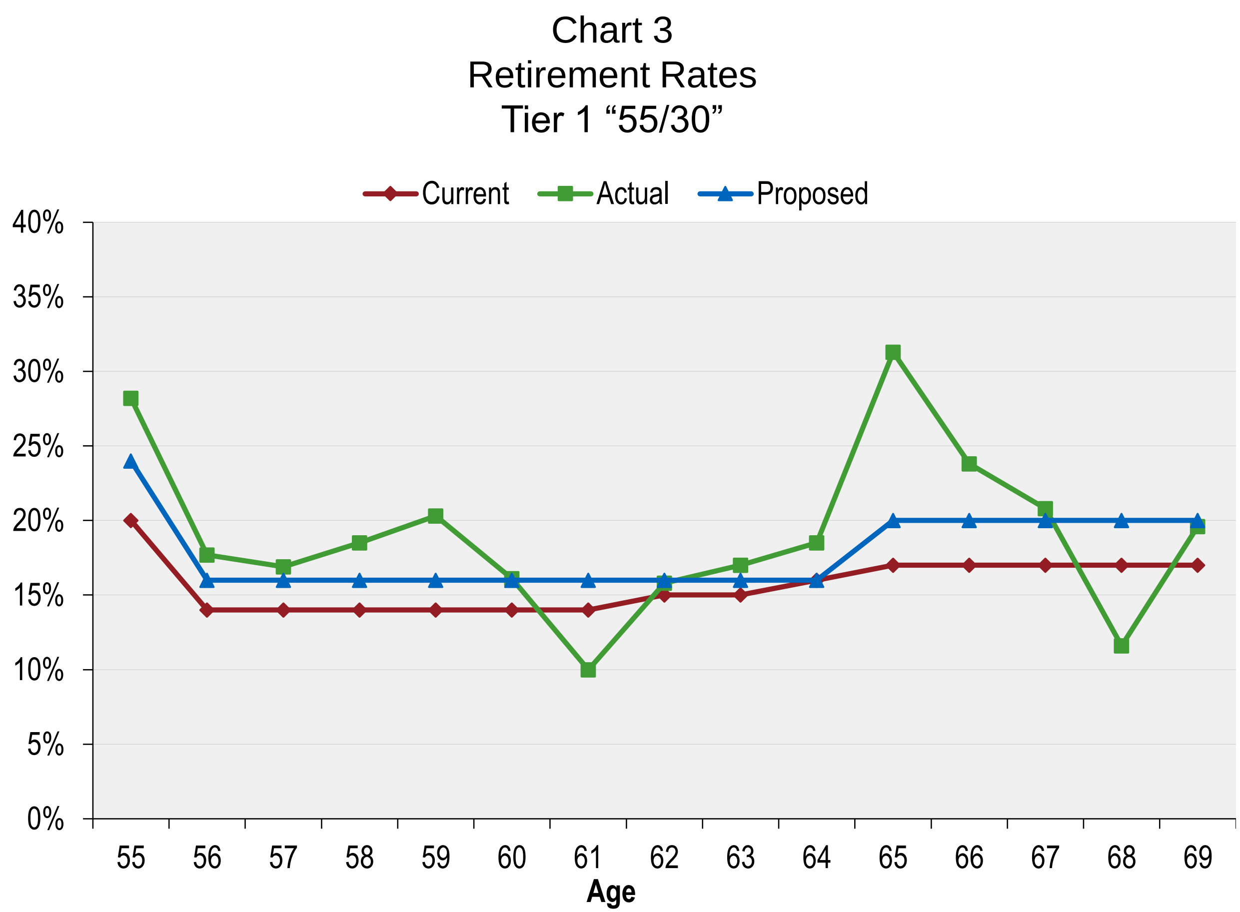
- Actuarial valuation determines the current or "measured" cost, not the ultimate cost
- Assumptions and funding methods affect only the timing of costs

Setting Demographic Assumptions

- To determine rates for each assumption we count the "decrements" and "exposures" for that event
  - Exposures = Number of employees who could have terminated, retired, etc.
  - Decrements = Number of employees who actually terminated, retired, etc.
  - This gives the "actual" decrement rates during the period
- Compare to the "current" assumed rates (or to expected number of decrements based on those current rates)
- Develop "proposed" new assumption based on both "current" assumption and recent "actual" experience
  - Weight the "actual" based on "credibility"

Setting Demographic Assumption – Retirement Rates

- Retirement Rates from Experience Study



Recommendations – Demographic Assumptions

- Retirement rates:
  - More retirements than expected
- Termination rates:
  - Slight overall reduction in current rates for members with fewer than 5 years of service
  - Increase in current rates for members with 5 or more years of service
- Disability incidence:
  - Slight reduction in current rates

Recommendations – Demographic Assumptions

- Other Retirement related assumptions:
  - Reduce spouse age difference from 4 years to 3 years for male members
  - Increase the assumed retirement age for current inactive vested members from 58 to 59
- Merit and promotional salary increases:
  - Individual salary increases above growth in average salaries
  - Based on years of service
  - Currently 6.50% (0-1 years) to 0.40% (10+ years)
    - Recommend small increase at most years of service categories
  - Note growth in average salaries is an economic assumption, discussed later

Setting Demographic Assumptions – Mortality

- Mortality Rates
  - Longer life expectancies
  - Mortality table
    - RP-2014: Headcount Weighted vs. Benefit Weighted
  - The Society of Actuaries has published scales to estimate future mortality improvements:
    - Scale AA - Has been standard since around 2000
      - Does not accurately reflect recent improvements in mortality
    - Scale BB - Interim standard scale issued in 2012
    - Scale MP-2014 – Issued in October 2014
    - Scale MP-2015 – Issued in October 2015
    - Scale MP-2016 – Issued in October 2016
    - Scale MP-2017 – Issued in October 2017

Setting Demographic Assumptions – Mortality

- Two ways to use mortality improvement scales to project future mortality improvements: Static or Generational
- Static projection to a future year - reflect mortality at a future date, not as of today
  - Preferable to have a margin of around 20%
    - Actual deaths during the study period should be around 20% greater than the expected deaths
  - Current healthy assumption
    - RP-2000 Combined Healthy projected to 2020 with Scale BB set back one year for males, no set back for females

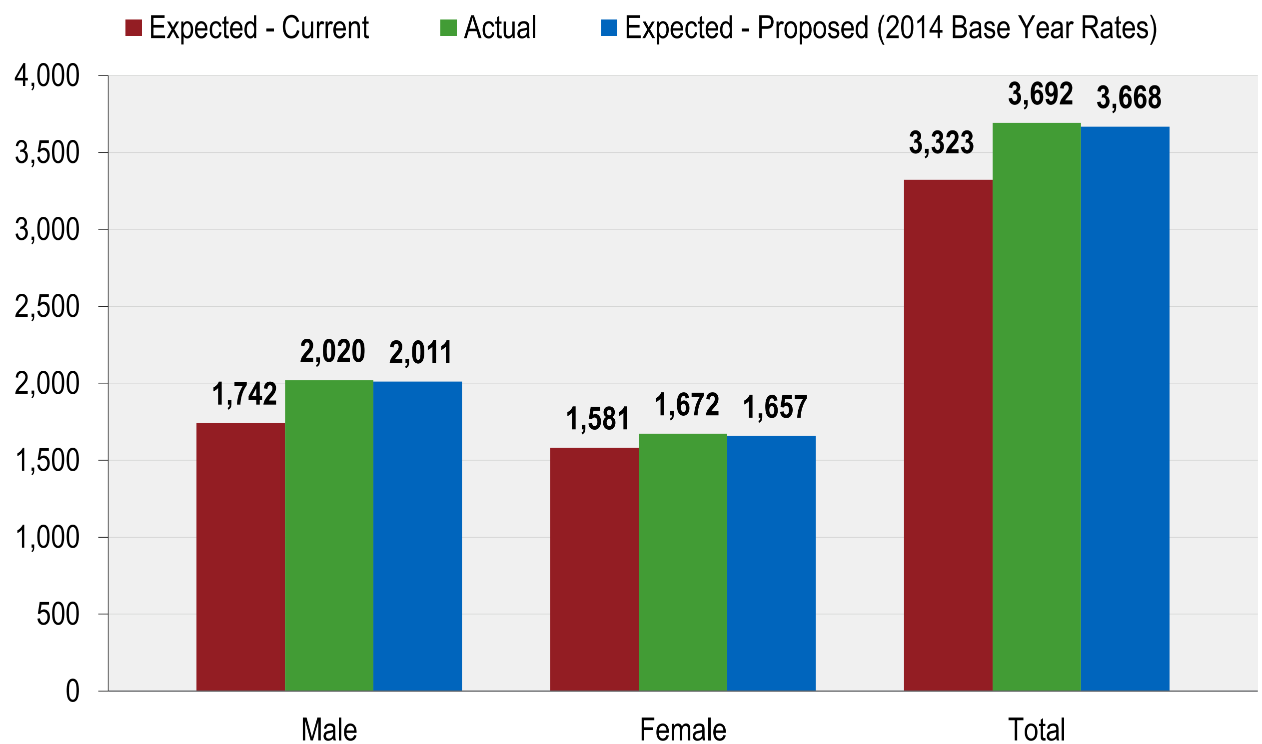
Recommended Demographic Assumptions – Mortality

- Recommend generational mortality
  - Each future year has its own mortality table that reflects forecasted mortality improvements at every age
    - Probability of dying depends not only on age and sex but also what year it is
    - Younger participants have more future mortality improvement built in than older participants
    - Current year table reflects recent actual experience, with no margin
  - Recommendation: Headcount Weighted RP-2014, projected generationally using Scale MP-2017
- Administrative issues to be discussed with LACERS and its pension administration software vendor before recommending assumptions for determining optional benefits
- Other consideration: SOA experience studies using Public Plan experience

Setting Demographic Assumptions – Mortality Rates

➢Mortality Experience from Experience Study

Chart 4
Post-Retirement Deaths
Healthy Pensioners and all Beneficiaries



QUESTIONS

Economic Assumptions

- Price Inflation (CPI):
  - Investment Return, Salary Increases, COLA
- Salary Increases
  - "Across the board" increases (wage inflation)
    - Includes price inflation plus real wage growth
  - Merit & Promotional: based on LACERS experience
- Investment Return (Investment Earnings)
  - Components include price inflation, real return and investment expenses
  - Generally based on passive returns

Current Economic Assumptions

- Last full review was for 6/30/2017 valuation
  - Price inflation (CPI): 3.00%
  - Wage inflation: 3.50%
    - So real wage growth is 0.50%
  - Investment return: 7.25%
    - So net real return is 4.25%
    - Assumed return is net of investment and administrative expenses

Economic Assumptions - Recommended

- Price inflation (CPI)
  - Decrease from 3.00% to 2.75%
- Salary increases
  - Decrease price inflation from 3.00% to 2.75%
  - Maintain “Across the Board” real wage at 0.50%
  - Total wage inflation reduced from 3.50% to 3.25%
  - Merit and Promotional: increase rates at most years of service categories
  - Net impact on assumed future salary increases: slight decrease
- Investment return: Decrease from 7.25% to 7.00%
  - Reflects lower inflation component

Economic Assumptions - Recommended

	Recommended		6/30/17 Valuation		6/30/14 Valuation	
	Return	Pay	Return	Pay	Return	Pay
Price Inflation	2.75%	2.75%	3.00%	3.00%	3.25%	3.25%
Real Wages	n/a	0.50%	n/a	0.50%	n/a	0.75%
Merit (10+ years)	n/a	0.60%	n/a	0.40%	n/a	0.40%
Net Real Return	4.25%	n/a	4.25%	n/a	4.25%	n/a
Total	7.00%	3.85%	7.25%	3.90%	7.50%	4.40%

Price Inflation (CPI)

- Historical Consumer Price Index
  - Median 15-year moving average = 3.4%
  - Median 30-year moving average = 3.8%
- 15-year averages have been declining due to relatively low inflation over the past 2 decades
- NASRA Survey
  - Median inflation assumption is 3.00%
- Social Security Forecast = 2.60%
- Recommend reducing current 3.00% annual inflation assumption to 2.75%
  - Assumed COLAs for Tier 1 decreased from 3.00% to 2.75%
  - No change for Tier 3 at 2.00%

Salary Increase Assumption - Recommended

- Three components
- Price inflation: decrease from 3.00% to 2.75%
- Real increases: maintain at 0.50%
  - Department of Labor: Annual State and Local Government real productivity increase: 0.6% - 0.8% over 10 - 20 years
  - LACERS experience 2015 – 2017
    - Actual Average Increase in Salary: 0.8% average (2.0% six-year)
    - Actual Change in CPI: 1.4% average (1.7% six-year)
- Merit & Promotional: demographic assumption
  - Small increases at most years of service categories
- Net reduction in total assumed future salary increases

Payroll Growth Assumption

- Active member payroll based on wage inflation
- Includes price inflation and real wage increases
  - Price inflation: reduce from 3.00% to 2.75%
  - Real increases: maintain at 0.50%
  - Total is reduced from 3.50% to 3.25%
- Used to project total payroll for UAAL amortization

Investment Earnings Assumption

- Also called the discount rate
- Used for contribution requirements and GASB reporting
- Affects timing of Plan cost
  - Lower assumed rate means higher current cost
  - Ultimately, actual earnings determine cost
    C + I = B + E
  - "Can't pay benefits with assumed earnings!"

Setting the Earnings Assumption

- Four components
  - Inflation: consistent with assumed salary increases and COLAs
  - Real returns by asset class
    - Weighted by asset allocation
  - Reduced by assumed investment and administrative expenses
  - Reduced by “risk adjustment”
    - Margin for adverse deviation
    - Expressed as confidence level above 50%

LACERS Earnings Assumption

Preview:

Components of Investment Return Assumption

	Recommended	Current
Assumed Inflation	2.75%	3.00%
Portfolio Real Rate of Return	5.37%	5.47%
Assumed Expenses	(0.40%)	(0.60%)
Risk Adjustment	(0.72%)	(0.62%)
Assumed Investment Return	7.00%	7.25%
Confidence Level	58%	57%

Real Returns by Asset Class

- Segal uses an average of 7 investment advisory firms retained by Segal public clients
  - Used results from NEPC for asset categories unique to LACERS
- Small decrease in real return is primarily due to changes in the target asset allocation

LACERS Real Rate of Return

Asset Class	Target Allocation	Real Return	Weighted Return
U.S. Large Cap Equity	14%	5.32%	0.74%
U.S. Small Cap Equity	5%	6.07%	0.30%
Developed Int'l Large Cap Equity	17%	6.67%	1.13%
Developed Int'l Small Cap Equity	3%	7.14%	0.21%
Emerging Market Equity	7%	8.87%	0.62%
Core Bond	14%	1.04%	0.14%
High Yield Bond	2%	3.09%	0.06%
Bank Loan	2%	3.00%	0.06%
TIPS	4%	0.97%	0.03%
Emerging Market Debt (External)	5%	3.44%	0.15%
Real Estate	7%	4.68%	0.33%
Cash	1%	0.01%	0.00%
Commodities	1%	3.36%	0.03%
Additional Public Real Assets	1%	4.76%	0.05%
Real Estate Investment Trust (REIT)	1%	5.91%	0.06%
Private Debt	4%	5.50%	0.21%
Private Equity	14%	8.97%	1.26%
Total*	100%		5.37%

* Results may not add due to rounding

Administrative and Investment Expenses
(Gross of Private Equity Management Fees)

Administrative and Investment Expenses as a Percentage of Actuarial Value of Assets Including Active Management Fees for Private Equity (Dollars in 000's)

Year Ending June 30	Actuarial Value of Assets	Administrative Expenses	Investment Expenses	% of Assets
2014	$12,935,503	$15,765	$56,189	0.55%
2015	13,895,589	19,878	62,595	0.59
2016	14,752,103	19,727	66,540	0.58
2017	15,686,973	20,244	71,844	0.59
			Four-Year Average:	0.58%

Administrative and Investment Expenses
(Net of Private Equity Management Fees)

Administrative and Investment Expenses as a Percentage of Actuarial Value of Assets Excluding Active Management Fees for Private Equity (Dollars in 000's)

Year Ending June 30	Actuarial Value of Assets	Administrative Expenses	Investment Expenses	% of Assets
2014	$12,935,503	$15,765	$36,045	0.40%
2015	13,895,589	19,878	42,278	0.44
2016	14,752,103	19,727	39,926	0.40
2017	15,686,973	20,244	40,006	0.39
			Four-Year Average:	0.41%

- Based on this experience, we have decreased the future investment expense component from 0.60% to 0.40%.

Risk Adjustment Model and Confidence Level

- Compares the Plan's risk position over time
- Confidence level is a relative, not absolute measure
  - Can be reevaluated and reset for future comparisons
- Confidence level is based on standard deviation
  - Measure of volatility based on portfolio assumptions
- Results should be evaluated for reasonableness

Risk Adjustment Model and Confidence Level

- Confidence that actual earnings over 15 years will exceed expected earnings

Valuation	Investment Return Assumption	Confidence Level
6/30/2005-2007	8.00%	65%
6/30/2008-2010	8.00%	66%
6/30/2011-2013	7.75%	57%
6/30/2014-2016	7.50%	59%
6/30/2017	7.25%	57%
6/30/2018	7.00%	58%

- Report shows history of confidence levels (pages 17 and 19)
- Recommended 7.00% assumption gives 58% confidence level
  - Inflation decreased from 3.00% to 2.75%
  - Portfolio real return decreased from 5.47% to 5.37%
  - Investment expense decreased from 0.60% to 0.40%

LACERS Earnings Assumption

Components of Investment Return Assumption

	Recommended	Current
Assumed Inflation	2.75%	3.00%
Portfolio Real Rate of Return	5.37%	5.47%
Assumed Expenses	(0.40%)	(0.60%)
Risk Adjustment	(0.72%)	(0.62%)
Assumed Investment Return	7.00%	7.25%
Confidence Level	58%	57%

Investment Earnings Assumption - 2017

- Comparison with other systems
  - National median is 7.50% but continues to trend down nationwide
  - Seven California county employees retirement system have adopted 7.00% (Contra Costa, Fresno, Marin, Mendocino, Orange, Sacramento, and Santa Barbara)
  - CalPERS approved reduction from 7.50% to 7.00% over three years
  - CalSTRS approved reduction from 7.50% to 7.00% over two years
  - LADWP and LAFPP currently assume 7.25%
    - With 3.00% inflation component

Anticipated Cost Impact – Retirement Plan
Modeled as of June 30, 2017 for illustration

- Increase in Actuarial Accrued Liability = $514 million
- Increase in aggregate employer contribution rate = 2.42% of pay
  - Increase in aggregate employer Normal Cost = 0.68% of pay
  - Increase in aggregate employer UAAL rate = 1.74% of pay

Economic	**1.04%**
Non-Economic	
Mortality	**1.76%**
Other	**(0.38)%**
Total	**2.42%**

Anticipated Cost Impact – Health Plan
Modeled as of June 30, 2017 for illustration

- Increase in Actuarial Accrued Liability = $189 million
- Increase in aggregate employer contribution rate = 0.98% of pay
  - Increase in aggregate employer Normal Cost = 0.43% of pay
  - Increase in aggregate employer UAAL rate = 0.55% of pay

Economic	**0.59%**
Non-Economic	
Mortality	**0.36%**
Other	**0.03%**
Total	**0.98%**

Always remember

C + I = B + E

<u>C</u>ontributions + <u>I</u>nvestment Income

equals

<u>B</u>enefit Payments + <u>E</u>xpenses

- Actuarial valuation determines the current or "measured" cost, not the ultimate cost
- Assumptions and funding methods affect only the timing of costs

ASSET ALLOCATION AND RISK BUDGETING REVIEW

LOS ANGELES CITY EMPLOYEES' RETIREMENT SYSTEM

August 14, 2018

LACERS
LOS ANGELES CITY EMPLOYEES' RETIREMENT SYSTEM

NEPC

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

AGENDA

ASSET ALLOCATION REVIEW

NEPC, LLC

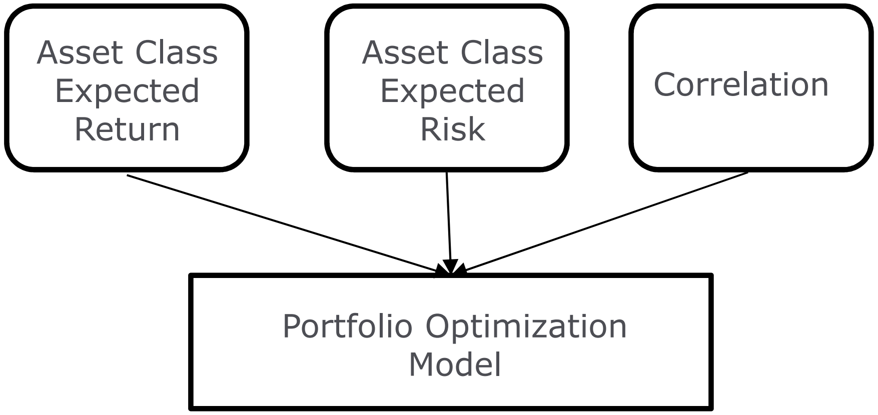
ASSET ALLOCATION REVIEW

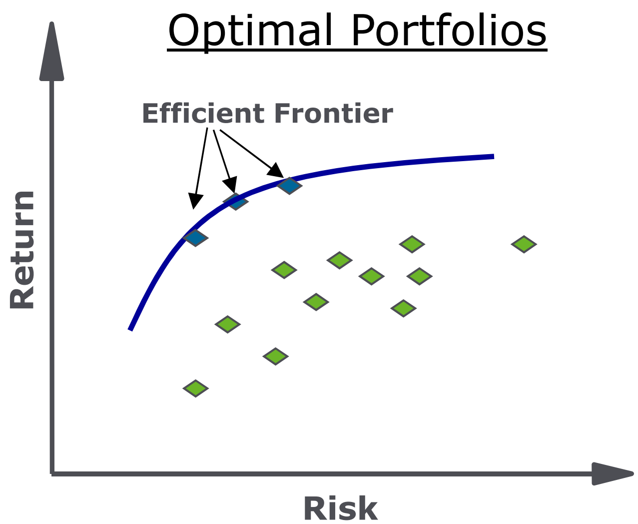
	Current Target	Mix J
US Equities	24.0%	19.0%
Non US Equities	29.0%	27.0%
Private Equity	12.0%	14.0%
Total Equity	**65.0%**	**60.0%**
Core Fixed Income	19.0%	13.8%
Credit Opportunities	5.0%	12.3%
Total Fixed Income	**24.0%**	**26.0%**
Public Real Assets	5.0%	6.0%
Real Estate	5.0%	7.0%
Total Real Assets	**10.0%**	**13.0%**
Cash	**1.0%**	**1.0%**

Expected Return 5-7 yrs	6.39%	6.57%
Expected Return 30 yrs	7.57%	7.70%
Standard Dev	13.21%	13.13%
Sharpe Ratio (5-7 yrs)	0.33	0.35
Sharpe Ratio (30 yrs)	0.37	0.38

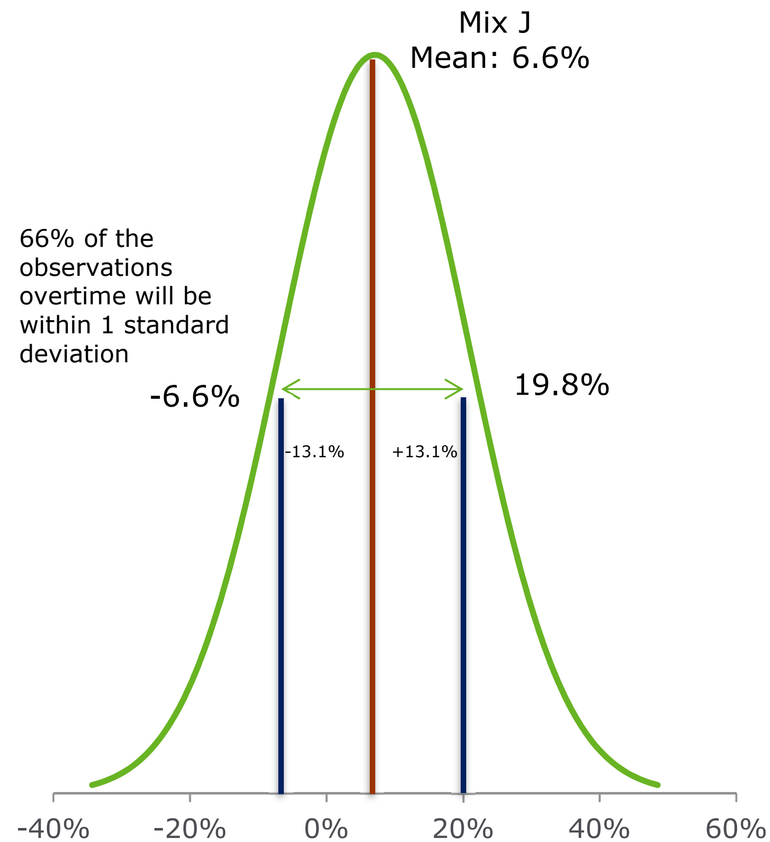
- **A wide variety of tools were used in order to assess the current asset allocation target and alternative asset allocation mixes**
  - Mean-Variance
  - Scenario Analysis
  - Liquidity Analysis
  - Asset liability modeling
- **In April of 2018, the Board selected Mix J as their new asset mix target**
- **The next steps for the Board include determining the allocations within each asset class and the development of an implementation plan**
  - Investment policy statement outlines a risk budgeting process in order to determine asset class allocations

MEAN VARIANCE PORTFOLIO CONSTRUCTION

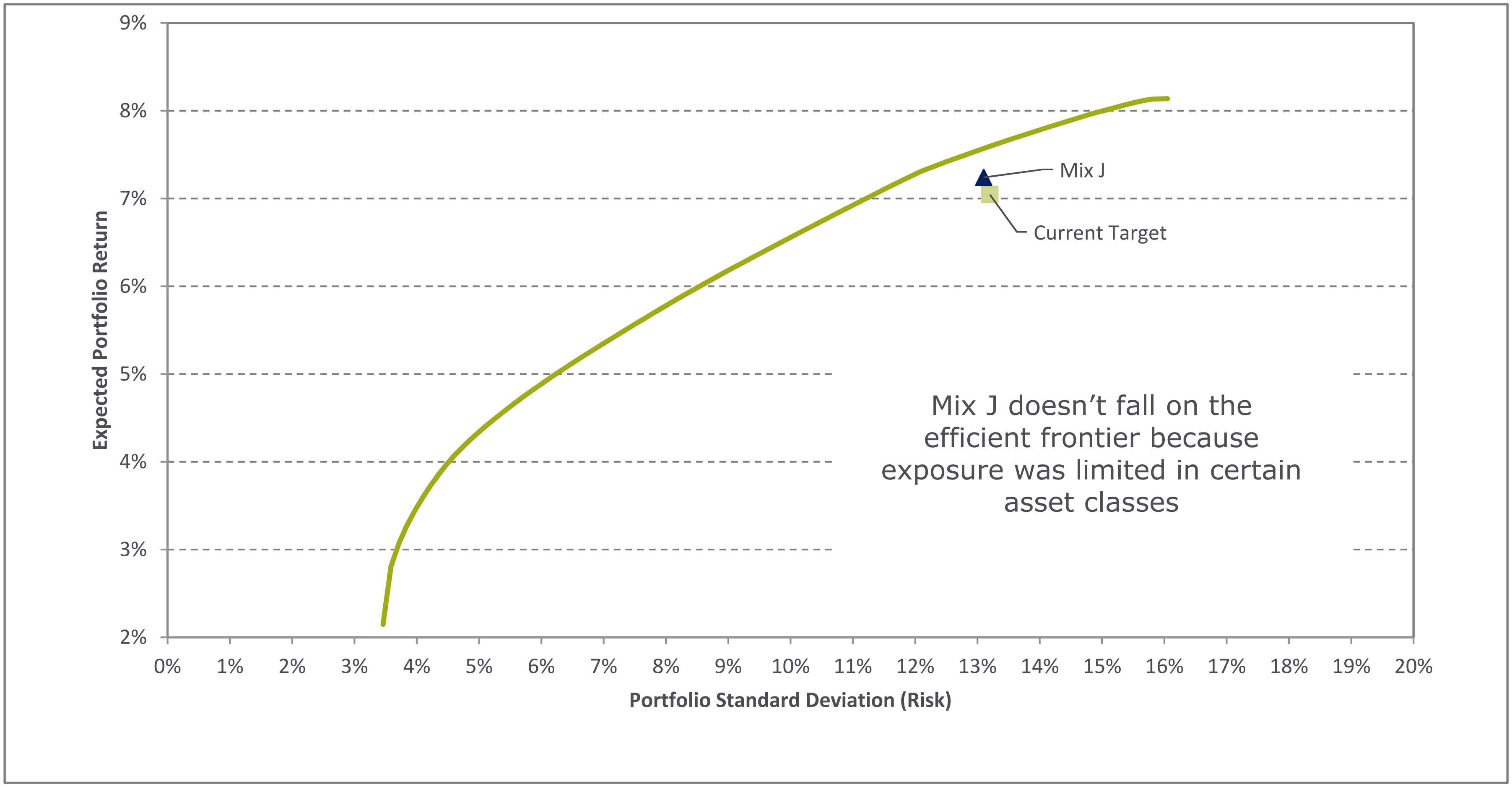




Green dots represent expected return and risk of individual asset classes. When asset classes are combined into diversified portfolios, the efficient frontier represents optimal portfolios for expected return at each given level of risk.



TOTAL FUND EFFICIENT FRONTIER



Constraints:

Private Equity + Private Debt + Private Real Assets < 20%

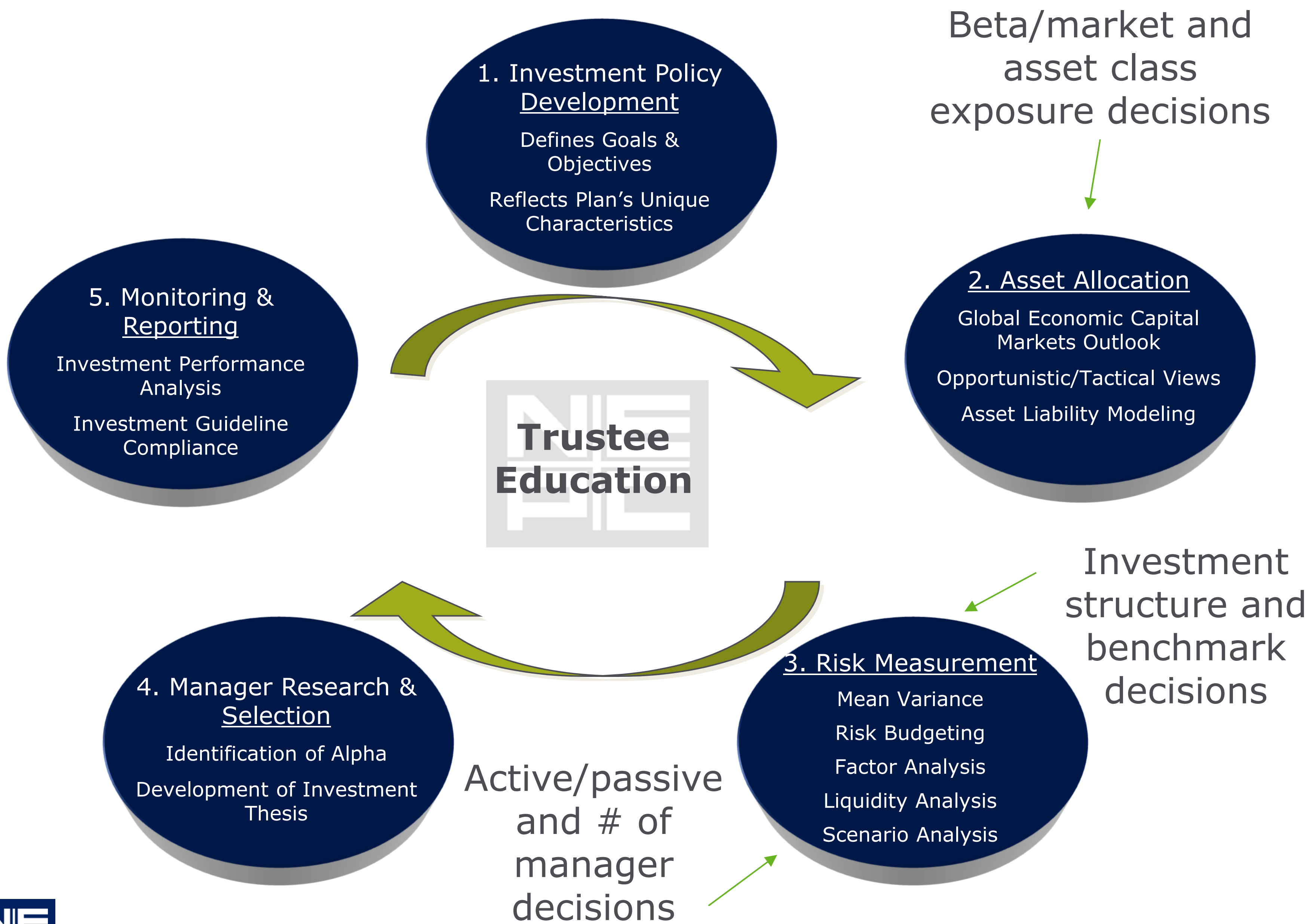
Hedge Funds <= 5%

Int'l Equity + Int'l SC Equity <= 25%

2% <= Emerging Market Equity + Emerging Market Small Cap <= 10%

Core Real Estate + Non-Core Real Estate <= 10%

MANAGING A PENSION PLAN



RISK BUDGETING ANALYSIS

NEPC, LLC

ACTIVE RISK BUDGETING PROCESS

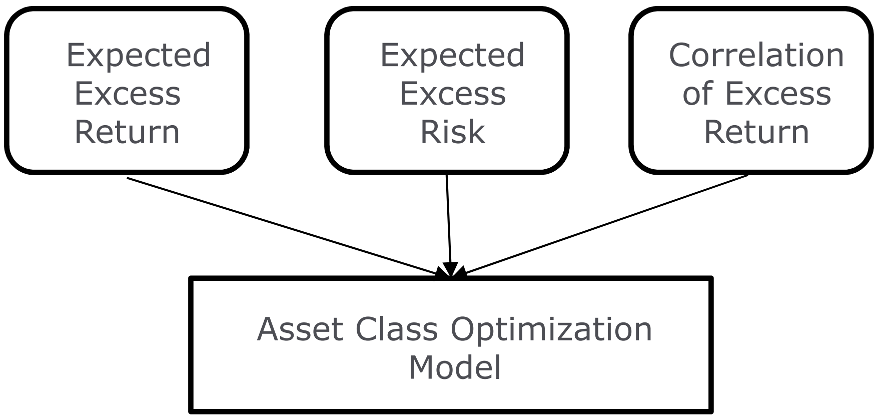
- **Evaluating active risk efficiency:**
  - Use NEPC 5-7 year forward-looking excess return expectations for betas and active investment manager excess return
  - Use alpha correlations of strategies to understand active risk diversification benefits
  - Efficient frontier of portfolio mixes are based on optimal information ratios at a given level of active risk; incorporate constraints and/or no constraints

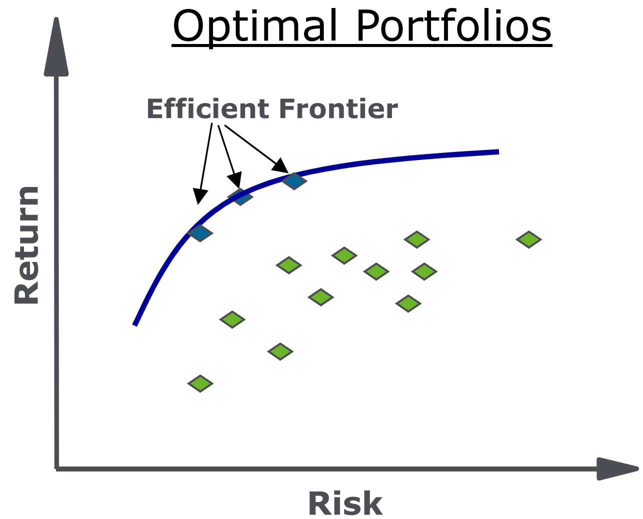
- **"Down-stream" from the strategic asset allocation process, the active risk budgeting framework is one tool used to understand current asset class structure against current asset class benchmarks**
  - Asset class betas are set in the asset allocation process and a review of current investment structure is warranted to understand forward-looking active risk

- **Evaluate newly approved asset class betas vs current structure and evaluate new active risk profiles**

- **Note: the active risk budgeting process takes into account forward looking expectations based wholly or in part on historical outcomes and should only be used as a broad guardrail for setting investment program structures**

ASSET CLASS RISK BUDGETING





Green dots represent expected excess return and risk of individual asset class strategies/portfolios. When asset class strategies are combined into diversified portfolios, the efficient frontier represents optimal portfolios for expected excess return at each given level of excess risk versus the asset class benchmark.

LACERS' Risk Budget Policy

- **Expected Excess Return**
  - Market efficiency
  - Manager's historical information ratio
  - Strategy characteristics
  - Peer universe historical excess returns
- **Expected Excess Risk**
  - Tracking error or standard deviation of excess return
- **Expected Excess Correlations**
  - Measure of the degree to which the alpha (excess return) from portfolios move together over time
- **Use constraints to ensure prudent exposures to strategies and risk factors**

SUMMARY & RECOMMENDATION

Asset Class	Current Risk Budget	Proposed Risk Budget	Difference	Comment
Domestic Equities	0.50%	0.75%	0.25%	Prospective active management placements
Non-US Equities	1.20%	1.20%	-	Unchanged
Core Fixed Income	1.00%	1.75%	0.75%	Prospective active management placements
Credit Opportunities	1.50%	1.00%	-0.50%	Restructured benchmark
Real Assets	3.00%	0.75%	-2.25%	Restructured benchmark

Domestic Equities –

- Increase in active risk budget to account for active risk profiles of prospective managers in large cap growth and small cap

Core Fixed Income –

- Prospective structure change results in increased active risk budget

Credit Opportunities-

- Prospective reduction in active risk budget associated with asset class expansion and benchmark change

- **Real Assets –**
  - Prospective reduction in active risk budget associated with asset class simplification and benchmark change

DOMESTIC EQUITY VIEW

General Market Thoughts

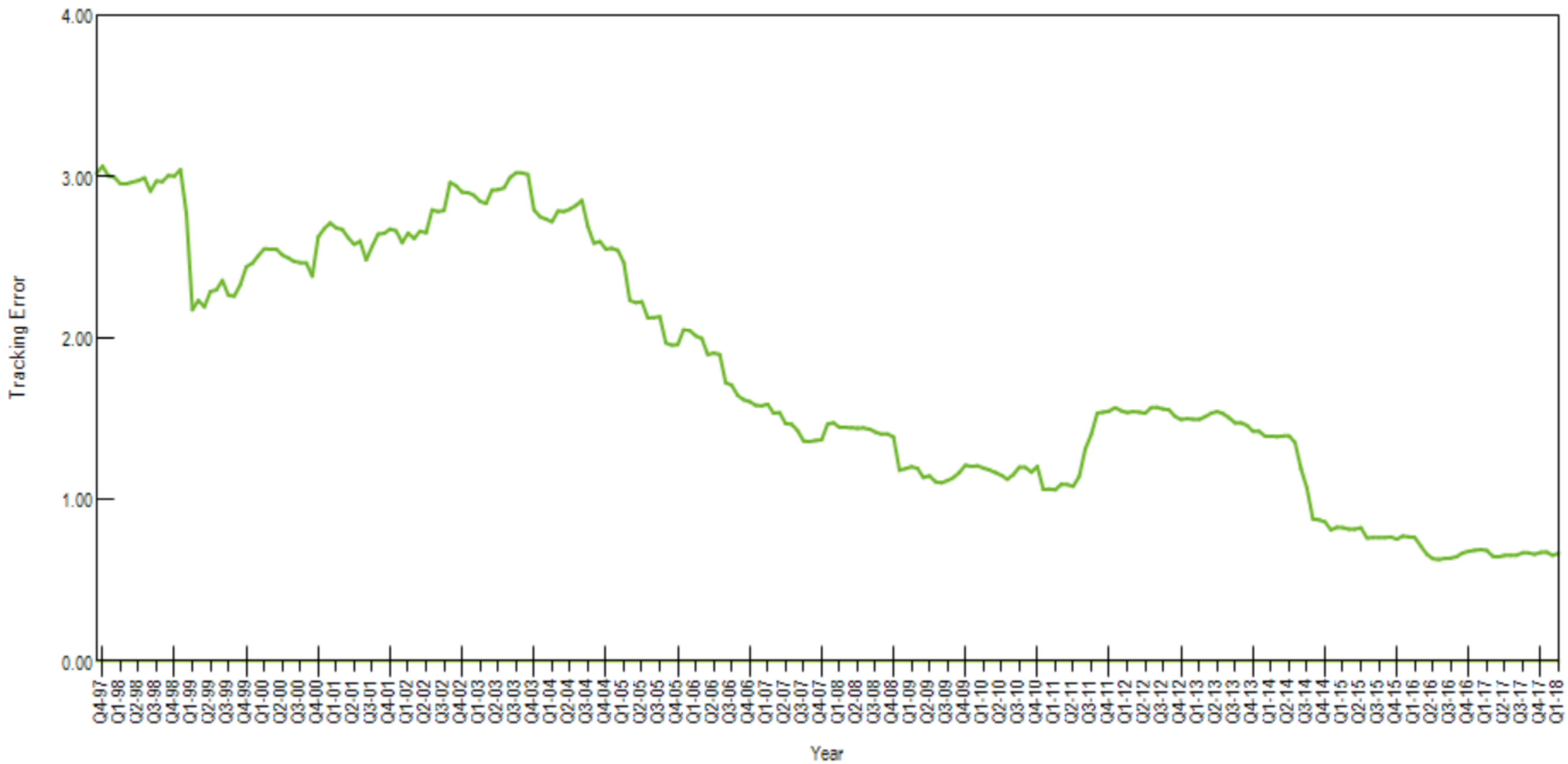
- **US Equities Broadly**
  - Valuations appear stretched based on a number of valuation metrics
  - Earnings growth needed to continue rally; 2017 saw a recovery in earnings but can it be sustained?
- **Small Caps**
  - Small caps should benefit from tax reform as effective rate drops from ~32% to 21%
  - GDP surprise could be beneficial to smaller companies who are more domestically focused from a revenue standpoint

Equity Implementation Views

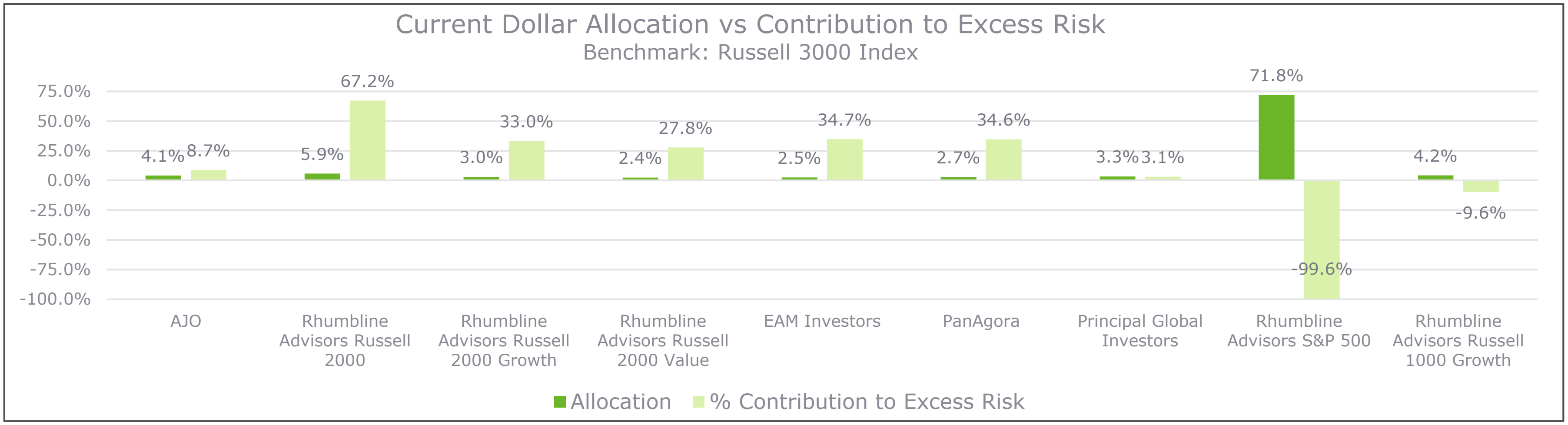
Strategy		Outlook	Commentary
Liquid	Passive	Positive	Cheap implementation and replacement for low tracking error strategies
	Large Cap	Neutral	Passive or High Tracking Error preferred implementation as cost for low tracking error outweighs benefits
	Small Cap	Positive	US small caps are levered to GDP Growth; Could benefit from tax reform
Illiquid	Venture	Neutral	With US valuations still high, target managers that have a sector-focused strategy whose value-add goes beyond that of a capital provider.
	Growth Equity	Positive	Target managers that are well equipped to fuel continued growth in VC-backed companies
	Buyouts	Neutral	Look for managers with some competitive advantage/angle in their deals; sector specialists can still outperform
	Special Situations	Positive	Flexible and nimble approaches able to capitalize on market, industry and/or specific company volatility

DOMESTIC EQUITY 3 YR ROLLING TRACKING ERROR

Rolling 3 Year Tracking Error



DOMESTIC EQUITY RISK BUDGETING



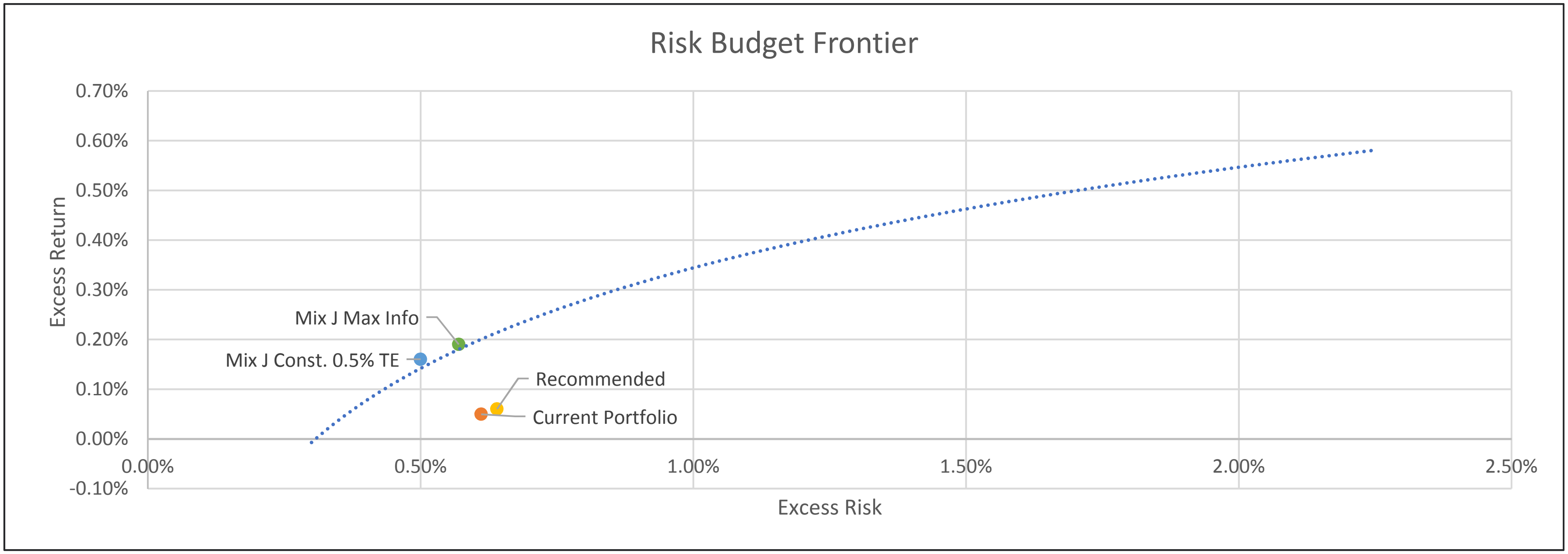
Alpha Correlations	AJO	Rhumbline Advisors Russell 2000	Rhumbline Advisors Russell 2000 Growth	Rhumbline Advisors Russell 2000 Value	EAM Investors	PanAgora	Principal Global Investors	Rhumbline Advisors S&P 500	Rhumbline Advisors Russell 1000 Growth
AJO	1.00	0.31	0.07	0.41	0.01	0.43	-0.03	-0.25	-0.49
Rhumbline Advisors Russell 2000	0.31	1.00	0.92	0.94	0.76	0.91	0.20	-0.92	-0.59
Rhumbline Advisors Russell 2000 Growth	0.07	0.92	1.00	0.72	0.91	0.70	0.39	-0.91	-0.31
Rhumbline Advisors Russell 2000 Value	0.41	0.94	0.72	1.00	0.52	0.97	0.01	-0.80	-0.76
EAM Investors	0.01	0.76	0.91	0.52	1.00	0.52	0.43	-0.82	-0.03
PanAgora	0.43	0.91	0.70	0.97	0.52	1.00	0.00	-0.78	-0.72
Principal Global Investors	-0.03	0.20	0.39	0.01	0.43	0.00	1.00	-0.43	0.13
Rhumbline Advisors S&P 500	-0.25	-0.92	-0.91	-0.80	-0.82	-0.78	-0.43	1.00	0.41
Rhumbline Advisors Russell 1000 Growth	-0.49	-0.59	-0.31	-0.76	-0.03	-0.72	0.13	0.41	1.00

Correlated   Uncorrelated

Benchmark for Domestic Equities is the Russell 3000 index.

DOMESTIC EQUITY RISK BUDGETING

Portfolio	Current Allocation (%)	Expected Excess Return (%)	Tracking Error (%)	Strategy Benchmark	Excess Risk Contribution (%)	Mix J Optimal Mix Constrained at 0.5% TE	Mix J Max Info Ratio	Recommended
Rhumbline S&P 500 Index	71.8%	-0.15%	1.18%	S&P 500	-99.6%	68.1%	61.2%	71.0%
Rhumbline Russell 1000 Growth Index	4.2%	-0.15%	2.99%	Russell 1000 Growth	-9.6%	5.6%	8.5%	4.0%
AJO - Large Cap Value	4.1%	0.50%	3.60%	Russell 1000 Value	8.7%	0.0%	4.0%	4.0%
Principal - Mid Cap Core	3.3%	0.75%	3.93%	Russell MidCap	3.1%	15.4%	15.2%	5.0%
Rhumbline - Russell 2000 Index	5.9%	0.35%	7.76%	Russell 2000	67.2%	0.0%	0.0%	5.0%
Rhumbline - Russell 2000 Growth	3.0%	0.35%	8.16%	Russell 2000 Growth	33.0%	0.0%	0.0%	3.0%
Rhumbline - Russell 2000 Value	2.4%	0.35%	16.03%	Russell 2000 Value	27.8%	0.3%	0.1%	3.0%
EAM Investors - Small Cap Growth	2.5%	1.50%	11.14%	Russell 2000 Growth	34.7%	1.0%	1.0%	2.5%
PanAgora - Small Cap Value	2.7%	1.50%	9.14%	Russell 2000 Value	34.6%	9.6%	10.0%	2.5%
Expected Excess Return	0.05%					0.16%	0.19%	0.06%
Expected Excess Risk	0.61%					0.50%	0.57%	0.64%
Information Ratio	0.08					0.33	0.34	0.09



Benchmark for Domestic Equities is the Russell 3000 index. Mix J (green dot) represents the domestic equity portion as modeled in the asset liability study (mix between large and small cap stocks) and the blue dot represents Mix J at the current targeted tracking error of 0.50%.

DEVELOPED NON-U.S. EQUITY VIEW

General Market Thoughts

- **Europe and Japan carry risks but offer a meaningful return opportunity even after recent strong performance**
  - Earnings growth has outpaced multiple expansion in Europe
  - Catalysts for outperformance are present with shareholder friendly actions in Japan and macroeconomic improvement in Europe
- **Small-cap equity and global equity are preferred implementation approaches**
  - These strategies offer the best opportunity to exploit valuation discrepancies among stocks across countries and sectors
  - Hedging a portion of non-US developed currency exposure remains a strategic goal

Equity Implementation Views

Strategy		Outlook	Commentary
Liquid	Passive	Positive	Option to complement active exposure with currency hedge; Global equity preferred implementation
	Large Cap	Positive	Consider 50% hedged exposure as baseline;
	Small Cap	Positive	Small cap complements global implementation;
	Europe	Positive	More targeted approach available via passive, hedge fund or private equity
Illiquid	Venture	Positive	Tech hubs developing – positive early, mid and growth equity
	Buyouts	Positive	Mid & Small buyouts and special situations preferred implementation

EMERGING MARKETS VIEW

General Market Thoughts

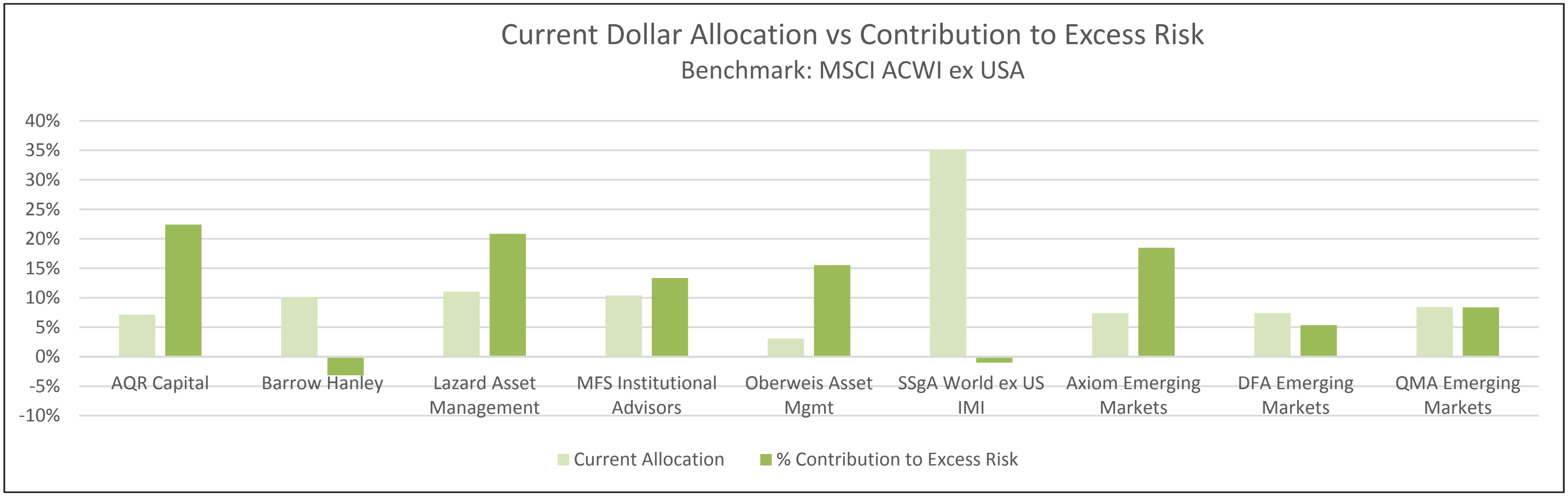
- **Emerging equities offer the highest total return potential for investors**
  - Valuation levels and long-term fundamentals suggest an overweight relative to global market cap weights (e.g. 15% to 20%)
  - China's depreciating currency, broad US dollar strength and US-Asia trade policy concerns temper our excitement
  - Growth premium relative to the developed world is advancing as emerging market economic conditions improve off fiscal and currency adjustments of recent years
- **Overweight small-cap and consumer focused strategies relative to broad benchmark mandates**
  - Small-cap and emerging market consumer strategies offer a structural bias away from commodity exposures and state owned enterprises

Equity Implementation Views

Strategy		Outlook	Commentary
EM	Passive	Negative	State Owned Enterprises exposure and cost/ tracking error make passive expensive
	Large Cap	Positive	May gain most of exposure in true global mandate
	Small Cap	Positive	Small-cap and emerging market consumer strategies offer a structural bias away from commodity exposures and state owned enterprises
	Private Equity	Positive	Emphasize growth equity strategies ; Early stage venture shifting from copy-cat business models to technology innovation; Control deals are becoming more frequent as PE industry matures

NON-U.S. EQUITY 3 YR ROLLING TRACKING ERROR

NON-U.S. EQUITY RISK BUDGETING



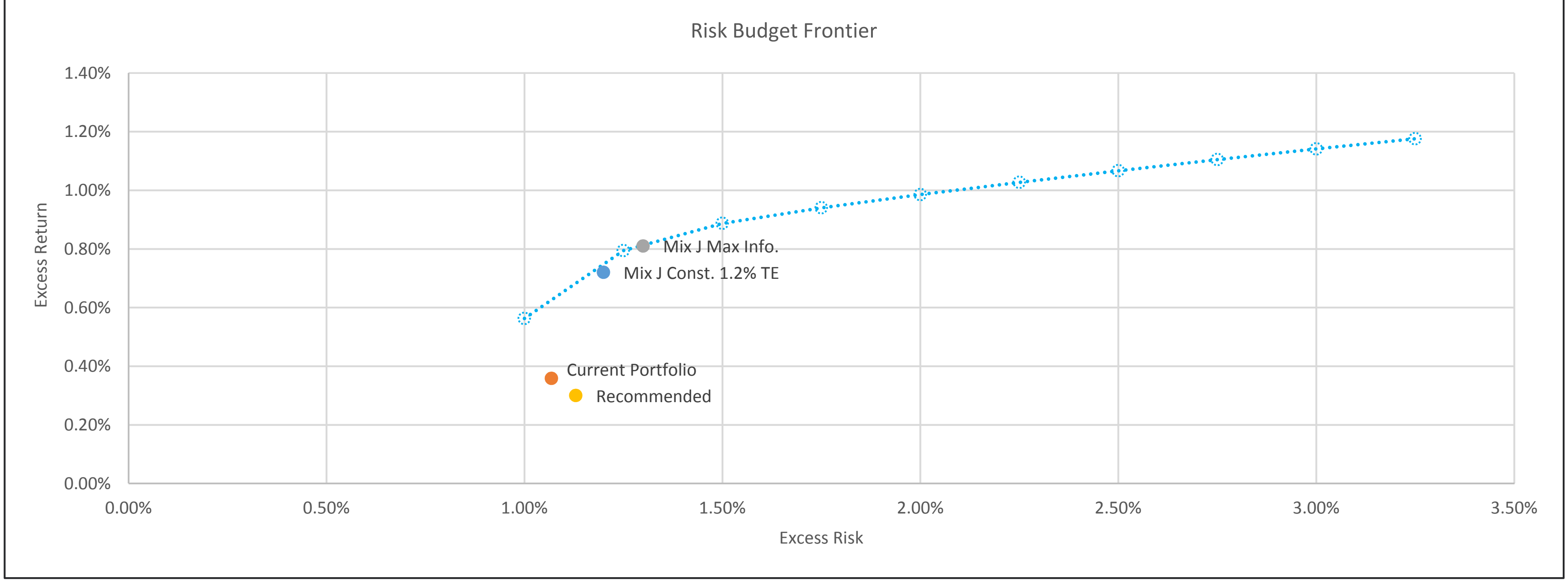
Alpha Correlations	AQR Capital	Barrow Hanley	Lazard Asset Management	MFS Institutional Advisors	Oberweis Asset Mgmt	SSgA World ex US IMI	Axiom Emerging Markets	DFA Emerging Markets	QMA Emerging Markets
AQR Capital	1.00	0.00	0.40	0.27	0.64	0.53	-0.29	-0.37	-0.36
Barrow Hanley	0.00	1.00	0.28	0.01	0.02	0.52	-0.49	-0.54	-0.58
Lazard Asset Management	0.40	0.28	1.00	0.53	0.52	0.51	-0.34	-0.58	-0.54
MFS Institutional Advisors	0.27	0.01	0.53	1.00	0.38	0.47	-0.34	-0.52	-0.48
Oberweis Asset Mgmt	0.64	0.02	0.52	0.38	1.00	0.43	-0.02	-0.40	-0.34
SSgA World ex US IMI	0.53	0.52	0.51	0.47	0.43	1.00	-0.89	-0.90	-0.95
Axiom Emerging Markets	-0.29	-0.49	-0.34	-0.34	-0.02	-0.89	1.00	0.80	0.89
DFA Emerging Markets	-0.37	-0.54	-0.58	-0.52	-0.40	-0.90	0.80	1.00	0.91
QMA Emerging Markets	-0.36	-0.58	-0.54	-0.48	-0.34	-0.95	0.89	0.91	1.00

Correlated   Uncorrelated

Benchmark for total Non-US Equities is the MSCI ACWI ex US index.

NON-U.S. EQUITY RISK BUDGETING

Portfolio	Current Allocation (%)	Expected Excess Return (%)	Tracking Error (%)	Strategy Benchmark	Excess Risk Contribution (%)	Mix J Optimal Mix Constrained at 1.2% TE	Mix J Max Info Ratio	Recommended
SSgA - World ex USA IMI	35.1%	-0.71%	2.09%	MSCI World ex USA IMI	-1.0%	7.8%	0.0%	42.2%
MFS - Growth	10.4%	0.50%	4.10%	MSCI ACWI ex USA Growth	13.0%	22.7%	26.5%	6.9%
Barrow Hanley - Value	10.1%	0.50%	3.92%	MSCI ACWI ex USA Value	-3.0%	32.2%	36.3%	6.9%
Lazard - Core	11.0%	0.50%	4.12%	MSCI EAFE	21.0%	0.2%	0.2%	6.9%
Oberweiss - Small Cap	3.1%	1.00%	7.92%	MSCI EAFE Small Cap	16.0%	0.0%	0.0%	5.6%
AQR - Small Cap	7.1%	1.00%	5.92%	MSCI EAFE Small Cap	22.0%	11.1%	11.1%	5.6%
Axiom - Emerging Markets Growth	7.4%	1.50%	7.19%	MSCI Emerging Markets Growth	18.0%	0.0%	0.0%	8.6%
DFA - Emerging Markets Value	7.4%	1.50%	9.17%	MSCI Emerging Markets Value	5.0%	6.7%	7.2%	8.6%
QMA - Emerging Markets	8.4%	1.50%	7.88%	MSCI Emerging Markets	8.0%	19.2%	18.7%	8.6%
Expected Excess Return	0.36%					0.72%	0.81%	0.30%
Expected Excess Risk	1.07%					1.20%	1.30%	1.13%
Information Ratio	0.34					0.6	0.63	0.27



Benchmark for total Non-US Equities is the MSCI ACWI ex US index. Mix J (grey dot) represents the non-U.S. equity portion as modeled in the asset liability study (mix between large and small cap and developed and emerging stocks) and the blue dot represents Mix J at the current targeted tracking error of 1.20%.

CORPORATE CREDIT VIEW

General Market Thoughts

- **Spreads continued to compress in 2018 across credit sectors**
  - Many sectors' spreads are well below long term averages
  - YTD, Bank loans have outperformed High Yield, 1.50% vs. -0.60%
- **Current valuations do not accurately reflect market risks**
  - Leverage levels at post-crisis high
  - Specific sectors showing signs of stress
- **Credit selection will be imperative in 2018**

Implementation Views

Strategy	Outlook	Commentary
Investment Grade	Neutral	Fundamental safe haven, but concerns around technical pressure remain
High Yield (HY)	Strong Negative	Spread compression elevates our concerns about the future risk-adjusted returns; secularly challenged sectors; impact of tax reform on CCCs
Bank Loans	Neutral	Loans trading at or above par and high percent of covenant-lite loans remain a concern; rising-rate benefit.
Private Credit	Positive	Competitive US market; Europe and Asia slightly more attractive; seek niche strategies to provide enhanced return

SOVEREIGN CREDIT VIEW

General Market Thoughts

- **Continued flattening of US Treasury yield curve with marginally higher real yields**
- **Tax reform in December 2017 shifted supply/demand dynamics for municipal bonds**

Implementation Views

Strategy	Outlook	Commentary
Treasuries	Neutral	Yields remain higher than other major developed markets; Fed balance sheet transition presents opportunity for elevated volatility
Non-US Sovereign	Negative	Yields remain low and even negative across much of Europe and Japan
TIPS	Positive	Attractive “safe haven” alternative to core bonds as market’s inflation expectations remain low
Municipal	Neutral	Rate risk looms and nominal yields remain fairly unattractive, but supply shortages could present tailwind

EMERGING MARKETS DEBT VIEW

General Market Thoughts

- **EM local currency debt remains an attractive investment**
  - Favorable valuations, fundamentals, and technicals for rates and FX
- **External sovereign and corporate debt valuations well below long term averages**
  - Fundamentals are stable, but upside is limited
  - Risk/return profile less attractive today relative to local markets
- **Recommend EMD Local for nimble investors with higher risk tolerance**
  - Favor a strategic allocation to Blended EMD for clients with lower risk appetite
  - Volatility remains high – mindful of potential trade wars

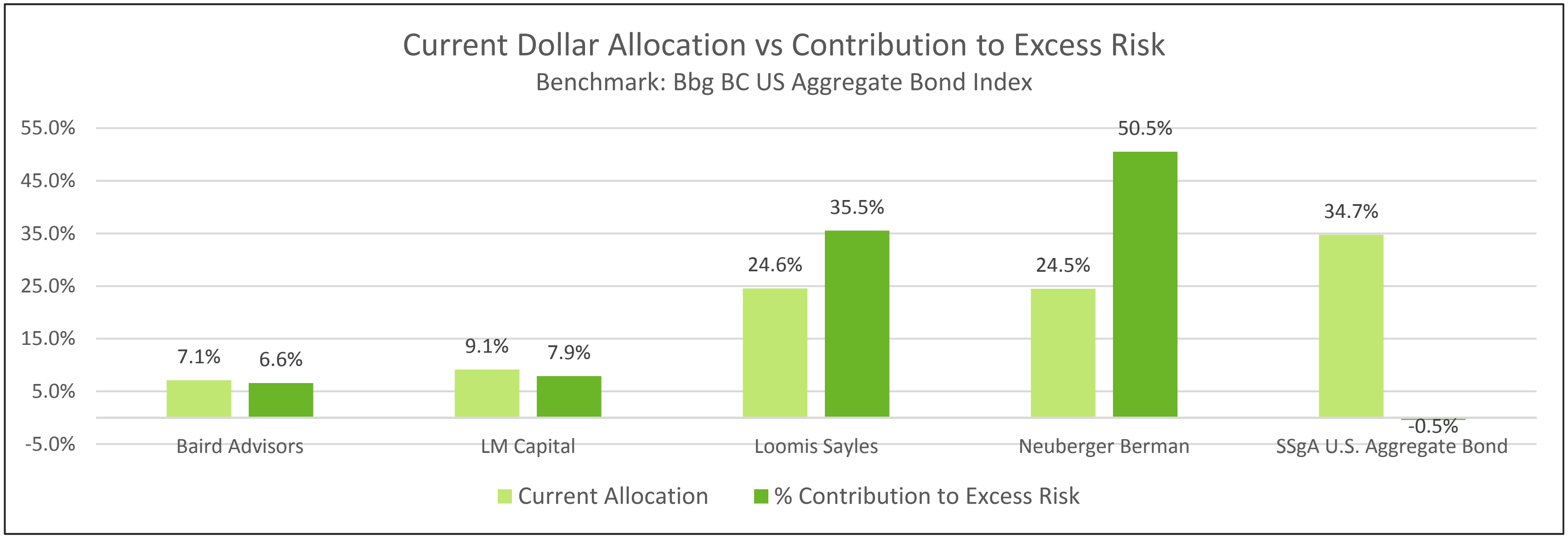
Implementation Views

Strategy	Outlook	Commentary
EMD Local	Positive	High real rates and diverging cycles relative to DM, EM FX remain attractive though volatility to persist
EMD External Sovereign	Negative	Valuations are tight, upside is limited; idiosyncratic risks and opportunities remain
EMD External Corporate	Negative	Default risk relative low, but risk return profile much less attractive today; favor active exposure to corporates through blended mandate

CORE FIXED INCOME 3 YR ROLLING TRACKING ERROR

Rolling 3 Year Tracking Error

CORE FIXED INCOME RISK BUDGETING



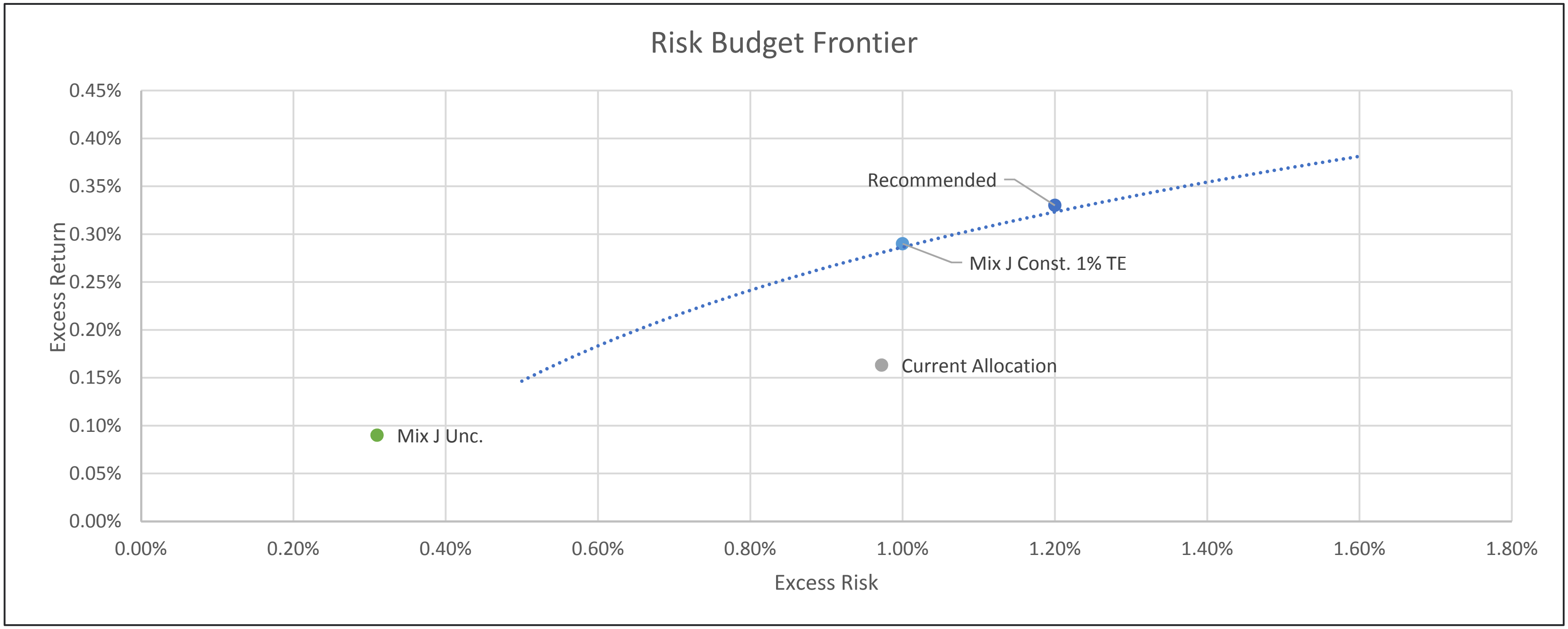
Alpha Correlations	Baird Advisors	LM Capital	Loomis Sayles	Neuberger Berman	SSgA U.S. Aggregate Bond
Baird Advisors	1	0.52	0.4	0.12	0
LM Capital	0.52	1	0.37	0.46	-0.02
Loomis Sayles	0.4	0.37	1	0.68	-0.02
Neuberger Berman	0.12	0.46	0.68	1	-0.28
SSgA U.S. Aggregate Bond	0	-0.02	-0.02	-0.28	1

Correlated   Uncorrelated

Note: Index is Bloomberg Barclays Aggregate Bond Index. Historical LACERS data used where applicable to core bonds, then eVestment composite data was used to supplement historical data.

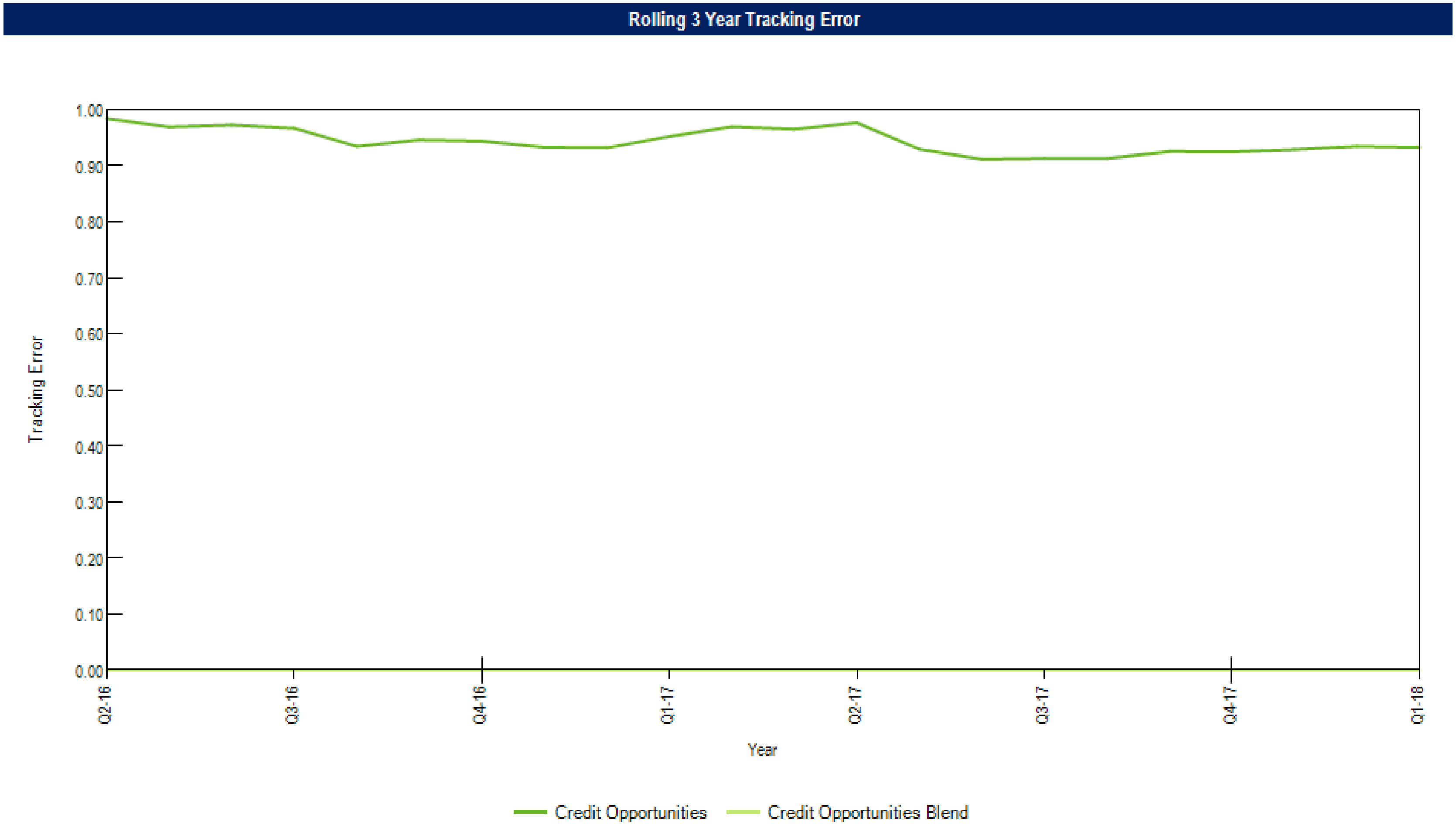
CORE FIXED INCOME RISK BUDGETING

Portfolio	Current Allocation (%)	Expected Excess Return (%)	Tracking Error (%)	Strategy Benchmark	Excess Risk Contribution (%)	Mix J Optimal Mix Constrained at 1.0% TE	Mix J Max Info Ratio Unconstrained	Recommended
SSgA US Aggregate Bond Index	34.74%	0.00%	0.06%	Bbg Barclays US Aggregate	-0.5%	0.0%	67.0%	0.0%
Baird Advisors - Intermediate Core	7.09%	0.25%	1.23%	Bbg Barclays US Govt/Credit Int	6.6%	25.7%	9.3%	25.0%
LM Capital - Core	9.14%	0.25%	0.94%	Bbg Barclays US Aggregate	7.9%	44.6%	16.3%	25.0%
Loomis Sayles - Core	24.55%	0.40%	2.08%	Bbg Barclays US Aggregate	35.5%	6.7%	0.3%	25.0%
Neuberger Berman - Core	24.48%	0.40%	1.94%	Bbg Barclays US Aggregate	50.5%	22.9%	7.1%	25.0%
Expected Excess Return	0.16%					0.29%	0.09%	0.33%
Expected Excess Risk	0.97%					1.00%	0.31%	1.20%
Information Ratio	0.17					0.29	0.30	0.27



Benchmark for Core Fixed Income is the Bloomberg Barclays US Aggregate Bond Index. Mix J (green dot) represents the core fixed income portion as modeled in the asset liability modeling study and the blue dot represents Mix J at the current targeted tracking error of 1.0%.

CREDIT OPPORTUNITIES 3 YR ROLLING TRACKING ERROR



CREDIT OPPORTUNITIES BENCHMARK

- **As a result of the newly approved strategic asset allocation policy the Credit Opportunities asset class has an expanded universe**

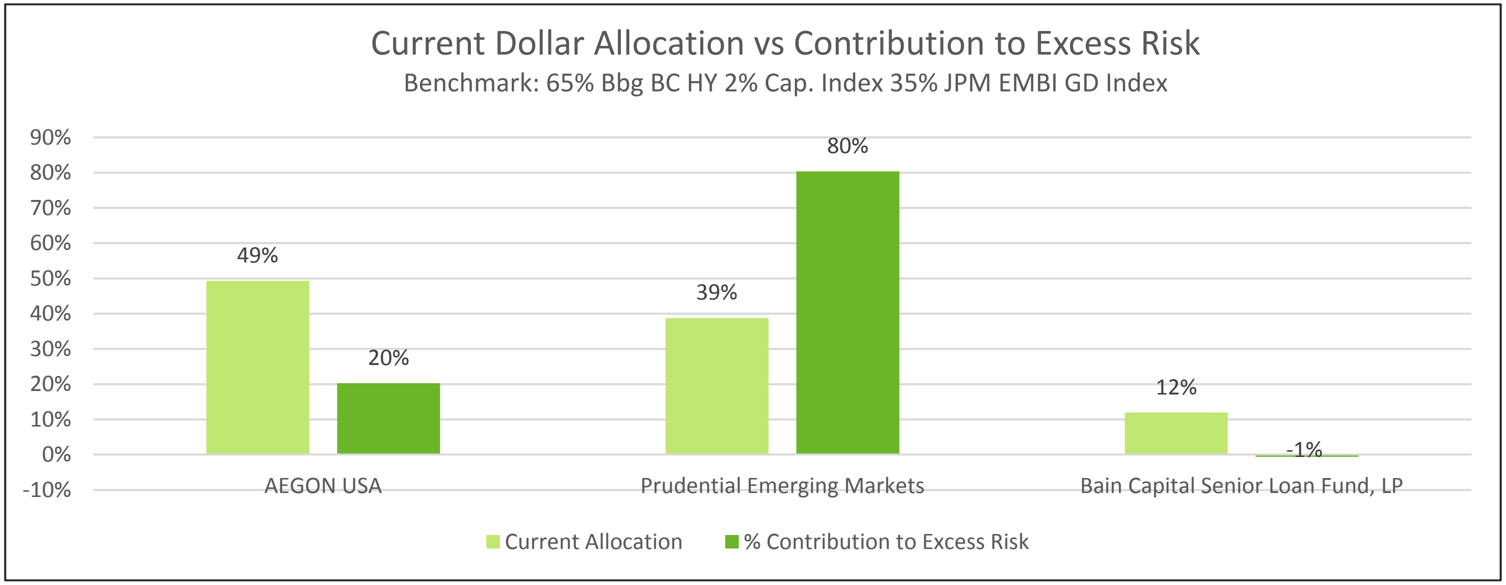
- **Restructuring the Credit Opportunities benchmark is necessary given the addition of local currency denominated Emerging Market Debt and Private Debt**

- **The proposed benchmark composition includes widely used and ubiquitously known benchmarks comprehensively tracking the leveraged loans and local currency emerging market debt universes**
  - Credit Suisse Leverage Loan Index
  - JP Morgan Government Bond - Emerging Markets Global Diversified Index

- **The current benchmark composition includes:**
  - 65% Bbg Barclays US High Yield 2% Issuer Cap
  - 35% JP Morgan EMBI-GD Index

- **The proposed benchmark composition is:**
  - 15% Bbg Barclays US High Yield 2% Issuer Cap
  - 45% Credit Suisse Leveraged Loan Index
  - 40% ½ JPM EMBI-GD + ½ JPM GBI-EM GD

CREDIT OPPORTUNITIES RISK BUDGETING - CURRENT BENCHMARK



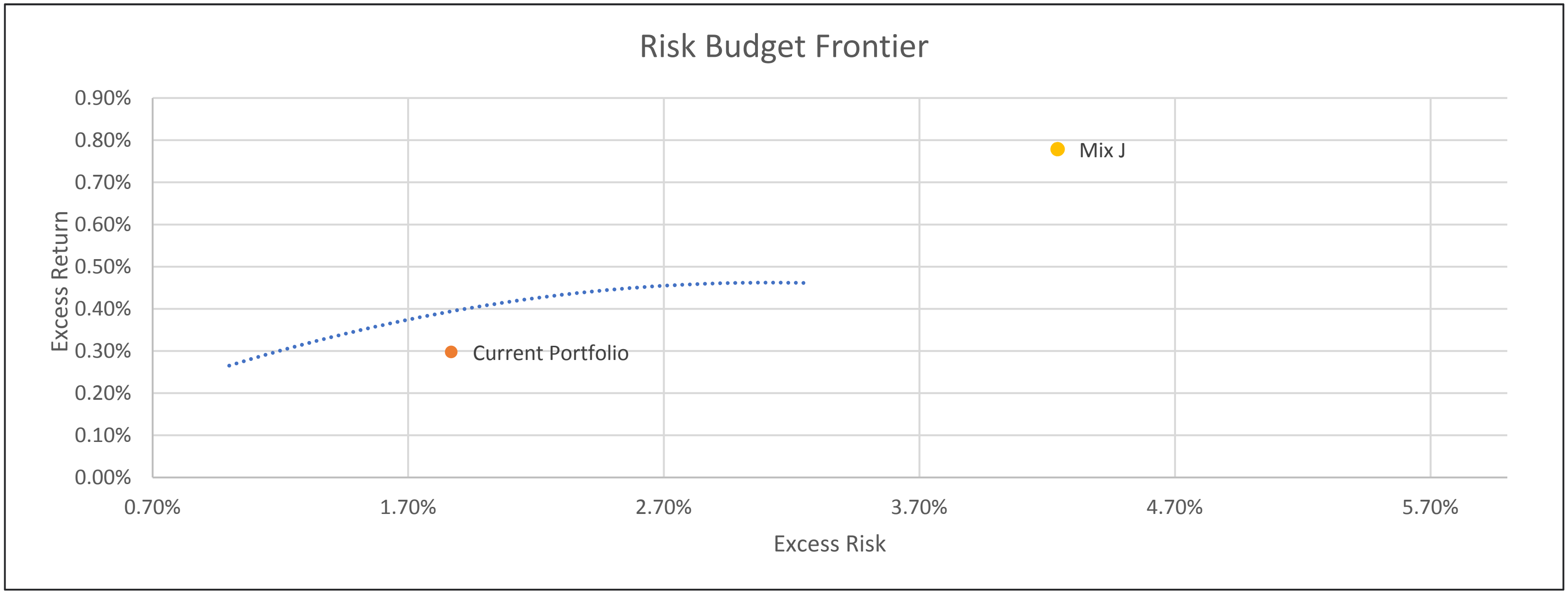
Alpha Correlations	AEGON USA	Prudential Emerging Markets	Bain Capital Senior Loan Fund, LP	Private Debt Proxy	50/50 EMD USD/Local
AEGON USA	1	-0.59	0.59	0.46	-0.5
Prudential Emerging Markets	-0.59	1	-0.61	-0.43	0.70
Bain Capital Senior Loan Fund, LP	0.59	-0.61	1	0.52	-0.47
Private Debt Proxy	0.46	-0.43	0.52	1	-0.4
50/50 EMD USD/Local	-0.5	0.70	-0.47	-0.4	1

Correlated   Uncorrelated

Benchmark for Credit Opportunities is 65% Bloomberg Barclays US High Yield 2% Capped index + 35% JPMorgan EMBI-GD index.

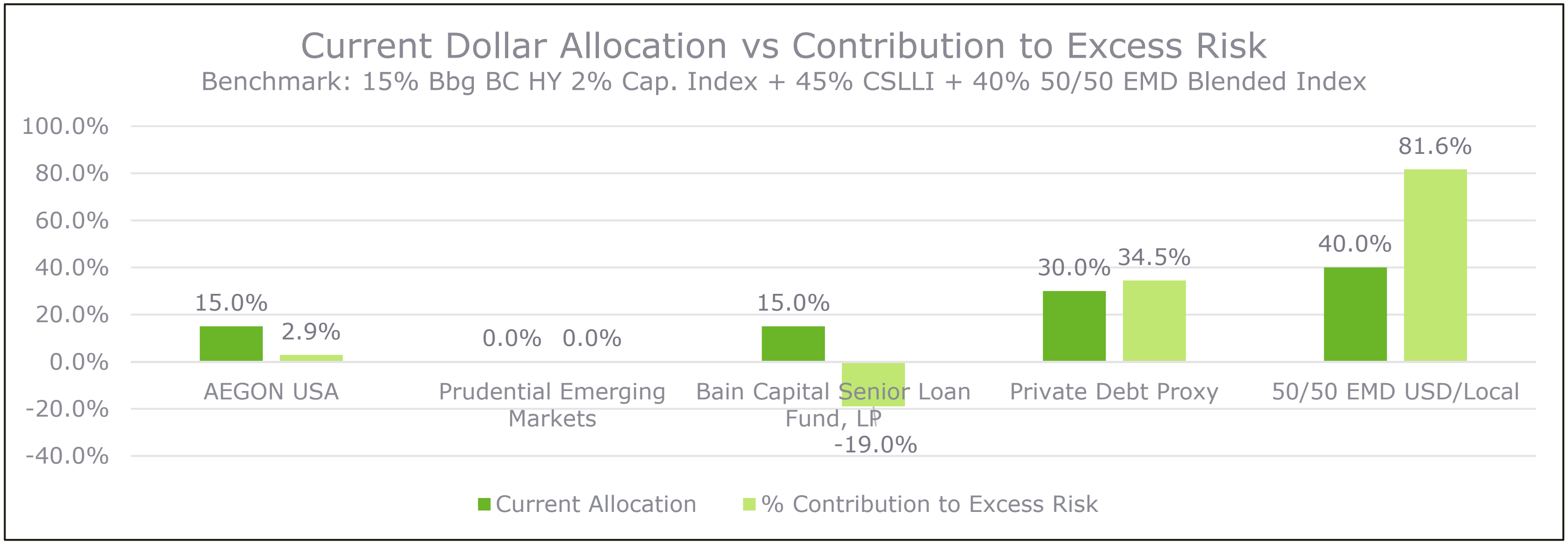
CREDIT OPPORTUNITIES RISK BUDGETING – CURRENT BENCHMARK

Portfolio	Current Allocation (%)	Expected Excess Return (%)	Tracking Error (%)	Strategy Benchmark	Excess Risk Contribution (%)	Mix J	Unconstrained Proposed Benchmark
AEGON - High Yield	49.30%	0.15%	1.64%	Bbg Barclays US High Yield 2% Issuer Cap	20.3%	15.7%	0.0%
Bain Capital - Bank Loans	11.95%	0.25%	3.11%	Credit Suisse Leveraged Loans	-0.6%	15.7%	55.3%
Prudential - Emerging Market Debt	38.75%	0.50%	3.90%	JPM EMBI Global Diversified	80.4%	0.0%	0.0%
Private Debt Proxy	0.00%	1.50%	4.45%	CS Leveraged Loans Index		29.4%	22.4%
50/50 EMD USD Local Proxy	0.00%	0.60%	12.38%	50/50 JPM EMBI GD + GBI-EMGD		39.2%	22.3%
Expected Excess Return	0.30%					0.78%	0.75%
Expected Excess Risk	1.87%					4.24%	0.95%
Information Ratio	0.16					0.18	0.78



Benchmark for Credit Opportunities is 65% Bloomberg Barclays US High Yield Capped index + 35% JPMorgan EMBI-GD index. Mix J represents the credit opportunities portion as modeled in the asset liability study. Mix J includes asset classes (private debt and local currency emerging market debt) not included in the current credit opportunities benchmark and therefore is above the efficient frontier.

CREDIT OPPORTUNITIES RISK BUDGETING – PROPOSED BENCHMARK



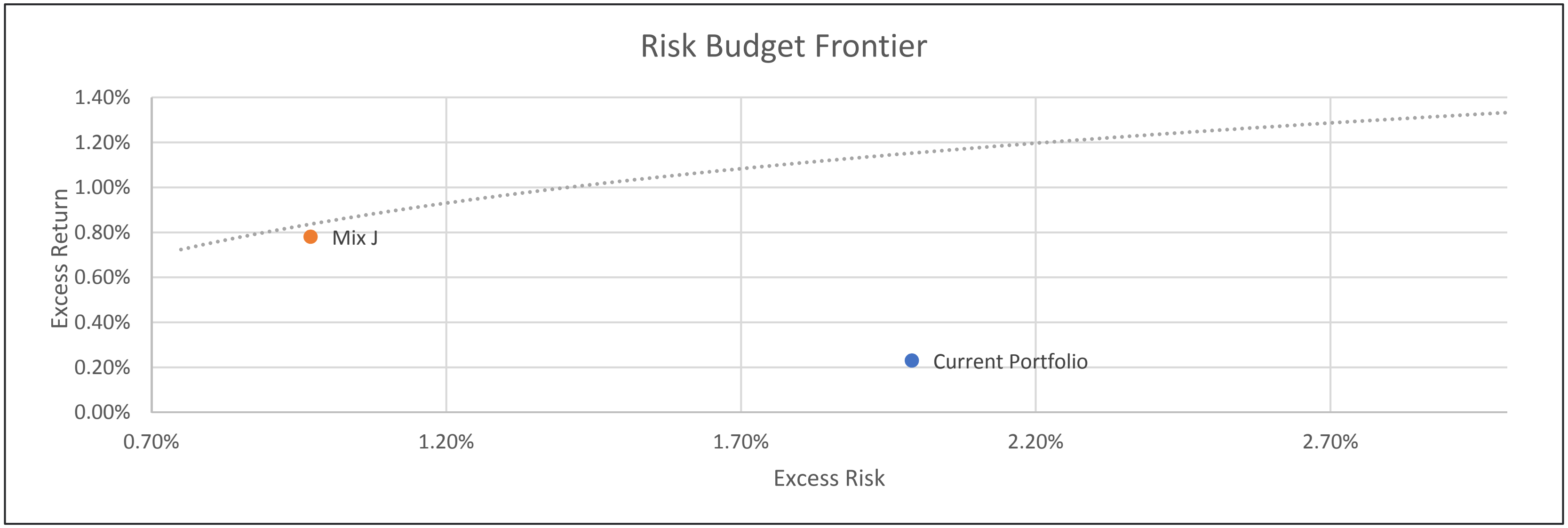
Alpha Correlations	AEGON USA	Prudential Emerging Markets	Bain Capital Senior Loan Fund, LP	Private Debt Proxy	50/50 EMD Proxy
AEGON USA	1.00	0.00	0.58	0.50	-0.73
Prudential Emerging Markets	0.00	1.00	-0.52	-0.24	0.55
Bain Capital Senior Loan Fund, LP	0.58	-0.52	1.00	0.56	-0.90
Private Debt Proxy	0.50	-0.24	0.56	1.00	-0.66
50/50 EMD Proxy	-0.73	0.55	-0.90	-0.66	1.00

Correlated Uncorrelated

Benchmark for Credit Opportunities is 15% Bloomberg Barclays US High Yield 2% Capped index + 45% Credit Suisse Leverage Loan Index + 20% JPMorgan EMBI-GD index+ 20% JPMorgan GBI-EMGD Index.

CREDIT OPPORTUNITIES RISK BUDGETING – PROPOSED BENCHMARK

Portfolio	Current Allocation (%)	Expected Excess Return (%)	Tracking Error (%)	Strategy Benchmark	Excess Risk Contribution (%)	Recommended - Mix J	Mix J Max Info Ratio
AEGON - High Yield	49.30%	0.15%	2.82%	Bbg Barclays US High Yield 2% Issuer Cap	20.3%	15.69%	12.6%
Bain Capital - Bank Loans	11.95%	0.25%	3.51%	Credit Suisse Leveraged Loans	-0.6%	15.69%	35.8%
Prudential - Emerging Market Debt	38.75%	0.50%	3.03%	JPM EMBI Global Diversified	80.4%	0.00%	0.0%
Private Debt Proxy	0.00%	1.50%	4.24%	CS Leveraged Loans Index		29.41%	11.1%
50/50 EMD USD Local Proxy	0.00%	0.60%	4.02%	50/50 JPM EMBI GD + GBI-EMGD		39.22%	40.5%
Expected Excess Return	0.23%					0.78%	0.61%
Expected Excess Risk	1.99%					0.97%	0.56%
Information Ratio	0.12					0.80	1.09



Benchmark for Credit Opportunities is 15% Bloomberg Barclays US High Yield 2% Capped index + 45% Credit Suisse Leverage Loan Index + 20% JPMorgan EMBI-GD index+ 20% JPMorgan GBI-EMGD Index. Mix J represents the credit opportunities as modeled in the asset liability study.

PUBLIC REAL ASSETS MARKET VIEW

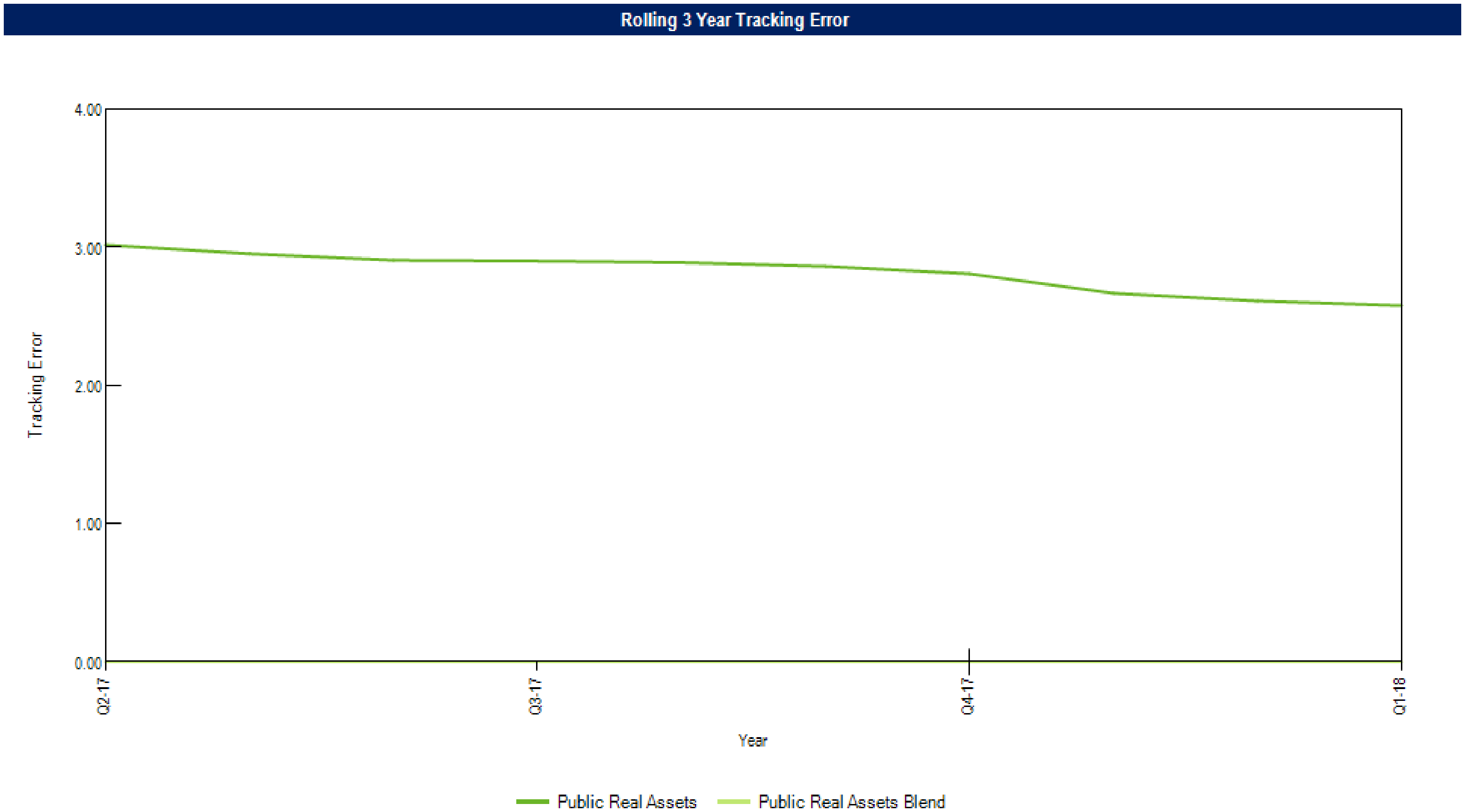
General Market Thoughts

- **REIT valuations disconnected from private comps**
- **Midstream energy decline has continued, despite improving fundamentals**
  - Attractive entry/rebalancing-point for actively managed strategies
- **Long-only commodities remain unattractive given negative roll yield**
  - May become more attractive if commodity futures curves continue to shift
- **Natural resource equities appear attractive**
  - Recent pullback in Q1 driven by mining/energy, strong outlook remains
- **Listed infrastructure offers low yields while adding volatility**
  - Significant exposure from broader equity benchmarks limits diversification benefits

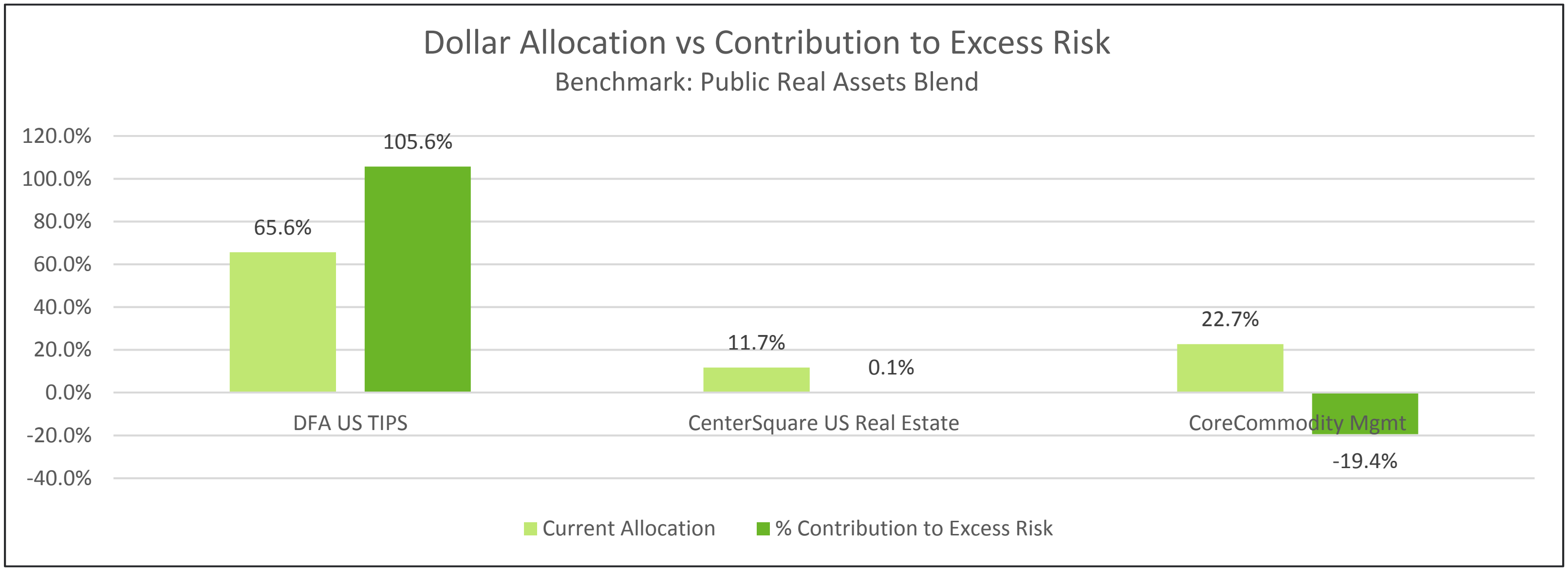
Implementation Views

Strategy	Outlook	Commentary
REITs	Neutral	Potentially rebalance existing exposure; expect volatility in the short term
MLPs/Midstream Energy	Positive	Recent underperformance in the face of balance sheet strengthening should make for a favorable entry point
Commodities (long-only)	Neutral	Despite backwardation at the back end of some commodities, near-term contango means continued negative roll yields
Natural Resource Equities	Positive	Focus on flexible mandates to be opportunistic; recent performance has been strong but multi-year opportunities remain if commodities stabilize
Listed Infrastructure	Neutral	Low yields and limited diversification benefits

PUBLIC REAL ASSETS 3 YR ROLLING TRACKING ERROR



PUBLIC REAL ASSETS RISK BUDGETING – CURRENT BENCHMARK



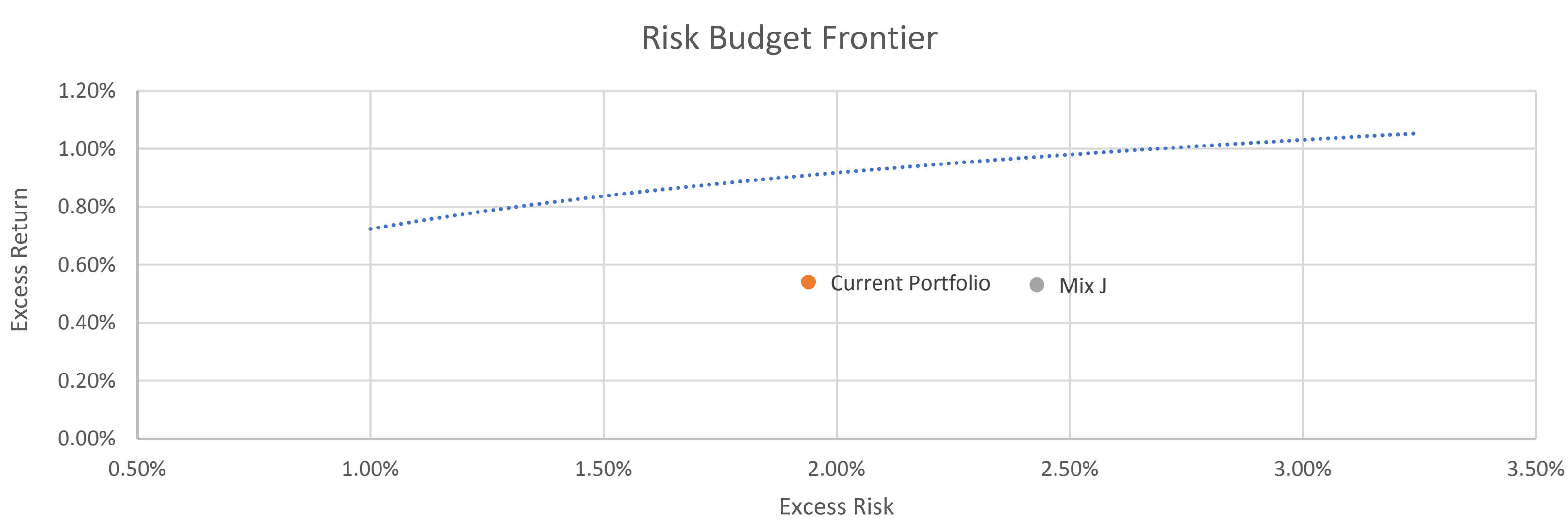
Alpha Correlations	DFA US TIPS	Center Square US Real Estate	Core Commodity Mgmt	MLP Proxy
DFA US TIPS	1.00	0.15	-0.60	-0.73
CenterSquare US Real Estate	0.15	1.00	-0.67	-0.26
CoreCommodity Mgmt	-0.60	-0.67	1.00	0.04
MLP Proxy	-0.73	-0.26	0.04	1.00

Correlated   Uncorrelated

Benchmark for Public Real Assets is BBgBarc US TIPS TR / 20% Bloomberg Commodity Index TR USD / 10% Alerian MLP TR USD / 10% FTSE NAREIT All REIT%.

PUBLIC REAL ASSETS RISK BUDGETING – CURRENT BENCHMARK

Portfolio	Current Allocation (%)	Expected Excess Return (%)	Tracking Error (%)	Strategy Benchmark	Excess Risk Contribution (%)	Unconstrained at 3% TE	Mix J Beta
DFA - US TIPS	65.62%	0.30%	4.02%	Bloomberg Barclays US TIPS	105.6%	11.0%	66.7%
CenterSquare - US REITS	11.70%	1.00%	11.90%	FTSE NAREIT All Equity REIT	0.1%	31.7%	16.7%
CoreCommodity - Commodities	22.68%	1.00%	9.41%	Bloomberg Commodity Index	-19.4%	38.1%	16.7%
MLPs	0.00%	1.50%	14.53%	Alerian MLP Index		19.3%	0.0%
Expected Excess Return	0.54%					1.02%	0.53%
Expected Excess Risk	1.94%					3.00%	2.43%
Information Ratio	0.28					0.34	0.22



Benchmark for Public Real Assets is 60% BBgBarc US TIPS TR / 20% Bloomberg Commodity Index TR USD / 10% Alerian MLP TR USD / 10% FTSE NAREIT All REIT%. Mix J (grey dot) represents the public real assets as modeled in the asset liability study. The benchmark includes asset classes not included in the current portfolio or Mix J.

PUBLIC REAL ASSETS BENCHMARK

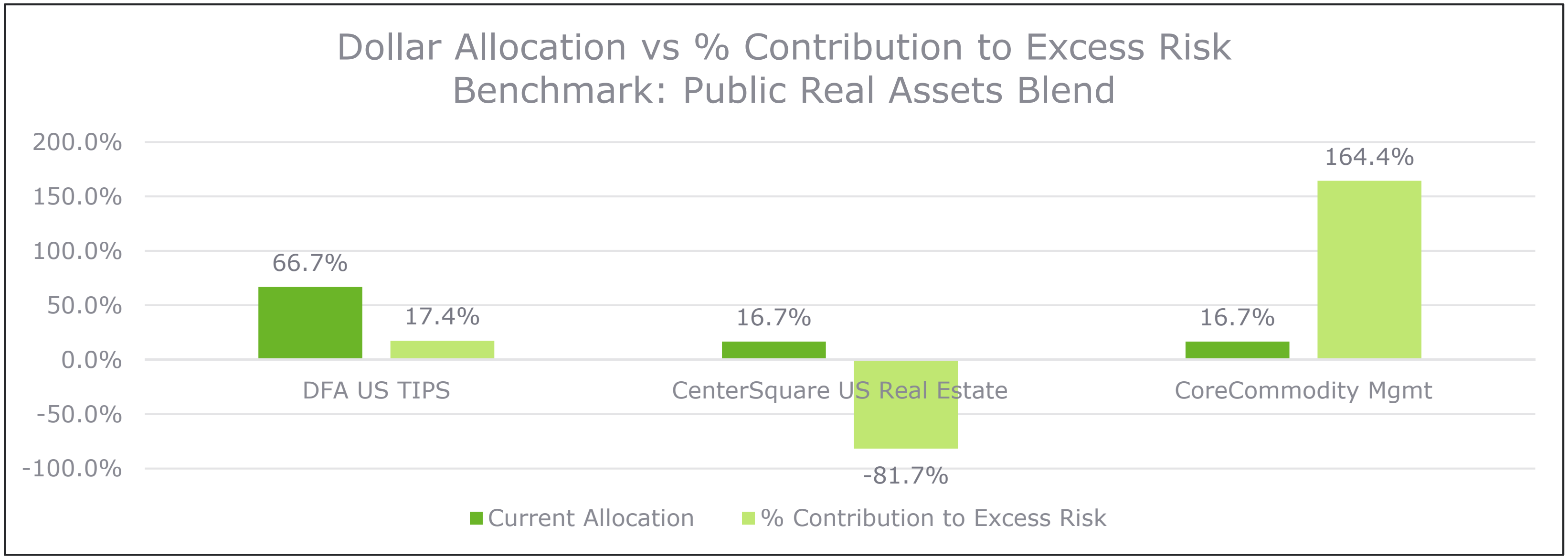
- **Given approved strategic policy allocation we recommend a change to the Public Real Assets benchmark**
  - Remove Master Limited Partnerships (MLPs) from the asset class beta

- **Desire to keep Public Real Assets structure simplistic**

- **Current benchmark includes:**
  - 60% BBg BC US TIPS Index
  - 20% Bbg Commodities Index
  - 10% FTSE NAREIT ALL REIT
  - 10% Alerian MLP TR Index

- **Proposed benchmark is**
  - 66.7% BBg BC US TIPS Index
  - 16.7% FTSE NAREIT ALL REIT
  - 16.7% Bbg Commodities Index

PUBLIC REAL ASSETS RISK BUDGETING – PROPOSED BENCHMARK



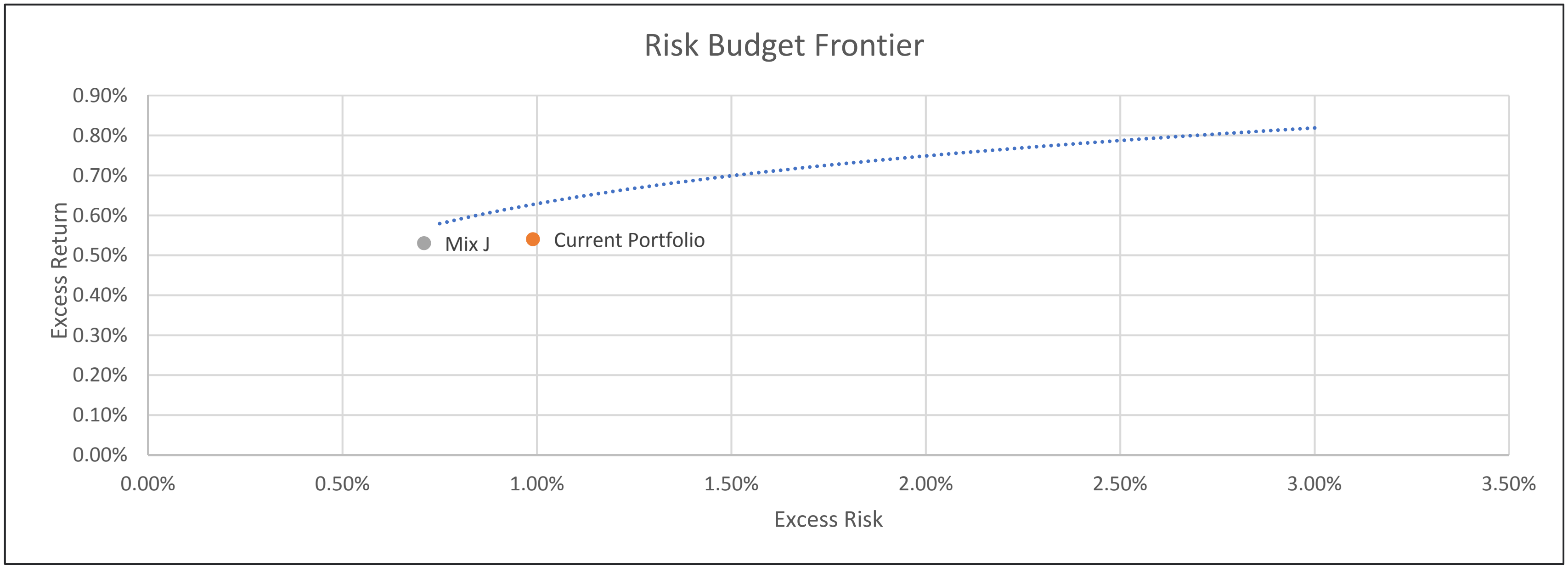
Alpha Correlations	DFA US TIPS	CenterSquare US Real Estate	CoreCommodity Mgmt	MLP Proxy
DFA US TIPS	1.00	-0.27	-0.53	-0.46
CenterSquare US Real Estate	-0.27	1.00	-0.63	0.00
CoreCommodity Mgmt	-0.53	-0.63	1.00	0.29
MLP Proxy	-0.46	0.00	0.29	1.00

Correlated   Uncorrelated

Benchmark for Public Real Assets is 66.7% BBgBarc US TIPS TR + 16.65% Bloomberg Commodity Index TR USD + 16.65% FTSE NAREIT All REIT.

PUBLIC REAL ASSETS RISK BUDGETING – PROPOSED BENCHMARK

Portfolio	Current Allocation (%)	Expected Excess Return (%)	Tracking Error (%)	Strategy Benchmark	Excess Risk Contribution (%)	Unconstrained	Mix J Recommended
DFA - US TIPS	65.62%	0.30%	2.74%	Bloomberg Barclays US TIPS	17.4%	62.7%	66.7%
CenterSquare - US REITS	11.70%	1.00%	10.93%	FTSE NAREIT All Equity REIT	-81.7%	17.1%	16.7%
CoreCommodity - Commodities	22.68%	1.00%	10.69%	Bloomberg Commodity Index	164.4%	20.1%	16.7%
Expected Excess Return	0.54%					0.56%	0.53%
Expected Excess Risk	1.94%					0.61%	0.71%
Information Ratio	0.28					0.92	0.75



Benchmark for Public Real Assets is 66.7% BBgBarc US TIPS TR + 16.65% Bloomberg Commodity Index TR USD + 16.65% FTSE NAREIT All REIT. Mix J represents the public real assets as modeled in the asset liability study.

IMPLEMENTATION PLAN

NEW TARGET AND SUGGESTED RANGES

As of 7/6/2018	CURRENT		MIX J TARGET		Minimum	Maximum
US EQUITIES	4,652,988,471	27.34%	3,233,746,347	19.00%	12.00%	26.00%
NON-US EQUITIES	5,204,701,438	30.58%	4,595,323,756	27.00%	18.00%	36.00%
FIXED INCOME						
TOTAL CORE BOND	2,974,213,015	17.48%	2,340,211,172	13.75%	10.75%	16.75%
TOTAL CREDIT OPPS	781,057,130	4.59%	2,084,915,408	12.25%	8.25%	16.25%
REAL ASSETS						
REAL ASSETS - LIQUID	783,248,678	4.60%	1,021,183,057	6.00%	4.00%	8.00%
REAL ESTATE	795,426,962	4.67%	1,191,380,233	7.00%		
PRIVATE EQUITY	1,744,776,145	10.25%	2,382,760,466	14.00%		
CASH	83,279,411	0.49%	170,197,176	1.00%	0.00%	2.00%
TOTAL PLAN	17,019,717,615	100.00%	17,019,717,615	100.00%		

NEW TARGET – PRIVATE MARKETS ADJUSTED

As of 7/6/2018	CURRENT		MIX J TARGET		ADJUSTMENT FOR PRIVATE EQUITY	ADJUSTMENT FOR PRIVATE DEBT	ADJUSTMENT FOR PRIVATE REAL ESTATE	New Target	DIFFERENCE
US EQUITIES									
TOTAL LARGE CAP	**3,685,786,259**	**21.66%**	**2,382,760,466**	**14.00%**	**194,169,141**		**74,657,856**	**15.58%**	**(1,034,198,795)**
TOTAL SMALL CAP	**967,202,212**	**5.68%**	**850,985,881**	**5.00%**	**69,346,122**		**26,663,520**	**5.56%**	**(20,206,689)**
NON-US EQUITIES									
TOTAL NON-US	**3,511,928,200**	**20.63%**	**2,893,351,995**	**17.00%**	**235,776,814**		**90,655,968**	**18.92%**	**(292,143,423)**
TOTAL NON-US SMALL CAP	**539,646,594**	**3.17%**	**510,591,528**	**3.00%**	**41,607,673**		**15,998,112**	**3.34%**	**28,550,719**
									-
TOTAL EMERGING MARKET	**1,153,126,645**	**6.78%**	**1,191,380,233**	**7.00%**	**97,084,571**		**37,328,928**	**7.79%**	**172,667,087**
FIXED INCOME									
TOTAL CORE BOND	**2,974,213,015**	**17.48%**	**2,340,211,172**	**13.75%**	**-**	**638,239,411**	**73,324,680**	**17.93%**	**77,562,248**
CREDIT OPPS									
High Yield	386,212,580	2.27%	340,394,352	2.00%			**10,665,408**	**2.06%**	**(35,152,820)**
EMD	299,238,759	1.76%	765,887,293	4.50%			**23,997,168**	**4.64%**	**490,645,701**
Bank Loans	95,605,790	0.56%	340,394,352	2.00%			**10,665,408**	**2.06%**	**255,453,970**
PRIVATE DEBT - new	-	0.00%	638,239,411	3.75%		(638,239,411)			-
TOTAL CREDIT OPPS	**781,057,130**	**4.59%**	**2,084,915,408**	**12.25%**				**8.77%**	**710,946,851**
REAL ASSETS									
REAL ASSETS - LIQUID	783,248,678	4.60%	1,021,183,057	6.00%			**31,996,224**	**6.19%**	**269,930,603**
REAL ESTATE	795,426,962	4.67%	1,191,380,233	7.00%			(395,953,271)	**4.67%**	-
TOTAL REAL ASSETS	**1,578,675,640**	**9.28%**	**2,212,563,290**	**13.00%**				**10.86%**	**269,930,603**
PRIVATE EQUITY	**1,744,776,145**	**10.25%**	**2,382,760,466**	**14.00%**	**(637,984,322)**			**10.25%**	**-**
CASH	**83,279,411**	**0.49%**	**170,197,176**	**1.00%**				**1.00%**	**86,917,766**
Aegon liquidation account	**26,367**								
TOTAL PLAN	17,019,717,615		17,019,717,615	100.00%					

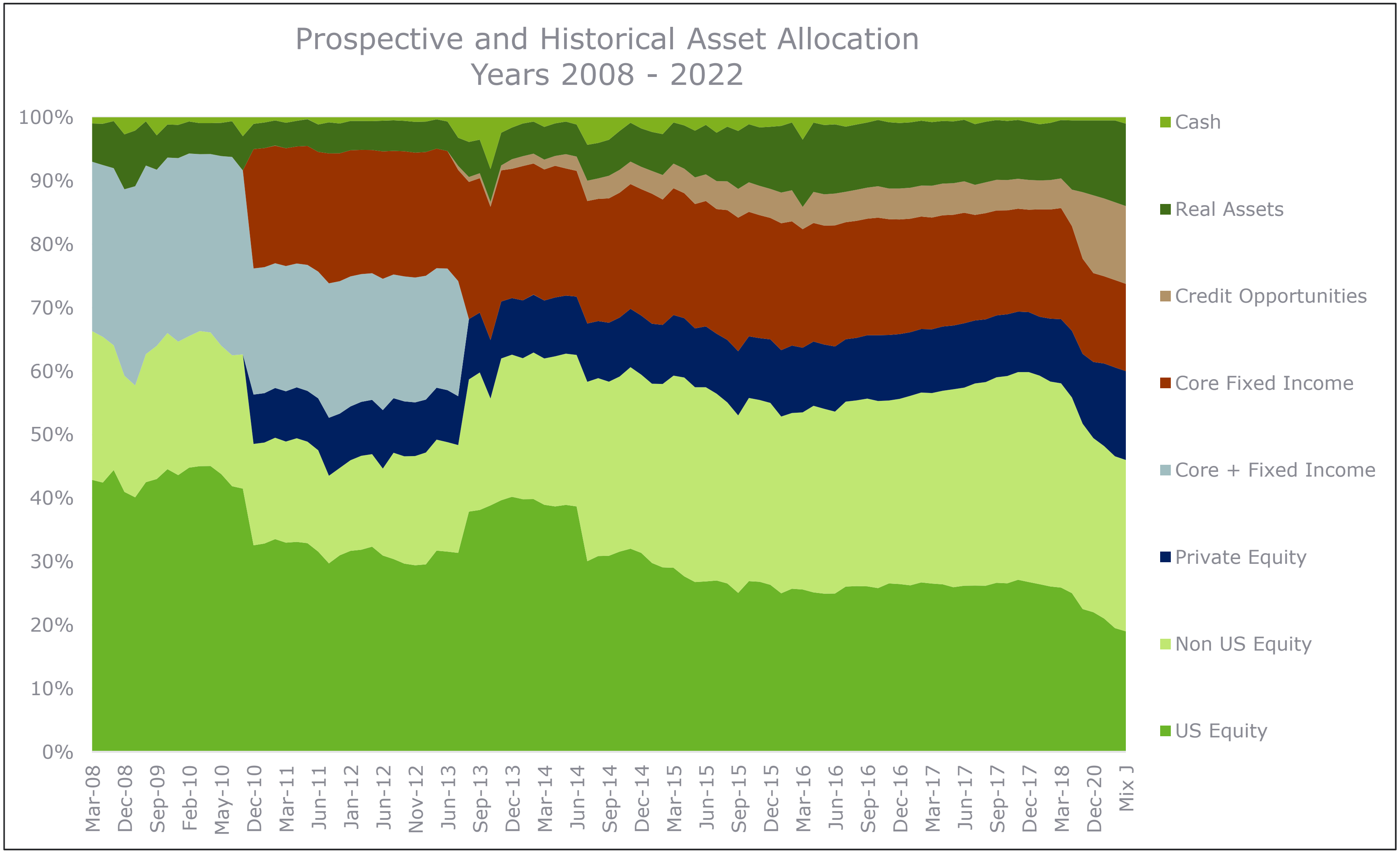
- **Additional private equity allocation temporarily held in equity**
- **New allocation to private debt temporarily held in core bonds**
- **Additional real estate allocation temporarily held in equity, core bonds, credit opportunities, and liquid real assets**

PROPOSED TIMELINE

	2018					2019							
	August	September	October	November	December	January	February	March	April	May	June	July	August
Total Plan													
Risk budget and Implementation													
Update Investment Policy Statement													
Fixed Income													
Fixed Income Asset Class review													
Fixed Income RFP Search Authorization													
Private Credit RFP													
High Yield RFP													
EMD RFP													
Core bond RFP													
US Equity													
Domestic Equity Asset Class Review													
US Small Cap RFP Search Authorization													
Small cap emerging manager RFP													
Small cap manager RFP													
Real Assets - Liquid													
Real assets asset class review													
Non-US Equity													
Asset Class Review													
Non-US Equity RFP Search Authorization													
Emerging Market Small Cap RFP													

- **Start with fixed income asset class and small cap emerging manager searches**
- **Estimate six months per search: Board authorization, proposal analysis, Investment Committee review, due diligence, finalist interviews, Board selection and contract negotiation**

ASSET ALLOCATION

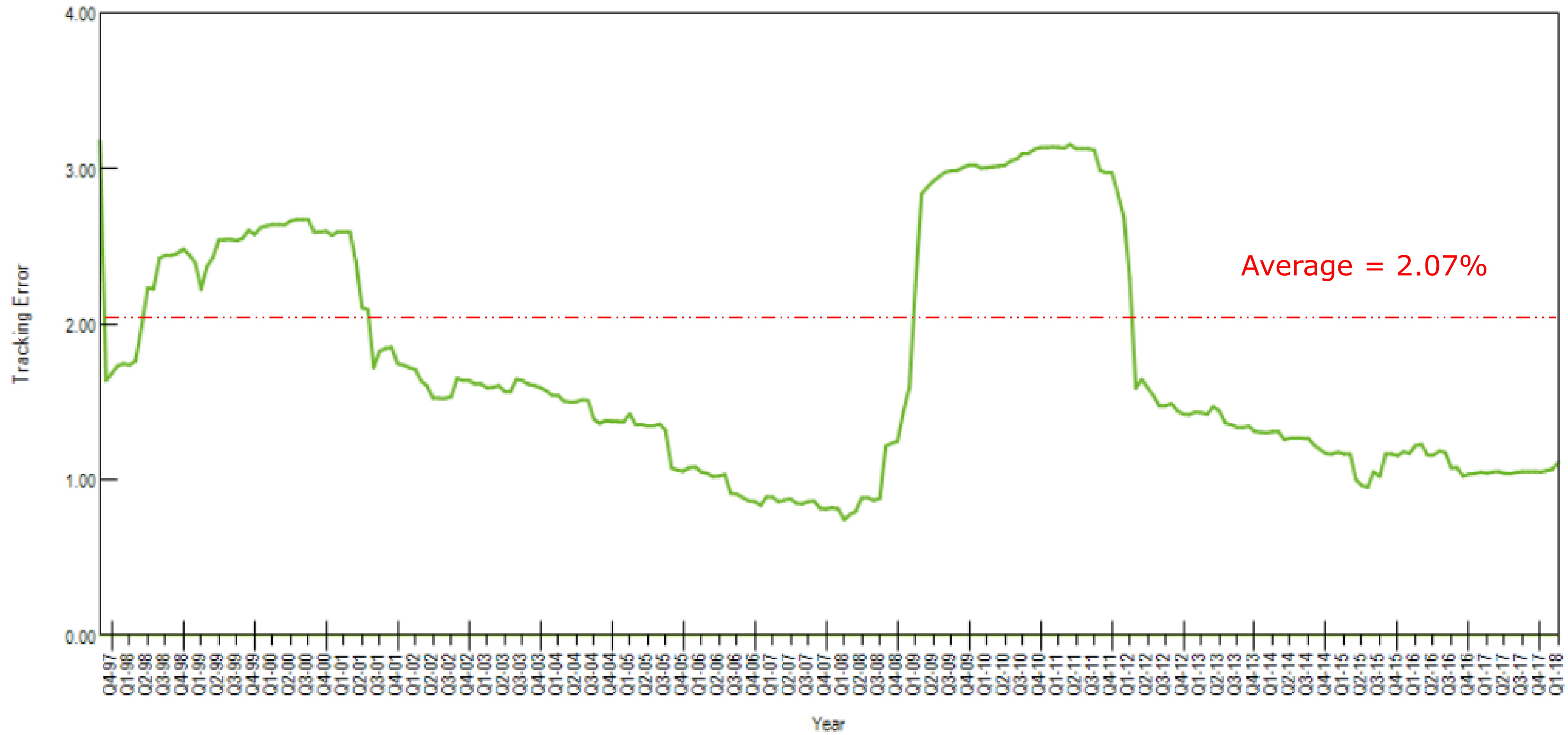


APPENDIX

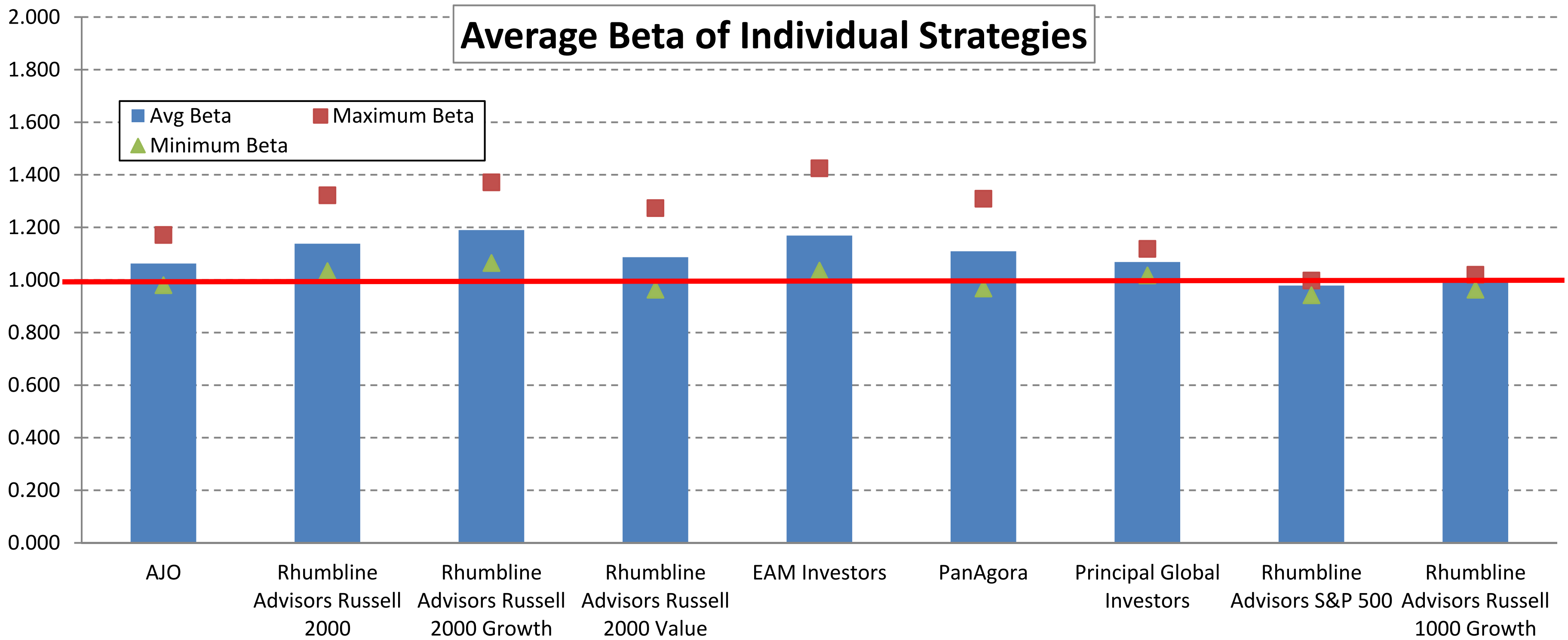
TOTAL FUND TRACKING ERROR

	5 Yr Tracking Error	10 Yr Tracking Error	20 Yr Tracking Error	Since Nov 1994 Tracking Error
Total Fund	1.08%	1.95%	1.84%	2.07%

Rolling 3 Year Tracking Error



DOMESTIC EQUITY



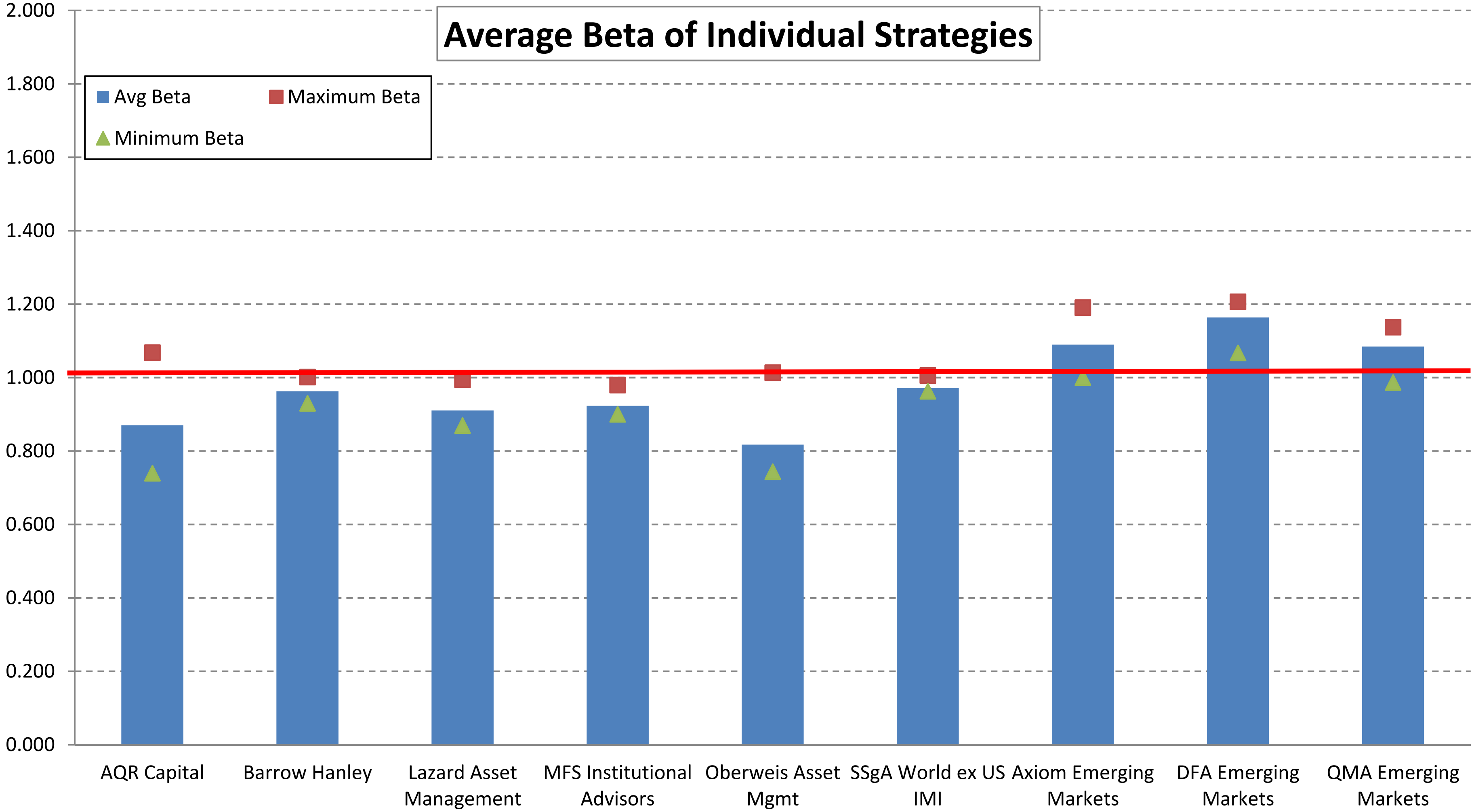
Benchmark for Domestic Equities is the Russell 3000 index.

DOMESTIC EQUITY RISK BUDGETING

Unconstrained optimal information ratio portfolio at a given risk budget. Consider constraints on style, size, investment beliefs and persistence of style, size and other factors in alpha generation.

	Current Portfolio	Portfolio 2	Portfolio 3	Portfolio 4	Portfolio 5	Portfolio 6	Portfolio 7	Portfolio 8	Portfolio 9	Portfolio 10
AJO	4.13%	2%	4%	5%	6%	8%	9%	11%	12%	14%
Rhumbline Advisors Russell 2000	5.85%	11%	0%	0%	0%	0%	0%	0%	0%	0%
Rhumbline Advisors Russell 2000 Growth	3.02%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Rhumbline Advisors Russell 2000 Value	2.37%	0%	0%	0%	0%	0%	0%	0%	0%	0%
EAM Investors	2.54%	0%	2%	0%	0%	0%	0%	0%	0%	0%
PanAgora	2.71%	1%	10%	12%	14%	15%	17%	18%	19%	20%
Principal Global Investors	3.34%	6%	13%	17%	21%	25%	28%	32%	35%	38%
Rhumbline Advisors S&P 500	71.81%	75%	64%	52%	44%	36%	29%	22%	14%	7%
Rhumbline Advisors Russell 1000 Growth	4.23%	6%	8%	13%	14%	16%	17%	18%	19%	20%
Exp Excess RoR	0.12%	0.06%	0.28%	0.34%	0.40%	0.45%	0.51%	0.56%	0.61%	0.66%
Exp Excess Risk	0.61%	0.26%	0.50%	0.75%	1.00%	1.25%	1.50%	1.75%	2.00%	2.25%
Info Ratio	0.20	0.22	0.57	0.46	0.40	0.36	0.34	0.32	0.30	0.29

NON-U.S. EQUITY



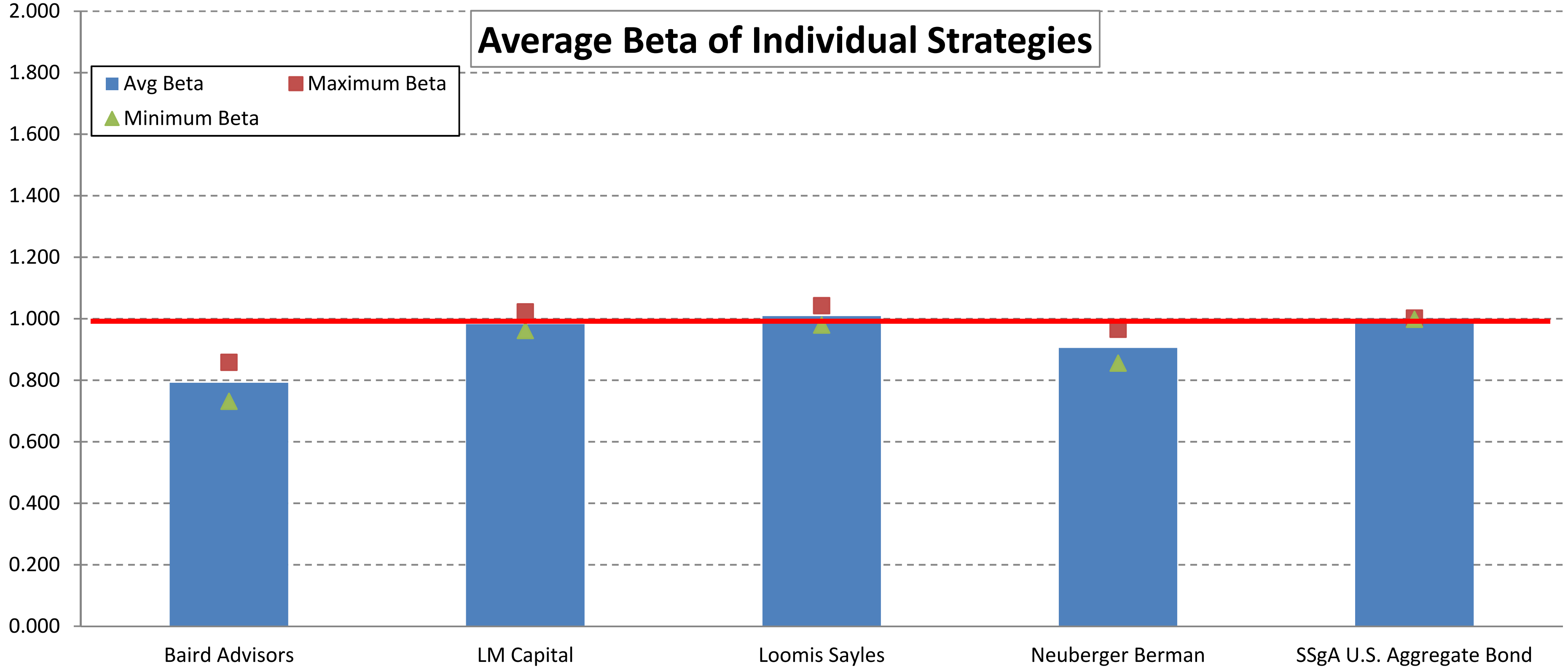
Benchmark for total Non-US Equities is the MSCI ACWI ex US index.

NON-U.S. EQUITY RISK BUDGETING

Unconstrained optimal information ratio portfolio at a given risk budget. Consider constraints on style, size, investment beliefs and persistence of style, size and other factors in alpha generation.

	Current Portfolio	Portfolio 1	Portfolio 2	Portfolio 3	Portfolio 4	Portfolio 5	Portfolio 6	Portfolio 7	Portfolio 8	Portfolio 9	Portfolio 10
AQR Capital	7.10%	8%	12%	19%	23%	26%	29%	32%	34%	36%	38%
Barrow Hanley	10.10%	27%	34%	33%	30%	28%	26%	24%	22%	18%	13%
Lazard Asset Management	11.00%	6%	6%	0%	0%	0%	0%	0%	0%	0%	0%
MFS Institutional Advisors	10.40%	19%	23%	19%	14%	10%	7%	3%	0%	0%	0%
Oberweis Asset Mgmt	3.10%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
SSgA World ex US IMI	35.10%	17%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Axiom Emerging Markets	7.40%	0%	0%	2%	7%	10%	14%	17%	20%	23%	26%
DFA Emerging Markets	7.40%	8%	8%	6%	5%	4%	2%	2%	2%	2%	2%
QMA Emerging Markets	8.40%	16%	16%	21%	21%	21%	22%	22%	21%	21%	21%
Exp Excess RoR	0.36%	0.56%	0.79%	0.89%	0.94%	0.99%	1.03%	1.07%	1.10%	1.14%	1.18%
Exp Excess Risk	1.07%	1.00%	1.25%	1.50%	1.75%	2.00%	2.25%	2.50%	2.75%	3.00%	3.25%
Info Ratio	0.34	0.56	0.64	0.59	0.54	0.49	0.46	0.43	0.40	0.38	0.36

CORE FIXED INCOME



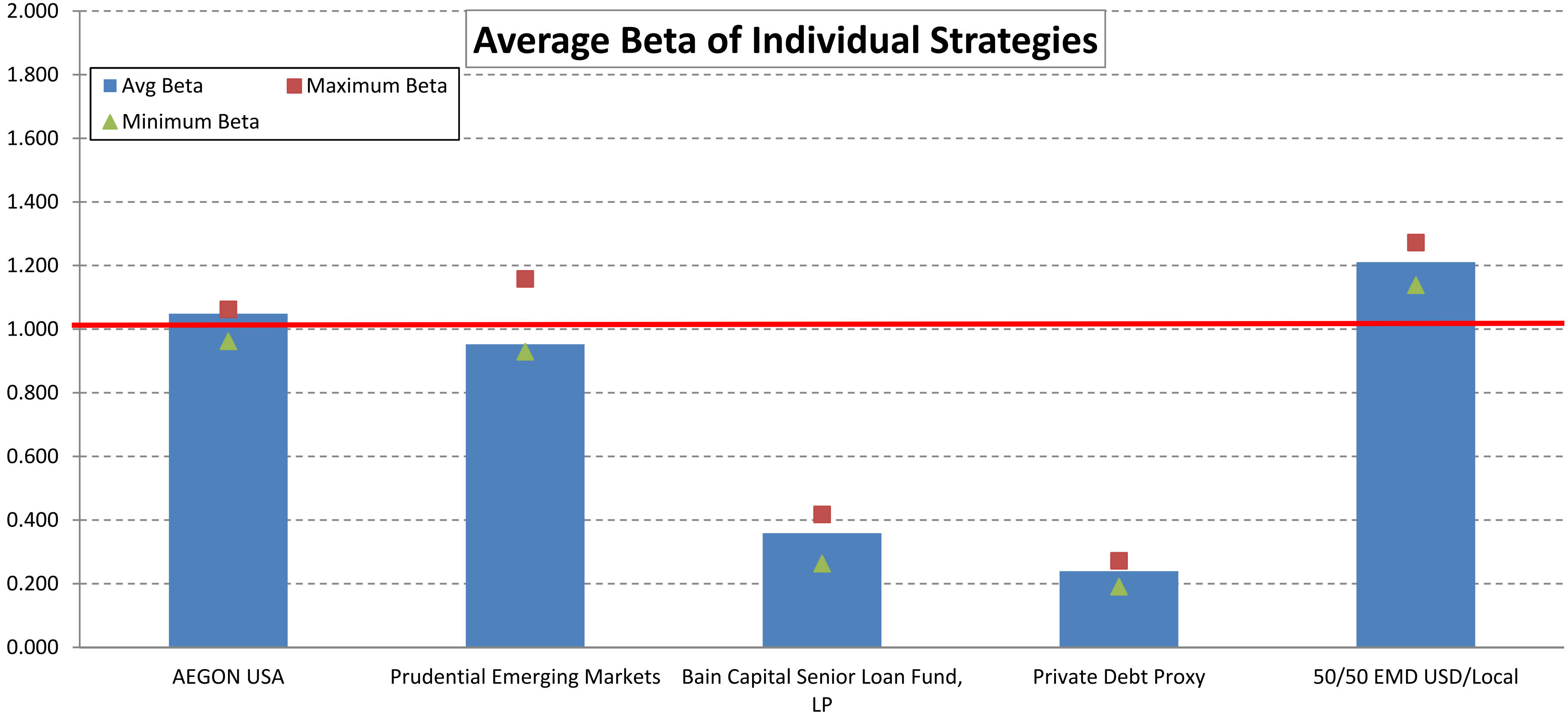
Benchmark and relative index (for Beta) the Bloomberg Barclays US Aggregate Bond Index.

CORE FIXED INCOME RISK BUDGETING

Unconstrained optimal information ratio portfolio at a given risk budget. Consider constraints on style, size, investment beliefs and persistence of style, size and other factors in alpha generation.

	Current Portfolio	Portfolio 1	Portfolio 2	Portfolio 3	Portfolio 4	Portfolio 5	Portfolio 6	Portfolio 7	Portfolio 8	Portfolio 9	Portfolio 10
Baird Advisors	7%	14%	17%	20%	22%	25%	26%	25%	25%	23%	16%
LM Capital	9%	27%	33%	39%	44%	50%	45%	33%	15%	0%	0%
Loomis Sayles	25%	1%	2%	2%	3%	3%	7%	11%	18%	24%	29%
Neuberger Berman	25%	10%	12%	13%	15%	17%	23%	31%	43%	53%	55%
SSgA U.S. Aggregate Bond	35%	47%	37%	26%	16%	5%	0%	0%	0%	0%	0%
Exp Excess RoR	0.16%	0.15%	0.18%	0.21%	0.24%	0.27%	0.29%	0.31%	0.34%	0.36%	0.38%
Exp Excess Risk	0.97%	0.50%	0.60%	0.70%	0.80%	0.90%	1.00%	1.10%	1.30%	1.50%	1.60%
Info Ratio	0.17	0.30	0.30	0.30	0.30	0.30	0.29	0.28	0.26	0.24	0.24

CREDIT OPPORTUNITIES – CURRENT BENCHMARK



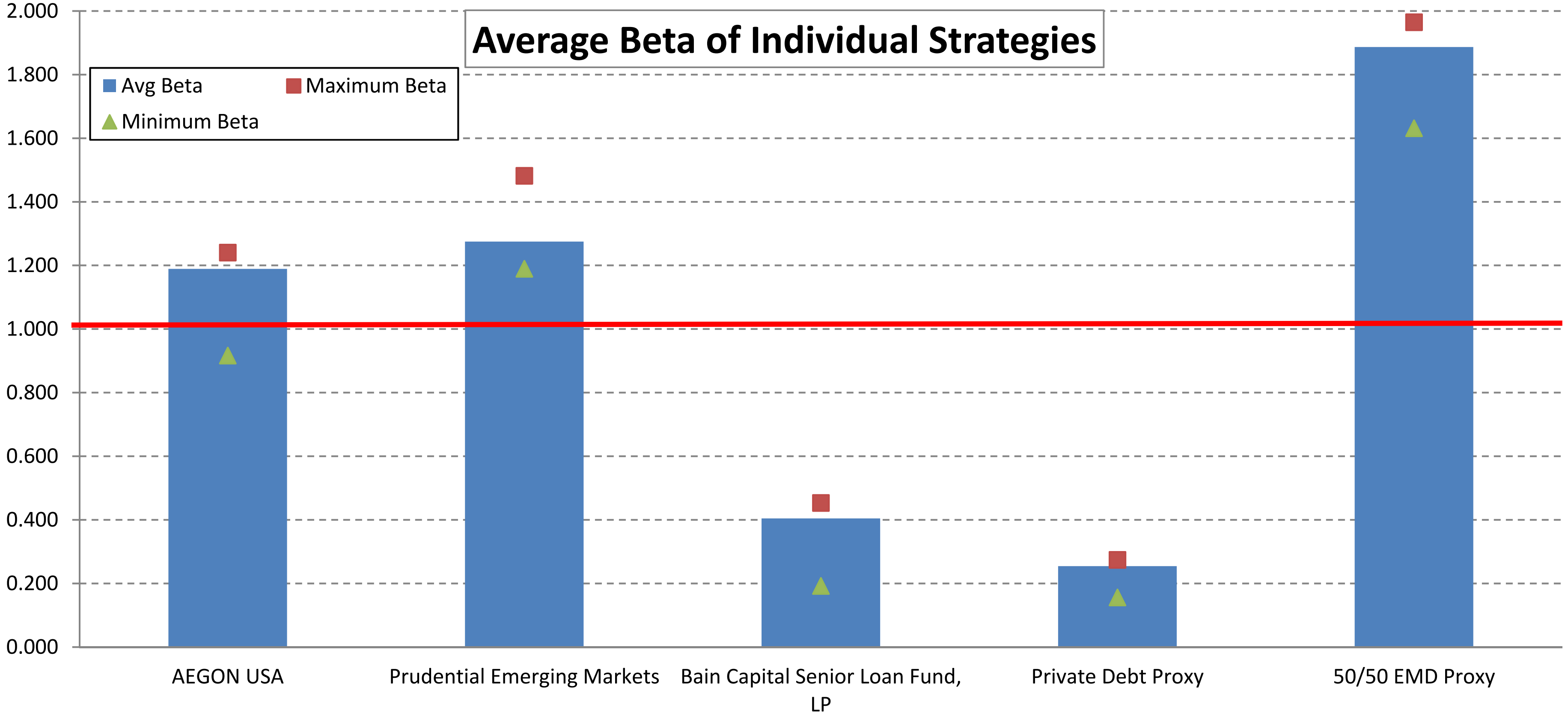
Benchmark for Credit Opportunities is 65% Bloomberg Barclays US High Yield 2% Capped index + 35% JPMorgan EMBI-GD index.

CREDIT OPPORTUNITIES RISK BUDGETING – CURRENT BENCHMARK

Unconstrained optimal information ratio portfolio at a given risk budget. Consider constraints on style, size, investment beliefs and persistence of style, size and other factors in alpha generation.

	Current Portfolio	Portfolio 1	Portfolio 2	Portfolio 3	Portfolio 4	Portfolio 5	Portfolio 6	Portfolio 7	Portfolio 8	Portfolio 9	Portfolio 10
AEGON USA	49.30%	45%	21%	5%	0%	0%	0%	0%	0%	0%	0%
Prudential Emerging Markets	11.90%	37%	45%	49%	44%	37%	31%	26%	21%	16%	11%
Bain Capital Senior Loan Fund, LP	38.80%	19%	34%	46%	56%	63%	69%	74%	79%	84%	89%
Private Debt Proxy	0.00%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
50/50 EMD USD/Local	0.00%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Exp Excess RoR	0.30%	0.25%	0.31%	0.36%	0.39%	0.41%	0.42%	0.44%	0.45%	0.46%	0.47%
Exp Excess Risk	1.87%	1.00%	1.25%	1.50%	1.75%	2.00%	2.25%	2.50%	2.75%	3.00%	3.25%
Info Ratio	0.16	0.25	0.25	0.24	0.22	0.20	0.19	0.17	0.16	0.15	0.15

CREDIT OPPORTUNITIES – PROPOSED BENCHMARK

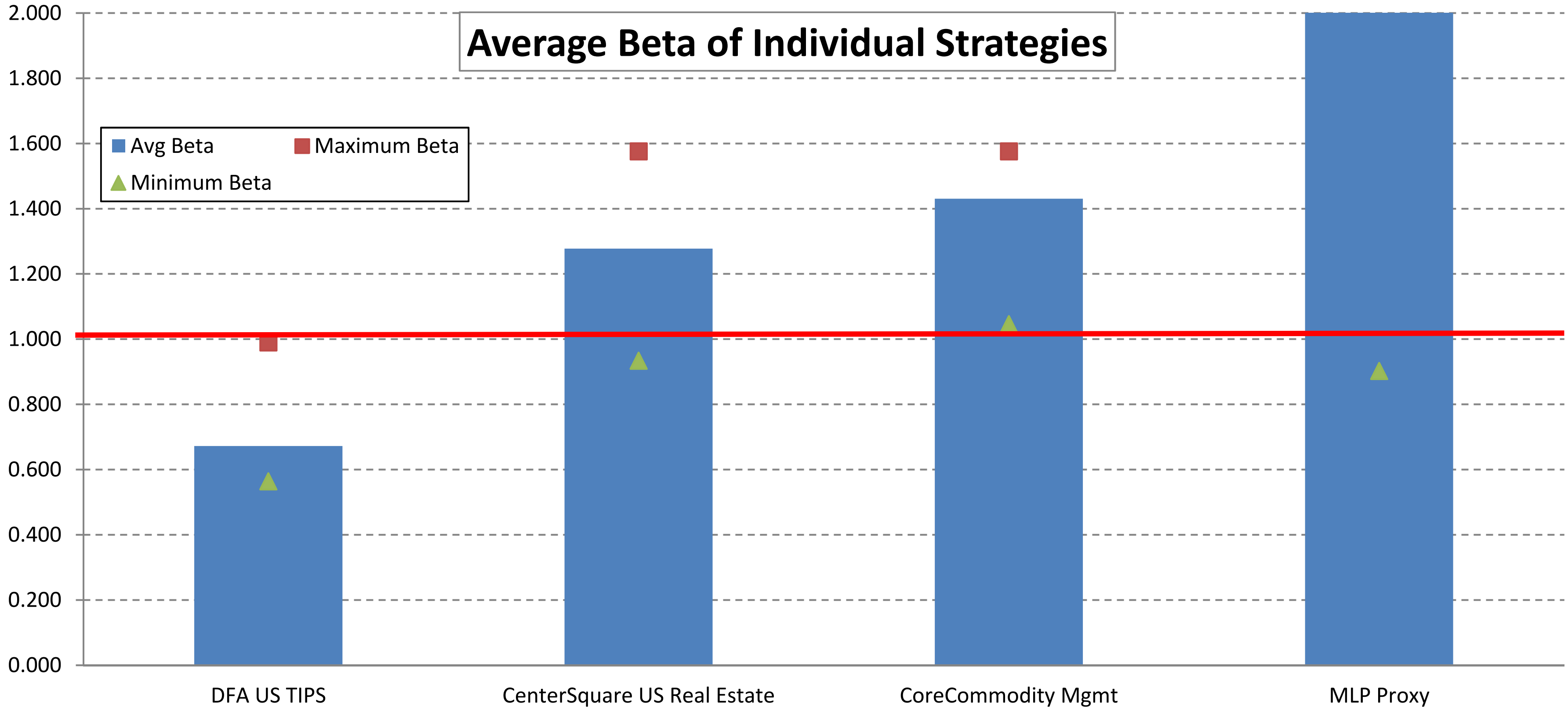


Benchmark for Credit Opportunities is 15% Bloomberg Barclays US High Yield 2% Capped index + 45% Credit Suisse Leverage Loan Index + 20% JPMorgan EMBI-GD index+ 20% JPMorgan GBI-EMGD Index.

CREDIT OPPORTUNITIES RISK BUDGETING – PROPOSED BENCHMARK

	Portfolio 1	Portfolio 2	Portfolio 3	Portfolio 4	Portfolio 5	Portfolio 6	Portfolio 7	Portfolio 8	Portfolio 9	Portfolio 10
AEGON USA	3%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Prudential Emerging Markets	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Bain Capital Senior Loan Fund, LP	35%	27%	19%	11%	3%	0%	0%	0%	0%	0%
Private Debt Proxy	20%	31%	39%	47%	55%	63%	68%	73%	77%	81%
50/50 EMD USD/Local	42%	42%	42%	42%	42%	37%	32%	27%	23%	19%
Exp Excess RoR	0.74%	0.85%	0.94%	1.02%	1.09%	1.16%	1.21%	1.26%	1.29%	1.33%
Exp Excess Risk	0.75%	1.00%	1.25%	1.50%	1.75%	2.00%	2.25%	2.50%	2.75%	3.00%
Info Ratio	0.98	0.85	0.75	0.68	0.63	0.58	0.54	0.50	0.47	0.44

PUBLIC REAL ASSETS RISK BUDGETING – CURRENT BENCHMARK



Benchmark for Public Real Assets is BBgBarc US TIPS TR / 20% Bloomberg Commodity Index TR USD / 10% Alerian MLP TR USD / 10% FTSE NAREIT All REIT%.

PUBLIC REAL ASSETS RISK BUDGETING – CURRENT BENCHMARK

Unconstrained optimal information ratio portfolio at a given risk budget. Consider constraints on style, size, investment beliefs and persistence of style, size and other factors in alpha generation.

	Current Portfolio	Portfolio 1	Portfolio 2	Portfolio 3	Portfolio 4	Portfolio 5	Portfolio 6	Portfolio 7	Portfolio 8	Portfolio 9	Portfolio 10
DFA US TIPS	65.62%	17%	11%	8%	5%	1%	0%	0%	0%	0%	0%
CenterSquare US Real Estate	11.70%	28%	32%	33%	35%	36%	36%	35%	34%	33%	33%
CoreCommodity Mgmt	22.68%	33%	38%	39%	40%	42%	41%	38%	36%	34%	33%
MLP Proxy	0.00%	22%	19%	20%	20%	21%	23%	27%	30%	32%	35%
Exp Excess RoR	0.54%	0.99%	1.02%	1.04%	1.07%	1.09%	1.12%	1.13%	1.15%	1.16%	1.17%
Exp Excess Risk	1.94%	2.75%	3.00%	3.25%	3.50%	3.75%	4.00%	4.25%	4.50%	4.75%	5.00%
Info Ratio	0.28	0.36	0.34	0.32	0.31	0.29	0.28	0.27	0.26	0.24	0.23

GLOSSARY OF INVESTMENT TERMINOLOGY

Information Ratio - A measure of the risk adjusted return of a financial security, asset, or portfolio. Broadly used a measure of manager skill. Computed using excess returns and tracking error.

Tracking Error - Tracking error, also known as active risk or excess risk, is a measure of the variability of an asset's excess returns versus its benchmark and is expressed in standard deviation terms. Tracking error is computed as the annualized standard deviation of the difference between a portfolio's return and that of its benchmark.

Expected Excess Return – the return of an asset that is expected to occur in the future above its benchmark.

Excess Risk Contribution – the amount a segment contributes to tracking error (excess risk) often expressed in percentage terms. Computed by taking the marginal contribution to risk of a portfolio within a multi-asset portfolio and multiplying by the weight of the portfolio.

Marginal Contribution to Active Risk (multi-asset portfolio) – the change in tracking error (excess risk) associated with adding or taking away one unit of the asset. Computed by the matrix multiplication of portfolio weights and variance-covariance matrix of a multi-asset portfolio's excess returns.

Beta –a measure of sensitivity (volatility) to the market as a whole. Beta represents the tendency of a security's returns to respond to movement in a chosen market. A security's beta is calculated by dividing the covariance the asset's returns and the benchmark's returns by the variance of the benchmark's returns over a specified period.

Alpha –the active return on an investment versus a market index or benchmark.

Constraint (portfolio or asset class weights in asset allocation) – a limit put on an asset (portfolio or asset class). A limit may be a minimum, maximum or a range (for example, greater than "Y%" but less than "X%") of weights ascribed to a particular asset or assets.

TOWNSEND® GROUP
an Aon company

Real Estate Portfolio

Performance Review

FOURTH QUARTER 2017

LACERS
LOS ANGELES CITY EMPLOYEES' RETIREMENT SYSTEM

Portfolio Funding Status

TOWNSEND® GROUP
an Aon company

- 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, 2017. A detailed performance report is also provided as **Exhibit A.**
- The System is above its 5.0% target to Real Estate as of year-end.

	Market Value ($ millions)*	% LACERS Plan*
LACERS Total Plan Assets	17,237	
Real Estate Target	862	5.0%
RE Market Value:		
Core	530	
Non-Core	264	
Timber	21	
Total RE Market Value	814	4.7%
Unfunded Commitments	117	0.7%
RE Market Value & Unfunded Commitments	931	5.4%
Remaining Allocation	(70)	(0.4%)

*Figures may not add due to rounding.

Real Estate Portfolio Composition

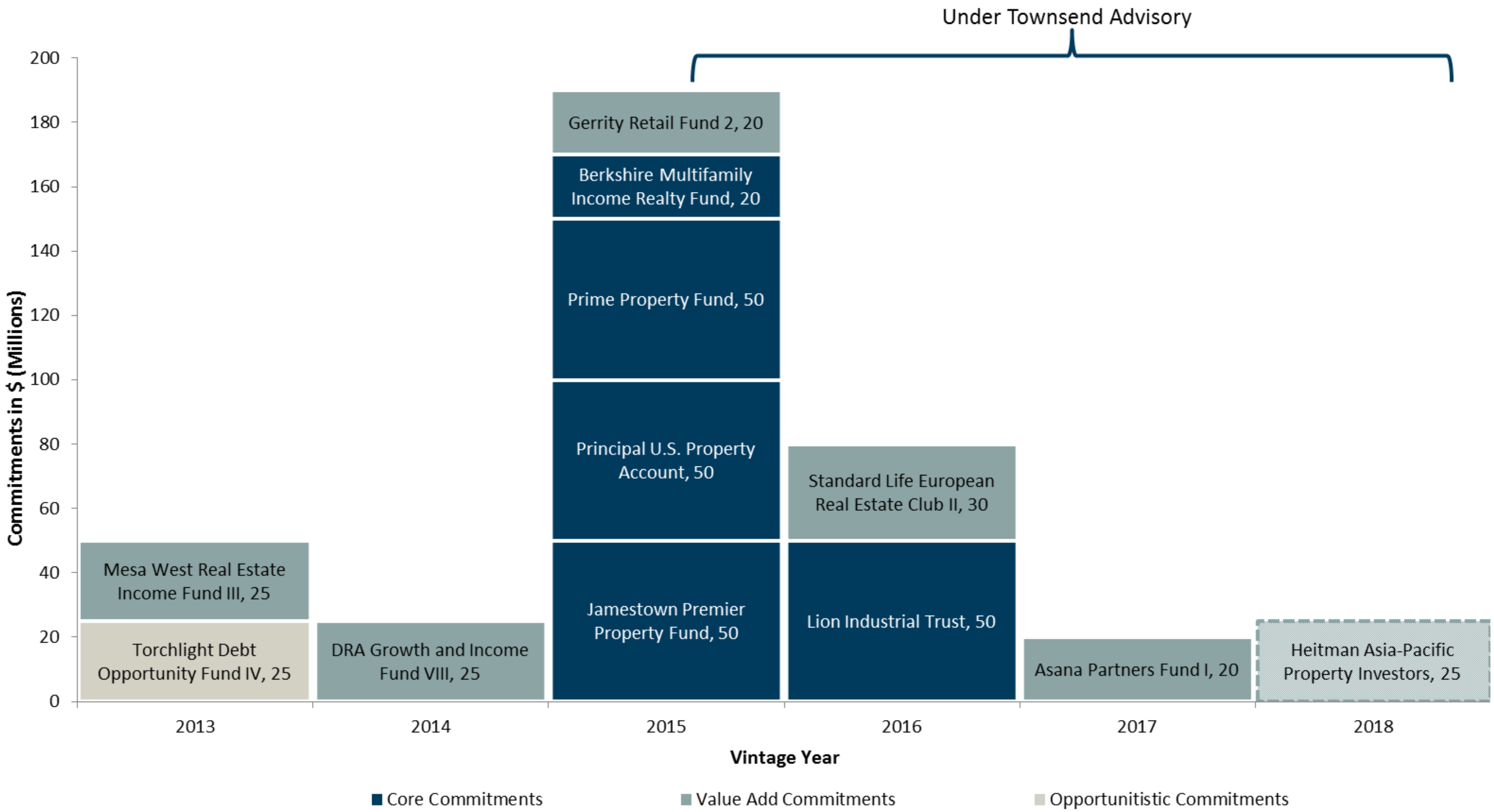
TOWNSEND® GROUP
an Aon company

	Strategic Targets		*Portfolio Composition (12/31/2017)**	
	Target Allocation	**Tactical Range**	**Market Value**	**Market Value & Unfunded Commitments**
Core	**60%**	**40% - 80%**	**65.1%**	**56.9%**
Non-Core	**40%**	**20% - 60%**	**32.4%**	**40.9%**
Value Add Portfolio	*N/A*	*N/A*	*14.7%*	*21.8%*
Opportunistic Portfolio	*N/A*	*N/A*	*17.6%*	*19.1%*
Timber	**N/A**	**N/A**	**2.6%**	**2.2%**

- 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 that time, and in an effort to transition the Portfolio, the LACERS Board has approved $220 million in Core commitments, which have all been funded to date.
- The LACERS Board approved $95 million in Non-Core investments since 2014. 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 in line with the strategic targets.
- The Core Portfolio utilizes 26.6% leverage, measured on a loan-to-value (LTV) basis, well below the 40.0% constraint.
- The Non-Core Portfolio has a 46.0% LTV ratio, well below the 75.0% constraint.

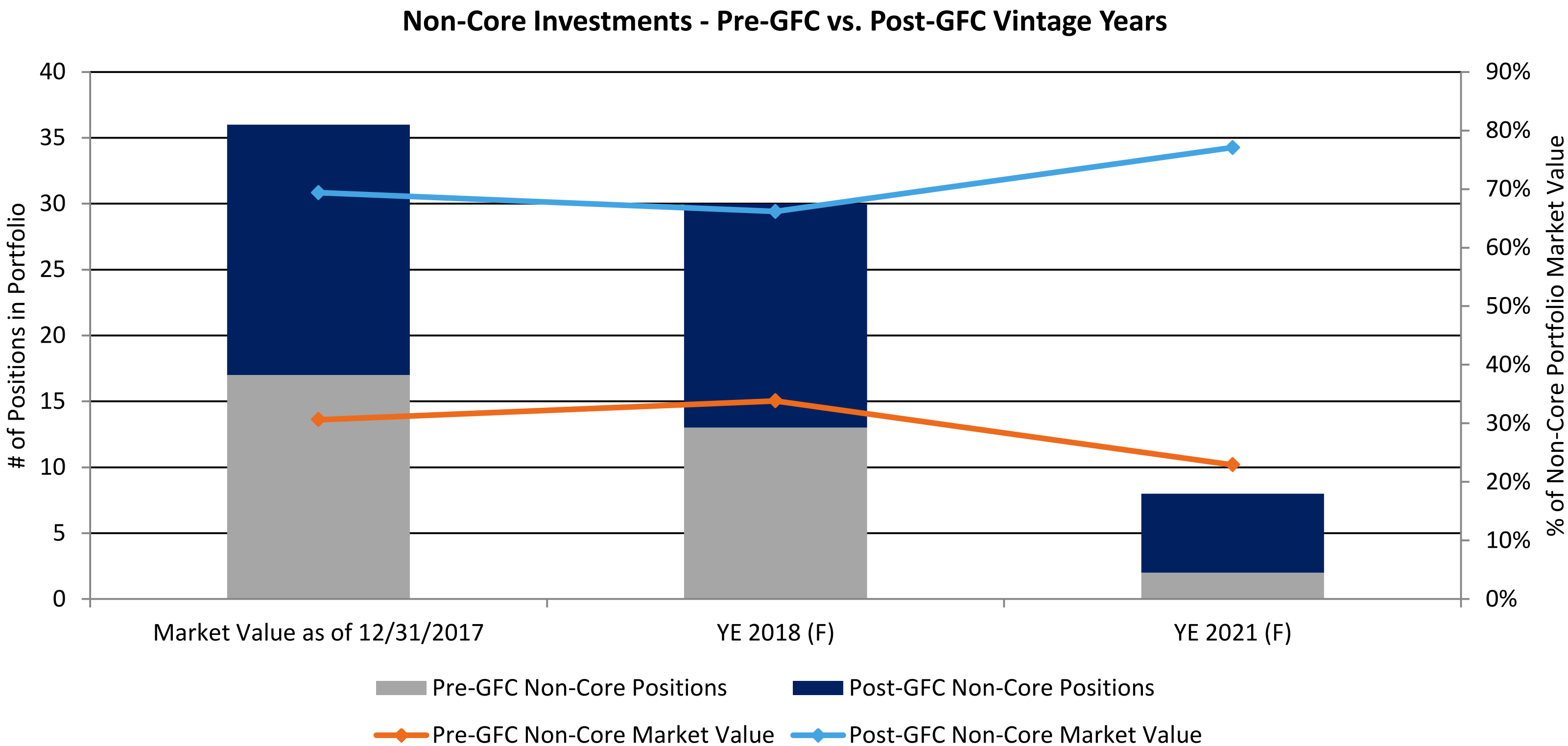
*Figures may not add due to rounding.

LACERS Commitment Activity – Last Five Years



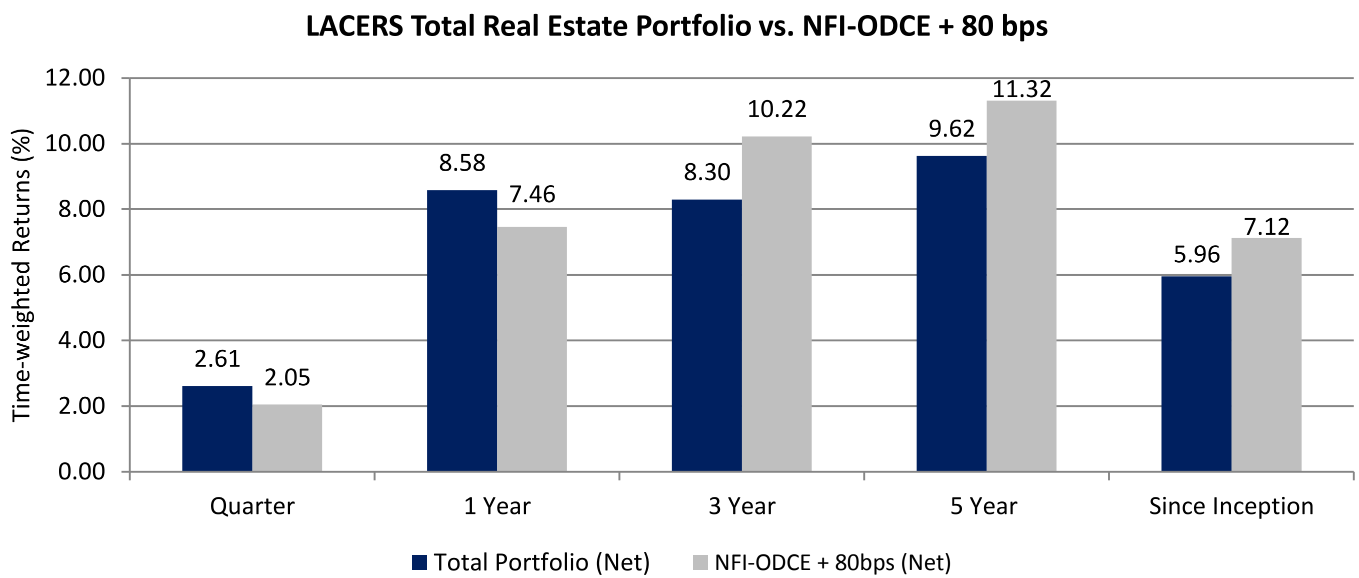
- LACERS has committed $390 million since 2013, of which $315 million (~80%) have been Townsend-initiated activities since 2015.
- 42% of Non-Core commitments since 2015 (Gerrity and Asana) met LACERS Emerging Manager guidelines.
- In the Core OECF space, there are currently no managers meeting these guidelines.
- Vintage year classifications are based on LACERS' first capital call (or expected capital call), though commitments may have been approved in prior years.
- Heitman Asia-Pacific Property Investors was approved in 2017, but had not called any capital as of December 31, 2017.

Projected Non-Core Liquidations



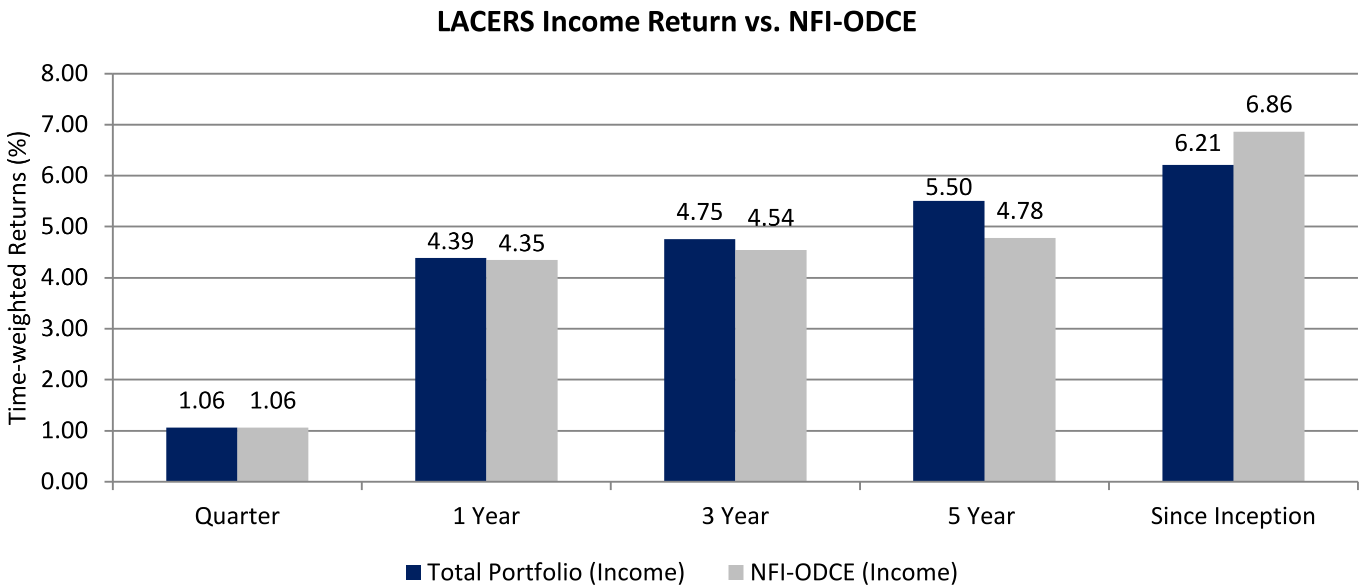
- 6 out of 36 Non-Core funds are projected to liquidate through year-end 2018, and 28 through year-end 2021.
- The number of Pre-Global Financial Crisis (“Pre-GFC”) Non-Core positions is also projected to decrease significantly over the next few years. Only 13 of the Non-Core investments made before the Global Financial Crisis are projected to remain through year-end 2018 (two through year-end 2021). As of 12/31/17, there are still 17 Pre-GFC Non-Core positions in the portfolio.
- The Non-Core Portfolio, which currently consists of 31% Pre-GFC investments on a market value basis, is projected to be made up of mostly Post-GFC investments by year-end 2021 (77% of projected market value).

Total Portfolio Performance



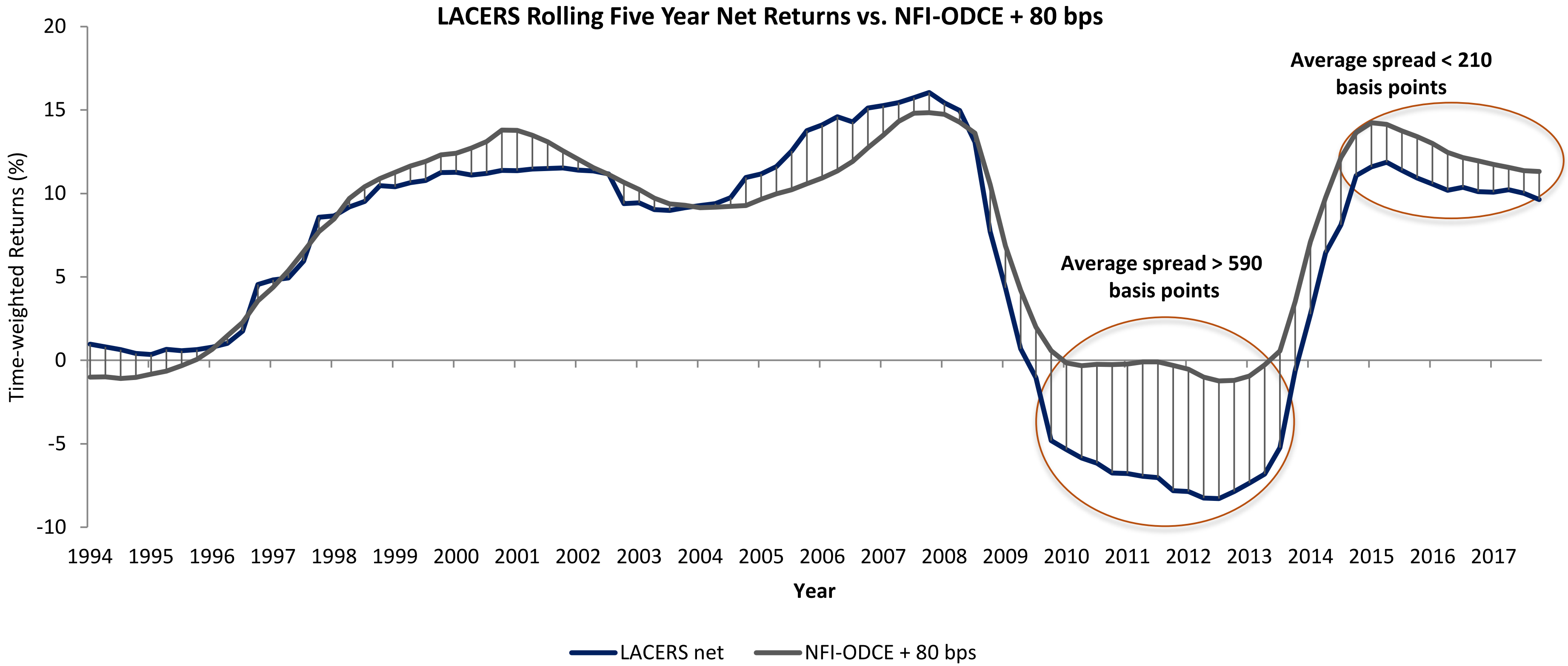
- The benchmark for the LACERS Total Real Estate Portfolio is the NFI-ODCE + 80 basis points ("bps"), measured over five year time periods, net of fees (defined below). LACERS has outperformed this benchmark over the most recent Quarter and the trailing year, but underperformed over the medium and long term, mostly due to weak performance of Non-Core legacy funds. Improving relative performance is driven by recent investment activity.
- 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 stands for the NCREIF Fund Index of Open-End Diversified Core Equity funds. 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 21.3% 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.

Total Portfolio Income Performance



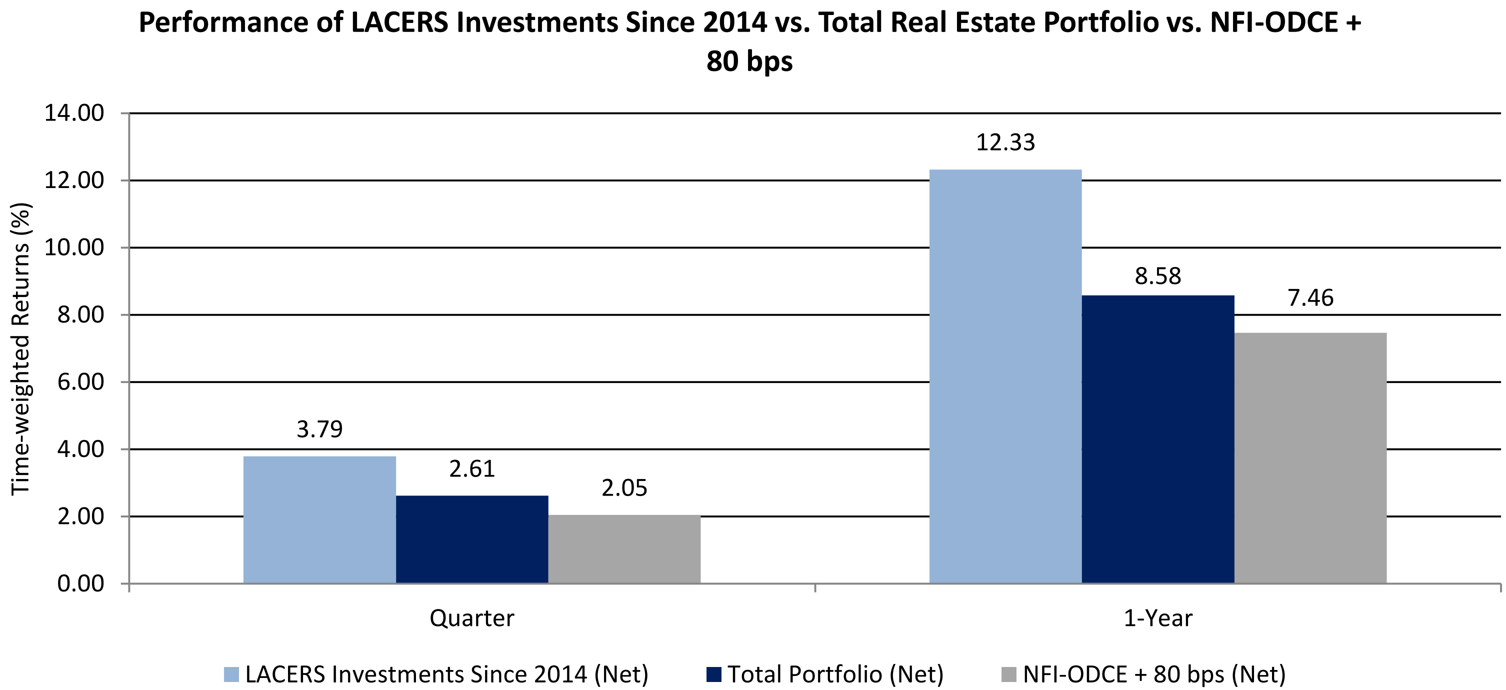
- As outlined in the Real Estate Strategic Plan, a primary objective for real estate is to generate income for the LACERS program.
- Historically, real estate has generated returns comprised primarily of income.
- The income return for the LACERS Portfolio has performed in line with or above the income return of the NFI-ODCE across all time periods with the exception of the Since Inception time period. Recent outperformance on an income basis is attributable to Townsend-advised Core investments made since 2014, which are positioned to achieve a predominant portion of their returns through income.

Improving Relative Total Portfolio Performance



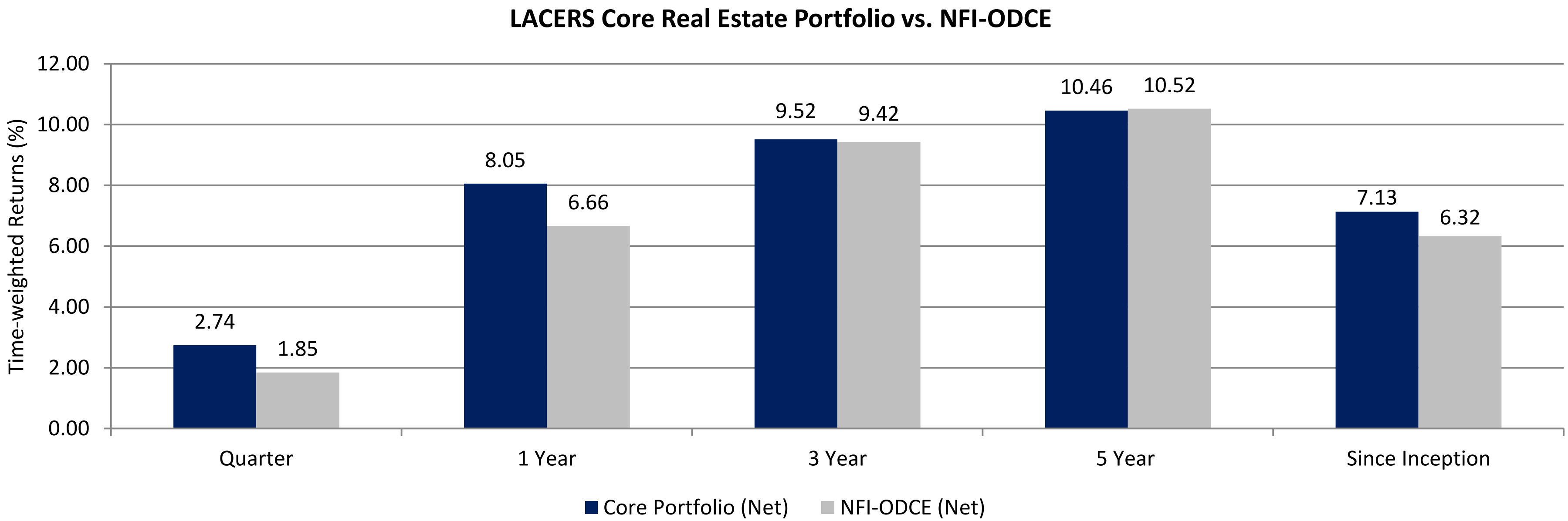
- The chart above displays rolling five-year time-weighted returns for the Total LACERS Portfolio, net of fees, relative to the benchmark.
- While LACERS continues to underperform the benchmark on a rolling five-year basis, performance should improve as accretive investments approved since 2014 continue to fund into the Portfolio and legacy investments fully liquidate. The number of positions in the Portfolio is projected to decline by roughly 10% through year-end 2018.
- 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



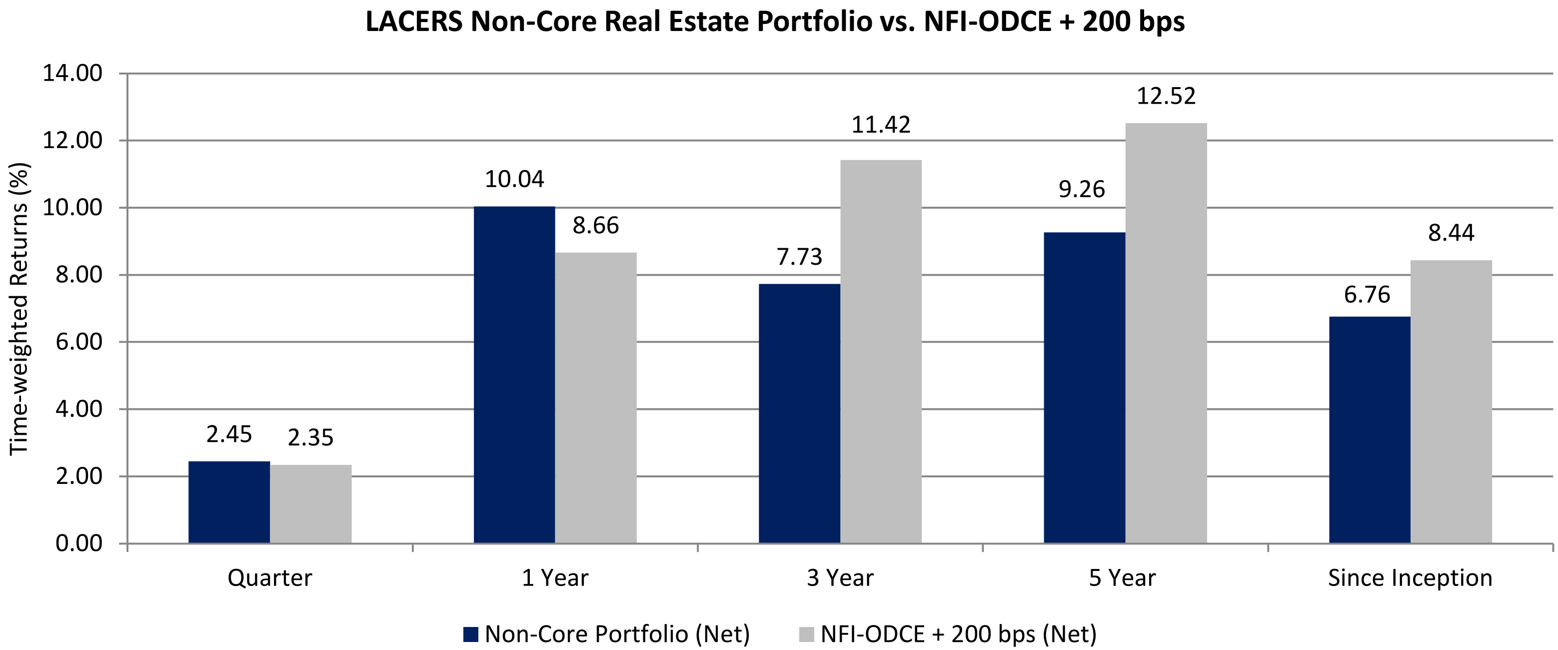
- Since 2014, Townsend has recommended ten investments to LACERS staff and nine (including two emerging managers) ultimately were brought forth for Board recommendation. The first of these investments to call capital was Jamestown Premier Property Fund in 3Q15. Eight of these Townsend-advised investments have called capital to-date and are included in performance figures throughout the report. Core investments include Berkshire, Jamestown, Lion Industrial Trust, Prime, and Principal. Non-Core investments include Gerrity, Standard Life, and Asana, and Heitman Asia.
- Performance of Townsend-advised investments since 2014 exceeds performance of the Total Portfolio and the benchmark over the trailing year and these investments are expected to drive performance going forward.

Relative Performance by Strategy: Core



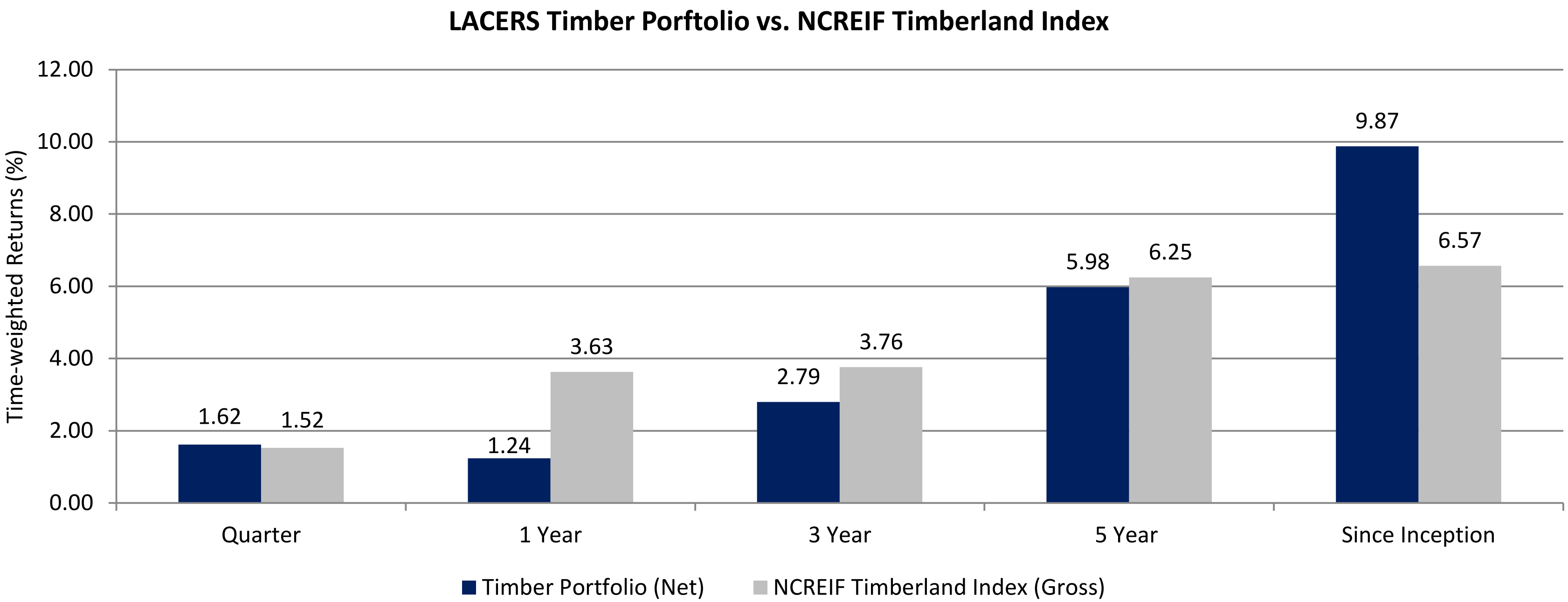
- The LACERS Core benchmark is the NFI-ODCE, measured over five year time periods, net of fees.
- The Core Portfolio outperformed the benchmark across all time periods except for the five-year period (underperformed by 6 basis points).
- Jamestown and CMCT were the largest contributors to Core performance over the Quarter, outperforming the NFI-ODCE by 650 bps and 400 bps respectively.
- Berkshire, CIM VI and JP Morgan Strategic Property Fund lagged the NFI-ODCE, with underperformance ranging from 20 to 70 bps.
- Townsend-advised investments approved by the LACERS Board in 2015 are positioned to outperform the NFI-ODCE with a predominant portion of return coming through income. Over the most recent Quarter, three of these investments (Jamestown, Lion Industrial Trust, and Prime Property Fund) outperformed the NFI-ODCE.

Relative Performance by Strategy: Non-Core



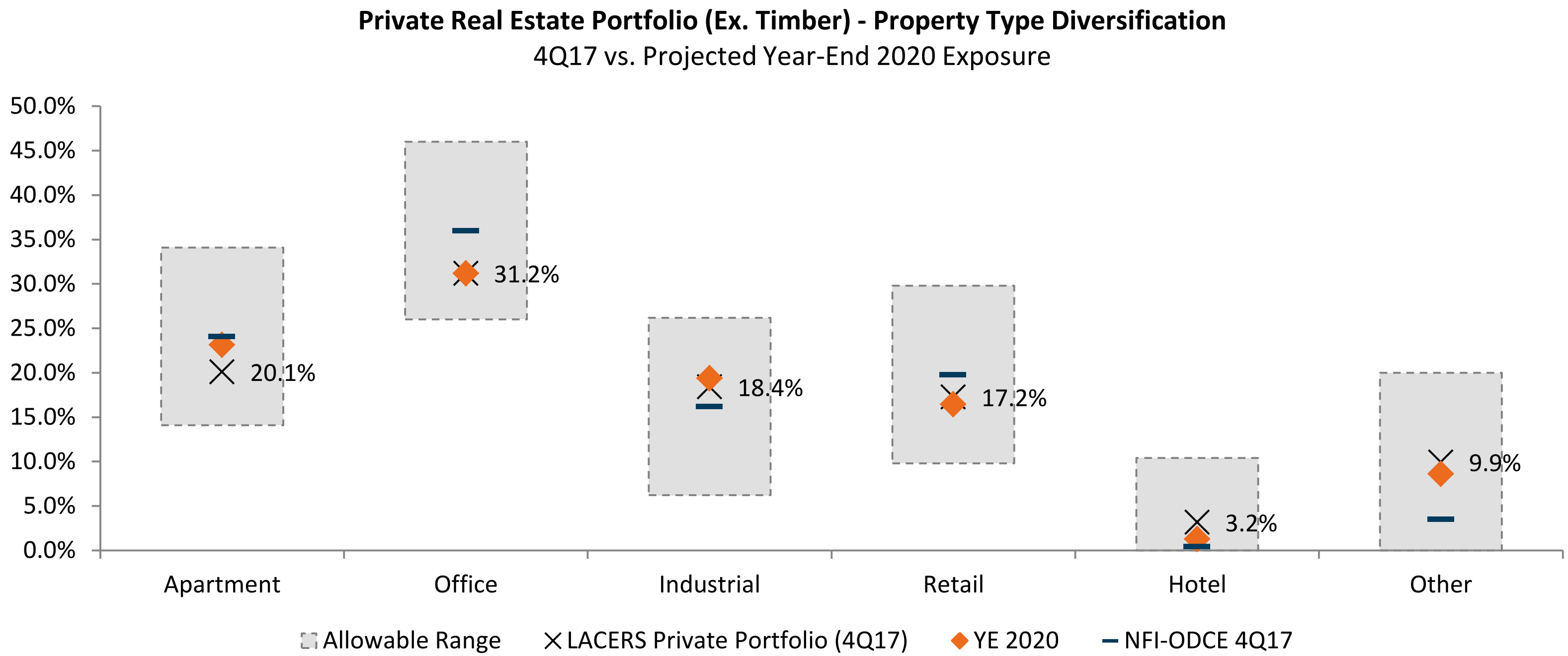
- The LACERS Non-Core benchmark is the NFI-ODCE + 200 bps, measured over five-year time periods, net of fees. The 200 bps premium is a reflection of the incremental return expected from additional risk inherent in Non-Core strategies.
- The Non-Core Portfolio outperformed the NFI-ODCE + 200 bps benchmark over the most recent Quarter and the trailing year. Underperformance over long 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 17 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, as has already shown through three consecutive Quarters of outperformance.

Relative Performance by Strategy: Timber



- The Timber Portfolio, net of fees, outperformed its benchmark, the NCREIF Timberland Index, gross of fees, over the most recent Quarter and since inception time periods, but underperformed over all other time periods.
- Outperformance over the long-term is mostly related to strong performance of Hancock ForesTree V, which was fully liquidated by year-end 2015.
- The LACERS active timberland investment is Hancock Timberland IX. The Fund's assets are located in the United States (87%, split between the South and the Northwest) and Chile (13%). The Northwest 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 annualized returns.

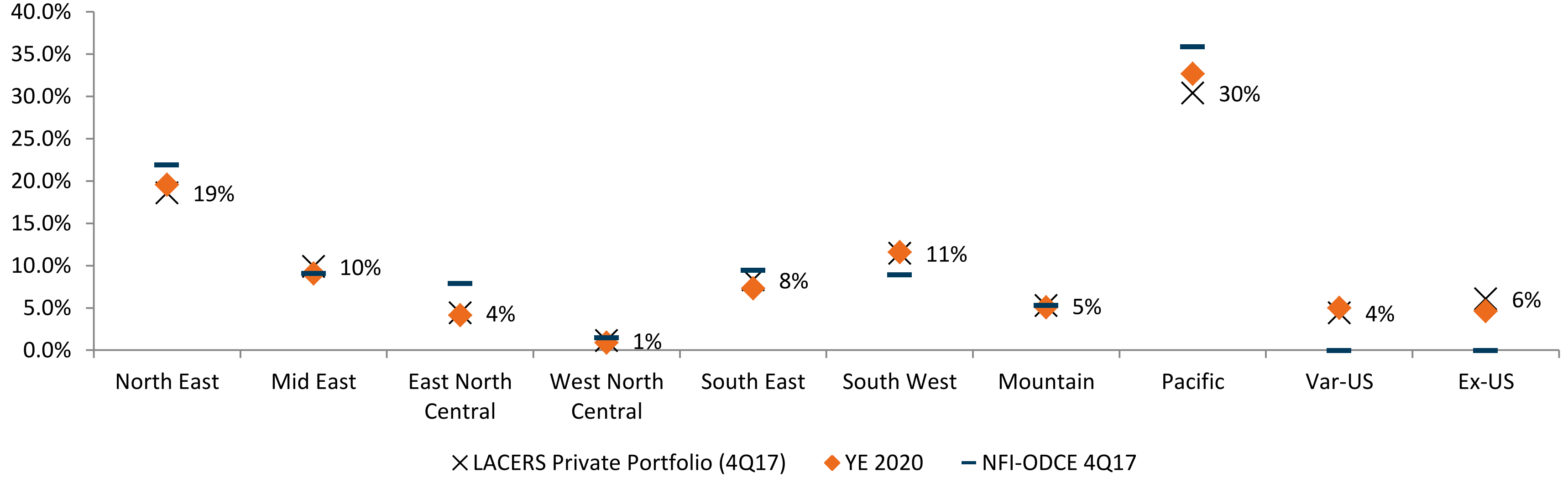
Real Estate Portfolio Diversification



- 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.

Real Estate Portfolio Diversification

Private Real Estate Portfolio (Ex. Timber) – Geographic Diversification
4Q17 vs. Projected Year-End 2020 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 LACERS Projected Private Portfolio (YE 2020) includes all commitments approved by the Board.
- The Portfolio currently has an aggregate exposure to the Los Angeles metropolitan area of 8.8%, with a 4.9% exposure to Los Angeles City. The NFI-ODCE's exposure to the Los Angeles metropolitan area is 9.6%*.
- During the Second Quarter 2017, the LACERS Board approved a $25 million commitment to Heitman Asia-Pacific Property Investors. This investment will offset other liquidating ex-US investments.
- The 6% Ex-US exposure can be broken out into Europe (3.9%), Asia (1.4%), Emerging Americas (0.7%) and Other.

*Collected by Townsend bi-annually, as of 3Q17. Based on % NAV.

Exhibit A: Performance Flash Report

Portfolio Composition ($)								
Total Plan Assets	Allocation		Market Value		Unfunded Commitments		Remaining Allocation	
17,237,000,000	861,850,000	5.0%	814,452,881	4.7%	116,916,873	0.7%	-69,519,754	-0.4%

Performance Summary	Quarter (%)		1 Year (%)		3 Year (%)		5 Year (%)	
	TGRS	TNET	TGRS	TNET	TGRS	TNET	TGRS	TNET
LACERS	3.1	2.6	10.0	8.6	9.7	9.6	11.3	9.6
NFI-ODCE + 80 basis points	2.3	2.0	8.4	7.5	11.2	10.2	12.3	11.3

Funding Status ($)	Investment Vintage Year	Commitment Amount	Funded Amount	Unfunded Commitments	Capital Returned	Market Value	Market Value (%)	Market Value + Unfunded Commitments (%)
Core Portfolio	**1989**	**378,867,553**	**432,028,488**	**0**	**106,259,576**	**529,968,941**	**65.1**	**56.9**
Non-Core Portfolio	**1990**	**968,407,806**	**934,437,840**	**116,916,873**	**699,748,411**	**263,639,726**	**32.4**	**40.9**
Value Added Portfolio	1990	318,531,885	252,244,483	82,985,935	167,953,753	120,065,734	14.7	21.8
Opportunistic Portfolio	1996	649,875,921	682,193,357	33,930,938	531,794,658	143,573,992	17.6	19.1
Timber Portfolio	**1999**	**20,000,000**	**18,601,851**	**0**	**1,209,619**	**20,844,214**	**2.6**	**2.2**
Total Current Portfolio								
LACERS	**1989**	**1,367,275,359**	**1,385,068,179**	**116,916,873**	**807,217,606**	**814,452,881**	**100.0**	**100.0**

Los Angeles City Employees' Retirement System

Fourth Quarter 2017

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	1,414,816	23,842,031	2.9	2.6
CIM Commercial Trust Corporation ("CMCT")	2014	40,000,000	46,417,723	0	32,790,384	22,535,483	2.8	2.4
CIM VI (Urban REIT), LLC	2012	25,000,000	25,000,000	0	3,985,717	30,348,090	3.7	3.3
INVESCO Core Real Estate	2004	63,867,553	109,001,167	0	50,078,501	163,678,336	20.1	17.6
Jamestown Premier Property Fund	2015	50,000,000	50,543,930	0	8,053,727	51,841,096	6.4	5.6
JP Morgan Strategic Property Fund	2005	30,000,000	30,421,882	0	2,858,499	64,412,834	7.9	6.9
Lion Industrial Trust - 2007	2016	50,000,000	50,643,786	0	3,281,869	59,548,690	7.3	6.4
Prime Property Fund	2015	50,000,000	50,000,000	0	3,796,063	54,585,896	6.7	5.9
Principal U.S. Property Account	2015	50,000,000	50,000,000	0	0	59,176,485	7.3	6.4
Core	**1989**	**378,867,553**	**432,028,488**	**0**	**106,259,576**	**529,968,941**	**65.1**	**56.9**
Timber								
Hancock Timberland XI	2012	20,000,000	18,601,851	0	1,209,619	20,844,214	2.6	2.2
Timber	**1999**	**20,000,000**	**18,601,851**	**0**	**1,209,619**	**20,844,214**	**2.6**	**2.2**
Value Added								
Almanac Realty Securities VI	2012	25,000,000	15,475,571	3,750,000	12,384,263	9,183,767	1.1	1.4
Asana Partners Fund I	2016	20,000,000	7,810,965	12,189,035	0	8,628,406	1.1	2.2
CBRE Strategic Partners IV	2005	25,000,000	25,000,000	0	1,068,123	0	0.0	0.0
Cornerstone Enhanced Mortgage Fund I	2012	25,000,000	13,436,224	11,563,777	16,057,544	1,223,137	0.2	1.4
DRA Growth and Income Fund VII	2011	25,000,000	26,015,000	740,000	31,810,576	16,488,373	2.0	1.8
DRA Growth and Income Fund VIII	2014	25,000,000	28,187,182	1,904,407	11,399,553	22,513,374	2.8	2.6
Gerrity Retail Fund 2	2015	20,000,000	14,564,251	5,513,603	1,629,155	15,039,427	1.8	2.2
Heitman Asia-Pacific Property Investors	2017	25,000,000	0	25,000,000	0	-305,042	0.0	2.7
JP Morgan Alternative Property Fund	2006	25,000,000	25,000,000	0	18,465,738	238,560	0.0	0.0
Mesa West Real Estate Income Fund III	2013	25,000,000	18,939,181	17,371,586	14,747,200	8,691,628	1.1	2.8
RREEF America REIT III - 1410	2005	15,000,000	18,301,718	0	14,970,900	0	0.0	0.0
Standard Life Investments European Real Estate Club II	2015	28,531,885	28,134,410	1,333,507	501,893	37,741,796	4.6	4.2
The Realty Associates Fund IX, L.P.	2010	15,000,000	15,000,000	0	23,429,474	622,308	0.1	0.1
Urdang Value Added Fund II	2008	20,000,000	16,379,981	3,620,020	21,489,334	0	0.0	0.4
Value Added	**1990**	**318,531,885**	**252,244,483**	**82,985,935**	**167,953,753**	**120,065,734**	**14.7**	**21.8**
Total Current Portfolio								
LACERS	**1989**	**1,367,275,359**	**1,385,068,179**	**116,916,873**	**807,217,606**	**814,452,881**	**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	1,785,474	11,493,929	610,930	0.1	0.3
Bristol Value II, L.P.	2012	20,000,000	17,572,245	8,458,068	8,282,450	13,232,538	1.6	2.3
Bryanston Retail Opportunity Fund	2005	10,000,000	4,271,584	5,885,919	9,569,780	3,460,182	0.4	1.0
California Smart Growth Fund IV	2006	30,000,000	31,522,663	33,153	31,885,362	4,980,749	0.6	0.5
Canyon Johnson Urban Fund II	2005	10,000,000	8,988,718	1,011,296	3,974,652	29,108	0.0	0.1
CBRE Strategic Partners UK Fund III	2007	29,868,578	25,901,670	0	4,057,594	0	0.0	0.0
CIM Real Estate Fund III	2007	15,000,000	16,763,475	0	20,587,454	7,605,423	0.9	0.8
CityView LA Urban Fund I	2007	25,000,000	61,482,527	2,271,500	73,592,830	267,724	0.0	0.3
Colony Investors VIII	2007	30,000,000	28,963,224	1,023,167	12,378,404	748,407	0.1	0.2
DRA Growth and Income Fund VI	2007	25,000,000	16,788,945	0	25,879,936	2,645,539	0.3	0.3
Genesis Workforce Housing Fund II	2006	20,000,000	19,999,316	0	29,103,609	-44,467	0.0	0.0
Integrated Capital Hospitality Fund	2009	10,000,000	6,006,797	798,641	2,728,129	3,925,468	0.5	0.5
LaSalle Asia Fund II	2005	25,000,000	24,016,560	0	25,752,817	231,047	0.0	0.0
Latin America Investors III	2008	20,000,000	20,686,689	0	3,886,924	4,839,234	0.6	0.5
Lone Star Fund VII	2011	15,000,000	14,075,468	924,533	24,557,560	211,702	0.0	0.1
Lone Star Real Estate Fund II	2011	15,000,000	13,291,475	1,708,525	19,126,315	1,503,449	0.2	0.3
Lowe Hospitality Investment Partners	2004	25,000,000	36,431,477	0	20,981,277	0	0.0	0.0
MacFarlane Urban Real Estate Fund II	2008	40,000,000	40,679,342	1	10,884,155	0	0.0	0.0
RECP Fund IV, L.P.	2008	40,000,000	49,225,878	3,077,052	23,162,694	37,183,814	4.6	4.3
Southern California Smart Growth Fund	2004	10,000,000	18,836,734	68,213	16,800,333	1,011,416	0.1	0.1
Stockbridge Real Estate Fund II	2006	30,000,000	30,000,000	0	4,049,560	10,353,669	1.3	1.1
The Buchanan Fund V	2007	30,000,000	27,000,000	3,000,000	22,340,980	3,558,864	0.4	0.7
Torchlight Debt Opportunity Fund II	2007	25,000,000	24,703,453	0	14,101,920	7,955,313	1.0	0.9
Torchlight Debt Opportunity Fund III	2009	25,000,000	24,890,796	0	36,181,825	1,924,890	0.2	0.2
Torchlight Debt Opportunity Fund IV	2013	24,474,342	24,483,106	0	13,976,023	19,360,720	2.4	2.1
Tuckerman Group Residential Income & Value Added Fund	2004	25,000,000	26,064,010	0	25,409,679	949,171	0.1	0.1
Walton Street Real Estate Fund V	2006	25,000,000	25,000,001	0	13,764,440	6,565,556	0.8	0.7
Walton Street Real Estate Fund VI	2009	25,000,000	22,161,966	3,885,396	23,284,027	10,463,546	1.3	1.5
Opportunistic	**1996**	**649,875,921**	**682,193,357**	**33,930,938**	**531,794,658**	**143,573,992**	**17.6**	**19.1**
Private Real Estate Portfolio Only (ex. Timber)	**1989**	**1,347,275,359**	**1,366,466,328**	**116,916,873**	**806,007,987**	**793,608,667**	**97.4**	**97.8**
Non-Core Portfolio	**1990**	**968,407,806**	**934,437,840**	**116,916,873**	**699,748,411**	**263,639,726**	**32.4**	**40.9**
Total Current Portfolio								
LACERS	**1989**	**1,367,275,359**	**1,385,068,179**	**116,916,873**	**807,217,606**	**814,452,881**	**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	23,842,031	1.1	0.3	1.4	1.3	4.1	1.3	5.4	4.7				
CIM Commercial Trust Corporation (“CMCT”) [1]	22,535,483	0.7	5.2	5.8	5.8	2.5	0.3	2.8	2.8	3.0	0.7	3.7	3.7
CIM VI (Urban REIT), LLC	30,348,090	1.0	0.5	1.4	1.1	4.0	1.1	5.2	3.7	4.2	2.7	7.0	5.6
INVESCO Core Real Estate	163,678,336	0.9	1.4	2.3	2.2	3.7	4.6	8.4	8.0	3.9	6.6	10.7	10.4
Jamestown Premier Property Fund	51,841,096	1.2	9.4	10.6	8.3	4.8	12.7	18.0	14.2				
JP Morgan Strategic Property Fund	64,412,834	1.0	0.8	1.8	1.6	4.2	2.9	7.2	6.2	4.8	5.2	10.2	9.2
Lion Industrial Trust - 2007	59,548,690	1.3	1.6	3.0	2.6	5.4	8.6	14.4	12.3				
Prime Property Fund	54,585,896	1.0	1.3	2.3	2.1	4.1	5.6	9.9	8.8				
Principal U.S. Property Account	59,176,485	1.1	1.0	2.1	1.8	4.7	4.3	9.1	8.1				
Core	**529,968,941**	**1.0**	**2.1**	**3.1**	**2.7**	**4.1**	**4.9**	**9.2**	**8.1**	**4.3**	**5.9**	**10.4**	**9.5**
Timber													
Hancock Timberland XI	20,844,214	-0.2	2.1	1.8	1.6	0.1	2.0	2.1	1.2	-0.4	4.1	3.7	2.8
Timber	**20,844,214**	**-0.2**	**2.1**	**1.8**	**1.6**	**0.1**	**2.0**	**2.1**	**1.2**	**-0.4**	**4.1**	**3.7**	**2.8**
Value Added													
Almanac Realty Securities VI	9,183,767	1.9	-3.5	-1.6	-1.8	7.5	-6.7	0.4	-0.3	7.0	5.3	12.6	11.4
Asana Partners Fund I	8,628,406	0.6	7.0	7.7	4.2								
CBRE Strategic Partners IV [3]	0												
Cornerstone Enhanced Mortgage Fund I	1,223,137	2.1	0.0	2.1	2.0	7.2	0.0	7.2	6.6	9.7	0.0	9.7	8.4
DRA Growth and Income Fund VII	16,488,373	3.8	3.9	7.7	6.0	10.2	19.8	31.5	26.0	10.9	17.5	29.8	23.5
DRA Growth and Income Fund VIII	22,513,374	1.9	0.6	2.5	2.0	11.6	2.4	14.2	11.7	12.8	2.0	15.0	12.1
Gerrity Retail Fund 2	15,039,427	2.1	1.0	3.1	2.6	8.7	1.0	9.8	7.6				
Heitman Asia-Pacific Property Investors [4]	-305,042												
JP Morgan Alternative Property Fund [3]	238,560												
Mesa West Real Estate Income Fund III	8,691,628	3.2	0.0	3.2	2.6	12.6	0.0	12.6	10.1	12.5	-0.2	12.3	9.7
RREEF America REIT III - 1410 [3]	0												
Standard Life Investments European Real Estate Club II	37,741,796	1.0	7.0	8.0	7.8	0.9	32.6	33.8	32.6				
The Realty Associates Fund IX, L.P. [3]	622,308												
Urdang Value Added Fund II [3]	0												
Value Added	**120,065,734**	**1.9**	**3.0**	**4.8**	**4.1**	**7.3**	**10.4**	**18.3**	**15.7**	**7.8**	**7.5**	**15.8**	**13.2**
Total Portfolio													
LACERS	**814,452,881**	**1.1**	**2.0**	**3.1**	**2.6**	**4.4**	**5.5**	**10.0**	**8.6**	**4.8**	**4.8**	**9.7**	**8.3**
Indices													
NFI-ODCE (Core)		1.1	1.0	2.1	1.8	4.3	3.2	7.6	6.7	4.5	5.7	10.4	9.4
NFI-ODCE + 80 bps (Total Portfolio)				2.3	2.0			8.4	7.5			11.2	10.2
NFI-ODCE + 200 bps (Non-Core Portfolio)				2.6	2.3			9.6	8.7			12.4	11.4
NFI -ODCE + 50 bps (Value Add)				2.2	2.0			8.1	7.2			10.9	9.9
NFI -ODCE + 300 bps (Opportunistic)				2.8	2.6			10.6	9.7			13.4	12.4
NCREIF Timberland Property Index “NTI”		0.7	0.8	1.5		2.8	0.8	3.6		2.7	1.1	3.8	

* 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] Liquidating investment. Time-weighted returns are excluded as they are no longer meaningful.

[4] Negative Market Value represents fees owed to the manager. No capital had been called as of quarter-end.

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	23,842,031					4.4	3.4	7.9	7.1	1Q16	11.8	1.3
CIM Commercial Trust Corporation ("CMCT") [1]	22,535,483					3.3	1.9	5.2	5.2	1Q14	5.2	1.2
CIM VI (Urban REIT), LLC	30,348,090	4.0	4.3	8.5	7.1	3.8	6.2	10.2	8.9	3Q12	7.9	1.4
INVESCO Core Real Estate	163,678,336	4.2	7.3	11.8	11.4	5.3	2.9	8.3	7.8	4Q04	7.8	2.0
Jamestown Premier Property Fund	51,841,096					4.7	8.4	13.3	10.6	3Q15	10.6	1.2
JP Morgan Strategic Property Fund	64,412,834	5.0	6.3	11.5	10.4	5.4	2.2	7.7	6.7	4Q05	6.8	2.2
Lion Industrial Trust - 2007	59,548,690					5.6	8.7	14.7	12.5	1Q16	12.6	1.2
Prime Property Fund	54,585,896					4.2	5.7	10.1	9.0	1Q16	9.0	1.2
Principal U.S. Property Account	59,176,485					4.8	4.9	9.9	8.9	4Q15	8.8	1.2
Core	**529,968,941**	**4.4**	**6.6**	**11.3**	**10.5**	**6.5**	**1.5**	**8.0**	**7.1**	**1Q89**	**5.8**	**1.4**
Timber												
Hancock Timberland XI	20,844,214	-0.5	5.7	5.2	4.3	-0.6	6.5	5.9	5.1	2Q12	4.7	1.2
Timber	**20,844,214**	**4.5**	**2.7**	**7.8**	**6.0**	**5.1**	**5.8**	**11.3**	**9.9**	**4Q99**	**10.3**	**1.7**
Value Added												
Almanac Realty Securities VI	9,183,767	8.6	7.7	16.7	14.4	8.6	7.7	16.7	14.4	1Q13	14.7	1.4
Asana Partners Fund I	8,628,406					1.2	16.7	18.1	10.8	2Q17	19.3	1.1
CBRE Strategic Partners IV [3]	0									1Q06	-33.4	0.0
Cornerstone Enhanced Mortgage Fund I	1,223,137	10.3	0.5	10.8	9.2	11.5	1.3	12.8	11.2	4Q12	9.3	1.3
DRA Growth and Income Fund VII	16,488,373	12.2	12.3	25.6	20.7	12.4	10.7	24.2	19.6	1Q12	19.4	1.9
DRA Growth and Income Fund VIII	22,513,374					12.7	1.8	14.7	11.8	4Q14	12.2	1.2
Gerrity Retail Fund 2	15,039,427					9.1	5.1	14.5	11.3	4Q15	8.9	1.1
Heitman Asia-Pacific Property Investors [4]	-305,042									1Q18		
JP Morgan Alternative Property Fund [3]	238,560									1Q06	-4.2	0.7
Mesa West Real Estate Income Fund III	8,691,628					12.4	0.1	12.6	8.7	4Q13	8.3	1.2
RREEF America REIT III - 1410 [3]	0									1Q06	-2.7	0.8
Standard Life Investments European Real Estate Club II	37,741,796					1.1	19.0	20.3	19.2	1Q16	21.9	1.4
The Realty Associates Fund IX, L.P. [3]	622,308									3Q10	10.5	1.6
Urdang Value Added Fund II [3]	0									2Q08	6.1	1.3
Value Added	**120,065,734**	**7.9**	**5.6**	**13.9**	**11.6**	**7.7**	**2.3**	**10.1**	**8.2**	**4Q90**		
Total Portfolio												
LACERS	**814,452,881**	**5.5**	**5.5**	**11.3**	**9.6**	**6.2**	**1.4**	**7.6**	**6.0**	**1Q89**		
Indices												
NFI-ODCE (Core)		4.8	6.5	11.5	10.5	6.9	0.5	7.3	6.3	1Q89		
NFI-ODCE + 80 bps (Total Portfolio)				12.3	11.3			8.1	7.1	1Q89		
NFI-ODCE + 200 bps (Non-Core Portfolio)				13.5	12.5			9.5	8.4	4Q90		
NFI -ODCE + 50 bps (Value Add)				12.0	11.0			8.0	6.9	4Q90		
NFI -ODCE + 300 bps (Opportunistic)				14.5	13.5			12.3	11.2	4Q96		
NCREIF Timberland Property Index "NTI"		2.7	3.4	6.2		3.3	3.2	6.6		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] Liquidating investment. Time-weighted returns are excluded as they are no longer meaningful.

[4] Negative Market Value represents fees owed to the manager. No capital had been called as of quarter-end.

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 [2]	610,930												
Bristol Value II, L.P.	13,232,538	0.2	14.4	14.6	14.2	2.4	14.4	17.1	15.3	2.9	9.0	12.0	10.1
Bryanston Retail Opportunity Fund	3,460,182	0.0	-24.7	-24.8	-24.8	-0.1	-22.0	-22.1	-22.4	-0.3	23.2	22.9	22.2
California Smart Growth Fund IV	4,980,749	0.7	7.0	7.8	6.5	5.5	15.1	21.3	19.8	4.5	10.8	15.6	14.6
Canyon Johnson Urban Fund II [2]	29,108												
CBRE Strategic Partners UK Fund III [2]	0												
CIM Real Estate Fund III [1]	7,605,423	-0.7	3.1	2.4	2.0	0.3	6.4	6.8	5.3	7.6	-2.4	6.8	5.4
CityView LA Urban Fund I [2]	267,724												
Colony Investors VIII [2]	748,407												
DRA Growth and Income Fund VI	2,645,539	3.2	0.0	3.2	2.5	7.7	-2.7	4.7	2.9	6.5	7.2	14.1	10.5
Genesis Workforce Housing Fund II [2]	-44,467												
Integrated Capital Hospitality Fund	3,925,468	-10.5	-11.5	-21.9	-22.2	-5.5	-11.5	-17.6	-18.7	-8.4	-13.4	-22.5	-23.3
LaSalle Asia Fund II [2]	231,047												
Latin America Investors III	4,839,234	-0.5	-17.3	-17.8	-18.6	-3.6	-18.8	-21.9	-24.6	-3.1	-17.0	-19.7	-22.1
Lone Star Fund VII [2]	211,702												
Lone Star Real Estate Fund II	1,503,449	2.0	0.7	2.7	2.5	6.6	-7.0	-0.7	5.4	5.1	12.6	18.1	16.8
Lowe Hospitality Investment Partners [2]	0												
MacFarlane Urban Real Estate Fund II [2]	0												
RECP Fund IV, L.P.	37,183,814	2.9	1.3	4.2	3.7	3.4	10.9	14.6	12.4	2.5	7.3	9.9	7.9
Southern California Smart Growth Fund [1]	1,011,416	0.0	0.0	0.0	0.0	-1.1	0.0	-1.1	-1.1	14.6	4.7	20.0	19.1
Stockbridge Real Estate Fund II	10,353,669	-0.1	0.4	0.3	0.2	1.5	19.6	21.2	20.6	0.0	6.3	6.3	5.4
The Buchanan Fund V	3,558,864	0.3	-1.6	-1.3	-1.5	2.6	-0.2	2.3	1.3	2.4	5.4	7.8	6.7
Torchlight Debt Opportunity Fund II	7,955,313	0.0	0.7	0.7	0.6	2.5	0.8	3.4	3.1	3.7	1.7	5.3	5.0
Torchlight Debt Opportunity Fund III	1,924,890	2.9	11.4	14.3	11.2	10.1	13.3	24.4	18.2	10.7	12.1	23.8	17.8
Torchlight Debt Opportunity Fund IV	19,360,720	2.5	2.0	4.5	3.1	10.6	4.3	15.2	11.3	9.3	3.5	13.0	10.3
Tuckerman Group Residential Income & Value Added Fund [2]	949,171												
Walton Street Real Estate Fund V	6,565,556	0.3	2.4	2.7	2.5	4.7	-0.3	4.5	3.5	3.8	2.1	6.1	4.8
Walton Street Real Estate Fund VI	10,463,546	0.6	1.9	2.4	2.1	3.3	5.7	9.2	7.9	2.5	2.9	5.4	4.2
Opportunistic	**143,573,992**	**0.8**	**1.0**	**1.7**	**1.2**	**3.5**	**4.0**	**7.7**	**6.0**	**3.9**	**1.9**	**5.9**	**4.2**
Private Real Estate Portfolio Only (ex. Timber)	**793,608,667**	**1.1**	**2.0**	**3.1**	**2.6**	**4.5**	**5.5**	**10.2**	**8.8**	**4.9**	**4.8**	**9.9**	**8.4**
Non-Core Portfolio	**263,639,726**	**1.2**	**1.8**	**3.1**	**2.4**	**5.1**	**6.7**	**12.1**	**10.0**	**5.4**	**4.1**	**9.8**	**7.7**
Total Portfolio													
LACERS	**814,452,881**	**1.1**	**2.0**	**3.1**	**2.6**	**4.4**	**5.5**	**10.0**	**8.6**	**4.8**	**4.8**	**9.7**	**8.3**
Indices													
NFI-ODCE (Core)		1.1	1.0	2.1	1.8	4.3	3.2	7.6	6.7	4.5	5.7	10.4	9.4
NFI-ODCE + 80 bps (Total Portfolio)				2.3	2.0			8.4	7.5			11.2	10.2
NFI-ODCE + 200 bps (Non-Core Portfolio)				2.6	2.3			9.6	8.7			12.4	11.4
NFI -ODCE + 50 bps (Value Add)				2.2	2.0			8.1	7.2			10.9	9.9
NFI -ODCE + 300 bps (Opportunistic)				2.8	2.6			10.6	9.7			13.4	12.4
NCREIF Timberland Property Index "NTI"		0.7	0.8	1.5		2.8	0.8	3.6		2.7	1.1	3.8	

* Net IRR and Equity Multiple may be missing due to hard coded data.

1 'Broken' TWR – In a series of quarterly returns for an investment line item, a single quarter of significant volatility and/or temporary negative market value will 'break' the time weighted calculation and period returns (including since inception) must start anew in a subsequent quarter. Depending upon the timing of the break, TWRs may never accurately reflect performance of the investment line item. Line item data continues to be reflected in the sub-portfolio and portfolio totals, however for the individual line item, the internal rate of return ("IRR") becomes a more appropriate data point for evaluation.

2 Liquidating investment.

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 [2]	610,930									4Q06	-9.3	0.5
Bristol Value II, L.P.	13,232,538	3.5	12.6	16.4	14.4	3.5	12.6	16.4	14.4	1Q13	11.9	1.2
Bryanston Retail Opportunity Fund	3,460,182	1.5	22.9	24.5	23.3	8.1	23.1	30.6	27.0	2Q05	79.7	3.1
California Smart Growth Fund IV	4,980,749	3.8	11.4	15.6	14.3	2.5	0.4	2.8	0.4	1Q07	2.6	1.2
Canyon Johnson Urban Fund II [2]	29,108									3Q05	-10.5	0.4
CBRE Strategic Partners UK Fund III [2]	0									3Q07	-24.5	0.2
CIM Real Estate Fund III [1]	7,605,423	5.5	1.8	8.5	7.2	-9.4	11.7	1.9	-12.9	1Q09	10.5	1.7
CityView LA Urban Fund I [2]	267,724									3Q07	11.8	1.2
Colony Investors VIII [2]	748,407									4Q07	-11.6	0.5
DRA Growth and Income Fund VI	2,645,539	6.9	13.5	21.1	15.6	8.9	4.4	13.7	9.0	2Q08	11.0	1.7
Genesis Workforce Housing Fund II [2]	-44,467									2Q07	8.7	1.5
Integrated Capital Hospitality Fund	3,925,468	-1.6	-4.9	-7.8	-8.6	6.0	1.9	5.2	3.2	3Q11	2.5	1.1
LaSalle Asia Fund II [2]	231,047									4Q05	1.8	1.1
Latin America Investors III	4,839,234	-2.2	-13.6	-15.6	-19.0	-3.4	-9.9	-13.2	-16.9	1Q09	-19.6	0.4
Lone Star Fund VII [2]	211,702									3Q11	50.3	1.8
Lone Star Real Estate Fund II	1,503,449	8.6	17.8	27.8	23.0	10.7	22.3	34.7	27.4	3Q11	27.0	1.6
Lowe Hospitality Investment Partners [2]	0									3Q04	-17.7	0.6
MacFarlane Urban Real Estate Fund II [2]	0									2Q08	-16.8	0.3
RECP Fund IV, L.P.	37,183,814	2.1	6.7	8.9	7.0	3.7	-7.1	-3.6	-7.7	4Q08	4.3	1.2
Southern California Smart Growth Fund [1]	1,011,416	9.1	9.4	19.3	17.6	1.9	6.0	6.7	5.9	1Q05	-2.0	0.9
Stockbridge Real Estate Fund II	10,353,669	-1.8	19.0	16.9	15.6	-10.1	-10.2	-19.1	-21.5	4Q06	-8.0	0.5
The Buchanan Fund V	3,558,864	4.0	8.5	12.8	11.6	-2.0	1.2	-0.8	-2.6	3Q07	-0.7	1.0
Torchlight Debt Opportunity Fund II	7,955,313	4.5	4.6	9.2	8.6	12.7	-9.1	3.2	1.5	1Q08	-1.5	0.9
Torchlight Debt Opportunity Fund III	1,924,890	12.7	22.7	37.4	26.7	12.0	15.0	28.3	20.2	3Q09	13.8	1.5
Torchlight Debt Opportunity Fund IV	19,360,720					9.9	3.2	13.3	10.4	4Q13	10.2	1.4
Tuckerman Group Residential Income & Value Added Fund [2]	949,171									4Q04	0.2	1.0
Walton Street Real Estate Fund V	6,565,556	3.8	4.8	8.8	7.4	2.3	-0.5	1.8	-0.2	4Q06	-2.4	0.8
Walton Street Real Estate Fund VI	10,463,546	3.0	6.1	9.3	8.0	-11.2	16.8	2.2	-3.1	3Q09	9.3	1.5
Opportunistic	**143,573,992**	**5.1**	**4.4**	**9.6**	**7.5**	**4.3**	**3.1**	**7.5**	**3.8**	**4Q96**		
Private Real Estate Portfolio Only (ex. Timber)	**793,608,667**	**5.5**	**5.6**	**11.4**	**9.7**	**6.2**	**1.3**	**7.6**	**5.9**	**1Q89**		
Non-Core Portfolio	**263,639,726**	**6.2**	**5.1**	**11.5**	**9.3**	**6.6**	**2.6**	**9.3**	**6.8**	**4Q90**		
Total Portfolio												
LACERS	**814,452,881**	**5.5**	**5.5**	**11.3**	**9.6**	**6.2**	**1.4**	**7.6**	**6.0**	**1Q89**		
Indices												
NFI-ODCE (Core)		4.8	6.5	11.5	10.5	6.9	0.5	7.3	6.3	1Q89		
NFI-ODCE + 80 bps (Total Portfolio)				12.3	11.3			8.1	7.1	1Q89		
NFI-ODCE + 200 bps (Non-Core Portfolio)				13.5	12.5			9.5	8.4	4Q90		
NFI -ODCE + 50 bps (Value Add)				12.0	11.0			8.0	6.9	4Q90		
NFI -ODCE + 300 bps (Opportunistic)				14.5	13.5			12.3	11.2	4Q96		
NCREIF Timberland Property Index "NTI"		2.7	3.4	6.2		3.3	3.2	6.6		4Q99		

* Net IRR and Equity Multiple may be missing due to hard coded data.

1 'Broken' TWR – In a series of quarterly returns for an investment line item, a single quarter of significant volatility and/or temporary negative market value will 'break' the time weighted calculation and period returns (including since inception) must start anew in a subsequent quarter. Depending upon the timing of the break, TWRs may never accurately reflect performance of the investment line item. Line item data continues to be reflected in the sub-portfolio and portfolio totals, however for the individual line item, the internal rate of return ("IRR") becomes a more appropriate data point for evaluation.

2 Liquidating investment.

TOWNSEND® GROUP
an Aon company

Los Angeles City Employees' Retirement System

Fourth Quarter 2017

Returns (%)	Market Value ($)	2017		2016		2015		2014		2013		2012	
		TGRS	TNET	TGRS	TNET	TGRS	TNET	TGRS	TNET	TGRS	TNET	TGRS	TNET
Core													
Berkshire Multifamily Income Realty Fund	23,842,031	5.4	4.7	10.4	9.5								
CIM Commercial Trust Corporation ("CMCT")	22,535,483	2.8	2.8	3.3	3.3	5.0	5.0	9.7	9.7				
CIM VI (Urban REIT), LLC	30,348,090	5.2	3.7	2.6	2.4	13.4	11.0	15.0	13.5	6.8	5.4	13.8	13.1
INVESCO Core Real Estate	163,678,336	8.4	8.0	9.2	8.9	14.7	14.3	12.4	11.9	14.3	13.8	8.7	8.2
Jamestown Premier Property Fund	51,841,096	18.0	14.2	6.7	5.4	8.5	7.0						
JP Morgan Strategic Property Fund	64,412,834	7.2	6.2	8.4	7.3	15.2	14.1	11.1	10.1	15.9	14.8	12.1	11.0
Lion Industrial Trust - 2007	59,548,690	14.4	12.3	14.9	12.8								
Prime Property Fund	54,585,896	9.9	8.8	10.4	9.2								
Principal U.S. Property Account	59,176,485	9.1	8.1	10.1	9.0	3.0	2.8						
Core	**529,968,941**	**9.2**	**8.1**	**8.7**	**7.9**	**13.4**	**12.7**	**11.8**	**11.3**	**13.3**	**12.5**	**9.6**	**8.9**
Timber													
Hancock Timberland XI	20,844,214	2.1	1.2	3.5	2.6	5.4	4.6	5.2	4.6	9.9	8.9	8.1	7.6
Timber	**20,844,214**	**2.1**	**1.2**	**3.5**	**2.6**	**5.4**	**4.5**	**8.1**	**4.5**	**20.9**	**17.8**	**9.9**	**8.9**
Value Added													
Almanac Realty Securities VI	9,183,767	0.4	-0.3	15.2	14.3	23.5	21.2	15.2	12.8	31.6	26.1		
Asana Partners Fund I	8,628,406	18.1	10.8										
CBRE Strategic Partners IV	0												
Cornerstone Enhanced Mortgage Fund I	1,223,137	7.2	6.6	10.9	9.2	11.1	9.4	5.5	5.0	20.0	16.4	12.8	12.3
DRA Growth and Income Fund VII	16,488,373	31.5	26.0	35.2	28.8	22.9	16.2	20.3	17.7	18.7	15.5	17.6	14.3
DRA Growth and Income Fund VIII	22,513,374	14.2	11.7	14.7	11.8	16.0	12.9	2.7	2.1				
Gerrity Retail Fund 2	15,039,427	9.8	7.6	21.4	17.7	1.7	0.6						
Heitman Asia-Pacific Property Investors	-305,042												
JP Morgan Alternative Property Fund	238,560												
Mesa West Real Estate Income Fund III	8,691,628	12.6	10.1	11.2	8.8	13.0	10.2	13.3	8.7	3.2	-0.6		
RREEF America REIT III - 1410	0												
Standard Life Investments European Real Estate Club II	37,741,796	33.8	32.6	8.1	7.1								
The Realty Associates Fund IX, L.P.	622,308												
Urdang Value Added Fund II	0												
Value Added	**120,065,734**	**18.3**	**15.7**	**14.6**	**12.1**	**14.5**	**11.7**	**12.6**	**10.9**	**9.5**	**7.9**	**17.1**	**15.6**
Total Portfolio													
LACERS	**814,452,881**	**10.0**	**8.6**	**8.1**	**6.8**	**11.2**	**9.5**	**13.7**	**11.9**	**13.5**	**11.4**	**12.8**	**11.0**
Indices													
NFI-ODCE (Core)		7.6	6.7	8.8	7.8	15.0	14.0	12.5	11.5	13.9	12.9	10.9	9.8
NFI-ODCE + 80 bps (Total Portfolio)		8.0	7.1	9.6	8.6	15.8	14.8	13.3	12.3	14.7	13.7	11.7	10.6
NFI-ODCE + 200 bps (Non-Core Portfolio)		8.6	7.7	10.8	9.8	17.0	16.0	14.5	13.5	15.9	14.9	12.9	11.8
NFI-ODCE + 50 bps (Value Add)		7.9	6.9	9.3	8.3	15.5	14.5	13.0	12.0	14.4	13.4	11.4	10.3
NFI-ODCE + 300 bps (Opportunistic)		9.1	8.2	11.8	10.8	18.0	17.0	15.5	14.5	16.9	15.9	13.9	12.8
NCREIF Timberland Index (Timber)		3.6		2.7		5.0		10.5		9.7		7.8	

Returns (%)	Market Value ($)	2011 TGRS	2011 TNET	2010 TGRS	2010 TNET	2009 TGRS	2009 TNET	2008 TGRS	2008 TNET	2007 TGRS	2007 TNET	2006 TGRS	2006 TNET	2005 TGRS	2005 TNET
Core															
Berkshire Multifamily Income Realty Fund	23,842,031														
CIM Commercial Trust Corporation (“CMCT”)	22,535,483														
CIM VI (Urban REIT), LLC	30,348,090														
INVESCO Core Real Estate	163,678,336	16.9	16.4	16.7	16.1	-32.2	-32.6	-4.6	-5.0	13.6	13.1	19.2	18.6	20.8	20.2
Jamestown Premier Property Fund	51,841,096														
JP Morgan Strategic Property Fund	64,412,834	15.9	14.8	14.1	13.0	-26.5	-27.4	-8.1	-9.0	16.6	15.6	16.6	15.5	5.3	5.3
Lion Industrial Trust - 2007	59,548,690														
Prime Property Fund	54,585,896														
Principal U.S. Property Account	59,176,485														
Core	**529,968,941**	**15.6**	**14.8**	**16.1**	**15.2**	**-26.4**	**-27.1**	**-4.9**	**-5.6**	**14.4**	**13.6**	**17.7**	**16.9**	**21.2**	**20.7**
Timber															
Hancock Timberland XI	20,844,214														
Timber	**20,844,214**	**3.9**	**4.2**	**2.9**	**2.7**	**-7.4**	**-5.5**	**7.6**	**6.5**	**22.1**	**17.3**	**24.8**	**22.5**	**26.8**	**23.0**
Value Added															
Almanac Realty Securities VI	9,183,767														
Asana Partners Fund I	8,628,406														
CBRE Strategic Partners IV	0														
Cornerstone Enhanced Mortgage Fund I	1,223,137														
DRA Growth and Income Fund VII	16,488,373														
DRA Growth and Income Fund VIII	22,513,374														
Gerrity Retail Fund 2	15,039,427														
Heitman Asia-Pacific Property Investors	-305,042														
JP Morgan Alternative Property Fund	238,560														
Mesa West Real Estate Income Fund III	8,691,628														
RREEF America REIT III - 1410	0														
Standard Life Investments European Real Estate Club II	37,741,796														
The Realty Associates Fund IX, L.P.	622,308														
Urdang Value Added Fund II	0														
Value Added	**120,065,734**	**18.3**	**16.2**	**4.1**	**1.8**	**-38.5**	**-39.4**	**-20.7**	**-20.0**	**17.8**	**15.2**	**15.3**	**12.9**	**26.0**	**23.1**
Total Portfolio															
LACERS	**814,452,881**	**12.6**	**10.8**	**13.0**	**10.3**	**-34.4**	**-35.9**	**-22.5**	**-23.6**	**14.5**	**11.3**	**20.2**	**17.4**	**25.4**	**22.3**
Indices															
NFI-ODCE (Core)		16.0	15.0	16.4	15.3	-29.8	-30.4	-10.0	-10.7	16.0	14.8	16.3	15.3	21.4	20.2
NFI-ODCE + 80 bps (Total Portfolio)		16.8	15.8	17.2	16.1	-29.0	-29.6	-9.2	-9.9	16.8	15.6	17.1	16.1	22.2	21.0
NFI-ODCE + 200 bps (Non-Core Portfolio)		18.0	17.0	18.4	17.3	-27.8	-28.4	-8.0	-8.7	18.0	16.8	18.3	17.3	23.4	22.2
NFI-ODCE + 50 bps (Value Add)		16.5	15.5	16.9	15.8	-29.3	-29.9	-9.5	-10.2	16.5	15.3	16.8	15.8	21.9	20.7
NFI-ODCE + 300 bps (Opportunistic)		19.0	18.0	19.4	18.3	-26.8	-27.4	-7.0	-7.7	19.0	17.8	19.3	18.3	24.4	23.2
NCREIF Timberland Index (Timber)		1.6		-0.1		-4.7		9.5		18.4		13.7		19.4	

Returns (%)	Market Value ($)	2017		2016		2015		2014		2013		2012	
		TGRS	TNET	TGRS	TNET	TGRS	TNET	TGRS	TNET	TGRS	TNET	TGRS	TNET
Opportunistic													
Apollo CPI Europe I	610,930												
Bristol Value II, L.P.	13,232,538	17.1	15.3	11.0	9.1	8.2	6.1	12.4	10.6	35.0	33.0		
Bryanston Retail Opportunity Fund	3,460,182	-22.1	-22.4	-2.5	-2.8	144.0	142.1	7.3	5.8	50.5	47.5	40.1	37.2
California Smart Growth Fund IV	4,980,749	21.3	19.8	5.9	5.4	20.3	19.2	17.9	16.2	13.1	11.6	19.9	18.3
Canyon Johnson Urban Fund II	29,108												
CBRE Strategic Partners UK Fund III	0												
CIM Real Estate Fund III	7,605,423	6.8	5.3	5.4	4.0	8.3	7.1	11.0	9.8	11.1	9.9	20.8	19.4
CityView LA Urban Fund I	267,724												
Colony Investors VIII	748,407												
DRA Growth and Income Fund VI	2,645,539	4.7	2.9	11.3	8.3	27.4	21.1	49.0	32.7	17.6	15.1	4.3	2.1
Genesis Workforce Housing Fund II	-44,467												
Integrated Capital Hospitality Fund	3,925,468	-17.6	-18.7	-34.0	-34.6	-14.6	-15.2	28.2	27.2	12.1	11.0	96.8	87.9
LaSalle Asia Fund II	231,047												
Latin America Investors III	4,839,234	-21.9	-24.6	-4.9	-6.9	-30.3	-32.8	0.4	-4.6	-17.9	-22.4	-60.0	-62.6
Lone Star Fund VII	211,702												
Lone Star Real Estate Fund II	1,503,449	-0.7	5.4	16.4	13.8	42.5	32.9	58.3	44.7	30.5	22.3	40.2	30.6
Lowe Hospitality Investment Partners	0												
MacFarlane Urban Real Estate Fund II	0												
RECP Fund IV, L.P.	37,183,814	14.6	12.4	6.9	5.3	8.3	6.2	6.4	4.6	8.5	6.7	23.4	21.1
Southern California Smart Growth Fund	1,011,416	-1.1	-1.1	44.3	43.3	21.0	19.2	21.8	19.3	14.9	11.4	-33.5	-33.6
Stockbridge Real Estate Fund II	10,353,669	21.2	20.6	-4.7	-5.5	3.9	2.6	24.4	22.8	46.5	43.7	3.2	0.7
The Buchanan Fund V	3,558,864	2.3	1.3	20.1	18.8	2.1	0.9	19.2	17.8	22.4	21.2	10.2	9.2
Torchlight Debt Opportunity Fund II	7,955,313	3.4	3.1	-2.3	-2.6	15.7	15.2	6.7	6.0	24.6	23.5	24.5	23.1
Torchlight Debt Opportunity Fund III	1,924,890	24.4	18.2	14.2	10.4	33.6	25.4	92.7	65.6	33.8	20.3	17.7	15.2
Torchlight Debt Opportunity Fund IV	19,360,720	15.2	11.3	11.8	9.8	12.0	9.8	13.9	10.4	3.6	3.0		
Tuckerman Group Residential Income & Value Added Fund	949,171												
Walton Street Real Estate Fund V	6,565,556	4.5	3.5	2.1	0.7	11.9	10.4	13.2	11.7	12.9	11.2	9.5	7.8
Walton Street Real Estate Fund VI	10,463,546	9.2	7.9	-5.4	-6.6	13.5	12.2	14.8	13.4	16.0	14.3	12.1	10.4
Opportunistic	**143,573,992**	**7.7**	**6.0**	**2.8**	**1.3**	**7.2**	**5.3**	**15.7**	**12.9**	**15.3**	**12.3**	**12.5**	**10.1**
Private Real Estate Portfolio Only (ex. Timber)	**793,608,667**	**10.2**	**8.8**	**8.2**	**6.9**	**11.3**	**9.6**	**13.8**	**12.0**	**13.4**	**11.4**	**12.8**	**11.1**
Non-Core Portfolio	**263,639,726**	**12.1**	**10.0**	**7.5**	**5.6**	**9.8**	**7.6**	**14.7**	**12.3**	**13.6**	**11.0**	**14.0**	**11.9**
Total Portfolio													
LACERS	**814,452,881**	**10.0**	**8.6**	**8.1**	**6.8**	**11.2**	**9.5**	**13.7**	**11.9**	**13.5**	**11.4**	**12.8**	**11.0**
Indices													
NFI-ODCE (Core)		7.6	6.7	8.8	7.8	15.0	14.0	12.5	11.5	13.9	12.9	10.9	9.8
NFI-ODCE + 80 bps (Total Portfolio)		8.0	7.1	9.6	8.6	15.8	14.8	13.3	12.3	14.7	13.7	11.7	10.6
NFI-ODCE + 200 bps (Non-Core Portfolio)		8.6	7.7	10.8	9.8	17.0	16.0	14.5	13.5	15.9	14.9	12.9	11.8
NFI-ODCE + 50 bps (Value Add)		7.9	6.9	9.3	8.3	15.5	14.5	13.0	12.0	14.4	13.4	11.4	10.3
NFI-ODCE + 300 bps (Opportunistic)		9.1	8.2	11.8	10.8	18.0	17.0	15.5	14.5	16.9	15.9	13.9	12.8
NCREIF Timberland Index (Timber)		3.6		2.7		5.0		10.5		9.7		7.8	

Returns (%)	Market Value ($)	2011		2010		2009		2008		2007		2006		2005	
		TGRS	TNET	TGRS	TNET	TGRS	TNET	TGRS	TNET	TGRS	TNET	TGRS	TNET	TGRS	TNET
Opportunistic															
Apollo CPI Europe I	610,930														
Bristol Value II, L.P.	13,232,538														
Bryanston Retail Opportunity Fund	3,460,182	-4.3	-7.2	20.9	18.3	12.8	10.2	73.9	69.4	-43.1	-45.5	112.8	98.1	161.3	143.3
California Smart Growth Fund IV	4,980,749	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	29,108														
CBRE Strategic Partners UK Fund III	0														
CIM Real Estate Fund III	7,605,423	21.8	19.8	15.3	-13.8	-53.5	-83.5	-117.3	-113.8						
CityView LA Urban Fund I	267,724														
Colony Investors VIII	748,407														
DRA Growth and Income Fund VI	2,645,539	32.6	29.1	15.9	11.1	-10.2	-14.7	-6.9	-10.3						
Genesis Workforce Housing Fund II	-44,467														
Integrated Capital Hospitality Fund	3,925,468	6.0	2.6												
LaSalle Asia Fund II	231,047														
Latin America Investors III	4,839,234	-32.5	-34.9	20.8	15.3	100.5	93.8								
Lone Star Fund VII	211,702														
Lone Star Real Estate Fund II	1,503,449	45.3	30.8												
Lowe Hospitality Investment Partners	0														
MacFarlane Urban Real Estate Fund II	0														
RECP Fund IV, L.P.	37,183,814	2.4	-1.4	12.5	4.3	-45.6	-54.8	-40.0	-40.0						
Southern California Smart Growth Fund	1,011,416	-5.3	-5.4	-7.5	-7.7	-40.5	-40.6	-19.2	-19.3	75.6	75.3	82.2	81.0	-212.5	-216.2
Stockbridge Real Estate Fund II	10,353,669	7.2	4.2	21.8	16.8	-86.3	-86.8	-83.4	-84.0	-27.9	-31.9	91.0	80.1		
The Buchanan Fund V	3,558,864	10.4	9.4	8.1	6.3	-45.9	-48.2	-30.5	-33.0	1.1	-1.1				
Torchlight Debt Opportunity Fund II	7,955,313	23.7	22.0	41.4	36.1	29.9	23.6	-68.7	-69.7						
Torchlight Debt Opportunity Fund III	1,924,890	1.2	1.0	12.7	2.8	26.4	22.7								
Torchlight Debt Opportunity Fund IV	19,360,720														
Tuckerman Group Residential Income & Value Added Fund	949,171														
Walton Street Real Estate Fund V	6,565,556	10.1	8.0	48.0	44.0	-27.8	-31.1	-47.7	-48.7	10.3	8.6	7.2	6.6		
Walton Street Real Estate Fund VI	10,463,546	14.3	12.3	173.3	162.1	-78.1	-84.0								
Opportunistic	**143,573,992**	**8.8**	**6.5**	**17.1**	**12.6**	**-39.0**	**-41.6**	**-36.6**	**-39.2**	**10.6**	**4.6**	**31.4**	**24.5**	**32.0**	**25.2**
Private Real Estate Portfolio Only (ex. Timber)	**793,608,667**	**12.8**	**10.9**	**13.3**	**10.5**	**-35.1**	**-36.7**	**-23.1**	**-24.3**	**14.3**	**11.1**	**20.1**	**17.2**	**25.4**	**22.3**
Non-Core Portfolio	**263,639,726**	**11.9**	**9.6**	**12.2**	**8.5**	**-38.8**	**-40.7**	**-30.0**	**-31.3**	**14.2**	**10.0**	**21.1**	**17.1**	**28.9**	**24.2**
Total Portfolio															
LACERS	**814,452,881**	**12.6**	**10.8**	**13.0**	**10.3**	**-34.4**	**-35.9**	**-22.5**	**-23.6**	**14.5**	**11.3**	**20.2**	**17.4**	**25.4**	**22.3**
Indices															
NFI-ODCE (Core)		16.0	15.0	16.4	15.3	-29.8	-30.4	-10.0	-10.7	16.0	14.8	16.3	15.3	21.4	20.2
NFI-ODCE + 80 bps (Total Portfolio)		16.8	15.8	17.2	16.1	-29.0	-29.6	-9.2	-9.9	16.8	15.6	17.1	16.1	22.2	21.0
NFI-ODCE + 200 bps (Non-Core Portfolio)		18.0	17.0	18.4	17.3	-27.8	-28.4	-8.0	-8.7	18.0	16.8	18.3	17.3	23.4	22.2
NFI-ODCE + 50 bps (Value Add)		16.5	15.5	16.9	15.8	-29.3	-29.9	-9.5	-10.2	16.5	15.3	16.8	15.8	21.9	20.7
NFI-ODCE + 300 bps (Opportunistic)		19.0	18.0	19.4	18.3	-26.8	-27.4	-7.0	-7.7	19.0	17.8	19.3	18.3	24.4	23.2
NCREIF Timberland Index (Timber)		1.6		-0.1		-4.7		9.5		18.4		13.7		19.4	

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	23,867,683	0	330,218	0	263,594	38,806	79,778	23,842,031	45.0
CIM Commercial Trust Corporation (“CMCT”)	28,074,602	0	117,463	7,002,590	178,114	0	1,402,820	22,535,483	31.6
CIM VI (Urban REIT), LLC	30,258,939	0	234,216	0	291,471	104,299	136,194	30,348,090	0.0
INVESCO Core Real Estate	160,151,805	1,289,325	1,275,563	0	1,399,897	133,399	2,246,271	163,678,336	25.2
Jamestown Premier Property Fund	48,261,482	72,392	486,352	0	579,670	1,143,503	4,557,407	51,841,096	34.5
JP Morgan Strategic Property Fund	63,427,486	0	0	0	633,312	152,897	504,933	64,412,834	23.3
Lion Industrial Trust - 2007	58,445,068	55,455	453,485	0	781,270	243,316	963,698	59,548,690	34.8
Prime Property Fund	53,994,141	0	532,219	0	542,468	130,801	712,307	54,585,896	17.4
Principal U.S. Property Account	58,114,158	0	0	0	631,575	140,551	571,301	59,176,485	22.4
Core	**524,595,364**	**1,417,172**	**3,429,516**	**7,002,590**	**5,301,371**	**2,087,572**	**11,174,709**	**529,968,941**	**26.6**
Timber									
Hancock Timberland XI	20,667,705	0	157,882	0	-50,323	45,698	430,412	20,844,214	0.0
Timber	**20,667,705**	**0**	**157,882**	**0**	**-50,323**	**45,698**	**430,412**	**20,844,214**	**0.0**
Value Added									
Almanac Realty Securities VI	10,031,174	0	255,135	418,961	183,131	17,727	-338,715	9,183,767	64.0
Asana Partners Fund I	7,891,887	400,000	0	0	50,945	271,860	557,434	8,628,406	53.5
CBRE Strategic Partners IV	110,531	0	0	110,531	0	0	0	0	0.0
Cornerstone Enhanced Mortgage Fund I	5,249,251	0	92,517	4,033,361	108,678	8,946	32	1,223,137	0.0
DRA Growth and Income Fund VII	17,840,509	0	2,322,222	0	610,705	269,890	629,271	16,488,373	64.0
DRA Growth and Income Fund VIII	22,933,844	592,593	1,464,586	0	429,634	114,446	136,335	22,513,374	66.4
Gerrity Retail Fund 2	14,051,222	762,742	140,268	0	293,814	68,750	140,668	15,039,427	57.9
Heitman Asia-Pacific Property Investors	-233,207	0	0	0	-44,376	1,951	-25,507	-305,042	151.0
JP Morgan Alternative Property Fund	222,923	0	0	0	-5,471	0	21,108	238,560	69.1
Mesa West Real Estate Income Fund III	11,902,489	0	152,198	3,322,480	333,899	69,822	-260	8,691,628	63.0
RREEF America REIT III - 1410	142,642	0	0	139,012	-3,432	199	0	0	0.0
Standard Life Investments European Real Estate Club II	35,016,942	0	0	0	350,552	81,160	2,455,462	37,741,796	34.5
The Realty Associates Fund IX, L.P.	1,727,296	0	1,119,577	0	21,394	4,506	-2,299	622,308	0.0
Urdang Value Added Fund II	91,815	0	84,625	0	-47,786	0	40,596	0	0.0
Value Added	**126,979,318**	**1,755,335**	**5,631,128**	**8,024,345**	**2,281,687**	**909,257**	**3,614,125**	**120,065,734**	**53.4**
Total Portfolio									
LACERS	**835,873,964**	**4,228,194**	**19,978,093**	**27,222,282**	**8,722,904**	**3,909,858**	**16,738,052**	**814,452,881**	**33.8**

Quarterly Cash Flow Activity ($)	Beginning Market Value	Contributions	Distributions	Withdrawals	Gross Income	Manager Fees	Appreciation	Ending Market Value	LTV (%)
Opportunistic									
Apollo CPI Europe I	892,602	0	0	256,056	-4,726	0	-20,891	610,930	0.0
Bristol Value II, L.P.	11,330,532	342,857	66,159	0	22,284	48,197	1,651,221	13,232,538	35.7
Bryanston Retail Opportunity Fund	4,603,849	0	0	0	-1,721	4,136	-1,137,810	3,460,182	70.7
California Smart Growth Fund IV	6,534,707	74,582	0	2,010,320	42,739	74,582	413,623	4,980,749	0.0
Canyon Johnson Urban Fund II	29,543	0	0	0	-435	0	0	29,108	0.0
CBRE Strategic Partners UK Fund III	227,900	0	0	228,428	686	0	-157	0	0.0
CIM Real Estate Fund III	8,300,983	0	864,948	0	-61,476	28,921	259,785	7,605,423	32.9
CityView LA Urban Fund I	2,454,817	7,669	2,239,788	0	-17,373	7,669	70,068	267,724	0.0
Colony Investors VIII	2,306,955	0	0	1,763,348	20,400	5,800	190,200	748,407	0.0
DRA Growth and Income Fund VI	2,648,229	0	68,000	0	84,313	19,003	0	2,645,539	45.0
Genesis Workforce Housing Fund II	139,741	0	182,439	0	-1,769	0	0	-44,467	0.0
Integrated Capital Hospitality Fund	5,047,377	0	0	0	-527,465	15,762	-578,682	3,925,468	47.1
LaSalle Asia Fund II	214,150	0	0	0	15,686	0	1,211	231,047	0.0
Latin America Investors III	5,946,882	0	0	0	-29,578	50,192	-1,027,878	4,839,234	26.6
Lone Star Fund VII	294,394	0	55,146	0	3,715	-9,884	-41,144	211,702	91.3
Lone Star Real Estate Fund II	2,150,915	0	184,006	510,507	36,993	3,271	13,326	1,503,449	23.0
Lowe Hospitality Investment Partners	76,930	0	0	56,391	-20,539	0	0	0	0.0
MacFarlane Urban Real Estate Fund II	271,520	0	270,541	0	-979	0	0	0	0.0
RECP Fund IV, L.P.	36,883,922	630,579	1,691,081	0	1,065,491	199,850	494,753	37,183,814	31.0
Southern California Smart Growth Fund	1,011,251	0	0	0	165	0	0	1,011,416	69.2
Stockbridge Real Estate Fund II	10,331,893	0	0	0	-8,547	8,808	39,131	10,353,669	48.3
The Buchanan Fund V	3,613,777	0	0	0	12,385	9,567	-57,731	3,558,864	21.9
Torchlight Debt Opportunity Fund II	8,578,861	0	674,726	0	1,233	4,136	54,081	7,955,313	23.5
Torchlight Debt Opportunity Fund III	2,979,871	0	1,327,709	0	70,890	75,874	277,712	1,924,890	0.0
Torchlight Debt Opportunity Fund IV	21,358,737	0	2,618,137	0	490,066	268,914	398,968	19,360,720	16.1
Tuckerman Group Residential Income & Value Added Fund	7,550,124	0	0	6,665,633	-83,659	13,585	161,924	949,171	0.0
Walton Street Real Estate Fund V	7,094,732	0	0	704,664	20,318	8,404	163,574	6,565,556	48.4
Walton Street Real Estate Fund VI	10,756,383	0	516,887	0	61,072	30,544	193,522	10,463,546	59.4
Opportunistic	**163,631,577**	**1,055,687**	**10,759,567**	**12,195,347**	**1,190,169**	**867,331**	**1,518,806**	**143,573,992**	**37.7**
Private Real Estate Portfolio Only (ex. Timber)	**815,206,259**	**4,228,194**	**19,820,211**	**27,222,282**	**8,773,227**	**3,864,160**	**16,307,640**	**793,608,667**	**34.4**
Non-Core Portfolio	**290,610,895**	**2,811,022**	**16,390,695**	**20,219,692**	**3,471,856**	**1,776,588**	**5,132,931**	**263,639,726**	**46.0**
Total Portfolio									
LACERS	**835,873,964**	**4,228,194**	**19,978,093**	**27,222,282**	**8,722,904**	**3,909,858**	**16,738,052**	**814,452,881**	**33.8**

Property Type Diversification (%)	Apartment	Office	Industrial	Retail	Hotel	Other
Core						
Berkshire Multifamily Income Realty Fund	100.0	-	-	-	-	-
CIM Commercial Trust Corporation (“CMCT”)	-	83.1	-	-	11.8	5.1
CIM VI (Urban REIT), LLC	57.3	27.9	-	14.8	-	0.0
INVESCO Core Real Estate	31.6	33.9	14.8	19.7	-	0.1
Jamestown Premier Property Fund	-	70.1	-	17.2	-	12.7
JP Morgan Strategic Property Fund	21.3	40.2	10.6	26.4	-	1.6
Lion Industrial Trust - 2007	-	-	100.0	-	-	-
Prime Property Fund	24.4	34.1	16.2	16.4	-	8.9
Principal U.S. Property Account	11.2	41.9	22.4	16.7	1.3	6.6
Core	**23.9**	**35.5**	**21.3**	**15.4**	**0.6**	**3.3**
Timber						
Hancock Timberland XI	-	-	-	-	-	100.0
Timber	**-**	**-**	**-**	**-**	**-**	**100.0**
Value Added						
Almanac Realty Securities VI	29.0	7.0	-	6.1	54.5	3.4
Asana Partners Fund I	-	-	-	100.0	-	-
CBRE Strategic Partners IV	-	-	-	-	-	-
Cornerstone Enhanced Mortgage Fund I	-	100.0	-	-	-	-
DRA Growth and Income Fund VII	35.1	21.5	26.8	16.6	-	-
DRA Growth and Income Fund VIII	10.2	26.0	10.0	50.9	-	2.9
Gerrity Retail Fund 2	-	-	-	100.0	-	-
Heitman Asia-Pacific Property Investors	-	-	-	-	-	-
JP Morgan Alternative Property Fund	-	-	-	-	-	-
Mesa West Real Estate Income Fund III	27.8	60.6	-	-	11.6	-
RREEF America REIT III - 1410	-	-	-	-	-	-
Standard Life Investments European Real Estate Club II	-	40.2	46.2	13.6	-	-
The Realty Associates Fund IX, L.P.	-	100.0	-	-	-	-
Urdang Value Added Fund II	-	-	-	-	-	-
Value Added	**11.0**	**26.9**	**20.1**	**36.3**	**5.0**	**0.8**
Total Portfolio						
LACERS	**19.6**	**31.0**	**17.9**	**16.8**	**3.4**	**11.3**
Indices						
NFI-ODCE	**24.1**	**36.0**	**16.2**	**19.8**	**0.4**	**3.5**

Property Type Diversification (%)	Apartment	Office	Industrial	Retail	Hotel	Other
Opportunistic						
Apollo CPI Europe I	-	-	-	-	-	-
Bristol Value II, L.P.	12.1	49.9	17.1	-	-	20.9
Bryanston Retail Opportunity Fund	-	-	-	100.0	-	-
California Smart Growth Fund IV	3.3	-	53.1	0.4	-	43.2
Canyon Johnson Urban Fund II	-	-	-	-	-	-
CBRE Strategic Partners UK Fund III	-	-	-	-	-	-
CIM Real Estate Fund III	13.6	7.7	-	13.6	4.1	60.9
CityView LA Urban Fund I	100.0	-	-	-	-	-
Colony Investors VIII	-	96.7	-	-	-	3.3
DRA Growth and Income Fund VI	-	42.2	-	57.8	-	-
Genesis Workforce Housing Fund II	-	-	-	-	-	-
Integrated Capital Hospitality Fund	-	-	-	-	100.0	-
LaSalle Asia Fund II	-	-	-	-	-	-
Latin America Investors III	-	10.4	-	-	-	89.6
Lone Star Fund VII	-	-	-	-	-	100.0
Lone Star Real Estate Fund II	-	38.9	0.5	2.9	16.8	41.0
Lowe Hospitality Investment Partners	-	-	-	-	-	-
MacFarlane Urban Real Estate Fund II	-	-	-	-	-	-
RECP Fund IV, L.P.	22.8	8.1	4.5	-	10.7	53.9
Southern California Smart Growth Fund	-	-	-	-	-	-
Stockbridge Real Estate Fund II	-	43.6	-	-	24.2	32.1
The Buchanan Fund V	84.0	-	-	-	-	16.0
Torchlight Debt Opportunity Fund II	0.0	99.9	0.0	0.1	0.0	0.0
Torchlight Debt Opportunity Fund III	1.5	87.7	0.8	7.0	1.5	1.5
Torchlight Debt Opportunity Fund IV	21.9	16.1	11.5	23.3	18.2	9.1
Tuckerman Group Residential Income & Value Added Fund	-	-	-	-	-	100.0
Walton Street Real Estate Fund V	-	-	-	2.1	43.9	53.9
Walton Street Real Estate Fund VI	5.6	9.2	-	7.1	6.0	72.1
Opportunistic	**13.7**	**22.1**	**6.2**	**8.2**	**12.7**	**37.0**
Private Real Estate Portfolio Only (ex. Timber)	**20.1**	**31.8**	**18.4**	**17.2**	**3.5**	**9.0**
Non-Core Portfolio	**12.4**	**24.3**	**12.6**	**21.1**	**9.2**	**20.4**
Total Portfolio						
LACERS	**19.6**	**31.0**	**17.9**	**16.8**	**3.4**	**11.3**
Indices						
NFI-ODCE	**24.1**	**36.0**	**16.2**	**19.8**	**0.4**	**3.5**

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	5.5	9.0	10.7	-	24.7	15.1	7.9	27.1	-	-
CIM Commercial Trust Corporation (“CMCT”)	-	24.0	-	-	-	9.3	-	66.7	-	-
CIM VI (Urban REIT), LLC	61.6	-	-	-	-	21.1	-	17.3	-	-
INVESCO Core Real Estate	16.6	9.2	3.5	0.9	2.7	13.7	10.2	43.3	-	-
Jamestown Premier Property Fund	54.0	19.9	-	-	1.9	-	-	24.3	-	-
JP Morgan Strategic Property Fund	24.0	7.7	4.7	0.0	6.6	13.7	2.6	40.7	-	-
Lion Industrial Trust - 2007	19.7	2.2	8.7	2.4	14.5	16.7	2.8	33.0	-	-
Prime Property Fund	21.7	8.0	9.3	2.0	11.8	9.0	4.3	33.7	-	-
Principal U.S. Property Account	15.5	9.2	4.6	1.8	9.0	13.7	10.1	36.2	-	-
Core	**22.9**	**9.1**	**4.7**	**1.0**	**6.9**	**12.6**	**5.8**	**37.0**	-	-
Timber										
Hancock Timberland XI	-	-	-	-	-	-	-	21.6	65.1	13.3
Timber	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**21.6**	**65.1**	**13.3**
Value Added										
Almanac Realty Securities VI	-	-	-	-	-	-	-	-	100.0	-
Asana Partners Fund I	-	45.0	-	-	15.2	39.8	-	-	-	-
CBRE Strategic Partners IV	-	-	-	-	-	-	-	-	-	-
Cornerstone Enhanced Mortgage Fund I	-	-	-	-	-	-	100.0	-	-	-
DRA Growth and Income Fund VII	-	9.9	2.4	6.5	20.0	37.7	9.4	14.1	-	-
DRA Growth and Income Fund VIII	3.8	11.4	27.5	11.2	18.4	13.3	1.8	12.6	-	-
Gerrity Retail Fund 2	-	-	-	-	-	-	-	100.0	-	-
Heitman Asia-Pacific Property Investors	-	-	-	-	-	-	-	-	-	-
JP Morgan Alternative Property Fund	-	-	-	-	-	-	-	-	-	-
Mesa West Real Estate Income Fund III	12.0	23.0	5.2	-	15.8	17.4	10.9	15.8	-	-
RREEF America REIT III - 1410	-	-	-	-	-	-	-	-	-	-
Standard Life Investments European Real Estate Club II	-	-	-	-	-	-	-	-	-	100.0
The Realty Associates Fund IX, L.P.	-	-	-	-	-	-	100.0	-	-	-
Urdang Value Added Fund II	-	-	-	-	-	-	-	-	-	-
Value Added	**1.6**	**8.4**	**5.9**	**3.0**	**8.4**	**11.8**	**3.9**	**18.0**	**7.6**	**31.4**
Total Portfolio										
LACERS	**17.3**	**8.5**	**4.0**	**1.1**	**7.4**	**9.9**	**4.7**	**28.8**	**11.6**	**6.8**
Indices										
NFI-ODCE	**21.9**	**9.1**	**7.9**	**1.5**	**9.5**	**8.9**	**5.3**	**35.9**	**-**	**-**

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	-	-	-	-	-	-	-	-	-	-
Bristol Value II, L.P.	38.9	-	-	-	52.9	-	8.2	-	-	-
Bryanston Retail Opportunity Fund	17.0	0.0	9.6	0.2	1.7	11.4	13.2	46.9	-	-
California Smart Growth Fund IV	-	-	-	-	-	-	-	100.0	-	-
Canyon Johnson Urban Fund II	-	-	-	-	-	-	-	-	-	-
CBRE Strategic Partners UK Fund III	-	-	-	-	-	-	-	-	-	-
CIM Real Estate Fund III	26.7	-	18.2	-	32.2	0.1	5.6	16.6	-	0.7
CityView LA Urban Fund I	-	-	-	-	-	-	-	100.0	-	-
Colony Investors VIII	0.2	-	-	-	-	-	-	83.8	-	16.0
DRA Growth and Income Fund VI	5.0	-	-	5.3	37.1	-	52.5	-	-	-
Genesis Workforce Housing Fund II	-	-	-	-	-	-	-	-	-	-
Integrated Capital Hospitality Fund	-	54.7	-	-	31.7	13.6	-	-	-	-
LaSalle Asia Fund II	-	-	-	-	-	-	-	-	-	-
Latin America Investors III	-	-	-	-	-	-	-	-	-	100.0
Lone Star Fund VII	-	6.7	-	-	18.0	1.5	-	-	70.0	3.8
Lone Star Real Estate Fund II	-	-	-	-	-	-	-	-	94.9	5.1
Lowe Hospitality Investment Partners	-	-	-	-	-	-	-	-	-	-
MacFarlane Urban Real Estate Fund II	-	-	-	-	-	-	-	-	-	-
RECP Fund IV, L.P.	28.9	23.6	-	-	-	1.2	0.0	19.1	-	27.1
Southern California Smart Growth Fund	-	-	-	-	-	-	-	-	-	-
Stockbridge Real Estate Fund II	-	-	-	-	-	-	-	100.0	-	-
The Buchanan Fund V	-	-	-	-	-	84.0	-	16.0	-	-
Torchlight Debt Opportunity Fund II	-	-	-	-	-	-	-	-	100.0	-
Torchlight Debt Opportunity Fund III	-	-	-	-	-	-	-	-	100.0	-
Torchlight Debt Opportunity Fund IV	-	-	-	-	-	-	-	-	100.0	-
Tuckerman Group Residential Income & Value Added Fund	100.0	-	-	-	-	-	-	-	-	-
Walton Street Real Estate Fund V	-	12.3	-	-	35.7	-	4.2	11.6	-	36.2
Walton Street Real Estate Fund VI	51.8	14.5	4.3	1.4	8.6	5.7	4.8	4.4	-	4.5
Opportunistic	**17.7**	**9.9**	**1.7**	**0.2**	**11.9**	**3.4**	**3.3**	**17.5**	**21.7**	**12.7**
Private Real Estate Portfolio Only (ex. Timber)	**18.6**	**9.9**	**4.4**	**1.1**	**8.3**	**11.5**	**5.3**	**30.4**	**4.4**	**6.1**
Non-Core Portfolio	**10.1**	**11.4**	**3.9**	**1.5**	**11.1**	**9.3**	**4.2**	**17.3**	**13.2**	**18.1**
Total Portfolio										
LACERS	**17.3**	**8.5**	**4.0**	**1.1**	**7.4**	**9.9**	**4.7**	**28.8**	**11.6**	**6.8**
Indices										
NFI-ODCE	**21.9**	**9.1**	**7.9**	**1.5**	**9.5**	**8.9**	**5.3**	**35.9**	**-**	**-**

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 (4Q17)

General

- The S&P 500 produced a gross total return of 6.6% during the Quarter, as markets have continued to rally on the back of tax cuts. MSCI US REIT index produced a more moderate return of 1.4%. REITS underperformed the broader equities market by 16.8%. Consumer Sentiment improved during the Quarter, concluding the year at 95.9. US 10 year treasury bond yields expanded 7 bps during the Quarter.

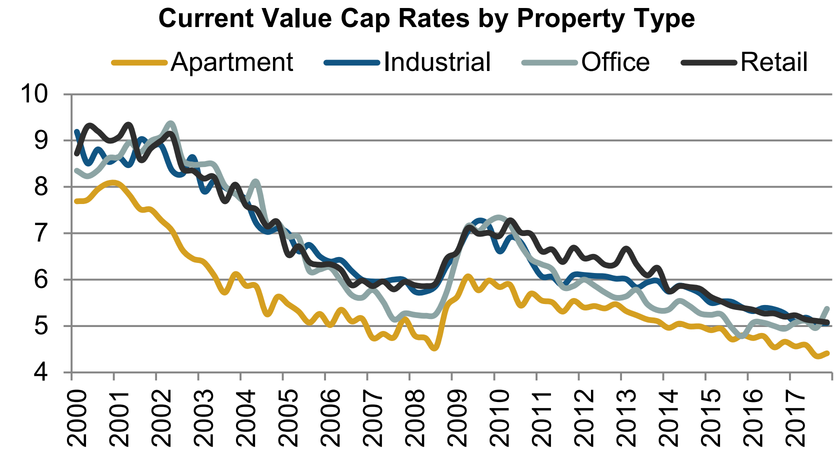
- Macro indicators for U.S. real estate continue to be positive; GDP grew at an annualized rate of 2.6% in the 4th Quarter. With the conclusion of December, the economy has now experienced 87 consecutive months of job growth. For 2017, headline inflation remained healthy at 2.1%, near the Fed's 2% target. The Federal Reserve has continued to tighten their policy, in light of improving economic data, and raised base rates to 1.25-1.5%. In 2018, the consensus expectation is three rate hikes.

Commercial Real Estate

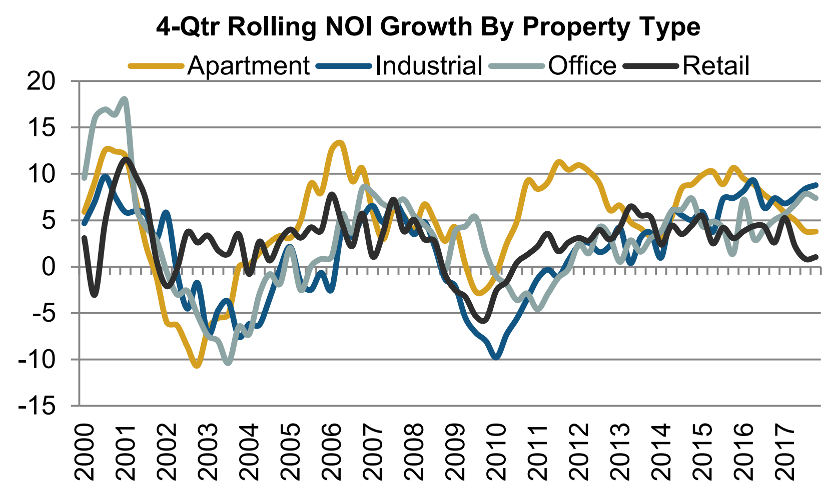
- In 2016, $124.1bn of aggregate capital was raised by US real estate funds. 2017, Private Equity Real Estate Funds have raised 111.6bn. Continuing on trend since 2012, 2017 has witnessed the largest average fund size at $444m; this trend which has strengthened as capital has concentrated in a small group of established managers.

- Transaction cap rates (5.87%) on average expanded 5 bps during the 4th Quarter of 2017. Office experienced an expansion of current value cap rates of 40 bps; other sectors remained relatively flat.

- 10 year treasury bond yields compressed an expanded 7 bps to 2.4% during the quarter and, subsequent to quarter end, have continued to expand. A combination of fiscal stimulus and tightening from the fed has increased the investor's expectation of inflation.



Source: NCREIF



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

United States Property Matrix (4Q17)

INDUSTRIAL

- As of 4Q17, Industrial properties returned 3.3% and outperformed the NPI by 149 bps.
- With nearly 82 million square feet of net absorption in 4Q17 (the highest fourth quarter number on record), 2017 demand reached 245 million square feet. This represents a 6.1% decline from 2016 totals.
- Midsized product (100,000 – 500,000 square feet) significantly increased from 2016 deal volumes, with 73% of transactions falling into this category.
- Construction levels remain elevated, with new deliveries reaching 232.7 million square feet in 2017, with many markets reaching historical highs in new deliveries. Speculative development was 75% of total deliveries for 2017 speaking to continued demand.
- A 20 bps reduction in vacancy has resulted in another all-time low of 5.0%. Strong demand has pushed asking rents up 5.4% year-over-year and now stand at $5.50 PSF.

MULTIFAMILY

- Sales volumes decreased by 8.3% in 2017. Despite the slowdown, multifamily led all other property types in terms of transaction volume for the third straight year, speaking to the strong liquidity that remains in the market.
- Primary market transaction activity represented 40.3% of activity, down from 44.0% in 2016. New supply has continued to drive investors' cautious outlook on primary markets.
- Acquisitions by REITs decreased by 23%, as pricing has made it difficult to underwrite required return hurdles. Meanwhile, foreign investment increased 16%, with Canada and Singapore accounting for 66% of foreign investment.
- Annual rent growth ended the year at 2.3%. Concessions continue to increase in many markets nationally, a product of increased supply coming to market.
- The apartment sector delivered a 1.6% return during the Quarter, underperforming the NPI by 18 bps.

OFFICE

- The Office sector returned 1.7% in 4Q17, 15bps below the NPI.
- For the year, the office market recorded occupancy growth of 36.4 million square feet, 13% less than 2016 numbers, representing a third consecutive year of slowed occupancy growth.
- As a result of slowed expansion activity, vacancy has increased to 14.9%, with levels anticipated to increase through 2018 and 2019.
- Construction starts have dropped sharply in 2017 by 29%, with construction volumes dropping below the 100 million square feet level for the first time in three years.
- New supply has provided some upside for landlords with completions commanding a 43% premium to existing Class A space. Pricing discounts to Core product, as well as increased deliveries, has resulted in suburban office product being able to increase asking rents at a greater pace than urban assets.

RETAIL

- Transaction volumes totaled $51.5 billion for 2017, a 22.5% decrease from the prior year. Secondary markets seeing strong population and job growth experienced growth, but not enough to offset the decline in gateway markets.
- Lifestyle centers and malls had transaction volume declines of 48.5% and 53.5%, respectively. One bright spot was general purpose centers, which experienced a 10.5% increase.
- Growth in rent for 2017 was 5.5%, marking a slowdown from that seen in 2016. Store closure announcements remain a headwind for rent growth going forward.
- Institutional retail investment declined 41.8% in 2017. REIT acquisitions increased by 12.0%, focused primarily on general purpose centers. Foreign investment declined by 56.7%, with core assets remaining the predominate component of activity.
- As of 4Q17, the retail sector delivered a quarterly return of 1.3%, which underperformed the NPI by 52 bps.

Sources: Real Capital Analytics, Bloomberg LP, Green Street, US Census Bureau, NCREIF, Jones Lang LaSalle, REIS, Cushman and Wakefield

Global Real Estate Market Update (4Q17)

TOWNSEND® GROUP
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GLOBAL

- Global investment activity during 4Q 2017 totaled $228 billion, marking a 10% increase as compared to 4Q 2016 levels. This brings full-year 2017 volumes to $698 billion, which is 6% higher than last year's total. The strong 4Q 2017 performance demonstrated investors' confidence in the real estate sector despite continued political uncertainty. Overall, 2017 produced record volumes for investment activity in the post-crisis era, driven by broad-based growth, low interest rates, and lack of inflationary pressure. Looking forward, global investment volumes in 2018 are expected to soften by 5% - 10% to around $650 billion due to a relative lack of product combined with continued investor discipline. However, investors are still keen to access the sector and will look for new strategies as the prominence of single-asset transactions has started to decline.

Direct Commercial Real Estate Investment - Regional Volumes, 2016 - 2017

$ US Billions	Q3 2017	Q4 2017	% Change Q3 17 - Q4 17	Q4 2016	% Change Q4 16 - Q4 17	FY 2016	FY 2017	% Change FY 16 - FY 17
Americas	61	66	8%	78	-15%	285	249	-13%
EMEA	73	110	51%	84	31%	245	300	22%
Asia Pacific	35	52	49%	45	16%	131	149	14%
Total	169	228	35%	207	10%	661	698	6%

Source: Jones Lang LaSalle, January 2018

EUROPE

- European investment increased 31% y/y in 4Q 2017, for a full-year volume of $300 billion. This was a 22% increase over full-year 2016 volumes and was the strongest year since 2007. Growth was strong across all regions, with investment volumes up 57% in the Benelux region, 24% in Southern Europe, and 27% in the Nordics as compared to 2016. Central and Eastern Europe rose 3% to $19 billion, surpassing the previous cyclical peak in 2006 by 29%. The U.K. showed continuous recovery following the impact of Brexit, with 4Q volumes up 80% y/y and totaling $79 billion for the full-year, a 37% increase as compared to full-year 2016 volumes. Germany saw volumes rise 8% in 4Q with full-year volumes up 9% compared to 2016. The French market saw a reversal of the 2Q and 3Q slowdown with investment volumes up 61% y/y.

ASIA

- Asia Pacific 4Q 2017 investment activity reached a record $52 billion, up 16% y/y. Full-year volumes were $249 billion, marking a 13% increase as compared to full-year 2016 volumes. Cross-border investment activity accounted for 40% of total transaction volumes, with Singaporeans being the largest cross-border buyers. Japan's transaction volumes totaled $37 billion for 2017, up 10% y/y. Australia's full-year investment volume was $21 billion, up 14% compared to 2016. Investor interest has been shifting towards secondary cities such as Brisbane. Chinese transaction activity marked an all-time record, reaching $36 billion in 2017. This represents a 5% increase compared to 2016. Specifically, Hong Kong volumes came in at $16.4 billion, up 58% y/y.

Global Outlook - GDP (Real) Growth % pa, 2017-2019

	2017	2018	2019
Global	**3.6**	**3.9**	**3.6**
Asia Pacific	**5.5**	**5.5**	**5.2**
Australia	2.2	2.5	2.4
China	6.8	6.4	6.0
India	6.1	7.4	7.1
Japan	1.8	1.7	0.9
North America	**2.0**	**2.6**	**2.2**
US	2.3	2.7	1.9
MENA*	**2.0**	**3.2**	**3.8**
European Union	**2.8**	**2.5**	**2.0**
France	1.8	1.9	1.7
Germany	2.5	2.4	1.8
UK	1.5	1.5	1.6

*Middle East North Africa

Source: Jones Lang LaSalle (Oxford Economics), January 2018

Sources: Jones Lang LaSalle Research, Bloomberg LP

Exhibit C: Glossary

Cash Flow Statement

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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

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

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 (16 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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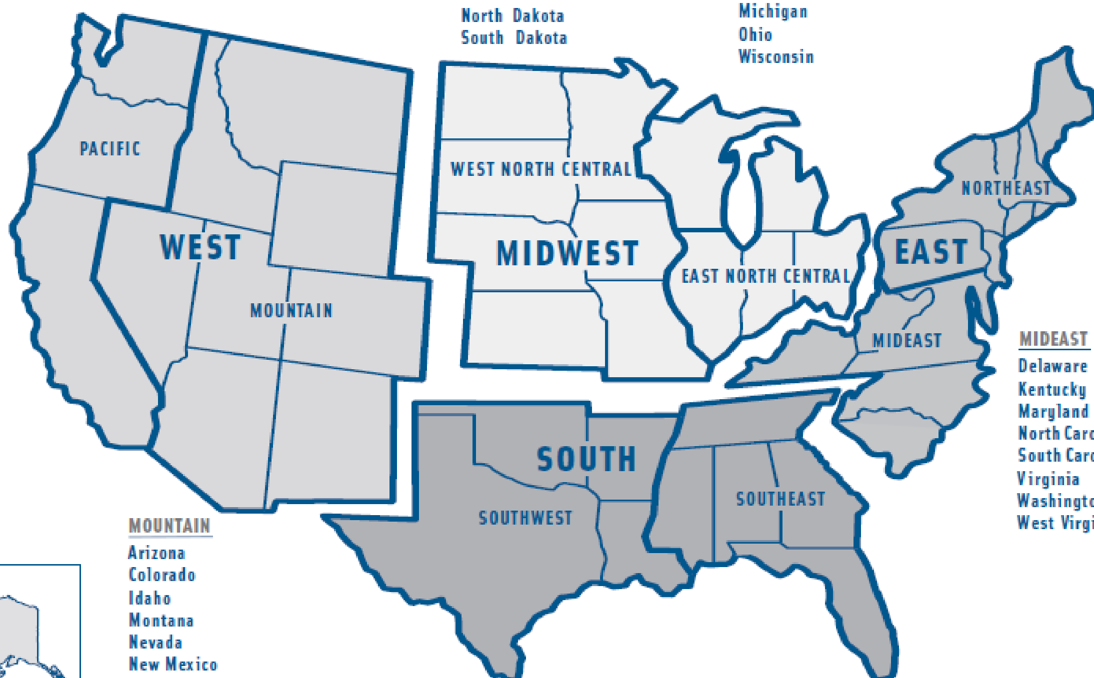
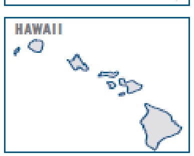
Income Return ("INC"):	**Net operating income net of debt service before deduction of capital items (e.g., roof replacement, renovations, etc.)**
Appreciation Return ("APP"):	Increase or decrease in investment's value based on internal or third party appraisal, recognition of capital expenditures which 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.

GEOGRAPHIC REGIONS and DIVISIONS





PACIFIC
Alaska
California
Hawaii
Oregon
Washington

MOUNTAIN
Arizona
Colorado
Idaho
Montana
Nevada
New Mexico
Utah
Wyoming

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

MIDEAST
Delaware
Kentucky
Maryland
North Carolina
South Carolina
Virginia
Washington, DC
West Virginia

SOUTHWEST
Arkansas
Louisiana
Oklahoma
Texas

SOUTHEAST
Alabama
Florida
Georgia
Mississippi
Tennessee

NCREIF

LACERS
LOS ANGELES CITY EMPLOYEES' RETIREMENT SYSTEM

Report to Board of Administration

From:	Investment Committee Sung Won Sohn, Chairperson Nilza R. Serrano Elizabeth Lee	Agenda of:	**AUGUST 14, 2018**
		ITEM:	**X-D**

SUBJECT: **REAL ESTATE FISCAL YEAR 2018-19 STRATEGIC PLAN AND POSSIBLE BOARD ACTION**

Recommendation

That the Board adopt the Real Estate Fiscal Year 2018-19 Strategic Plan.

Discussion

On July 10, 2018, the Committee considered the attached report regarding the Real Estate Fiscal Year 2018-19 Strategic Plan. The Committee heard a presentation from Robert Miranda and Felix Fels of The Townsend Group (Townsend), LACERS' Real Estate Consultant. The plan, developed by Townsend with input from staff, establishes strategic objectives and investment plan recommendations for the 2018-19 Fiscal Year. Townsend will be present at the Board meeting of August 14, 2018, should the Board desire to hear a presentation of the proposed plan.

Strategic Plan Impact Statement
The annual real estate strategic plan assists the Board in building a diversified real estate and total fund portfolio with an attractive risk-adjusted return profile (Goal IV). Development and adoption of such a plan also promotes good governance practices (Goal V).

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

RJ:BF:EP:ag

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

ATTACHMENT

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MEMORANDUM

TO:	**The Board of Los Angeles City Employees' Retirement System**
DATE:	July 2018
SUBJECT:	Real Estate Strategic & Investment Plan – Executive Summary
FROM:	**The Townsend Group**

Executive Summary

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

Townsend was re-engaged by LACERS's Board in 2015 to serves as its real estate consultant. Since that time, Townsend has worked with LACERS Staff to successfully transition the Portfolio to reflect a more conservative risk profile. The investment strategy from 2015 to-date has emphasized $220 million of investment into Core funds, $120 million into tactical Non-Core funds and close monitoring of pre-GFC underperforming investments which have begun to mature and liquidate.

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

The Strategic and Investment Plan recommendations for 2018 are summarized below.

2018 Strategic Recommendations

Townsend is not recommending any significant strategic changes in 2018. A proposed change to the Strategic Plan is summarized below.

1. *Document Real Estate Allocation increase from 5.0% to 7.0%.* Consistent with the aforementioned election by the Board to increase its real estate allocation from 5.0% to 7.0% of Total Plan Assets, Townsend recommends revising the Real Estate Strategic Plan to reflect this.

END OF STRATEGIC RECOMMENDATIONS

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2018-2022 Investment Recommendations

The LACERS Program (the "Program") now has a 7.0% allocation target (with an allowable range of ± 2.0%). As of September 30, 2017, the market value of the Portfolio was $947 million on a committed and funded basis (5.7% of Total Plan Assets). With the combination of the recently approved increased allocation to real estate, and planned liquidations, LACERS will need to deploy significant capital in order to reach its 7.0% allocation target over the coming years.

The following table depicts a range of capital shortfalls between 2018 and 2022 under three different scenarios:

Portfolio Growth Scenario	Core Growth Assumption	Non-Core Growth Assumption	Total Capital Needed until 2022	Capital per Annum until 2022
Conservative	0%	4%	$865 million	$173 million
Baseline	2%	6%	$790 million	$158 million
Aggressive	4%	8%	$700 million	$140 million

According to the Baseline Scenario, LACERS has capacity to make cumulative commitments of approximately $790 million over five years in order to reach its 7.0% allocation to Real Estate (targeting approximately $150 million per year).

Townsend recommends the following 2018-2019 Goals to LACERS for consideration:

Overall Portfolio Goals

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

Core Portfolio Goals

- In 2H2018, evaluate existing Open-End Core fund portfolio and consider rebalancing portfolio to maximize benefits and improve returns, as necessary.
- Maintain relative weightings to Core v. Non-Core to maintain an appropriate level of defensiveness.

Non-Core Portfolio Goals

- Substantial realizations by Non-Core managers, particularly from pre-GFC investments, will result in declining market exposure with no additional commitments.
- Focus on up to three incremental commitments in Non-Core (ranging from $35 to $50 million per investment).
- Target commitments to preferred property types and regions based on LACERS Portfolio exposures:
  - Debt (mezzanine or preferred equity with kickers to provide equity-like returns with downside protection),
  - US Office (projected to be 7.0% underweight compared to ODCE by 2020; being highly selective with a proven office manager executing in high conviction markets with strong demand-drivers),
  - US Retail (projected to be 4.0% underweight compared to ODCE by 2020; consider one investment with a proven high-street or grocery anchored retail manager),
  - Other/Niche (may include student accommodation, seniors housing or medical office),
- Actively source opportunities from the Emerging Manager universe as available.
- Emphasize current income and pre-specified portfolios to mitigate J-curve.

END OF INVESTMENT RECOMMENDATIONS

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Real Estate Portfolio

Fiscal Year 2018-2019 Strategic Plan

LACERS
LOS ANGELES CITY EMPLOYEES' RETIREMENT SYSTEM

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A. LACERS Real Estate Program Overview

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LACERS Real Estate Program Overview

- LACERS began investing in Real Estate in 1989.
- In April 2018, LACERS' Board elected to increase its real estate allocation from 5.0% to 7.0% of Total Plan Assets (with an allowable range of ± 2.0%).
- As of September 30, 2017, the market value of the Portfolio was $836 million (5.0% of Total Plan Assets).
- Forecasts show that several investments will be liquidating from the Portfolio over the next three-year period.

	3Q17 Market Value ($ millions)*	**% LACERS Plan**
LACERS Total Plan Assets	**16,709**	
Real Estate Target	**1,170 (as of 1Q-2018)**	**7.0% (as of 1Q-2018)**
RE Market Value:		
Core	*525*	
Non-Core	*291*	
Timber	*21*	
Total RE Market Value	**836**	**5.0%**
Unfunded Commitments	111	0.7%
RE Market Value + Unfunded Commitments	**947**	**5.7%**
Remaining Allocation	**(223)**	**(1.3%)**

**Figures may not add due to rounding.*

LACERS Real Estate Program Overview (continued)

	Strategic Targets		*Portfolio Composition (9/30/2017)**	
	Target Allocation	**Tactical Range**	**Funded**	**Funded & Committed**
Core	**60%**	**40% - 80%**	**62.8%**	**55.4%**
Non-Core	**40%**	**20% - 60%**	**34.8%**	**42.4%**
Value Add Portfolio	*N/A*	*N/A*	*15.2%*	*21.9%*
Opportunistic Portfolio	*N/A*	*N/A*	*19.6%*	*20.5%*
Timber	**N/A**	**N/A**	**2.5%**	**2.2%**

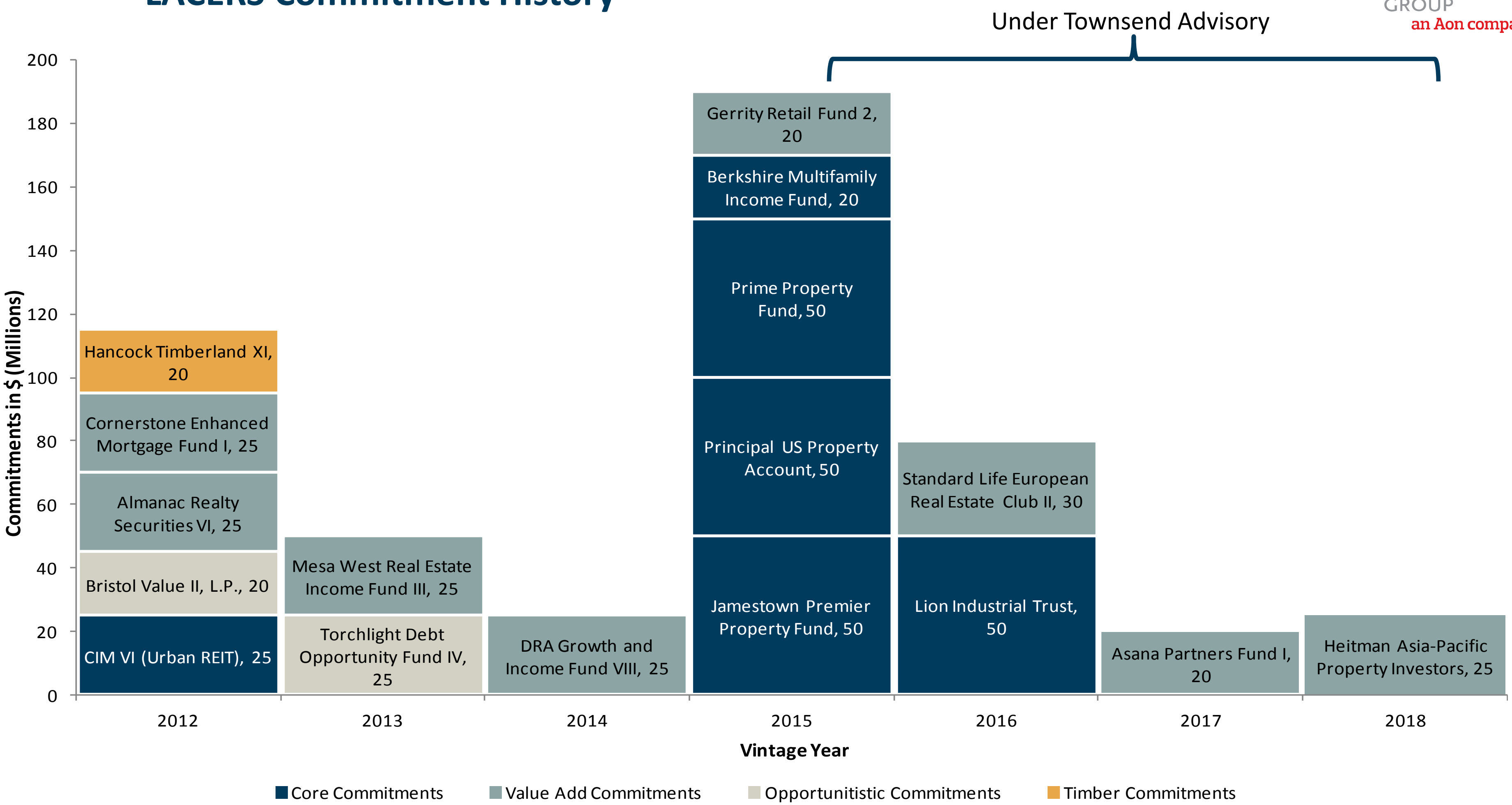
- In May 2014, the Board approved the strategic targets displayed above in order to reflect a more conservative risk profile going-forward. At the time, the Portfolio had 30% exposure to Core and 70% exposure to Non-Core.
- Since that time, and in an effort to transition the Portfolio, the LACERS Board approved $220 million in new Core commitments. All of these commitments were called as of 9/30/17.
- The LACERS Board also approved $95 million in Non-Core investments since 2014. These investments focused on Value Add strategies with pre-specified portfolios, embedded value and/or an element of current income. The most recent approved investment was a $25 million commitment Heitman Asia Pacific Property Investors in May 2017.
- Through a combination of Core commitments and Non-Core liquidations, the LACERS Portfolio is within its strategic targets as of 9/30/2017, as expected.
- The Private Real Estate Portfolio utilizes 34.4% leverage measured on a loan-to-value (LTV) basis:
  - Core Portfolio LTV: 27.7%, below the 40.0% constraint,
  - Non-Core Portfolio LTV: 43.9%, below the 75.0% constraint.

**Figures may not add due to rounding.*

ATTACHMENT 1

B. LACERS Commitment History

LACERS Commitment History



- LACERS has committed $505 million since 2012, of which $315 million (~60%) have been Townsend-initiated activities since 2015 .
- 42% of Non-Core commitments since 2015 (Gerrity and Asana) met LACERS Emerging Manager guidelines. In the Core 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.

ATTACHMENT 1

C. LACERS 2018-2022 Objectives and Investment Plan

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LACERS 2018-2022 Objectives

- Townsend ran three scenarios to model real estate capital pacing between 2018 and 2022. All three scenarios assume a Total Plan Growth Rate of 4.0% p.a.
- LACERS has capacity to commit an additional $700-$865 million between now and 2022 in order to increase its Real Estate allocation to 7.0% of Total Plan Assets (targeting $140-$175 million per year over the next five years).
- Capital pacing was determined based upon LACERS existing manager input, along with various forward-looking return assumptions which may or may not materialize according to plan.
- Townsend will work with LACERS Staff to prudently allocate capital over the next five years, and will exercise discretion in preserving capacity for future out-year investments.

Portfolio Growth Scenario	Core Growth Assumption	Non-Core Growth Assumption	Total Capital Needed until 2022	Capital per Annum until 2022
Conservative	0%	4%	$865 million	$173 million
Baseline	2%	6%	$790 million	$158 million
Aggressive	4%	8%	$700 million	$140 million

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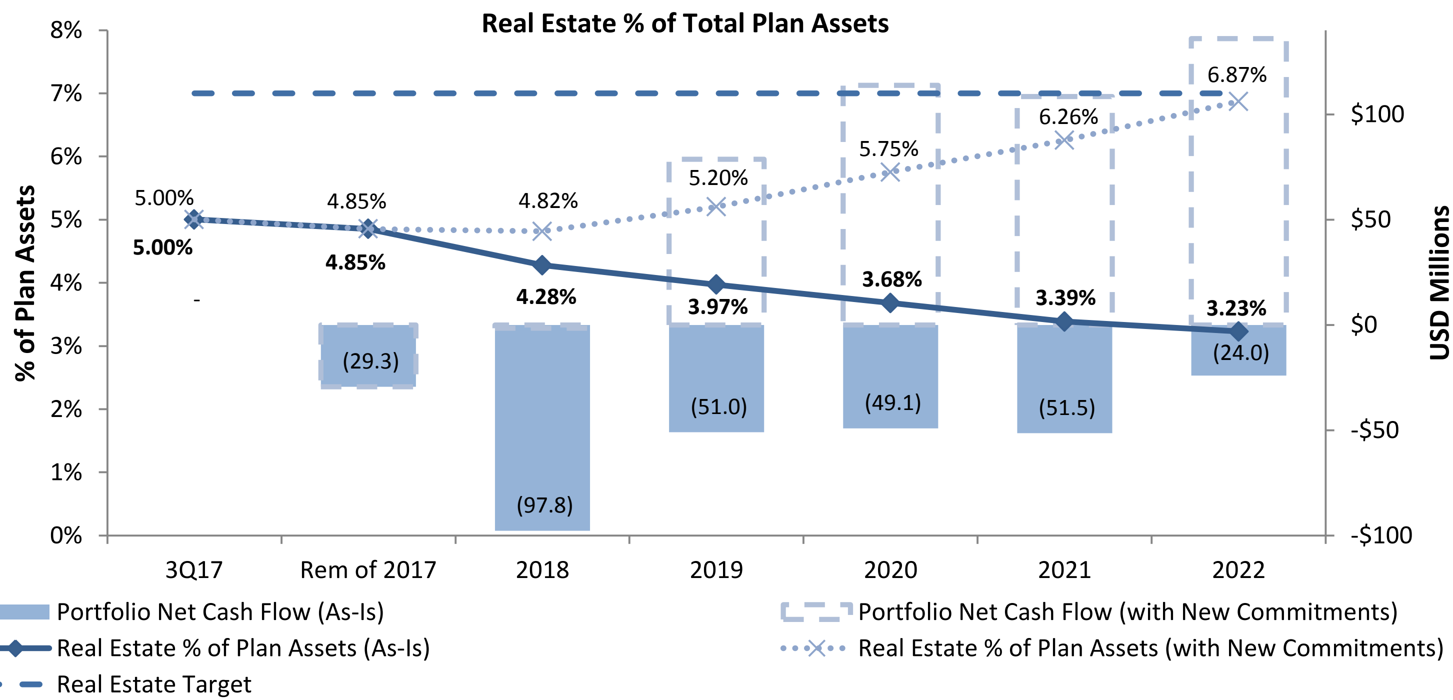
LACERS 2018-2022 Objectives

Base Case Growth

- The Base Case Model assumes a 2.0% annual growth rate for Core returns and 6.0% annual growth rate for Non-Core returns, which we view as moderately conservative return assumptions.
- According to Base Case Capital Projections, LACERS has approximately $790 million of additional private real estate investment capacity in order to grow its allocation to 7.0% of Plan Assets by 2022 (±$158 million per annum over five years).
- Townsend will work with Staff to carefully manage LACERS investment exposure.
  - Preserve investment capacity to allow LACERS take advantage of opportunities during all market cycles (not all capital needs to be deployed at once).
  - Monitor contribution and distribution/withdrawal activities, and forecasts provided by LACERS' managers.
  - Consider Non-Core investments, which may include one or more Emerging Manager commitments.

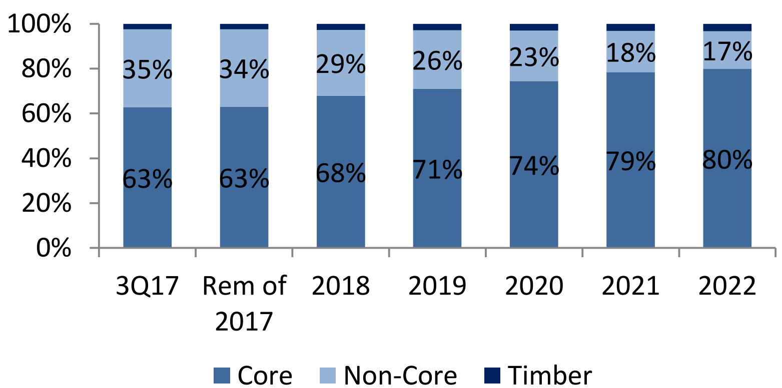


LACERS 2018-2022 Investment Plan

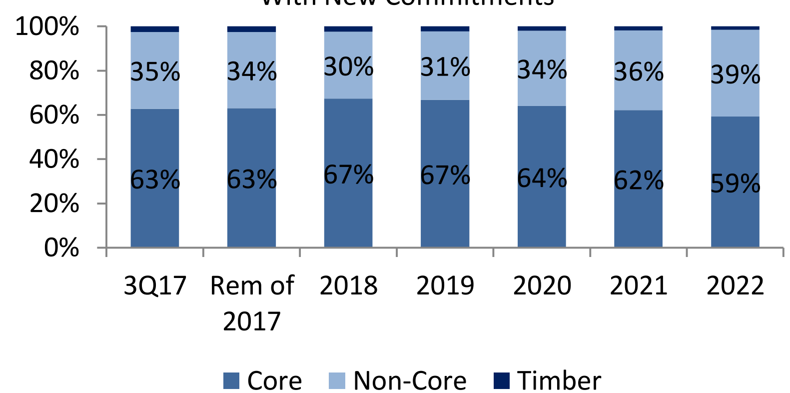
Real Estate Program Proposed Plan

- Vintage year diversification is a tool to control risk by reducing exposure to market cycles.
  - Tactical adjustments to overweight or underweight a particular vintage are based on market views and portfolio exposure relative to the 7.0% allocation target and benchmark.
  - Adjustments may be made based upon specific opportunities presented.
- As the cycle matures, consider a conservation of capital that is available to deploy in later years.
  - This may result in fewer commitments in 2018-2019.
- Identify opportunities to improve the quality and income component of the Portfolio.
  - Target specialist operators to reduce fees and exploit niche expertise and sourcing capabilities.
- Remain mindful of the strategic targets of 60% Core/40% Non-Core, and of the Total Real Estate Benchmark (ODCE+80bps).
  - Currently the portfolio is trending towards the higher end of the Core allocation target range (left chart), which will lead to difficulty outperforming the Benchmark. New proposed annual commitments of approximately $60M to Core and $100M to Non-Core strategies would bring the portfolio closer to its target (right chart).

Risk Sector Allocation Change
As Is



Risk Sector Allocation Change
With New Commitments



LACERS 2018-2019 Investment Plan

2018-2019 Overall Portfolio Activity

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

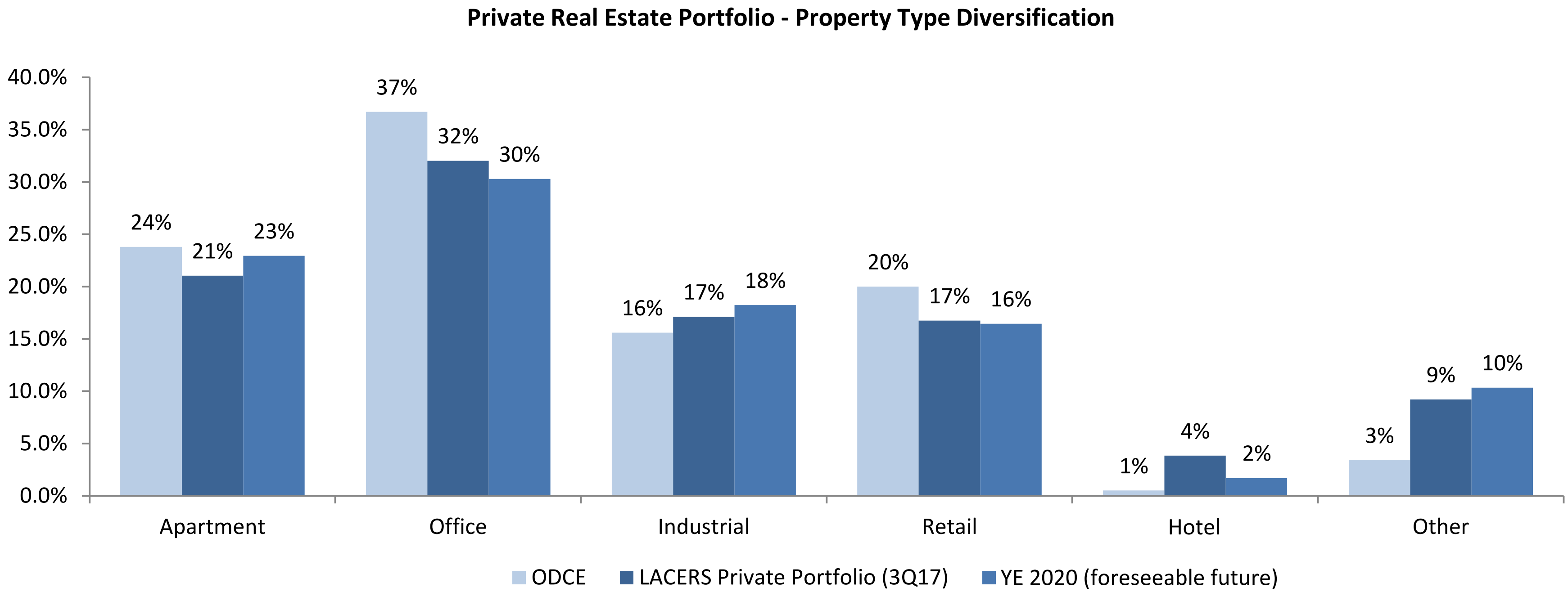
2018-2019 Core Activity

- In 2H2018, evaluate existing Open-End Core fund portfolio and consider rebalancing portfolio to maximize benefits and improve returns, as necessary.
- Maintain relative weightings to Core v. Non-Core to maintain an appropriate level of defensiveness.

2018-2019 Non-Core Activity

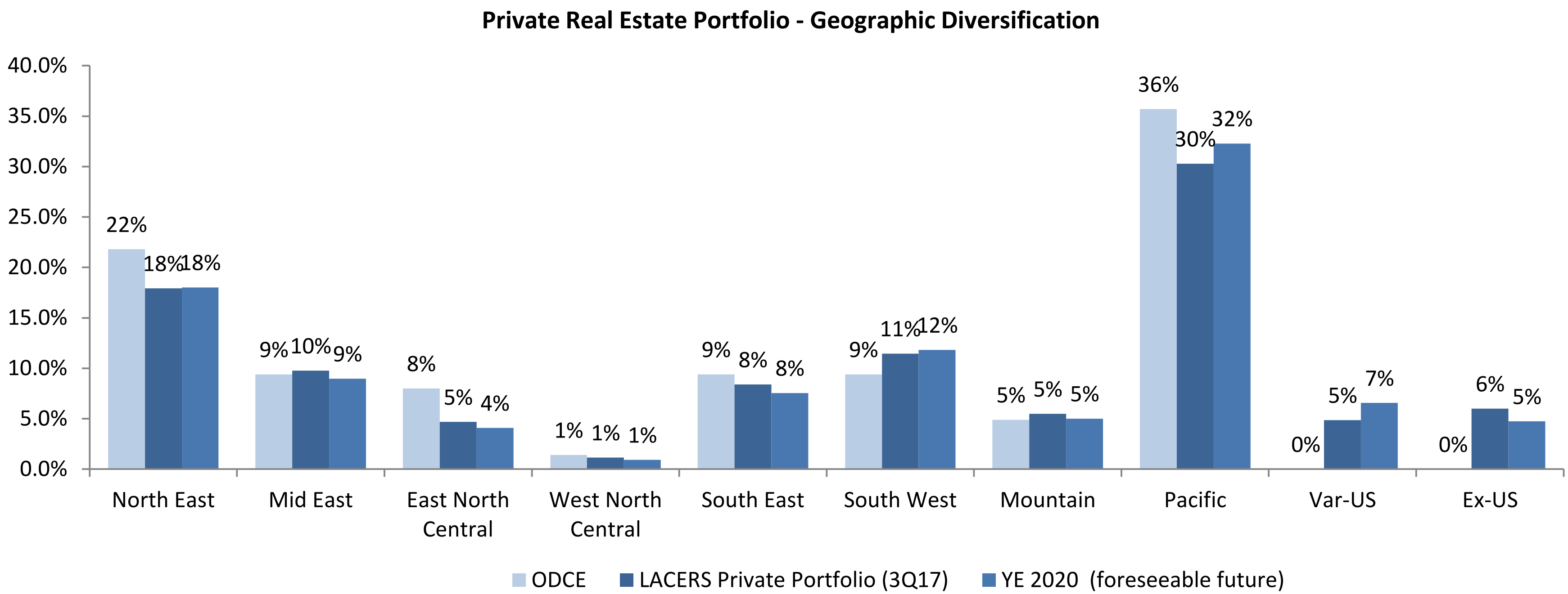
- Substantial realizations by Non-Core managers, particularly from pre-GFC investments, will continue to place downward pressure on market exposure.
- Focus on up to three incremental commitments in Non-Core (ranging from $35 to $50 million per investment).
- Target commitments to preferred property types and regions based on LACERS Portfolio exposures:
    - Debt (mezzanine or preferred equity with kickers to provide equity-like returns with downside protection),
    - US Office (projected to be 7.0% underweight compared to ODCE by 2020; being highly selective with a proven office manager executing in high conviction markets with strong demand-drivers),
    - US Retail (projected to be 4.0% underweight compared to ODCE by 2020; consider one investment with a proven high-street or grocery anchored retail manager),
    - Other/Niche (may include student accommodation, seniors housing or medical office),
- Actively source opportunities from the Emerging Manager universe as available.
- Emphasize current income and pre-specified portfolios to mitigate J-curve.

LACERS Diversification Projections



- LACERS continues to be underweight to Office and Retail, which Townsend would support. However, taking a considerable off benchmark position over the mid to long term could result in relative underperformance should these sectors do well.
  - LACERS may consider small tactical investments into niche retail strategies focused on high-street retail and/or grocery anchored retail in high barrier to entry markets with good investment fundamentals.
  - LACERS may also consider small tactical investments into urban office in high growth markets whereby technology, advertising, media, internet, science and technology drivers continue to absorb available space.
- Maintaining slight overweight to industrial and other/niche, and neutral weight to apartment and office is supported by Townsend at this time.

LACERS Diversification Projections



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

D. Sourcing and Deal Flow

Manager Sourcing & Due Diligence

Core and Core Plus Fund Sourcing and Selection

- Townsend's dedicated open-end fund team reviews and monitors the open-end universe on a monthly and quarterly basis.
- As of December 31, 2017, the statistics for the existing open-end fund universe were as follows:
  - 28 Core Diversified Funds,
  - 12 Core Plus Funds,
  - 10 Specialty Funds (Property Type Specific and Debt Funds).
- Townsend also evaluates Core closed-end funds, though fewer exist.
- Comprehensive review, evaluation and selection process:
  - Sourcing and evaluation of new fund launches,
  - Quarterly data collection and analysis,
  - On-site meetings and quarterly reviews,
  - Advisory board participation ,
  - Ongoing platform assessment,
  - Continual due diligence.

Manager Sourcing & Due Diligence

Non-Core Fund Sourcing and Selection

- In addition to the work completed for 10 specialty open-end commingled funds (evaluation process outlined on the previous page), Townsend is continuously analyzing the universe of Non-Core closed-end funds available for investment.
- As of December 31, 2017, Townsend's statistics for the Non-Core fund universe were as follows:
  - 612 funds originated and screened.
  - 68 funds in detailed due diligence.
  - 54 funds approved for client investment.
    - 54% North America, 13% Europe, 15% Asia, 15% Global and 4% Rest of the World.
- Detailed due diligence follows a three-phase due diligence process:
  - Sourcing and evaluation of new fund launches.
  - On-site due diligence meetings.
  - Evaluation of investment characteristics includes, but is not limited to the following:
    - *Executive Summary:* Strategy Overview, Comparative Advantages, Potential Issues and Concerns.
    - *Strategy:* Overview, Leverage, Investment Guidelines, Pipeline.
    - *Sponsor*: Organizational Background/History, Turnover, Compensation, and Retention.
    - *Investment Process:* Overview, Investment Committee, Affiliate Transactions, Limited Partner Advisory Committee, Exclusivity and Allocations, Valuations.
    - *Fund Structure:* Key Terms, Fees and Distributions, Analysis of Fees.
    - *Performance:* Detailed Summary of Prior Vehicles, Vintage Year Comparison, Dispersion of Returns, Investment Highlights.
- Ongoing due diligence includes fund coverage, investment monitoring, reporting, advisory board representation and client advocacy.

Emerging Manager Sourcing Process

Emerging Manager Sourcing

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

LACERS Emerging Manager Efforts

- LACERS has been focused on de-risking the Portfolio over the past three years, resulting in more Core search activity:
  - Majority of new commitments in Core open-end commingled fund space.
  - Few (if any) Core real estate fund candidates match the current LACERS Emerging Manager criteria.
- Majority of Emerging Manager opportunity set is in the Non-Core segment:
  - 2014-2015: 50% of LACERS Non-Core commitments qualified under the LACERS Emerging Manager Program.
  - 2016: In 2H2016, Townsend conducted a LACERS-specific Emerging Manager search resulting in the recommendation of a $20 million Non-Core commitment to Asana Partners I, which was approved by the Board in August 2016.

Report to Board of Administration

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

Agenda of: **AUGUST 14, 2018**

ITEM: **X-E**

SUBJECT: **INVESTMENT MANAGER CONTRACT WITH EAM INVESTORS, LLC REGARDING THE MANAGEMENT OF AN ACTIVE U.S. SMALL CAP GROWTH EQUITIES PORTFOLIO AND POSSIBLE BOARD ACTION**

Recommendation

That the Board approve a two-year contract renewal with EAM Investors, LLC for management of an active U.S. small cap growth equities portfolio; and, authorize the General Manager to approve and execute the necessary documents, subject to satisfactory business and legal terms.

Discussion

On July 10, 2018, the Committee considered the attached staff report (Attachment A) recommending a three-year contract renewal with EAM Investors, LLC (EAM). The Board hired EAM through the 2014-2015 Active U.S. Small Cap Growth Equities search, and a three-year contract was authorized by the Board on June 9, 2015. The current contract expires on September 30, 2018. The Committee discussed the fee structure, investment strategy, and performance. A two-year contract renewal is recommended by the Committee in order to evaluate performance prior to the originally proposed three-year contract period.

Strategic Plan Impact Statement
A contract renewal with EAM Investors, LLC, will allow the fund to maintain a diversified exposure to the U.S. small cap equities markets, which is expected to help achieve satisfactory long-term risk adjusted investment returns (Goal IV). The discussion of the investment manager's profile, strategy, performance, and management fee structure are consistent with Goal V (uphold good governance practices which affirm transparency, accountability, and fiduciary duty).

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

RJ:BF:EP:ag

Attachments: A) Investment Committee Recommendation Report dated July 10, 2018
B) Proposed Resolution

LACERS
LOS ANGELES CITY EMPLOYEES' RETIREMENT SYSTEM

Report to Investment Committee

Agenda of: **JULY 10, 2018**

From: Neil M. Guglielmo, General Manager ITEM: **VI**

SUBJECT: **INVESTMENT MANAGER CONTRACT WITH EAM INVESTORS, LLC REGARDING THE MANAGEMENT OF AN ACTIVE U.S. SMALL CAP GROWTH EQUITIES PORTFOLIO AND POSSIBLE COMMITTEE ACTION**

Recommendation

That the Committee recommend to the Board a three-year contract renewal with EAM Investors, LLC for management of an active U.S. small cap growth equities portfolio.

Discussion

Background
EAM Investors, LLC (EAM) manages an active U.S. small cap growth equities portfolio for LACERS benchmarked against the Russell 2000 Growth Index. EAM's strategy seeks to identify companies undergoing positive fundamental changes that will potentially accelerate the companies' earnings growth rates. The strategy is co-led by Travis Prentice, Chief Executive Officer and Chief Investment Officer, and Montie Weisenberger, Managing Director, both of whom have over 20 years of industry experience.

EAM was hired through the 2014-2015 Active U.S. Small Cap Growth Equities search, and a three-year contract was authorized by the Board on June 9, 2015. At the time of hire, EAM qualified as an Emerging Investment Manager pursuant to the LACERS Emerging Investment Manager Policy. The contract was executed on October 1, 2015, and expires on September 30, 2018. LACERS' separate account was valued at $124 million as of May 31, 2018. In light of the short time period that EAM has managed assets for LACERS, staff recommends a second three-year contract term to allow a full market cycle over which to evaluate this strategy.

Organization
EAM was founded in 2007 and currently is 56% employee-owned and 44% owned by Roth Capital Partners. The firm is headquartered in Cardiff-by-the-Sea, California and has a total of 16 employees. As of May 31, 2018, EAM managed $2.3 billion in assets, with $1 billion of assets in the U.S. small cap growth equities strategy.

Due Diligence

Travis Prentice was added as a co-portfolio manager to the U.S. small cap growth equities strategy on January 22, 2018. In addition to co-managing this strategy, he is also a portfolio manager of EAM's U.S. microcap growth equities strategy. Staff and NEPC, LLC (NEPC), LACERS' General Fund Consultant, discussed this organizational change with EAM and do not believe it will adversely impact the U.S. small cap growth equities strategy and performance.

Performance

As of May 31, 2018, EAM outperformed its benchmark, net-of-fees, for the 3-month, 1-year, and 2-year periods and underperformed since inception as presented in the table below. EAM is in compliance with the LACERS Manager Monitoring Policy.

Annualized Performance as of 5/31/18 (Net-of-Fees)				
	3-Month	1-Year	2-Year	Since Inception[1]
EAM	12.00	33.86	27.06	15.79
Russell 2000 Growth Index	7.83	25.08	22.36	17.70
% of Excess Return	*4.17*	*8.78*	*4.70*	*-1.91*

[1]Inception date: 10/1/15

Calendar year performance is presented in the table below as supplemental information.

Calendar Year Performance (Net-of-Fees)				
	1/1/18 to 5/31/18	2017	2016	10/1/15 to 12/31/15
EAM	13.31	22.68	4.65	1.63
Russell 2000 Growth Index	8.85	22.17	11.32	4.32
% of Excess Return	*4.46*	*0.51*	*-6.67*	*-2.69*

Fees

At its meeting of April 11, 2017, the Committee requested EAM to reduce the fee charged to LACERS. EAM subsequently provided LACERS a discount of 10 basis points, resulting in an effective fee of 71 basis points (0.71%), which is approximately $880,400 annually based on the value of LACERS' assets as of May 31, 2018. The new fee ranks in the 16th percentile of EAM's peers based on the eVestment U.S. Small Cap Growth universe.

General Fund Consultant Opinion

NEPC concurs with staff's recommendation.

Strategic Plan Impact Statement:

A contract renewal with EAM Investors, LLC, will allow the fund to maintain a diversified exposure to the U.S. small cap equities markets, which is expected to help achieve satisfactory long-term risk adjusted investment returns (Goal IV). The discussion of the investment manager's profile, strategy, performance, and management fee structure are consistent with Goal V (uphold good governance practices which affirm transparency, accountability, and fiduciary duty).

This report was prepared by Barbara Sandoval, Investment Officer II, and Eduardo Park, Investment Officer I, Investment Division.

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Attachments: A) Consultant Recommendation – NEPC, LLC
B) Workforce Composition

NEPC, LLC

To: Los Angeles City Employees' Retirement System Investment Committee

From: NEPC, LLC

Date: July 10, 2018

Subject: EAM Investors – Contract Renewal

Recommendation

NEPC recommends Los Angeles City Employees' Retirement System (LACERS) renew the contract that is currently in place with EAM Investors ('EAM') for a period of three years from the date of contract expiry.

Background

EAM has been an investment manager for LACERS since October 1, 2015. As of May 31, 2018, EAM managed $124 million, or 0.7% of Plan assets in the small cap growth product with an asset-based fee of 0.71% annually. This fee ranks in the 16th percentile of its peers in the eVestment U.S. Small Cap Growth Universe. The performance objective is to outperform the Russell 2000 Growth Index with a realized tracking error budget ranging from four to six percent, net of fees, annualized over a full market cycle (normally three-to-five years). Performance of the EAM portfolio is currently compliant with LACERS' manager monitoring policy.

The firm was founded by Montie Weisenberger, Travis Prentice and Joshua Moss. All three founders came from Nicholas-Applegate and started the firm in 2007. Their product lineup focuses on small and microcap names in the U.S. and outside of the U.S. The firm received venture funding by Roth Capital Partners, a boutique investment bank, in exchange for a 49% ownership stake. Today Roth owns 44% of the organization and they are a strategic, "evergreen" investor. EAM has an option to buy the firm if Roth wants to sell their interest. There is no timetable for Roth to divest their interest. The investment team owns 42% of the firm and the last 14% is owned by the marketing and operations team at EAM. Roth participates in the profits of the organization. The bulk of the firm's assets are in the U.S. small cap growth product ($1 billion), US microcap has $300 million and ultra-microcap has under $100 million. All of these products are open and have capacity. The non-U.S. products were incepted 3.5 years ago and include international small cap ($100 million), emerging markets small cap ($200 million) and international microcap ($600 million). The international microcap product is closed to new business. All products use the same team, investment process and tools. As of May 31, 2018, the firm managed $2.3 billion with a majority of assets ($1 billion) in the small cap growth product.

The firm's investment philosophy is routed in identifying companies undergoing positive fundamental change that will accelerate their growth rate and where the implications are not yet fully appreciated by market participants. EAM's process has three broad phases which include: Discover, Analyze and Challenge. The Discover phase is where they evaluate the technical side of change relative to price screening with above average volume. They want to see at least one sign that a company is already performing. They screen in real time using the William O'Neil system and the Portfolio Manager sets the priority for what gets covered. During the Analyze phase, each analyst builds out the fundamental analysis to identify positive changes. During the Challenge phase, new names are evaluated against the existing names in the portfolio. Portfolios typically hold 150 names and position sizes are capped at 2%. Portfolio tracking error is 4%-6%. More recently, the trailing twelve months tracking error has been less than 4% primarily due to lower volatility exhibited in markets overall.

Travis Prentice, Portfolio Manager of the US microcap growth product, was recently added as a portfolio manager alongside Montie Weisenberger for the small cap growth product. The rationale provided was that the firm wanted to strengthen the product, improve the investment process and add a senior level portfolio manager to the product. All team members (four portfolio managers, four research analysts and two traders) are generalists and work on all products. Besides the three founders, John Scripp, Portfolio Manager, Richard Hornbuckle, Trader and Kevin O'Connell, Trader also came from Nicholas-Applegate.

Performance

Referring to Exhibit 1, since inception (October 1, 2015), the EAM Small Cap Growth portfolio has underperformed the Russell 2000 Growth Index by 4.02%, returning 12.05%, net of fees. Ended March 31, 2018, the portfolio ranked in the 83rd percentile of its peer universe since October 1, 2015, had an information ratio of -0.71 and active risk as measured by tracking error of 5.0%. Ended April 30, 2018, the since inception return has trailed the benchmark by 3.56% (11.99% vs 15.55%). In the one-year period ended March 31, 2018, the portfolio outperformed the index by 2.44% (21.07% vs. 18.63%) and ranked in the 16th percentile among its peers. Outperformance in the one-year time period was driven by security selection within Consumer Discretionary, Healthcare and Information Technology sectors.

Since October 1, 2015, referring to Exhibit 2, much of the historical underperformance is a result of a large drawdown in the first quarter of 2016. The drawdown of approximately 6.50% was primarily driven by a sell-off in out-of-favor companies and subsequent rally in low earnings quality companies.

Conclusion

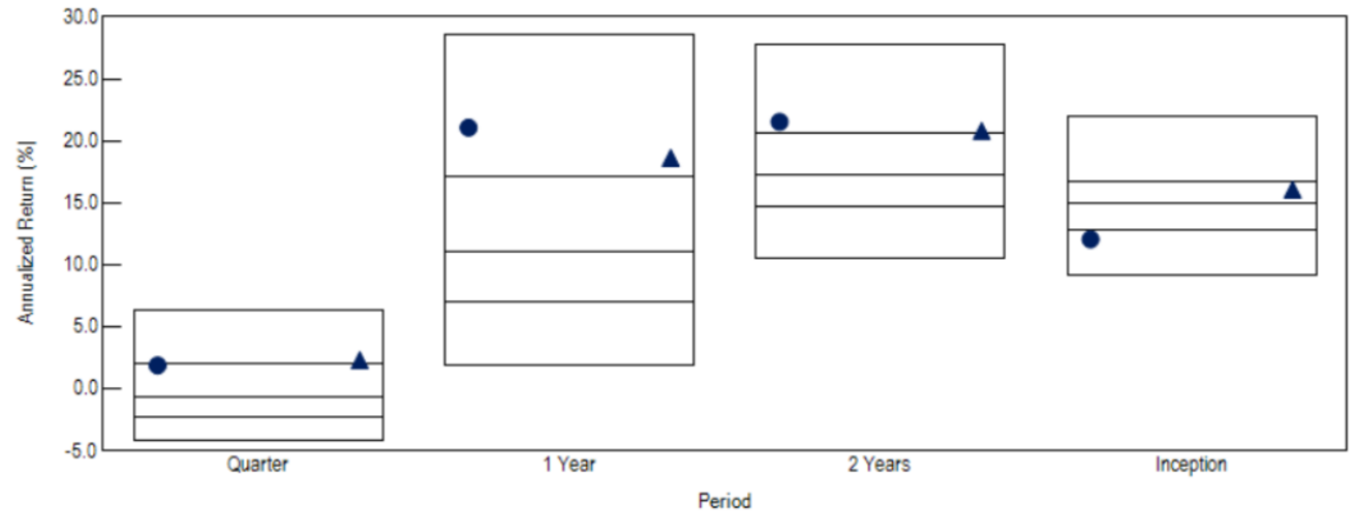
EAM has underperformed its benchmark index since October 1, 2015 and has gone through a portfolio management change recently in order to focus the team's efforts on deeper research. The firm has exhibited stability in their investment process, investment team, strategy and philosophy suggesting that their approach to asset management does have merit. EAM's strategy of seeking out underappreciated growth in the small cap universe is subject to a longer-term time horizon for themes to materialize and investors in this product may expect periods of underperformance. NEPC recommends a contract extension for a period of three years from the period of contract expiry.

The following tables provide specific performance information, net of fees referenced above.

ATTACHMENT A

Exhibit 1

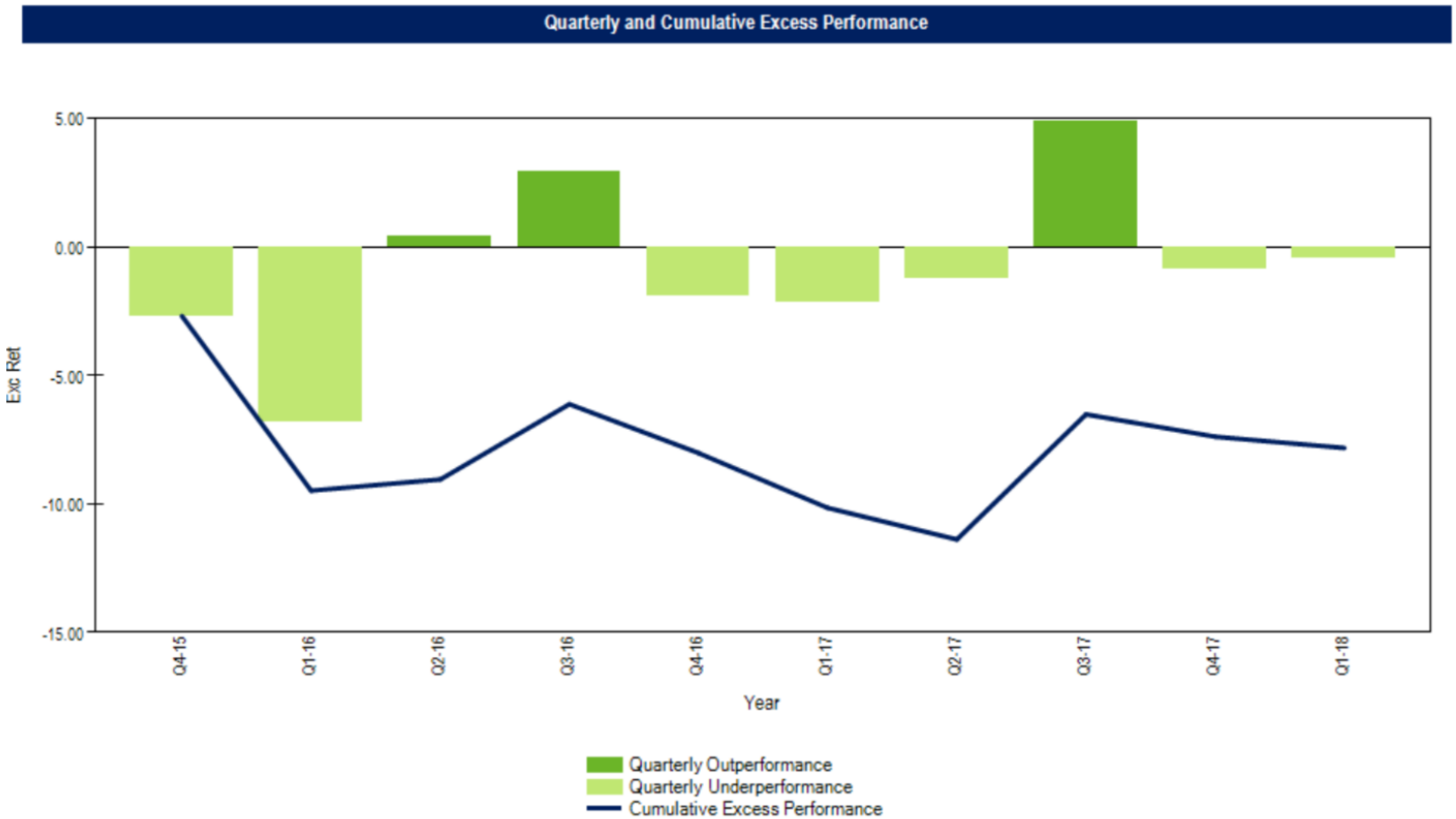
eV US Small Cap Equity Net Return Comparison
Ending March 31, 2018



	Return (Rank)							
	Quarter		1 Year		2 Years		Inception	
5th Percentile	6.34		28.59		27.75		22.03	
25th Percentile	2.01		17.13		20.64		16.66	
Median	-0.63		11.03		17.28		14.99	
75th Percentile	-2.35		7.06		14.67		12.82	
95th Percentile	-4.22		1.93		10.51		9.11	
# of Portfolios	405		404		398		391	
● **EAM Investors**	1.86	(26)	21.07	(16)	21.54	(19)	12.05	(83)
▲ **Russell 2000 Growth**	2.30	(23)	18.63	(22)	20.81	(23)	16.07	(34)

ATTACHMENT A

Exhibit 2



Vendor	**EAM Investors, LLC**	Date Completed:	**June 11, 2018**
Address	**2533 S. Coast Hwy 101, Ste 24**		
	Cardiff by the Sea, CA 92007		
Category	**U.S. Small Cap Growth Equities**		

TOTAL COMPOSITION OF WORK FORCE

Occupation	African American Full Time	Hispanic Full Time	Asian or Pacific Islander Full Time	American Indian/ Alaskan Native Full Time	Caucasian (Non Hispanic) Full Time	Total Employees Full Time	Percent (%) Minority Full Time	Gender Full Time Male	Gender Full Time Female
Officials & Managers	0	0	0	0	0	**0**	**0.00%**	0	0
Professionals	0	1	1	0	14	**16**	**12.50%**	12	4
Technicians	0	0	0	0	0	**0**	**0.00%**	0	0
Sales Workers	0	0	0	0	0	**0**	**0.00%**	0	0
Office/Clerical	0	0	0	0	0	**0**	**0.00%**	0	0
Semi-Skilled	0	0	0	0	0	**0**	**0.00%**	0	0
Unskilled	0	0	0	0	0	**0**	**0.00%**	0	0
Service Workers	0	0	0	0	0	**0**	**0.00%**	0	0
Other	0	0	0	0	0	**0**	**0.00%**	0	0
Total	**0**	**1**	**1**	**0**	**14**	**16**	**12.50%**	**12**	**4**

ATTACHMENT B

CONTRACT RENEWAL
EAM INVESTORS, LLC
ACTIVE U.S. SMALL CAP GROWTH EQUITIES PORTFOLIO MANAGEMENT

PROPOSED RESOLUTION

WHEREAS, LACERS current three-year contract with EAM Investors, LLC (EAM) for active management of a U.S. small cap growth equities portfolio expires on September 30, 2018; and,

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

WHEREAS, a contract renewal with EAM will allow LACERS to maintain a diversified exposure to the U.S. small cap equities markets; and,

WHEREAS, on August 14, 2018, the Board approved the Investment Committee's recommendation for a two-year contract renewal with EAM; and,

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

Company Name:	EAM Investors, LLC
Service Provided:	Active U.S. Small Cap Growth Equities Portfolio Management
Effective Dates:	October 1, 2018 through September 30, 2020
Duration:	Two years
Benchmark:	Russell 2000 Growth Index
Allocation as of June 30, 2018:	$126.9 million

August 14, 2018

Report to Board of Administration

Agenda of: **AUGUST 14, 2018**

From: Neil M. Guglielmo, General Manager ITEM: **X-F**

SUBJECT: **CONTINUED DISCUSSION OF COMMITMENT OF UP TO $35 MILLION IN ALMANAC REALTY SECURITIES VIII, L.P. AND POSSIBLE BOARD ACTION**

Recommendation

That the Board authorize a commitment of up to $35 million in Almanac Realty Securities VIII, L.P.; and, authorize the General Manager to approve and execute the necessary documents, subject to satisfactory business and legal terms.

Discussion

On July 10, 2018, the Investment Committee considered the attached staff recommendation to commit up to $35 million in Almanac Realty Securities VIII, L.P., a value-added real estate fund managed by Almanac Realty Investors, LLC (Almanac). Matthew Kaplan and Josh Overbay of Almanac gave a presentation to the Committee on the firm and investment strategy. After some discussion about the investment opportunity, the Committee determined to take no action on the staff recommendation and continue the discussion at the next Investment Committee meeting. In light of the time sensitivity of this item due to the fund's forthcoming final close date, the Committee subsequently has waived further review of this item; the staff recommendation is being presented directly to the Board for consideration without a Committee recommendation.

Strategic Plan Impact Statement
Investment in Almanac Realty Securities VIII, L.P. will allow LACERS to maintain exposure to diversified real estate, pursuant to the Real Estate Investments Fiscal Year 2017-2018 Strategic Plan, which is expected to help LACERS achieve satisfactory long-term risk adjusted investment returns (Goal IV).

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

RJ:BF:EP:ag

Attachments: A) Investment Committee Recommendation Report dated July 10, 2018
B) Proposed Resolution

LACERS
LOS ANGELES CITY EMPLOYEES'
RETIREMENT SYSTEM

Report to Investment Committee

Agenda of: **JULY 10, 2018**

From: Neil M. Guglielmo, General Manager ITEM: **IV**

SUBJECT: **COMMITMENT OF UP TO $35 MILLION IN ALMANAC REALTY SECURITIES VIII, L.P. AND POSSIBLE COMMITTEE ACTION**

Recommendation

That the Committee recommend to the Board a commitment of up to $35 million in Almanac Realty Securities VIII, L.P.

Discussion

Consultant Recommendation
The Townsend Group (Townsend), LACERS' Real Estate Consultant, has recommended a commitment of up to $35 million in Almanac Realty Securities VIII, L.P. (the Fund), consistent with the Real Estate Investments Fiscal Year 2017-2018 Strategic Plan approved by the Board on June 27, 2017. The Fund is a U.S. focused value-added strategy managed by Almanac Realty Investors, LLC (Almanac or GP).

Background
Almanac is a real estate investment management firm that was originally founded as Rothschild Realty, Inc. in 1981. In 2011, the firm was renamed Almanac Realty Investors, LLC. The GP is based in New York City and has 26 employees. Almanac managed $3.0 billion in assets as of March 31, 2018. The Fund is managed by Matthew Kaplan, who is a Managing Partner and has been with Almanac since 1992.

Almanac is an existing general partner relationship for LACERS. LACERS previously committed $25 million to Almanac Realty Securities VI, L.P. in 2012; the Fund had a net internal rate of return of 14.4% and a net equity multiple of 1.4 as of March 31, 2018.

Investment Strategy
The Fund will provide growth capital to private and public real estate operating companies in the United States. The GP generally invests in the senior securities of a company and seeks to grow the company's value through the repositioning of its real estate assets. The GP will target opportunities with an income yield ranging from 6% to 9%, while emphasizing capital preservation and diversification of portfolio companies. Investments may include a mix of traditional property types such as office,

industrial, retail, and residential. The Fund may also invest in specialty property types such as self-storage, senior housing, and medical office.

Placement Agent
The GP does not utilize a placement agent.

Staff Concurrence
Staff concurs with Townsend's recommendation to commit to the Fund (Attachment A).

Strategic Plan Impact Statement
Investment in Almanac Realty Securities VIII, L.P. will allow LACERS to maintain exposure to diversified real estate, pursuant to the Real Estate Investments Fiscal Year 2017-2018 Strategic Plan, which is expected to help LACERS achieve satisfactory long-term risk adjusted investment returns (Goal IV).

This report was prepared by Wilkin Ly, Investment Officer II, and Eduardo Park, Investment Officer I, Investment Division.

RJ:BF:WL:ag

Attachments: A) Recommendation Memo – The Townsend Group
B) Fund Presentation Booklet

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MEMORANDUM

TO:	**Los Angeles City Employees' Retirement System**
DATE:	July 10, 2018
SUBJECT:	Approve a Commitment up to $35 million to Almanac VIII
FROM:	**The Townsend Group**

Recommendation

The Townsend Group recommends that the Los Angeles City Employees' Retirement System ("LACERS" or the "System") approve a commitment of up to $35 million to Almanac Realty Securities VIII, L.P. ("Almanac VIII" or the "Fund"), sponsored by Almanac Realty Investors, LLC an existing LACERS manager.

Almanac VIII is classified as a diversified US Value Added strategy. Almanac is targeting $1.5 billion in equity commitments, with a hard cap of $2.0 billion. The strategy of the Fund is to provide growth capital to: (1) real estate operating companies that have property portfolios with existing cash flow and value-added potential, and (2) companies with significant real estate assets integral to their business. This is entity level investment, typically in the form of convertible debt with a high current coupon (6% to 9%). Almanac will make investments that target an unlevered 12% net return (15-16% gross) and a 1.5x-1.75x net multiple, assuming five to eight year hold periods. Approximately 50% of the return is expected to be derived from income.

A snapshot of the LACERS Real Estate Portfolio as of September 30, 2017 is described below. This investment is in compliance with all LACERS investment guidelines.

Client Profile

LACERS has a 5.0% target allocation to real estate ($835M) and was 5.0% funded ($836M) as of September 30, 2017. Including all approved unfunded commitments, the LACERS total exposure to real estate increases to 5.7% ($947M). While LACERS is slightly overweight to real estate, projected liquidations from legacy Non-Core investments over the next three years will bring this exposure below the target allocation to real estate to an estimated 3.3% of Total Plan by 2021.

LACERS's portfolio composition is provided on the following page.

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	Strategic Targets		Portfolio Composition (9/30/17)	
	Target Allocation	Tactical Range	Market Value	Market Value & Unfunded Commitments
Core Portfolio	60%	40% - 80%	62.8%	55.4%
Non-Core Portfolio	40%	20% - 60%	35.8%	42.4%
Timber Portfolio	N/A	N/A	2.5%	2.2%

**Figures may not add due to rounding.*

Almanac VIII Background

Almanac Realty Investors, LLC is sponsoring Almanac Realty Securities VIII, L.P. (the "Fund" or "ARS VIII"), the latest institutional offering in its flagship fund series. The Fund intends to make private placements of growth capital to real estate operating companies and companies with significant real estate assets. The Sponsor will make investments that target an unlevered 12% net return (15-16% gross) and a 1.5x-1.75x net multiple, assuming five to eight year hold periods. Approximately 50% of the return is expected to be derived from income.

Almanac's predecessor, Rothschild Realty, Inc., a real estate corporate finance division and wholly owned subsidiary of The Rothschild Group North America was founded by John McGurk in 1981. ARS VIII is the follow-on to the Firm's fully discretionary fund series Almanac Realty Securities Funds I thru VII. That series started in 1996, run by John McGurk, Mathew Kaplan, and Pike Aloian. Messrs Kaplan and Aloian joined the division in 1990 and 1988, respectively. These three senior members of the team completed a multi-year buyout of the business from Rothschild in 2007 and today are actively managing the Firm/Funds. As of June 2017, the Firm is comprised of 27 employees and has $2.6 billion in AUM. The Firm's offerings today include its flagship value added operating company investment series, a long/short securities strategy, and several legacy separate account relationships. Almanac is currently owned by five partners; Mr. Kaplan owns the largest share.

Rationale for LACERS

1. **Non-Core Exposure and Diversification.** Almanac VIII, classified as a Value Add investment, will provide LACERS with additional Non-Core exposure and diversification. This will help LACERS maintain its 40% target weighting to Non-Core.

2. **Total Return with Income Component.** The forecasted income and total returns for Almanac VIII are consistent with the objectives outlined for Non-Core investment in the LACERS Investment Plan. The

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predecessor funds, Almanac Realty Securities V, L.P. and Almanac Realty Securities VII, L.P., have generated one-year income returns of 32.8% and 9.4%, respectively, supporting the thesis/assumptions for Almanac VIII.

3. **Re-up with an existing Manager.** LACERS is currently invested in Almanac Realty Securities VI, L.P., a 2013 vintage fund. This investment has been accretive to the LACERS real estate performance to-date, and reflects Almanac's capabilities as a sponsor. LACERS' current market value for Almanac VI totals $10 million (the total commitment amount was $25 million). The proposed commitment to Almanac VIII would continue LACERS' ongoing relationship with a sponsor who is performing well.

LACERS Risks to Consider

1. **Total Real Estate Exposure.** A $35 million commitment to Almanac VIII is projected to result in near-term over allocation on a market value plus unfunded commitments basis of 5.7%. However, due to planned redemptions, LACERS is projected to reach a **funded** exposure below 5% by year-end 2017. LACERS' funded exposure for real estate is projected to fall below 4% by year-end 2021.

2. **Certain Fund Terms.** Almanac VIII has a potential term of 13 years from the final close, which is longer than the typical closed end Non-Core real estate vehicle. LACERS should take this illiquidity into consideration. An additional fund term that should be noted is the tradeoff of control rights for the convertible debt structure. This is mitigated, however, through protective contingency control rights that may be triggered (for example, in the event of change in control, key man issues, consolidated entity LTV and Debt Service Coverage, breach of representations and warranties, and/or legal/regulatory compliance requirements, maturity default, etc.).

3. **Blind Pool Risk.** Almanac VIII is targeting a $1.5 billion fundraise, and has yet to make a portfolio entity investment. Although there is an active pipeline of potential investment opportunities for Almanac VIII, capital will not be deployed until later in 2018. LACERS has no visibility into specific portfolio company investments at this time.

4. **Uncertain Property Type and Geographic Exposure.** While it's unclear at this time what real estate activities the underlying portfolio companies of Almanac VIII will engage in, predecessor funds have invested in a broad range of strategies including traditional real estate (apartment, industrial, office and retail) and niche real estate (senior housing, self-storage, medical office buildings, manufactured housing, etc.), across the United States. Townsend modeled a broad allocation to the various property types, as well as broad allocation to the various geographic markets. However, given the blind pool nature of Almanac VIII, it's not possible to precisely forecast how an investment in Almanac VIII will affect LACERS' portfolio construction until the capital is drawn and deployed.

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Alternatives Considered

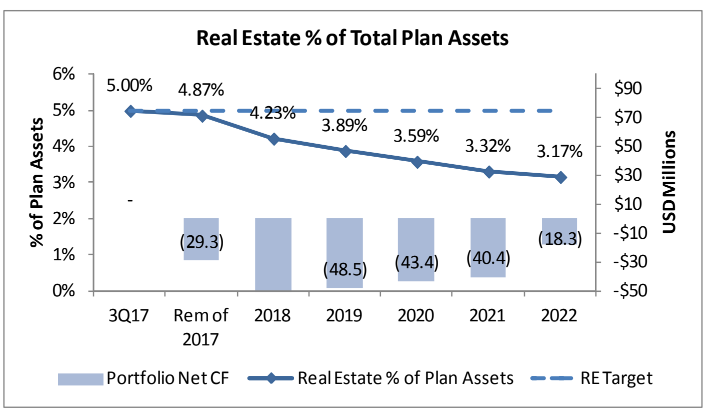
Within the global Non-Core investment universe, Townsend continues to evaluate "best idea" strategies that are aligned with Townsend's View of the World and a fit for the LACERS Portfolio. LACERS is a current investor with Almanac, and performance to-date has been accretive to LACERS' portfolio. Almanac VIII is a Townsend Best Idea, and there are few active fund vehicles that employ a similar entity-level convertible debt investment strategy. One alternative considered with a similar strategy was Berkshire Realty Ventures II. Additional Non-Core strategies are being contemplated for the remainder of 2018.

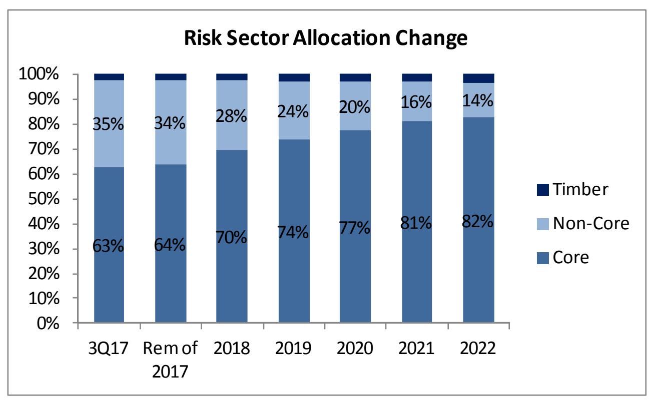
Forecasted Capital Pacing - LACERS

Assumptions include (i) a $35 million investment in Almanac VIII, (ii) a 4.0% growth rate at the Total Plan level, per annum (iii) a 2.0% growth rate for Core strategies per annum, and (iv) a 2.0% growth rate for Non-Core strategies per annum.

Projected LACERS Real Estate Portfolio Composition

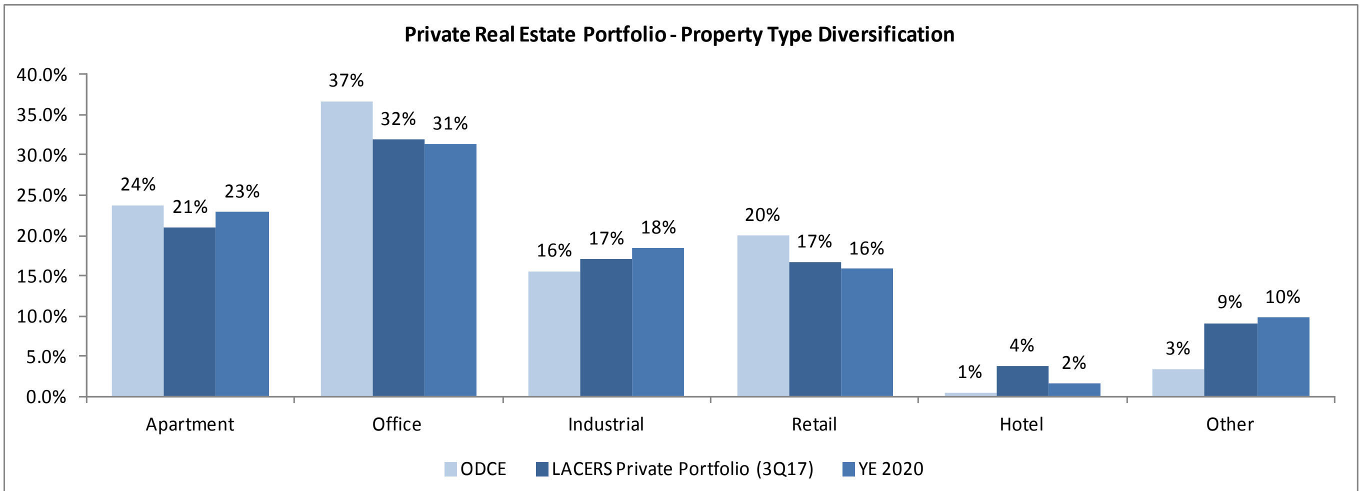
(Including $35m Almanac VIII commitment)



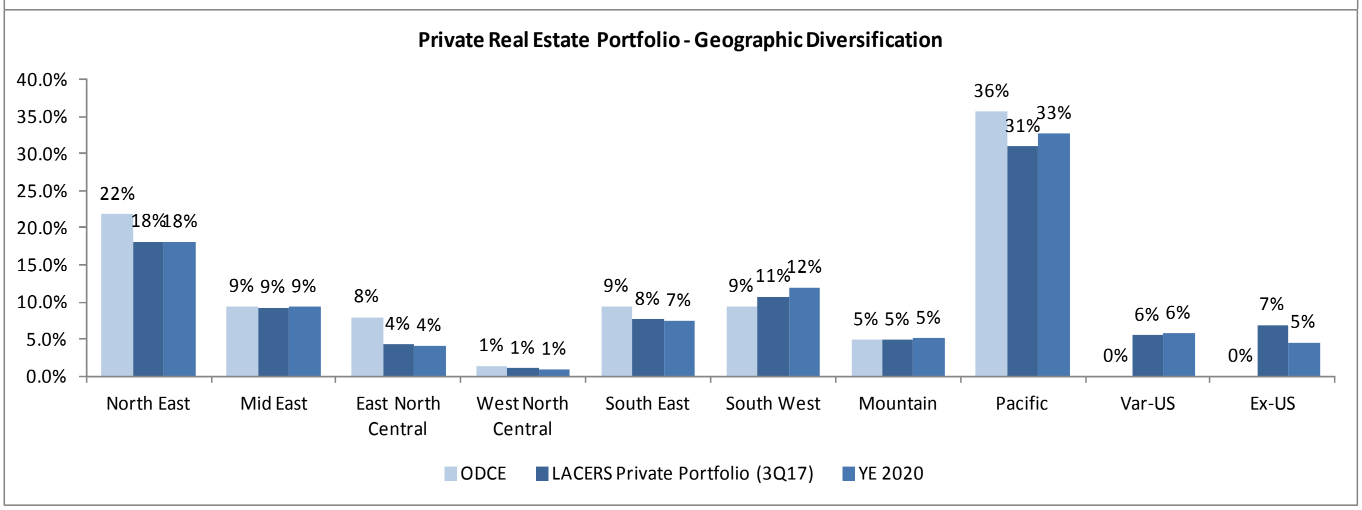


Projected Real Estate Diversification – Total Portfolio (YE 2020)

Assumes (i) all unfunded commitments are funded (ii) all liquidating funds return capital to LACERS as modeled by the Managers and (iii) a fully-funded $35 million commitment to Almanac VIII. LACERS Private Portfolio is measured against the diversification of the NFI-ODCE ± 10.0% with up to 20.0% of the Portfolio allowed in Other. The following diversification charts focus on Private Real Estate only, excluding Timber.



Private Real Estate Portfolio - Property Type Diversification
40.0%
35.0%
30.0%
25.0%
20.0%
15.0%
10.0%
5.0%
0.0%
24% 21% 23%
37% 32% 31%
16% 17% 18%
20% 17% 16%
1% 4% 2%
3% 9% 10%
Apartment
Office
Industrial
Retail
Hotel
Other
ODCE
LACERS Private Portfolio (3Q17)
YE 2020



Private Real Estate Portfolio - Geographic Diversification
40.0%
35.0%
30.0%
25.0%
20.0%
15.0%
10.0%
5.0%
0.0%
22% 18% 18%
9% 9% 9%
8% 4% 4%
1% 1% 1%
9% 8% 7%
9% 11% 12%
5% 5% 5%
36% 31% 33%
0% 6% 6%
0% 7% 5%
North East
Mid East
East North Central
West North Central
South East
South West
Mountain
Pacific
Var-US
Ex-US
ODCE
LACERS Private Portfolio (3Q17)
YE 2020

ALMANAC
REALTY INVESTORS

Almanac Realty Securities VIII, L.P.

Los Angeles City Employees' Retirement System

July 2018

Disclosure

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Each of the following is a “Fund”, and, together, the “Funds”: Almanac Realty Securities I, L.P., Almanac Realty Securities II, L.P., Almanac Realty Securities III, L.P., Almanac Realty Securities IV, L.P., Almanac Realty Securities V, L.P., Almanac Realty Securities VI, L.P., Almanac Realty Securities Canada I, L.P., and Almanac Realty Securities VII, L.P.

This information is qualified in its entirety by the Almanac Realty Securities VIII,L.P.(“ARS VIII”) private placement memorandum (the“ ARS VIII PPM”), as may be amended or supplemented, which includes a detailed discussion of risk factors and to the ARS VIII Amended and Restated Limited Partnership Agreement (the “ARSV III LPA”), as may be amended or restated, and is subject to change. The information about ARS VIII herein is not complete, and does not contain certain material information about the investment strategy, including important disclosures relating to conflicts of interest and risk factors associated with the execution of the investment strategy, and is subject to change without notice.

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Each of the Funds is a closed-end private investment fund that has held its final closing. As a result, new subscriptions for interests in the referenced Funds are not being accepted. Investments in a Fund are speculative and involve a high degree of risk. Investments in a Fund and in vehicles similar to the Funds are suitable investments only for sophisticated investors (i) who do not require immediate liquidity for their investments and are able to bear the financial risks of their investment for an indefinite period of time, (ii) for whom such an investment does not constitute a complete investment program and (iii) who fully understand, are willing to assume and who have the financial resources necessary to withstand, the risks involved in a specialized investment program and to bear the potential loss of their entire investment. Further, such investments involve significant risks associated with the nature of the underlying investments. There will be no public market for the Fund interests, and an investment in the Fund is subject to significant restrictions on transferability and resale, including, without limitation, under the Securities Act of 1933, as amended, and the applicable laws of any country, state or other jurisdiction, pursuant to registration or exemption therefrom.

Almanac believes the information contained in this document to be reliable but does not warrant its accuracy or completeness. The estimates, investment strategies, and views expressed in this document are based upon current market conditions and/or data and information provided by unaffiliated third parties and are subject to change without notice. Certain economic and market information contained herein has been obtained from published sources prepared by other parties. While such sources are believed to be reliable, neither the Fund, Almanac, nor their respective affiliates assume any responsibility for the accuracy or completeness of such information. Neither delivery of this document nor any statement herein should be taken to imply that any information contained herein is correct as of any time subsequent to the date hereof.

No guarantee or representation is made that the Fund's investment program, including, without limitation, the Fund's investment objectives, diversification strategies, or risk monitoring goals, will be successful, and investment results may vary substantially over time. Investment losses may occur from time to time. Nothing herein is intended to imply that Almanac's investment methodology may be considered "conservative", "safe", "risk free" or "risk averse". PAST PERFORMANCE IS NOT INDICATIVE NOR A GUARANTEE OF FUTURE RESULTS. NO ASSURANCE CAN BE MADE THAT PROFITS WILL BE ACHIEVED OR THAT SUBSTANTIAL LOSSES WILL NOT BE INCURRED.

Almanac Executive Summary

Almanac Realty Investors ("ARI")

- Real estate investment manager founded in 1981 as Rothschild Realty
- Partner owned since 2007
- Changed name from Rothschild Realty to Almanac Realty Investors, LLC in 2011
- RAUM of $3.0 billion as of March 31, 2018
- A focus on making investments in real estate companies ("entity-level," "platform," or "corporate" investments) in both private and public markets

Almanac Realty Securities ("ARS") & Almanac Realty Securities Canada ("CARS")

- Established Almanac Realty Securities ("ARS") Fund Series in 1996 (formerly known as Five Arrows Realty Securities)
- Focused investment mandate: private placements of debt and equity capital into private and public real estate companies
- 22 years; nine funds; $4.8 billion committed for investments across more than 40 companies[1]
- Attractive absolute, relative and risk-adjusted returns
- 12.9% net IRR[2] since inception (1996): approximately half from current income, half from appreciation as of March 31, 2018

Almanac Realty Public Securities ("ARPS")

- New strategy launched in May 2017 focused on investing in publicly traded real estate securities
- ARPS will leverage Almanac's knowledge, experience, and infrastructure to capture attractive real estate investment opportunities that persist in public markets

As of 3/31/2018

Note: Please refer to the "Performance Notes" in the Appendix for important information relating to defined terms and performance calculations. ***Past performance is not indicative of future results.***

1. Includes ARS I-VII and sidecar vehicles and CARS I.
2. Includes ARS I-VII and not sidecar vehicles or CARS I.

ATTACHMENT A

Almanac Funds Performance

As of March 31, 2018 - Estimated Fair Value					Index Comparison[1]			
Fund (Investment Period)	Aggregate Commitments (in millions)	Net IRRs[2]	Net Multiples[2]	DPI Ratio[3]	RMS[4]	NCREIF[5]	S&P 500[6]	Citi BB Bond[7]
ARS I (1996-1998)	$317	15.7%	2.3x	2.3	9.2%	9.8%	7.4%	7.3%
ARS II (1998-1999)	$318	14.3%	1.5x	1.5	14.9%	10.5%	0.0%	6.4%
ARS III (1999-2001)	$232	9.3%	1.4x	1.4	14.7%	10.2%	4.7%	7.2%
ARS IV (2004-2007)	$445	9.4%	1.5x	1.5	7.0%	7.0%	7.0%	7.8%
ARS V (2007-2011)	$839	11.8%	1.5x	1.5	10.6%	10.1%	12.9%	7.2%
ARS VI (2011-2016)	$819	14.0%	1.4x	0.8	10.2%	9.9%	15.7%	5.3%
ARS VII (2015-2019)	$1,264	13.8%	1.2x	0.2	-0.1%	7.5%	12.7%	4.1%
Total		12.9%	1.5x	1.2	10.7%	9.6%	7.7%	7.0%
CARS I (2014-2016)	C $200	12.3%	1.4x	0.2	3.1%	8.8%	10.5%	4.0%

Total LP distributions of $4.0 billion out of $3.4 billion invested by ARS I-VII [8]

Sources: NCREIF, Bloomberg.

Note: Please refer to the "Performance Notes" in the Appendix for important information relating to defined terms and performance calculations. ***Past performance is not indicative of future results.*** Performance information includes both realized and unrealized investments and the actual realized return of unrealized investments may differ materially from the returns indicated herein.

Almanac Organization – *Almanac employees have an average tenure of 9 years*

PARTNERS

- **Matthew W. Kaplan** – Managing Partner – 1990
- **D. Pike Aloian** – Partner – 1988
- **Justin J. Hakimian** – Partner – 2005
- **John D. McGurk** – Partner – 1981
- **Andrew M. Silberstein** – Partner – 2009

Almanac Partners have an average tenure of 23 years

INVESTMENTS

- **David K. Haltiner** – Managing Director – 2008
- **Kenny K. Moon** – Director – 2009
- **Scott J. Peters** – Director – 2007
- **Madeline K. Chiavini** – Vice President – 2013
- **Michael H. O'Neill** – Vice President – 2014
- **Sidney Kanell** – Associate – 2017
- **Matthew P. Marshall** – Associate – 2015

PUBLIC SECURITIES

- **Matthew J. Wolpert** – Portfolio Manager – 2016

SENIOR ADVISORS

- **Andrew Batinovich** – Senior Advisor – 2017
- **Simon R.C. Wadsworth** – Senior Advisor – 2012

FINANCE & REPORTING

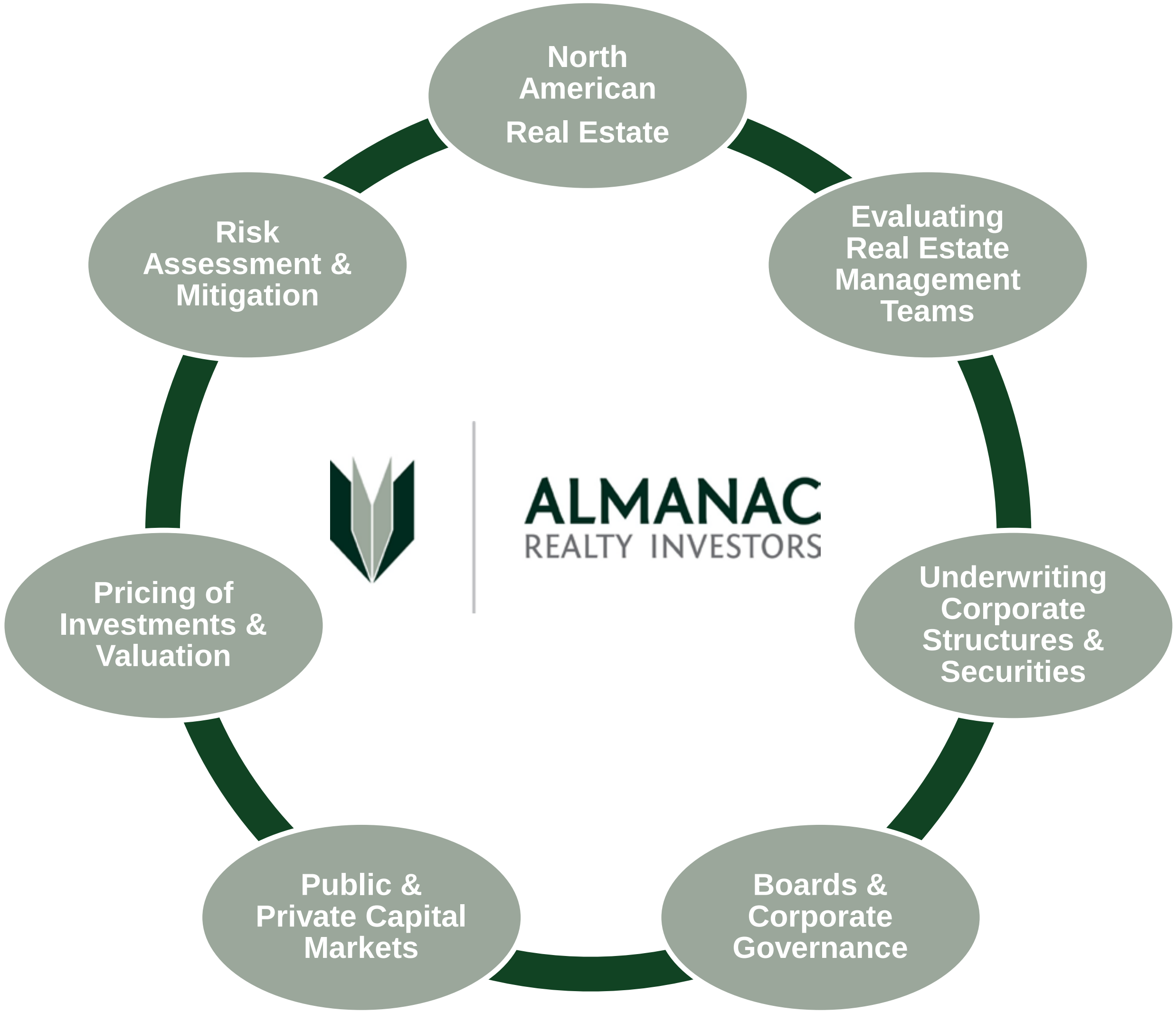
- **Henry C. Herms** – Chief Financial Officer – 2012
- **Joseph M. Sacchetti** – Controller – 2012
- **Michael A. Mitchell** – Accounting Supervisor – 2013
- **Xiu Zheng** – Tax Manager – 2016
- **Jason A. Dumont** – Senior Accountant – 2012
- **Vincent M. Parente** – Senior Accountant – 2015
- **Kaushik Thosani** – Senior Accountant – 2018

LEGAL & COMPLIANCE, AND INVESTOR RELATIONS

- **Jennifer M. Cattier** – General Counsel & CCO – 2015
- **Josh K. Overbay** – Managing Director – 2014
- **Gabrielle M. Porter** – Associate – 2017

Note: Years correspond to date of initial hiring by ARI, its predecessors and/or its affiliates. Senior advisors are consultants, not full-time employees, of Almanac Realty Investors, LLC.

Almanac Core Investment Competencies



Almanac Investment Strategies

FLAGSHIP / VALUE ADD	PUBLIC SECURITIES
Almanac Realty Securities	Almanac Realty Public Securities
Formed 1996 – ARS I-VIII, CARS I	2017 Formation

FLAGSHIP / VALUE ADD

Almanac Realty Securities

Formed 1996 – ARS I-VIII, CARS I

- 22 years; nine funds; $4.8 billion committed for investment across more than 40 companies[1]
- 12.9% compounded annual Net IRR[2] generated in ARS Fund Series since inception in 1996
- Established, high quality companies
- Experienced management teams
- Growth oriented use of proceeds
- Structured / senior securities where possible
- Shared control
- Existing portfolio of assets typically contributed
- $100 - $500+ million investment size[3]
- Additional investment opportunities:
  - Start up & early stage
  - Control/take private, operating businesses, financial/management distress

PUBLIC SECURITIES

Almanac Realty Public Securities

2017 Formation

- Value oriented long / short real estate securities strategy investing primarily in +/- 250 real estate companies publicly listed in North America
- Focused on taking advantage of persistent pricing dislocations available in public markets relative to private market real estate values
- Detailed underwriting process with a focus on capital preservation
- Concentrated portfolio targeting 20 – 40 total long and short positions
- Absolute return strategy vs. index oriented strategy
- Public market complement to ARS Fund Series
- "Founders" offering up to $100 million with reduced fee structure for early investors
- Potential for long-only sleeves/SMA's

Note: All information as of date hereof unless otherwise noted. This is not intended to be an offer to sell, or a solicitation of any offer to buy, interests in any Almanac fund or product. Any such offer will only be made by means of a confidential private offering memorandum or other similar document, which will contain material information (including certain risks of investing in the fund or product) not contained in this presentation and which would qualify in its entirety the information set forth in this presentation. Past performance is not indicative of future results.

1. Includes ARS I-VIII and sidecar vehicles and CARS I.
2. As of 3/31/2018. Includes ARS I-VII and not sidecar vehicles or CARS I. Please refer to "Performance Notes" in the Appendix for important information relating to defined terms and performance calculations.
3. Discretion for up to approximately $450 million per investment for ARS VIII, which represents approximately 30% of total capital commitments based on a $1.5 billion fund. Larger deals considered with co-investment.

ATTACHMENT A

Almanac Realty Securities VIII (“ARS VIII”)

ARS VIII Investment Objectives

- Seek to deliver attractive absolute, relative and risk adjusted returns
- The ARS and CARS Fund Series target net annual returns of 12% or more and net investment multiple of 1.5x-1.75x[1]
- Expect to derive approximately half of the total returns from current yield distributed quarterly
- Seek to generate capital gains by growing a company's equity value through acquiring, developing and/or repositioning real estate assets
- Almanac seeks to protect capital through some or all of the following:
  - Conservative leverage levels
  - Cash flow generation – typically 6-9% gross current yield
  - Unsecured debt or preferred equity structures
  - Active governance and control provisions
  - Portfolio company senior management has significant equity/"skin in the game"
  - Mitigation or significant neutralization of the J-curve

1. There can be no assurance that any Fund will achieve its stated target returns. The target returns set forth herein have been established based on assumptions with respect to market conditions and the expected structure of each investment and takes into consideration the investment experience of managing principals of Almanac in making investments utilizing investment strategies similar to those contemplated by the Funds. Target returns are based upon assumptions regarding future events and situations, however, investment conditions are dynamic and may change during the term of the Funds. As a result, the assumptions used to establish target returns may prove not to be accurate or not to materialize. Accordingly, the target returns set forth herein should not be used as a primary basis for an investor's decision to invest in any Fund. Further, there can be no assurance that the investment objectives of any Fund will be achieved of that an investor will receive a return of its capital.

Investment Approach

Create an Entity That Aligns Interests	▪ Definition of success is the same for the ARS Fund Series and the entrepreneurs ▪ Portfolio Company management typically has a significant amount of their personal wealth invested in the entity ▪ Transparency of management activity and reporting ▪ Governance primarily through participation on the Board of Directors ▪ Participation by ARI representatives in major real estate, capital and organizational decisions
Price Discipline	▪ Deal pricing typically based upon net asset value and projected unlevered real estate returns ▪ Little weight afforded to the value of intangibles, cap rate compression or multiple expansion ▪ Proven ability to realize investments
Invest Growth Capital in High-Quality Real Estate Companies	▪ Transact with quality management teams with proven track records ▪ Focused on generating recurring real estate cash flow ▪ Demonstrated competitive advantages within a real estate niche ▪ Require more efficient access to capital to pursue property acquisitions, redevelopment, and/or developments ▪ Benefit from Almanac's real estate, capital markets and organizational skills

Note: Almanac employs a number of key elements into its investment approach with the goal of achieving the target returns for a particular fund. The above reflect some of the key elements that Almanac may incorporate. However, each portfolio investment is unique and may not incorporate every element above.

ATTACHMENT A

Almanac Realty Securities VII, L.P. (“ARS VII”)

ATTACHMENT A

ARS VII Portfolio Company Investments

ARS VII is approximately 88% committed[1]

	($ in millions)	CA Student Living[2]	Mount Auburn	Mount Auburn (Upsize)	Claros REIT	Westcore Properties II	PREP Property Group	Merritt Properties	ReNew Senior Living
	Origination Date	4/2015	3/2015	4/2017	8/2015	9/2016	6/2017	12/2017	1/2018
	Property Type	Student Housing	Multifamily	Multifamily	Mortgage REIT	Industrial / Office	Retail	Industrial / Office	Senior Housing
	Original Structure	Non-Convertible Debentures, Profit Participation Units	Non-Convertible Debentures, Warrants, Convertible Preferred	Convertible Preferred Equity	Non-Convertible Debentures, Common Equity	Non-Convertible Debentures, Common Equity	Non-Convertible Debentures, Common Equity	Participating Preferred Equity	Preferred Equity, Common Equity
	Interest / Dividend Rate	8.0%[3]	8.0%[4] / 8.25%	6.60%	10.0%[5] / Varies	8.0% / Varies[6]	10.0%[7] / Varies[6]	Varies[6]	9.75%[8]
	Total Commitment	$125.0[10]	$150.0	$75.0	$175.2	$270.0	$200.0	$325.0	$100.0
	Remaining Accordion[9]	--	--	$75.0	--	$67.5	$100.0	$75.0	$100.0
	Commitment	$100.0[10]	$134.2	$60.0	$149.6	$222.1	$191.1	$274.9	$80.00
	Initial Projected IRR	17.0-19.0%	15.0-17.0%	16.5-18.5%	15.0-16.0%	15.0-16.5%	16.0-17.5%	14.0-15.0%	14.0-16.0%
	Current Projected IRR	N/A	17.7-19.6%	25.2-31.9%	15.3-16.3%	15.5-16.7%	16.6-17.4%	14.0-15.0%	14.0-16.0%
ARS 7	Expected Exit	-	2021	2021	2022	2024	2025	2025	2025
	% of Capital Returned	100%	0%	0%	0%	0%	0%	0%	0%
	Net IRR	13.8%							
	Net Multiple	1.2x							

As of 3/31/2018.
Please refer to the "Performance Notes" in the Appendix for important information relating to defined terms and performance calculations. ***Past performance is not indicative of future results.***
1. As of 5/1/2018. Does not include potential accordions. 2. Fully Realized. 3. Investment terms provide for a minimum return: greater of 15.5% IRR or multiple of 1.65x. 4. Increased from 7.5% in October 2017 and will increase to 8.25% in April 2019. 5. Investment terms provide for 10.0% interest rate, 6.0% of which must be paid current. 6. 100% of REIT taxable income is distributed annually. 7. Investment terms provide for 10.0% interest rate, 8.0% of which must be paid current in Years 1-3 and 9.0% thereafter. 8. Investment terms provide for a minimum Gross Multiple of 1.4x on the Preferred Equity units. 9. Additional capital which may be requested by the respective portfolio companies that is subject to approval by Almanac's investment committee. 10. In October 2017, CA Student Living Total Commitment downsized to $117.5 million (ARS VII Commitment to $94.0 million) and remaining was cancelled on settlement.

ATTACHMENT A

Almanac Realty Securities VI, L.P. (“ARS VI”)

ATTACHMENT A

ARS VI Portfolio Company Investments

	($ in millions)	Drawbridge[3]	Nolan[3]	Winter[3]	RAIT	Shaner Hospitality Finance	HRI	HRI (Upsize)
	Origination Date	Dec-11	Jul-12	Mar-14	Oct-12	Jun-13	Apr-14	Jan-16
	Property Type	Office / R&D	Multifamily	Mix of Commercial Types	Commercial Loans, Multifamily, Office, Retail	Hotels	Hotels / Multifamily	Hotels / Multifamily
	Original Structure	Convertible Debt	Convertible Debt	Debentures, Warrants, Common Stock	Preferred Stock, Warrants, SARs[7]	Debentures, Common Stock	Convertible Debt	Non-Convertible Debt
	Interest / Dividend Rate	8.5%[4]	8.5%[4]	7.5%[4] / Varies	8.5%	N/A / Varies[9]	8.5%[11]	8.5%[11,12]
	Total Commitment[1]	$150.0	$125.0[5]	$200.0[6]	$100.0	$50.0[10]	$150.0	$50.0
	Commitment[2]	$132.0	$110.0[5]	$175.0[6]	$100.0	$50.0[10]	$121.9	$40.6
	Capital Invested	$132.0	$61.4	$48.1	$100.0	$3.0	$121.9	$40.6
A	**Initial Projected IRR**	15.5-17.0%	15.5-17.5%	15.0-16.0%	N/A[8]	17.0-19.0%	16.0-18.0%	16.0%
R	**Current Projected IRR**	N/A	N/A	N/A	N/A[8]	30.4-31.5%	16.0-17.1%	17.3%
S	**Expected Exit**	--	--	--	N/A[8]	2020	2021	2021
6	**% of Capital Returned**	100%	100%	100%	36.6%	0.0%	0.0%	0.0%
	Net IRR	14.0%						
	Net Multiple	1.4x						

As of 3/31/2018.

Please refer to the "Performance Notes" in the Appendix for important information relating to defined terms and performance calculations. ***Past performance is not indicative of future results***.

1. Total Commitment reflects the original commitment amount including accordions and sidecar participations. 2. Reflects ARS VI share of total commitment. 3. Fully realized. 4. Reflects final rate prior to redemption. 5. In May 2014, Nolan exercised its option to downsize the original total commitment to $85.0 million and ARS VI's original commitment of $110.0 million to $74.8 million. Of the $74.8 million, Nolan drew $61.4 million and the remaining commitment was canceled and net settled. 6. In March 2016, Winter Total Commitment downsized to $55.0 million (ARS VI Commitment to $48.1 million) and remaining was cancelled on settlement. 7. Stock Appreciation Rights. 8. Almanac does not disclose projected return information for individual portfolio investments in publicly traded companies. 9. 100% of REIT taxable income distributed annually. 10. In December 2014, Shaner Hospitality Finance commitment downsized to $3.0 million. 11. Increased from 7.75% in April 2016 and will increase to 9.25% in April 2018. 12. Investment terms provide for a minimum return of 16.0% Gross IRR.

ALMANAC REALTY INVESTORS

ATTACHMENT A

Almanac Realty Investors Conclusion

Conclusion

Almanac Realty Investors

- 37 year-history of real estate investing
- Proven, stable, and experienced investment team
- Philosophy of putting investors first

Almanac Funds

- 9 funds; $4.8 billion committed for investment across more than 40 companies[1]
- Since inception, ARS VII committed $1.4 billion[2] to 7 companies, 1 of which has been fully realized
- 12.9% Net IRR to investors over 20 years in the ARS Fund Series[3]

Note: Please refer to the "Performance Notes" in the Appendix for important information relating to defined terms and performance calculations. ***Past performance is not indicative of future results.***

1. Includes ARS I-VII and sidecar vehicles and CARS I. As of 3/31/2018
2. Includes sidecar vehicles. Does not include potential accordions.
3. As of 3/31/2018. Includes ARS I-VII and not sidecar vehicles or CARS I.

ATTACHMENT A

Appendix

Almanac Professional Biographies

Matthew Kaplan
Managing Partner

Matthew W. Kaplan, 55, Managing Partner.

Mr. Kaplan joined Almanac in 1992 and is currently responsible for overseeing the activities of Almanac and is the Portfolio Manager of the ARS Fund Series. Prior to joining Almanac, he served in the Corporate Finance Department of Rothschild Inc. He currently serves on the boards of PREP Property Group, ReNew Senior Living and Westcore Properties. He has also served on the boards of Allegro Holdings, Ambassador Apartments Inc., CNL Financial Services, CNL Hospitality Properties, Encore Hospitality, Hallmark Holdings, National RV Communities, Parkway Properties, RXR Realty, Vanta Commercial Properties, Winter Properties, and WNY Group. He is a member of NAREIT's Real Estate Investment Advisory Council. From 1988 to 1990, he was a management consultant at Touche Ross & Co. Mr. Kaplan graduated cum laude from Washington University in 1984 and received an MBA from The Wharton School in 1988.

Almanac Professional Biographies

Josh K. Overbay
Managing Director

Josh K. Overbay, 38, Managing Director.

Mr. Overbay joined Almanac in 2014 and is responsible for leading the firm's capital raising and investor relations activities. Prior to joining Almanac, he was a Director at Lazard Frères in the Private Fund Advisory Group, with specific responsibility for advising and raising capital for real estate private equity fund managers. From 2007 to 2010, he was a Vice President of Perseus Realty Partners, a Washington, DC, based real estate private equity firm, where he led the firm's global capital raising and investor relations activities. Previously, he worked in financial services public policy roles at the U.S. Chamber of Commerce. He graduated from Roanoke College in 2002, received a Masters in Legislative Affairs and Public Policy from The George Washington University in 2007, and a Masters in Real Estate from Georgetown University in 2010.

ARS VIII: Executive Summary of Key Terms

Fund	▪ Almanac Realty Securities VIII, L.P.
Target Size	▪ $1,500,000,000
Strategy	▪ Provide growth capital to private and public companies which own and operate real estate ▪ Concentrated portfolio with 6-8 portfolio company investments
Target Returns	▪ 12% Net IRR or greater; 1.5 - 1.75x Net Multiple[1]
Preferred Return	▪ 8%
Carried Interest	▪ 20%, after the Preferred Return with a 50/50 catch-up
Management Fees	▪ 1.25% on Total Commitments during Investment Period/ 1.25% on Invested Commitments thereafter ▪ Mgmt. Fees commence upon Final Closing
Investment Period	▪ Four years from Final Closing
Fund Term	▪ Ten years from Final Closing, subject to three one-year extensions
GP Commitment	▪ 1% of Total Commitments up to $15 million.
Closings	▪ Over $1.1 billion in aggregate commitments as of May 31, 2018

Note: This information is not intended to be an offer to sell, or a solicitation of any offer to buy, interests in any Almanac sponsored fund. Any such offer will only be made by means of a confidential private offering memorandum or other similar document, which will contain material information (including certain risks of investing in the vehicle) not contained in this presentation and which would qualify in its entirety the information set forth in this presentation.

1. Target returns are not a reliable indicator of future performance and no guarantee or assurance is given that such returns will be achieved or that an investment in the strategy will not result in a loss. Such target returns are based on assumptions made by Almanac, which may differ materially from actual events or conditions, take into account anticipated use of leverage and assume the reinvestment of proceeds from asset liquidations, income, and other earnings.

ATTACHMENT A

Almanac Workforce Composition

Vendor	**Almanac Realty Investors, LLC**	Date Completed:	**June 13, 2018**
Address	**1140 Avenue of the Americas, 17th Floor**		
	New York, NY 10036		
Category	**Value-Add Real Estate**		

TOTAL COMPOSITION OF WORK FORCE

Occupation	African American Full Time	Hispanic Full Time	Asian or Pacific Islander Full Time	American Indian/ Alaskan Native Full Time	Caucasian (Non Hispanic) Full Time	Total Employees Full Time	Percent (%) Minority Full Time	Gender Male Full Time	Gender Female Full Time
Officials & Managers	0	0	0	0	9	**9**	**0.00%**	8	1
Professionals	1	0	3	0	10	**14**	**28.57%**	10	4
Technicians	0	0	0	0	0	**0**	**0.00%**	0	0
Sales Workers	0	0	0	0	0	**0**	**0.00%**	0	0
Office/Clerical	1	1	1	0	1	**4**	**75.00%**	0	4
Semi-Skilled	0	0	0	0	0	**0**	**0.00%**	0	0
Unskilled	0	0	0	0	0	**0**	**0.00%**	0	0
Service Workers	0	0	0	0	0	**0**	**0.00%**	0	0
Other	0	0	0	0	0	**0**	**0.00%**	0	0
Total	**2**	**1**	**4**	**0**	**20**	**27**	**25.93%**	**18**	**9**

ALMANAC
REALTY INVESTORS

Almanac's Corporate Citizenship

The PREA Foundation has formalized a partnership with Sponsors for Educational Opportunity (SEO) to establish its first-ever Real Estate Track, dedicated to increasing diverse employment in the commercial real estate industry. Almanac has made a "Game Changing Gift" at the Founding Patron sponsorship level to support essential initiatives which promote diversity and inclusion within the real estate industry.

PREA FOUNDATION : Diversity Builds Better Futures

Performance Notes

Performance information included in this presentation is intended solely to provide recipients with information about the existing Almanac funds and their respective investments. In considering the performance information contained herein, prospective limited partners should understand that an investment in any fund does not represent an interest in any investment or investment portfolio of any prior, related or other investment fund sponsored, managed or advised by Almanac. Information respecting prior performance is not indicative of actual results to be obtained by any fund, and there can be no assurance that any fund will be able to implement its investment strategy or investment approach, achieve comparable results, that any target results will be met or that it will be able to avoid losses.

The performance returns attributable to any particular limited partner may vary from the returns presented due to difference in timing of net cash flows between investors and the amount of net cash flows attributable to each investors interest. The performance returns may include returns for investments that are not fully realized. In the case of investments that are not fully realized, the actual realized returns on such investments will depend on, among other factors, future operating results, the value of the assets, market conditions at the time of realization, the level of transaction costs incurred, and the timing and manner of sale, all of which may differ from the assumptions used to estimate the future value of the investments. Accordingly, the actual realized return of investments that are not fully realized may differ materially from the returns indicated herein. Fund level returns represent a measurement of the performance of the fund related to the capital interests held by the unaffiliated limited partner group taken as a whole (hereinafter referred to as the “limited partners”), and excluding the capital interests in the fund that are held by the general partner and any limited partner that is a current or former affiliate of the general partner.

Performance Notes

Footnotes to Almanac Fund Performance Table on Page 2

1. Returns are calculated for each index starting from the date each Almanac investment is made and ending with the earlier of the investment exit or 3/31/2018 and are weighted by the size of each Almanac investment. Indices are shown for comparison purposes only and are not investment products available for purchase. Indices are unmanaged and generally do not take into account fees or expenses.
2. The returns reflect investment management fees and carried interest paid/accrued.
3. The Distributions to Paid-In ("DPI") Ratio is calculated by dividing the cumulative distributions As of 3/31/2018 by the amount of paid-in capital.
4. MSCI US REIT Index, calculated by MSCI, Inc. The index is calculated with dividends reinvested on a daily basis and is designed to measure the performance of equity REIT securities.
5. NCREIF Property Index, published and distributed by the National Council of Real Estate Investment Fiduciaries. The NCREIF Property Index consists of both equity and leveraged properties, but the leveraged properties are reported on an unleveraged basis, so the index is completely unleveraged.
6. Standard and Poor's 500 Index. The S&P 500 is an index consisting of 500 stocks chosen for market size, liquidity and industry grouping, among other factors, which is meant to reflect the risk/return characteristics of the large-cap universe.
7. Citigroup Investment-Grade Bond Index for BB-rated bonds. This is a total return index.
8. Does not include sidecar participation amounts or CARS I. Distributions represent realized proceeds from unaffiliated limited partner capital invested into portfolio companies As of 3/31/2018.

Performance Notes

"Fund Gross IRR" is calculated in the same manner as the Gross IRR, and combines the cash flows from investments in all portfolio companies of the referenced fund.

"Net IRR": The inception to date net fund IRR, as it applies to the capital interests of the Limited Partners as a whole, and the net partner IRR, as it applies to the capital interest of an individual partner (collectively, the "Net IRR") (the Limited Partners and an individual partner referred to as an "Investor" with reference to the net fund IRR and net partner IRR, respectively) is the compounded per annum rate of return on an Investor's investment in the Fund, after deduction of management fees, partnership expenses, carried interest and fund reserves, measured from inception through the last day of the reporting period. The Net IRR is calculated using the actual dates that the Investor made its capital contributions to the Fund and the actual dates that the Investor received a distribution of the available net cash flow from the Fund. The Net IRR uses the estimated fair value of the Investor's interest in the Fund as of the last day of the reporting period, net of the estimated carried interest that would be due as of such date based on such estimated fair value, as the residual value.

"Net Multiple" is the ratio of (x) the net value of the limited partners' interest in the referenced Fund, over (y) the amount of capital invested by such limited partners in the referenced Fund. The Net Multiple is measured from the inception (the date of first investment in a portfolio company) through the last day of the reporting period, and is not impacted by the time that capital has been invested. In determining the Net Multiple, the net value of the limited partners' interest in the referenced Fund represents (a) the inception to date operating net cash flow distributed to such limited partners (after deduction of management fees, partnership expenses, carried interest and fund reserves), plus (b) the inception to date realized gains distributed to such limited partners, and (c) the estimated fair value of the limited partners' interest in the referenced Fund as of the last day of the reporting period, net of the estimated carried interest that would be due as of such date based on such estimated value. As it relates to performance measurement, the Net Multiple for the referenced Fund may differ from the net multiple generated for any single limited partner.

"Distributions to Paid-In (DPI) Ratio" is the ratio of (x) the cumulative distributions to limited partners, over (y) the amount of capital invested by such limited partners in the referenced Fund.

Performance Notes

"% of Partner Capital Returned" represents the percentage of partner capital invested into portfolio companies of the referenced Fund that has been returned as of March 31, 2018.

Investment level returns represent a measurement of the performance of the Fund's investments related to the capital invested in each investment. Gross investment level returns are reported for each investment and for all of the Fund's investments on a combined basis.

"Gross IRR": The inception to date Gross Investment Level Internal Rate of Return (the "Gross IRR") is the compounded per annum rate of return on an investment in a portfolio company, before the allocation and deduction of management fees, partnership expenses and carried interest, and fund reserves. The Gross IRR presented for each investment represents the return through the earlier of the current reporting date or the date of full realization. The Gross IRR is calculated using the actual dates that an investment is made into, or returned from, a portfolio company. The Gross IRR calculation generally recognizes income from an investment when contractually due (i.e. interest on loans, fees and preferred dividends), or in the case of common equity investments, when received. The estimated fair value of an investment, before deduction for carried interest, is utilized as the residual value in the calculation of the Gross IRR for any investments that have not been fully realized as of the current reporting date. Under the terms of the applicable Partnership Agreement, capital contributions made to the partnership which are used to fund temporary investments, and which are returned before a specified date (Bridge Investments), if any, are excluded from the Gross IRR presentation.

"Gross Multiple" is the ratio of (x) the total value of the Fund's interest in a portfolio company, over (y) the amount of capital that the Fund invested in such portfolio company. The Gross Multiple is measured from the inception of an investment through the last day of the reporting period (or through the date of full realization, if earlier), and is not impacted by the time that capital has been invested. In determining the Gross Multiple for an investment that has been fully realized, the total value of the Fund's interest in a portfolio company equals (a) the inception to date gross cash received from an investment, plus (b) the gain (loss) realized upon disposition of such investment. In determining the Gross Multiple for an investment that has not been fully realized, the total value of the Fund's interest in a portfolio company represents (a) the inception to date gross cash received from an investment, plus (b) the gain (loss) realized from any partial disposition of such investment, and (c) the estimated fair value of the Fund's interest in such investment as of the last day of the reporting period.

Performance Notes

"Gross Projected IRR" is calculated in a manner similar to the calculation of Gross IRR for inception to date returns, except that these calculations contain estimates and assumptions about the timing and amount of future investment and partnership level cash flows and expenses, including the timing, form, and estimated proceeds resulting from assumed future exit transactions. Gross Projected IRRs are presented as a range. The extent of the range is a function of the level of the current yield Almanac expects to achieve through the projected realization date, the timing of the assumed future exit transaction, as well as the ultimate net exit price (which typically Almanac projects across various scenarios). These estimates and assumptions are inherently uncertain, and subject to numerous factors, many of which are not in Almanac's control. These estimates and assumptions were not prepared with a view towards public disclosure or compliance with any published guidelines. The internal projected return information set forth above is presented only for illustrative purposes as a guideline to assist prospective investors in understanding the types of portfolio investments made by Almanac on behalf of the ARS Funds. As such, neither Almanac Realty Investors, LLC, nor the referenced Fund, represent or warrant, and there can be no assurances, that these estimates and assumptions will be accurate; actual results may differ materially from these estimates.

"Initial Projected IRRs" are based on the original underwriting of a transaction. When projected IRRs are presented as a range, the extent of the range is a function of the level of the current yield Almanac expects to achieve through the projected realization date, the timing of the assumed future exit transaction, as well as the ultimate net exit price (which typically Almanac projects across various scenarios).

"Initial Contractual Yield" is the stated interest rate set forth in the transaction agreement of each applicable investment in effect during the initial period that the investment was outstanding. Where investments were made that included common equity, the weighted average yield is shown assuming no dividends on the common equity investment. This figure may differ from the realized yield on cost over the life of the investment, due to changes in interest rates, payment terms, and other loan modifications. The Initial Contractual Yield is included solely for the purpose of providing prospective limited partners with historical context with respect to Almanac's emphasis on achieving current yield. There can be no assurance that any Fund will achieve similar Initial Contractual Yields with respect to its investment program.

ATTACHMENT B

AUTHORIZATION TO COMMIT
ALMANAC REALTY SECURITIES VIII, L.P.

PROPOSED RESOLUTION

WHEREAS, Almanac Realty Securities VIII, L.P. is a U.S.-focused value-added strategy managed by Almanac Realty Investors, LLC; and,

WHEREAS, such commitment is consistent with LACERS' Real Estate Investments Fiscal Year 2017-2018 Strategic Plan; and,

WHEREAS, The Townsend Group, LACERS' Real Estate Consultant, has conducted extensive due diligence and has recommended that LACERS consider a commitment to Almanac Realty Securities VIII, L.P. to which staff, after a review of the opportunity and consultant findings, concurs; and,

WHEREAS, the Investment Committee, after reviewing staff's recommendation and hearing a presentation from representatives of Almanac Realty Investors, LLC, waived further review of this item and directed the staff recommendation directly to the Board for consideration; and,

WHEREAS, on August 14, 2018, the Board approved staff's recommendation for a commitment of up to $35 million in Almanac Realty Securities VIII, L.P.; and,

NOW, THEREFORE, BE IT RESOLVED, that the Board hereby authorizes a commitment of up to $35 million to Almanac Realty Securities VIII, L.P.; and, authorizes the General Manager to approve and execute the necessary documents, subject to satisfactory business and legal terms.

August 14, 2018

Report to Board of Administration

From: Benefits Administration Committee
Michael R. Wilkinson, Chairperson
Cynthia M. Ruiz
Nilza R. Serrano

Agenda of: **AUGUST 14, 2018**

ITEM: **XI-A**

SUBJECT: **ANTHEM BLUE CROSS 2017 YEAR-END ACCOUNTING AND POSSIBLE BOARD ACTION**

Recommendation

That the Board approve utilizing Premium Stabilization Reserve funds to decrease the Anthem Blue Cross (Anthem) HMO and Medicare Supplement 2019 premiums and transfer the remaining Premium Stabilization Reserve funds to a Section 115 trust account, once established.

Discussion

At the Committee's meeting of July 19, 2018, the Committee approved forwarding staff's recommendation to the Board. The Committee report is attached.

Strategic Plan Impact Statement

The participating contract with Anthem Blue Cross and the Year-End Accounting process allows premium surpluses to be used toward future premium costs, supporting Strategic Plan Goal 3: Maximize Value and Minimize Costs of our Health and Welfare Program.

This report was prepared by Alex Rabrenovich, Chief Benefits Analyst, of the Health Benefits Administration and Communications Division.

MRW:AR:ar

Attachment: A) July 19, 2018 BAC Report

LACERS
LOS ANGELES CITY EMPLOYEES'
RETIREMENT SYSTEM

Report to Benefits Administration Committee

From: Neil Guglielmo, General Manager

Agenda of: **JULY 19, 2018**

ITEM: IV

SUBJECT: **ANTHEM BLUE CROSS 2017 YEAR-END ACCOUNTING AND POSSIBLE COMMITTEE ACTION**

Recommendation

That the Committee recommend to the Board utilizing Premium Stabilization Reserve funds to decrease the Anthem Blue Cross (Anthem) HMO and Medicare Supplement 2019 premiums and transfer the remaining Premium Stabilization Reserve funds to a Section 115 trust account, once established.

Discussion

LACERS has an experience-rated refunding contract with Anthem for its HMO, PPO, and Medicare Supplement plans. This contract requires a year-end accounting after each plan year. Anthem plan premiums are based on projected costs for the coming plan year. At the end of each plan year, a year-end accounting is conducted which compares Anthem's actual annual costs with the annual premium amount paid by LACERS and its Members.

As part of its contract, LACERS has a Claims Stabilization Fund (CSF) which is required to contain a certain level of funding as determined by Anthem at the beginning of each plan year. The purpose of the CSF is to fund any deficits that may be found in the year-end accounting. In addition, LACERS has a Premium Stabilization Reserve (PSR), into which LACERS may transfer year-end surpluses after the CSF funding requirement is met. The PSR, which is not required by Anthem, also may be used to fund any deficits beyond the CSF, but only with LACERS' permission. Both the CSF and PSR are held in interest-earning accounts (1.789% in 2017).

Our PSR account holds surpluses gained from years when annual premium payments exceeded annual claims costs and administrative expenses. On January 12, 2010, the Board approved a Premium Stabilization Reserve Funding Policy (attached) for the disposition of excess funds which requires the PSR to have a minimum balance of 15% of Anthem's projected annual premium cost for the following year. Based on this policy, the PSR is required to have a balance of approximately $8.2 million in 2019.

Keenan and Associates (Keenan), LACERS' health and welfare consultant, reviewed Anthem's year-end accounting for 2017 (attached). All year-end accounting takes place at the end of the plan year, December 31, 2017. Highlights of Keenan's findings include:

PSR Beginning Balance	$19,671,630
2017 Premium Surplus	4,039,444
PSR Interest	351,994
Premium Defrayals*	(7,728,232)
Transfer of Excess CSF funds**	0
PSR Ending Balance	$16,334,836
August 2018 Premium Defrayal	4,529,968
PSR Ending Balance	$11,804,868
Required Minimum Balance	(7,713,263)
Available Balance	$ 4,091,605

*The premium defrayals administered in May 2016 and September 2017 were accounted for during the 2017 year-end accounting.

**The 2016 CSF balance was $1,129,400. Anthem required a balance of $1,251,114 for 2017, so a transfer of $101,505 was made from the PSR to the CSF.

Based on these findings and the LACERS PSR Funding Policy, the PSR will have sufficient funds beyond the required minimum to apply toward the premium cost for Members. Instead of administering a premium defrayal, staff recommends using the Available Balance to reduce the 2019 HMO and Medicare Supplement plans' premium amounts. Further, staff and Keenan are reviewing the possibility of obtaining a trust account to hold premium reserves. Once established, staff recommends transferring the remaining PSR funds to this trust account to be administered by LACERS.

Strategic Plan Impact Statement

The participating contract with Anthem Blue Cross and the Year-End Accounting process allows premium surpluses to be used toward future premium costs, supporting Strategic Plan Goal 3: Maximize Value and Minimize Costs of our Health and Welfare Program.

This report was prepared by Alex Rabrenovich, Chief Benefits Analyst, of the Health Benefits Administration and Communications Division.

NG:AR:ar

Attachments: A) LACERS PSR Funding Policy Resolution
B) 2017 Anthem Year-End Accounting, prepared by Keenan and Associates

LACERS' PREMIUM STABILIZATION RESERVE FUNDING POLICY

Commissioner Rogers moved approval of the following Resolution:

RESOLUTION 100126-E

WHEREAS, the Los Angeles City Employees' Retirement System (LACERS) administers a health and welfare program, which includes health insurance for retired employees and their eligible dependents;

WHEREAS, LACERS may enter into an experience-rated refunding contract with its health insurance carriers which requires year-end accounting after the close of a plan year to reconcile any differences between the amount of premiums paid to the carrier and the amount of claims and expenses associated with providing health coverage;

WHEREAS, these types of contracts contain an interest-earning Claims Stabilization Fund (CSF), which is required to maintain a certain balance, as directed by the carrier, to fund any deficits that may be found in the year-end accounting;

WHEREAS, these types of contracts may also include an interest-earning Premium Stabilization Reserve (PSR), into which year-end accounting surpluses beyond the CSF funding requirement are transferred and funds may be used to fund the CSF when year-end accounting deficits are greater than the CSF balance;

WHEREAS, LACERS may withdraw funds from the PSR for alternative uses;

WHEREAS, a minimum PSR balance should always be maintained and recalculated annually to offset possible year-end deficits;

WHEREAS, actuarially, there is a 90% probability that a deficit will be less than 5% of projected premiums for the following plan year;

NOW, THEREFORE, BE IT RESOLVED that the Board of Administration hereby adopts a Premium Stabilization Reserve (PSR) funding policy where the PSR is maintained at a minimum of three times 5% of the health plan's projected annual premium cost for the following plan year and that the Board review alternatives for the disposition of excess PSR funds annually.

which motion was seconded by Commissioner Bardwell, and adopted by the following vote: Ayes, Commissioners Bardwell, Greenwood, Penichet, Rogers, Spiker, Uranga, and President Conroy – 7; Nays, None.

I hereby certify that the foregoing is a true and correct copy of a Resolution duly adopted by the Board of Administration, Los Angeles City Employees' Retirement System, at its Regular Meeting held on January 26, 2010.

Sally Choi
Secretary

ATTACHMENT B

Los Angeles City Employees' Retirement System
2017 Anthem Year-End Accounting
July 19, 2018

Respectfully Submitted by:
Steve Gedestad, Municipality Practice Leader | Bordan Darm, Consultant
Erin Robinson, Senior Service Representative | Christine Hough, Consultant and Actuary

Contents

Executive Summary

- The 2017 Year-End Accounting (YEA) produced a $4,140,949 surplus.
- The Claims Stabilization Fund (CSF) is funded at $1,251,114 for December 31, 2017.
    - Anthem is not requesting any adjustment to the CSF ($1,251,114) for January 1, 2018.
- The Premium Stabilization Reserve (PSR) minimum balance set by LACERS' PSR funding policy is $7,713,263 for 2017.
- The December 31, 2017 PSR ending balance is $16,334,836.
    - The defrayal from the 2016 YEA will be administered in August 2018 and is estimated to be $4,529,968. This would bring the PSR down to $11,804,868 ($4,091,605 above the minimum PSR).
- Based on 2017 YEA results, LACERS may want to consider applying funds to reduce the 2019 HMO and Medicare Supplement premiums, and a fund transfer to LACERS' proposed 115 Trust.

2017 Anthem Accounting Summary

- The Year-End Accounting (YEA) provides LACERS with the difference between total costs incurred for the policy period and the respective premium remitted. The balance is expressed as a surplus or deficit position.
- The Claims Stabilization Fund (CSF) is set and held by Anthem, and funded by LACERS. It is to fund any deficit of a given policy period.
- The purpose of the Premium Stabilization Reserve (PSR) fund is to build up reserves from the surpluses of each policy period after meeting the funding requirement in the CSF, and to provide additional security should a period's deficit be greater than the CSF.
- LACERS is not required to hold surpluses in the PSR. Any funds from the PSR fund may not be utilized by Anthem without authorization from LACERS.

Policy Year	2013	2014	2015	2016	2017
YEA **Surplus/(Deficit)** **% of Premium**	$2,005,972 surplus 8.1%	$3,812,565 surplus 8.6%	$3,455,525 surplus 7.6%	$1,017,392 surplus 2.1%	$4,140,949 surplus 8.2%
CSF **$ Adjustment** **% Adjustment**	$1,289,036	$1,129,400 -$159,636 -12.4%	$1,129,400 $0 0.0%	$1,129,400 $0 0.0%	$1,251,114 +$121,714 +10.8%
PSR w/YEA **$ Adjustment**	$10,764,741	$14,804,529 +$4,039,788	$18,386,470 +$3,581,941	$19,671,630 +$1,285,160	$16,334,836 -$3,336,794

2017 Anthem Accounting Summary – Claims Stabilization Fund (CSF)

- The following table illustrates the Claims Stabilization Fund (CSF) accounting for the past four policy years:

CSF Accounting	2013	2014	2015	2016	2017
1/1 CSF Balance	$695,983	$1,289,036	$1,129,400	$1,129,400	$1,129,400
Interest Earned **Interest Yield**	$4,754 0.683%	$7,228 0.561%	$8,960 0.793%	$15,496 1.372%	$20,209 1.789%
Net CSF Balance	$700,737	$1,296,264	$1,138,360	$1,144,896	$1,149,609
YEA Fund Transfer	$588,299	$0	$0	$0	$0
PSR Fund Transfer	$0	($166,864)	($8,960)	($15,496)	$101,505
Required CSF	$1,289,036	$1,129,400	$1,129,400	$1,129,400	$1,251,114

- Interest Yield is based on 12-month LIBOR Index
- Effective 1/1/17, Anthem required that the CSF be increased 10.8% or $121,714 to $1,251,114.

2017 Anthem Accounting Summary – Premium Stabilization Reserve (PSR)

The following table illustrates the Premium Stabilization Reserve (PSR) accounting for the past five years:

PSR Accounting	2013	2014	2015	2016	2017
PSR 1/1 Balance	$9,283,659	$10,764,741	$14,804,529	$18,386,470	$19,671,630
Transfer YEA to PSR	$2,005,972	$3,812,565	$3,455,525	$1,017,392	$4,039,444
PSR 1/1 Balance w/ YEA	$11,289,631	$14,577,306	$18,260,054	$19,403,862	$23,711,074
Interest Earned **Interest Yield**	$63,409 0.683%	$60,359 0.561%	$117,456 0.793%	$252,272 1.372%	$351,994 1.789%
Transfer CSF to PSR	($588,299)	$166,864	$8,960	$15,496	$0
Premium Defrayal					-$7,728,232
PSR 12/31 Balance	$10,764,741	$14,804,529	$18,386,470	$19,671,630	$16,334,836

- Interest Yield is based on 12-month LIBOR Index
- For 2014, Medicare Supplement was added as a participating, refunding arrangement, replacing the Medicare Advantage LPPO
- Two Premium Defrayals are accounted for in 2017. 1) -3,717,788 taken in May, 2016, earned in 2014, accounted for in 2017 (not 2016), and 2) $4,010,444 taken in September, 2017, earned in 2015, and accounted for in 2017.

2017 Anthem Accounting Summary – Minimum Premium Stabilization Reserve

- LACERS has established a minimum PSR threshold of 3 times 5% (15%) of annual Anthem experience-rated premium.
- The following table illustrates the minimum Premium Stabilization Reserve (PSR) accounting for the past four policy years:

PSR Accounting	2013	2014	2015	2016	2017
Anthem Annual Premium	$24,911,212	$44,145,676	$46,617,533	$47,725,568	$51,421,751
Minimum PSR Factor	15.0%	15.0%	15.0%	15.0%	15.0%
Minimum PSR Required	$3,736,682	$6,621,851	$6,992,630	$7,158,835	$7,713,263
PSR Ending Balance	$10,764,741	$14,804,529	$18,386,470	$19,671,630	$16,334,836
PSR Difference	$7,028,059	$8,182,678	$11,393,840	$12,512,795	$8,621,573

2017 Anthem Accounting Summary – Premium Defrayal

- When the PSR amount becomes substantially higher than the minimum PSR standard, LACERS can offer a premium defrayal to reduce the PSR.
- LACERS has elected premium defrayals based on YEA results for 2013, 2014, 2015, and 2016.
- The premium defrayals have been realized in 2015, 2016, and 2017, with the another one scheduled for 2018.
- The following table illustrates the PSR accounting for the past policy years:

Premium Defrayal (PD)	2013	2014	2015	2016	2017
PSR Balance	$10,764,741	$14,804,529	$18,386,470	$19,671,630	$16,334,836
PD Declared **PD Taken** **PD Amount**	Yes May 2015 $3,708,149	Yes May 2016 $3,717,788	Yes Sep. 2017 $4,010,444	Yes Aug. 2018 $4,529,968	TBD

2017 Anthem Accounting Summary By Plan

	HMO	PPO	MEDICARE SUPPLEMENT	MEDICARE PART D	TOTAL
2017 INCOME					
Paid Premium	$13,165,553	$14,833,106	$8,588,796	$14,082,481	$50,669,936
CMS Revenue (Medicare Part D)	$0	$0	$0	$751,815	$751,815
TOTAL INCOME	$13,165,553	$14,833,106	$8,588,796	$14,834,296	$51,421,751
2017 EXPENSES					
Total Incurred Claims [1]	$6,045,840	$12,944,701	$6,861,281	$17,087,282	$42,939,104
Retention	$473,528	$619,426	$1,314,876	$953,326	$3,361,156
Silver Sneakers Program in 2017	$0	$0	$267,773	$0	$267,773
Capitation	$4,400,003	$0	$0	$0	$4,400,003
ACA Insurer & ACA Reinsurance Fee	$0	$0	$0	$0	$0
Consortium Fees	$0	$5,013	$0	$0	$5,013
HMC Programs	$14,723	$17,689	$52,230	$0	$84,642
CMS Credit (Medicare D)	$0	$0	$0	($2,028,149)	($2,028,149)
Part D Credit - Gap Discount/Prior Settlement	$0	$0	$0	($2,029,789)	($2,029,789)
Premium Taxes	$0	$127,231	$0	$153,818	$281,049
TOTAL EXPENSES	$10,934,094	$13,714,060	$8,496,160	$14,136,488	$47,280,802
2017 SURPLUS/(DEFICIT)	**$2,231,459**	**$1,119,046**	**$92,636**	**$697,808**	**$4,140,949**
SURPLUS AMOUNT TRANSFERRED TO CLAIMS STABILIZATION FUND	**($101,505)**	**$0**	**$0**	**$0**	**($101,505)**
SURPLUS AMOUNT TRANSFERRED TO PREMIUM STABILIZATION RESERVE	**($2,129,954)**	**($1,119,046)**	**($92,636)**	**($697,808)**	**($4,039,444)**

[1] Total Incurred Claims include reserve changes, large claims charge, and credit.

License No. 0451271

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Keenan & Associates

2017 Anthem Accounting Summary - Accounting History

	2013	2014	2015	2016	2017
Annual Amount					
Total Income	$24,911,212	$44,145,676	$46,617,533	$47,725,568	$51,421,751
Total Expenses	$22,905,240	$40,333,111	$43,162,008	$46,708,176	$47,280,802
Surplus / (Deficit)	$2,005,972	$3,812,565	$3,455,525	$1,017,392	$4,140,949
Expense Ratio	91.9%	91.4%	92.6%	97.87%	91.95%
Contracts	1,920	4,453	4,413	4,795	4,734
Per Retiree Per Month Amount					
Total Income	$1,081.03	$826.14	$880.31	$829.43	$905.20
Total Expenses	$993.98	$754.79	$815.05	$811.75	$832.31
Surplus / (Deficit)	$87.05	$71.35	$65.25	$17.68	$72.90

Conclusions

- For the 2017 Year-End Accounting, LACERS may want to consider a fund transfer to LACERS' proposed 115 Trust.
- Without consideration for the 2017 Year-End Accounting, and strictly based on the 2017 PSR Ending Balance, the following analysis is provided:

Impact of Defrayal taken in 2018 (earned in 2016) on 2017 PSR Ending Balance	
2017 PSR Ending Balance	$16,334,836
Premium Defrayal earned in 2016 YEA, taken in 2018	$4,529,968
2017 PSR Adjusted Ending Balance	$11,804,868
Minimum PSR Balance	$7,713,263
Projected Balance above Minimum PSR Balance:	$4,091,605

Acknowledgement

Keenan & Associates would like to thank Ms. Lita Payne, Mr. Alex Rabrenovich, and the LACERS Health Benefits Administration staff for providing the necessary data and engaging in this renewal process. Their cooperation and guidance have been extremely valuable.

Questions and Answers