



Alameda County Employees' Retirement Association  
**BOARD OF RETIREMENT**

**INVESTMENT COMMITTEE/BOARD MEETING**

**ACERA MISSION:**

**To provide ACERA members and employers with flexible, cost-effective, participant-oriented benefits through prudent investment management and superior member services.**

Wednesday, December 12, 2018  
 9:30 a.m.

LOCATION	COMMITTEE MEMBERS	
ACERA C.G. "BUD" QUIST BOARD ROOM 475 14 <sup>TH</sup> STREET, 10 <sup>TH</sup> FLOOR OAKLAND, CALIFORNIA 94612-1900 MAIN LINE: 510.628.3000 FAX: 510.268.9574	ELIZABETH ROGERS, CHAIR	ELECTED GENERAL
	GEORGE WOOD, VICE CHAIR	ELECTED GENERAL
	DALE AMARAL	ELECTED SAFETY
	OPHELIA BASGAL	APPOINTED
	KEITH CARSON	APPOINTED
	TARRELL GAMBLE	APPOINTED
	JAIME GODFREY	APPOINTED
	LIZ KOPPENHAVER	ELECTED RETIRED
	HENRY LEVY	TREASURER
	NANCY REILLY	ALTERNATE RETIRED <sup>1</sup>
	DARRYL L. WALKER	ALTERNATE SAFETY <sup>2</sup>

Should a quorum of the Board attend this meeting, this meeting shall be deemed a joint meeting of the Board and Committee. The order of agenda items is subject to change without notice. Board and Committee agendas and minutes are available online at [www.acera.org](http://www.acera.org).

**Note regarding public comments:** Public comments are limited to four (4) minutes per person in total.

**Note regarding accommodations:** The Board of Retirement will provide reasonable accommodations for persons with special needs of accessibility who plan to attend Board meetings. Please contact ACERA at (510) 628-3000 to arrange for accommodation.

<sup>1</sup> Alternate Retired Member (Votes in the absence of the Elected Retired Member, or, if the Elected Retired Member is present, then votes if both Elected General Members, or the Elected Safety Member and an Elected General Member, are absent.

<sup>2</sup> Alternate Safety Member (Votes in the absence of (1) the Elected Safety, (2) either of the two Elected General Members, or (3) both the Retired and Alternate Retired Members).

# **INVESTMENT COMMITTEE/BOARD MEETING**

NOTICE and AGENDA, Page 2 of 3 – Wednesday, December 12, 2018

**Call to Order:** 9:30 a.m.

## **Action Items: Matters for discussion and possible motion by the Committee**

1. Discussion of and Possible Motion to Recommend to the Board to Adopt an Amended ACERA Real Estate Investment Guidelines, Policies and Procedures

9:30 – 10:00 Avery Robinson, Callan LLC  
Jonathan Gould, Callan LLC  
Thomas Taylor, ACERA  
Betty Tse, ACERA

2. Discussion of and Possible Motion to Recommend to the Board to Adopt the 2019 – 2020 Investment Plan for ACERA's Real Estate Asset Class

10:00 – 10:30 Avery Robinson, Callan LLC  
Jonathan Gould, Callan LLC  
Thomas Taylor, ACERA  
Betty Tse, ACERA

## **Information Items: These items are not presented for Committee action but consist of status updates and cyclical reports**

1. Update on ACERA's U.S. Equity Small Cap Growth Manager Search –Domestic Equities

Margaret Jadallah, Verus Inc  
Steve Quirk, Verus Inc  
Clint Kuboyama, ACERA  
Thomas Taylor, ACERA  
Betty Tse, ACERA

2. CA Gov Code § 7514.7 Alternative Investment Vehicles Information Report

Grant Hughs, ACERA  
John Ta, ACERA

3. Semiannual Performance Review for the Period Ending June 30, 2018 – Private Equity

Faraz Shooshani, Verus Inc.  
Thomas Taylor, ACERA  
Philip Wogsberg, ACERA  
Betty Tse, ACERA

# ***INVESTMENT COMMITTEE/BOARD MEETING***

**NOTICE and AGENDA, Page 3 of 3 – Wednesday, December 12, 2018**

4. Semiannual Performance Review for the Period Ending June 30, 2018 – Absolute Return

Margaret Jadallah, Verus Inc.  
Philip Wogsberg, ACERA  
Betty Tse, ACERA

5. Semiannual Performance Review for the Period Ending June 30, 2018 – Real Assets

John Nicolini, Verus Inc.  
Philip Wogsberg, ACERA  
Betty Tse, ACERA

6. Quarterly Performance Review for the Third Quarter of 2018 – Real Estate

Avery Robinson, Callan LLC  
Jonathan Gould, Callan LLC  
Thomas Taylor, ACERA  
Betty Tse, ACERA

## **Trustee Remarks**

## **Public Input (Time Limit: 4 minutes per speaker)**

## **Future Discussion Items**

## **Establishment of Next Meeting Date**


January 9, 2019 at 9:30 a.m.



**ALAMEDA COUNTY EMPLOYEES' RETIREMENT ASSOCIATION**

475 14th Street, Suite 1000, Oakland, CA 94612 800/838-1932 510/628-3000 fax: 510/268-9574 www.acera.org

TO: Members of the Investment Committee

FROM: Betty Tse, Chief Investment Officer 

DATE: December 12, 2018

SUBJECT: Discussion of and Possible Motion to Recommend to the Board to Adopt an Amended ACERA Real Estate Investment Guidelines, Policies and Procedures

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**Recommendation:**

Adopt the proposed amendments to ACERA's amended Real Estate Investment Guidelines, Policies and Procedures ("R/E Policy").

**Background / Discussion:**

ACERA's last formal review of and amendments made to the R/E Policy was January 21, 2016. At the November 7, 2018 Investment Committee Meeting, Callan Associates, Inc. ("Callan") and Staff discussed some proposed revisions, such as including Debt Real Estate<sup>1</sup> and International Real Estate investments. At this time, Callan and Staff are presenting the proposed amendments, which include input from the Committee, as an Action Item for the Investment Committee to adopt.

The objectives of updating the current R/E Policy are to: 1) reflect the current investments and conditions of ACERA's Real Estate Portfolio, 2) improve the language of the policy for clarity and consistency, and 3) to add more flexibility in investment diversification; therefore, the addition of Debt Real Estate and International Real Estate investment language in ACERA's R/E Policy.

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<sup>1</sup> Not to be confused with leverage, i.e., loan-to-value, debt real estate is owning debt which is secured by the underlying property, e.g., a lender. Debt real estate, which is higher on the capital structure compared to equity real estate, can be Whole Loans, Senior Loans, B-Notes, Mezzanine Loan, Preferred Equity, etc. Debt real estate provides an income-oriented returns, downside protection relative to equity real estate interests, lower historical volatility, for example.

The following identifies and explains the key proposed revisions for your consideration:

**Investment Objectives / Risk Management / Diversification**

**(Section II-IV - Pages 1-8)**

1. Within defined limits, allowing for the additional flexibility to invest in Debt Real Estate and International investments will allow for several advantages to ACERA, including 1) providing additional ways to access real estate investments, 2) diversification benefits and tactical opportunities beyond equity real estate investments, and 3) potentially increase expected returns. Several commingled real estate funds in which ACERA is presently invested in can potentially allocate or invest in debt real estate or international real estate; this will bring the policy current.

**(Section V – Page 11)**

1. Regarding Performance Measurement Reports, Trustees propose to change the language to reflect semi-annual reporting versus quarterly reporting. This will make the R/E Policy consistent with the General Investment Guidelines, Policies and Procedures.

**Compliance Checklist Template for RE Investments**

**(Appendix B - Page 18-19)**

2. Staff recommends adding a Compliance Checklist – similar to the Private Equity, Absolute Return, and Real Assets Compliance Checklist for any private real estate fund structures.

**Attachments:**

1. Proposed amended ACERA Real Estate Investment Guidelines, Policies and Procedures (redline copy)
2. Callan – Real Estate Policy Review and 2019-2020 Real Estate Investment Plan



**ALAMEDA COUNTY  
EMPLOYEES RETIREMENT ASSOCIATION**

**REAL ESTATE INVESTMENT GUIDELINES,  
POLICIES AND PROCEDURES**

Amended ~~January 12, 2016~~ December 20, 2018

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**I. SCOPE**

The Real Estate Investment Guidelines, Policies and Procedures ("R/E Policy") governs all investments in the Real Estate asset class made by Alameda County Employee's Retirement Association ("ACERA"). The R/E Policy is subject to all provisions of applicable law and the applicable limitations and requirements of ACERA's General Investment Guideline, Policies and Procedures ("General Policy"). If there is any conflict between this R/E Policy and ACERA's General Policy pertaining to investments in the Real Estate asset class, this R/E Policy prevails. The ACERA Board ("Board") reserves the right to amend, supplement or rescind this R/E Policy at any time.

**II. PURPOSE**

The purpose of this Policy is to 1) set forth the real estate investment policies and guidelines which are deemed to be appropriate and prudent; 2) establish criteria against which real estate investment opportunities are to be measured; and 3) serve as a governance document and guide to the ongoing oversight of ACERA's Real Estate Portfolio ("R/E Portfolio") on a consistent basis. The Policy also defines roles and responsibilities of the Board, the ACERA Investment Committee ("Investment Committee"), the ACERA Staff ("Staff"), the ACERA Real Estate Consultant ("Consultant") and the Real Estate Investment Managers hired by ACERA to manage its assets ("Investment Managers").

It is expected that this Policy will be a living document and that changes will be made from time-to-time to reflect experience, evolving investment products, and opportunities and changes in the economic and capital market environment.

ACERA has determined that, over the long term, inclusion of ~~equity~~ real estate investments should provide the following benefits (in order of relative importance):

- Lower portfolio risk due to low correlation with other portfolio asset classes
- Generate a stable, income stream to assist in meeting cash flow needs
- Provide growth through appreciation
- Serve as a hedge against inflation
- Provide an opportunity to enhance portfolio return through higher total return investments

In order to achieve the above benefits, this document establishes the specific investment guidelines, policies and procedures involved in the implementation and oversight of the ACERA real estate program. The investment guidelines define the specific risk tolerance and return expectations for the program. The policies provide specifications for acceptable investment styles and management



of the various risks associated with the asset class. The procedures provide guidelines for the implementation and oversight of said policies.

### III. INVESTMENT OBJECTIVES

#### A. Asset Allocation

ACERA has approved a long-term asset allocation target of eight percent (8%) for investment in **equity** real estate investments.

#### B. Return Objectives

The Board has determined that the primary objective for the real estate asset class will be to provide a source of return that improves the diversification of the overall investment portfolio. Equity real estate investments generally have low correlations to traditional asset classes. The secondary objective for the asset class will be to achieve total returns<sup>1</sup> that include a large portion attributable to income<sup>1</sup>.

The Board seeks to achieve total net returns on all real estate investments equivalent to the net returns of the National Council of Real Estate Investment Fiduciaries Fund Index Open-End Diversified Core Equity Index ("NFI-ODCE" or "ODCE") as a minimum return for the total portfolio over rolling five-year periods.

### IV. INVESTMENT POLICIES

#### A. Portfolio Composition

The universe of public and private real estate investment strategies ('styles') can be divided into three primary categories: (1) Core, (2) Value-Added, and (3) Opportunistic. For purposes of diversification and because of the size of ACERA's Fund, the portfolio will consist mostly of commingled funds, not Separately Managed Accounts ("SMA") except for maintaining ACERA's Headquarters. The style groups are defined by their respective market risk/return characteristics:

##### Core Characteristics

- Institutional quality operating properties that are substantially leased (greater than 80%) core quality properties;
- Property types invested in mainly include office, apartment, retail and industrial;

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<sup>1</sup> Total return is comprised of two components: income and appreciation. Income is defined as net operating income from real estate after expenses and leverage but before the deduction of capital items (e.g. roof replacement, renovations, etc). Appreciation / depreciation is defined as an increase or decrease in investment value based on an internal or third party appraisal or mark-to-market.

- Total return consists of both income and appreciation with income accounting for 50% or more of the return.

May generally include the use of leverage up to 50% Loan-to-Value. (See Section IV.B.4.a, "Leverage: Core" for more information).

Value-Added Characteristics

- Institutional quality properties with identifiable deficiencies such as lease-up, rehabilitation, repositioning, expansion or those acquired through forward purchase commitments in order to reach stabilization;
- Strategies may include traditional (office, apartment, retail, industrial) or niche property types with demonstrated capital demand for disposition;
- Total return consists of capital appreciation with anticipated growing income over time;
- May generally include the use of leverage up to 65% Loan-to-Value. (See Section IV.B.4.b, "Leverage: Value Added" for more information).

Opportunistic Characteristics

- Institutional quality properties offering recapitalization, turnaround, development, market arbitrage opportunities or offshore investments;
- No property types are excluded, and properties may include business operations (e.g. hotels, congregate care), as well as, office, apartment, retail, and industrial;
- Total return is primarily attributable to appreciation.
- May generally include the use of leverage up to 80% Loan-to-Value. (See Section IV.B.4.c, "Leverage: Opportunistic" for more information).

With respect to the three style groups, the Board has established the following portfolio composition target<sup>1</sup>:

Style	Return Benchmarks (Net of Fees)
≥ 70% Core	NCREIF Open-End Diversified Core Equity ("ODCE") Index Capitalization – Weighted (Net of Fees)
0% - 30% Value-Added	NCREIF Open-End Equity ("OE") Index
0% - 15% Opportunistic	NCREIF OE Index
Total Real Estate Portfolio	NCREIF ODCE Index Capitalization-Weighted (Net of Fees)

All investments will be classified based upon the strategy advocated at inception of the investment.

**B. Risk Management**

The primary risks associated with ~~equity~~-real estate investments relate to property type and geographic selection, illiquidity, investment manager risk, portfolio management risk and loss of principal (economic risk). The following policies have been established to prudently manage and mitigate the risks involved in investing in ~~equity~~-real estate.

1. *Defined Roles for Participants*

All program participants must comply with ACERA policies, guidelines and contracts in addition to the conditions listed in this document. Additional roles and responsibilities specific to the real estate portfolio are detailed in Appendix A of this document.

2. *Investment Structure*

ACERA recognizes that, regardless of investment vehicle, real estate is an illiquid asset class. Vehicles that maximize investor control of the assets are preferred, particularly in Core and Value-Added investments. ACERA also recognizes that the Opportunistic style requires the assumption of additional risks including diminished investor control. The risk associated with reduced investor control in higher return strategies will be mitigated by limiting exposure to any single investment strategy and/or manager.

ACERA will utilize the following investment structure:

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<sup>1</sup> Refer to Schedule II: ACERA's policy index for Real Estate and Benchmarks for Real Estate Managers.

a) **Commingled Funds<sup>1</sup>**

Commingled Funds will be utilized for Core, Value-Added and Opportunistic investment strategies.

The Core investment style is considered to be less risky (thereby providing lower returns) than higher returning value-added or opportunistic investments. The lower risk assigned to stabilized investments is due to three primary characteristics: (1) the stability of the income generated;(2) the higher proportion of the total return attributable to income; and (3) the limited use of debt (0% to 50%) usually associated with the style. Because of its high occupancy rates, Core properties are more stable.

The Value-Added and Opportunistic investment styles seek to provide higher returns with higher risk than the Core component of the portfolio. Value-Added investments depend upon the successful completion of an active management strategy and a timely disposition of the asset(s). Value-Added investments often use higher levels of debt, as compared to Core investments, to further increase total return expectations.

Opportunistic investments seek to capitalize on market inefficiencies and opportunities (e.g. capital voids, market recovery, development, distressed sellers, financial engineering, non-domestic markets) and debt to provide excess returns. Because of the degree of reliance on active management necessary to capitalize on such market inefficiencies, investments will be accessed through structures that allow a high degree of manager discretion and a significant level of diversification.

In order to mitigate the increased risks associated with the style exposure, ACERA will make investments in the Value-Added and Opportunistic components through the ownership of units or shares of Commingled Fund structures. Any legally permissible vehicle will be allowed including, but not limited to, joint ventures, limited partnerships, real estate investment trusts and limited liability corporations. ACERA will invest in Commingled Fund in accordance with the procedures detailed in Section IV. B.

3. ***Diversification***

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<sup>1</sup> Investments made through a privately placed commingled fund structure or limited partnerships are considered Alternative Investments.

To minimize the adverse impact of any single style, strategy, manager or investment property, ACERA will seek to diversify its **equity**-real estate portfolio by property type, property location, investment style, investment strategy, and manager; and primarily through commingled funds. At the asset class level, the debt investments in real estate cannot account for more than up to 15% of the total allocation.

#### *Property Types and Location*

Selection of specific Commingled Fund investments will provide enhanced diversification characteristics based on its complimentary strategy/style so as to increase diversification benefits within the real estate portfolio.

Exposure to any single property type (i.e. office, retail, apartment, industrial) or geographic region (East, Mid-West, West or South in the United States or internationally) will be within a range of zero percent (0%) to forty percent (40%), excluding the Oakland Office Building. Any single property type or region found to be in excess of the range limitations must be approved as an exception by the Committee and Board. At the asset class level, investments in international real estate cannot account for more than up to 15% of the total allocation.

#### *Investment Style/Strategy*

The risk profile of the real estate portfolio will be managed through the maintenance of the approved style composition ( $\geq$  70% Core; 0%-30% Value-Added; 0%-15% Opportunistic) when allocating capital.

#### *Investment Vehicles/Managers*

##### a) Commingled Fund ("CF")

Diversification by Strategy and Manager will be used to minimize sponsor or strategy concentration, which might, in turn, impact the performance of the Core, Value-Added and Opportunistic allocation and/or the total portfolio. Commingled Funds will provide reporting which will allow ACERA to monitor its geographic and property type diversification. Commingled Funds are generally categorized into two sub-structures, Open-end and Closed-end. Open-end commingled funds are infinite vehicles which provide liquidity by allowing investor to make capital contributions or redemption requests, typically on a quarterly basis. Closed-end funds are finite vehicles where the timing of contribution requests and capital distributions are at the discretion of the manager.



4. *Leverage*

ACERA has approved leverage limits in order to maximize returns to the total portfolio with minimum risk. The Board has approved a maximum of forty percent (40%) leverage for the total portfolio. In addition, targets are established for each investment style based on the risk/return profile of the underlying investments. In the event that either the portfolio level and/or style level leverage constraint is breached due to a contraction in market values, the ACERA's Staff and Consultant will notify the Board and make a recommendation for action or exception.

a) Core

Core assets generally provide an established stream of rental revenue. Because of the predictability of the income stream, third-party debt can be used at relatively low risk to enhance return. Core opportunities accessed through Commingled Funds will have pre-specified leverage limits stated in the offering documents. Core Commingled Fund leverage will generally be limited to 50% at the portfolio level.<sup>1</sup>

b) Value-Added

Investments classified as Value-Added generally provide a higher proportion of appreciation, as compared to income, than Core assets. Value-Added opportunities accessed through Commingled Funds will have pre-specified leverage limits stated in the offering documents. Value-Added Commingled Fund leverage will generally be limited to 65% at the portfolio level.

c) Opportunistic

Investments classified as Opportunistic investments often utilize third-party debt as an integral part of their total return strategy. Such investments will be made through Commingled Funds and will therefore have a specified leverage target or maximum stated in the offering documents. Opportunistic Commingled Fund leverage will generally be limited to 80% at the portfolio level.

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<sup>1</sup> For any single Core SMA asset, such as the Oakland Office Building, third-party debt will be limited to fifty percent (50%) of the market value of the asset.

A chart depicting the leverage limits is shown below:

Style	Leverage Limits
Core	≤ 50%
Value-Added	≤ 65%
Opportunistic	≤ 80%
Total Real Estate Portfolio	≤ 40%

5. *Investment Size*

ACERA's investment in any single Commingled Fund may not exceed 20% of the total net asset value of the Commingled Fund at offering.

6. *Valuations*

This policy does not apply to the Fund's commingled fund investments, where the Fund does not have control over the appraisal policies or implementation of appraisal practices.

For any SMA, such as the Oakland Office Building, an annual valuation in the quarter of the anniversary date of each asset acquisition, the Manager will arrange for valuations for such assets and will provide ACERA with valuations for all properties for which it has asset management responsibilities. Unless specifically directed by ACERA, the valuation will be prepared by a qualified independent third party entity beginning on the third anniversary of ownership and every third year of ownership thereafter. Interim valuations may be conducted by the manager.

All materials generated by the independent third party will be copied to ACERA for record keeping. Valuation adjustments made in the interim periods will be documented in a memo to ACERA and retained for record keeping.

C. **Discretionary Authority**

The Board controls the delegation of discretion. The Policies and Procedures described herein are structured to control investment risk.

1. *Commingled Funds*

Commingled Funds are structured to give the highest level of discretion to the Manager. The limited investor control of management decisions inherent in Commingled Fund investments is appropriate given the flexibility required to achieve higher expected returns. Nonetheless, preference will be given to Commingled Funds extending greater investor rights (eg. redemptions, termination, and alignment). Investments made in Commingled Funds are monitored for compliance with vehicle documents through quarterly performance measurement procedures.



**V. INVESTMENT PROCEDURES**

The ACERA Annual Real Estate Investment Plan identifies the investment needs of the portfolio and establishes the parameters for the selection of appropriate investments. The particular needs for each Annual Real Estate Investment Plan will be established in light of the structure, objectives and performance of the existing portfolio as well as current market opportunities. All Annual Investment Plans will be consistent with the policies detailed in Section IV.A-C.

**A. Commingled Funds**

The following procedures will be utilized in the selection, closing and monitoring of specific Commingled Fund investments.

*1. Commingled Fund Selection Process*

- a) The Consultant will maintain an ongoing review of offerings within the institutional market place and, based on due diligence findings, refer appropriate Commingled Fund investments to Staff.
- b) Staff shall review the Consultant recommendations for compliance with agreed upon due diligence procedures for each fund recommendation.
- c) Staff shall verify and opine as to the compliance of each recommended fund with the approved R/E Policy and current Investment Plan. [\(See Compliance Check List, Appendix B\)](#)
- d) Staff shall arrange presentations to the Committee in order to allow the Committee to recommend a selection to the Board for approval.

**B. Separately Managed Accounts ("SMA")**

The following procedures will be utilized for maintaining and monitoring of SMA, such as the Oakland Office Building.

*1. Control and Monitoring*

a) **Budget and Management Plan**

Not less than 60 days after the end of the calendar year, each SMA Manager shall submit a Budget and Management Plan for the upcoming year for each direct investment and the aggregate SMA portfolio. The Budget and Management Plan must include a narrative strategy and an estimated income

and cash flow statement for the ensuing year. The statement will include gross revenues, expenses, percentage rent, additional interest, property management fees, net operating income, tenant improvements, leasing commissions, capital expenditures, cash flow before and after debt service and asset management, incentive and other fees along with quarterly distribution projections.

Not more than 90 days after the end of the calendar year, Staff and Consultant will meet with the Manager personnel directly responsible for portfolio and asset management for a review and evaluation of the reasonableness of the submitted Budget and Management Plan.

### C. Performance Measurement Reports

On a ~~quarterly~~semi-annual basis, the Consultant will prepare a report and evaluation of the real estate portfolio relative to the R/E Policy. The report shall provide such information as may be required by ACERA to evaluate and administer its investments and Managers.

The content of the report shall include return analysis for both the investment managers and the total portfolio including: income, appreciation, gross and net returns for the portfolio and each manager, cash-flow, internal rate of return, diversification, comparisons to relevant industry performance indices and information reporting standards, and R/E Policy and Investment Plan compliance.

Quarterly reports will also provide the ACERA Staff and Board with notification of any manager appearing on the ACERA 'Watch list' for additional oversight and evaluation.

#### Watch List Qualification

1. A manager may be placed on the Watch List at any time for material organizational changes or instability. Material organizational changes may include, but are not limited to, key personnel changes, ownership changes or other firm level issues.
2. A manager will automatically be placed on the Watch List if net of fee performance falls below the net of fee performance of the relevant manager account benchmark for three (3) consecutive quarters. Performance will be measured on a quarterly basis using the longest rolling time period possible (one, three or five year rolling returns).

**Watch List Removal**

1. With respect to material organizational changes, a manager may be removed from the Watch List after a minimum one year period and with satisfaction by and recommendation from the Staff and Consultant. The Staff and Consultant will provide notification to the Board when such changes are made.
2. With respect to performance, any manager placed on the Watch List for underperformance will automatically be eligible for removal from the Watch List once net of fee performance exceeds the relevant manager account benchmark for three (3) consecutive quarters. Performance will be measured on a quarterly basis using the longest rolling time period possible (one, three, or five year rolling returns).

The Consultant shall prepare and forward to ACERA's Staff, a Performance Measurement Report within ninety (90) days following the last day of each quarter pending receipt of all manager supplied data requests.

**Schedule I**

**Manager Structure, Capital Structure, and Location Targets**

No manager may represent more than 35% of ACERA's total real estate target allocation. Other guidelines are set forth in the chart below.

<b>Style</b>	<b>Target Allocation within Asset Class</b>
Core Investments	≥ 70%
Value-Added Investments	0% - 30%
Opportunistic	0% - 15%

<b><u>Capital Structure/Location</u></b>	<b><u>Target Allocation within Asset Class</u></b>
<u>Equity Real Estate</u>	<u>0% - 100%</u>
<u>Debt Real Estate</u>	<u>0% - 15%</u>
<u>International Exposure (Equity or Debt)</u>	<u>0% - 15%</u>

Schedule II

Policy Index for Real Estate and Benchmarks for Real Estate Managers

POLICY INDEX FOR REAL ESTATE PORTFOLIO

RETURN BENCHMARKS FOR REAL ESTATE MANAGER

Style	BENCHMARK (Net of Fees)
<b>Core Investments</b>	<b>NCREIF Open-End Core Diversified Equity Index ("ODCE")</b>
ACERA Oakland Building Portfolio	ODCE
Clarion Lion Industrial Trust	ODCE
Heitman America Realty Trust (HART)	ODCE
Jamestown Premier Property Fund	ODCE
JP Morgan Strategic Property Fund	ODCE
MetLife Core Property Fund	ODCE
PRISA	ODCE
UBS Trumbull Property Fund	ODCE
<b>Value-Added Investments</b>	<b>NCREIF Open-End Equity Index ("OE")</b>
AEW Value Investors II	OE
<a href="#"><u>Artemis Real Estate Partners Healthcare Fund I, L.P.</u></a>	<a href="#"><u>OE</u></a>
CIM Urban REIT IV	OE
CIM VI-2 (Urban REIT)	OE
Heitman Value Partners II	OE
<a href="#"><u>Heitman Value Partners IV, L.P.</u></a>	<a href="#"><u>OE</u></a>
PRISA III	OE
<b>Opportunistic</b>	<b>NCREIF Open-End Equity Index ("OE")</b>
<a href="#"><u>AEW Partners Real Estate Fund VIII, L.P.</u></a>	<a href="#"><u>OE</u></a>
<a href="#"><u>AG Realty Value Fund X, L.P.</u></a>	<a href="#"><u>OE</u></a>

### Appendix A

The real estate program shall be planned, implemented, and monitored through the coordinated efforts of the Board, Investment Committee ("Committee"), Staff, Real Estate Consultant ("Consultant") and Investment Managers ("Manager" or "Managers"). Set forth below is the delegation of the major responsibilities of each participant.

#### Responsibilities of the ACERA Board

- Approves Committee recommendations.

#### Responsibilities of the Investment Committee

- Reviews the R/E Policy and the Investment Plan for the real estate program.
- Evaluates the selection and/or termination of Managers and Real Estate Consultants, and recommends such selection and/or termination to the Board for approval.
- Reviews the real estate portfolio quarterly to evaluate the investment performance and to ensure compliance with policy guidelines and approved Investment Plans.
- Makes recommendations to the Board for approval.

#### Responsibilities of the ACERA Staff

- Recommends the R/E Policy and the Investment Plan to the Committee.
- Makes recommendations to the Committee regarding ACERA's real estate portfolio.
- Ensures compliance with the R/E Policy and with contracts by consultants and by managers.
- Implements Board and Committee decisions.
- Provides day-to-day oversight of program activities.
- Makes recommendations to the Committee regarding the management of the portfolio.
- Monitors the organization and performance of managers, and reports any significant discrepancies.
- Completes any other activity as directed by the Committee and/or Board.

#### Responsibilities of the Consultant

- Recommends the R/E Policy and the Investment Plan to the Committee.
- Makes recommendations to the Committee regarding ACERA's real estate portfolio.
- Brings any non-conforming items or significant issues to the attention of the Staff, Committee and/or Board.
- Prepares the R/E Policy (with annual reviews) and Real Estate Investment Plan
- Prepares the Annual Real Estate Portfolio Review including the review of annual Budget and Management Plans prepared by Managers in conjunction with Staff.
- Oversees Manager preparation of annual Manager Investment Plans.



- Reviews Preliminary Investment Packages (submitted by IMA Managers) for program compliance.
- Presents portfolio performance reports (as described in Section IV.C. of this document) to evaluate investment performance and to ensure compliance with policy guidelines and approved Investment Plans to the Committee quarterly.
- Provides any additional real estate related information (within the agreed upon scope of work) as requested by the Board and ACERA Staff.

Responsibilities of the Manager

- Provides performance measurement data in form and substance as requested by ACERA or its Consultant.
- Promptly reports any non-conforming items or significant issues to the Staff and Consultant.
- Provides any additional real estate related information as requested by the Board, ACERA Staff and the Consultant.
- Attends ACERA's meetings as requested.

*Separately Managed Account Managers (e.g. Manager of the Oakland Building):*

- Monitors, manages and disposes of assets on behalf of ACERA.
- Adheres to the most recent version of the Real Estate Information Standards established jointly by the National Council of Real Estate Investment Fiduciaries ("NCREIF"), the Pension Real Estate Association ("PREA") and the National Association of Real Estate Investment Managers ("NAREIM") ("Information Standards").
- Provides quarterly financial statements and annual reports to Staff and Consultant.
- Prepares Manager Investment Plans (as described in Section V.B.1.a of this document) to be submitted to Staff and Consultant.
- Prepares Preliminary Investment Packages (as described in Section V.B.1.a of this document) to be submitted to Staff and Consultant.
- Prepares Budget and Management Plans (as described in Section V.B.1.a of this document) to be submitted to Staff and Consultant.
- Meets with Staff and Consultant for the Annual Real Estate Portfolio Review (as described in Section V.B.1.a of this document).

*Commingled Fund Managers:*

- Adheres to the most recent version of the NCREIF PREA Reporting Standards established jointly by the National Council of Real Estate Investment Fiduciaries ("NCREIF"), the Pension Real Estate Association ("PREA").
- Provides all compliance reports, including quarterly financial statements and annual reports to Staff and Consultant.
- Executes and performs its responsibilities under the terms of the investment vehicle documents and contracts.
- Provides timely notices for capital contributions and distributions.

- Conducts annual portfolio review meetings with the Consultant, Staff, the Committee and/or the Board, and provides timely information to discuss important developments regarding investment and management issues.

Investment Objective	Investment Strategy	Investment Methodology
<p>1. Long-term capital appreciation</p>	<p>Investment in equity securities, primarily common stocks, with a focus on growth and value investing.</p>	<p>Investment Methodology</p> <p>1. Portfolio Management</p> <p>2. Asset Allocation</p> <p>3. Risk Management</p> <p>4. Performance Measurement</p> <p>5. Reporting and Monitoring</p>
<p>2. Income generation</p>	<p>Investment in fixed income securities, including bonds and structured products.</p>	<p>Investment Methodology</p> <p>1. Portfolio Management</p> <p>2. Asset Allocation</p> <p>3. Risk Management</p> <p>4. Performance Measurement</p> <p>5. Reporting and Monitoring</p>
<p>3. Diversification</p>	<p>Investment in alternative assets, including private equity, real estate, and infrastructure.</p>	<p>Investment Methodology</p> <p>1. Portfolio Management</p> <p>2. Asset Allocation</p> <p>3. Risk Management</p> <p>4. Performance Measurement</p> <p>5. Reporting and Monitoring</p>





**RE Policy**

**Investment Fund**

**In Compliance**

**4. Portfolio Diversification**

<p><u>Property Type, Geography, and Other Exposure:</u></p> <p>Property Types: Office, Multifamily, Retail, and Industrial. No property types are excluded, and properties may include business operations (e.g. hotels, senior housing, and storage)</p>	<p><i>Specific investment type.</i></p>	<p><i>Yes, No, or N/A</i></p>
<p>Geography/Diversification (Domestic or International): Geographic Percentage and Property Type Percentage) – within R/E Policy Guidelines.</p>	<p><i>Specific region of investments; Is this a domestic or international fund; specific currency denomination.</i></p>	<p><i>Yes, No, or N/A</i></p>
<p><u>International Exposure (not to exceed 15% for total portfolio.)</u></p>	<p><u><i>Exposure per fund: total exposure for asset class.</i></u></p>	<p><u><i>Yes, No, or N/A</i></u></p>
<p><u>Debt Exposure (not to exceed 15% for total portfolio.)</u></p>	<p><u><i>Exposure per fund: total exposure for asset class.</i></u></p>	<p><u><i>Yes, No, or N/A</i></u></p>
<p><u>By vintage year:</u> roughly equal amounts of new funding may be committed in each calendar year with deviations permitted (Closed-end Commingled Funds).</p>	<p><i>Specific vintage year.</i></p>	<p><i>Yes, No, or N/A</i></p>

**5. Return Expectation**

<p>Benchmark in Policy (net of all fees):</p> <ul style="list-style-type: none"> <li>• Core,</li> <li>• Value-Added,</li> <li>• Opportunistic</li> </ul>	<p><i>Specific return target(s).</i></p>	<p><i>Yes, No, or N/A</i></p>
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**6. Strategic Investment Allocations<sup>1</sup>**

<p><b>RE Portfolio:</b> 8% of the total Fund.</p> <ul style="list-style-type: none"> <li>• Core ≥ 70%</li> <li>• Value-Added 0% - 30%</li> <li>• Opportunistic 0% - 15%</li> </ul>	<p><i>Expected allocations to the RE Portfolio and to the underlying portfolios including specific commitment to the Investment Fund.</i></p>	<p><i>Yes, No, or N/A</i></p>
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**RE Investment Plan for YEARS**

Approved: *DATE*

**Investment Fund**

**In compliance**

<p>Specific Investment Plan.</p>	<p><i>Commitment to Fund.</i></p>	<p><i>Yes, No, or N/A</i></p>
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December 2018

**2019 – 2020  
Real Estate Investment Plan**

Callan LLC

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**Avery Robinson, CAIA**  
Senior Vice President

# Agenda

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- Portfolio Overview
- Market Overview
- Investment Plan Recommendations
- Policy Modification Recommendations
- Appendix
  - Why Managers Invest in Real Estate Debt
  - Why Managers Invest in International Real Estate

# Portfolio Objectives Overview

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## Real Estate Investment Program

- The ACERA Real Estate portfolio dates back to 1988. The program has evolved from a heavily concentrated, predominately separately-managed-account based portfolio, to a well-diversified, fund-based program.
- The ACERA Real Estate portfolio is anticipated to provide the following benefits over the long term:
  - Lower the overall portfolio risk due to real estate’s low correlation with other portfolio asset classes
  - Generate a stable income stream to assist in meeting cash flow needs
  - Provide growth through appreciation
  - Serve as a hedge against inflation
  - Provide an opportunity to enhance portfolio return through higher total return investments
- The real estate program has a target allocation of 8%. As of September 30, 2018, the real estate exposure was 6.7%, 7.3% when including unfunded commitments.

# ACERA Program Overview

ACERA COMPLIANCE MATRIX (as of September 30, 2018)		
Return Targets (5 Year Measurement; Net/Net)	<u>Strategic Constraint / Guideline</u>	<u>Compliance</u>
Core	NCREIF Fund Index - Open End Diversified Core Equity ("ODCE")	In Compliance
Value-Added	NCREIF Fund Index - Open End Equity ("OE")	In Compliance
Opportunistic	NCREIF Fund Index - Open End Equity ("OE")	In Compliance
Total Portfolio	NCREIF Fund Index - Open End Diversified Core Equity ("ODCE")	In Compliance

Investment Style Allocations	<u>Strategic Constraint / Guideline</u>	<u>Compliance</u>
Core	70% to 100%	In Compliance (82% Funded, 75% Funded and Committed)
Value-Added	0% to 30%	In Compliance (18% Funded, 20% Funded and Committed)
Opportunistic	0% to 15%	In Compliance (0% Funded, 5% Funded and Committed)

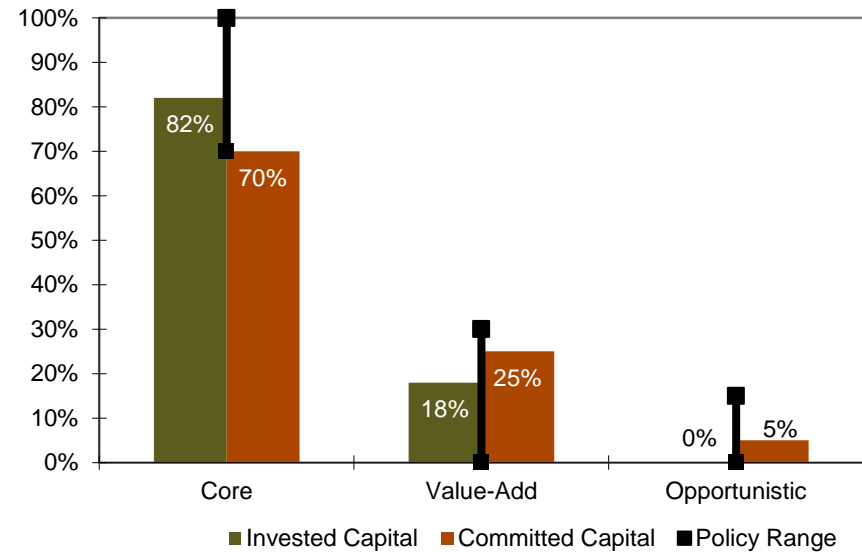
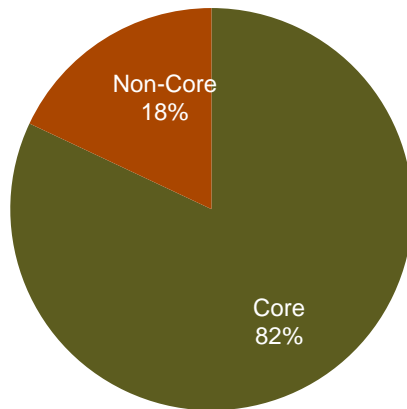
# ACERA Program Overview

ACERA COMPLIANCE MATRIX (as of September 30, 2018)		
Risk Policies	Strategic Constraint / Guideline	Compliance
Manager/Fund Diversification	No manager may represent more than 35% of ACERA's total real estate target allocation.	In Compliance
Property/Location Diversification	No property type or geographic location should represent more than 40% of program.	In Compliance
Leverage	A maximum of 40% leverage for the total portfolio	In Compliance (24% LTV)
Watch List	A manager will automatically be placed on the Watch List if net of fee performance falls below the performance of the relevant manager account benchmark for three (3) consecutive quarters. Performance will be measured on a quarterly basis using the longest rolling time period possible (one, three or five year rolling returns).	In Compliance



# Strategic Diversification (as of September 30, 2018)

## Portfolio Overview



- ACERA has a predominantly core portfolio with some value-added exposure.
- All styles are within their strategic ranges.

# Market Overview

## Real Estate Markets

- Fundamentals healthy but have plateaued
- Low vacancy; rents and net operating income growing but rate of growth is flattening
- Supply in check, constrained by construction lending
- Transaction volume down; bid-ask spread widening; pricing remains high but appreciation and returns have leveled off
- Gateway markets impacted by supply and less activity from foreign buyers
- Structural changes in retail creating headwinds for retail but tailwinds for industrial
- Powerful demographic, social, and technological trends
- Products that have traditionally focused on institutional investors are now targeting smaller, retail or high net worth capital.

## Implications

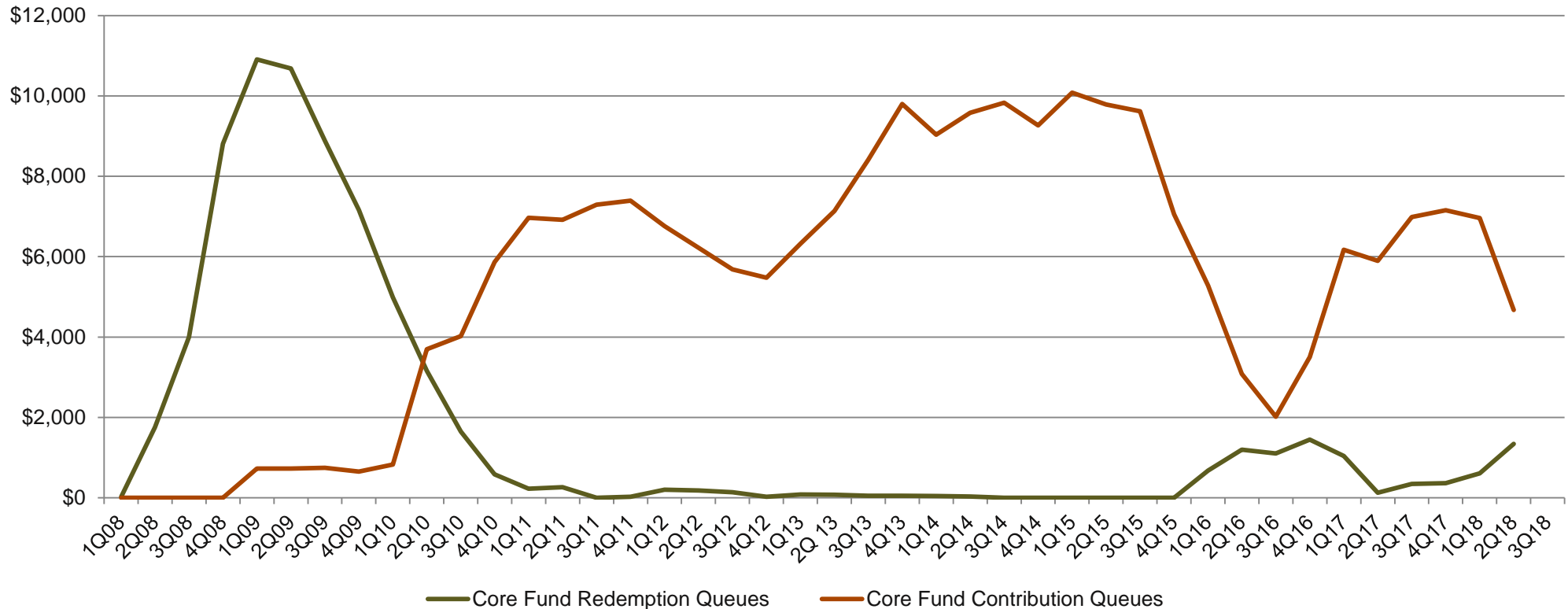
- Mature real estate market with some signs of transition
- Expect lower returns with income driving the return
- Maintain discipline on the “buy”
- Caution warranted for retail and property types vulnerable to late market cycle (land, hotels, suburban office)
- Industrial is the new retail
- Use multiple access points and strategies to find market dislocations across the capital stack and attractively priced deals
- Anticipate continued demand for alternative property types, new markets, and changes in design to traditional property types
- A broader, more diversified base of investors could foster stability for real estate managers, but may also create issues

# Core Open-end Entry and Exit Queues

One way to gauge demand is by the amount of capital flowing into core open-end funds

- Investor appetite has moderated from both domestic and international sources for core funds.
- Entry queues are modest with most funds reporting waits no longer than six months.
- A few funds are experiencing exit queues.
- Non-core funds continue to attract capital despite moderating return expectations.

## Core Fund Contribution/Redemption Queues



## Prior Investment Activity (2016/2017/2018)

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- There were six individual capital commitments made during 2016/2017 and YTD 2018 highlighted below. The strategies included core, value-add and opportunistic.

Fund	Strategy	Commitment Amount (\$mm)	Commitment Year
Clarion Lion Industrial	Core	\$25.0	2016
Artemis	Value Add	\$25.0	2016
Heitman Value Partners IV	Value Add	\$30.0	2017
Clarion Lion Industrial	Core	\$20.0	2018
Angelo Gordon Value X	Opportunistic	\$35.0	2018
AEW Value Partners VIII	Opportunistic	\$25.0	2018

- There is approximately \$93 million in capital that remains to be drawn from these commitments

### Liquidations during 2016/2017/2018

- Both AEW Value Investors II and Heitman Value Partners II completed their liquidations.
- PRISA II completed its transfer to PRISA III.

# 2018 / 2019 Investment Plan Recommendations and Actions

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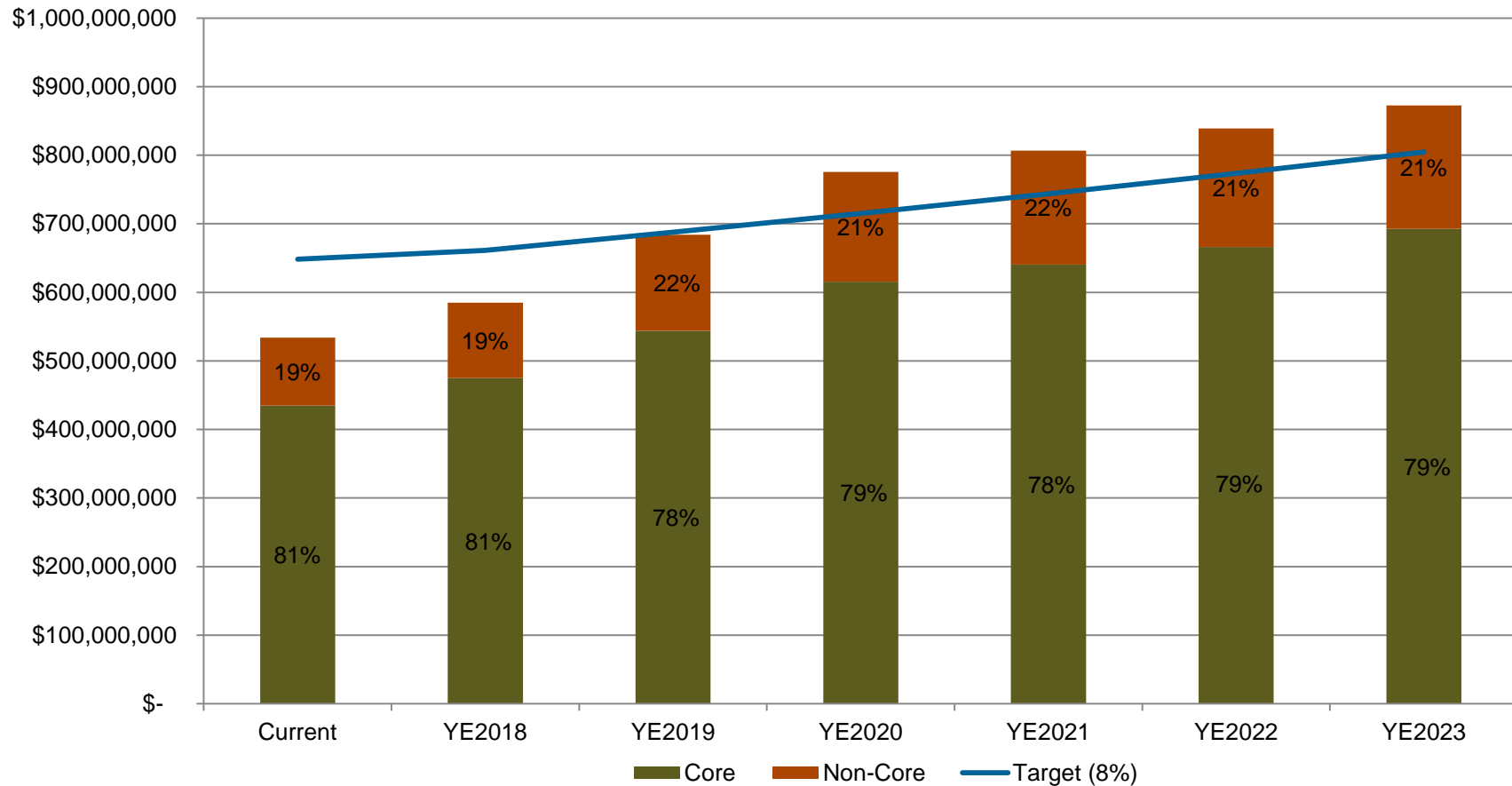
1. Callan recommends that ACERA commit \$100 million to Core/Core-Plus strategies before the end of 2Q2019. Commitments are expected to take between two and three quarters to fund (year-end 2019) once approved. Commitments will emphasize ensuring that ACERA's core portfolio remains well diversified.

2. Callan recommends that ACERA commit \$75 million to Value-Added/Opportunistic strategies. Approximately \$25 million should be committed before mid-year 2019, and an additional \$50 million by year end 2019. Continued investment in the subsequent years is highly recommended in order to achieve vintage year diversification. This recommendation is heavily dependent on the availability and quality of non-core funds in the market.

3. If appropriate value-added options are not identified, Callan recommends investing the available capital to existing core/core plus managers.

# Pacing Based on Recommended Commitments

- Based on the recommendation of \$175 million to core and non-core strategies, the real estate program is forecasted to reach its 8% target around year end 2019.





## Policy Modifications

# ACERA Policy Observations and Recommendations

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## Observations

- Currently no explicit guidance or limitation on international or debt investment positions.
- Of ACERA's eleven active real estate funds, eight have the ability to invest in international real estate, debt positions in real estate, or both.
- Establishing policy language regarding international and debt investing will:
  - Serve as an additional risk management tool
  - Ensure compliance with possible interpretations of the current policy language
  - Provide additional flexibility for ACERA to selectively pursue debt and international strategies
- Recommendation is to establish an international real estate policy range of 0-15% and a debt investment policy range of 0-15%.





Appendix

# Why Managers Invest in Real Estate Debt?

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Investment in real estate debt may offer key benefits

- Provides additional ways to access real estate investments
- Increased downside protection relative to equity real estate interests
- Income-oriented return profile, primarily derived from property cash flows
- Additional diversification benefits by participating in varying capital market cycles
- Lower historical volatility relative to equity real estate investments; narrower dispersion of outcomes at the investment-level
- Debt investments can provide a differentiated risk/return profile which can compliment the equity capital stack
- Enhance inflation protection as floating-rate loans may track rising interest rates for well-positioned, well-located investments

**A well-constructed debt investment could offer equity-like real estate returns with significant downside protection**

# Why Managers Invest in International Real Estate?

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Investment in international real estate may offer key benefits


- Diversification from domestic real estate investments by participating in asynchronous economic, capital market and real estate cycles
- Ability to pursue most compelling investment strategies, regardless of geography
- Exposure to global, gateway cities (i.e. London, Paris, Tokyo, Hong Kong, Sydney, etc.)
- Exposure to non-dollar currencies provides a further hedge against inflation as well as declines in the U.S. dollar
- Competitive risk-adjusted returns
- Lower historical volatility relative to equity real estate investments

**The flexibility to invest in international commercial real estate could offer further diversification, enhanced return opportunities, or both**



To:            Members of the Investment Committee

Date:           December 12, 2018

From:           Betty Tse, Chief Investment Officer 

Subject:        Update on ACERA's U.S. Equity Small Cap Growth Manager Search –Domestic Equities

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**Recommendation:**

No recommendation. This is an information item.

**Background:**

At the October 18, 2018 Board meeting, the Board adopted the Investment Committee's recommendation and authorized further due diligence, including site visits, on the four candidates of Granahan, Pier Capital, Virtus-KAR, and William Blair. Staff and Verus have concluded the four site visits and have rescored the candidates. Based on the results, Staff and Verus propose to reduce the list to the two leading candidates: Virtus-KAR and William Blair.

**Discussion:**

Staff and Verus completed on-site visits to all four finalists<sup>1</sup> in order to 1) confirm the written responses provided by the prospective managers, 2) meet the individuals involved with the strategy and the management company, 3) to fully understand the managers investment philosophy, strategy and process, and 4) rescore Staff's and Verus's marks. With similar on-site agendas and a 4-hour time frame for each visit, Staff and Verus re-examined the companies' organization (ownership, staffing), investment team (strategy, research capabilities), performance and risk (consistency, sustainability), and proposed fees prescribed on the Recommended Evaluation Matrix.

The first round of scoring compared a focus list of 21 managers, including the four finalists, against one another. The second round of scoring involved scoring the four finalists against one another in all measures except the "Performance & Risk" and "Fee" sections in the Evaluation Matrix. In these sections, scoring was automated in both the first and second rounds, the latter updated with more recent data, and scores were distributed along quartile rankings based on a peer group of the 21 managers in the original focus list. The overall results (summary) are reflected in the table below with a fuller explanation of the scoring afterwards. For detail on the initial scores and the updated scores, see Attachments #1.1 and #1.2.

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<sup>1</sup> Staff and Verus visited the four candidates on the following days: Granahan on 11/6/2018; Pier on 10/24/2018, Virtus on 11/1/2018, and William Blair on 10/23/2018

## Update on ACERA's U.S. Equity Small Cap Growth Manager Search

<i>Small Cap Growth Strategy</i>	<i>Initial Scores* (out of 100)</i>				<i>Updated Scores (out of 100)</i>				
	Staff	Verus	Average	Rank	Staff	Verus	Average	Change	Rank
Granahan	85.3	81.3	<b>83.3</b>	1	73.3	71.3	<b>72.3</b>	-11.0	3
Pier	70.8	78.0	<b>74.4</b>	2	65.8	70.0	<b>67.9</b>	-6.5	4
Virtus-KAR	81.0	67.0	<b>74.0</b>	4	82.5	73.0	<b>77.8</b>	3.8	2
William Blair	71.3	77.0	<b>74.1</b>	3	83.3	79.8	<b>81.5</b>	7.4	1

*\*Presented at the October 1, 2018 ICM*

Staff and Verus's understanding of each firm was greatly enhanced by a deeper analysis of each finalist and the on-site visits. The changes to the scores and finalist rankings reflect this evolution. This memo serves to explain the changes in scores and why Staff and Verus collectively suggest bringing only two of the four finalists for presentations and interviews at the January 2019 Investment Committee Meeting.

### **Granahan Investment Management Inc. – Small Cap Focused Growth**

The performance of Small Cap Focused Growth strategy has been very strong since its inception in 2007, when Drew Beja, the portfolio manager, ran the strategy at another firm. In 2011, Drew Beja brought the strategy to Granahan Investment Management. He has produced the highest "Performance & Risk" scores in the updated Evaluation Matrix of the four finalists (see Attachment #1.1). Mr. Beja collaborates with five seasoned portfolio managers who manage other small and SMID cap growth strategies at Granahan. These strategies are traded by three traders. The process used by Mr. Beja, which focuses on investing in "desert island" companies (i.e. companies with specific growth, competitive advantage, and financial characteristics, as well as strong management teams), has proven successful over the last eleven years. However, the manager's persistent sector overweight in Technology and underweight in Healthcare, and lack of a uniform investment processes across portfolio managers at Granahan brought about concerns and reduced this manager's scores.

Going into the on-site visit, Staff's believed that there was a high degree of collaboration between Mr. Beja and the other PMs at Granahan and that the investment processes used to evaluate equities and manage the various Granahan strategies were relatively uniform. During the onsite visit, however, it became clear that Granahan PMs largely ran their own separate strategies with their own investment processes and that collaboration amongst PMs was not as extensive as previously thought.

The limited amount of collaboration seems to be confirmed by the persistent Technology sector overweight and Healthcare sector underweight in the Small Cap Focused Growth strategy. Over the six years ended 2017 (the period in which the strategy was managed within Granahan), the Small Cap Focused Growth has had very little exposure to the Healthcare sector (e.g., 1.1% portfolio weight versus 22.2% weight for the Russell 2000 Growth Index) while maintaining a large Technology sector overweight (e.g., 46.0% portfolio weight versus 18.9% weight in the Russell 2000 Growth). Over this same timeframe, the

Healthcare sector was the best performing sector in the Russell 2000 Growth (up 203.51%<sup>2</sup> or 12.57% annualized) yet Mr. Beja could not get comfortable enough in Healthcare positions to have meaningful exposure in that sector. This could be due to different stock selection criteria amongst different Granahan strategies or the inability of the other PMs to effectively influence Mr. Beja. While Mr. Beja more than made up for this with strong stock selection in Technology and other sectors, the extreme sector Technology overweight and Healthcare underweight have persisted throughout the strategy's history. As of 9/30/18, Mr. Beja had no Healthcare sector exposure, while several of the other Granahan strategies held material weightings in Healthcare. Using history as a guide and a better understanding of the different investment processes used by the various Granahan PMs, Staff believes there is a risk that the strategy could go out of favor if Technology underperformed and Healthcare outperformed for a prolonged period of time. Staff feels that this risk is too large for Granahan to be awarded the mandate for a public plan like ACERA, particularly if there are other qualified managers who have demonstrated an investment process with lower risk or reliance on sector selection. Considering this risk and an advanced understanding of the divergent investment processes employed by the Granahan PMs, Staff lowered its "Investment Team" score for Granahan (Section B of the Evaluation Matrix – see Attachment #1.1) from 29 to 24. In addition, following the on-site visits, Staff felt that Granahan's organization was not as strong as Virtus-KAR and William Blair and lowered Granahan's organization section (Section A of the Evaluation Matrix – see Attachment #1.1) scores from 21 to 14.

### **Pier Capital, LLC – Pier Small Cap Growth**

Compared to the other four finalists, Pier Capital LLC ("Pier") has the least amount of firm-wide AUM and relatively limited resources to perform research and manage and trade the portfolio. The firm manages \$830 million in two domestic equity strategies (Small Cap Growth and SMID Cap Growth) with roughly \$570 million in the small cap growth strategy. Its team is relatively small with only one portfolio manager, four analysts (three of which are generalists), and one trader. The team structure is flat with high collaboration between the PM and analysts. Pier's research process is straightforward and relies heavily on sell-side relationships instead of in-depth, proprietary company research. Despite being relatively under-resourced, the firm's investment process over the strategy's 31-year history has worked well. What results is a well-diversified portfolio (with roughly 75 - 100 equities), and relatively high (100%-200%) annual turnover. Though Pier may take sector bets, large bets have not persisted over time and the manager has been able to generate alpha from relatively balanced sector allocations. In addition, the strategy's weighted average market cap at \$2.8 billion is close to that of the Russell 2000 Growth Index at \$2.7 billion. Finally, while the scoring shown in the updated Evaluation Matrix assesses Pier's performance since the strategy's inception (31 years ago) and the investment process has remained the same throughout, the performance under the current PM/team (shown over the last ten years) is ranked at the low end of the

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<sup>2</sup> The Russell 2000 Growth Index was up 138.6% for the six years ending 12/31/2017; the Technology sector was up 162.85% for the same period.

four finalists in several categories (see "Performance" and "Other Considerations" tables on page 5 of this memo).

In the second round of scoring, Pier's scores were reduced in the "Organization" section from 16 to 12 (Section A of the Evaluation Matrix – see Attachment #1.1). Staff is concerned about the size of the management company and its lack of resources to support the company's growth. In addition, Pier's client base and AUM have declined over the last five years and the company's ownership also has changed in that same time period. Considering these factors, along with its relative underperformance (compared to the other four finalists) since the current PM/team has been managing the portfolio, Staff believes that the mandate would be better offered to a better resourced organization that has produced stronger performance by the existing PM/team.

### **Virtus Investment Partners, Inc. –Virtus KAR Small Cap Sustainable Growth**

Virtus- Kayne Anderson Rudnick (KAR) and its Small Cap Sustainable Growth strategy have registered the second highest Performance and Risk scores of the four finalists throughout its track record (see Attachment #1.2), as well as strong performance relative to the other finalists over the ten-years ended September 2018 (see "Performance" and "Other Considerations" tables on page 5 of this memo). The portfolio has been managed by the same co-PMs (Messrs. Todd Beiley and Jon Christensen) since February 2009, or a little under the ten years shown in "Performance" and "Other Considerations" tables. What differentiates this manager's process is its focus on quality defined by a sustainable competitive advantage. The manager typically invests in high quality equities that are out of favor and don't have much price momentum resulting in a portfolio of companies with a high return on equity, low earnings volatility, and high risk adjusted returns. They do take a notable amount of tracking error but they have proven to be effective at taking benchmark risks (e.g., 0.66 for 10-yr Information Ration). The co-PMs are supported by six sector-specialist analysts, and five traders. The team structure is flat and highly collaborative. The portfolio has largely been balanced in terms of sector allocations over the last several years, despite a recent overweight to Technology and underweight to Healthcare. Overall, Staff is comfortable with this manager being one of two finalist firms to present to the investment committee.

However, the strategy's recent success has attracted large inflows and pushed the AUM of this strategy to roughly \$5.6 billion (as of June 30, 2018). This is quite large for a small-cap growth strategy especially considering the concentrated (20-35 holdings) nature of the portfolio. In addition, the weighted average market capitalization of the portfolio approximates \$6 billion. Given these factors, we have some concerns that the manager might not be as agile in trading, and that its drift to the SMID cap growth style could present risks in tracking its assigned benchmark.

Staff believes our concerns can be mitigated because the manager's turnover is low at roughly 25% - 35% per year and the manager has identified means to gradually move out of its current, higher capitalization positions and into smaller capitalization positions. In addition, Staff also concluded that the portfolio's

high weighted average market cap would not potentially reduce the mandate’s effectiveness (i.e. return and diversification) within the US Equity Market structure of ACERA’s portfolio.

**William Blair Investment Management, LLC – Small Cap Growth**

William Blair’s small cap growth strategy is managed by two co-PMs - Mike Balkin and Ward Sexton - and supported by eight dedicated small cap research analysts, nine research associates, and a strong trading team. The firm is a bottom-up research organization with analyst recommending quality growth with superior, longer-term earnings growth, strong management, sustainable business and solid financials. The PMs look for small cap stocks in three buckets: traditional quality growth, fallen quality growth, and undiscovered quality growth. The portfolio consists of 70-90 companies; the small cap growth strategy is approximately \$1.2 billion in total AUM with the firm AUM at approximately \$62.2 billion.

Staff and Verus mutually increased William Blair’s score after the onsite due diligence trip, fashioning the manager with the highest score of the four candidates. Scores increased across the board, with Staff’s “Organization” scores rising from 16.5 to 24.5 and Staff’s “Investment Team” scores moving up from 27 to 30 (see Attachment #1.2). These changes reflect Staff’s favorable view of this organization and its investment team and process relative to the other three finalists. Staff believes William Blair to be a solid, well-run, well-capitalized (resources) investment management company. In addition, Staff thinks the portfolio is diversified, and an all-weather type of portfolio built on proprietary research and trading capabilities. William Blair’s small cap team clearly defined and documented its investment strategy and process. Staff believes that though they may not have the highest return year over year, their results consistently provide excess returns to the index. All things considered, Staff feels that William Blair should be one of two finalists to present to and be interviewed by the Committee.

**Performance (Annualized):**

<b>Period Ending 9/30/2018 (Gross Returns)</b>	<b><u>1-Year</u></b>	<b><u>3-Year</u></b>	<b><u>5-Year</u></b>	<b><u>7-Year</u></b>	<b><u>10-Year</u></b>
Granahan Investment Management	66.5%	37.5%	20.7%	29.1%	23.1%
Pier Capital LLC	37.2%	20.8%	15.1%	19.7%	14.9%
Virtus – KAR	33.8%	34.0%	20.7%	22.7%	17.7%
William Blair	29.8%	26.3%	15.8%	22.0%	16.2%
Russell 2000 Growth	21.1%	18.0%	12.1%	17.5%	12.7%



**Other Considerations:**

<b>Period Ending 9/30/2018</b>	<b>Granahan</b>	<b>Pier Capital</b>	<b>Virtus-KAR</b>	<b>William Blair</b>
Total AUM	\$1.9 Billion	\$830 million	\$26.8 Billion	\$62.2 Billion
Strategy AUM	\$825 M	\$567.4 M	\$5.6 B	\$1.2 B
PM/Analyst	1/0	1 / 5	2 / 6	2 / 8
Number of Holdings	40	75-100	20-35	70-90
Tracking Error <sup>i</sup> (10 year)	9.6	5.4	8.0	6.2
Information Ratio <sup>ii</sup> (10 year)	1.09	0.41	0.66	0.58
Upside/Downside Capture <sup>iii</sup> (10 year)	119.8/85.1	100.4/93.4	90.5/72.7	100.1/88.6
Active Share <sup>iv</sup> (10 year)	96.4	89.8	97.3	92.9

**Conclusion:**

Staff and Verus would like to present a shorter list of two highly qualified finalist (Virtus-KAR and William Blair) to the Investment Committee to interview. We consider the two firms well-structured, well resourced, well run, and with relatively balanced portfolios. All of the final four have qualified individuals; however, two have the structure, the size, a certain level of specialization (well-defined roles), and the resources to weather most market cycles.

**Next Steps:**

Based on input from the Investment Committee, Staff will invite a minimum of two investment managers to be interviewed by the Committee.

**Attachments:**

1. 1.1 and 1.2. Evaluation Matrix Comparing Initial and Updated Scores (Staff and Verus)

<sup>i</sup> **Tracking error** is the divergence between the price behavior of a position or a portfolio and the price behavior of a benchmark. Tracking error is reported as a standard deviation percentage difference, which reports the difference between the return an investor receives and that of the benchmark he was attempting to imitate.

<sup>ii</sup> **The information ratio (IR)** is a measure of portfolio returns above the returns of a benchmark, usually an index, to the volatility of those returns. The information ratio (IR) measures a portfolio manager's ability to generate excess returns relative to a benchmark, but it also attempts to identify the consistency of the investor. It is calculated by taking the excess return (expected return less the benchmark return) divided by the standard deviation of the active return. The higher the information ratio, the better, but generally speaking, an information ratio in the 0.40 - 0.60 range is considered quite good.

<sup>iii</sup> **Upside and downside capture ratios** measure the extent to which a fund's monthly returns reflect those of the underlying market, on average. The upside capture ratio only measures data for months in which returns were positive, while the downside ratio only concerns months in which losses were sustained.

<sup>iv</sup> **Active Share** is a measure of the percentage of stock holdings in a manager's portfolio that differs from the benchmark index. The researchers conclude managers with high Active Share outperform their benchmark indexes and Active Share significantly predicts fund performance.

**EVALUATION MATRIX - UPDATED SCORES**

	Total Points	INITIAL SCORES			UPDATED SCORES			INITIAL SCORES			UPDATED SCORES		
		Granahan Investment Management, Inc.			Granahan Investment Management, Inc.			Pier Capital, LLC			Pier Capital, LLC		
		Staff	Verus	Average	Staff	Verus	Average	Staff	Verus	Average	Staff	Verus	Average
<b>A. Organization</b>													
1. History	4	4.0	3.0	3.5	2.0	3.0	2.5	4.0	4.0	4.0	2.0	3.0	2.5
2. Ownership, Organization, Staffing	9	9.0	6.0	7.5	4.0	6.0	5.0	4.0	9.0	6.5	3.0	3.0	3.0
3. Compliance	8	5.0	7.0	6.0	5.0	6.0	5.5	5.0	6.0	5.5	4.0	6.0	5.0
4. Client Service	4	3.0	4.0	3.5	3.0	4.0	3.5	3.0	4.0	3.5	3.0	4.0	3.5
<b>Total Organization</b>	<b>25</b>	21.0	20.0	20.5	14.0	19.0	16.5	16.0	23.0	19.5	12.0	16.0	14.0
<b>B. Investment Team</b>													
1. Strategy (e.g. Philosophy & Process)	10	10.0	8.0	9.0	7.0	5.0	6.0	8.0	8.0	8.0	8.0	7.0	7.5
2. Experience	9	9.0	9.0	9.0	9.0	7.0	8.0	8.0	8.0	8.0	9.0	9.0	9.0
3. Research Capabilities	8	7.0	7.0	7.0	5.0	4.0	4.5	7.0	6.0	6.5	5.0	6.0	5.5
4. Other Resources	1	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
5. Trading/Operations	2	2.0	2.0	2.0	2.0	1.0	1.5	1.5	1.0	1.3	1.5	1.0	1.3
<b>Total Investment Team</b>	<b>30</b>	29.0	27.0	28.0	24.0	18.0	21.0	25.5	24.0	24.8	24.5	24.0	24.3
<b>C. Performance &amp; Risk</b>													
1. Consistency Beating Benchmark	10	8.8	8.8	8.8	8.8	8.8	8.8	10.0	10.0	10.0	10.0	10.0	10.0
2. Peer Group Ranking	7	7.0	7.0	7.0	7.0	7.0	7.0	1.8	1.8	1.8	1.8	1.8	1.8
3. Risk (to benchmark/tracking error, upside/downside)	7	3.5	3.5	3.5	3.5	3.5	3.5	5.3	5.3	5.3	5.3	5.3	5.3
4. Risk-Adjusted Returns	8	8.0	8.0	8.0	8.0	8.0	8.0	4.0	4.0	4.0	4.0	4.0	4.0
5. Risk Management	3	2.0	1.0	1.5	2.0	1.0	1.5	1.3	3.0	2.1	1.3	2.0	1.6
<b>Total Performance &amp; Risk</b>	<b>35</b>	29.3	28.3	28.8	29.3	28.3	28.8	22.3	24.0	23.1	22.3	23.0	22.6
<b>D. Proposed Fee Schedule/Structure</b>	<b>10</b>	6.0	6.0	6.0	6.0	6.0	6.0	7.0	7.0	7.0	7.0	7.0	7.0
<b>Total Score</b>	<b>100</b>	<b>85.3</b>	<b>81.3</b>	<b>83.3</b>	<b>73.3</b>	<b>71.3</b>	<b>72.3</b>	<b>70.8</b>	<b>78.0</b>	<b>74.4</b>	<b>65.8</b>	<b>70.0</b>	<b>67.9</b>

**EVALUATION MATRIX - UPDATED SCORES**

	Total Points	INITIAL SCORES			UPDATED SCORES			INITIAL SCORES			UPDATED SCORES		
		Virtus Investment Partners, Inc.			Virtus Investment Partners, Inc.			William Blair Investment Management, LLC			William Blair Investment Management, LLC		
		Staff	Verus	Average	Staff	Verus	Average	Staff	Verus	Average	Staff	Verus	Average
<b>A. Organization</b>													
1. History	4	3.0	3.0	3.0	3.0	3.0	3.0	4.0	3.0	3.5	4.0	3.0	3.5
2. Ownership, Organization, Staffing	9	7.0	3.0	5.0	7.0	5.0	6.0	5.0	8.0	6.5	9.0	9.0	9.0
3. Compliance	8	4.0	3.0	3.5	5.0	6.0	5.5	4.0	6.0	5.0	8.0	6.0	7.0
4. Client Service	4	3.5	4.0	3.8	3.5	4.0	3.8	3.5	4.0	3.8	3.5	4.0	3.8
<b>Total Organization</b>	<b>25</b>	<b>17.5</b>	<b>13.0</b>	<b>15.3</b>	<b>18.5</b>	<b>18.0</b>	<b>18.3</b>	<b>16.5</b>	<b>21.0</b>	<b>18.8</b>	<b>24.5</b>	<b>22.0</b>	<b>23.3</b>
<b>B. Investment Team</b>													
1. Strategy (e.g. Philosophy & Process)	10	9.0	5.0	7.0	8.0	6.0	7.0	9.0	8.0	8.5	10.0	10.0	10.0
2. Experience	9	8.0	6.0	7.0	9.0	7.0	8.0	7.0	8.0	7.5	9.0	9.0	9.0
3. Research Capabilities	8	8.0	6.0	7.0	8.0	6.0	7.0	8.0	8.0	8.0	8.0	8.0	8.0
4. Other Resources	1	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
5. Trading/Operations	2	2.0	1.0	1.5	2.0	1.0	1.5	2.0	2.0	2.0	2.0	1.0	1.5
<b>Total Investment Team</b>	<b>30</b>	<b>28.0</b>	<b>19.0</b>	<b>23.5</b>	<b>28.0</b>	<b>21.0</b>	<b>24.5</b>	<b>27.0</b>	<b>27.0</b>	<b>27.0</b>	<b>30.0</b>	<b>29.0</b>	<b>29.5</b>
<b>C. Performance &amp; Risk</b>													
1. Consistency Beating Benchmark	10	5.0	5.0	5.0	5.0	5.0	5.0	7.5	7.5	7.5	6.3	6.3	6.3
2. Peer Group Ranking	7	7.0	7.0	7.0	7.0	7.0	7.0	1.8	1.8	1.8	1.8	1.8	1.8
3. Risk (to benchmark/tracking error, upside/downside)	7	6.0	6.0	6.0	6.0	6.0	6.0	4.8	4.8	4.8	4.8	4.8	4.8
4. Risk-Adjusted Returns	8	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0
5. Risk Management	3	2.5	2.0	2.3	3.0	1.0	2.0	1.8	3.0	2.4	3.0	3.0	3.0
<b>Total Performance &amp; Risk</b>	<b>35</b>	<b>28.5</b>	<b>28.0</b>	<b>28.3</b>	<b>29.0</b>	<b>27.0</b>	<b>28.0</b>	<b>23.8</b>	<b>25.0</b>	<b>24.4</b>	<b>23.8</b>	<b>23.8</b>	<b>23.8</b>
<b>D. Proposed Fee Schedule/Structure</b>	<b>10</b>	<b>7.0</b>	<b>7.0</b>	<b>7.0</b>	<b>7.0</b>	<b>7.0</b>	<b>7.0</b>	<b>4.0</b>	<b>4.0</b>	<b>4.0</b>	<b>5.0</b>	<b>5.0</b>	<b>5.0</b>
<b>Total Score</b>	<b>100</b>	<b>81.0</b>	<b>67.0</b>	<b>74.0</b>	<b>82.5</b>	<b>73.0</b>	<b>77.8</b>	<b>71.3</b>	<b>77.0</b>	<b>74.1</b>	<b>83.3</b>	<b>79.8</b>	<b>81.5</b>

# Memorandum

**To:** Alameda County Employees' Retirement Association  
**From:** Verus  
**Date:** December 12, 2018  
**RE:** U.S. Equity Small Cap Growth Manager Search – Focus List Review

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## **Executive Summary**

*Verus concurs with the staff's proposal that two of the four manager finalists present to the Investment Committee in January based on the recent staff/Verus onsite due diligence visits and subsequent revised scores. While all four of the managers display positive attributes, we have stronger forward conviction in two of the strategies after more thoroughly analyzing each manager's organizational resources, team depth, and investment process and considering potential risks and optimal fit for ACERA. Our assessments are reflected in the scoring model and the following includes brief commentary on the managers ranked from the lowest scored to highest scored.*

## **Pier Capital**

Pier is a boutique, single product small cap growth manager. Relative to the other three finalists, Pier has the smallest total AUM (< \$1 billion) and fewer research and technology resources to support company growth. The firm/product AUM has declined over the previous five years, and the company has undergone a material ownership change as the founding portfolio manager retired (with remaining team members remaining). While the investment process remains sound and performance has been stellar, Verus and staff both ranked Pier lower on the organizational, business and resource fronts.

## **Granahan Investment Management**

Granahan is an employee-owned, small cap growth specialist. The firm is unique in that they offer multiple small cap growth offerings run by different portfolio managers with differentiated approaches based on their biases and core competencies, albeit using a shared belief in the importance of bottom up, fundamental research. Relative to the other three finalists, Granahan has the highest active risk with a 10-year tracking error of nearly 10%. The portfolio is concentrated in approximately 40 holdings, and a substantial component of the tracking error derives from large benchmark relative sector allocation differences that are expected to persist in the future. A potential organizational issue is the key person risk of portfolio manager Drew



Beja primarily driving the investment process. Both Verus and staff agreed that Granahan would be a suboptimal fit for ACERA.

### **Virtus Kayne Anderson Rudnick (KAR)**

Virtus is a publicly traded firm (ticker VRTS on the NASDAQ) with a suite of boutique investment managers under its umbrella whose capabilities span asset classes. Virtus has grown both organically and through acquisition. Virtus KAR's core competencies lie in the U.S. small to mid cap equity space, with the majority of its assets in U.S. small cap growth. Relative to the other three finalists, KAR has the highest product AUM (> \$5 billion), the lowest number of portfolio holdings (20-35), and a large active risk (8% tracking error). Their low turnover creates a relatively large weighted average market capitalization which allows them to manage more assets than a typical small cap manager. A potential risk is the structural overlap of their mid capitalization holdings with existing ACERA large capitalization mandates, but performance has been superior, and we have confidence in the investment team and process.

### **William Blair**

William Blair is a privately-held firm known for its growth investing across geographies. William Blair scored the highest of the four managers. Both Verus and staff have very strong forward conviction in their small cap growth product. The organization is extremely well-resourced with significant AUM (\$62.2 billion), portfolio manager and research depth and experience, and integrated technology. Mike Balkin and Ward Sexton are the strategy co-PMs and are supported by eight dedicated small cap research analysts with meaningful experience. They have a robust investment thesis, a disciplined and well-diversified investment process with a proprietary research focus, and consistently excellent historical performance. The process emphasizes small cap quality growth equities and the strategy is diversified with 70-90 holdings and moderate active risk (6.2% tracking error). The strategy has provided steady annualized net excess returns (2.4% over ten years), and there is still some remaining capacity.

### **Conclusion**

*William Blair scored the highest in the revised scoring model followed by Virtus KAR. Verus and staff recommend that these two managers be invited to present to the Investment Committee in January and, moreover, seek the Committee's feedback regarding excluding Granahan and Pier from further consideration based on our relative rankings of the managers for the reasons described above.*



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THAT DRIVE  
ENTERPRISE  
SUCCESS**

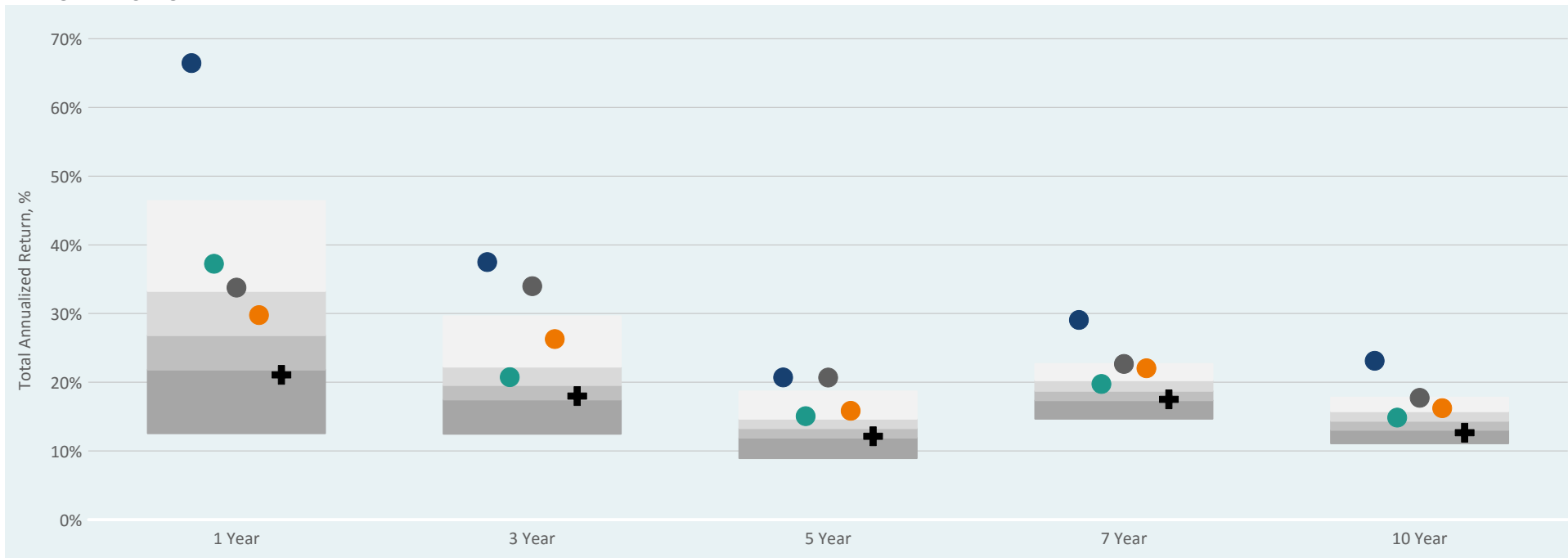
November 2018  
U.S. Small Cap Growth Search  
**ACERA**



# Performance comparison - as of September 2018

● Granahan     
 ● Pier     
 ● Virtus KAR     
 ● William Blair  
+ Russell 2000 Growth Index

## PERFORMANCE TO DATE

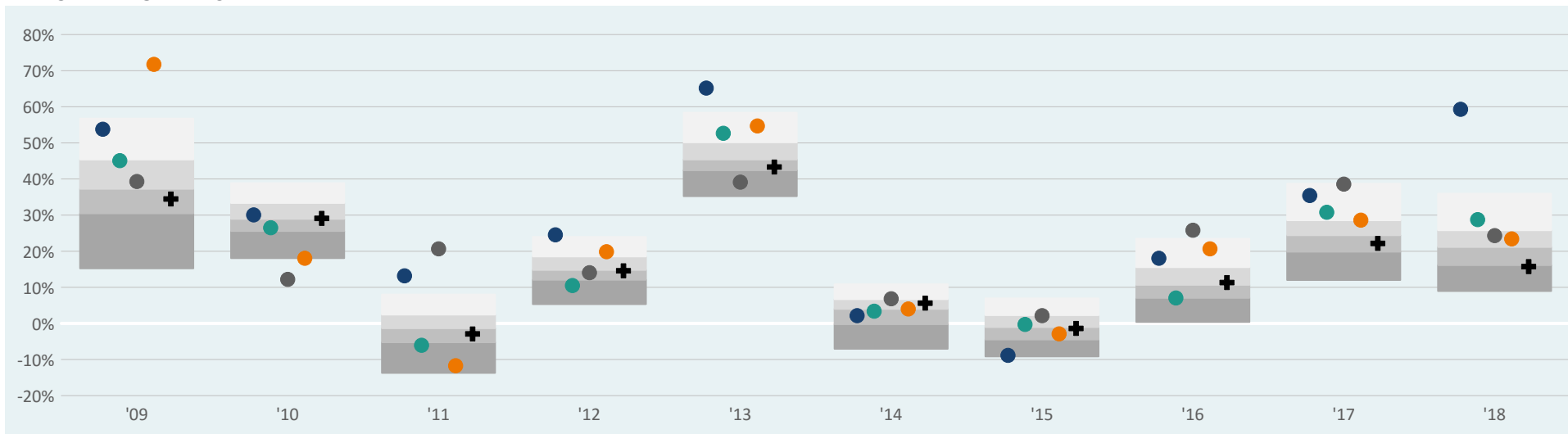


EXCESS ANNUALIZED RETURN TO DATE, %	1 Year	3 Year	5 Year	7 Year	10 Year
Granahan	45.4	19.5	8.6	11.6	10.5
Pier	16.2	2.8	2.9	2.2	2.2
Virtus KAR	12.7	16.0	8.5	5.1	5.1
William Blair	8.7	8.3	3.7	4.5	3.6

# Calendar year performance

● Granahan     
 ● Pier     
 ● Virtus KAR     
 ● William Blair  
+ Russell 2000 Growth Index

## ANNUAL PERFORMANCE




ANNUAL PERFORMANCE AND RANKING	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Granahan	53.8	30.1	13.2	24.5	65.2	2.2	-8.8	18.1	35.4	59.3
<i>Rank</i>	9	42	2	4	2	63	94	14	9	1
Pier	45.1	26.5	-6.0	10.5	52.7	3.4	-0.3	7.1	30.8	28.8
<i>Rank</i>	26	72	80	84	16	56	43	75	16	18
Virtus KAR	39.3	12.2	20.7	14.1	39.2	6.8	2.2	25.8	38.6	24.3
<i>Rank</i>	43	99	1	58	86	25	28	4	6	33
William Blair	71.8	18.1	-11.7	19.9	54.7	4.0	-2.9	20.7	28.6	23.4
<i>Rank</i>	2	95	93	17	12	50	66	10	25	36
Russell 2000 Growth Index	34.5	29.1	-2.9	14.6	43.3	5.6	-1.4	11.3	22.2	15.8
<i>Rank</i>	63	49	60	55	68	33	55	47	61	78



# Performance summary - as of September 2018

	Granahan	Pier	Virtus KAR	William Blair	Russell 2000 Growth Index
<b>PERFORMANCE ANALYSIS - (5 Years)</b>					
Alpha %	7.6	3.2	10.3	5.1	0.0
Beta	1.0	1.0	0.7	0.8	1.0
R-squared %	64.1	83.5	67.7	85.5	100.0
Sharpe Ratio	1.1	1.0	1.6	1.2	0.8
Treynor Ratio	0.2	0.2	0.3	0.2	0.1
Tracking Error %	11.0	6.1	8.1	5.4	0.0
Annualized Std Dev %	18.4	14.9	12.8	12.7	14.1
Information Ratio	0.7	0.5	0.9	0.6	---
Max Drawdown %	-27.9	-24.4	-13.1	-15.4	-20.0
Calmar Ratio	0.7	0.6	1.6	1.0	0.6
Excess Ann. Return %	8.6	2.9	8.5	3.7	0.0
<b>PERFORMANCE TO DATE</b>					
1 Year	66.5	37.2	33.8	29.8	21.1
3 Year	37.5	20.8	34.0	26.3	18.0
5 Year	20.7	15.1	20.7	15.8	12.1
7 Year	29.1	19.7	22.7	22.0	17.5
10 Year	23.1	14.9	17.7	16.2	12.7
Common Inception (Aug-07)	19.1	12.6	14.9	11.2	9.9
<b>CALENDAR YEAR RETURNS</b>					
2017	35.4	30.8	38.6	28.6	22.2
2016	18.1	7.1	25.8	20.7	11.3
2015	-8.8	-0.3	2.2	-2.9	-1.4
2014	2.2	3.4	6.8	4.0	5.6
2013	65.2	52.7	39.2	54.7	43.3
2012	24.5	10.5	14.1	19.9	14.6
2011	13.2	-6.0	20.7	-11.7	-2.9
2010	30.1	26.5	12.2	18.1	29.1
2009	53.8	45.1	39.3	71.8	34.5
2008	-46.3	-37.9	-34.0	-46.4	-38.5



TO: Members of the Investment Committee  
FROM: Grant Hughs, Senior Investment Officer   
DATE: December 12, 2018  
SUBJECT: CA Gov. Code § 7514.7 Alternative Investment Vehicles Information Report

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**Recommendation:**

Not Applicable – This is an information item.

**Background:**

California Government Code Section 7514.7 (“Section 7514.7”) requires that California public pension funds such as ACERA disclose certain information regarding the alternative investment vehicles (“AIVs”) in which they invest at least once annually in a meeting open to the public. Specifically, Section 7514.7 mandates the disclosure of certain fees and expenses, as well as performance data and other information required to be disclosed under the California Public Records Act. (See CA Gov. Code § 6254.26(b).) The reporting is required for new alternative investment contracts entered into on and after January 1, 2017. For existing contracts, the pension fund must undertake reasonable efforts to obtain the information. The intent of this statute is to increase transparency into the AIV fees and expenses paid by public pension plans.

**Discussion:**

Staff has created two disclosure charts, one to address the information required in Section 7514.7 (See **Attachment #1**) and another to address Section 6254.26 (b) (See **Attachment #2**). The charts reflect information for the calendar year ending December 31, 2017.

The Section 7514.7 Chart includes both the mandatory disclosure information for contracts entered into after January 1, 2017 (“Mandatory Funds”) and the voluntary disclosure information for contracts executed prior to January 1, 2017 (“Voluntary Funds.”) For earlier investment contracts, Staff has made considerable efforts to obtain the information either via contract amendment or information arrangement. For those legacy managers that agreed to provide the data, their information is listed under Voluntary Funds.

The Section 6254.26(b) Chart applies to all AIVs in which ACERA is invested as a part of the California Public Records Act.

**Attachments:**

- #1 Section 7514.7 Chart, prepared by ACERA Staff
- #2 Section 6254.26(b) Chart, prepared by ACERA Staff

**Attachment #1 - Section 7514.7 Chart\***

Fund Name	Board Approval Date**	Fees and Expenses	Fees and Expenses Paid	Carried Interest	Aggregate Fees and Expenses	Gross IRR <sup>5</sup> (Since Inception)	Net IRR <sup>6</sup> (Since Inception)
		Paid Directly <sup>1</sup> (FY 2017)****	Indirectly (from AIV) <sup>2</sup> (FY 2017)****	Distributed <sup>3</sup> (FY 2017)	Paid by Portfolio Companies <sup>4</sup> (FY 2017)		
<b>Voluntary Funds (Pre-2017)</b>							
Angeles Equity Partners I, L.P.	Aug-2016	\$0	\$676,516	\$0	\$282,100	-1.0%	-34.0%
CIM Infrastructure Fund II, L.P.	Dec-2015	\$0	\$69,638	\$0	\$4,593	7.6%	6.4%
CIM IV (Urban REIT), LLC	Oct-2006	\$0	\$75,386	\$0	\$85,189	9.5%	8.3%
CIM VI-2 (Urban REIT), LLC	Apr-2012	\$0	\$345,616	\$0	\$217	1.5%	-1.2%
Global Strategy LLC	May-2013	\$0	\$687,271	\$0	\$0	7.6%***	3.0%***
Great Hill Equity Partners IV, L.P.	Oct-2008	\$129,274	\$0	\$1,137,402	\$0	36.3%	25.2%
Great Hill Equity Partners V, L.P.	Aug-2013	\$108,996	\$165,415	\$76,875	\$0	18.4%	10.6%
Heitman American Real Estate Trust, L.P.	Jan-2013	\$0	\$500,282	\$0	\$0	10.1%	9.2%
Heitman Value Partners II, L.P.	Feb-2007	\$0	-\$1,486	\$0	\$0	9.6%	8.6%
Jamestown Premier Property Fund, L.P.	Sep-2012	\$0	\$224,417	\$61,813	\$0	18.0%	14.5%
JLL Partners Fund VII, L.P.	Feb-2014	\$0	\$644,554	\$0	\$52,780	28.8%	11.8%
MetLife Core Property Fund, L.P.	Nov-2013	\$0	\$313,734	\$0	\$0	12.9%	12.8%
PRISA	Sep-2007	\$0	\$498,443	\$0	\$0	9.0%	7.9%
PRISA III	Mar-2013	\$0	\$681,989	\$0	\$0	14.5%	12.9%
UBS Trumbull Property Fund	Jul-2014	\$0	\$477,892	\$0	\$0	9.3%	8.3%
Warburg Pincus Energy, L.P.	Apr-2014	\$0	\$29,260	\$0	\$0	10.2%	0.7%
Warburg Pincus Private Equity XI, L.P.	Sep-2012	\$0	\$493,833	\$1,772,813	\$9,222	20.4%	13.9%
Warburg Pincus Private Equity XII, L.P.	Oct-2015	\$0	\$350,974	\$0	\$0	18.8%	6.1%
<b>Mandatory Funds (2017)</b>							
BCP Fund II, L.P.	Oct-2017	\$0	\$257,973	\$0	\$0	N/A^	N/A^
Blackstone Strategic Opportunity Fund L.P.	Dec-2017	\$0	\$0	\$0	\$0	N/A^	N/A^
Great Hill Equity Partners VI, L.P.	Jan-2017	\$23,145	\$105,000	\$0	\$0	0.0%^	N/A^
Heitman Value Partners IV, L.P.	Jun-2017 / Mar-2018	\$0	\$0	\$0	\$0	N/A^	N/A^
ISQ Global Infrastructure Fund II, L.P.	Dec-2017	\$0	\$0	\$0	\$0	N/A^	N/A^
LHP Strategic Alpha Fund, LLC	Nov-2015 / May-2018	\$0	\$912,622	\$0	\$0	6.0%***	5.2%***
NEA 16, L.P.	Mar-2017	\$0	\$91,099	\$0	\$0	-10.3%^	-10.5%^
Peak Rock Capital Credit Fund II, L.P.	Sep-2017	\$0	\$0	\$0	\$0	215.4%^	38.5%^
Peak Rock Capital Fund II, L.P.	Sep-2017	\$0	\$47,599	\$0	\$174,955	5.2%^	-23.8%^
Quantum Energy Partners VII Co-Investment Fund, L.P.	Sep-2017	\$0	\$0	\$0	\$0	N/A^	N/A^
Quantum Energy Partners VII, L.P.	Sep-2017	\$312,437	\$0	\$0	\$0	55.0%^	22.0%^

\* The information on this chart is prepared by ACERA. This chart has not been prepared, reviewed or approved by the fund managers.

\*\* Date the Board approved the investment.

\*\*\* Returns expressed as annualized total return instead of IRR.

\*\*\*\* The total management fees and partnership expenses are net offsets and rebates, where applicable.

^ Calculated/Reported IRRs are typically not meaningful within the first 12 months of a fund's life due to a short time frame and lack of cash flows.

N/A: Not available or not applicable.

**Footnotes for the information being requested for each Alternative Investment Vehicle:**

1. The fees and expenses that the public investment fund pays directly to the alternative investment vehicle, the fund manager, or related parties.
2. The Investor's pro rata share of fees and expenses not included in footnote #1 that are paid from the alternative investment vehicle to the fund manager or related parties.
3. The Investor's pro rata share of carried interest distributed by the Partnership to the fund manager or related parties. For non private equity type vehicles, this category represents the performance fee charged in addition to a management fee.
4. The Investor's pro rata share of aggregate fees and expenses paid by all of the portfolio companies held by the Partnership to fund manager or related parties. This aggregate sum may or may not offset (or partially offset) management fees.
5. Gross internal rate of return.

Attachment #2 - Section 6254.26(b) Chart\*

Fund Name <sup>1</sup>	Address <sup>1</sup>	Vintage Year <sup>1</sup>	Commitment <sup>2</sup>	Cash		Net Asset Value (NAV)	Cash		Investment Multiple <sup>7</sup>	Management Fees & Costs <sup>8</sup>		Profit <sup>9</sup>
				Contributions <sup>3</sup> (Since Inception)	Distributions <sup>4</sup> (Since Inception)		Distributions + NAV <sup>5</sup>	Net IRR <sup>6</sup>		(FY 2017)	(FY 2017)	
ABRY Advanced Securities Fund II, L.P.	888 Boylston, Ste. 1600, Boston, MA 02199	2011	\$25,000,000	\$18,173,336	\$24,747,133	\$5,918,202	\$30,665,335	14.37%	1.69x	\$323,297	\$1,385,727	
ABRY Advanced Securities Fund III, L.P.	888 Boylston, Ste. 1600, Boston, MA 02199	2014	\$20,000,000	\$9,195,498	\$823,314	\$11,391,821	\$12,215,135	12.65%	1.33x	\$273,751	\$1,152,740	
ABRY Partners VII, L.P.	888 Boylston, Ste. 1600, Boston, MA 02199	2011	\$12,500,000	\$13,269,819	\$17,531,526	\$4,935,109	\$22,466,635	15.56%	1.69x	\$46,648	\$2,289,722	
ABRY Partners VIII, L.P.	888 Boylston, Ste. 1600, Boston, MA 02199	2015	\$18,000,000	\$14,643,943	\$1,047,009	\$16,136,285	\$17,183,294	8.91%	1.17x	\$295,705	\$2,539,278	
ABRY Senior Equity IV, L.P.	888 Boylston, Ste. 1600, Boston, MA 02199	2012	\$7,500,000	\$7,541,958	\$4,167,961	\$6,357,626	\$10,525,587	14.64%	1.40x	\$48,347	\$1,416,324	
ABRY Senior Equity V, L.P.	888 Boylston, Ste. 1600, Boston, MA 02199	2017	\$8,250,000	\$782,105	\$1,639	\$744,861	\$746,500	-7.25%	0.95x	\$129,952	-\$28,512	
AEW Value Investors II, L.P.	Two Seaport Lane, Boston, MA 02210	2007	\$21,812,596	\$21,857,584	\$27,467,576	\$47,053	\$27,514,629	5.61%	1.27x	\$11,136	-\$51,897	
AG Opportunistic Whole Loan Fund, L.P.	245 Park Avenue, 26th Floor, New York, NY 10167	2014	\$50,000,000	\$50,000,000	\$38,685,944	\$19,051,662	\$57,737,606	5.46%	1.15x	\$273,484	\$4,345,820	
AG Securitized Asset Recovery Fund, L.P.	245 Park Avenue, 26th Floor, New York, NY 10167	2012	\$25,000,000	\$25,134,858	\$29,842,157	\$7,427,035	\$37,269,192	11.66%	1.48x	\$708,748	\$7,949,386	
Angeles Equity Partners I, L.P.	11661 San Vicente Blvd STE 808, Los Angeles, CA 90049	2016	\$35,000,000	\$4,778,272	\$235,224	\$2,407,483	\$2,642,707	-49.61%	0.55x	\$472,926	-\$1,678,695	
AQR Customized Real Return Offshore Fund, L.P.	Two Greenwich Plaza, Greenwich, CT 06830	2012	\$223,979,858	\$223,979,858	\$0	\$167,491,262	\$167,491,262	-5.39%	0.75x	\$1,132,860	\$798,766	
Artemis Real Estate Partners Healthcare Fund I, L.P.	5404 Wisconsin Ave., Chevy Chase, MD 20815	2017	\$25,000,000	\$10,035,688	\$4,993,859	\$5,458,436	\$10,452,295	8.31%	1.04x	\$250,196	\$471,458	
Avista Capital Partners II, L.P.	65 East 55th Street, 18th Floor, New York, NY 10022	2010	\$30,000,000	\$38,629,361	\$52,202,195	\$9,461,445	\$61,663,640	14.34%	1.60x	\$13,412	-\$674,697	
BCP Fund II, L.P.	400 Convention Street, Suite 1010, Baton Rouge, LA 70802	2018	\$44,000,000	\$0	\$0	-\$361,235	-\$361,235	N/A	N/A	-\$144,297	-\$324,851	
Blackstone Strategic Opportunity Fund L.P.	345 Park Avenue, 28th Floor, New York, NY 10154	2018	\$80,000,000	\$0	\$0	N/A	N/A	N/A	N/A	\$0	\$0	
Catalyst Fund V, L.P.	181 Bay Street, Suite 4700, P.O. Box 792, Toronto, Ontario M5J 2T3, Canada	2015	\$50,000,000	\$12,500,000	\$4,209,718	\$11,688,202	\$15,897,920	21.90%	1.27x	\$1,096,332	-\$5,654,344	
Centerbridge Special Credit Partners, L.P.	375 Park Avenue, 12th Floor, New York, NY 10152	2009	\$35,000,000	\$33,250,000	\$52,206,824	\$1,586,429	\$53,793,253	13.63%	1.62x	\$184,720	\$752,868	
Cerberus Offshore Levered Loan Opportunities Fund I, Ltd.	875 Third Avenue, New York, NY 10022	2011	\$35,000,000	\$34,476,622	\$35,606,991	\$1,687,536	\$37,294,527	4.14%	1.08x	\$153,464	\$219,289	
CIM Infrastructure Fund II, L.P.	4700 Wilshire Boulevard, Los Angeles, CA 90010	2016	\$35,000,000	\$11,898,106	\$513,547	\$11,756,298	\$12,269,845	2.41%	1.03x	\$181,178	-\$100,385	
CIM Urban REIT, LLC (CMCT)	4700 Wilshire Boulevard, Los Angeles, CA 90010	2007	\$25,000,000	\$25,000,000	\$26,579,369	\$14,084,851	\$40,664,220	6.23%	1.62x	\$206,931	\$348,079	
CIM VI-2 (Urban REIT), LLC	4700 Wilshire Boulevard, Los Angeles, CA 90010	2012	\$25,000,000	\$25,000,000	\$4,394,000	\$30,230,482	\$34,624,482	8.14%	1.38x	\$308,544	\$1,213,486	
Dyal II US Investors LP	325 North Saint Paul Street, Suite 4900, Dallas, Texas 75201	2014	\$40,000,000	\$14,902,494	\$3,403,570	\$9,363,151	\$12,766,721	-8.14%	0.86x	\$989,486	\$25,344	
EntrustPermal Fixed Income Holdings	900 Third Avenue, New York, NY 10022	2012	\$100,000,000	\$100,000,000	\$0	\$127,522,000	\$127,522,000	4.32%	1.28x	\$924,122	\$2,540,000	
EQT Credit Opportunities III, L.P.	15 Golden Square, 5 Floor, London, United Kingdom W1F 9JG	2017	\$36,522,152	\$3,048,126	\$0	\$2,598,734	\$2,598,734	-72.58%	0.85x	\$755,334	EUR 57,879	
ISQ Global Infrastructure Fund II, L.P.	410 Park Avenue, Suite 830, New York, NY 10022	2017	\$40,000,000	\$0	\$0	-\$532,438	-\$532,438	N/A	N/A	\$530,529	-\$384,156	
General Catalyst Group VI, L.P.	20 University RD., Suite 450, Cambridge, MA 02138	2012	\$10,000,000	\$9,700,000	\$6,833,480	\$475,610	\$24,230,090	27.06%	2.50x	\$1,083,793	\$475,610	
Global Strategy LLC	75 State Street, 31st Floor, Boston, MA 02109	2013	\$25,000,000	\$25,000,000	\$0	\$28,708,944	\$28,708,944	3.03%	1.15x	\$686,857	-\$15,849,950	
Great Hill Equity Partners IV, L.P.	One Liberty Square, Boston, MA 02109	2008	\$10,000,000	\$9,941,792	\$16,062,950	\$7,321,619	\$23,384,569	25.32%	2.35x	\$198,229	\$3,329,376	
Great Hill Equity Partners V, L.P.	One Liberty Square, Boston, MA 02109	2014	\$25,000,000	\$23,137,500	\$6,150,000	\$21,925,602	\$28,075,602	10.39%	1.21x	\$332,190	\$2,177,075	
Great Hill Equity Partners VI, L.P.	One Liberty Square, Boston, MA 02109	2017	\$50,000,000	\$4,600,000	\$0	\$3,985,268	\$3,985,268	-88.65%	0.87x	\$614,826	-\$614,732	
Heitman American Real Estate Trust, L.P.	191 North Wacker Drive, Suite 2500, Chicago, IL 60606	2013	\$40,000,000	\$40,000,000	\$6,582,223	\$53,022,733	\$59,604,956	10.43%	1.49x	\$500,282	\$3,013,132	
Heitman Value Partners II, L.P. (HVP II)	191 North Wacker Drive, Suite 2500, Chicago, IL 60606	2007	\$25,000,000	\$24,118,085	\$35,187,477	\$169,913	\$35,357,390	8.55%	1.47x	\$4,458	\$103,781	
Heitman Value Partners IV, L.P. (HVP IV)	191 North Wacker Drive, Suite 2500, Chicago, IL 60606	2018	\$10,000,000	\$0	\$0	-\$56,944	-\$56,944	N/A	N/A	\$0	-\$56,944	
Insight Equity II, L.P.	1400 Civic Place, Suite 250, Southlake, TX 76092	2009	\$16,875,000	\$16,664,502	\$13,550,286	\$13,409,867	\$26,960,153	11.51%	1.62x	\$234,278	\$301,588	
Insight Equity Mezzanine, L.P.	1400 Civic Place, Suite 250, Southlake, TX 76092	2009	\$5,625,000	\$5,529,539	\$3,593,525	\$3,425,856	\$7,019,381	6.17%	1.27x	\$46,013	\$263,081	
Jamestown Premier Property Fund	675 Ponce De Leon Ave. NE, 7th Floor, Atlanta, GA	2012	\$20,000,000	\$20,000,000	\$8,894,652	\$26,999,477	\$35,894,129	12.07%	1.67x	\$973,350	\$3,824,856	
JLL Partners Fund VII, L.P.	450 Lexington Avenue, 31st Floor, New York, NY 10017	2015	\$47,250,000	\$13,980,656	\$460,966	\$16,897,308	\$17,358,274	12.01%	1.24x	\$1,017,101	\$3,501,526	
JP Morgan Alternative Property Fund	270 Park Avenue, New York, NY 10017	2006	\$20,000,000	\$20,000,000	\$0	\$173,642	\$173,642	-4.34%	0.74x	\$0	\$12,015	
JP Morgan Strategic Property Fund	270 Park Avenue, New York, NY 10017	2007	\$50,000,000	\$50,000,000	\$11,713,361	\$69,050,373	\$80,763,734	4.60%	1.53x	\$671,290	\$4,039,909	
Khosla Ventures III, L.P.	2128 Sand Hill Road, Menlo Park, CA 94025	2009	\$12,000,000	\$11,713,157	\$13,056,577	\$6,849,290	\$19,905,867	9.81%	1.70x	\$1,982,985	\$4,043,205	
Khosla Ventures IV, L.P.	2128 Sand Hill Road, Menlo Park, CA 94025	2011	\$15,000,000	\$14,715,000	\$4,730,674	\$26,051,056	\$30,781,730	20.62%	2.09x	\$3,657,736	\$7,528,592	
Khosla Ventures Seed B, L.P.	2128 Sand Hill Road, Menlo Park, CA 94025	2012	\$5,000,000	\$4,750,000	\$1,261,984	\$8,274,991	\$9,536,975	19.08%	2.01x	\$875,735	\$2,244,053	
Khosla Ventures Seed, L.P.	2128 Sand Hill Road, Menlo Park, CA 94025	2009	\$3,000,000	\$3,000,555	\$624,210	\$3,335,930	\$3,960,140	4.92%	1.32x	-\$145,881	-\$420,074	
Khosla Ventures V, L.P.	2128 Sand Hill Road, Menlo Park, CA 94025	2014	\$10,000,000	\$6,800,000	\$506,399	\$7,972,914	\$8,479,313	12.79%	1.25x	\$636,380	\$1,135,964	
KPS Special Situations Fund IV, L.P.	485 Lexington Ave., 31st Floor, New York, NY 10017	2014	\$15,000,000	\$5,337,944	\$2,200,246	\$4,520,838	\$6,721,084	26.49%	1.26x	\$260,283	\$334,016	
LHP Strategic Alpha Fund, LLC	3801 PGA Blvd., Suite 500, Palm Beach Gardens, FL 33410	2015	\$100,000,000	\$100,000,000	\$0	\$111,633,672	\$111,633,672	5.21%	1.12x	\$912,622	\$5,526,387	
Lindsay Goldberg III L.P.	630 Fifth Avenue, 30th Floor, New York, NY 10111	2008	\$45,000,000	\$43,345,173	\$35,498,942	\$24,732,570	\$60,231,512	9.20%	1.39x	\$197,349	\$4,115,345	
Lion Industrial Trust	230 Park Avenue, New York, NY 10169	2012	\$35,000,000	\$35,000,000	\$4,256,885	\$44,930,799	\$49,187,684	14.03%	1.37x	\$855,881	\$5,244,804	
MetLife Core Property Fund, L.P.	One MetLife Way, Whippany, NJ 07981	2013	\$50,000,000	\$50,000,000	\$10,202,707	\$67,254,461	\$77,457,168	12.46%	1.55x	\$313,735	\$4,958,470	
NEA 13, L.P.	5425 Wisconsin Avenue, Chevy Chase, MD 20815	2009	\$11,000,000	\$10,622,739	\$8,660,011	\$11,645,655	\$20,305,666	15.61%	1.91x	\$94,251	-\$1,453,171	
NEA 14, L.P.	5425 Wisconsin Avenue, Chevy Chase, MD 20815	2012	\$11,000,000	\$10,343,976	\$1,363,848	\$16,286,379	\$17,650,227	16.06%	1.71x	\$95,696	\$1,820,530	
NEA 15, L.P.	5425 Wisconsin Avenue, Chevy Chase, MD 20815	2015	\$5,000,000	\$3,700,000	\$0	\$4,702,704	\$4,702,704	16.43%	1.27x	\$44,000	\$711,414	
NEA 16, L.P.	5425 Wisconsin Avenue, Chevy Chase, MD 20815	2017	\$15,000,000	\$1,800,000	\$0	\$1,759,143	\$1,759,143	-6.41%	0.98x	\$133,711	-\$40,857	
OHA Strategic Credit Fund IB, L.P.	1114 Avenue of the Americas, New York, NY 10036	2009	\$20,000,000	\$17,902,850	\$26,459,896	\$640,369	\$27,100,265	12.69%	1.51x	\$23,552	\$102,197	
OHA Strategic Credit Fund II, L.P.	1114 Avenue of the Americas, New York, NY 10036	2017	\$47,500,000	\$2,500,000	\$0	\$2,435,192	\$2,435,192	-25.21%	0.97x	\$165,511	-\$64,808	
Partners Group Secondary 2008, L.P.	Zugerstrasse 57, Baar, Zug 6341, Switzerland	2008	\$20,000,000	\$18,650,571	\$24,381,440	\$3,513,040	\$27,894,480	9.22%	1.00x	\$226,830	EUR 290,066	
Peak Rock Capital Credit Fund II, L.P.	13413 Galleria Circle, Suite Q-300, Austin, TX 78738	2017	\$8,750,000	\$165,525	\$89,114	\$67,015	\$156,129	-98.71%	0.94x	\$0	-\$8,628	
Peak Rock Capital Fund II, L.P.	13413 Galleria Circle, Suite Q-300, Austin, TX 78738	2017	\$35,000,000	\$0	\$0	N/A	N/A	N/A	N/A	\$0	-\$108,784	
PRISA	655 Broad St., Newark, NJ 07102	2007	\$50,000,000	\$50,000,000	\$16,818,903	\$52,119,518	\$68,938,421	3.02%	1.30x	\$499,564	\$3,227,544	
PRISA III	655 Broad St., Newark, NJ 07102	2013	\$35,936,049	\$35,936,049	\$8,207,693	\$42,775,394	\$50,983,087	14.10%	1.36x	\$660,573	\$4,112,811	
Quantum Energy Partners VII, L.P.	1401 McKinney Street, Suite 2700, Houston, TX, 77010	2017	\$31,818,182	\$5,910,065	\$389,392	\$5,722,874	\$6,112,266	30.10%	1.03x	\$0	\$246,300	
Quantum Energy Partners VII Co-Investment Fund, L.P.	1401 McKinney Street, Suite 2700, Houston, TX, 77010	2017	\$3,181,818	\$582,308	\$0	\$578,444	\$578,444	-7.78%	0.99x	\$0	-\$3,864	
Sheridan Production Partners II-B, L.P.	9 Greenway Plaza, Suite 1300, Houston, TX 77046	2010	\$24,000,000	\$24,840,000	\$1,680,000	\$11,147,000	\$12,827,000	-14.39%	0.52x	\$329,486	-\$6,745,000	
Sycamore Partners, L.P.	9 West 57th Street, 31st Floor, New York, NY 10019	2011	\$30,000,000	\$38,237,159	\$41,023,145	\$39,271,482	\$80,294,627	41.32%	2.10x	\$204,102	-\$2,658,351	
Sycamore Partners II, L.P.	9 West 57th Street, 31st Floor, New York, NY 10019	2014	\$42,500,000	\$28,296,727	\$3,449,350	\$24,828,760	\$28,278,110	-0.07%	1.00x	\$792,873	\$413,976	
The Onshore ETAP Fund, LLC	257 Park Avenue South, 7th Floor, New York, NY 10010	2011	\$60,800,000	\$60,800,000	\$0	\$41,595,884	\$41,595,884	-7.34%	0.68x	\$414,718	\$1,995,534	
The TAP <sup>®</sup> Fund, L.L.C.	257 Park Avenue South, 7th Floor, New York, NY 10010	2009	\$62,900,000	\$62,900,000	\$0	\$53,458,341	\$53,458,341	-2.04%	0.85x	\$450,435	\$2,358,650	
Third Rock Ventures II, L.P.	29 Newbury St., Suite 301, Boston, MA 02116											

**Attachment #2 - Section 6254.26(b) Chart\***

Fund Name <sup>1</sup>	Address <sup>1</sup>	Vintage Year <sup>1</sup>	Commitment <sup>2</sup>	Cash	Cash	Net Asset Value (NAV)	Cash	Net IRR <sup>6</sup>	Investment Multiple <sup>7</sup>	Management	Profit <sup>9</sup>
				Contributions <sup>3</sup> (Since Inception)	Distributions <sup>4</sup> (Since Inception)		Distributions + NAV <sup>5</sup>			Fees & Costs <sup>8</sup> (FY 2017)	
Warburg Pincus Energy, L.P.	450 Lexington Avenue, New York, NY 10017	2014	\$15,000,000	\$8,775,000	\$703,607	\$8,233,772	\$8,937,379	1.50%	1.02x	\$55,972	\$333,346
Warburg Pincus Private Equity XI, L.P.	450 Lexington Avenue, New York, NY 10017	2012	\$75,000,000	\$73,701,966	\$37,976,357	\$68,873,399	\$106,849,756	13.79%	1.45x	\$2,141,985	\$12,460,941
Warburg Pincus Private Equity XII, L.P.	450 Lexington Avenue, New York, NY 10017	2015	\$43,000,000	\$20,833,500	\$331,100	\$21,535,019	\$21,866,119	6.09%	1.05x	\$736,216	\$1,722,661

\*The information on this chart is prepared by ACERA. This chart has not been prepared, reviewed or approved by the fund managers.

**Footnotes:**

1. The name and vintage year of each alternative investment vehicle.
2. The dollar amount of the commitment made to each alternative investment vehicle by public investment fund since inception.
3. The dollar amount of cash contributions made by the public investment fund to each alternative investment vehicle since inception.
4. The dollar amount of cash distributions received by the public investment fund from each alternative investment vehicle.
5. The dollar amount, on a fiscal yearend basis, of cash distributions received by the public investment fund plus remaining value of partnership assets attributable to the public investment fund's investment in each alternative investment vehicle.
6. The net internal rate of return of each alternative investment vehicle since inception.
7. The investment multiple of each alternative investment vehicle since inception.
8. The dollar amount of the total management fees and costs paid on an annual fiscal yearend basis, by the public investment fund to each alternative investment vehicle.
9. The dollar amount of cash profit received by public investment funds from each alternative investment vehicle on a fiscal year-end basis. This item is understood to represent a net increase (or decrease) in capital from operations.



**PERSPECTIVES  
THAT DRIVE  
ENTERPRISE  
SUCCESS**



PERIOD ENDING: JUNE 30, 2018

Private Equity Performance Review

**Alameda County Employees' Retirement Association**



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**DEBT RELATED**

- **HY and leveraged/syndicated loan issuance were down.** During the first half of 2018, US high yield issuance of \$108 billion<sup>1</sup> was down 30% and leveraged loan volume of \$737 billion<sup>1</sup> was down 4.4%, both versus 1H 2017.
- **Spreads tightened across the board except for US HY index.** US HY Credit Index loosened by 7 bps or 2.0%<sup>2</sup> versus the same period last year. BB, B and CCC index tightened by 22 bps, 27 bps and 221 bps respectively, a 7.4%<sup>2</sup>, 6.0%<sup>2</sup> and 17.7%<sup>2</sup> decrease versus the same period last year.
- **Slight decline in LBO debt levels.** US total leverage (Debt / EBITDA) for 1H 2018 at 5.7x<sup>3</sup> down 1.7% from the same time last year. Interest coverage ratio (EBITDA / Cash Interest) ended Q2'18 at 2.9x<sup>3</sup>, down 6.2% from 3.1x<sup>3</sup> at the end of 2017.

**GLOBAL**

- **Investment activity up.** During 1H 2018, PE firms globally invested in \$322.6 billion<sup>6&13</sup> worth of deals, up 29.9% from the same time prior year and closed on 9,446 transactions<sup>6&13</sup>, up 15.6% from the first half of 2017.
- **Global purchase price multiples increased slightly.** As of June 30, 2018, global median purchase price multiples (Enterprise Value / EBITDA) was 10.4x<sup>1</sup>, a 0.97% increase from the same time last year. This was driven by a 5.1% decrease in US purchase multiples at 9.8x<sup>7</sup>, a 5.3% increase in purchase price multiples in Europe at 10.6x<sup>11</sup>, and a 12.0% decrease in the rest of the world at 9.5x<sup>11</sup>.
- **Moderate decrease in dry powder in all regions, offset by significant growth in Asia.** For Q1 2018, global total PE dry powder was at \$1.31 trillion<sup>4</sup>, up slightly (+0.6%) from Q1 2017. Total PE dry powder was: down in the US 10.8% to \$674.6 billion<sup>4</sup>; down in Europe by 5.6% to \$280.8 billion<sup>4</sup>; significantly up in Asia by 58.2% to \$309.1 billion<sup>4</sup>; and down the rest of world by 12.8% to \$44.8 billion<sup>4</sup>.

**US BUYOUTS**

- **Fundraising down significantly.** In the first 6 months of 2018, US buyout firms raised \$31.5 billion<sup>5</sup>, down by 62.1% from same time prior year. Both the number of funds closed and average fund size decreased from 1H 2017 to 1H 2018, 53<sup>5</sup> to 42<sup>5</sup> and \$1.57 billion<sup>5</sup> to \$0.75 billion<sup>5</sup>, respectively.
- **Decline in LBO price multiples.** As of June 30, 2018, US LBO purchase price multiples (Enterprise Value / EBITDA) were at 9.8x<sup>7</sup>, a 5.2% decrease from the first half of 2017.



- **Investment activity up.** During 1H 2018, US buyout firms invested in \$157.4 billion<sup>6</sup> worth of deals, up 95.2% from the same time last year and closed on 1,221 transactions<sup>6</sup>, up 13.9% versus the same time in 2017. Envision Healthcare Corporation (\$9.9 billion<sup>6</sup>), BMC Software (\$8.3 billion<sup>6</sup>), Inc. and Cotiviti, LLC (\$4.9 billion<sup>6</sup>) contributed to the increase in capital deployed.
- **Dry powder down slightly.** For Q1 2018, US buyout dry powder was \$348.3 billion<sup>4</sup>, down by 5.4% from the same time in 2017.
- **Exits down marginally, but from larger deals.** During 1H 2018, US buyout firms exited 365 companies<sup>6</sup>, representing \$83.6 billion<sup>6</sup> in total transaction value. This represented a 0.3% decrease in the number of exits and a 36.1% increase in total transaction value compared to the same time last year.

#### US VENTURE CAPITAL

- **Dry powder up.** As of Q1 2018, US VC dry powder was at \$81.3 billion<sup>4</sup>, up 10% from the last year.
- **Investment activity up sharply from last year.** US VC firms deployed \$44.1 billion<sup>12</sup> in capital during the first half of 2018, a 32.9% increase from 1H 2017. The number of rounds closed at 2,516<sup>12</sup>, a 33.7% increase from the same time last year. The average investment per deal decreased slightly to \$17.5 million<sup>12</sup>, a 0.6% decrease from prior year.
- **All stages valuations were up.** Compared to 1H 2017, the average pre-money valuations increased across all stages in the first half of 2018: up 13.5% at \$7.0 million<sup>8</sup> for Seed stage, 26.6% at \$20.0 million<sup>8</sup> for Series A, 42.6% at \$55.0 million for Series B, 49.6% at \$115.0 million<sup>8</sup> for Series C, and 11.2% at \$278.0 million<sup>8</sup> for Series D. Over the past 3 years, the average pre-money valuations of Seed stage, Series A, Series B, Series C and Series D investments were up 15.3%, 32.8%, 32.9%, 39.4% and 51.1%, respectively<sup>9</sup>.
- **Exits down moderately, but notably larger.** US VC firms exited 292 companies<sup>12</sup> in 1H 2018, down by 9.3% from the same period last year, representing \$39.8 billion<sup>12</sup> in transaction value, up 62.7% from the same period last year.
- **Fundraising slowed.** US VC firms raised \$15.3 billion<sup>5</sup> during 1H 2018, a 9.5% decrease from the same period last year. 127 funds<sup>5</sup> closed in 1H 2018, a 19.8% increase from the same period last year. The average US VC fund size decreased by 24.5% at \$120.4 million<sup>5</sup> versus the same period last year.

## EX-US

- **Fundraising up, except in Asia.** For 1H 2018, Ex-US fundraising was up 19.7% to \$96.6 billion<sup>5</sup> compared to same time prior year. The increase was led by European funds which raised \$63.8 billion<sup>5</sup>, up 41.9% from same time last year. The increase was offset by a decrease in funds in Asia which raised \$26.5 billion<sup>5</sup>, down 15.4% from 1H 2017. Fundraising in the rest of the world was up 44.3% to \$6.3 billion<sup>5</sup> compared to 1H 2017.
- **Ex-US dry powder grew, but less than dry powder in the US.** PE dry powder outside the US grew to \$636.6 billion<sup>4</sup> for Q1 2018, a 16.3% increase versus last year. However, dry powder outside the US was still slightly less than dry powder in the US (\$674.6 billion<sup>4</sup>) by 5.6%.
  - **Dry powder of buyout, VC and growth equity in Asia increased significantly.** At the end of Q1 2018, Asia buyout dry power was \$81.0 billion<sup>4</sup>, up by 41.4% from last year. VC dry powder in Asia increased to \$83.5 billion<sup>4</sup>, up by 50.5% from prior year. Growth equity dry powder grew to \$123.2 billion<sup>4</sup>, a 115.0% increase from 2017.
  - **Europe buyout and VC dry powders up.** For Q1 2018, Europe buyout dry power was \$189.1 billion<sup>4</sup>, up marginally by 2.1% from last year. Same time, VC dry powder in Europe grew to \$26.4 billion<sup>4</sup>, a 14.3% increase from prior year.
- **Investments up in all key sectors and geographies, except for Asia buyout.** Number of deals and aggregate deal volume increased in the first half of 2018 in European buyout and venture capital and Asia venture capital.
  - **Europe buyout and VC investments increased.** In 1H 2018, Europe buyout firms transacted on \$57.9 billion<sup>6</sup> in aggregate value, up by 63.7% from 1H 2017. VC investment activity was up from \$8.0 billion during 1H 2017 to \$11.3 billion<sup>12</sup> during the first half of 2018, an increase of 40.9%.
  - **Asia buyout activity was down, while VC investment activities was up.** During 1H 2018, Asia VC investment activity was \$60.8 billion<sup>12</sup>, up from \$31.5 billion during 1H 2017, an increase of 92.3%. Buyout firms closed on \$14.3 billion<sup>6</sup> in aggregate value, down by 20.5% from the same time of last year's \$18.0 billion<sup>6</sup>.
- **Leverage multiples in Europe moved up.** European LBO leverage multiples (Debt / EBITDA) have averaged  $5.4x^{10}$  during 1H 2018, an increase of 7.1% from the same time last year and a 11.1% decrease from the peak ( $6.1x^{11}$ ) in 2007. European LBO Loan volume at \$46.6 billion<sup>11</sup> is up 19.7% versus 1H 2017, a decrease of 56.6% versus the peak of \$107.26 billion<sup>11</sup> in the first half of 2007.
- **Exit activity stronger in Europe and Asia.** During the first half of 2018, Europe PE firms aggregate exit value amounted to \$66.3 billion<sup>6&12</sup>, a 89.7% increase from the same time last year, while Asia PE firms' exits were up 329.0% from 1H 2017 to \$48.0<sup>6&12</sup> billion in the same time.

**Outlook**

- **PE allocations likely to increase slightly.** A recent survey of institutional investors conducted on June 30, 2018 indicated that 29%<sup>13</sup> intend to increase their allocation for private equity compared to 39%<sup>13</sup> during the same period last year. 57%<sup>13</sup> intend to maintain their allocation for private equity compared to 56%<sup>13</sup> during the same period last year. 77%<sup>13</sup> plan to commit to a private equity fund in the second half of 2018, and 16%<sup>13</sup> expect to commit to a private equity fund in 2019.
- **Institutional investors most interested in investing in North America and like small- to mid-market buyouts.** Based on the survey conducted on June 30, 2018, Institutional investors view North America as the most attractive location to invest in the current economic climate with 55%<sup>13</sup> choosing it as their preferred investment destination. This compares favorably versus Europe (35%<sup>13</sup>) and Asia (23%<sup>13</sup>). In the same survey, 44%<sup>13</sup> of institutional investors also cited the small to mid-market buyout strategy as presenting the best opportunities in the current financial climate. venture capital strategy was mentioned next with 25%<sup>13</sup> of institutional investors believing it presented the best opportunities.

**Notes**

1. *Leveraged Loan Monthly Thomson Reuters LPC*
2. *Guggenheim High-Yield Bank Loan Outlook*
3. *LCD's Leveraged Buyout Review*
4. *Preqin Dry powder by Geography (Preqin Website) Dry powder includes Buyout, Distressed PE, Growth, Mezzanine, Co-investments, Balanced, and Venture Strategies.*
5. *Preqin Private Equity Fundraising*
6. *Preqin Private Equity-Backed Buyout Deals and Exits*
7. *US LBO Review*
8. *PitchBook-NVCA Venture Monitor*
9. *PitchBook's VC Valuations*
10. *LCD European Leveraged Buyout Review*
11. *European Leveraged Lending Review*
  - a. *Ex US Multiples were estimated utilizing a number of sources including Preqin Private Equity-Backed Buyout Deals and Exits Factsheet, LCD's Leveraged*
  - b. *Buyout Review, Europe Leverage Lending Review and Leveraged Loan Monthly Thomson Reuters LPC.*
12. *Preqin Venture Capital Deals and Exits*
13. *Preqin Investor Outlook: Alternative Assets*

	Policy Target	Policy Range	Market Value %	Market Value \$(000)	Unfunded Commitment \$(000)	Market Value + Unfunded \$(000)
<b>ACERA Plan Assets - Total</b>				<b>\$8,103,711</b>		
<b>Private Equity:</b>	<b>9.0%</b>	<b>0-13%</b>	<b>6.2%</b>	<b>\$500,829</b>	<b>\$532,601</b>	<b>\$1,033,430</b>
Buyouts	60.0%	30-80%	57.3%	\$286,828	\$292,736	\$579,564
Venture Capital	20.0%	0-40%	32.1%	\$160,997	\$48,058	\$209,055
Debt-Related/Special Situations	20.0%	0-70%	10.6%	\$53,004	\$191,807	\$244,811

### Portfolio Summary

- As of June 30, 2018, the Private Equity portfolio had a total market value of \$500.8 million, with \$286.8 million in Buyouts, \$161.0 million in Venture Capital, and \$53.0 million in Debt-Related / Special Situations. Total market value is the current reported value of investments, excluding the remaining amount of unfunded commitments.
- ACERA has contributed \$653.1 million towards its Private Equity commitments, with \$349.4 million to Buyouts, \$135.3 million to Venture Capital, and \$168.5 million in Debt-Related / Special Situations. Unfunded commitments total \$532.6 million.

### Portfolio Activity

- ACERA made three new commitments to Private Equity in the first half of 2018: €29.0 million to CapVest Equity Partners IV (Buyout), \$7.0 million to Khosla Ventures VI, and \$3.0 million to Khosla Ventures Seed D (Ventures Capital).

# Private Equity Portfolio Performance

Period Ending: June 30, 2018

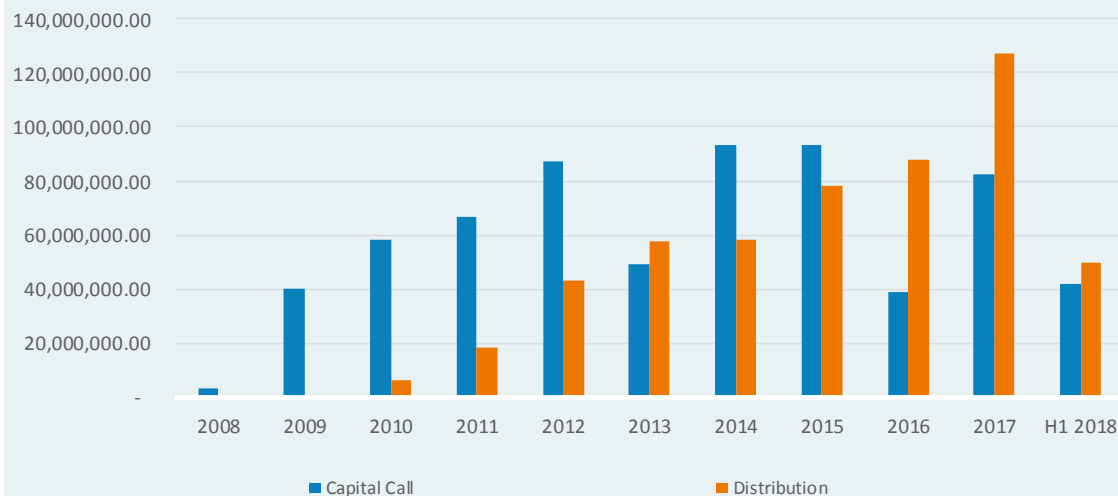
## Performance

- Current Private Equity portfolio is valued at \$500.8 million. Portfolio investments have a capital-weighted average life of 4.3 years.
  - Since inception, the portfolio has produced +15.60% net IRR, outperforming its Thomson Reuters C|A Global PE benchmark pooled IRR of 13.96% by 164 basis points. Portfolio returns rank above Median on net IRR and Total Value Multiple (TVPI); and above Top-Quartile on Distribution Multiple (DPI).
  - Relative to the global benchmark peers in the same Vintage Years since inception (2008), the net IRR, TVPI, and DPI of the Buyout portfolio ranks above Median. Venture Capital ranks above Top-Quartile on all measures. Debt-Related / Special Situations ranks above Top-Quartile on TVPI and DPI, and above Median on IRR.
- Together with \$526.7 million in realized distributions (0.81x cost), Private Equity's Total Value at \$1,027.6 million is approximately \$374.4 million above \$653.1 million cost (1.57x cost), net of fees. Return drivers include:
  - Buyouts up \$166.35 million/+47.6% versus cost (Sycamore I, Warburg XI, and

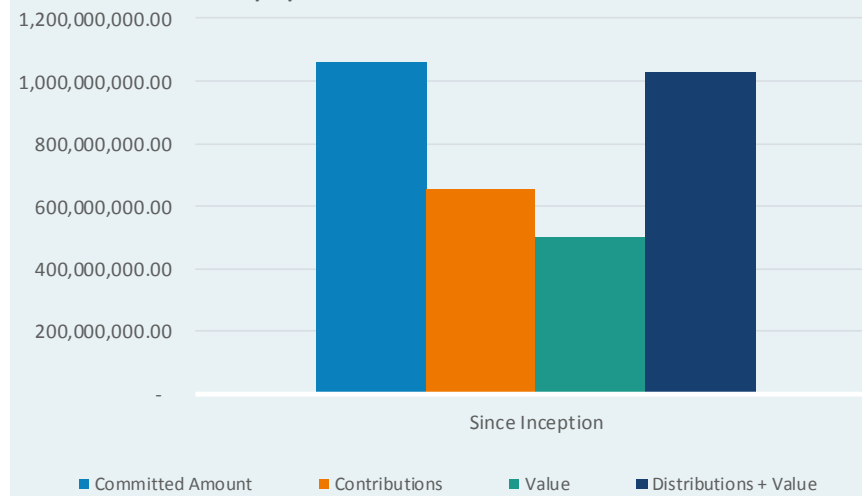
Avista II leading), with 65.5% of called capital realized and distributed. Since inception, the Buyouts portfolio produced 15.33% net IRR versus its peer global benchmark of 15.25% pooled IRR.

- Venture Capital up \$141.72 million/+104.8% versus cost (Third Rock II & III, Khosla Ventures IV and Seed B, General Catalyst VI, and Great Hill IV leading), with 85.7% of called capital realized and distributed. Since inception, this portfolio produced 20.74% net IRR versus its peer global benchmark of 16.94% pooled IRR.
  - Debt-Related / Special Situations was up \$66.35 million/+39.4% versus cost (Centerbridge, ABRY Advanced Securities II, Partners Group 2008, and OHA Strategic Credit IB leading), with 107.9% of called capital realized and distributed. Since inception, this portfolio produced 11.36% net IRR versus its peer global benchmark of 11.51% pooled IRR.
- Within Private Equity, the current allocation of invested capital is 57% to Buyouts, 32% to Venture Capital and 11% to Debt / Special Situations. Of \$526.7 million in cash distributions, 43% were from Buyouts, 35% from Debt-Related/Special Situations, and 22% from Venture Capital managers.

CASH FLOWS ON ANNUAL BASIS



CUMULATIVE CASH FLOWS AND VALUATION AS OF 6/30/18



# Private Equity – Portfolio Performance vs. Pooled Benchmark IRR

Period Ending: June 30, 2018

	1-Year	3-Year	5-Year	10-Year	Since Inception <sup>2</sup>
<b>Buyout</b>	<b>15.81%</b>	<b>11.07%</b>	<b>17.74%</b>	<b>N/A</b>	<b>15.33%</b>
<i>Thomson Reuters C/A Global Buyout Benchmark<sup>1</sup></i>	20.59%	17.57%	17.27%	15.36%	15.25%
<b>Venture Capital</b>	<b>25.53%</b>	<b>12.94%</b>	<b>22.50%</b>	<b>N/A</b>	<b>20.74%</b>
<i>Thomson Reuters C/A Global Venture Capital &amp; Growth Equity Benchmark<sup>1</sup></i>	23.33%	13.69%	19.09%	16.99%	16.94%
<b>Debt-Related / Special Situation</b>	<b>8.16%</b>	<b>9.55%</b>	<b>10.02%</b>	<b>N/A</b>	<b>11.36%</b>
<i>Thomson Reuters C/A Global Mezzanine &amp; Distressed Benchmark<sup>1</sup></i>	10.40%	9.43%	9.64%	11.53%	11.51%
<b>Total Private Equity</b>	<b>18.10%</b>	<b>11.52%</b>	<b>17.67%</b>	<b>N/A</b>	<b>15.60%</b>
<i>Thomson Reuters C/A Global All Private Equity Benchmark<sup>1</sup></i>	18.83%	13.75%	15.00%	14.02%	13.96%

*Identical cash flows invested in the benchmark Russell 3000 Total Return would yield a return of 14.05% (Long Nickels) through the life of the portfolio up through 6/30/18. The result is an over performance of the portfolio of 1.55% relative to the index. Analysis provided by Solovis.*

<sup>1</sup> Benchmarks: Thomson Reuters C/A as of 12/31/17, vintage 2008 through present.

<sup>2</sup> ACERA's inception date of November 21, 2008 vs. Thomson Reuters C/A's (Pooled IRR (LP)) inception date of January 1, 2008.

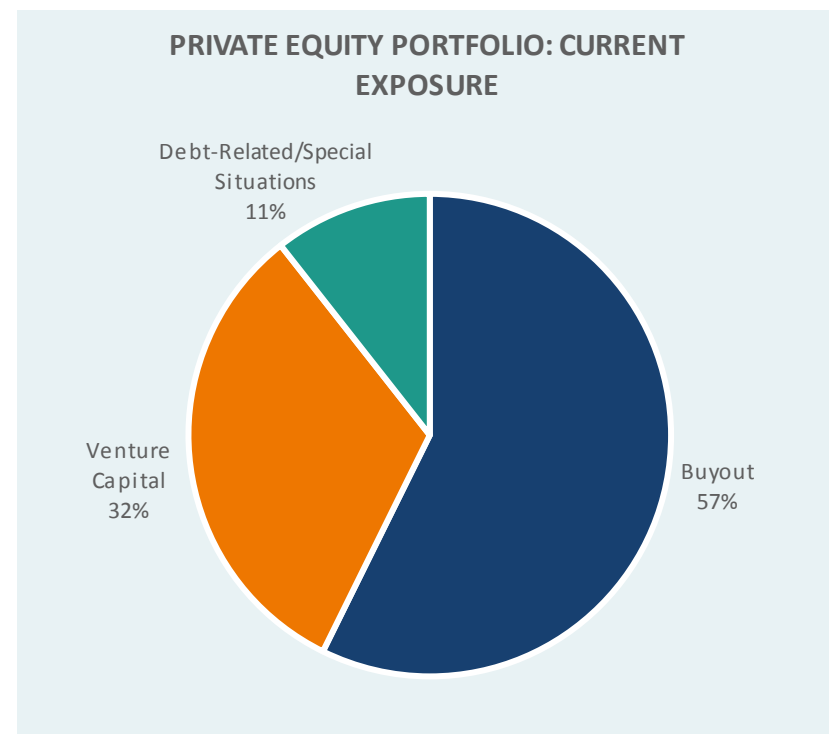
# Strategy

## Portfolio Diversification

Period Ending: June 30, 2018

Investment Type	Commitment	Current Exposure	Current Exposure as % of Private Equity
Buyout	598,525,000	286,828,247	57.3%
Venture Capital	183,100,000	160,997,206	32.1%
Debt-Related/Special Situations	323,507,100	53,003,519	10.6%
<b>Total Private Equity</b>	<b>1,105,132,100</b>	<b>500,828,972</b>	<b>100.0%</b>

Investment Type	Target Range	Target Exposure	Current Exposure as % of Target	Difference
Buyout	4%-8%	5.4%	3.5%	-1.9%
Venture Capital	0%-3%	1.8%	2.0%	0.2%
Debt-Related/Special Situations	1%-3%	1.8%	0.7%	-1.1%
<b>Total Private Equity</b>	<b>0%-13%</b>	<b>9.0%</b>	<b>6.2%</b>	<b>-2.8%</b>

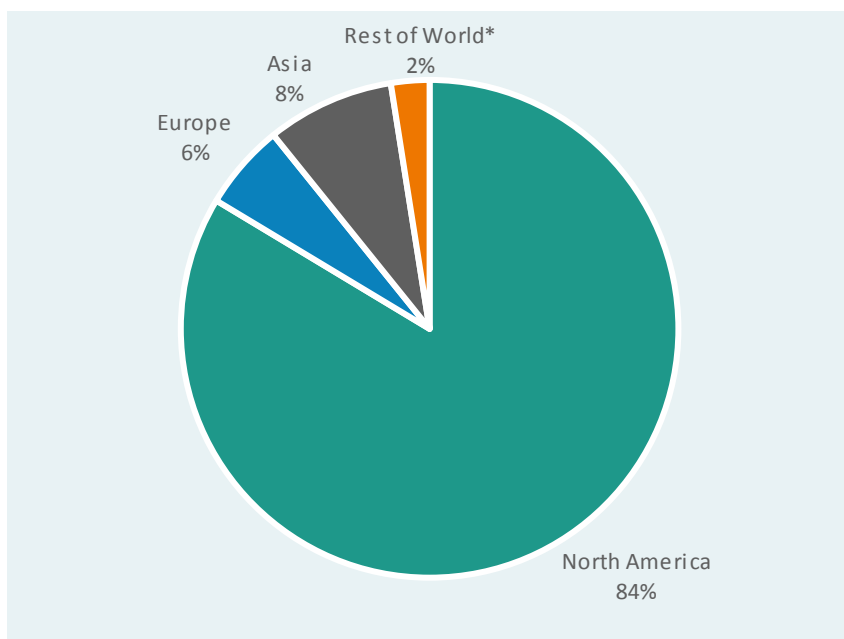


# Geography

## Private Equity Portfolio Diversification

Period Ending: June 30, 2018

<b>Geography</b>	<b>Current Exposure</b>
North America	403,202,105
Europe	26,786,291
Asia	39,822,617
Rest of World*	12,071,975
<b>Total Private Equity</b>	<b>481,882,988</b>



Based on the value of private equity portfolio companies as of June 30, 2018, as provided by the partnerships. Differences between reported value and the private equity portfolio valuation is due to temporary cash funds, fees, other expenses, and holdings with undisclosed geography breakdown.

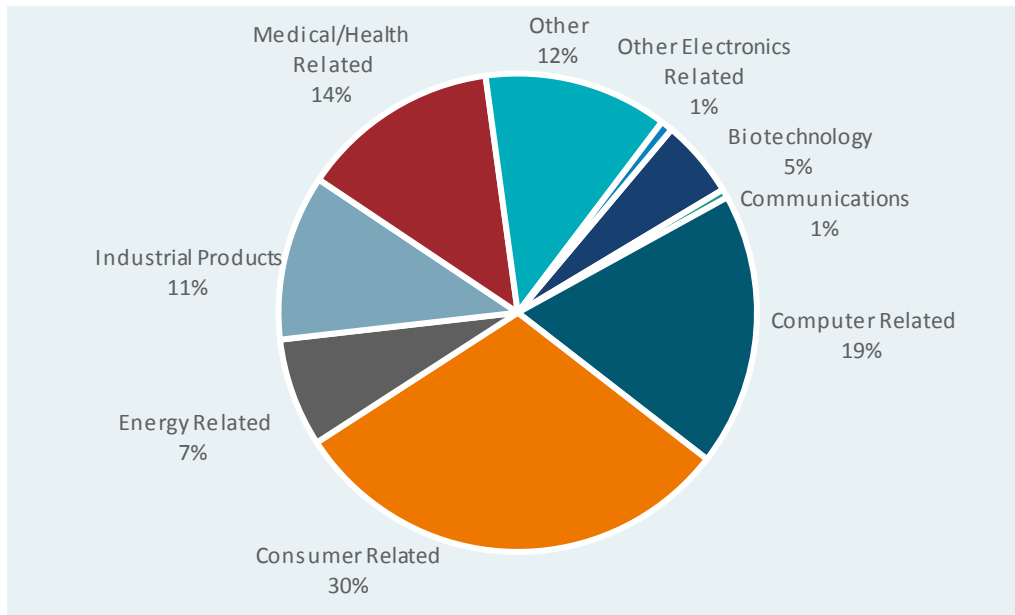
\* Rest of World includes: Kenya, Cayman Islands, Israel, United Arab Emirates, Brazil, Australia, and New Zealand.



# Industry Private Equity Portfolio Diversification

Period Ending: June 30, 2018

Industry	Current Exposure
Biotechnology	25,478,261
Communications	2,838,063
Computer Related	89,162,198
Consumer Related	146,366,935
Energy Related	35,344,854
Industrial Products	53,960,475
Medical/Health Related	64,828,672
Other	59,998,532
Other Electronics Related	3,904,998
<b>Total Private Equity</b>	<b>481,882,988</b>

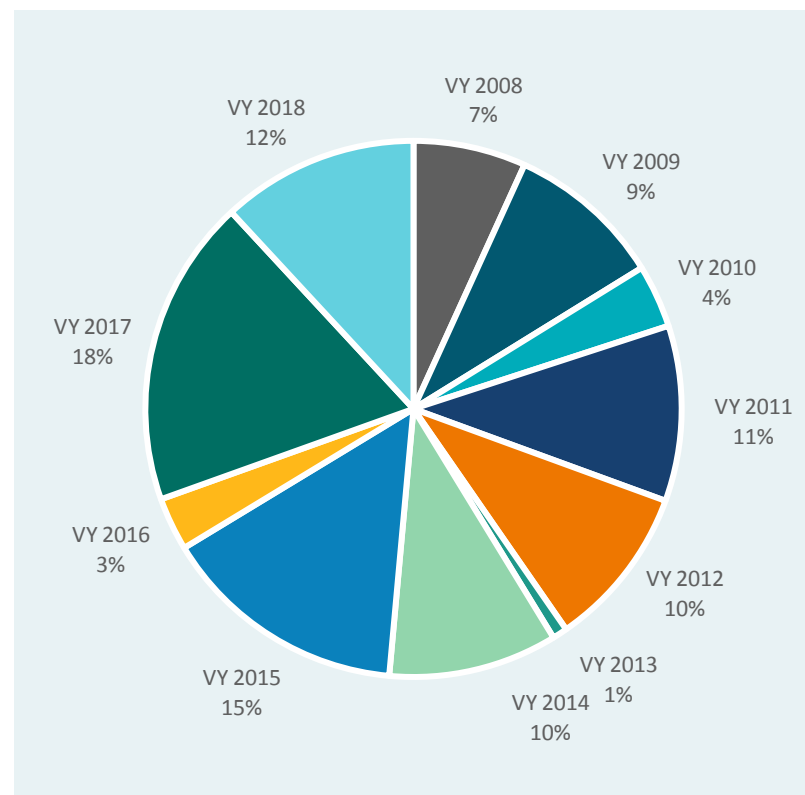


Based on the value of private equity portfolio companies as of June 30, 2018, as provided by the partnerships. Differences between reported value and the private equity portfolio valuation is due to temporary cash funds, fees, other expenses, and holdings with undisclosed industry breakdown.

# Vintage Year Private Equity Portfolio Diversification

Period Ending: June 30, 2018

Vintage Year	Commitment as of 6/30/18	% of Portfolio Commitment	Reported Value as of 6/30/18
2008	75,000,000	6.8%	23,377,747
2009	103,500,000	9.4%	42,737,501
2010	42,500,000	3.8%	15,685,604
2011	117,500,000	10.6%	75,219,149
2012	108,500,000	9.8%	125,537,671
2013	10,000,000	0.9%	11,338,321
2014	112,500,000	10.2%	84,652,772
2015	163,250,000	14.9%	95,230,440
2016	35,000,000	3.2%	3,079,876
2017	205,382,100	18.6%	23,969,890
2018	132,000,000	11.9%	0
<b>Total Private Equity</b>	<b>1,105,132,100</b>	<b>100%</b>	<b>500,828,970</b>



- **As of June 30, 2018, the Private Equity Portfolio is below its neutral target allocation of 9.0%, as commitments continue to be made to various funds. The allocation target increased from 6.0% to 9.0% in September 2017.**



**PERSPECTIVES  
THAT DRIVE  
ENTERPRISE  
SUCCESS**



PERIOD ENDING: JUNE 30, 2018

Absolute Return Performance Report

**Alameda County Employees' Retirement Association**

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# Hedge Fund Environment

# Risk assets enjoy a long bull market despite uncertainty

## Outlook

Our hedge fund outlook combines our views of macroeconomic, geopolitical, and capital market conditions along with hedge fund industry metrics and trends across the strategy set. Key observations include:

- **Risk asset bull market** - Significant accommodative measures instituted by Central Banks after the Global Financial Crisis (GFC) fueled a strong appetite for risk assets, which pushed up prices while also dampening volatility.
- **Improving outlook while questions remain** - Global growth has more recently strengthened; immediate recession risk is low. However, we continue to monitor global macroeconomic and geopolitical issues that could result in unforeseen instability negatively impacting risk asset prices.
- **More efficient access to well known portfolio building blocks** - Alternative premia strategies, which are typically defined as exposures to well-known Style factors (Value, Momentum) and systematized elements of certain well-understood hedge fund (Merger Arb, Convert Arb) investment strategies, provide targeted exposure to specific risk premia in a transparent, cost-effective and diversifying manner.

# Summary of findings (Keep; expand into sub strategies)

Strategy	Role	Watch points	Outlook/Implementation	View
<b>Equity Hedge</b>	Return Driver or Diversifier	<ul style="list-style-type: none"> <li>— Strong 2017 YTD long/short stock selection spread bolstered by falling stock correlations.</li> <li>— A sudden risk spike could adversely impact stock picking conditions and corresponding portfolio returns.</li> </ul>	We have an overall neutral view on Equity Hedge strategies. We favor diversifying low net exposure and equity market neutral relative to long biased strategies. We favor managers with expertise outside crowded trade ideas, strong shorting skills, and the risk management capabilities to ride out potential volatility spikes.	<b>Neutral</b>
<b>Relative Value</b>	Diversifier	<ul style="list-style-type: none"> <li>— Favorable trading conditions characterized by falling volatility and tightening credit spreads.</li> <li>— An unexpected regime change could sour the current market environment, particularly given the highly leveraged nature of these strategies.</li> </ul>	We have a positive view on Relative Value strategies, particularly in their roles as diversifiers both within portfolios and in the current market environment. We favor less crowded sub strategies and managers with strong skills sourcing and sizing ideas along with the risk management capabilities needed to thrive in a potentially higher volatility environment.	<b>Positive</b>
<b>Macro</b>	Diversifier	<ul style="list-style-type: none"> <li>— Pick up in global growth and corresponding withdrawal of central bank stimulus could broaden the opportunity set.</li> <li>— Unexpected slowdown and/or new aggressive stimulus could break trends and squeeze crowded or levered positions.</li> </ul>	We have a positive view on Macro strategies, particularly in their roles as diversifiers both within portfolios and in relation to the current market environment. We favor managers with wide opportunity sets, expertise in less crowded niche segments, strong capital allocation skills, and risk management practices.	<b>Positive</b>
<b>Event Driven</b>	Return Driver	<ul style="list-style-type: none"> <li>— Pick up in global growth and reasonably available credit should bolster levels of corporate events and value realizations.</li> <li>— Lagging growth or corporate activity levels could result in losses or a deterioration in opportunity levels.</li> </ul>	We have a negative view overall on Event-Driven strategies. Within the group, we favor equity oriented managers with expertise in idiosyncratic situations over credit focused managers due to risk / return tradeoff driven by tight credit spreads. Changing credit market conditions could impact our view.	<b>Negative</b>
<b>Alternative Beta</b>	Diversifier	<ul style="list-style-type: none"> <li>— Significant capital inflows could negatively impact forward returns to specific factors, and/or strategies employed in portfolios.</li> <li>— Continuance of historically low levels of volatility may hinder returns without corresponding increase in leverage used.</li> </ul>	We have a positive view on the combination of transparency, liquidity, cost and diversification benefits inherent in multi-factor, multi-strategy Alternative Beta funds relative to fund of hedge funds and other liquid alternatives. We favor managers with longer history managing live strategies comprised of related factors and strategies rather than new entrants with a more academia-focused style.	<b>Neutral</b>

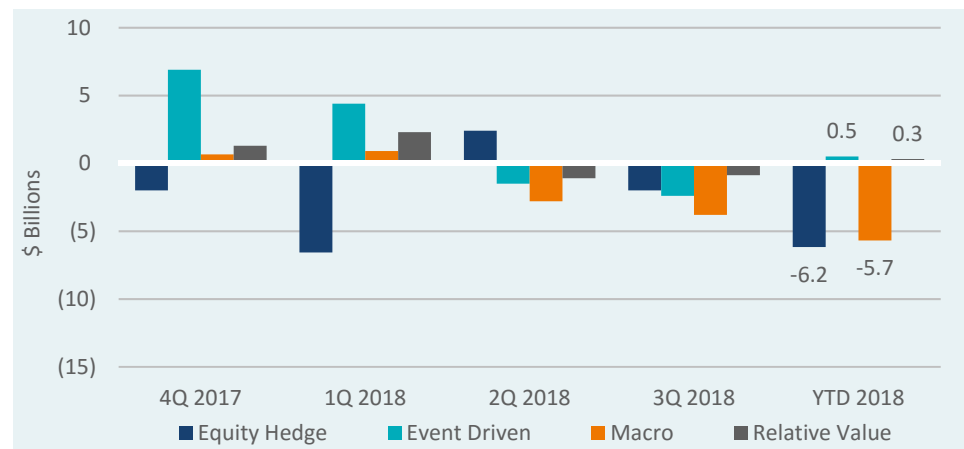


# Hedge fund allocation trends & flows

## Overall flows stabilized

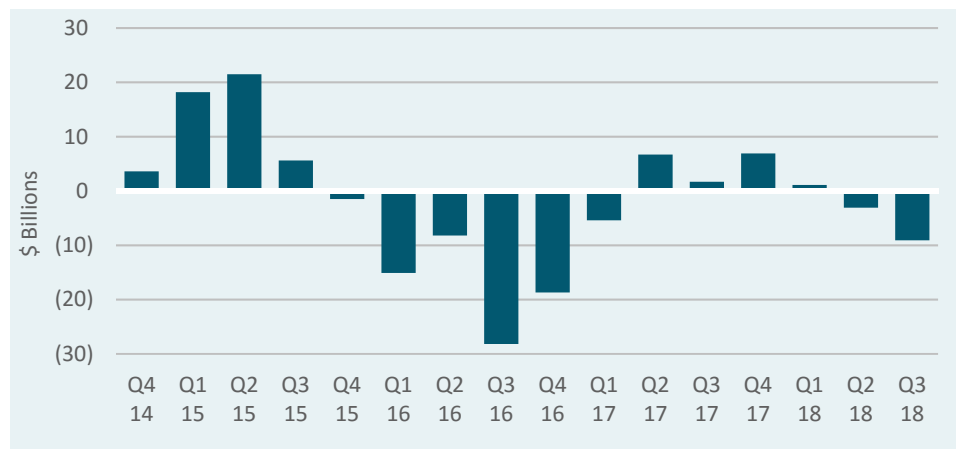
- Flows have turned negative again after a positive 2017, led by outflows from Macro and Equity Hedge, two worst performing strategies YTD. Macro has seen consistent outflows for some time while Equity Hedge flows seems to move more with broad equity market moves up and down over time.
- Despite mixed flows, asset levels remain at all time highs as performance keeps total AUM above its high watermark. Total industry assets sit at \$3.24 trillion as of the end of 3Q 2018, according to HFR. Flows by firm size were mixed, as the largest firms (>\$5 Billion in size) saw outflows of \$9.2 Billion YTD in 2018 versus mid-size firms (\$1-5 Billion) experiencing only \$2.3 Billion so far. The smallest firms managing less than \$1 Billion have seen a small inflow in 2018.

NET FLOWS TO HFR SUB-STRATEGIES, LAST 4 QUARTERS



Source: HFR

Quarterly net flows to hedge funds



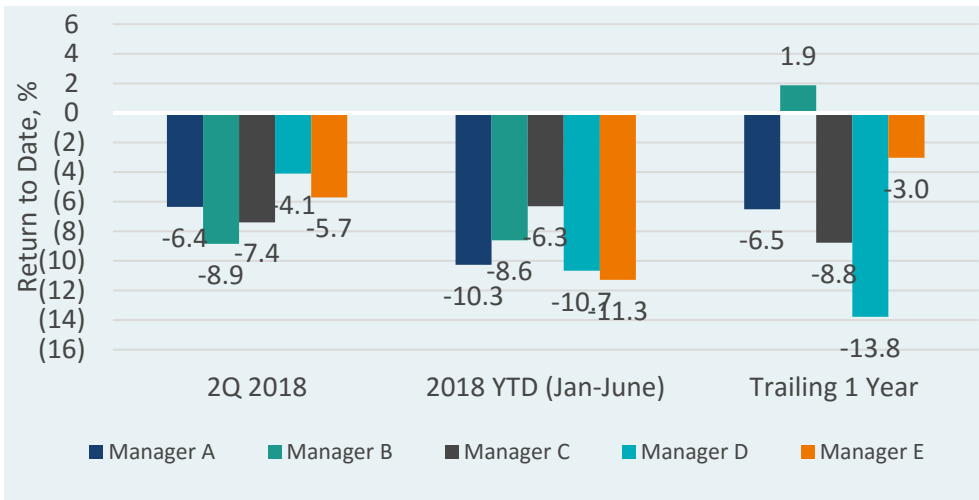
Source: HFR

# Alternative beta

## Recent performance trends

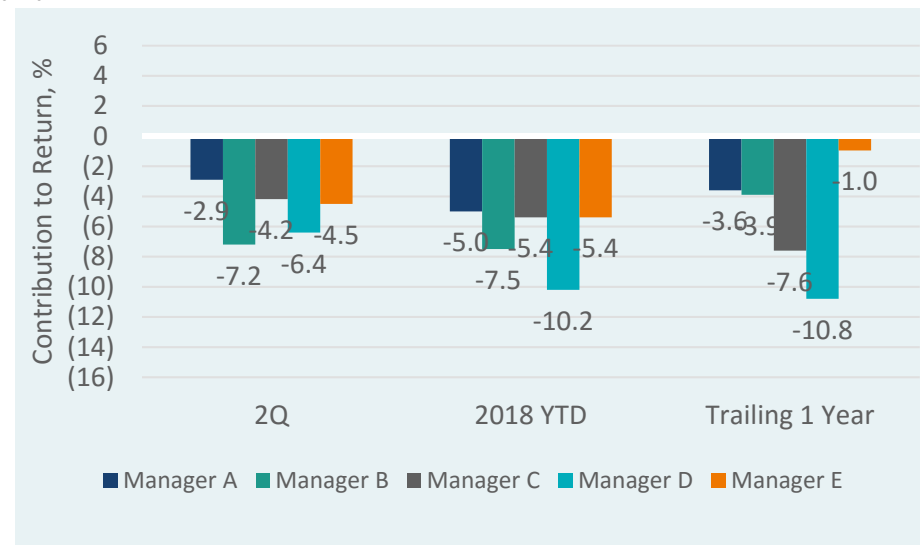
- Alternative Betas are derived from the ongoing effort to explain additional components of return generated by portfolios of securities over longer periods of time. Most of these betas, or factors, are well-known academically and have been a common source of what historically had been deemed “alpha”.
- Alternative Beta strategies are still relatively new and most have short live track records. These strategies use leverage to go long and short large numbers of securities, isolating the alternative betas while minimizing broad market beta exposure.
- The Credit Suisse Liquid Alternative Beta (“LAB”) indexes combine various alternative betas to recreate some of the most broad hedge fund styles. Recent LAB strategy results are very broadly inline with recent hedge fund reported results.
- Recent Alternative Beta performance has been challenged, especially in equity market neutral strategies, driven by the unusually large performance differential between growth and value styles.

PERFORMANCE TO DATE, AS OF 6/30/2018



Source: Managers

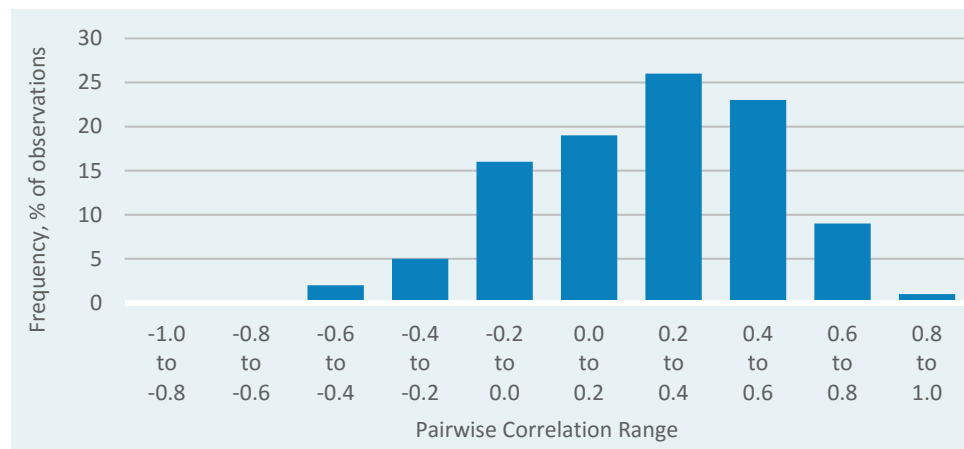
CONTRIBUTION TO RETURNS FROM EQUITY MARKET NEUTRAL SUB-STRATEGIES, AS OF 6/30/2018



# Alternative beta

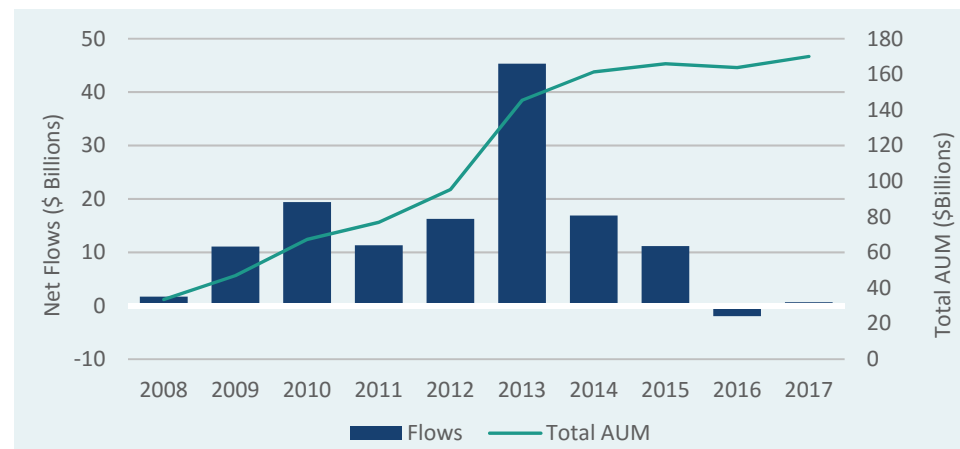
- Prospective investors might assume that multi-asset Alternative Beta strategies would act similarly due to the high degree of conceptual and implementation overlap across strategies. The assumptions would further rest on the well-known nature of many of the risk premia and hedge fund strategies and the limited set of liquid markets in which these funds can cost-effectively operate. It is thereby surprising to see the degree of performance differences across many of these programs. A recent Society General Prime Services analysis found that almost 25% of the distributions had negative correlations with each other (see chart on left).
- Flows into liquid alternatives mutual funds were negative for the first time in 2016 and are only slightly positive in 2017. While this universe includes more strategies than just what we consider true Alternative Beta, it is a decent proxy for investor sentiment towards liquid hedge fund-like strategies. Investors remain hesitant after poor recent relative returns as equity markets continued moving higher. With an average net expense ratio of about 1.6% for institutional and retirement share classes, investors may conclude that these strategies are relatively expensive relative to other mutual funds, and/or not a cost-effective way to access hedge fund strategies.

## LIQUID ALTERNATIVES GROWTH STALLS



Source: Societe Generale

## Similar concepts, differences in the details



Source: Morningstar, all US Open-end (ex-FOF) Alternative Funds

# ACERA Performance

# Allocations

## Target

Sub-categories	Target Allocations	Min./Max. Ranges
<b>AR Portfolio</b>	<b>9.0%</b>	<b>5% to 10.5%</b>
▪ <i>Alternative Premia Strategies</i>	4.5%	2% to 6%
▪ <i>Fund of Funds</i>	3.6%	2% to 6%
▪ <i>Other Alternatives/Oppportunistic</i>	0.9%	0% to 4.5%

## Current as of 6/30/2018

Sub-categories	Current Allocations	Min./Max. Ranges
<b>AR Portfolio</b>	<b>7.4%</b>	<b>5% to 10.5%</b>
▪ <i>Alternative Premia Strategies</i>	0.7%	2% to 6%
▪ <i>Fund of Funds</i>	3.6%	2% to 6%
▪ <i>Other Alternatives/Oppportunistic</i>	3.0%	0% to 4.5%

## Projected (including recently approved mandates)

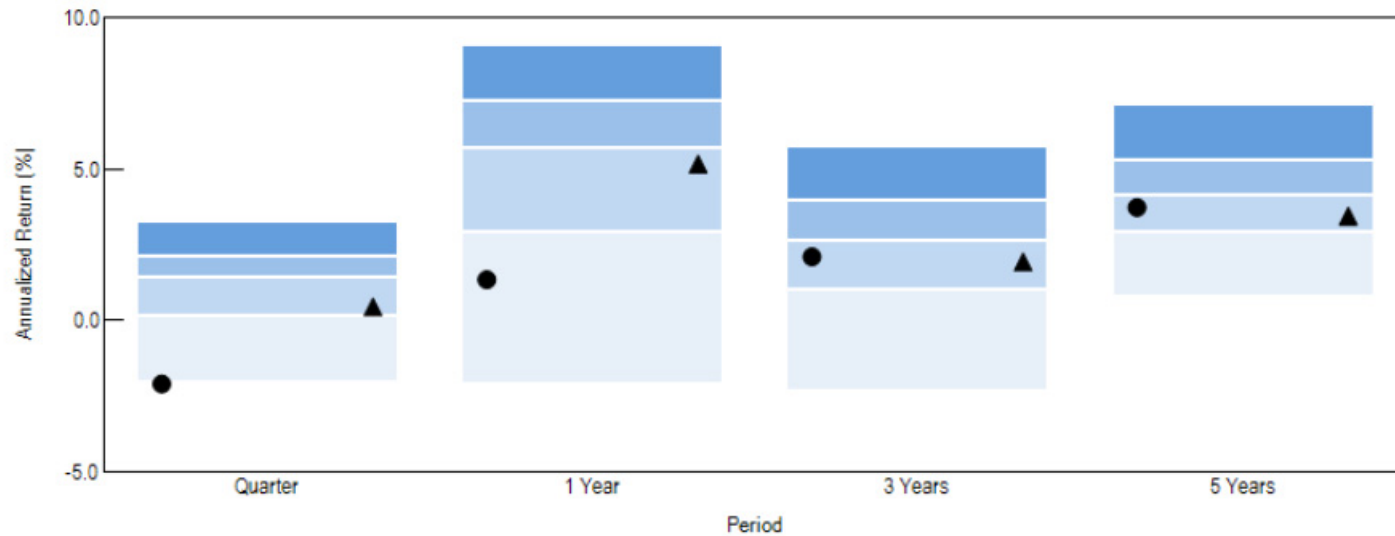
Sub-categories	Current Allocations	Min./Max. Ranges
<b>AR Portfolio</b>	<b>9.5%</b>	<b>5% to 10.5%</b>
▪ <i>Alternative Premia Strategies</i>	2.1%	2% to 6%
▪ <i>Fund of Funds</i>	3.6%	2% to 6%
▪ <i>Other Alternatives/Oppportunistic</i>	3.7%	0% to 4.5%

# Performance Summary

	Market Value (\$)	% of Portfolio	3 Mo (%)	YTD (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Ending June 30, 2018					Inception (%)	Inception Date
Absolute Return*	597,654,686	100.0	-2.1	-0.6	-0.6	1.4	2.1	3.7	--	3.3	5.4	0.7	6.7	10.1	3.8	Sep-11
HFRI Fund of Funds Composite Index			0.5	0.7	0.7	5.2	1.9	3.5	1.4	7.8	0.5	-0.3	3.4	9.0	3.7	Sep-11

# Relative Performance

InvestorForce All DB Hedge Funds Gross Return Comparison  
Ending June 30, 2018



	Return (Rank)			
	Quarter	1 Year	3 Years	5 Years
5th Percentile	3.2	9.1	5.7	7.1
25th Percentile	2.2	7.3	4.0	5.4
Median	1.5	5.7	2.7	4.2
75th Percentile	0.2	3.0	1.1	2.9
95th Percentile	-2.0	-2.1	-2.3	0.8
# of Portfolios	225	222	205	196
● Absolute Return	-2.1 (96)	1.4 (85)	2.1 (63)	3.7 (62)
▲ HFRI Fund of Funds Composite Index	0.5 (73)	5.2 (57)	1.9 (66)	3.5 (69)

# Portfolio Statistics

	HFRI FoF Composite	Absolute Return Portfolio
<b>Max Drawdown</b>	-19.4	-7.0
<b>Sharpe Ratio</b>	0.23	0.87
<b>Beta</b>	0.25	0.10
<b>Correlation to MSCI ACWI</b>	0.81	0.39
<b>Annualized StDev</b>	5.0	3.8

\*Since Inception of AR Portfolio

Performance Targets are:

AR portfolio returns to exceed benchmark

Correlation to global equities less than or equal to 0.5



# Glossary

# Glossary

**Standard Deviation** - A measure of volatility, or risk, inherent in a security or portfolio. The standard deviation of a series is a measure of the extent to which observations in the series differ from the arithmetic mean of the series. For example, if a security has an average annual rate of return of 10% and a standard deviation of 5%, then two-thirds of the time, one would expect to receive an annual rate of return between 5% and 15%.

**Sharpe Ratio** - A measure of portfolio efficiency. The Sharpe Ratio indicates excess portfolio return\* for each unit of risk associated with achieving the excess return. The higher the Sharpe Ratio, the more efficient the portfolio. Sharpe ratio is calculated as: Portfolio Excess Return / Portfolio Standard Deviation.

**Beta** - A measure of systematic (undiversifiable) or market risk, the part of risk in a portfolio or security that is attributable to general market movements. Beta is calculated by dividing the covariance of a security by the variance of the market.

**Correlation** – A measure of the relative movement of returns of one security or asset class relative to another over time. A correlation of 1 means the returns of two securities move in lock step, a correlation of -1 means the returns of two securities move in the exact opposite direction over time. Correlation is used as a measure to help optimize the benefits of diversification when constructing an investment portfolio.

**Time Weighted Return** – A measure of the compound rate of growth in a portfolio, which eliminates the distorting effects of growth rates created by inflows and outflows of money.

**Internal Rate of Return (IRR)** – the interest rate which is the net present value of all the cash flows (both positive and negative) of an investment.

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\* Excess return over the risk free rate (usually short-term Treasuries or LIBOR.)



**PERSPECTIVES  
THAT DRIVE  
ENTERPRISE  
SUCCESS**



**PERIOD ENDING: JUNE 30, 2018**

Real Assets Review

**Alameda County Employees' Retirement Association**

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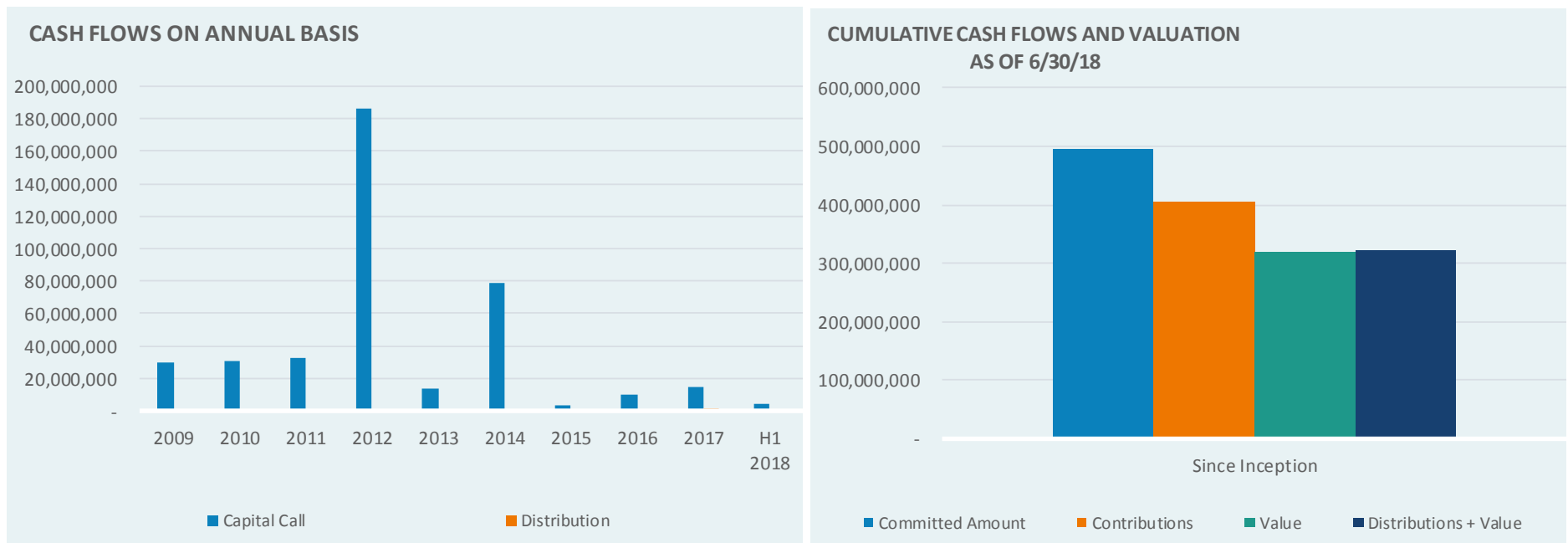
Real Assets Program Update 8

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## Performance

- ACERA’s Real Asset Pool has produced a -3.90% IRR since inception. The portfolio’s poor performance has been driven primarily by the large weighting in commodity futures (Gresham and AQR) and from earlier investments in energy (Sheridan). More recent investments in Warburg Energy, CIM Infrastructure, and Quantum Energy are too early in their fund life to gauge performance.
- Oil prices were up through June which has helped performance within the liquid portfolio and energy-related private funds. More recently, oil prices have sold-off, peaking in early October as increased production from the U.S. and OPEC created an unexpected supply glut. Infrastructure prices remain elevated for core assets though the move in interest rates appears to have sparked some needed volatility and perhaps will bring attractive buying opportunities to the market. We remain positive on value-add infrastructure with strong operating teams.
- New commitments in I-Squared (in January) and EQT Infrastructure (in November) should provide a more balanced portfolio away from commodity price movements. ACERA also approved a change to the liquid pool which will be implemented over the next few months.



## Real Assets Performance vs. Pooled Benchmark IRR

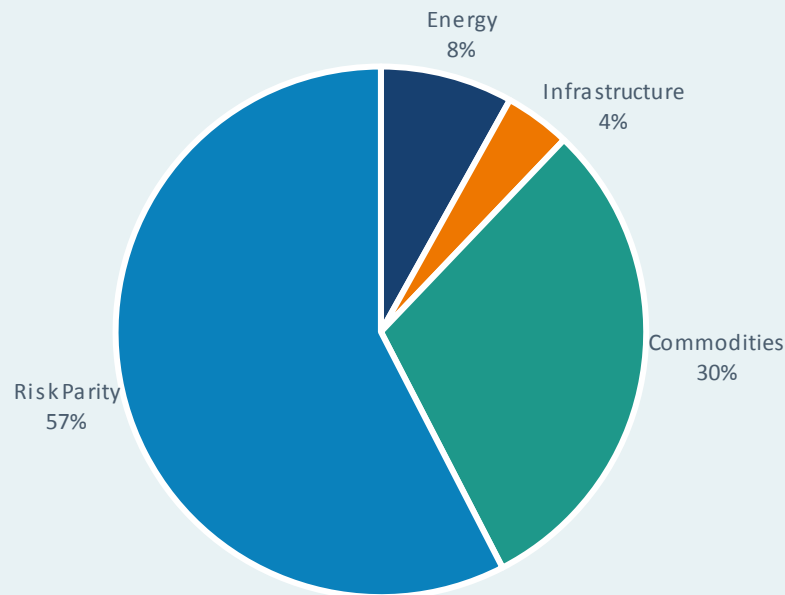
Period Ending: June 30, 2018

	1-Year	3-Year	5-Year	10-Year	Since Inception
<b>Natural Resources Funds</b>	<b>-11.55%</b>	<b>-1.24%</b>	<b>-9.94%</b>	<b>N/A</b>	<b>-9.61%</b>
<i>S&amp;P Global Natural Resources Index</i> <sup>1</sup>	21.79%	11.37%	6.52%	4.02%	4.02%
<b>Infrastructure Funds</b>	<b>3.77%</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>3.97%</b>
<i>S&amp;P Global Infrastructure Index</i> <sup>1</sup>	1.28%	2.57%	2.57%	2.57%	2.57%
<b>Liquid Pool Funds</b>	<b>14.12%</b>	<b>0.51%</b>	<b>-3.66%</b>	<b>N/A</b>	<b>-3.64%</b>
<i>Bloomberg Commodity Index</i> <sup>1</sup>	7.35%	20.54%	7.53%	4.38%	4.38%
<b>Total Real Assets</b>	<b>11.28%</b>	<b>0.48%</b>	<b>-3.96%</b>	<b>N/A</b>	<b>-3.90%</b>

<sup>1</sup> Benchmarks: Identical cash flows invested in the appropriate benchmarks through the life of the portfolio up through 6/30/18. Analysis provided by Solovis.

Investment Type	Commitment	Current Exposure
Energy	74,000,000	30,012,791
Infrastructure	75,000,000	12,225,806
Commodities	123,700,000	96,546,743
Risk Parity	223,979,858	180,145,148
<b>Total Portfolio</b>	<b>496,679,858</b>	<b>318,930,488</b>

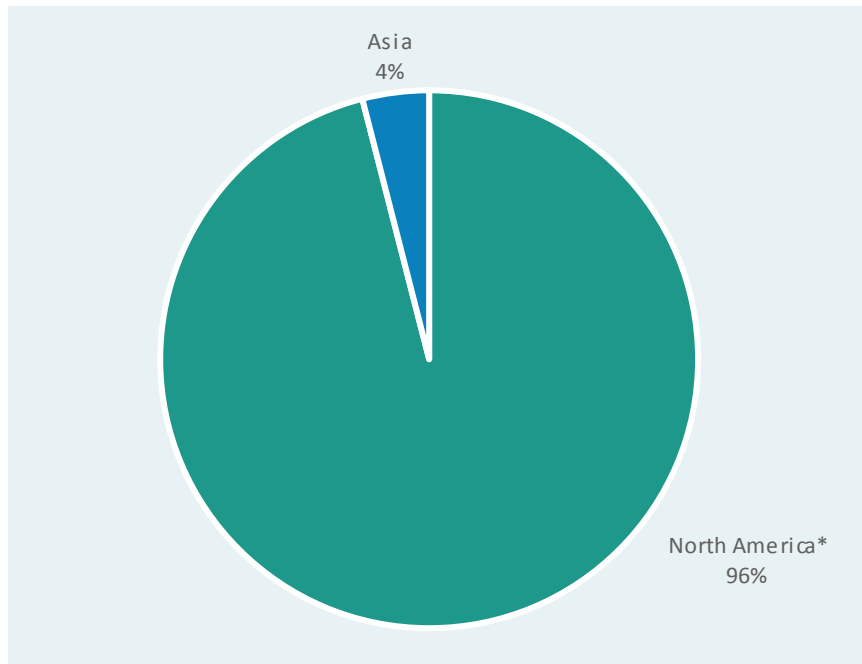
REAL ASSETS PORTFOLIO: CURRENT EXPOSURE



# Geography Portfolio Diversification

Period Ending: June 30, 2018

Geography	Reported Fair Value
North America*	40,621,974
Asia	1,616,623
<b>Total Portfolio**</b>	<b>42,238,598</b>



\* North America includes 100% market value from Sheridan II-B.

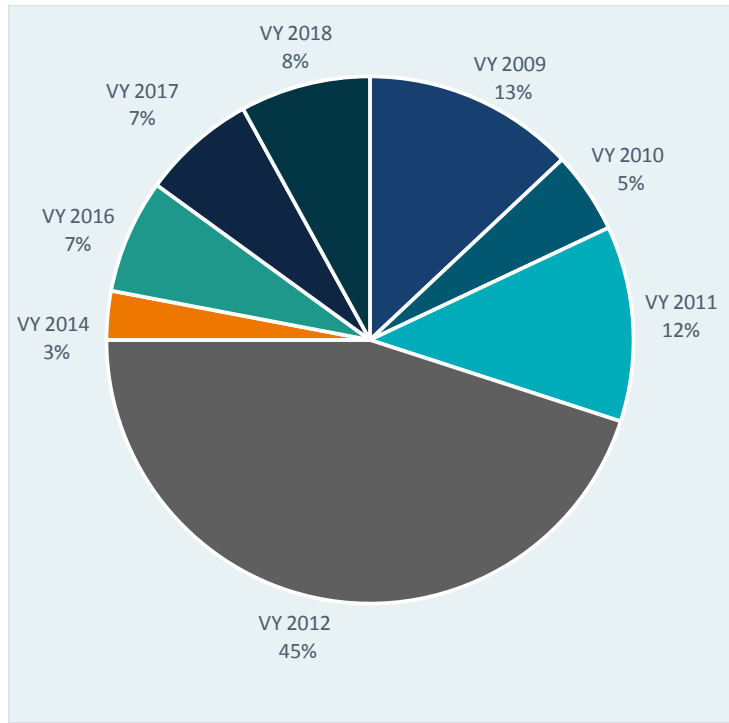
\*\* Excludes Liquid assets.



# Vintage Year Portfolio Diversification

Period Ending: June 30, 2018

Vintage Year	Commitment as of 6/30/18	% of Portfolio Commitment	Reported Value as of 6/30/18
2009	62,900,000	12.7%	54,457,971
2010	24,000,000	4.8%	10,984,000
2011	60,800,000	12.2%	42,088,772
2012	223,979,858	45.1%	180,145,148
2014	15,000,000	3.0%	10,036,047
2016	35,000,000	7.0%	9,576,934
2017	35,000,000	7.0%	8,992,744
2018	40,000,000	8.1%	2,648,872
<b>Total Portfolio</b>	<b>496,679,858</b>	<b>100%</b>	<b>318,930,488</b>



- ACERA committed to ISQ Global infrastructure Fund II in January and EQT Infrastructure IV in November of this year. ACERA also approved a new liquid pool structure which will reduce the real asset portfolios exposure to commodity futures and add a dedicated allocation to listed infrastructure.
- We are actively reviewing an opportunity in mining finance with a manager that Verus has backed in prior funds. We are also actively reviewing opportunities in natural resources (ex-energy).



December 2018

**3Q 2018 Real Estate  
Performance Measurement Report**

Callan

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**Avery Robinson, CAIA**  
Senior Vice President

# Alameda County Employees' Retirement Association Performance Measurement Report Summary

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## Portfolio Measurement Presentation

This is the Performance Measurement Report presentation for the Alameda County Employees' Retirement Association ("ACERA") Real Estate Portfolio ("Portfolio") Quarter ending September 30, 2018 ("Quarter").

## Funding Status as of September 30, 2018

	(\$) Millions	(%)
ACERA Plan Assets	8,278.112	100.00%
Real Estate Target <sup>(1)</sup>	662.248	8.00%
Plan's Real Estate Market Value	555.938	6.72%
Net Unfunded Commitments <sup>(2)</sup>	92.235	1.11%
RE Market Value & Unfunded Commitments	608.173	7.83%
Remaining Allocation	106.310	1.28%

## Portfolio Composition

	Target	Funded	Funded & Committed
Core	70.00%	81.65%	74.63%
Non-Core	30.00%	18.35%	25.37%

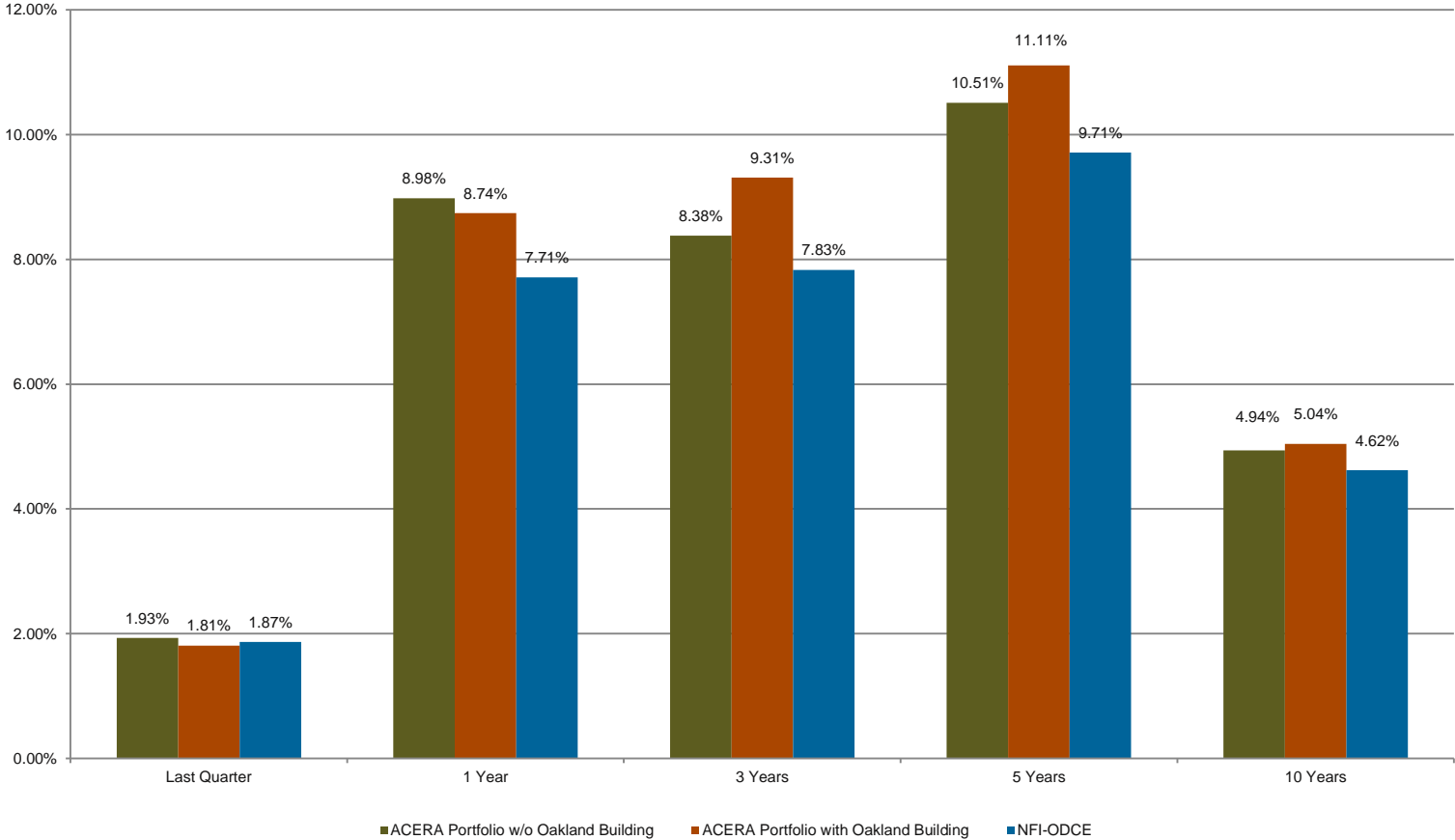
1. The Real Estate Target increase from 6% to 8% was adopted in August 2015.

2. Includes unfunded commitments to Angelo Gordon Realty Fund X, Heitman Value Partners IV and Clarion Lion Industrial Trust.

# Portfolio Net Returns

For Period Ended September 30, 2018

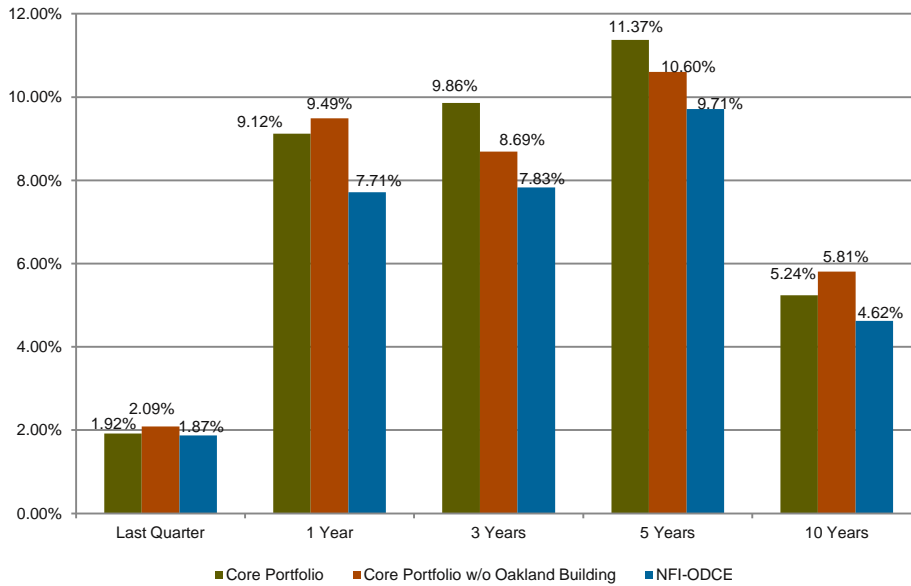
### Total Net Real Estate Portfolio Returns



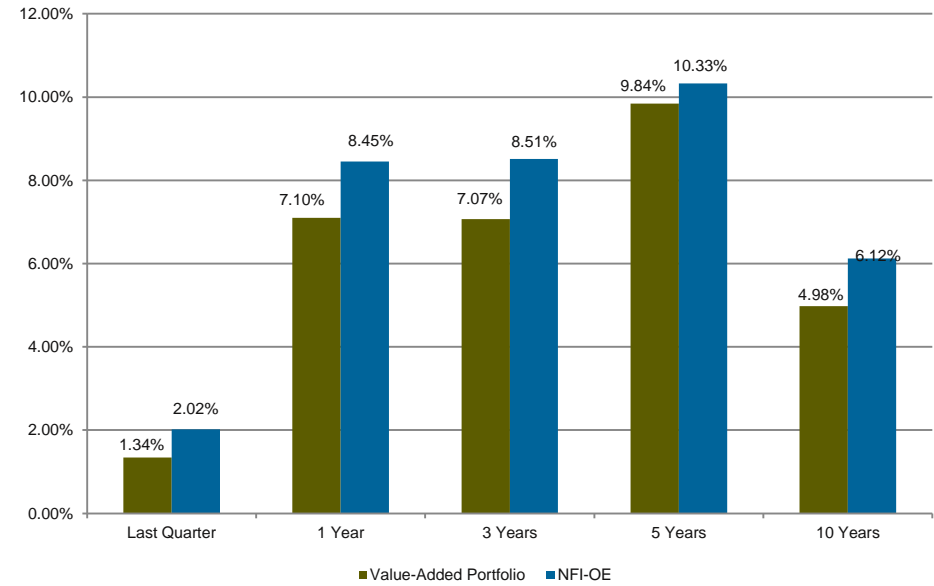
# Portfolio Returns by Style

For Period Ended September 30, 2018

Net Core Returns



Net Value-Added Returns



Net Portfolio w/o Oakland Building	Last Quarter	1 Year	3 Years	5 Years	10 Years
Core Portfolio w/o Oakland Building	2.09%	9.49%	8.69%	10.60%	5.81%
Value-Added Portfolio	1.34%	7.10%	7.07%	9.84%	4.98%
<b>Total Portfolio w/o Oakland Building</b>	<b>1.93%</b>	<b>8.98%</b>	<b>8.38%</b>	<b>10.51%</b>	<b>4.94%</b>

Net Total Portfolio	Last Quarter	1 Year	3 Years	5 Years	10 Years
Core Portfolio	1.92%	9.12%	9.86%	11.37%	5.24%
Value-Added Portfolio	1.34%	7.10%	7.07%	9.84%	4.98%
<b>Total Portfolio</b>	<b>1.81%</b>	<b>8.74%</b>	<b>9.31%</b>	<b>11.11%</b>	<b>5.04%</b>

# Performance Drivers and Detractors by Style

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## Core Portfolio (Excluding Oakland Building)

- The ACERA Core Portfolio has outperformed the benchmark during every period over the last ten years and it continued that trend this quarter beating the benchmark by 5 bps.
- The Lion Industrial Trust once again was the strongest performer this quarter.
- The PRISA SA Fund was also a strong performer this quarter

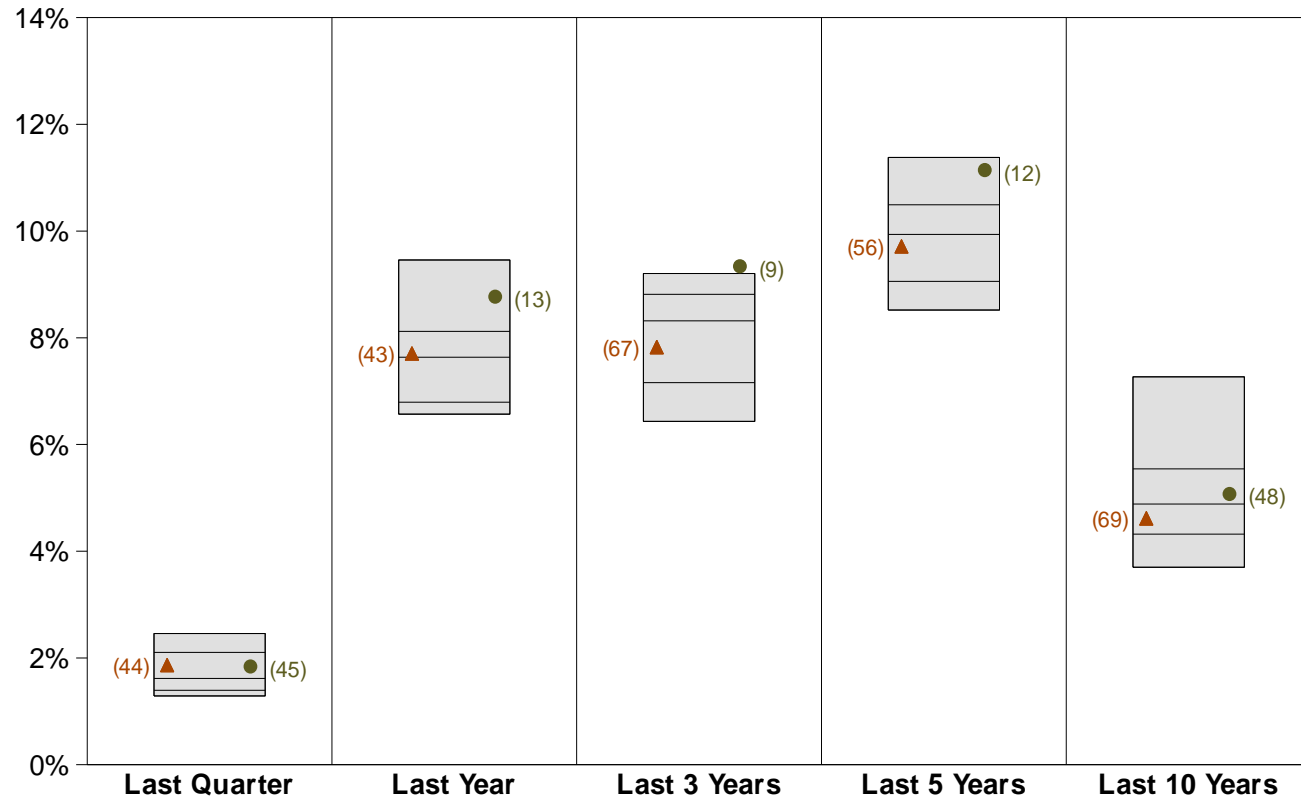
## Value-Added Portfolio

- The PRISA III Fund drove performance for the quarter.
- The Artemis Healthcare Fund I was the worst performer for the Value Added Portfolio.

# Performance vs. Peer Group

For Period Ended September 30, 2018

## Performance vs Callan Open End Core Cmmingled Real Est

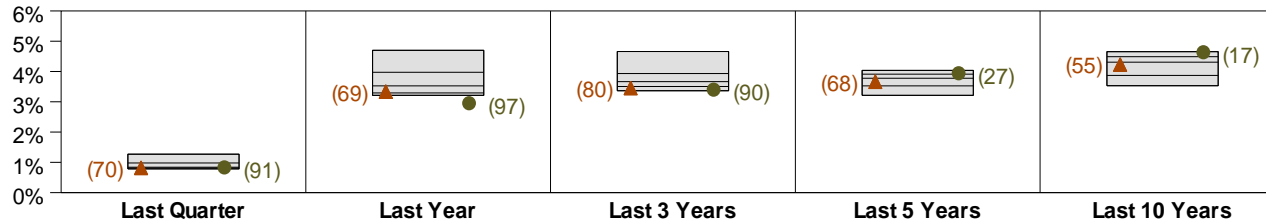


	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
10th Percentile	2.46	9.46	9.20	11.38	7.27
25th Percentile	2.10	8.12	8.81	10.49	5.54
Median	1.61	7.64	8.32	9.94	4.89
75th Percentile	1.39	6.79	7.16	9.06	4.32
90th Percentile	1.29	6.57	6.43	8.52	3.70
<b>ACERA Total RE Portfolio</b> ●	1.81	8.74	9.31	11.11	5.04
NCREIF NFI-ODCE Val Wt Nt ▲	1.87	7.71	7.83	9.71	4.62



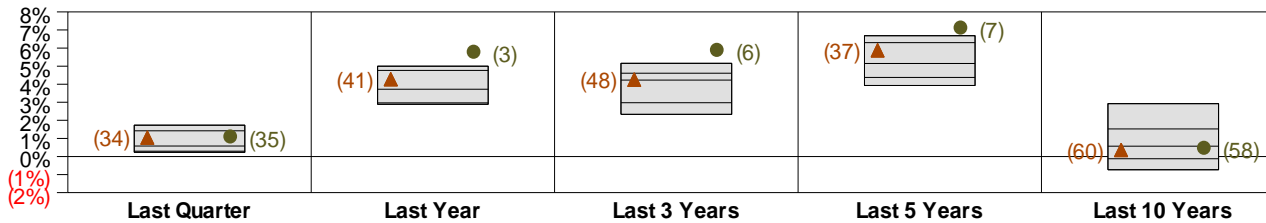
# Performance vs. Peer Group

## Income Rankings vs Callan OE Core Cmngld RE Periods ended September 30, 2018



	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
10th Percentile	1.27	4.70	4.66	4.04	4.66
25th Percentile	0.98	3.98	3.94	3.91	4.49
Median	0.84	3.53	3.67	3.78	4.31
75th Percentile	0.81	3.29	3.51	3.53	3.87
90th Percentile	0.79	3.22	3.36	3.21	3.53
<b>ACERA Total RE Portfolio</b>	0.78	2.90	3.35	3.89	4.59
<b>NCREIF NFI-ODCE Val Wt Nt</b>	0.82	3.34	3.46	3.67	4.23

## Appreciation Rankings vs Callan OE Core Cmngld RE Periods ended September 30, 2018



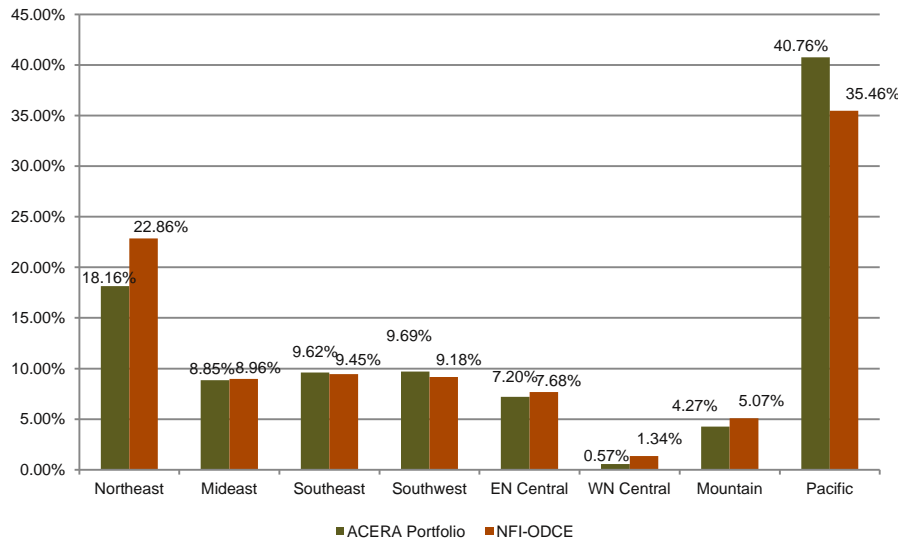
	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
10th Percentile	1.74	5.00	5.16	6.68	2.92
25th Percentile	1.42	4.77	4.61	6.30	1.52
Median	0.58	3.73	4.22	5.14	0.57
75th Percentile	0.30	2.96	2.98	4.37	(0.12)
90th Percentile	0.23	2.89	2.33	3.93	(0.73)
<b>ACERA Total RE Portfolio</b>	1.03	5.71	5.81	7.05	0.39
<b>NCREIF NFI-ODCE Val Wt Nt</b>	1.05	4.28	4.26	5.88	0.36

# Diversification & Debt

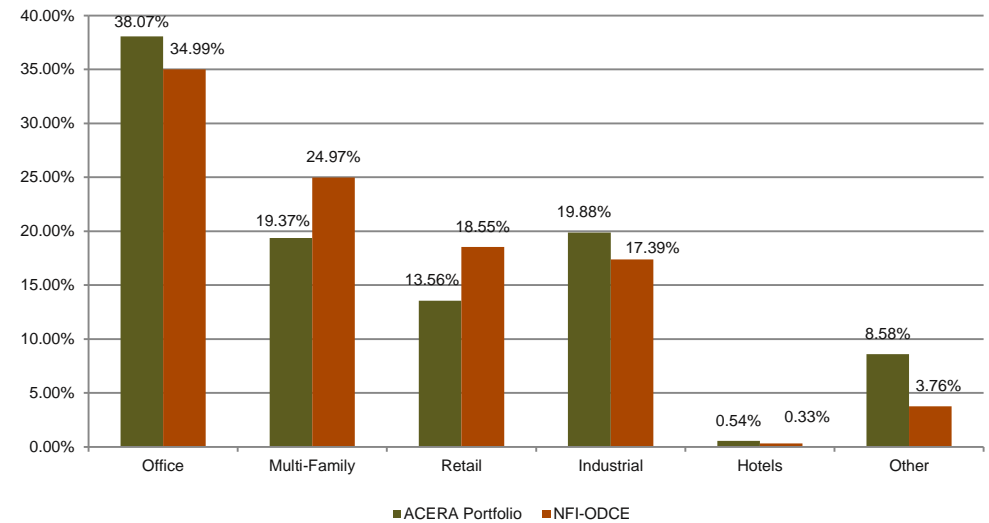
## Diversification – Total Portfolio (excluding Oakland Building)

- The ACERA Portfolio is well diversified by both property type and region.

Geographic Diversification



Property Type Diversification



## Debt Compliance

- The ACERA Strategic Plan limits leverage to 40.0% at the Portfolio level. As of September 30, 2018, the loan-to-value (“LTV”) ratio of the Portfolio was 24.48%.

# ACERA Real Estate Portfolio Snapshot – 3Q2018

Portfolio Composition (\$)									
Total Plan Assets	Allocation		Market Value		Commitments		Remaining Allocation		
8,278,112,157	662,248,973	8.00%	555,938,275	6.72%	92,235,051	1.11%	106,310,697	1.28%	

Performance Summary	Quarter (%)		1 Year		3 Years		5 Years		10 Years	
	TGRS	TNET	TGRS	TNET	TGRS	TNET	TGRS	TNET	TGRS	TNET
ACERA	2.06%	1.81%	10.10%	8.74%	10.44%	9.31%	12.26%	11.14%	6.03%	5.01%
NFI-ODCE	1.87%	1.87%	7.71%	7.71%	7.83%	7.83%	9.71%	9.71%	4.62%	4.62%

Funding Status (\$)	Investment Vintage Year	Commitment Amount	Funded Amount	Unfunded Amount	Capital Returned	Market Value	Market Value (%)	Market Value + Unfunded Commitments (%)	Net IRR	Equity Multiple
Core Portfolio										
ACERA Oakland Building Portfolio	2001	31,700,000	31,700,000	0	40,945,934	68,829,981	12.38%	10.62%	9.47%	1.66x
<b>Core Portfolio Value Added Portfolio</b>	<b>1986</b>	<b>331,700,000</b>	<b>331,700,000</b>	<b>5,000,000</b>	<b>117,200,644</b>	<b>453,902,464</b>	<b>81.65%</b>	<b>70.80%</b>		<b>1.48x</b>
<b>Value Added Portfolio</b>	<b>1987</b>	<b>247,748,644</b>	<b>160,513,593</b>	<b>87,235,051</b>	<b>78,741,638</b>	<b>102,035,811</b>	<b>18.35%</b>	<b>29.20%</b>		<b>1.30x</b>
<b>Total Current Portfolio</b>										
<b>ALAMEDA County Employees' Retirement Association</b>	1986	579,448,644	492,213,593	92,235,051	195,942,282	555,938,275	100%	100%		

Quarterly Cash Flow Activity (\$)	Beginning Market Value	Contributions	Net Operating Income	Manager Fees	Appreciation	Distributions	Ending Market Value	LTV
Core Portfolio								
ACERA Oakland Building Portfolio	68,535,800	\$183,942	744,005	83,766	0	550,000	68,829,981	0.00%
<b>Core Portfolio Value Added Portfolio</b>	<b>435,282,031</b>	<b>15,183,942</b>	<b>4,963,639</b>	<b>956,984</b>	<b>4,590,823</b>	<b>5,160,986</b>	<b>453,902,465</b>	<b>23.27%</b>
<b>Value Added Portfolio</b>	<b>99,566,865</b>	<b>5,324,899</b>	<b>690,726</b>	<b>411,869</b>	<b>1,315,059</b>	<b>4,449,871</b>	<b>102,035,809</b>	<b>29.41%</b>
<b>Total Current Portfolio</b>	<b>534,848,896</b>	<b>20,508,841</b>	<b>5,654,365</b>	<b>1,368,853</b>	<b>5,905,882</b>	<b>9,610,857</b>	<b>555,938,274</b>	<b>24.48%</b>

# ACERA Property Type Diversification – 3Q2018

Property Type Diversification	Office	Multi-Family	Retail	Industrial	Hotel	Other
<b>Core Portfolio</b>						
ACERA Oakland Building Portfolio	100.00%	0.00%	0.00%	0.00%	0.00%	0.00%
<b>Core Portfolio</b>	<b>40.12%</b>	<b>14.18%</b>	<b>14.21%</b>	<b>23.15%</b>	<b>0.30%</b>	<b>8.04%</b>
<b>Value Added Portfolio</b>						
<b>Value Added Portfolio</b>	<b>28.75%</b>	<b>42.95%</b>	<b>10.58%</b>	<b>5.00%</b>	<b>1.60%</b>	<b>11.12%</b>
<b>Total Current Portfolio</b>						
<b>ACERA Portfolio w/o Oakland Bldg.</b>	<b>29.27%</b>	<b>22.11%</b>	<b>15.48%</b>	<b>22.70%</b>	<b>0.61%</b>	<b>9.81%</b>
<b>ACERA Portfolio with Oakland Bldg.</b>	<b>38.07%</b>	<b>19.37%</b>	<b>13.56%</b>	<b>19.88%</b>	<b>0.54%</b>	<b>8.59%</b>
<b>ODCE Index</b>	<b>34.99%</b>	<b>24.97%</b>	<b>18.55%</b>	<b>17.39%</b>	<b>0.33%</b>	<b>3.76%</b>

Geographic Diversification	Northeast	Midwest	Southeast	Southwest	EN Central	WN Central	Mountain	Pacific	Other
<b>Core Portfolio</b>									
ACERA Oakland Building Portfolio	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	0.00%
<b>Core Portfolio</b>	<b>17.61%</b>	<b>7.98%</b>	<b>9.72%</b>	<b>8.93%</b>	<b>7.55%</b>	<b>0.70%</b>	<b>4.80%</b>	<b>42.70%</b>	<b>0.00%</b>
<b>Value Added Portfolio</b>									
<b>Value Added Portfolio</b>	<b>20.63%</b>	<b>12.82%</b>	<b>9.13%</b>	<b>13.13%</b>	<b>5.60%</b>	<b>0.00%</b>	<b>1.84%</b>	<b>31.96%</b>	<b>4.89%</b>
<b>Total Current Portfolio</b>									
<b>ACERA Portfolio w/o Oakland Bldg.</b>	<b>20.73%</b>	<b>10.11%</b>	<b>10.98%</b>	<b>11.07%</b>	<b>8.22%</b>	<b>0.65%</b>	<b>4.88%</b>	<b>32.35%</b>	<b>1.01%</b>
<b>ACERA Portfolio with Oakland Bldg.</b>	<b>18.16%</b>	<b>8.85%</b>	<b>9.62%</b>	<b>9.69%</b>	<b>7.20%</b>	<b>0.57%</b>	<b>4.27%</b>	<b>40.76%</b>	<b>0.88%</b>
<b>ODCE Index</b>	<b>22.86%</b>	<b>8.96%</b>	<b>9.45%</b>	<b>9.18%</b>	<b>7.68%</b>	<b>1.34%</b>	<b>5.07%</b>	<b>35.46%</b>	<b>0.00%</b>

# Detailed Returns

	Quarter			1 Year			3 Year			5 Year			NET IRR	Equity Mult.
	INC	APP	TNET	INC	APP	TNET	INC	APP	TNET	INC	APP	TNET		
<b>Core Portfolio</b>														
Oakland Building Portfolio	0.96%	0.00%	0.96%	3.10%	3.89%	7.08%	3.55%	13.23%	17.14%	4.86%	11.00%	16.29%	9.47%	1.66x
<b>Core Portfolio</b>	<b>0.89%</b>	<b>1.02%</b>	<b>1.92%</b>	<b>3.29%</b>	<b>5.69%</b>	<b>9.12%</b>	<b>3.61%</b>	<b>6.09%</b>	<b>9.86%</b>	<b>4.04%</b>	<b>7.12%</b>	<b>11.37%</b>		<b>1.48x</b>
<b>Core Portfolio w/o Oakland Building</b>	<b>0.88%</b>	<b>1.21%</b>	<b>2.09%</b>	<b>3.32%</b>	<b>6.02%</b>	<b>9.49%</b>	<b>3.62%</b>	<b>4.94%</b>	<b>8.69%</b>	<b>3.92%</b>	<b>6.50%</b>	<b>10.60%</b>		
<b>NFI-ODCE Value Weight Net</b>	<b>0.82%</b>	<b>1.05%</b>	<b>1.87%</b>	<b>3.34%</b>	<b>4.28%</b>	<b>7.71%</b>	<b>3.46%</b>	<b>4.26%</b>	<b>7.83%</b>	<b>3.67%</b>	<b>5.88%</b>	<b>9.71%</b>		
<b>Value Added Portfolio</b>														
Value Added Portfolio	0.30%	1.04%	0.92%	1.08%	5.23%	6.35%	2.50%	5.01%	7.60%	3.38%	6.53%	10.07%		1.30x
<b>NFI-OE Value Weight Net</b>	<b>0.82%</b>	<b>1.21%</b>	<b>2.02%</b>	<b>3.35%</b>	<b>4.98%</b>	<b>8.45%</b>	<b>3.49%</b>	<b>4.89%</b>	<b>8.51%</b>	<b>3.67%</b>	<b>6.47%</b>	<b>10.33%</b>		
<b>Total Current Portfolio</b>														
	0.76%	1.17%	1.93%	2.87%	5.98%	8.98%	3.32%	4.94%	8.38%	3.79%	6.56%	10.54%		
<b>ACERA Portfolio w/o Oakland Bldg.</b>														
	0.78%	1.03%	1.81%	2.90%	5.71%	8.74%	3.35%	5.81%	9.31%	3.89%	7.05%	11.14%		
<b>ACERA Portfolio with Oakland Bldg.</b>														
<b>NFI-ODCE Value Weight Net</b>	<b>0.82%</b>	<b>1.05%</b>	<b>1.87%</b>	<b>3.34%</b>	<b>4.28%</b>	<b>7.71%</b>	<b>3.46%</b>	<b>4.26%</b>	<b>7.83%</b>	<b>3.67%</b>	<b>5.88%</b>	<b>9.71%</b>		

# Definitions

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## Performance

Capitalization rate: Commonly known as cap rate, is a rate that helps in evaluating a real estate investment.  $\text{Cap rate} = \text{Net operating income} / \text{Current market value (Sale price) of the asset}$ .

Net operating income: Commonly known as NOI, is the annual income generated by an income-producing property, taking into account all income collected from operations, and deducting all expenses incurred from operations.

Real Estate Appraisal: The act of estimating the value of a property. A real estate appraisal may take into account the quality of the property, values of surrounding properties, and market conditions in the area.

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 an investment's value based on internal or third party appraisal, recognition of capital expenditures which did not add value, 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: The total net return for an investment or portfolio over the period of time the client has had 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.

# Definitions

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## **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.

**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, distressed properties.

# Definitions

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## Indices

Stylized Index: Weights the various style group participants so as to be comparable to the investor's portfolio holdings for each period.

Open-End Diversified Core Equity Index ("ODCE"): A core index that includes only open-end diversified core strategy funds with at least 95% of their investments in U.S. markets. The ODCE is the first of the NCREIF Fund Database products, created in May 2005, and is an index of investment returns reporting on both a historical and current basis (24 active vehicles). The ODCE Index is capitalization-weighted and is reported gross and net of fees. Measurement is time-weighted and includes leverage.

NCREIF Fund Index Open-End Index ("OE"): NFI-OE is an aggregate of open-end, commingled equity real estate funds with diverse investment strategies. Funds comprising NFI-OE have varied concentrations of sector and region, core and non-core, leverage, and life cycle.

NAREIT Equity Index: This is an index of Equity Real Estate Investment Trust returns reflecting the stock value changes of REIT issues as determined through public market transactions.



# Definitions

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## **Cash Flow Statements**

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.

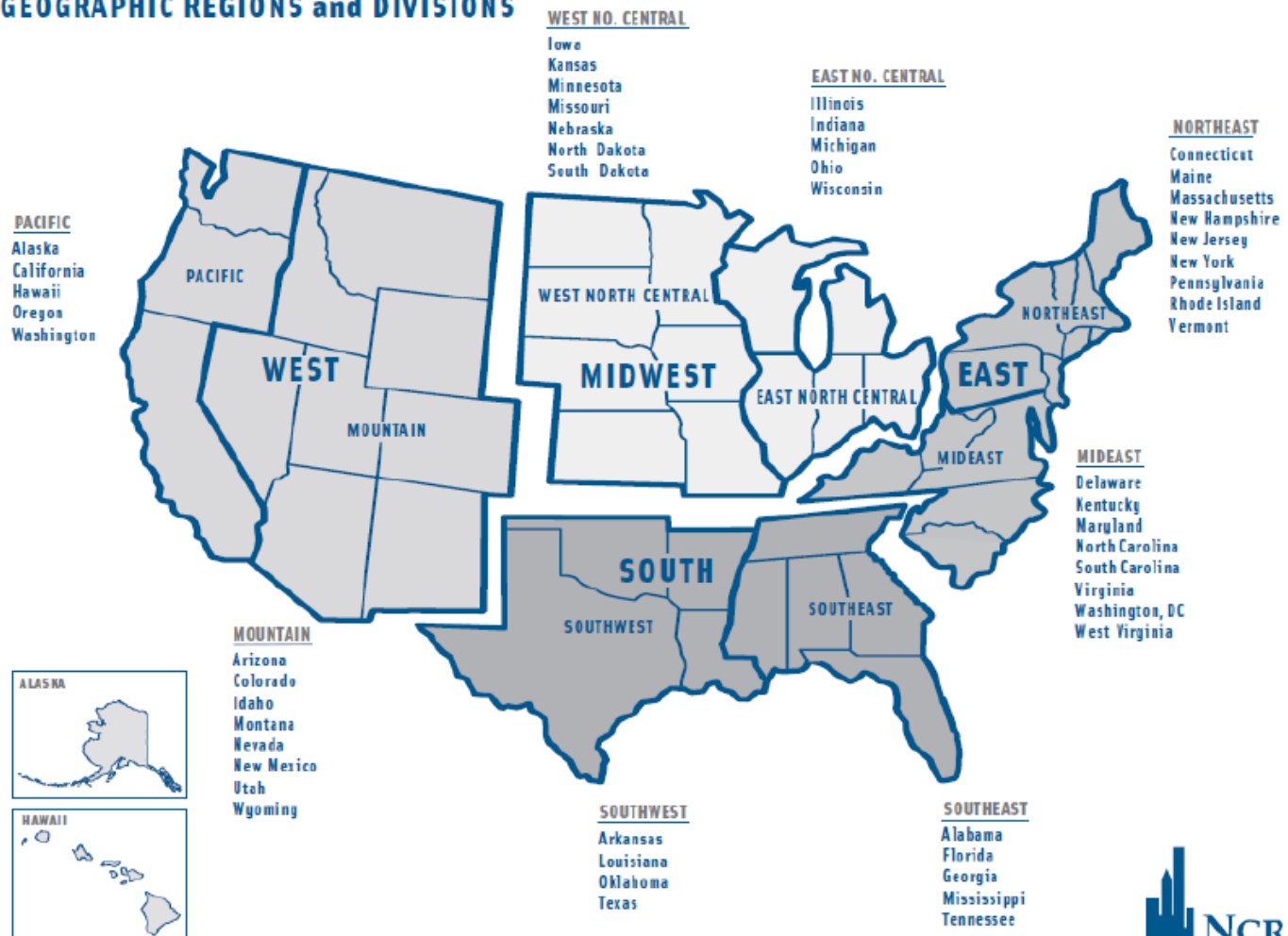
Ending Market Value: The value of an investment as determined by actual sales dollars invested and withdrawn plus the effects of appreciation and reinvestment; market value is equal to the ending cumulative balance of the cash flow statement (NAV).

Unfunded Commitments: Capital allocated to managers which has not yet been 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.

# NCREIF Region Map

## GEOGRAPHIC REGIONS and DIVISIONS





**INVESTMENT MANAGER,  
CONSULTANT, AND CUSTODIAN FEES**  
For Quarter Ending September 30, 2018

**INVESTMENT NET ASSET VALUE AND INVESTMENT MANAGER FEES  
FOR THE QUARTER ENDED SEPT 30, 2018**

For the Quarter Ended Sept 30, 2018	NAV <sup>2</sup> (\$) As of 3/31/18	Q1 - Total Fees (\$)	bps of NAV	NAV <sup>2</sup> (\$) As of 6/30/18	Q2 - Total Fees (\$)	bps of NAV	NAV <sup>2</sup> (\$) As of 9/30/18	Q3 - Total Fees (\$)	bps of NAV
Name of Fund									
<b>Domestic Equity<sup>1</sup></b>									
Bivium Capital Partners (HI3A)	79,905,881	131,236	16.42	67,485,186	125,055	18.53	72,672,016	115,874	15.94
BlackRock Russell 1000 Index Fund (HIC4)*	1,774,920,976	-	N/A	1,824,129,693	38,159	0.21	1,972,945,844	38,159	0.19
Kennedy Capital Management (HI3X)	135,861,165	506,813	37.30	124,487,689	271,694	21.82	123,810,563	271,694	21.94
Mellon Capital Mgmt (HI1J)*	-	33,742	N/A	-	-	N/A	N/A	N/A	N/A
NCG Small Cap (HI2J)	135,233,140	433,794	32.08	121,497,564	305,939	25.18	133,188,323	298,857	22.44
Pzena (HI2O)	255,502,657	506,655	19.83	217,989,398	279,355	12.82	200,644,919	254,853	12.70
Trust Company of the West (HI1F)	265,430,392	341,158	12.85	215,194,885	230,241	10.70	204,623,008	221,625	10.83
Total Domestic Equity	2,646,854,211	1,953,397	7.38	2,570,784,415	1,250,443	4.86	2,707,884,673	1,201,062	4.44
<b>International Equity<sup>1</sup></b>									
AQR Capital Mgmt (HI2Y)	498,904,298	645,031	12.93	425,731,537	616,361	14.48	427,242,317	553,204	12.95
Capital Group (HI1M) <sup>6</sup>	1,000,586,870	1,621,431	16.20	860,777,274	1,769,058	20.55	854,277,257	1,317,526	15.42
Franklin Templeton (HI4B)	269,917,462	406,183	15.05	214,133,364	388,876	18.16	208,654,670	337,213	16.16
Mondrian (HI2L) <sup>3</sup>	696,303,125	614,797	8.83	649,853,808	614,797	9.46	659,801,854	579,376	8.78
Total International Equity	2,465,711,755	3,287,442	13.33	2,150,495,983	3,389,092	15.76	2,149,976,098	2,787,320	12.96
<b>Fixed Income<sup>1</sup></b>									
Baird Advisors (HI2G)	663,746,512	133,730	2.01	662,613,858	134,889	2.04	663,436,868	136,714	2.06
Brandywine Global Investment Mgmt (HI2H)	352,081,970	239,886	6.81	328,219,977	236,169	7.20	326,357,518	231,685	7.10
Loomis, Sayles & Company (HI1B)	334,073,610	264,746	7.92	331,289,061	266,411	8.04	333,915,309	266,411	7.98
Total Fixed Income	1,349,902,092	638,362	4.73	1,322,122,896	637,468	4.82	1,323,709,695	634,809	4.80
<b>Real Estate<sup>5,6</sup></b>									
Total Real Estate	523,507,193	1,761,289	33.64	535,006,653	1,461,928	27.33	555,938,274	1,522,603	27.39
<b>Private Equity<sup>4,5,6</sup></b>									
Total Private Equity	476,594,593	5,934,701	124.52	469,728,942	5,855,052	124.65	545,798,872	6,047,745	110.81
<b>Absolute Return<sup>5,6</sup></b>									
Total Absolute Return	349,640,146	869,460	24.87	612,680,002	943,601	15.40	721,056,265	1,699,654	23.57
<b>Real Assets<sup>4,5,6</sup></b>									
Total Real Assets	307,221,797	939,385	30.58	319,163,581	1,175,693	36.84	316,691,355	1,181,824	37.32
<b>Cash</b>	20,621,782			137,245,441			15,024,658		
<b>TOTAL<sup>7</sup></b>	<b>8,140,053,569</b>	<b>15,384,036</b>	<b>18.90</b>	<b>8,117,227,914</b>	<b>14,713,278</b>	<b>18.13</b>	<b>8,336,079,891</b>	<b>15,075,017</b>	<b>18.08</b>

Notes:

\*Assets were transitioned from Mellon Capital and contributed to the BlackRock Russell 1000 Index Fund on 4/5/18.

- Domestic, International Equity, and Fixed Income managers' fees are based on staff validated manager invoices.
- NAVs may use estimates at the time of this report's production.
- Some accounts contain submanaged funds; the fees shown include all assets in the account.
- Sometimes fees may be estimates. According to the Limited Partnership Agreements, management fees are based on committed amounts and/or assets under management.
- Detailed records regarding these investments of public pension funds are exempt from disclosure under California Government Code Section 6254.26
- Fees may include management, incentive fees, and expenses as applicable.
- Previous quarter's amounts may change as estimates are true up to actual amounts. Each true up is made using the most recent information.

**CONSULTANT/CUSTODIAN FEES  
FOR THE QUARTER ENDED SEPT 30, 2018**

	<b>Q1 - Fees (\$)</b>	<b>Q2 - Fees (\$)</b>	<b>Q3 - Fees (\$)</b>
<b>Consultant</b>			
Doug McCalla	11,917	11,917	11,917
Callan Associates	56,250	56,250	56,250
Verus Advisory, Inc. <sup>1</sup>	165,000	165,000	165,000
Institutional Shareholders Services	13,575	13,575	13,575
Zeno Consulting Group	11,250	11,250	11,250
Sub-total Consultant	257,992	257,992	257,992
<b>Custodian</b>			
State Street Bank	136,462	136,462	136,462
<b>TOTAL OF CONSULTANT / CUSTODIAN FEES <sup>2</sup></b>	<b>394,454</b>	<b>394,454</b>	<b>394,454</b>

Notes:

1. Strategic Investment Solutions merged with Verus effective Jan. 1, 2016
2. Previous quarter's amounts may change as estimates are tried up to actual amounts. Each true up is made using the most recent information.



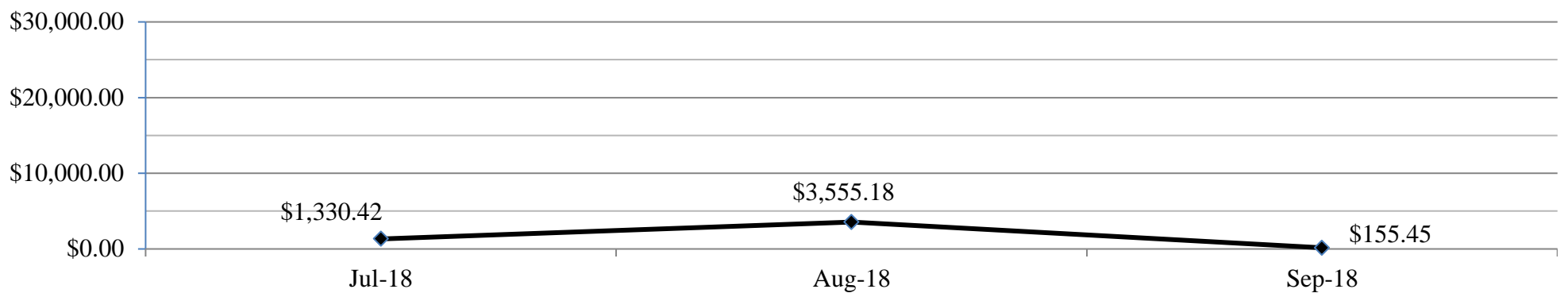
# Alameda County Employees' Retirement Association

## Third Quarter 2018 Directed Brokerage Report

### Quarterly Commentary

In 3Q18, the total recaptured dollar amount for ACERA's Directed Brokerage (DB) Program was \$5,041.05. Since inception<sup>1</sup>, ACERA has recaptured \$2,004,762.33. For the quarter, Bivium-Alta directed the highest percentage (52.1%) of trading volume and TCW generated the largest directed commission dollar amount (\$3,409.50). Weeden & Co. L.P. received the majority of ACERA's directed trades (55.8%) among all correspondent brokers within the network. The program continues to operate in compliance with ACERA's DB Policy.

### Monthly Recaptured



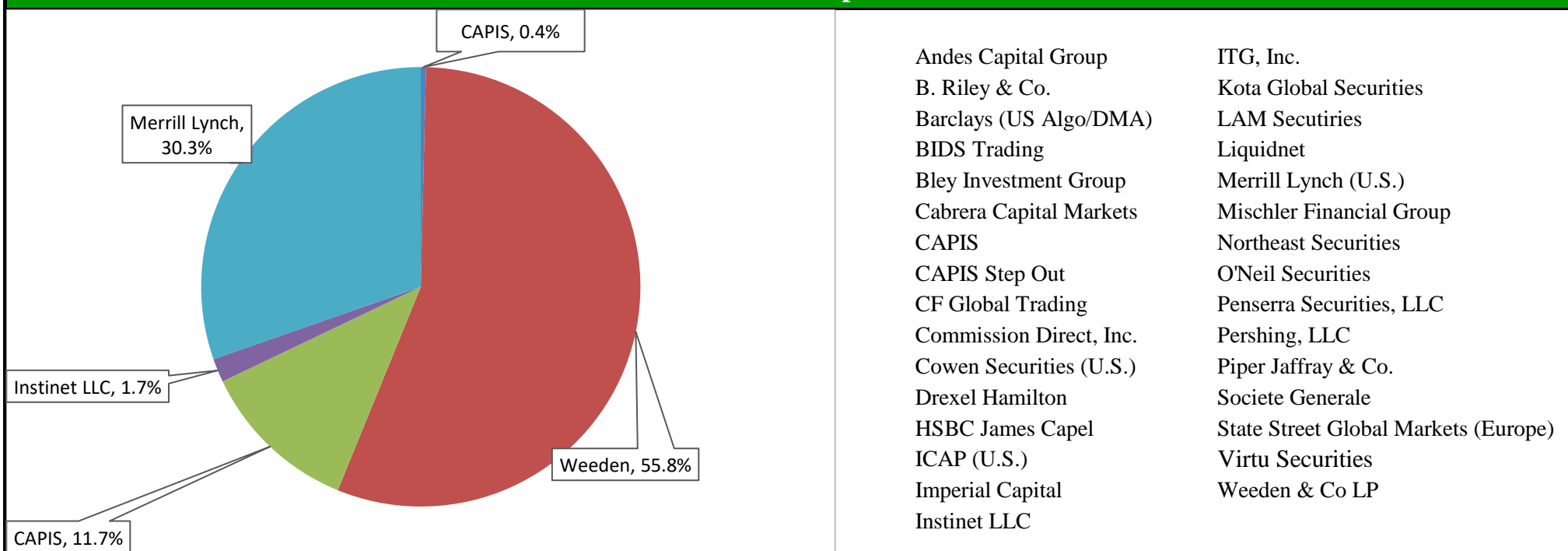
### Directed Commission \$<sup>2</sup>

Manager	3Q18	YTD
Bivium-Alta	70.90	345.50
Capital Group	10,482.00	15,766.11
Kennedy	0.00	47,590.79
NCG Small Cap	2,206.40	7,064.67
Pzena	0.00	45,033.28
TCW	6,028.04	11,783.48
<b>Total</b>	<b>\$18,787.34</b>	<b>\$127,583.83</b>

### Directed %<sup>3</sup>



### Directed % to Correspondent Brokers<sup>4</sup>



- |                         |                                      |
|-------------------------|--------------------------------------|
| Andes Capital Group     | ITG, Inc.                            |
| B. Riley & Co.          | Kota Global Securities               |
| Barclays (US Algo/DMA)  | LAM Securities                       |
| BIDS Trading            | Liquidnet                            |
| Bley Investment Group   | Merrill Lynch (U.S.)                 |
| Cabrera Capital Markets | Mischler Financial Group             |
| CAPIS                   | Northeast Securities                 |
| CAPIS Step Out          | O'Neil Securities                    |
| CF Global Trading       | Penserra Securities, LLC             |
| Commission Direct, Inc. | Pershing, LLC                        |
| Cowen Securities (U.S.) | Piper Jaffray & Co.                  |
| Drexel Hamilton         | Societe Generale                     |
| HSBC James Capel        | State Street Global Markets (Europe) |
| ICAP (U.S.)             | Virtu Securities                     |
| Imperial Capital        | Weeden & Co LP                       |
| Instinet LLC            |                                      |


**Brokers are selected at the discretion of the Investment Managers, pursuant to Best Execution and ACERA's DB Policy.**

1. ACERA's DB Program began in September 2006. AQR Int'l, Mondrian, Bivium Cupps & Vulcan do not participate in Commission Recapture; Mellon and Templeton are not SMA.  
 2. Data provided by CAPIS. Directed Commission \$ - Dollar amount of commissions from directed trades - this amount is split among ACERA (26.83% for 3Q18), CAPIS, & the Correspondent Brokers.  
 3. Data provided by Zeno Consulting Group (Zeno). Directed % - Calculated by dividing Manager's directed trading volume by its total trading volume and compared to its assigned target. Target percentages are ranges (e.g. up to 30% for Pzena).  
 4. Data provided by CAPIS.



**ALAMEDA COUNTY EMPLOYEES' RETIREMENT ASSOCIATION**

475 14th Street, Suite 1000, Oakland, CA 94612    800/838-1932    510/628-3000    fax: 510/268-9574    www.acera.org

TO:            Members of the Investment Committee  
FROM:        Thomas Taylor, Investment Officer   
DATE:        December 12, 2018  
SUBJECT:     Summary of Rebalancing and Cash Activities Completed in 3Q2018

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**Recommendation:**

Not Applicable – This is an information item.

**Background/Discussion:**

1. There was no action required to rebalance the Total Fund for the quarter ending September 30, 2018. In accordance with ACERA's General Investment Guidelines, Policies and Procedures, Section V: Asset Allocation and Rebalancing, Schedule IA: Asset Allocation Targets, and Schedule IC: Asset Allocation Portfolio Rebalancing, there were no rebalancing signals received during 3Q2018 as all traditionally managed accounts remained within their respective target ranges.
2. Regarding significant cash-flows for 3Q2018, Staff implemented the following changes to manage excess cash, make the supplemental month-end retiree benefits and administrative payroll, and to meet the capital calls and provide operating funds:
  - a. **Month-end payroll:** Staff withdrew a net \$49.5 million from the Total Fund to supplement for month-end payroll for the three-months ending September 30, 2018. Staff wired out \$20.5M in July, \$17.0M in August, and \$17.5M in September to ACERA'S Wells Fargo Bank account. Fiscal Services wired-in \$5.5M from Wells Fargo Bank back to State Street Bank (#H11A).
  - b. **Total Fund Drawdowns<sup>1</sup>:** To meet fund operating cash requirements (capital calls, new investment, month-end payroll), Staff withdrew \$31.0M on 8/28/2018 and \$19.0M from the ACERA's traditional active equity managers (TCW/Pzena) to fund capital needs.
  - c. **Capital Calls and Distributions:** In general, aggregated wire-payments of \$155.1M were made to meet capital calls to ACERA's Private Equity, Absolute Return, Real Assets, and Real Estate funds and pay quarterly management fees. Of the \$155.1M, \$113.0M went to fund the second and third tranche of the CFM ISD Fund LLC. Cash and in-kind distributions and

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<sup>1</sup> An interim change to normal drawdown of capital to fund and meet various obligations, Staff, with the concurrences of the Rebalancing Consultant and Verus, withdraws from the most overweight active managed account (vs. index account) in the most overweight of the traditional asset classes. This will continue until all traditional accounts are at or close to target. For example, in the U.S. Equity asset class, the Russell 1000 moves up to 80% from the 70% current allocation.

recyclable capital received from the same investments were \$26.8M. This dollar amount does not include other incidental income<sup>2</sup>.

Reporting of rebalancing activities will continue to be submitted to the Investment Committee on a quarterly basis.

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<sup>2</sup> Securities Lending Income (\$421.3K), Commission Recapture Income (\$18.8K), and Securities Litigation Income (\$885.6K), totaled \$1.32 million. Incremental income does not include dividend and interest income from traditional managed accounts, which are reinvested.

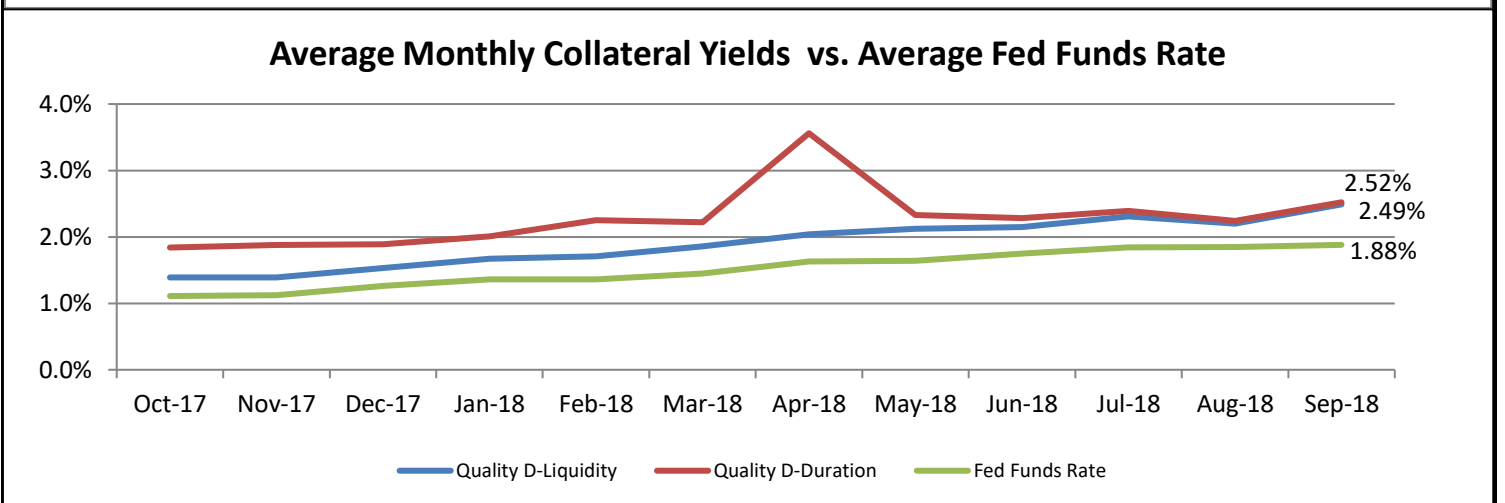
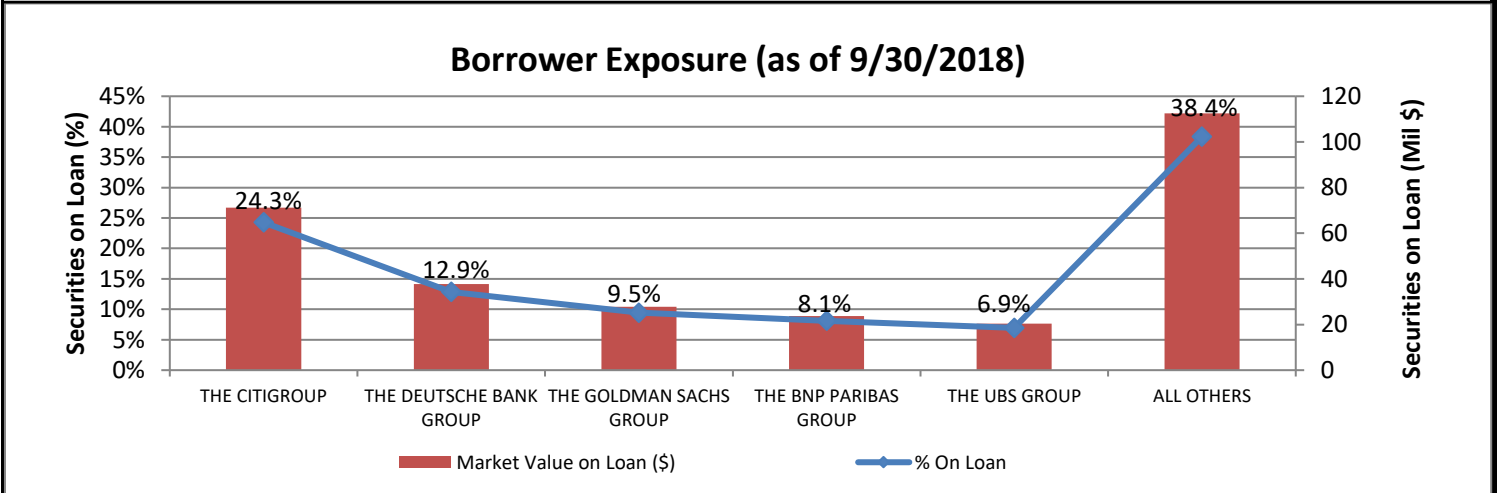
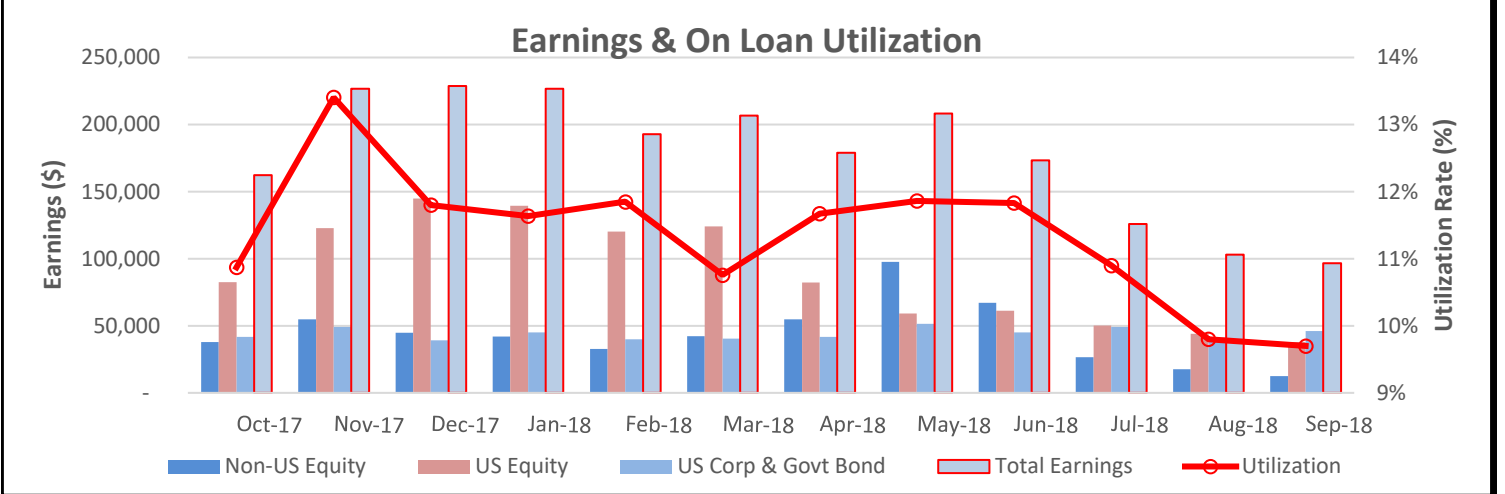


# Alameda County Employees' Retirement Association

## 3rd Quarter 2018 Securities Lending Report

### Quarterly Summary

In 3Q2018, ACERA's earnings from Securities Lending activities were \$325,306.82. US Corporate and Government Bonds generated the highest earnings of \$136,343.73. As of September 30, 2018, the average market value of securities on loan was \$289,429,552.00. Citigroup was the largest borrower of ACERA's securities with 24.3% as of the last day of the quarter.



**Notes:**

- (1) Quality D Liquidity and Quality D Duration Funds are managed by an affiliate of State Street Bank (SSB); these funds are common pools in which many securities lending clients of SSB invest their cash collateral generated from their security lending activities. ACERA invests the cash collateral received from its security lending activities into Quality D Liquidity and Quality D Duration Funds. As of 9/28/2018, ACERA's combined NAV per unit of the Quality D Liquidity (1.0003) and Quality D Duration Funds (0.9464) was \$1.0001. As of 9/28/2018 Quality D Liquidity had 244,679,426.84 units and Quality D Duration had 1,073,474.56 units.
- (2) Data represents past performance and is not necessarily indicative of future results.
- (3) Data Source: my.statestreet.com and Securities Finance Business Intelligence

*Securities Lending Report Provided by Staff*

ICM 12/12/2018



**ALAMEDA COUNTY EMPLOYEES' RETIREMENT ASSOCIATION**

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TO:            Members of the Investment Committee

FROM:        Agnes Ducanes – Administrative Specialist II *Aducanes*

DATE:        December 12, 2018

SUBJECT:    Quarterly report on ACERA's Investment Products and Services  
Introductions (IPSI) Program

In the third quarter of 2018, Staff received 28 investment products and services inquiries from prospective providers. We met with 7 managers who presented 7 Funds through the IPSI process. The purpose of IPSI is to provide prospective vendors an opportunity to gain a better understanding of ACERA's investment objectives and for Staff to learn about the vendors' investment products/services through face-to-face meetings, teleconferences, or video conferences. Staff has designated the morning of the third Wednesday of every month as ACERA's IPSI day. Each introductory session is approximately 45 minutes.

Below please find a chart depicting the types of IPSI sessions that were held in the third quarter of 2018.

<b>ASSET CLASS</b>	<b>Q1 '18</b>	<b>Q2 '18</b>	<b>Q3 '18</b>	<b>Q4'18</b>	<b>TOTAL</b>
<b>U.S. Equities</b>	0	6	4	0	10
<b>Int'l Equities</b>	0	1	0	0	1
<b>Fixed Income</b>	0	0	0	0	0
<b>Real Estate</b>	0	0	0	0	0
<b>Private Equities</b>	0	0	2	0	2
<b>Absolute Return</b>	1	0	0	0	1
<b>Real Assets</b>	0	1	1	0	2
<b>Other Services</b>	0	0	0	0	0
<b>TOTAL:</b>	1	8	7	0	16



## Updated Investment Committee Workplan for 2018

December 12, 2018

<b>Action Items</b>	<b>Information Items</b>
<p>January 10</p> <ol style="list-style-type: none"> <li>1. Interview of ACERA’s General Investment Consultant Finalists and Possible Motion by the Investment Committee to Recommend one Finalist to the Board</li> <li>2. Discussion of and Possible Motion to Recommend to the Board to Adopt an up to \$44 million Investment in Sycamore Partners III, L.P. as part of ACERA’s Private Equity Investment Portfolio – Buyouts</li> </ol>	<ol style="list-style-type: none"> <li>1. Proposed Investment Committee Workplan for 2018</li> </ol>
<p>February 14</p> <ol style="list-style-type: none"> <li>1. Discussion of and Possible Motion to Recommend to the Board to Adopt an up to \$170 million Investment in the AQR Global Stock Selection (GSS) Institutional Fund L.P. as a part of ACERA’s Absolute Return Portfolio – Other Alternatives/Oppportunistic</li> </ol>	<ol style="list-style-type: none"> <li>1. 2018 Capital Market Assumptions</li> <li>2. Review of Capital Group</li> <li>3. Review of Mondrian Investment Partners</li> <li>4. Proposed Investment Committee Workplan 2018</li> </ol>
<p>March 14</p> <ol style="list-style-type: none"> <li>1. Discussion of and Possible Motion to Recommend to the Board to Adopt a \$20 million Investment in Clarion LIT as part of ACERA’s Real Estate Portfolio – Value Added</li> <li>2. Discussion of and Possible Motion to Recommend to the Board to Adopt a \$20 million Investment in Heitman Value Partners IV, L.P. as part of ACERA’s Real Estate Portfolio – Value Added</li> <li>3. Discussion of and Possible Motion to Recommend to the Board to Adopt an up to \$10 million Investments in Khosla Ventures VI, L.P. and Khosla Ventures Seed D, L.P. as part of ACERA’s Private Equities Portfolio – Venture Capital</li> </ol>	<ol style="list-style-type: none"> <li>1. Review of State Street Bank and Trust Company – Custodian Bank</li> <li>2. Quarterly Performance Review for the Fourth Quarter of 2017 – Equities and Fixed Income</li> <li>3. Quarterly Performance Review for the Fourth Quarter of 2017 – Real Estate</li> <li>4. Oral Update on Implementation of New Manager Structure</li> <li>5. <i>Report of ACERA’s Proxy Voting Activities in 2017</i></li> <li>6. <i>Quarterly report of ACERA’s investment manager, consultant, and custodian bank fees for the fourth quarter of 2017</i></li> <li>7. <i>Quarterly report on ACERA’s rebalancing activities for the fourth quarter of 2017</i></li> <li>8. <i>Quarterly report on ACERA’s securities lending activities for the fourth quarter of 2017</i></li> </ol>



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December 12, 2018

Action Items	Information Items
	<ul style="list-style-type: none"> <li>9. <i>Quarterly report on ACERA's Directed Brokerage (DB) Program for the fourth quarter of 2017</i></li> <li>10. <i>Quarterly report on Investment Products and Services Introduction (IPSI) for the fourth quarter of 2017</i></li> <li>11. <i>Updated Investment Committee Workplan 2018</i></li> </ul>
<p>April 11</p> <ul style="list-style-type: none"> <li>1. Discussion of and Possible Motion to Recommend to the Board that it make an additional investment of \$178 million in the Lighthouse Strategic Alpha Fund as part of ACERA's Absolute Return Portfolio – Funds of Hedge Funds</li> <li>2. Discussion of and Possible Motion to Recommend to the Board that it adopt a \$25 million investment in AEW Partners Real Estate Fund VIII as part of ACERA's Real Estate Portfolio - Opportunistic</li> <li>3. Discussion of and Possible Motion to Recommend to the Board to Approve the Finalists for ACERA's Emerging Markets Manager Search – International Equities</li> </ul>	<ul style="list-style-type: none"> <li>1. Education Session: Environmental, Social and Governance (ESG) – Part 1</li> </ul>
<p>May 9</p>	<ul style="list-style-type: none"> <li>1. Informational presentation related to Investment in the CFM Institutional Systematic Diversified Fund as part of ACERA's Absolute Return Portfolio – Alternative Premia Strategies</li> <li>2. Report on ACERA's U.S. Small Cap Growth Manager Search – Domestic Equities</li> <li>3. Update on Transition Management – Domestic Equities</li> </ul>



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<p>June 13</p>	<ol style="list-style-type: none"> <li>1. Interview of the Finalists for ACERA’s Emerging Markets Manager Search – International Equities – and Possible Motion to Recommend one Finalist to the Board</li> <li>2. Discussion of and Possible Motion to Recommend that the Board Approve an up to \$34 million Investment in the CapVest Equity Partners IV as part of ACERA’s Private Equity Portfolio – Buyout</li> <li>3. Discussion of and Possible Motion to Recommend that the Board approve an 18-month Extension of the Custody Contract with State Street Bank and Trust Company</li> </ol>	<ol style="list-style-type: none"> <li>1. Quarterly Performance Review for the First Quarter of 2018 – Equities and Fixed Income</li> <li>2. Semiannual Performance Review for the Period Ending December 31, 2017 – Private Equities</li> <li>3. Semiannual Performance Review for the Period Ending December 31, 2017 – Absolute Return</li> <li>4. Semiannual Performance Review for the Period Ending December 31, 2017 – Real Assets</li> <li>5. Quarterly Performance Review for the First Quarter of 2018 – Real Estate</li> <li>6. <i>Quarterly report of ACERA’s investment manager, consultant, and custodian fees for the first quarter of 2018</i></li> <li>7. <i>Quarterly report on ACERA’s rebalancing activities for the first quarter of 2018</i></li> <li>8. <i>Quarterly report on ACERA’s securities lending activities for the first quarter of 2018</i></li> <li>9. <i>Quarterly report on ACERA’s Directed Brokerage (DB) Program for the first quarter of 2018</i></li> <li>10. <i>Quarterly report on Investment Products and Services Introduction (IPSI) for the first quarter of 2018</i></li> <li>11. <i>Updated Investment Committee Workplan 2018</i></li> </ol>
<p>July 11</p>	<ol style="list-style-type: none"> <li>1. Discussion of and Possible Motion to Adopt the proposed timeline, search criteria, and evaluation matrix for ACERA’s U.S. Small Cap Growth Manager Search – Domestic Equities</li> <li>2. Discussion of and Possible Motion to Recommend to the Board to Approve an Investment in ACERA’s Real Estate Portfolio</li> </ol>	<ol style="list-style-type: none"> <li>1. Discussion of ACERA’s International Equities Manager Structure and Emerging Investment Manager Search</li> </ol>



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December 12, 2018

	<b>Action Items</b>	<b>Information Items</b>
<p>August 8</p>	<ol style="list-style-type: none"> <li>1. Discussion of and Possible Motion to Recommend to the Board to Approve an up to \$34 million Investment in Audax Private Equity Fund VI as part of ACERA's Private Equity Portfolio – Buyout</li> <li>2. Discussion of and Possible to Recommend Amending the International Equity Manager Structure and Appointing Bivium to Manage a New Emerging Investment Manager Mandate - International Equity</li> </ol>	<ol style="list-style-type: none"> <li>1. Discussion of Proposed Revisions to ACERA's General Investment Guidelines, Policies and Procedures</li> </ol>
<p>September 12</p>	<ol style="list-style-type: none"> <li>1. Discussion of and Possible Motion to Recommend to the Board to Approve an up to \$33 million Investment in ABRY Advanced Securities Fund IV as a part of ACERA's Private Equity Portfolio – Debt-Related/Special Situations</li> <li>2. Discussion of and Possible Motion to Recommend to the Board to Adopt an Amended ACERA General Investment Guidelines, Policies and Procedures</li> </ol>	<ol style="list-style-type: none"> <li>1. Discussion of Proposed Revisions to ACERA's Real Asset Policy</li> <li>2. Education Session: Portable Alpha</li> <li>3. Quarterly Performance Review for the Second Quarter of 2018 – Equities and Fixed Income</li> <li>4. Quarterly Performance Review for the Second Quarter of 2018 – Real Estate</li> <li>5. <i>Quarterly report of ACERA's investment manager, consultant, and custodian bank fees for the second quarter of 2018</i></li> <li>6. <i>Quarterly report on ACERA's rebalancing activities for the second quarter of 2018</i></li> <li>7. <i>Quarterly report on ACERA's securities lending activities for the second quarter of 2018</i></li> <li>8. <i>Quarterly report on ACERA's Directed Brokerage (DB) Program for the second quarter of 2018</i></li> <li>9. <i>Quarterly report on Investment Products and Services Introduction (IPSI) for the second quarter of 2018</i></li> <li>10. <i>Updated Investment Committee Workplan for 2018</i></li> </ol>



## Updated Investment Committee Workplan for 2018

December 12, 2018

<b>Action Items</b>	<b>Information Items</b>
<p>October 10</p> <ol style="list-style-type: none"> <li>1. Discussion of and Possible Motion to Recommend to the Board to Approve the Finalists for ACERA’s U.S. Small Cap Growth Manager Search – Domestic Equities</li> <li>2. Discussion of and Possible Motion to Recommend to the Board to Adopt an Amended ACERA Real Assets Policy</li> <li>3. Discussion of and Possible Motion to Recommend to the Board to Adopt the 2018 – 2022 Investment Plan for ACERA’s Real Assets Class</li> </ol>	
<p>November 7</p> <ol style="list-style-type: none"> <li>1. Discussion of and Possible Motion to Recommend to the Board:               <ol style="list-style-type: none"> <li>i) To approve a total investment of up to \$400 million (from ii and iii below) into the following three (3) State Street Global Advisors (SSgA) funds, as follows: (1) State Street Bloomberg Roll Select Commodity Index Non-Lending Fund (up to \$60 Million or 15%); (2) State Street S&amp;P Global Infrastructure Index Non-Lending Common Trust Fund (up to \$140 Million or 35%); and (3) State Street S&amp;P Global LargeMidCap Natural Resources Index Non-Lending Fund (up to \$200 Million or 50%) as part of ACERA’s Real Assets Portfolio’s – Liquid Pool (Liquid Pool);</li> <li>ii) To fully redeem ACERA’s investments in AQR Customized Real Return Offshore, Gresham eTAP, and Gresham TAP Funds for a combined redemption of (up to \$300 million) and infuse the entire redemption proceeds into the Real Assets Portfolio’s Liquid Pool;</li> <li>iii) To increase the Real Assets Portfolio to its approved 5% allocation of the Total Fund by rebalancing monies, as needed, from the Equities and Fixed Income asset</li> </ol> </li> </ol>	<ol style="list-style-type: none"> <li>1. Discussion of Proposed Revisions To ACERA’s Real Estate Investment Guidelines, Policies and Procedures</li> </ol>



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December 12, 2018

### Action Items

### Information Items

	<p>classes (up to \$100 million) and infusing the entire amount into the Liquid Pool.;</p> <p>2. Discussion of and Possible Motion to Recommend to the Board to Approve an up to \$40 Million Investment in EQT Infrastructure IV in ACERA's Real Assets Portfolio – Infrastructure</p>	
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## Updated Investment Committee Workplan for 2018

December 12, 2018

	<b>Action Items</b>	<b>Information Items</b>
December 12	<ol style="list-style-type: none"> <li>1. Discussion of and Possible Motion to Recommend to the Board to Adopt an Amended ACERA Real Estate Investment Guidelines, Policies and Procedures</li> <li>2. Discussion of and Possible Motion to Recommend to the Board to Adopt the 2019 – 2020 Investment Plan for ACERA’s Real Estate Asset Class</li> </ol>	<ol style="list-style-type: none"> <li>1. Update on ACERA’s U.S. Equity Small Cap Growth Manager Search – Domestic Equities</li> <li>2. CA Gov Code § 7514.7 Information Report</li> <li>3. Semiannual Performance Review for the Period Ending June 30, 2018 – Private Equity</li> <li>4. Semiannual Performance Review for the Period Ending June 30, 2018 – Absolute Return</li> <li>5. Semiannual Performance Review for the Period Ending June 30, 2018 – Real Assets</li> <li>6. Quarterly Performance Review for the Third Quarter of 2018 – Real Estate</li> <li>7. <i>Quarterly report of ACERA’s investment manager, consultant, and custodian bank fees for the third quarter of 2018</i></li> <li>8. <i>Quarterly report on ACERA’s rebalancing activities for the third quarter 2018</i></li> <li>9. <i>Quarterly report on ACERA’s securities lending activities for the third quarter of 2018</i></li> <li>10. <i>Quarterly report on ACERA’s Directed Brokerage (DB) Program for the third quarter of 2018</i></li> <li>11. <i>Quarterly report on Investment Products and Services Introductions (IPSI) for the third quarter of 2018</i></li> <li>12. <i>Updated Investment Committee Workplan for 2018</i></li> </ol>

**Notes:**

1. This workplan is subject to change without prior notice. Periodic rearrangements of agenda items will be made to the workplan to provide a reasonable length of time for each meeting.
2. Meeting date is assumed to be the second Wednesday of each month.
3. Educational sessions may be added to the Agenda from time-to-time e.g., Portable Alpha, Market and Currency Overlay, Equity Overlay, and Emerging Managers in Private Equity investments. Recommendations and reports on ACERA’s Real Estate, Private Equity, Absolute Return, and Real Assets investments will be added to the Agenda from time-to-time.