



Stanislaus County Employees' Retirement Association

832 12th Street, Ste. 600, Modesto, CA 95354 • PO Box 3150, Modesto, CA 95353 • www.stancera.org • 209-525-6393 • 209-558-4976 Fax

AGENDA

BOARD OF RETIREMENT

832 12th Street Ste. 600, **Wesley W. Hall Board Room**
Modesto, CA 95354

November 26, 2019

1:30 p.m.

The Board of Retirement welcomes you to its meetings, which are regularly held on the fourth Tuesday of each month. Your interest is encouraged and appreciated.

CONSENT/ACTION ITEMS: Consent matters include routine administrative actions and are identified under the Consent Items heading. All other items are considered to be action items "Action" means that the Board may dispose of any item by any action, including but not limited to the following acts: approve, disapprove, authorize, modify, defer, table, take no action, or receive and file.

PUBLIC COMMENT: Matters under jurisdiction of the Board, may be addressed by the general public before or during the regular agenda. However, California law prohibits the Board from taking action on any matter which is not on the posted agenda unless it is determined an emergency by the Board of Retirement. Any member of the public wishing to address the Board during the "Public Comment," period shall be permitted to be heard once up to three minutes. Please complete a Public Comment Form and give it to the Chair of the Board. Any person wishing to make a presentation to the Board must submit the presentation in written form, with copies furnished to all Board members. Presentations are limited to three minutes.

BOARD AGENDAS & MINUTES: Board agendas, minutes and copies of items to be considered by the Board of Retirement are customarily posted on the Internet by Friday afternoon preceding a meeting at the following website: www.stancera.org.

Materials related to an item on this Agenda submitted to the Board after distribution of the agenda packet are available for public inspection at StanCERA, 832 12th Street, Suite 600, Modesto, CA 95354, during normal business hours.

AUDIO/VIDEO: All Board of Retirement regular meetings are audio and visually recorded. Audio/Video recordings of the meetings are available after the meetings at <http://www.stancera.org/agenda>.

NOTICE REGARDING NON-ENGLISH SPEAKERS: Board of Retirement meetings are conducted in English and translation to other languages is not provided. Please make arrangements for an interpreter if necessary.

REASONABLE ACCOMMODATIONS: In compliance with the Americans with Disabilities Act, if you need special assistance to participate in this meeting, please contact the Board Secretary at (209) 525-6393. Notification 72 hours prior to the meeting will enable StanCERA to make reasonable arrangements to ensure accessibility to this meeting.

1. Call Meeting to Order
2. Pledge of Allegiance
3. Roll Call
4. Announcements
5. Public Comment
6. Consent Items
 - a. Approval of the October 22, 2019 Meeting Minutes [View](#)
 - b. Monthly Staff Report [View](#)
 - c. Investment Matrix [View](#)
 - d. Conference Summary [View](#)
 - e. Applications for Service Retirement(s) – **Government Code Sections 31499.14, 31670, 31662.2 & 31810**
 1. Butler, Cara – City of Ceres – Effective 11-01-19
 2. Chalupnik, Robert – HSA– Effective 11-10-19
 3. Drabin, Jeffrey – DCSS – Effective 10-25-19
 4. Felt, Cindy – DCSS – Effective 11-13-19
 5. Gulley, Glen – DA – Effective 11-08-19 *
 6. Kelly, Gillian – CSA – Effective 10-22-19
 7. Lomeli, Maria – CSA – Effective 11-16-19
 8. McDonald, Shannyn – BHRS – Effective 10-16-19
 9. Smith, Karin – DCSS – Effective 10-29-19
 10. Wells, Douglas – Probation – Effective 11-22-19 *

* Indicates Safety Personnel

f. Applications for Deferred Retirement(s) – **Government Code Section 31700**

1. Alvarado, John – BHRS – Effective 05-15-19
2. Baker, Jennifer – BHRS – Effective 07-05-19
3. Chukwuka, Ogiram – BHRS – Effective 10-11-19
4. Davalos-Mendoza, Veronica – BHRS – Effective 08-02-19
5. Fagan, Dana – HSA – Effective 06-07-19
6. Jeng, Emily – DA – Effective 06.03-19
7. Macias, Johanna – Probation – Effective 10-26-19 *
8. Molina, Luis Ismael – BHRS – Effective 08-29-19
9. Sanchez, Martha – Workforce Dev – Effective 09-27-19
10. Stachura, Lester – Public Works – Effective 10-18-19

** Indicates Safety Personnel*

h. Applications Reciprocal Disability Retirement(s) – **Government Code Section 31538.5**

1. Butler, Lee – Sheriff – Effective 08-18-18 *

i. Information Technology Solutions (ITS) Project Update
Agenda Item [View](#) Attachment 1 [View](#)

j. 2020 Board of Retirement Committee Assignments [View](#)

k. 2020 StanCERA Board Meeting Calendar [View](#)

7. Verus – Investment Consultant

a. Investment Performance 2019 Quarter 3 [View](#)

b. October Flash Report [View](#)

8. Investment

None

9. Administrative

a. Memorandum of Understanding Between Stanislaus County and StanCERA Regarding the Replacement Benefits Plan

Agenda Item [View](#) Attachment 1 [View](#) Attachment 2 [View](#)

10. Committee Reports and Recommendations for Action

STANDING COMMITTEES

a. Internal Governance Committee

Discussion and Action to accept the Internal Governance Committees' Recommendation Regarding:

1. The June 30, 2019 and 2018 Comprehensive Annual Financial Report (CAFR) and Independent Auditor Report

Agenda Item [View](#) Attachment 1 [View](#) Attachment 2 [View](#)

2. Records Retention Policy Agenda Item [View](#) Attachment 1 [View](#)

11. Closed Session

- a. Application for Non-Service Connected Disability Retirement for Brenda Williams
Government Code Section 31724
- b. Conference with Legal Counsel – Pending Litigation – One Case:
O'Neal et al v. Stanislaus County Employees' Retirement Association
Stanislaus County Superior Court Case No. 648469
Government Code Section 54956.9(d)(1)
- c. Conference with Legal Counsel – Pending Litigation – One Case:
Stanislaus County Employees' Retirement Association v. Buck Consultants,
LLC, Mediation Pursuant to Evidence Code Sections 1115, 1119, 1152
Government Code Section 54956.9d)(4)

12. Members' Forum (Information and Future Agenda Requests Only)

13. Adjournment



BOARD OF RETIREMENT MINUTES
October 22, 2019

1. Call Meeting to Order

Meeting called to order 1:30 p.m. by Trustee DeMartini, Chair

2. Pledge of Allegiance

3. Roll Call

Trustees Present: Jim DeMartini, Darin Gharat, Donna Riley, Sam Sharpe, Mike Lynch, Michael O'Neal and Jeff Mangar

Trustees Absent: Jeff Grover and Mandip Dhillon

Alternate Trustee: Rhonda Biesemeier, Alternate Retiree Representative

Staff Present: Rick Santos, Executive Director
Natalie Davis, Fiscal Services Manager
Lisa Frazer, Member and Employer Services Manager
Stan Conwell, Retirement Investment Officer
Kellie Gomes, Executive Board Assistant

Others Present: Fred Silva, General Legal Counsel
Eileen Neill, VERUS-Investment Consultant

4. Announcements

5. Public Comment

None

6. Consent Items

a. Approval of the September 24, 2019 Meeting Minutes

b. Monthly Staff Report

c. Investment Matrix

d. Complaint Log

e. Applications for Service Retirement(s) – **Government Code Sections 31499.14, 31670, 31662.2 & 31810**

1. Brockman, Elena – Assessor – Effective 10-12-19
2. Christeson, Brenda – CEO – Effective 10-12-19
3. Collins, Ronald – City of Ceres– Effective 10-20-19 *
4. Dean, Suzanne – City of Ceres – Effective 10-05-19
5. Hansen, Rolayne – HSA – Effective 09-25-19
6. Harwood, Janet – Workforce Dev – Effective 09-19-19
7. Hubert, Theresa – Library – Effective 10-01-19
8. McCoy, Betina – City of Ceres – Effective 10-20-19
9. Miler, James – Probation – Effective 10-03-19 *
10. Moore, Lisa – DCSS – Effective 10-09-19
11. Moran, Cynthia – DA – Effective 10-12-19
12. Pease, Vicki – HSA – Effective 10-02-19

13. Phillips, Cheryl – Clerk Recorder – 09-20-19
14. Rodriguez, Rodrigo – Library – 10-02-19
15. Romero, Beatriz – DCSS – 10-26-19
16. Rose, Barbara – CSA – 10-11-19

** Indicates Safety Personnel*

f. Applications for Deferred Retirement(s) – **Government Code Section 31700**

1. Beeson, Regina – Probation – Effective 08-26-19 *
2. Betyordekom, Sweney – CSA – Effective 02-07-19
3. Cuevas-Rabago, Jose – Sheriff – Effective 07-12-19 *
4. Delisle, Randall – BHRS – Effective 08-02-2019
5. Elness, Bryon – City of Ceres – Effective 08-04-2000 *
6. Erickson, Maureen Ann – HSA – Effective 09-27-19
7. Garcia, Alejandra – BHRS – Effective 08-02-19
8. Khatami, Katy – Stan Reg 911 – Effective 09-26-19
9. Silveira, Alison – Sheriff – Effective 03-21-19
10. Tam, Julian – ER – Effective 02-22-19
11. Vieira, Allison – Sheriff – Effective 03-21-19
12. Vieira, Nathaniel – Ag Comm – Effective 07-12-19

** Indicates Safety Personnel*

g. Application of Death Benefit – **Government Code Section 31781, 31781.1, 31781.3**

1. Maldonado, Irma – CSA – Non-Service Connected – Effective 09-21-19 – Active Member

h. Information Technology Solutions (ITS) Project Update

i. 2019 Executive Director Goals Update - Quarter 3

Motion was made by Trustee Gharat seconded by Trustee O'Neal to accept the consent items as presented with the change to the September minutes to reflect that Trustee Sharpe was absent from the meeting.

Motion carried unanimously

7. Verus – Investment Consultant

- a. September Flash Report

8. Investment

- a. Review of SACRS Systems Performance Reporting

9. Administrative

- a. Memorandum of Understanding Between Stanislaus County and StanCERA Regarding the Replacement Benefits Plan

This item was pulled and will be presented at the November Board meeting.

b. SACRS 2019 Fall Business Meeting and Voting Delegates

1. Motion was made by Trustee O'Neal and seconded by Trustee Sharpe to appoint Trustee Gharat as primary voting delegate and Trustee Riley as alternate voting delegate at the 2019 Fall SACRS Business Meeting.

Motion passed unanimously

2. Motion was made by Trustee O'Neal and seconded by Trustee Sharpe to support SACRS request to amend SB 783 in January 2020 for consideration during the 2020 Legislative session as presented in the business packet

Roll call vote was as follows:

Jim DeMartini	Yes	Jeff Mangar	Yes
Sam Sharpe	Yes	Michael O'Neal	Yes
Darin Gharat	No		
Donna Riley	Yes		
Mike Lynch	No		

Motion Passed 5/2

3. Motion was made by Trustee Riley and seconded by Trustee O'Neal not to support SACRS request to amend the CERL sections related to nonservice-connected disability retirement to remove the element related to intemperate use of alcoholic liquor or drugs as presented in the business packet

Roll call vote was as follows:

Jim DeMartini	Yes	Jeff Mangar	Yes
Sam Sharpe	Yes	Michael O'Neal	Yes
Darin Gharat	Yes		
Donna Riley	Yes		
Mike Lynch	Yes		

Motion Passed 7/0

10. Closed Session

Motion was made by Trustee Gharat seconded by Trustee Lynch to go into closed session at 2:00pm.

Motion carried unanimously

2:00 pm General Counsel Fred Silva recused himself from closed session item 10.a.

- a. Review of Legal Services provided by General Legal Counsel
Government Code Section 54957(b)(4)

2:20 pm General Counsel Fred Silva returned to closed session

- b. Conference with Legal Counsel – Pending Litigation – One Case:
O'Neal et al v. Stanislaus County Employees' Retirement Association
Stanislaus County Superior Court Case No. 648469
Government Code Section 54956.9(d)(1)

- c. Conference with Legal Counsel – Pending Litigation – One Case:
Stanislaus County Employees' Retirement Association v. Buck Consultants,
LLC, Mediation Pursuant to Evidence Code Sections 1115, 1119, 1152
Government Code Section 54956.9d)(4)

Motion was made by Trustee Gharat seconded by Trustee Riley to go into open session at 2:40 pm.

Motion carried unanimously

Read out from closed session for Item 10.a is as follows

Motion was made by Trustee O'Neal and seconded by Trustee Gharat to approve staff recommendation to approve General Legal Counsel Services Proposal and direct staff to enter into a three-year contract with Damrell Nelson Schrimp Pallios and Silva as presented.

Motion carried unanimously

11. Members' Forum (Information and Future Agenda Requests Only)

None

12. Adjournment

Meeting adjourned at 2:42 p.m.

Respectfully submitted,


Rick Santos, Executive Director

APPROVED AS TO FORM:
Fred Silva, GENERAL LEGAL COUNSEL

By: 
Fred Silva, General Legal Counsel



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November 26, 2019

Retirement Board Agenda Item

TO: Retirement Board

FROM: Lisa Frazer, Member and Employer Services Manager
Natalie Davis, Fiscal Services Manager

- I. SUBJECT: Monthly Staff Report
- II. ITEM NUMBER: 6.b
- III. ITEM TYPE: Information Only
- IV. STAFF RECOMMENDATION: None
- V. ANALYSIS:

a) *Member & Employer Services:* Member & Employer Services: Member and Employer Services Staff processed 50 new hires (48 General, 2 Safety) and 31 terminations. 18 estimate requests were prepared (generating 21 estimate calculations) and 4 buy-back requests were prepared, resulting in 10 contracts. 39 individual counseling sessions were held over the course of the month. Two presentations were made by Member and Employer Services Specialists one at the County's New Employee Orientation and the other at the Community Services Agency.

b) *Fiscal Services* – Employer and employee contributions totaling \$11,022,264 were received through 17 different payroll batches and 0 service purchases in October. 13 contribution refunds and death benefit payouts totaling \$78,550 were processed. The retiree payroll for October totaled \$11,237,076 and was processed as scheduled.

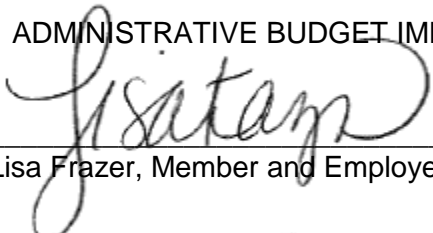
StanCERA has started the process of redesigning the website. MDH Group, a marketing/advertising firm was selected to help facilitate this process. StanCERA staff and the ad-hoc committee have met with the vendor several times and the new website is coming together quite nicely.

Staff is continually partnering with benefits staff to implement the new Pension Administration System. Staff is parallel testing all contribution batches for the three upload employers. Parallel testing is also happening with retiree payroll as the vendor develops the program. Several business system requirements documents are being reviewed covering interest posting, lump sum payments and retiree payroll processes.

VI. RISK: None

VII. STRATEGIC PLAN: Strategic Objective IV: Refine StanCERA's business and policy practices in ways that enhance stakeholder awareness, the delivery of member services and the ability of the Organization to administer the System effectively and efficiently*

VIII. ADMINISTRATIVE BUDGET IMPACT: NONE


Lisa Frazer, Member and Employer Services Manager


Natalie Davis, Fiscal Services Manager


Rick Santos, Executive Director



November 26, 2019

Retirement Board Agenda Item

TO: Retirement Board

FROM: Stan Conwell, Retirement Investment Officer

- I. SUBJECT: Investment Matrix
- II. ITEM NUMBER: 6.c
- III. ITEM TYPE: Information Only
- IV. STAFF RECOMMENDATION: None.
- V. ANALYSIS:

a) *Investment Program Governance:* In October, staff collected and reviewed Form ADV & SOC 1 reports from each of StanCERA's investment managers. The process is part of the 2019 strategic objectives to develop internal manager monitoring and evaluation capabilities to enhance the overall investment governance program. Staff also spent some time crafting strategic goals for the 2020-2022 strategic plan. Due diligence on a few possible private market funds began late in the month. The Institutional Limited Partners Association (ILPA) also released a model Limited Partnership Agreement (LPA) in late October. The model LPA has been in the works for a while and should prove to be a great resource for StanCERA to more quickly and efficiently negotiate fair and reasonable terms with private market funds.

b) *Money Transfer Report:*

From			To		
Manager	Asset Class	Amount	Manager	Asset Class	Amount
Northern Trust	Cash	\$-4,141,193	Owl Rock First Lien Fund	Private Credit	\$4,141,193

c) *Manager Meeting Notes:*

American Realty Advisors

Staff scheduled a call with Scott Beltz of American Realty Advisors (ARA) for a quarterly portfolio review and update on StanCERA's investment in the American Strategic Value Realty Fund. The ARA Value Realty fund, as the name suggests follows a value-added mandate and targets properties that would benefit from improvements and/or repositioning to unlock value. ARA firm level developments were discussed including AUM growth past the \$10 billion mark as well as concurrent client growth through June 30, 2019. Developments in the real estate market were discussed next. The retail sector continued to perform poorly relative to other sectors including industrial in particular. ARA sees more near-term favorability in the industrial

sector when coupled with prudent market and submarket selection. A review of recent fund acquisitions and potential investments in the pipeline followed. The American Strategic Value Realty Fund is performing as expected and staff will continue to monitor the fund closely.

BlackRock

Representatives from BlackRock stopped by StanCERA's office in October for a portfolio update and to introduce a new relationship manager. BlackRock manages three passive strategies for StanCERA including the Russell 1000 growth and value mandates as well as a public real estate fund. BlackRock is the largest asset management firm by assets under management and manages about \$4.1 Trillion in passive mandates. A comparison of investment processes for each passive strategy was briefly discussed. StanCERA's Russell 1000 Growth and Value funds utilize securities lending with a 50/50 split in revenues between BlackRock and StanCERA. Securities lending provides an additional source of income and helps maintain lower management fees and enhances performance slightly above the underlying benchmark index. The meeting concluded with a discussion about various developments in products and strategies at BlackRock and across the industry as well as an overview of resources available to BlackRock clients.

d) *Trainings/Conferences:*

SACRS: Staff attended the Fall SACRS conference in Monterey, CA. A new format for the affiliate breakout was introduced at the conference. The format involved an opportunity for affiliates to briefly meet and interview investment personnel from various SACRS systems. Each breakout was assigned an investment topic and was moderated by an affiliate member. StanCERA staff participated in the fixed income and asset allocation breakout meetings. The conference had a separate breakout meeting reserved for investment staff only.

- VI. RISK: None
- VII. STRATEGIC PLAN: Strategic Objective IV: Refine StanCERA's business and policy practices in ways that enhance stakeholder awareness, the delivery of member services and the ability of the Organization to administer the System effectively and efficiently.
- VIII. ADMINISTRATIVE BUDGET IMPACT: None.



Stan Conwell, Retirement Investment Officer



Conference Summary

1. **Attendee Name:** Mike Lynch
2. **Event Name:** Sacrs fall conference
3. **Event Date:** Nov 12-15
4. **Event Location:** Monterey
5. **Describe what was good about the event:** "Good discussions and updates
6. **Would you recommend this event to other trustees/staff:** Yes
7. **Number of Education Credits:** 17



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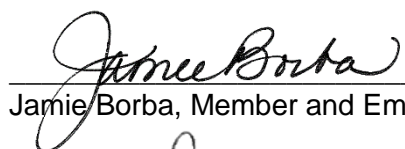
November 26, 2019

Retirement Board Agenda Item


TO: Retirement Board

FROM: Jamie Borba, Member and Employer Services Specialist

- I. SUBJECT: Information Technology Solutions (ITS) Project
- II. ITEM NUMBER: 6.i
- III. ITEM TYPE: Information Only
- IV. STAFF RECOMMENDATION: None
- V. ANALYSIS: The Pension Administration System (PAS) Project continues to move forward. The development and sign-off of the following processes have been completed: Vendor Maintenance, Retired and Non-Retired Beneficiary Change, Address Change and Name Change. Staff is currently reviewing five (5) Business and Systems Requirement Documents (BSRD's) and constructing the functionalities of seven (7) workflows. Internal testing of the system continues on a daily basis.
- VI. RISK: None
- VII. STRATEGIC PLAN: Strategic Objective IV: Refine StanCERA's business and policy practices in ways that enhance stakeholder awareness, the delivery of member services and the ability of the Organization to administer the System effectively and efficiently.
- VIII. ADMINISTRATIVE BUDGET IMPACT: None



Jamie Borba, Member and Employer Services Specialist



Lisa Frazer, Member and Employer Services Manager



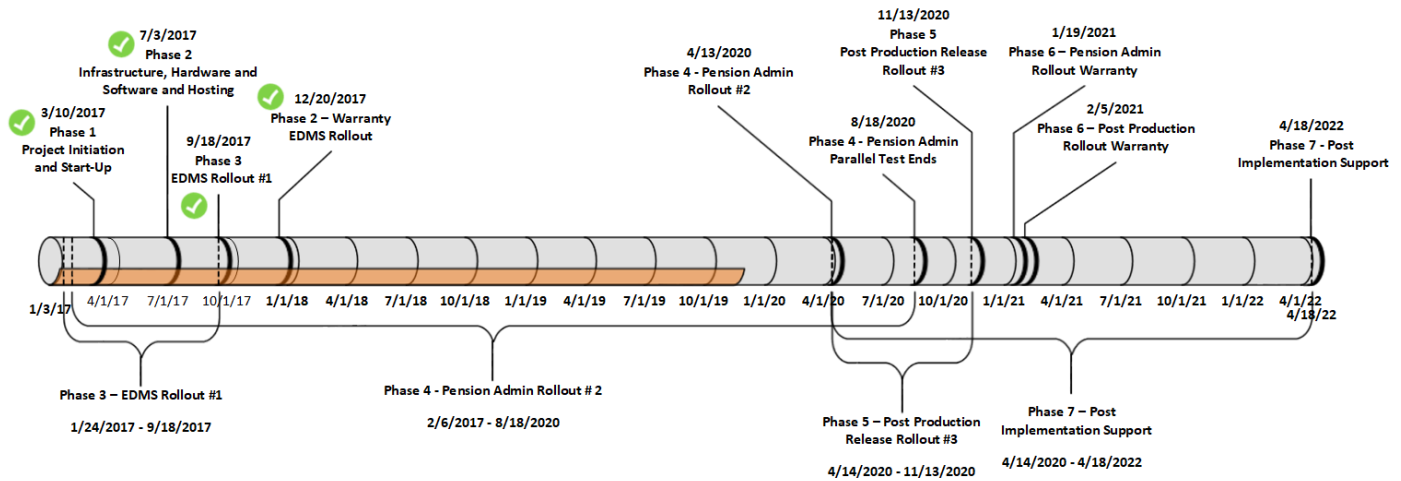
Rick Santos, Executive Director



PAS IMPLEMENTATION LINEA BI-WEEKLY STATUS UPDATE



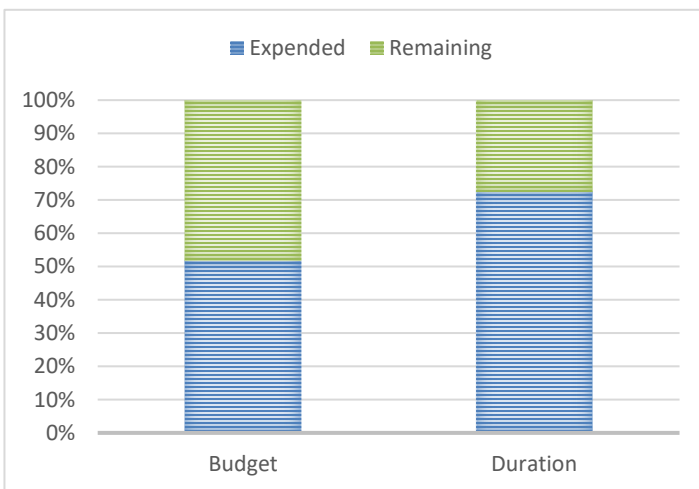
SPONSOR: Rick Santos **REPORT DATE:** 11-01-2019



Baseline 12/01/2016

STATUS

Risks & Issues:



Linea Budget as of 09/30/19

No new high-level risks have been identified at this time.

Accomplishments:

Upcoming:

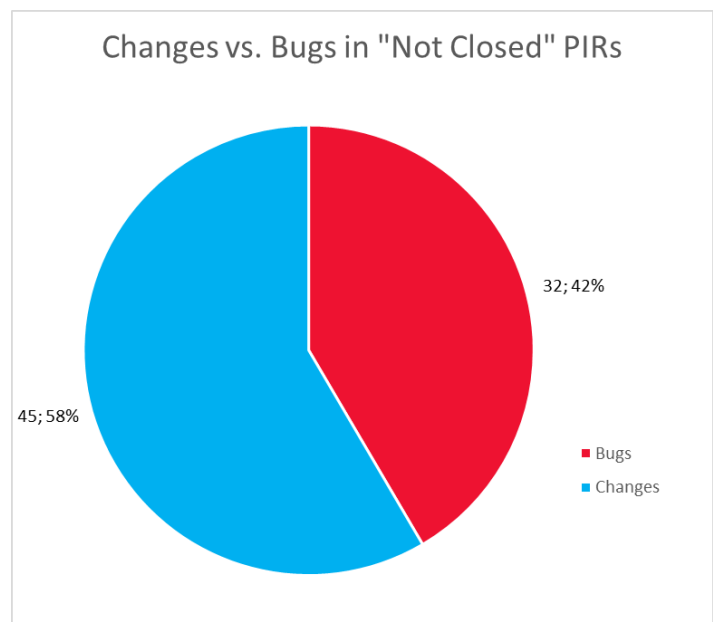
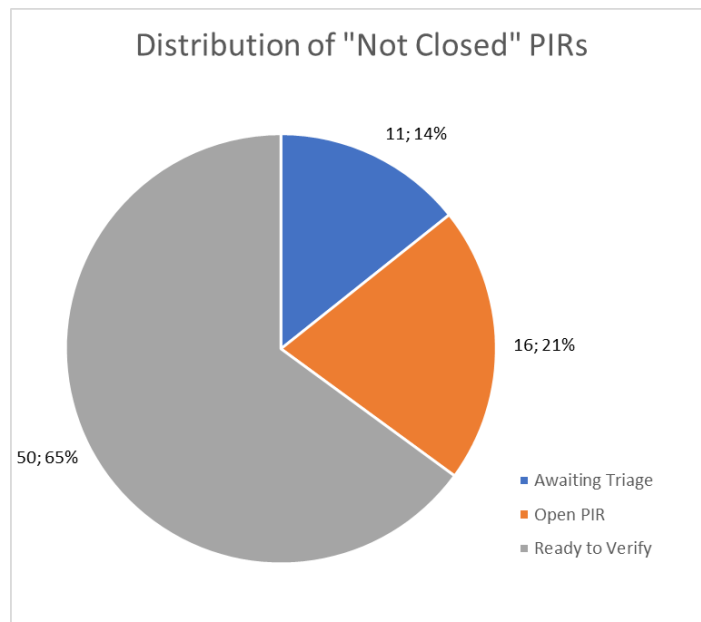
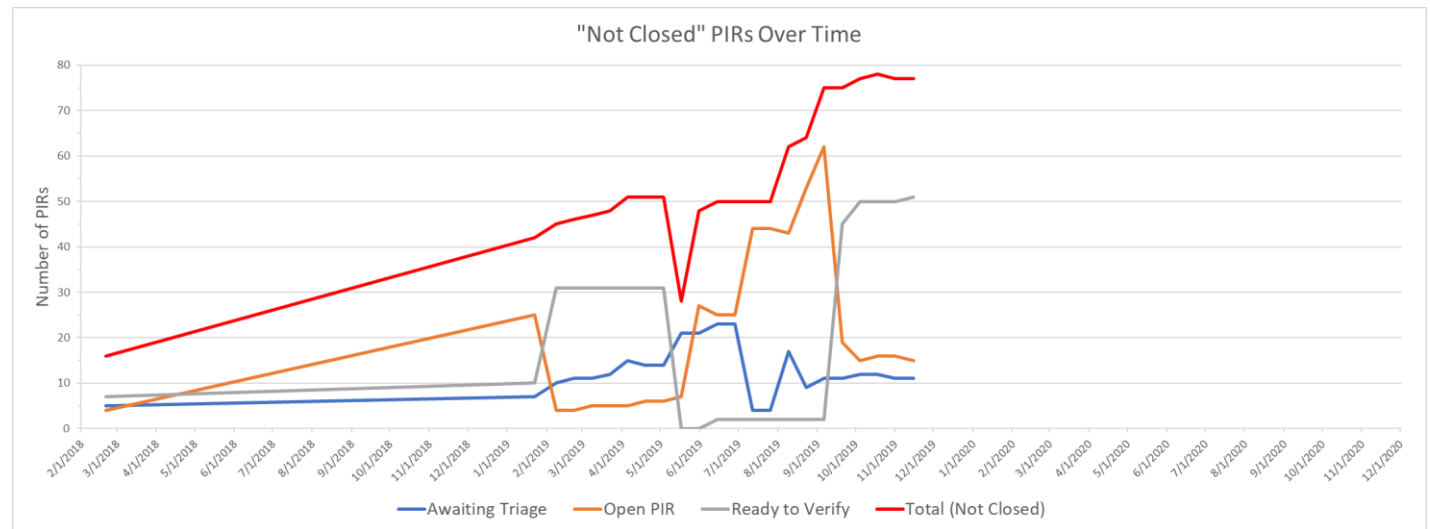
- Linea and StanCERA continued testing of R16 workflow functionality in UAT.
- StanCERA completed QA Testing and made a “Go” decision for production imaging release R16a.
- StanCERA visited City of Ceres to meet with the payroll and HR personnel involved in transmittal file development and discuss the path forward.
- Continued progress in testing Courts and County transmittal test files.

- Retesting of R13 and R14 resolved PIRs.
- Completion of testing for new workflow functionality released in R16.
- Release R17 to UAT and associated testing.
- Continued analysis and evaluation of upload employer test files being received for consecutive pay periods.
- StanCERA to begin parallel payroll testing.

Ongoing Project Contributions

- Facilitate weekly Project Manager's meetings and create meeting minutes.
- Facilitate monthly Steering Committee Meetings and create meeting minutes.
- Participate in Tegrit work sessions, review meeting minutes, and compile resulting decision logs and action items.
- Regularly review action items for follow up and completion.
- Review and hold group review sessions for BSRD deliverables made by Tegrit (BSR067).
- Track requirements, as discussed in work sessions and BSRDs, using the RTM and meet with StanCERA PM to update requirements confirmation.
- Manage and participate in system testing efforts, including review of test scripts, compiling of results, input of PIRs, and tracking of issue resolution.

Current PIR Summary



Standing Committees

Internal Governance Committee

This committee shall consist of three (3) Retirement Board members. The Committee Chair may request administrative staff and/or legal counsel to attend Committee meetings as needed. At least one of the Retirement Board members of the committee shall have sufficient background in accounting, financial or managerial matters to understand, relate to and communicate accounting and organizational matters especially as they relate to audit reports. This committee shall have the responsibility for oversight of all financial audits (both external and internal), compliance audits, Bylaw revisions, Policy revisions, Retirement Board member education and training (including ethics) and other internal governance matters.

2020

Donna Riley, Chair
Mandip Dhillon
Rhonda Bieseemeier
Staff as needed

Due Diligence Committee

This committee may consist of the Vice-Chair as Chair, one (1) other Board member the Executive Director, the Investment Officer and one (1) staff member appointed by the Executive Director (or a designee of the Executive Director), to act as the recorder. This committee shall insure that Due Diligence visits are carried out and reports provided to the Retirement Board of investment manager and other vendor business reviews on a schedule as determined by these Bylaws and the committee.

2020

Michael O'Neal - Chair
Jeff Grover
Executive Director, Rick Santos
Investment Officer, Stan Conwell
Executive Assistant, Kellie Gomes

Strategic Planning Objectives Committee

This Committee shall consist of no less than two (2) Retirement Board members. The committee may request input from administrative staff and attendance for staff at its meetings as the Committee so desires. The committee shall oversee and review staff reports related to the study and recommendations of Retirement Board approved strategic planning objectives. The committee shall have authority to survey, research, request actuarial and other studies as it deems necessary. The committee shall only make "final" reports to the Retirement Board or recommendations to the Retirement Board that require the Board's action. This committee meets at least once every three (3) years, however, may not always have Board members assigned due to the cyclical nature of the needs required of this Committee.

2020

Volunteer Trustee **NOT** Needed for this year
Volunteer Trustee **NOT** Needed for this year

Performance Review and Compensation Committee (PRCC).

This committee shall consist of current Chair, past Chair, and current Vice Chair. As needed, the PRCC will meet to discuss the performance and compensation of the position of Executive Director.

Areas of Responsibility: *Assessment of the performance and compensation recommendation for the positions of Executive Director and Investment Officer*

2020

Sam Sharpe, Chair
Michael O'Neal, Vice Chair
Jim DeMartini, Past Chair
Staff as needed

Ad-Hoc Committees

Pension Administration System Implementation

2020

Michael O'Neal
Darin Gharat

Enhanced PAS Committee Members
Donna Riley
Sam Sharpe
Jeff Mangar

2020

StanCERA Board Meetings

January						
Su	M	Tu	W	Th	F	Sa
			1	2	3	4
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February						
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March						
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April						
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May						
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31						

June						
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28	29	30				

July						
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August						
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30	31					

September						
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October						
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25	26	27	28	29	30	31

November						
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8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30					

December						
Su	M	Tu	W	Th	F	Sa
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

Board Meetings are held every 4th Tuesday at 1:30p.m.

*Exception December's Board Meeting will be moved to 3rd Tuesday, December 15th Due to the Holiday

StanCERA's Boardroom is located at 832 12th Street Suite 600



PERSPECTIVES THAT DRIVE ENTERPRISE SUCCESS



PERIOD ENDING: SEPTEMBER 30, 2019

Investment Performance Review for

Stanislaus County Employees' Retirement Association

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Investment Landscape

TAB I

Investment Performance
Review

TAB II



**PERSPECTIVES
THAT DRIVE
ENTERPRISE
SUCCESS**

4TH QUARTER 2019
Investment Landscape

Recent Verus research

Visit: <https://www.verusinvestments.com/insights/>

Annual outlooks

PRIVATE EQUITY OUTLOOK

In our annual outlook we discuss the following trends occurring in the private markets:

- Continued strong deal flow in 2018, surpassing the all-time high of 2017.
- Another strong year for M&A activity by strategic buyers in response to slowing global growth to shore up profit margins.
- Europe's continued deployment into new investments to surpass exits by almost 2x, despite the uncertainty of political policies.
- Persistent excess returns above public markets and borrower-friendly leveraged financing driving more capital into the private markets, however investors are gravitating towards larger fund managers with longer track records.
- The continued evolution of secondary markets encompassing increasingly complex transactions.

Topics of interests

CRISIS RISK MITIGATION

We went back in time to find the worst periods in U.S. stock market history. There is always a question regarding whether it is possible to employ risk mitigation within a portfolio without giving up too much in terms of returns or paying too much in expenses.

We briefly examine strategies which are thought to mitigate these effects and find that some are better than others. Most institutional investors already have an effective program of crisis risk mitigation in the form of a significant allocation to high-quality bonds. For those wishing to construct a dedicated crisis risk allocation, we suggest a roadmap.

THE INVESTMENT GOLDEN RULE

Effective capital allocation involves distributing financial resources in a way that aligns the goals and objectives of an organization with its investment program. For institutional investors, this involves designing an appropriate strategic asset allocation (SAA), selecting competent investment managers, and then managing the resulting portfolio well. We believe there is a framework that can help. The "Investment Golden Rule" combines the components of the capital allocation process with the return objective in order to improve investment decisions across the organization. In this paper we analyze some practical examples of the capital allocation process through the lens of this framework.

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3rd quarter summary

THE ECONOMIC CLIMATE

- Real GDP grew at a 2.3% rate year-over-year in the second quarter (2.0% quarterly annualized rate). U.S. Q2 consumer spending came in stronger than any time since 2014, while weak business inventory investment acted as a slight drag. **p. 7**
- Trade policies and conflict likely weighed on economic progress. Uncertainty regarding the future of U.S.-China trade relations and supply chain disruptions caused by new tariff impositions are expected to hinder growth in the future. **p. 16**

PORTFOLIO IMPACTS

- U.S. equities outperformed international in Q3 (S&P 500 +1.7%, MSCI EAFE -1.1%) as domestic markets continued to lead. Some convergence of U.S. interest rates with the ultra-low rates of international markets likely supported equity prices over the quarter. **p. 26**
- Core inflation has crept up to cycle-highs in 2019, increasing to 2.4% YoY in September. Headline inflation rose 1.7% YoY, dragged down by falling energy prices. Neither the media nor investors appear to be concerned about rising inflation, as of yet. Investors remain focused on deflationary forces in the global economy. **p. 9**

THE INVESTMENT CLIMATE

- The Federal Open Market Committee cut the range for its benchmark interest rate by 0.25% in both its July and September meetings, bringing the new range for federal funds to 1.75-2.00%. **p. 18**
- Global sovereign bonds rallied, encouraged by muted inflation expectations and dovish guidance from global central banks. Central bankers appealed for fiscal action, citing the limited capacity of monetary policy to sustain further economic expansion. **p. 18**

ASSET ALLOCATION ISSUES

- Risk assets were flat over the quarter. Global equities gained 0.0% and U.S. Treasuries gained 2.4% as domestic interest rates fell. Longer duration exposures continued to outperform. **p. 41**
- The U.S. dollar appreciated 2.6% in Q3 relative to a trade-weighted basket of currencies. Dollar volatility has been suppressed so far in 2019, following large swings experienced during years 2014-2018. Emerging market currencies fell -4.0% in Q3 on the back of U.S. dollar strength. These currencies remain depressed relative to history. **p. 36**

A neutral risk stance may be appropriate in today's environment

What drove the market in Q3?

"Trade talks seen as unlikely to mend U.S.-China divide"

U.S. TREASURY FEDERAL BUDGET NET CUSTOMS RECEIPTS (\$BILLIONS)

Apr	May	Jun	Jul	Aug
\$5.24	\$4.93	\$5.61	\$6.47	\$7.01

Article Source: Reuters, September 16th, 2019

"World Economy Sends Up Flares as Manufacturing Slump Hits U.S."

ISM MANUFACTURING PURCHASING MANAGERS' INDEX

Apr	May	Jun	Jul	Aug	Sep
52.8	52.1	51.7	51.2	49.1	47.8

Article Source: Bloomberg, September 30th, 2019

"Fed Will Weigh Resuming Balance Sheet Growth at October Meeting"

SIZE OF FEDERAL RESERVE BALANCE SHEET (\$TRILLIONS)

Apr	May	Jun	Jul	Aug	Sep
\$3.93	\$3.85	\$3.83	\$3.78	\$3.76	\$3.86

Article Source: The Wall Street Journal, September 19th, 2019

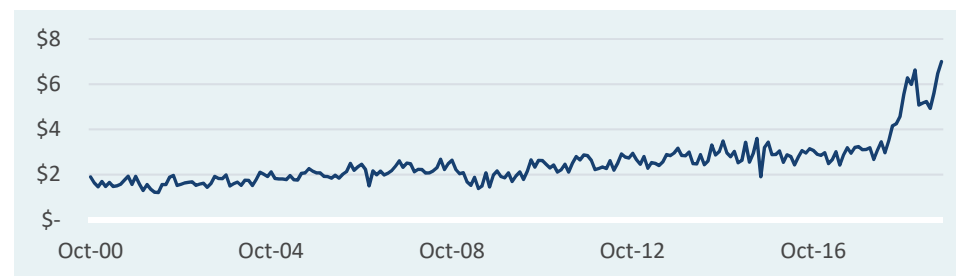
"Can Boris Johnson deliver Brexit as he pledged?"

GBP/USD SPOT EXCHANGE RATE (PRICE OF 1 GBP in USD)

Apr	May	Jun	Jul	Aug	Sep
\$1.30	\$1.26	\$1.27	\$1.22	\$1.22	\$1.23

Article Source: The Australian Financial Review, September 11th, 2019

U.S. TREASURY FEDERAL BUDGET NET RECEIPTS CUSTOMS (\$BILLIONS)



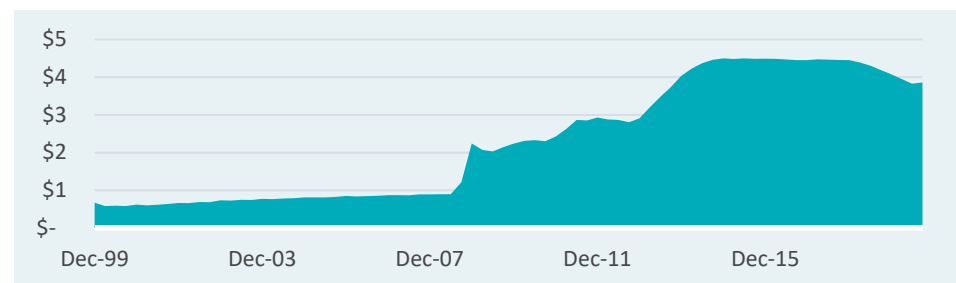
Source: Bloomberg, as of 8/31/19

MANUFACTURING PURCHASING MANAGERS INDEXES (RELATIVE TO 50)



Source: Bloomberg, Federal Reserve, as of 9/30/19. A reading of 0 is considered neutral.

FEDERAL RESERVE BALANCE SHEET (\$TRILLIONS)



Source: Bloomberg, Federal Reserve, as of 9/30/19

Economic environment

U.S. economics summary

- Real GDP grew at a 2.3% rate year-over-year in the second quarter (2.0% quarterly annualized rate). U.S. Q2 consumer spending came in stronger than any time since 2014, while weak business inventory investment acted as a slight drag.
- U.S-China trade remained a major story in Q3. The U.S. scheduled tariff rate hikes on \$250B in already-tariffed Chinese imports, as well as tariff impositions of up to 15% on the remaining \$300B in Chinese imports not currently exposed to duties. The Chinese retaliated with commensurate tariff adjustments. The two sides agreed to continued trade talks in Washington D.C. at the beginning of October.
- Trade conflict has likely weighed on economic progress. Uncertainty regarding the future of U.S.-China trade relations and supply chain disruptions caused by new tariff impositions are expected to act as a drag on growth in the future.
- Core inflation has crept up to cycle-highs, rising 2.4% YoY in September. Headline inflation increased 1.7% YoY, dragged down by falling energy prices.
- The U.S. unemployment rate reached a 50-year low of 3.5% in September. Historically, the rate of unemployment has risen prior to the beginning of each U.S. recession, which suggests the U.S. expansion may still have room to run.
- Despite record unemployment, wage growth remains lukewarm, decelerating from a cycle high of 3.4% achieved in February, to 2.9% in September.
- In October, the IMF cut its 2019 global economic growth forecast from 3.2% to 3.0%, referencing global trade friction as a primary driver.

	Most Recent	12 Months Prior
GDP (YoY)	2.3% 6/30/19	3.2% 6/30/18
Inflation (CPI YoY, Core)	2.4% 9/30/19	2.3% 9/30/18
Expected Inflation (5yr-5yr forward)	1.7% 9/30/19	2.2% 9/30/18
Fed Funds Target Range	1.75 – 2.00% 9/30/19	2.00 – 2.25% 9/30/18
10 Year Rate	1.7% 9/30/19	3.1% 9/30/18
U-3 Unemployment	3.5% 9/30/19	3.7% 9/30/18
U-6 Unemployment	6.9% 9/30/19	7.5% 9/30/18

GDP growth

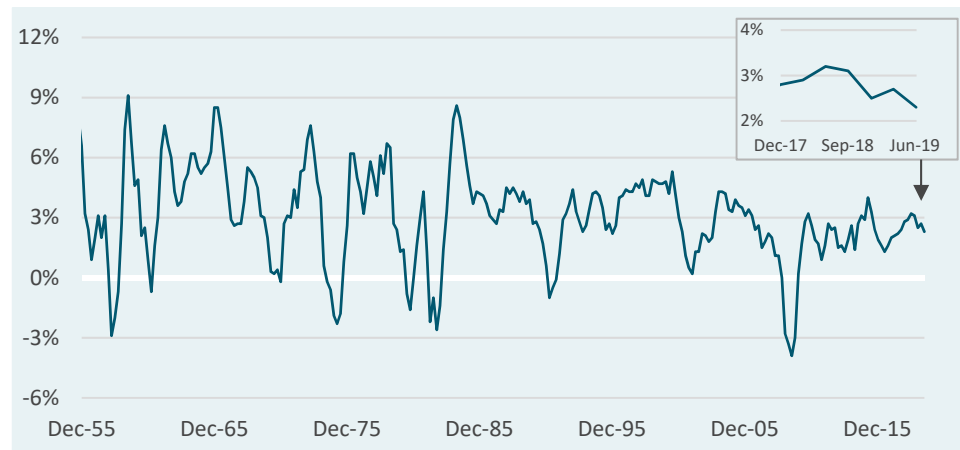
Real GDP grew at a 2.3% rate year-over-year in the second quarter (2.0% quarterly annualized rate). A lack of corporate inventory investment detracted -0.9% from the overall GDP print, perhaps fueled by frontloaded business purchases in efforts to avoid tariffs. Business investment also acted as a slight drag. Weakness was offset by strength in consumer spending not seen since late 2014. Economists broadly expect U.S. economic growth to moderate to a 2.0% pace in 2020.

economic growth. Uncertainty regarding the future of U.S.-China trade relations and supply chain disruptions caused by new tariff impositions are expected to further weigh on trade, spending, and business investment.

On October 9th, the Federal Reserve Bank of Atlanta GDPNow forecast indicated GDP growth of 1.7% in the third quarter. This forecast has recently fallen due to weaker than expected inventory investment.

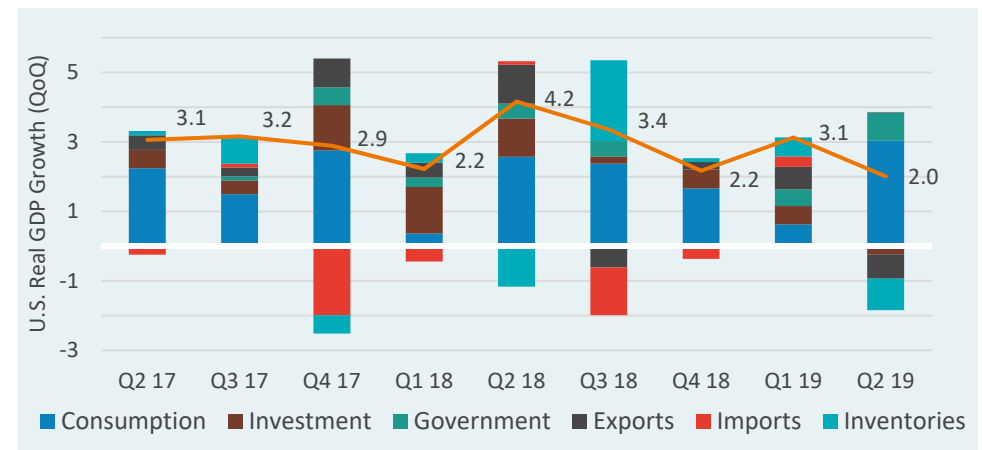
Trade policies and conflict likely resulted in a mild drag on

U.S. REAL GDP GROWTH (YOY)



Source: Bloomberg, as of 6/30/19

U.S. GDP GROWTH ATTRIBUTION



Source: BEA, annualized quarterly rate, as of 6/30/19

Inflation

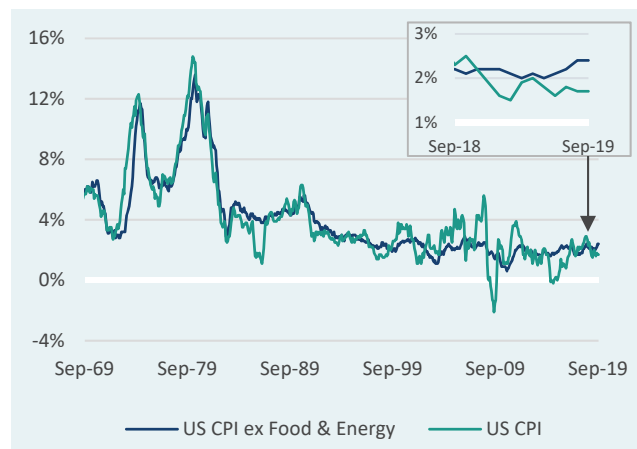
Core inflation has crept up to cycle-highs, rising 2.4% YoY in September. Headline inflation increased 1.7% YoY, held down by falling energy prices. Neither the media nor investors appear to be concerned about rising inflation, as of yet. Investors remain focused on deflationary forces across the global economy.

The market is pricing inflation to be very low over the next 10 years, as indicated by the U.S. 10yr TIPS breakeven inflation rate of 1.52%. This breakeven rate is still a ways

from its cycle low of 1.18% achieved in February 2016, when the price of oil crashed to below \$30 per barrel and pushed inflation down drastically.

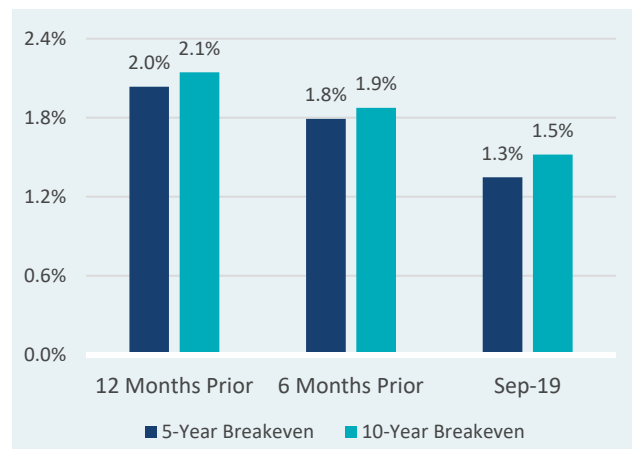
We believe it is likely that inflation will remain subdued. If inflation was to rise persistently, this might place central banks in a perilous position, given their recent unwillingness to raise interest rates. A rising inflation environment would also put upward pressure on interest rates, creating a drag on the global economy.

U.S. CPI (YOY)



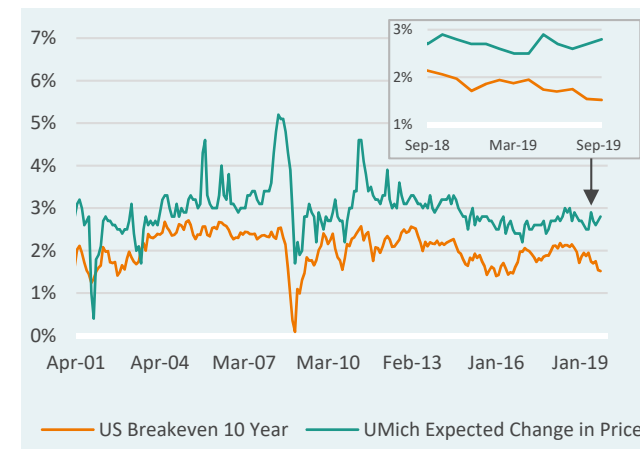
Source: Bloomberg, as of 9/30/19

U.S. BREAKEVEN INFLATION RATES



Source: FRED, as of 9/30/19

INFLATION EXPECTATIONS



Source: Bloomberg, as of 9/30/19

Labor market

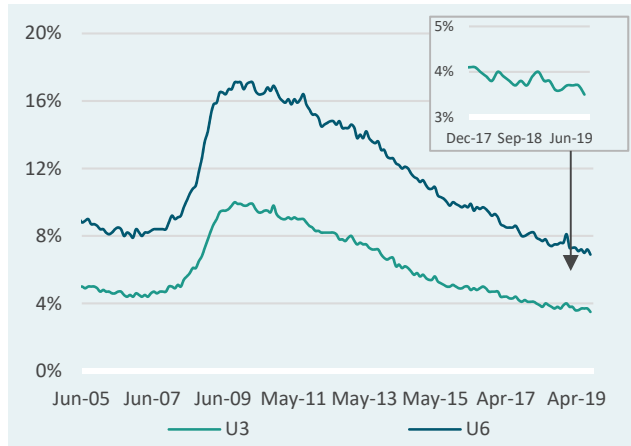
The U.S. unemployment rate reached a 50-year low of 3.5% in September. Historically, the rate of unemployment has risen prior to the beginning of each U.S. recession, which suggests the U.S. expansion may still have room to run. Despite record unemployment, wage growth remains lukewarm, decelerating to 2.9% YoY in September, down from a cycle high of 3.4% YoY achieved in February.

Interestingly, the small pool of U.S. workers who are currently unemployed have been out of work for much

longer, on average, than during past economic cycles. A shift in the composition of U.S. jobs may be contributing to this effect, as many manufacturing jobs have been outsourced/lost, and automated production processes have displaced some workers. Mismatches between the skills of available U.S. job-seekers and the skills required for current jobs appears to be creating some *structural unemployment*. Workers who are *structurally unemployed* require retraining and education to reposition themselves in the labor market.

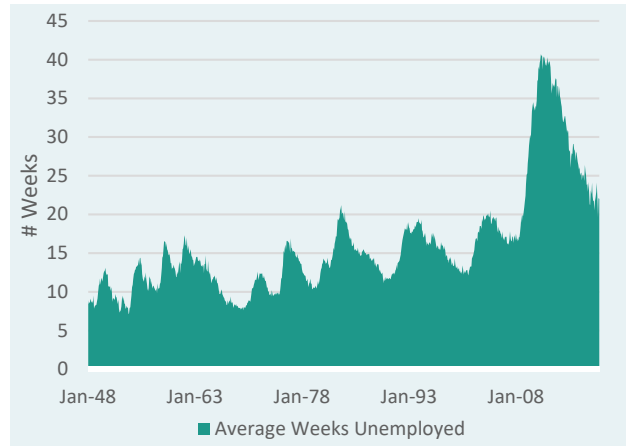
U.S. labor market remains strong, though further upside may be limited

U.S. UNEMPLOYMENT



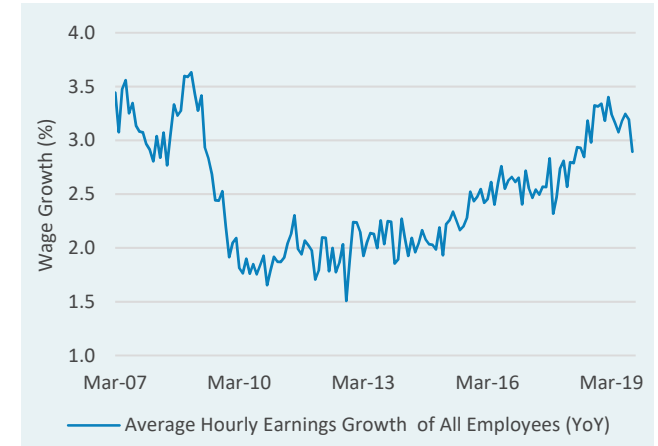
Source: FRED, as of 9/30/19

LENGTH OF UNEMPLOYMENT



Source: FRED, as 9/30/19

U.S. WAGE GROWTH



Source: FRED, as of 9/30/19

The consumer

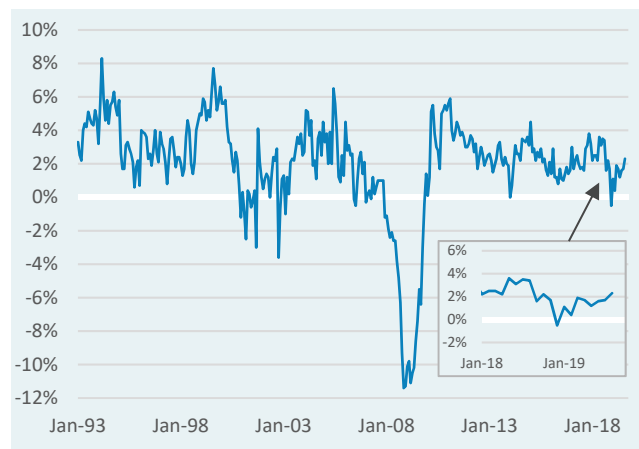
Retail sales fell in late 2018 but recovered year-to-date with a September growth rate of 2.3% YoY. Big-ticket purchases of items such as automobiles and homes have slowed from their 2016 highs.

The U.S. consumer continues to exhibit strength, as the labor market has reached record tightness, sentiment remains solid, and borrowing costs have fallen. However, slowing big ticket purchases will act as a headwind to growth. This slowing may be partly an effect of low interest rate burnout. As interest rates have been low for many years, consumers in need of big-ticket items have likely already purchased those items. Since

consumers are not likely to purchase yet another car or home, the incremental positive impacts of lower interest rates may be limited.

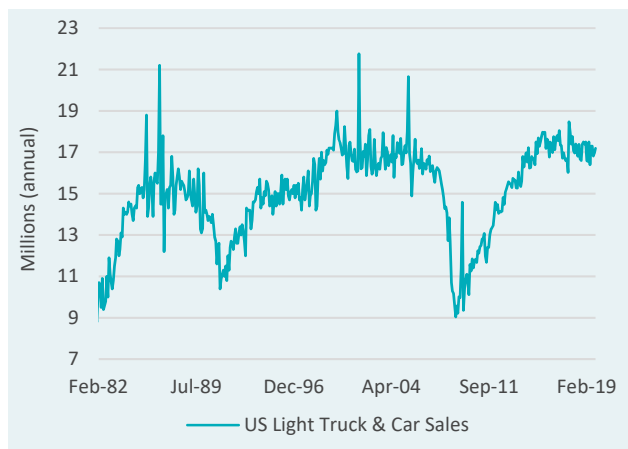
Consumer spending growth throughout this expansion has been a bright spot but has remained moderate, perhaps influenced by memories of the U.S. housing bubble and global financial crisis. Conservative spending habits are reflected in much higher savings rates than those witnessed during the economic boom of the 2000s – during which households spent more of their disposable income than any time since the Great Depression of the 1930s.

REAL RETAIL SALES GROWTH (YOY)



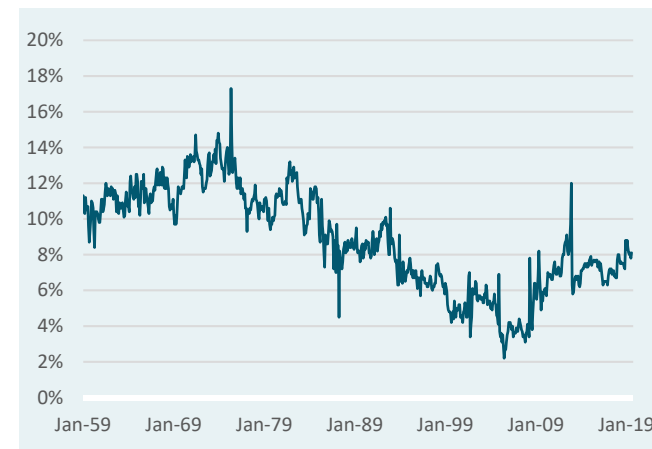
Source: FRED, as of 8/31/19

AUTO SALES



Source: Bloomberg, as of 9/30/19

PERSONAL SAVINGS RATE



Source: FRED, as of 8/31/19

Sentiment

Consumer sentiment faded but remained strong relative to history. The ratcheting up of trade tensions between the U.S. and China cast a shadow over a robust U.S. labor market.

Quits rate data from the Bureau of Labor Statistics indicated that 2.3% of total employed U.S. workers voluntarily quit their jobs in August - a level not seen since April 2001. Policymakers and economists view the quits rate as a measure of job confidence; quits rates typically rise when the labor market is relatively tight, and wages are moving higher.

Over the quarter, the University of Michigan's Consumer Sentiment Index fell from 98.2 to 93.2. Consumers remained more concerned about the near-term future than about the current situation. The two components of the index – Expectations and Current Situation - fell from 89.3 to 83.4 and from 111.9 to 108.5, respectively.

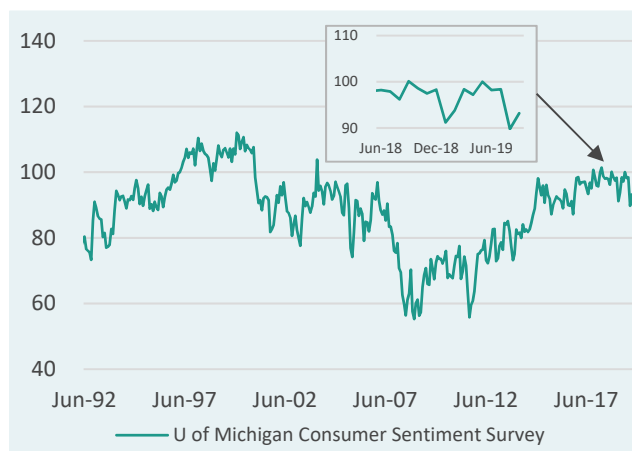
Optimism among small business owners trended lower as well. In the September NFIB report, 30% of small business owners reported they were negatively affected by tariffs.

U.S. WORKER QUIT RATE



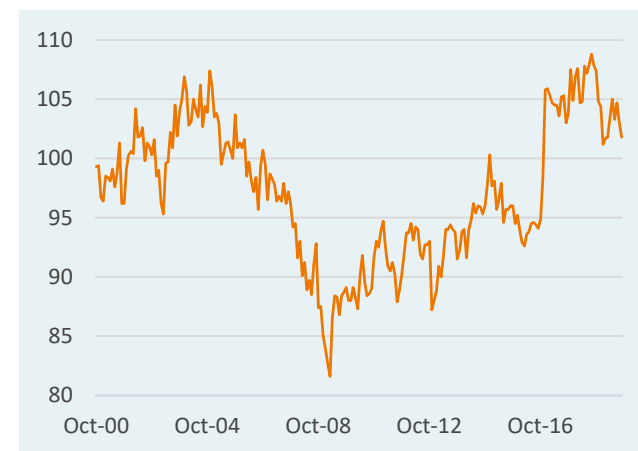
Source: FRED, as of 8/31/19

CONSUMER SENTIMENT



Source: University of Michigan, as of 9/30/19 (see Appendix)

NFIB SMALL BUSINESS OPTIMISM INDEX



Source: NFIB, as of 9/30/19

Housing

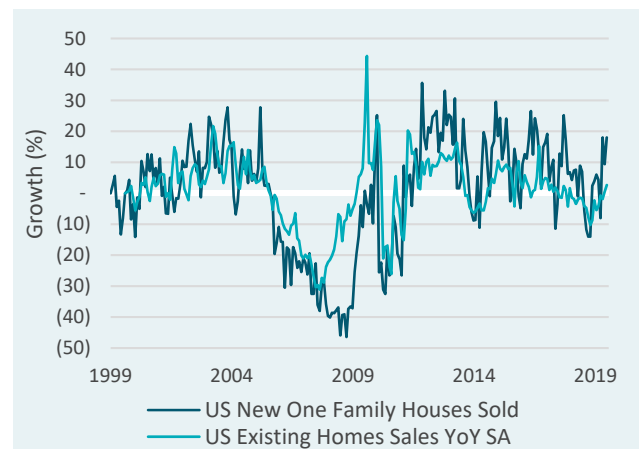
The housing market appears to be cooling off after a strong boom throughout the recent economic expansion. Home prices are falling modestly in some markets, and sales activity slowed in 2018. However, the recent drop in interest rates and mortgage rates has eased the cost of home ownership and may reignite activity.

Existing home sales grew +2.6% YoY in August. New home sales, a far smaller portion of the overall market, grew at a stronger rate of +18% YoY. An increase in new home sales likely reflects rising homebuilder activity in recent years, as indicated by the NAHB Housing Starts and Housing Permits Indices.

Home prices have fallen. The median U.S. home sale price was down -5% YoY in Q2. Falling prices and further weakening of the U.S. economy may create negative momentum as many buyers do not wish to purchase a home in a falling housing market, or in an economy that may be headed for recession.

It is always helpful to remember that home price trends can vary meaningfully by location, which means national statistics are sometimes difficult to interpret at a local level.

U.S. HOME SALES (YOY)



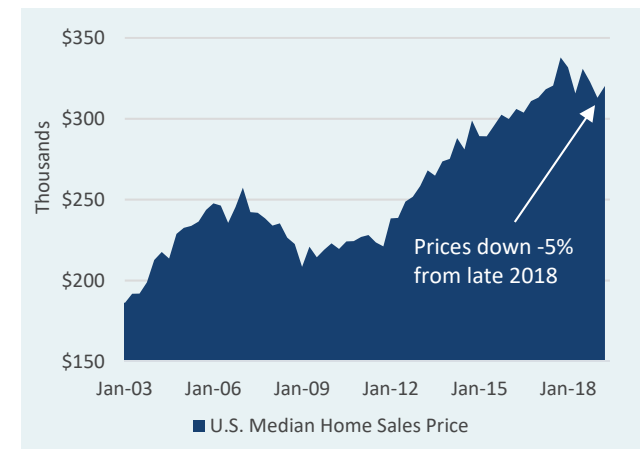
Source: FRED, as of 8/31/19

HOUSING STARTS & PERMITS



Source: Bloomberg, NAHB, as of 8/31/19 (see appendix)

MEDIAN U.S. HOME SALES PRICE



Source: FRED, as of 6/30/19

International economics summary

- The Organization for Economic Development cut its 2019 calendar year forecast for global growth from 3.2% to 2.9% and its 2020 calendar year forecast from 3.4% to 3.0%. Driving the downward revisions were trade tensions, which the OECD estimated would reduce 2019 global growth by 0.6%, cue for central banks to step in and attempt to bolster economic growth through more accommodative policy.
- A major theme in the third quarter was the global manufacturing slowdown, which was illuminated by gloomy European manufacturing PMI data. The Markit Eurozone Manufacturing PMI fell to 45.7, further into contractionary territory indicated by a reading below 50. The German reading fell to 41.7. It has yet to be seen whether manufacturing weakness will spill into the larger services sector, where PMIs still indicate business expansion.
- Inflation has remained subdued across international developed markets, and many pundits have viewed the mild inflation data as a
- Unemployment rates continued to tick lower around the globe. In the U.S., unemployment hit a 50-year low at 3.5%.
- U.S-China negotiations will likely continue to impact trade around the world. The U.S. scheduled tariff rate hikes on \$250B in already-tariffed Chinese imports, as well as tariff impositions of up to 15% on the remaining \$300B in Chinese imports not currently exposed to duties. The Chinese retaliated with commensurate tariff adjustments. The two sides agreed to continued trade talks in Washington D.C. at the beginning of October.
- Dormant trade tensions between the U.S. and the E.U. saw a resurgence over the quarter – the U.S. applied tariffs between 10-25% on \$7.5B of imports from the E.U.

Area	GDP (Real, YoY)	Inflation (CPI, YoY)	Unemployment
United States	2.3% 6/30/19	1.7% 9/30/19	3.5% 9/30/19
Eurozone	1.2% 6/30/19	0.8% 9/30/19	7.4% 8/31/19
Japan	1.0% 6/30/19	0.4% 9/30/19	2.3% 5/31/19
BRICS Nations	5.0% 6/30/19	3.1% 9/30/19	5.1% 6/30/19
Brazil	1.0% 6/30/19	2.9% 9/30/19	11.8% 8/31/19
Russia	0.9% 6/30/19	4.0% 9/30/19	4.3% 8/31/19
India	5.8% 3/31/19	4.0% 9/30/19	8.5% 12/31/17
China	6.2% 6/30/19	3.0% 9/30/19	3.6% 6/30/19

International economics

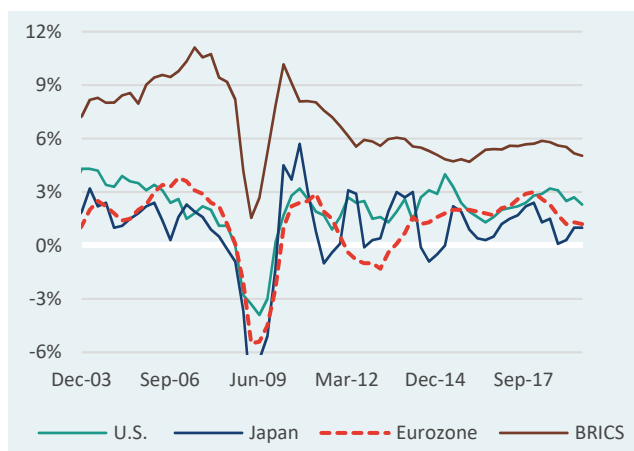
The United States delivered year-over-year GDP growth of 2.3% in the second quarter, extending outperformance relative to other developed nations, which have posted year-over-year growth of around 1.0%.

The Organization for Economic Development cut its 2019 calendar year forecast for global growth from 3.2% to 2.9% and its 2020 calendar year forecast from 3.4% to 3.0%. Driving the downward revisions were trade tensions, which the OECD estimated would reduce 2019 global growth by 0.6%, 2019 U.S. growth by 0.7%, and 2019 Chinese growth by 1.0%

Inflation has remained subdued across international developed markets, and many pundits have viewed the mild inflation data as a cue for central banks to step in and attempt to bolster economic growth through more accommodative policy. Unemployment rates continued to tick lower around the globe. In the U.S., unemployment hit a 50-year low at 3.5%.

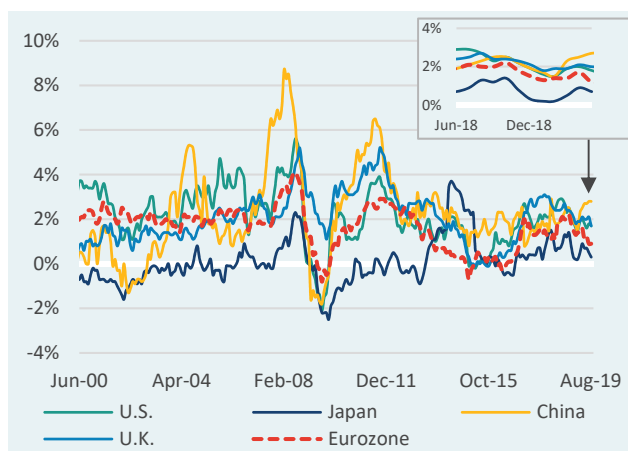
Chinese GDP expanded 6.0% year-over-year in the third quarter, its slowest rate of growth since the first quarter of 1992. Beijing's official target range for 2019 growth is between 6.0-6.5%.

REAL GDP GROWTH (YOY)



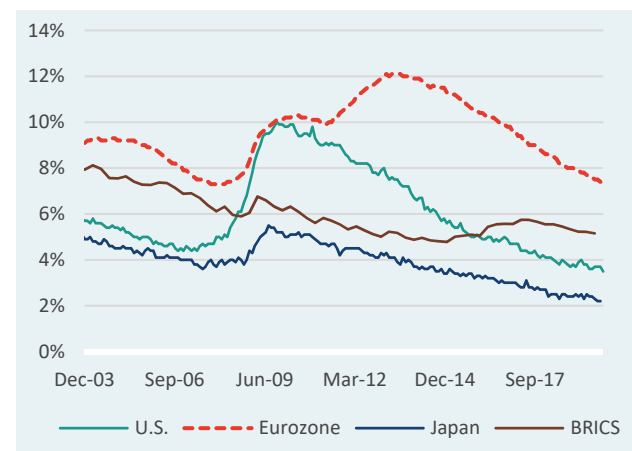
Source: Bloomberg, as of 6/30/19

INFLATION (CPI YOY)



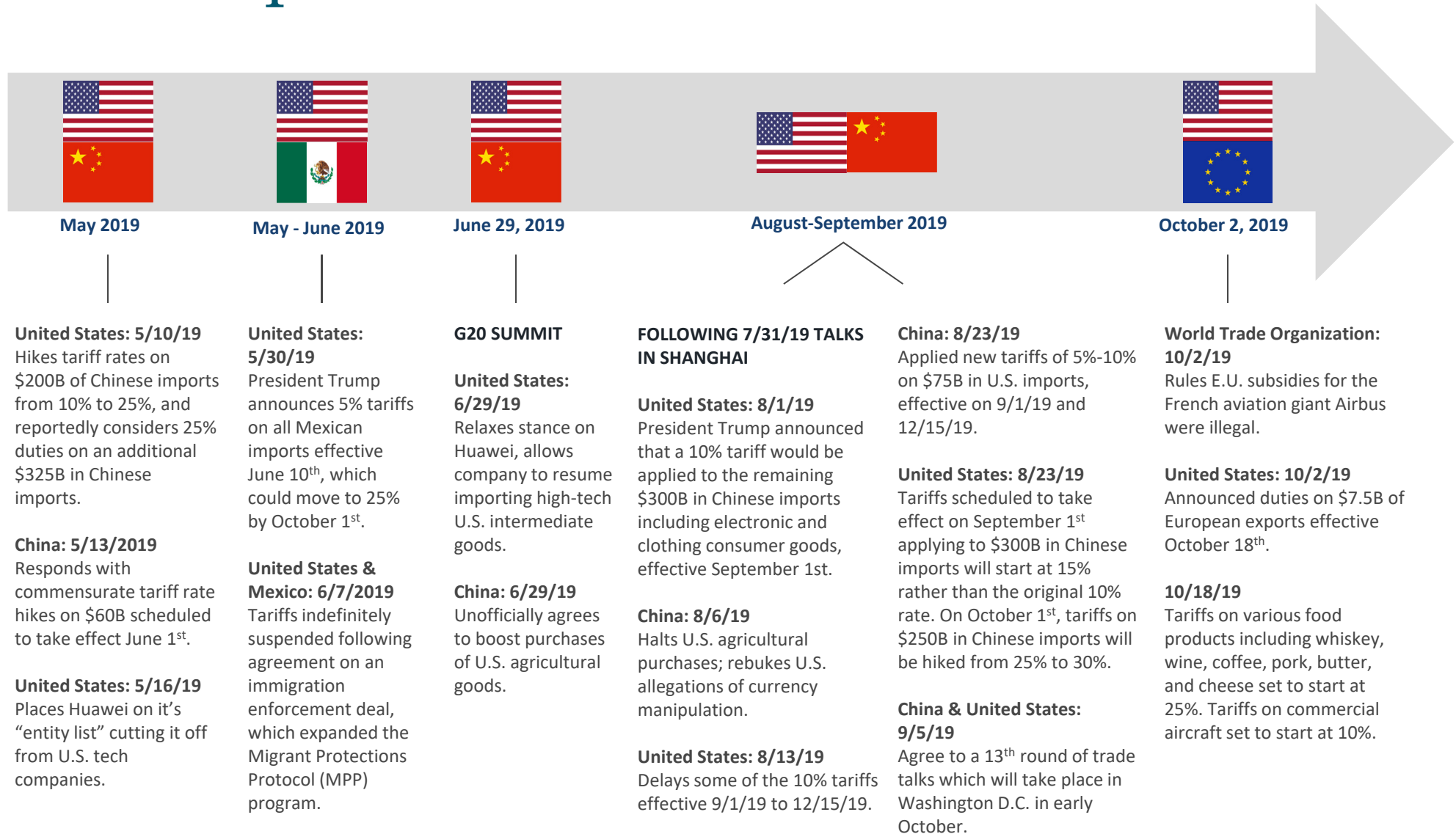
Source: Bloomberg, as of 9/30/19

UNEMPLOYMENT RATE



Source: Bloomberg, as of 9/30/19 or most recent release

Trade update



Source: Wikimedia Commons

Fixed income rates & credit

Interest rate environment

- Global sovereign bonds rallied, encouraged by muted inflation expectations and dovish guidance from global central banks. Central bankers appealed for fiscal action, citing the limited capacity of monetary policy to sustain further economic expansion.
- The Federal Open Market Committee cut the range for its benchmark interest rate by 0.25% in both its July and September meetings, bringing the new range for federal funds to 1.75-2.00%.
- FOMC members appear divided on the likely future path of interest rates. Per the September dot plot, 8 of 17 members expect one further 0.25% cut by the end of 2020, 2 expect no change, and 7 expect either one or two 0.25% rate hikes.
- The European Central Bank delivered a fresh stimulus package in September, in line with expectations. The ECB cut its main deposit rate from -0.40% to -0.50% and announced it would restart asset purchases of €20 billion per month, beginning November 1st.
- Global sovereign yields continued to plummet. In Germany, 10-year bond yields touched fresh all-time lows, and the entire German sovereign curve moved below 0%. In Italy, 10-year bond yields fell 1.28% to 0.82%, boosted by the formation of a new coalition government between the Democratic Party and the Five-Star Movement.
- Repo rates, which represent the overnight rate paid by short-term borrowers of cash, surged as overnight liquidity was constrained. The New York Fed intervened, injecting over \$300 billion into money markets over the course of a few weeks. Fed officials viewed the brief spike in repo rates as a financial “plumbing” issue, which could justify an “organic resumption of balance sheet growth”, not to be confused with crisis-era QE policy.

Area	Short Term (3M)	10-Year
United States	1.81%	1.66%
Germany	(0.57%)	(0.57%)
France	(0.59%)	(0.27%)
Spain	(0.54%)	0.15%
Italy	(0.28%)	0.82%
Greece	0.65%	1.35%
U.K.	0.78%	0.49%
Japan	(0.32%)	(0.21%)
Australia	1.06%	1.02%
China	2.33%	3.14%
Brazil	5.04%	7.05%
Russia	6.58%	7.01%

Source: Bloomberg, as of 9/30/19

Rising global debt – two opposing forces

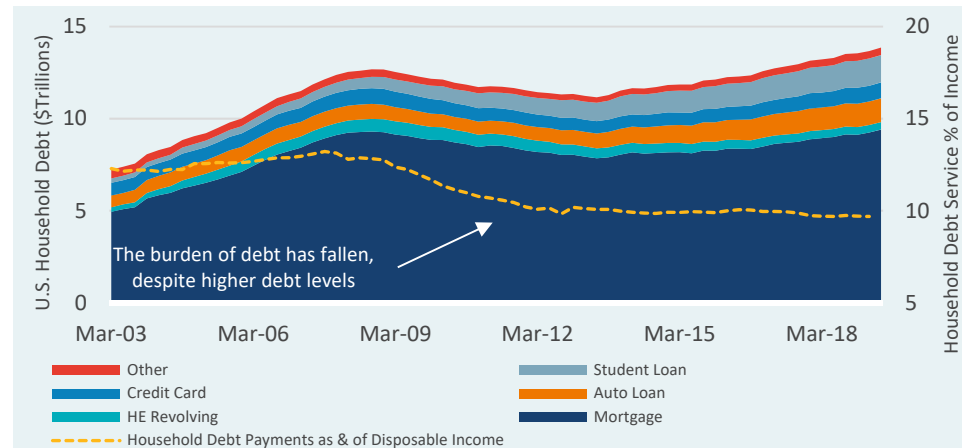
As the world has entered a low interest rate environment, many businesses and households have taken on greater debt. This is a natural trend – cheaper financing makes many purchases economical that were not when interest rates were high. As the cost of debt falls, businesses have also increasingly sought debt as a preferred source of overall financing.

Simultaneously, lower interest rates have offset much of the burden of taking on more debt. Some may argue that if an entity loads up on debt, but interest rates fall enough so that the entity's monthly debt payment does not change, this additional debt does not add significant risk to the entity's situation. It appears this is what is occurring around the world – greater use of debt, with the

burden of that debt largely offset by much lower interest rates. However, we believe risks are heightened in this environment.

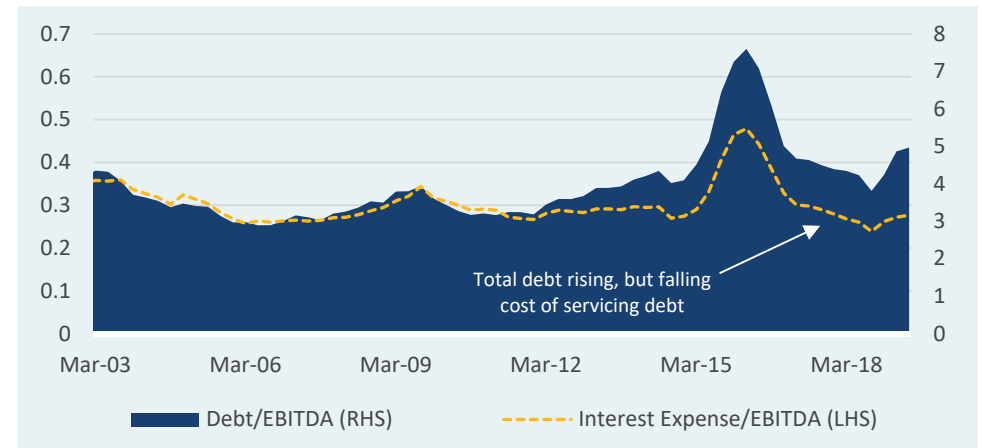
What are the investment implications? Changes in debt levels and interest rates tend to be slow-moving and secular, and difficult to act upon. But these events may in fact be informative about the future. First, expanded budgets and higher debt loads create incentives for governments to keep interest rates low to avoid economic problems. Second, significant corporate profit growth in recent years from financial engineering should not be expected to continue indefinitely. Third, higher debt loads may add to deflationary pressure, if debt service begins to take a greater share of income. We will continue to watch these secular forces.

HOUSEHOLD DEBT BURDEN



Source: FRED, as of 6/30/19

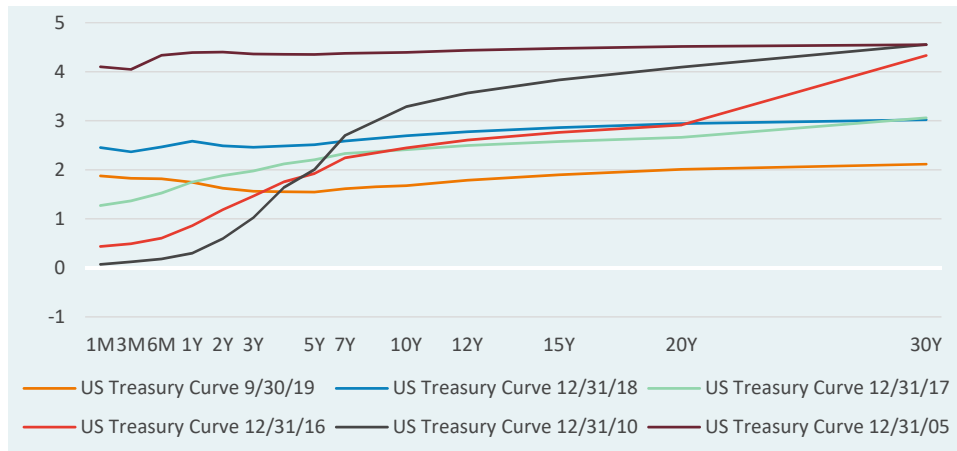
HIGH YIELD DEBT BURDEN



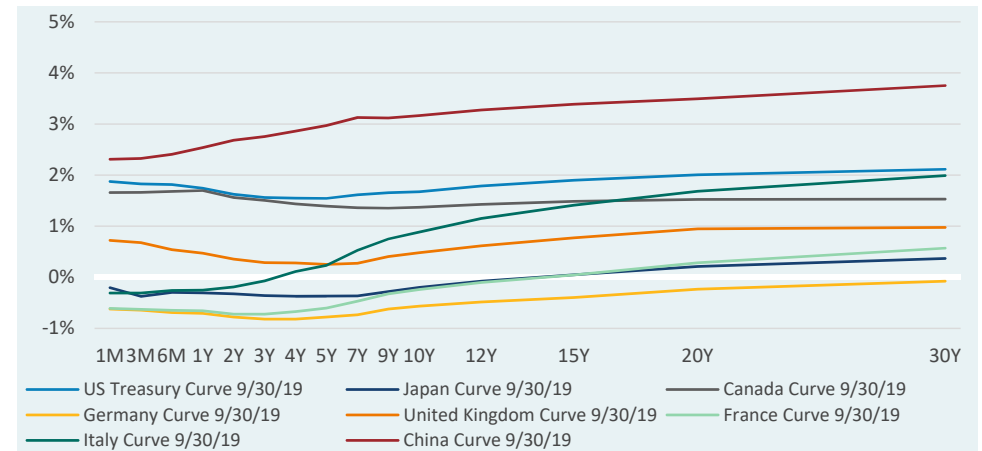
Source: Bank of America Merrill Lynch, as of 6/30/19 – Interest expense divided by total debt

Yield environment

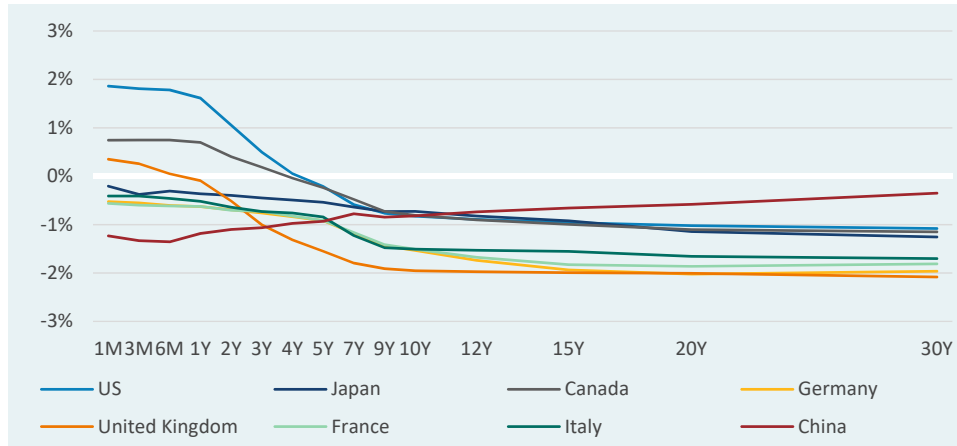
U.S. YIELD CURVE



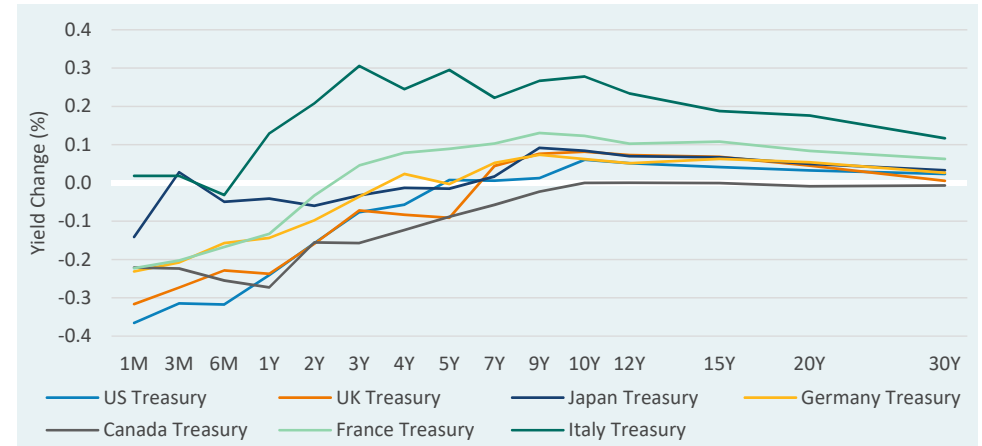
GLOBAL GOVERNMENT YIELD CURVES



YIELD CURVE CHANGES OVER LAST FIVE YEARS



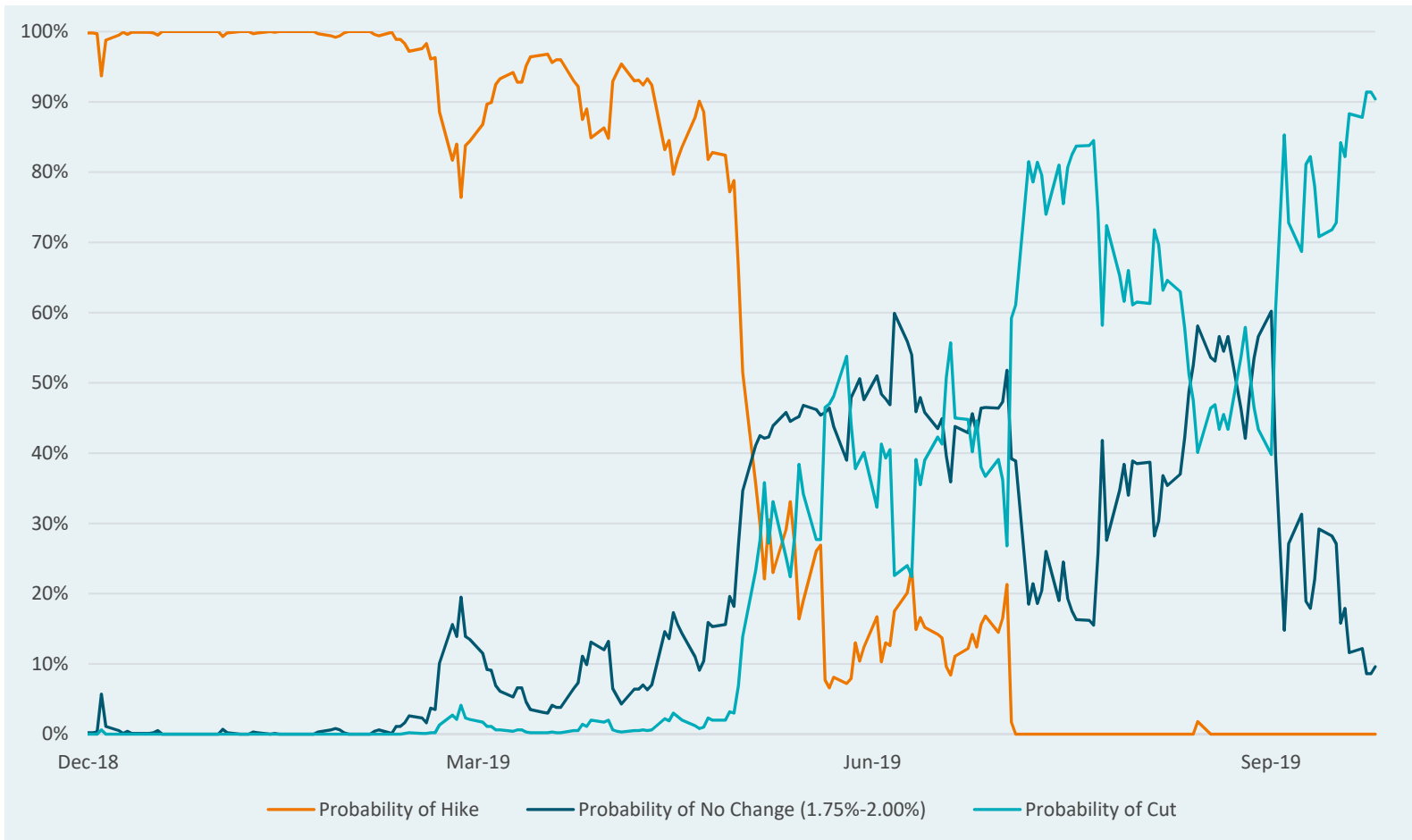
IMPLIED CHANGES OVER NEXT YEAR



Source: Bloomberg, as of 9/30/19

October Fed meeting

FUTURES IMPLIED PROBABILITIES FOR OCTOBER FED RATE DECISION



In September, the Fed cut its range for federal funds by 0.25%, in line with expectations

Investors expect the Fed to cut rates again by 0.25% at the October 30th meeting

Source: Bloomberg, as of 10/24/19

Credit environment

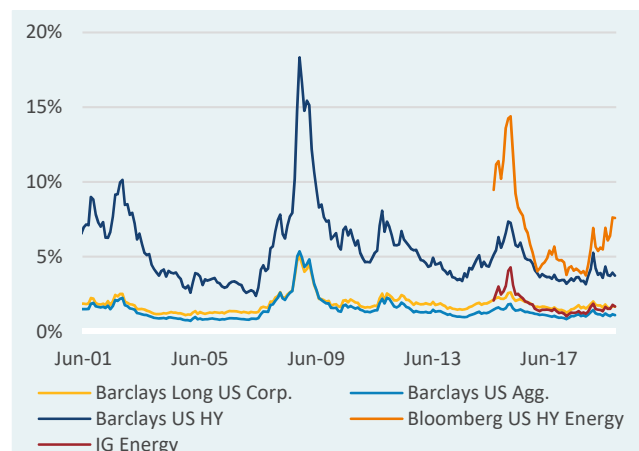
High yield bond spreads tightened slightly during Q3 as below investment grade assets remained somewhat stable over the period. Credit in general has been positively impacted by Federal Reserve dovishness. Anticipation of easier interest rate policies, which could potentially lengthen the credit cycle, has strengthened sentiment for risk assets. BB-rated bonds outperformed both CCC- and B-rated bonds in the third quarter once again. High yield bonds have returned +11.4% YTD, materially outperforming bank loans (+6.4%), but slightly underperforming investment grade credit (+12.6%).

The bank loan market has experienced some modest positive performance as interest rates rose off of their lows during the

quarter. The asset class was impacted by a pause in the Fed's hiking cycle and uncertainty surrounding future moves.

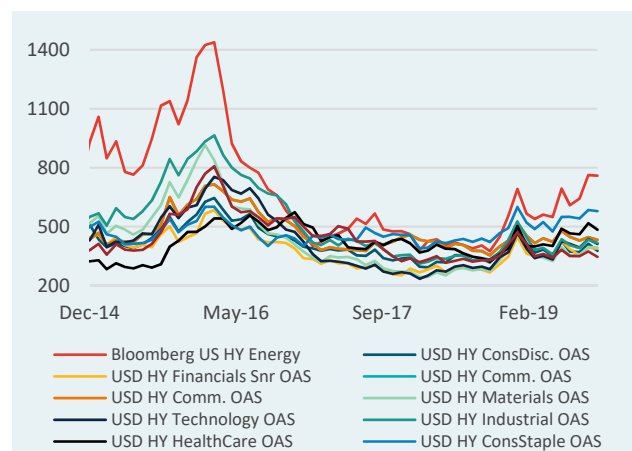
Based on concerns over late-cycle behavior in credit markets, we do not believe investors are being adequately compensated for credit risk. Late-cycle volatility tends to coincide with widening credit spreads and higher propensity for default activity. An underweight to U.S. investment grade, high yield credit, and bank loans may be warranted, with an overweight to emerging market debt which appears to offer more attractive value. This positioning should result in an overall neutral credit risk stance. Within U.S. markets, higher quality and more liquid assets appear most attractive.

SPREADS



Source: Barclays, Bloomberg, as of 9/30/19

HIGH YIELD SECTOR SPREADS (BPS)



Source: Bloomberg, as of 9/30/19

Market	Credit Spread (OAS)	
	9/30/19	9/30/18
Long U.S. Corp	1.7%	1.5%
U.S. Inv Grade Corp	1.2%	1.1%
U.S. High Yield	3.7%	3.2%
U.S. Bank Loans*	4.5%	3.7%

Source: Barclays, Credit Suisse, Bloomberg, as of 9/30/19

*Discount margin (4-year life)

Default & issuance

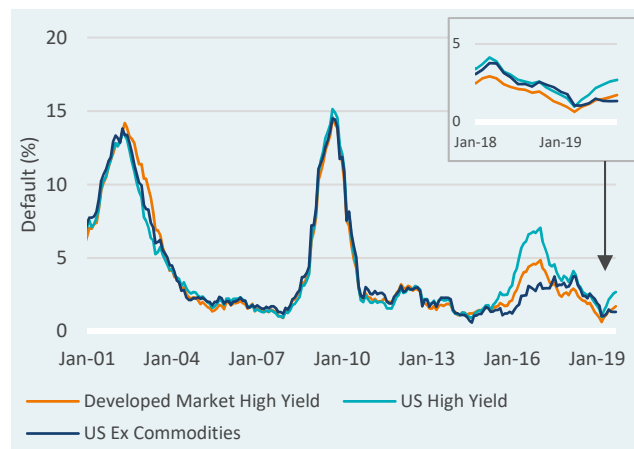
Default activity has been low and stable in the U.S. credit market, despite price volatility. The par-weighted default rate for high yield increased to 2.5% but remains below its long-term average range of 3.0-3.5%. For loans, the par-weighted default rate at the end of the third quarter was 1.4% and remains below the long-term average of 3.1%, according to data from J.P. Morgan. Consumer, retail, telecom, and utilities sectors may be especially prone to stress in the current environment.

Senior loan and high yield markets have essentially

recovered from a wave of defaults seen in 2015-2016 that were generated by energy and metals/mining sectors. High yield bond recovery rates have improved significantly since that time. However, the recent reversal in this recovery trend is notable and worth watching.

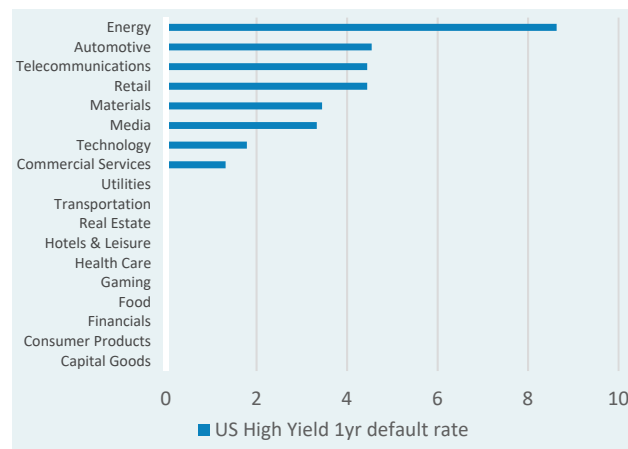
Gross high yield issue activity increased in September as investors took advantage of a dip in yields. Loan market issuance is significantly behind last year's pace, likely influenced by lower demand for floating rate securities now that the Federal Reserve has paused monetary tightening.

HY DEFAULT RATE (ROLLING 1-YEAR)



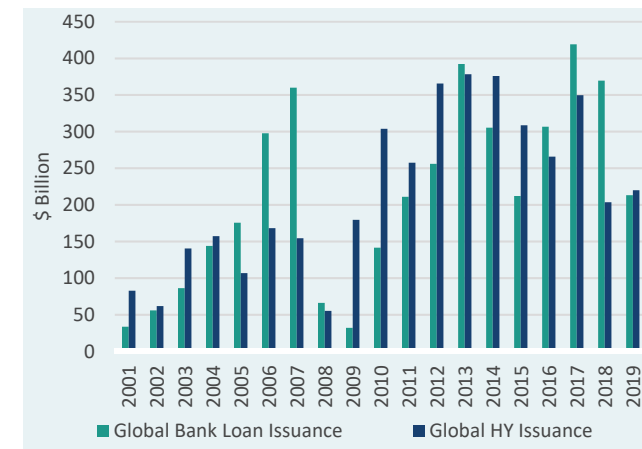
Source: BofA Merrill Lynch, as of 9/30/19

U.S. HY SECTOR DEFAULTS (LAST 12 MONTHS)



Source: BofA Merrill Lynch, as of 9/30/19 – par weighted

GLOBAL ISSUANCE (\$ BILLIONS)



Source: Bloomberg, BofA Merrill Lynch, as of 9/30/19

Equity

Equity environment

- U.S. equities outperformed international in Q3 (S&P 500 +1.7%, MSCI EAFE -1.1%) as domestic markets continued to lead. Some convergence of U.S. interest rates with the ultra-low rates of international markets likely supported equity prices over the quarter. We expect further declines in U.S. yields to be supportive of stocks, as low rates bolster earnings and reduce the attractiveness of fixed income.
- The S&P 500 has delivered moderate returns of 4.3% over the past year. Returns have likely been limited by flat earnings growth of 1.7%, and relatively high valuations. In the third quarter, S&P 500 YoY earnings growth is expected to be -4.1%, which would put U.S. equities on track for three consecutive quarters of earnings loss.
- The U.S. dollar appreciated 2.6% in Q3 relative to a trade-weighted basket of currencies, which created volatility and currency losses for unhedged investors.
- A large rotation from momentum stocks into value stocks occurred in Q3. The selloff was a multi-standard deviation event, with performance of the prior five months largely reversed in several days. The fall was likely due to a combination of better than expected economic news, monetary/fiscal stimulus expectations, and extreme positioning in these factors.
- Value stock performance was on par with growth stocks during the third quarter (Russell 1000 Value +1.4%, Russell 1000 Growth +1.5%) while small cap stocks underperformed large stocks (Russell 2000 -2.4%, Russell 1000 +1.4%). Year-to-date, the size factor and value factor have continued their run of underperformance.

	QTD TOTAL RETURN		1 YEAR TOTAL RETURN	
	(unhedged)	(hedged)	(unhedged)	(hedged)
US Large Cap (S&P 500)	1.7%		4.3%	
US Small Cap (Russell 2000)	(2.4%)		(8.9%)	
US Large Value (Russell 1000 Value)	1.4%		4.0%	
US Large Growth (Russell 1000 Growth)	1.5%		3.7%	
International Large (MSCI EAFE)	(1.1%)	2.3%	(1.3%)	4.2%
Eurozone (Euro Stoxx 50)	(1.4%)	3.8%	1.3%	11.5%
U.K. (FTSE 100)	(2.2%)	1.4%	(2.7%)	5.4%
Japan (NIKKEI 225)	2.9%	3.6%	(8.2%)	(5.9%)
Emerging Markets (MSCI Emerging Markets)	(4.2%)	(2.2%)	(2.0%)	(0.4%)

Source: Russell Investments, MSCI, STOXX, FTSE, Nikkei, as of 9/30/19

Domestic equity

U.S. equities outpaced international in the third quarter (S&P 500 +1.7%, MSCI EAFE -1.1%) as domestic markets continued to lead. Some convergence of U.S. interest rates with the ultra-low rates of international markets likely supported equity prices over the quarter. We expect further declines in U.S. yields to be supportive of stocks, as low rates bolster earnings and reduce the attractiveness of fixed income.

The S&P 500 has delivered moderate returns of 4.3% over the past year. Returns have likely been limited by slow earnings growth of 1.7%, and relatively high valuations. In the third quarter, S&P 500 YoY earnings growth is expected to be -4.1%, which would put U.S.

equities on track for three consecutive quarters of earnings loss. Revenue growth in Q3 is expected to be 2.8% YoY. Investors may point to seemingly lofty earnings growth expectations for 2020 as reason for optimism, though in reality this is a fairly average forecast. Growth expectations are typically high initially, and then fall to a more realistic level as time passes.

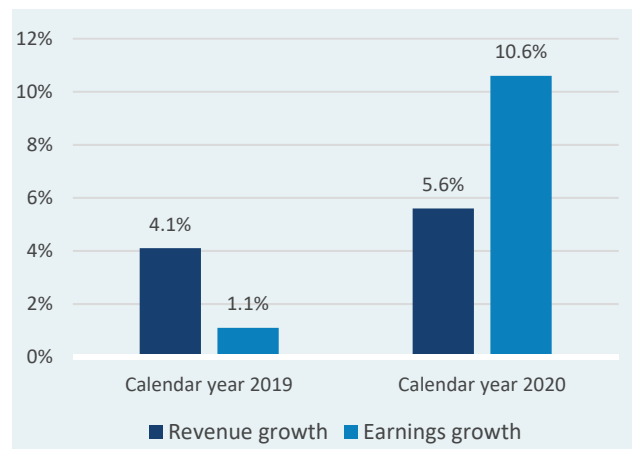
U.S. equities offer lower yields and less attractive valuations relative to other markets around the world, which suggests domestic equities might underperform over the long-term. However, U.S. may continue to outperform over the shorter-term due to relative economic and market strength.

U.S. EQUITIES



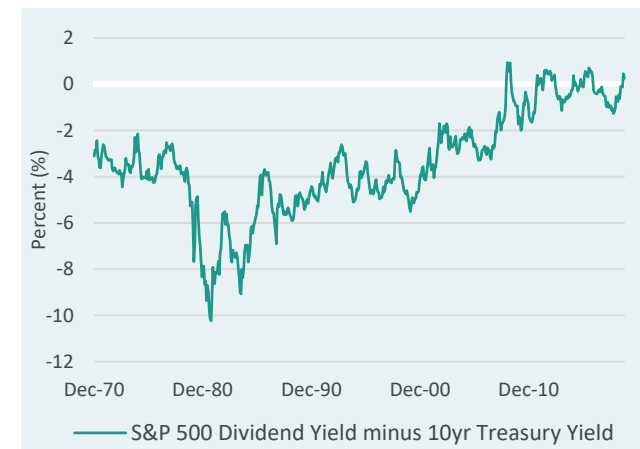
Source: Standard & Poor's, as of 9/30/19

Q3 2019 EARNINGS EXPECTATIONS



Source: FactSet, as of 10/11/19

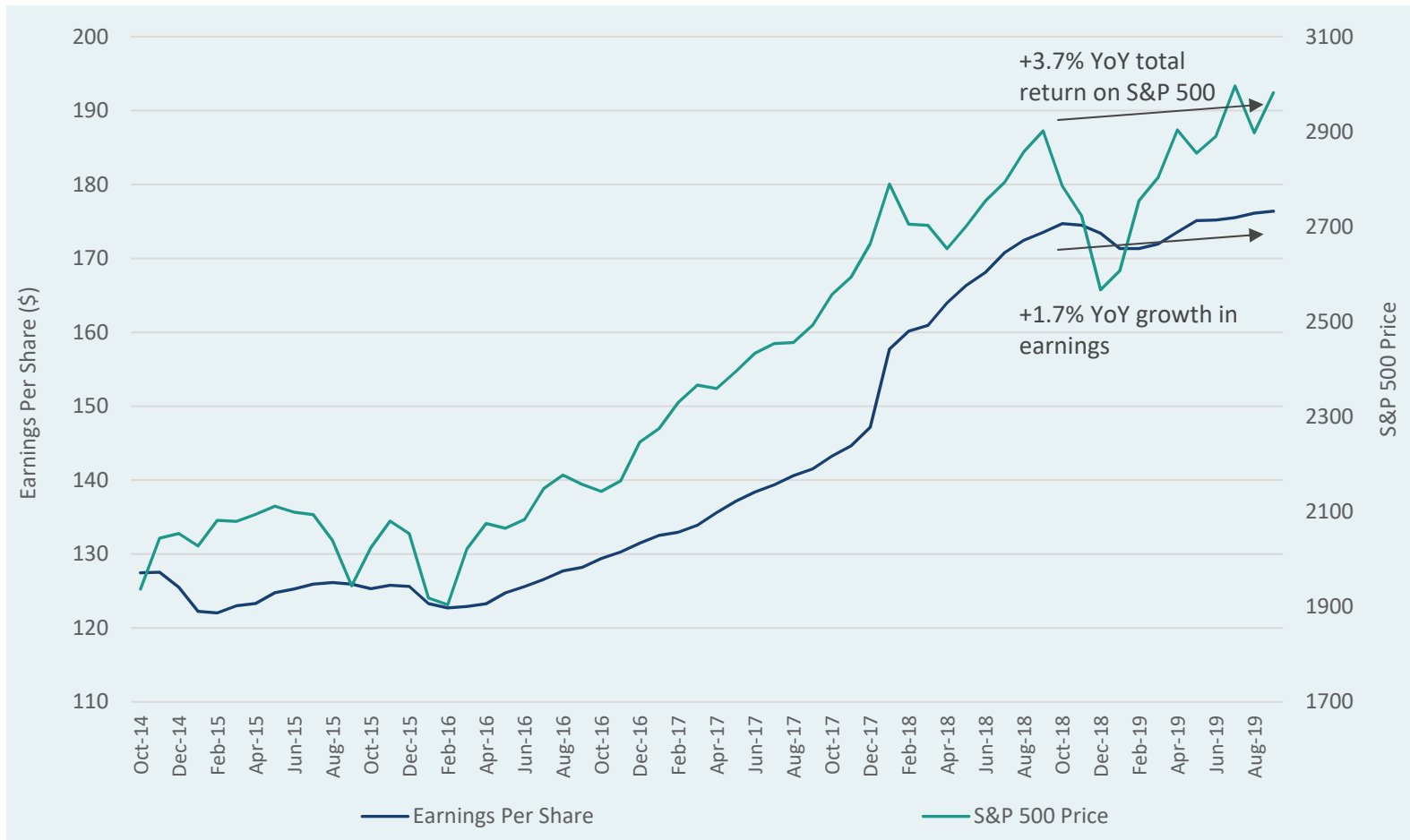
RELATIVE YIELDS



Source: Standard & Poor's, as of 9/30/19

Domestic equity

S&P 500 INDEX PRICE & EARNINGS LEVEL



U.S. equity performance has moderated

If earnings flatten out, this may lead to milder future returns

Source: Standard & Poor's, Bloomberg, as of 9/30/19

Domestic equity size & style

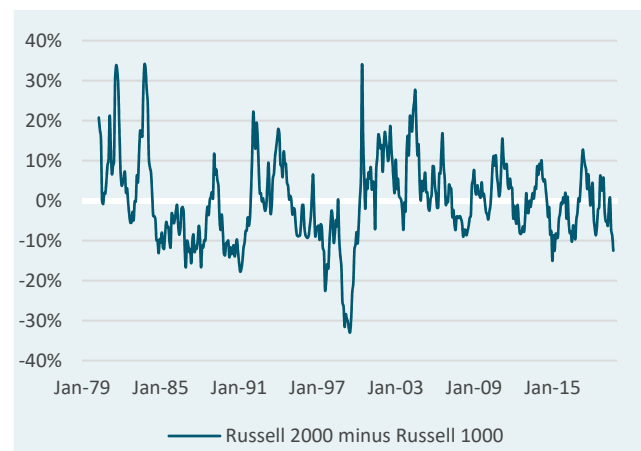
Value stock performance was on par with growth stocks during the third quarter (Russell 1000 Value +1.4%, Russell 1000 Growth +1.5%) while small cap stocks underperformed large stocks (Russell 2000 -2.4%, Russell 1000 +1.4%). Year-to-date, the size factor and value factor have extended their run of weakness.

The impact of sector performance on the value premium was mixed in the third quarter. Financials (+2.0%) and Utilities (+9.3%) outperformed the overall index (S&P 500 +1.7%) which boosted value, but poor Energy (-6.3%) performance counteracted these effects. Information Technology beat the

overall index (+3.3%) which acted as a headwind for value stocks.

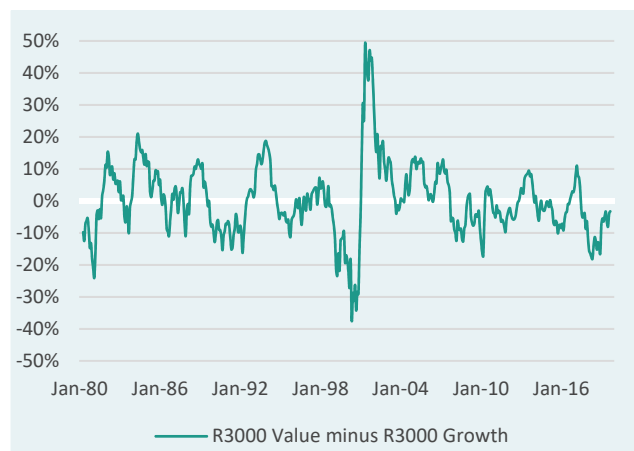
Value stocks have exhibited a long run of underperformance over the past decade. Our view has been that value stocks did not appear attractive, despite persistent performance pain. This was because value stocks had underperformed due to fundamental reasons rather than due to prices becoming stretched. Now, for the first time in this cycle it appears value prices are becoming unusually cheap, as indicated by a large disparity between Russell 1000 Value and Russell 1000 Growth P/E multiples.

SMALL CAP VS LARGE CAP (YOY)



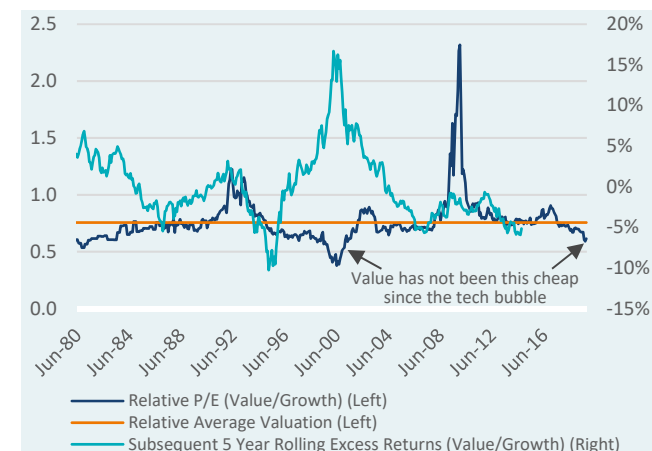
Source: FTSE, as of 9/30/19

VALUE VS GROWTH (YOY)



Source: FTSE, as of 9/30/19

VALUE STARTING TO LOOK CHEAP



Source: Russell, Bloomberg, as of 9/30/19

Domestic equity style – a closer look

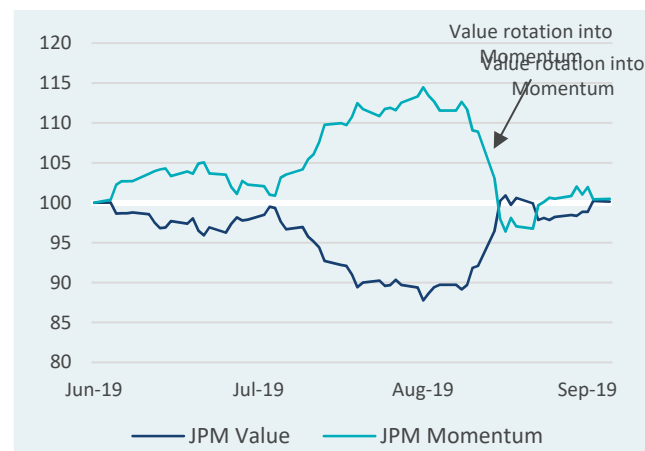
One of the largest rotations in decades into value stocks from momentum stocks occurred in Q3. The selloff was a multi-standard deviation event, with performance accruing from the prior five months largely reversed in several days. The reversal was likely due to a combination of better than expected economic news, monetary/fiscal stimulus expectations, and extreme positioning in these factors.

However, the selloff was short-lived as factor volatility reversed later in September. The Q3 reversal did not negate a long run of poor value results. As mentioned, the value factor

remains cheap relative to history.

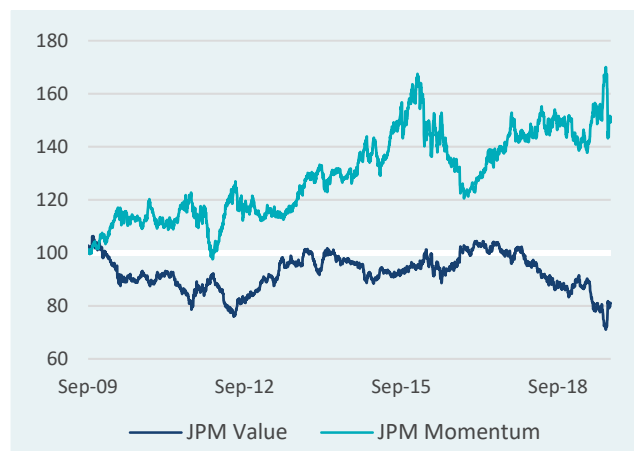
Mean reversion is a key underlying driver of the value factor. After the Global Financial Crisis, the speed at which stocks moved in/out of the respective top (cheap) and bottom (expensive) factor quintiles slowed relative to history. While expensive stocks are now exiting the bottom quintile at a somewhat faster rate, stocks with the most attractive valuations continued to remain cheap for longer periods of time relative to the pre-Global Financial Crisis period.

Q3 CUMULATIVE FACTOR PERFORMANCE
(INDEXED 6/30/2019 = 100)



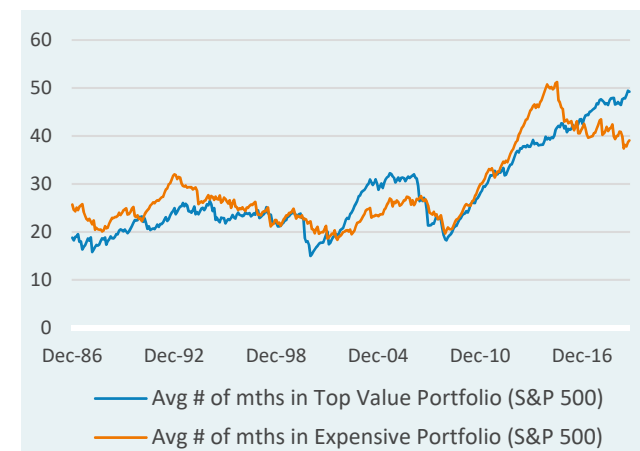
Source: J.P. Morgan Chase & Co., Copyright 2019, as of 9/30/19

10YR CUMULATIVE FACTOR PERFORMANCE
(INDEXED 9/30/2009 = 100)



Source: J.P. Morgan Chase & Co., Copyright 2019, as of 9/30/19

STRUCTURAL HEADWIND TO VALUE



Source: J.P. Morgan Chase & Co., Copyright 2019, as of 9/30/19

International developed equity

International equity performance was impacted heavily by currency movements in the third quarter. In local terms, the MSCI EAFE Index delivered a total return of 1.8%, bringing year-to-date performance to 15.7%. For unhedged U.S. investors however, the MSCI EAFE Index generated a quarterly return of -1.1%, dragging the year-to-date figure to 12.8%. Dollar strength reemerged as a powerful force driving returns due in part to widening interest rate differentials between the U.S. and the rest of the world.

Japanese equities outperformed over the period, delivering a

Q3 return of 3.5% in local terms. Unhedged U.S. investors in the MSCI Japan Index received only 3.1%, as the yen depreciated slightly vs. the U.S. dollar over the period.

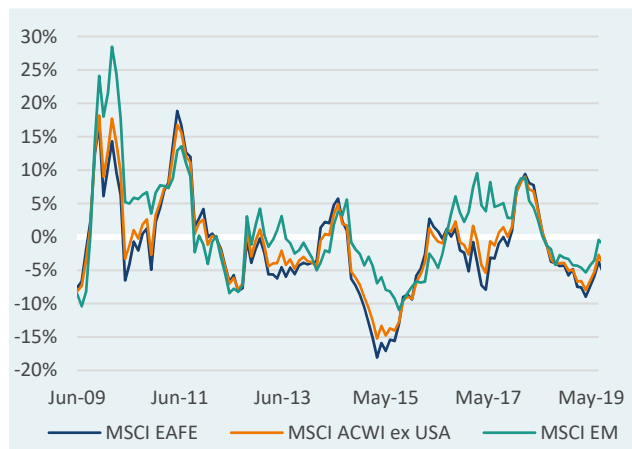
The British pound weakened in July as the new Prime Minister Boris Johnson signaled a much harder line on Brexit than his predecessor's. Toward the end of the quarter, the pound strengthened as markets began pricing a lower likelihood of a "no-deal" Brexit, which many market participants viewed as unfriendly to markets.

INTERNATIONAL DEVELOPED EQUITIES



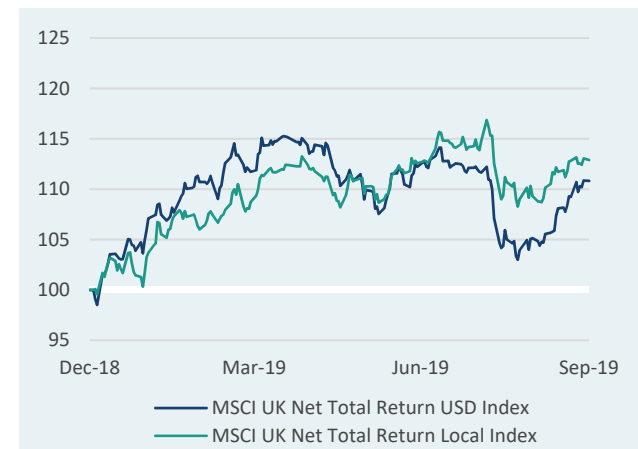
Source: MSCI, as of 9/30/19

EFFECT OF CURRENCY (1-YEAR ROLLING)



Source: MSCI, as of 9/30/19

U.K. EQUITY PERFORMANCE (YTD)



Source: Bloomberg, as of 9/30/19

Emerging market equity

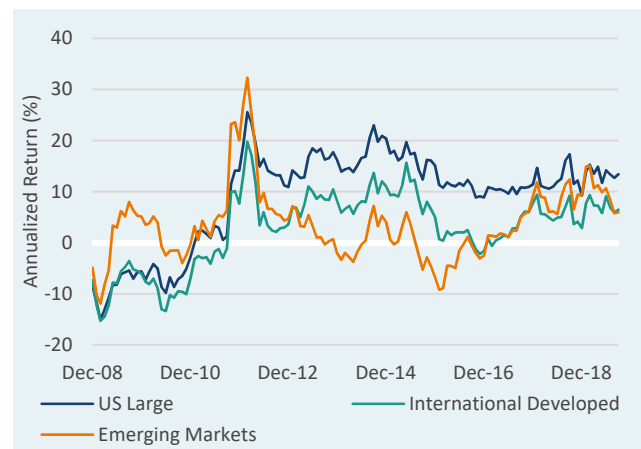
Emerging market equities (MSCI Emerging Markets -4.2%) lagged developed markets (MSCI EAFE -1.1%) over the quarter, while U.S. equities outperformed (S&P 500 +1.7%).

Equity multiples have expanded year-to-date, recovering to the levels of September 2018. Developed and emerging markets continue to appear cheap relative to domestic equity valuations.

We see two opposing forces impacting emerging markets in

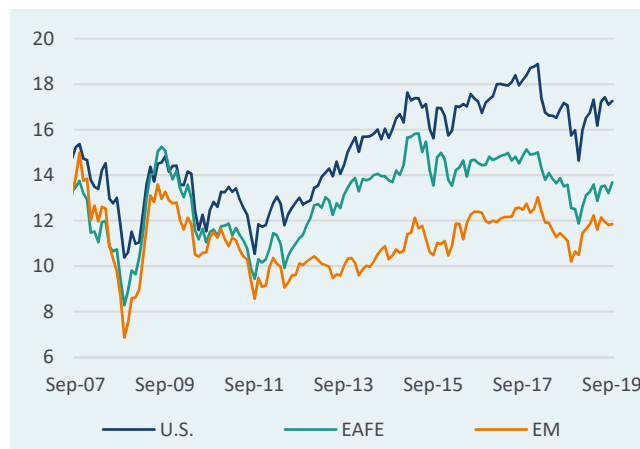
the current environment. The first force is decelerating global growth and a rising probability of recession, which likely bodes poorly for emerging market performance. However, the second force of widespread central bank dovishness may boost emerging market performance in the near term. Specifically, if global growth levels out while central banks unleash another round of easing, there may be material upside to emerging market equities. On balance, we remain moderately bullish on emerging markets, though we are watching developments closely.

EQUITY PERFORMANCE (3-YR ROLLING)



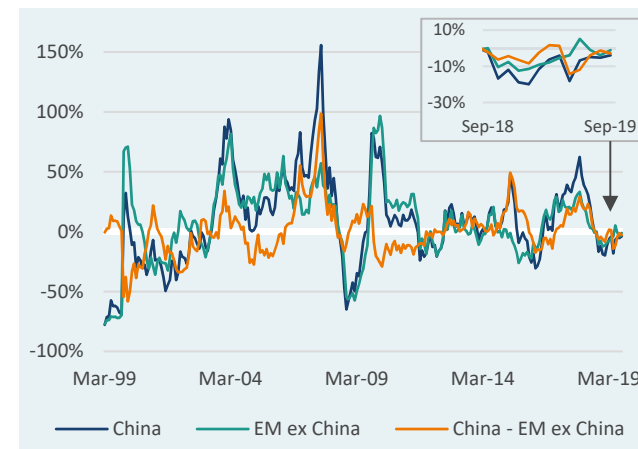
Source: Standard & Poor's, MSCI, as of 9/30/19

FORWARD P/E



Source: MSCI, as of 9/30/19

CHINA & EM: ROLLING 1-YEAR PERFORMANCE (USD)



Source: MSCI, as of 9/30/19

Equity valuations

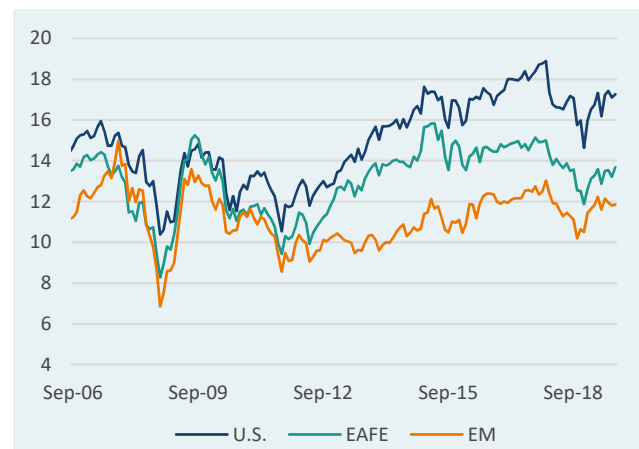
Equity valuations have climbed back up year-to-date as prices recover from their large drop in late 2018. U.S. equities are expensive relative to their long-run average, while international and emerging equities currently sit at normal levels.

The forward P/E multiple on the MSCI US Index ticked up from 17.2x to 17.3x over the quarter and remains above both its 5-year (17.1x) and 10-year (15.3x) averages. International equities remain at a forward P/E multiple (13.7x) between the

5-year (14.2x) and 10-year (13.2x) averages. Emerging market equities became a bit cheaper but are still trading at a forward P/E of 11.9x, above both their 5-year and 10-year averages.

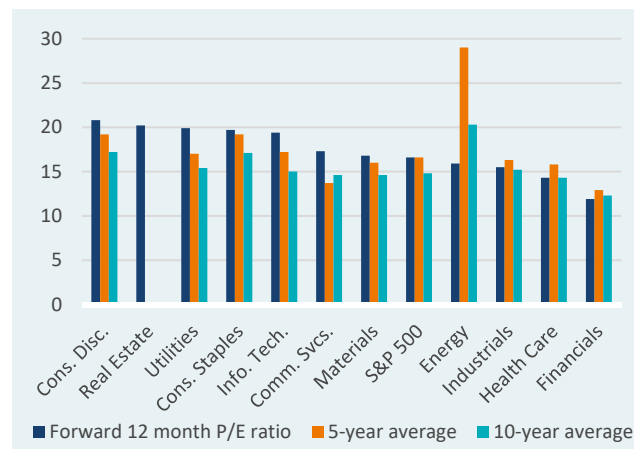
U.S. large cap stocks outperformed most unhedged international and emerging market equities. In a more uncertain geopolitical landscape, investors appear to remain willing to stomach loftier relative valuations in exchange for the quality of U.S. institutions. The U.S. economy is less reliant on exports, and U.S. companies are less reliant on foreign demand, helping to shield U.S. stocks from trade turbulence.

FORWARD P/E RATIOS



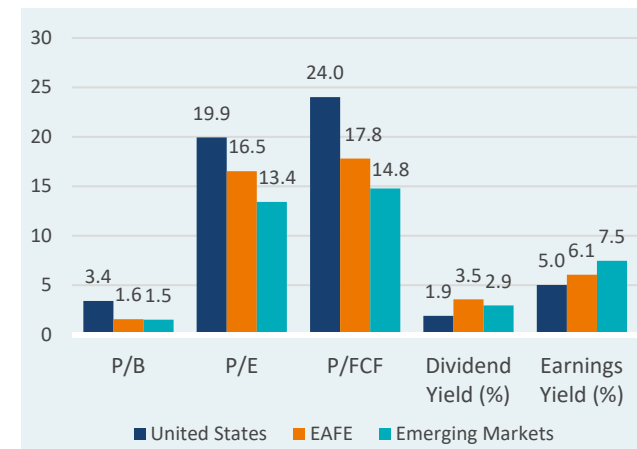
Source: MSCI, 12m forward P/E, as of 9/30/19

S&P 500 INDEX FORWARD SECTOR P/E RATIOS



Source: Standard & Poor's, FactSet, as of 10/11/19

VALUATION METRICS (3-MONTH AVERAGE)



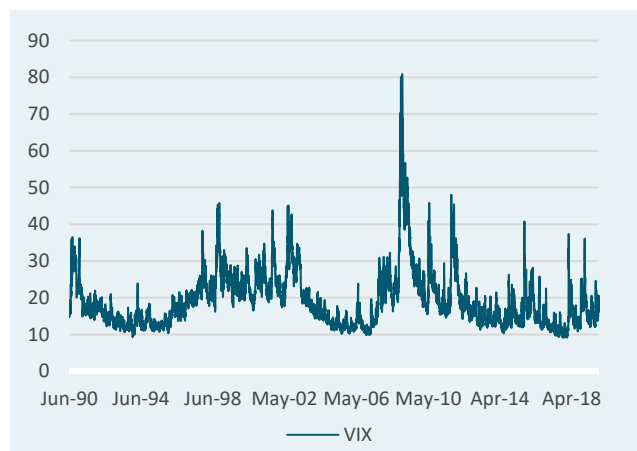
Source: Bloomberg, MSCI as of 9/30/19 - trailing P/E

Equity volatility

Implied volatility on both U.S. stocks and European stocks picked up over the quarter, albeit from depressed levels. The VIX Index which measures the 30-day implied volatility of U.S. stocks jumped to nearly 25.0 in August following a material escalation in U.S.-Chinese trade tensions. By quarter-end, the VIX settled at 16.2, up 1.1 points, and above its year-to-date average of 15.9. In Europe, the V2X Index gauging implied volatility on the Euro Stoxx 50 Index rose from 13.7 to 15.8, above its year-to-date average of 15.4.

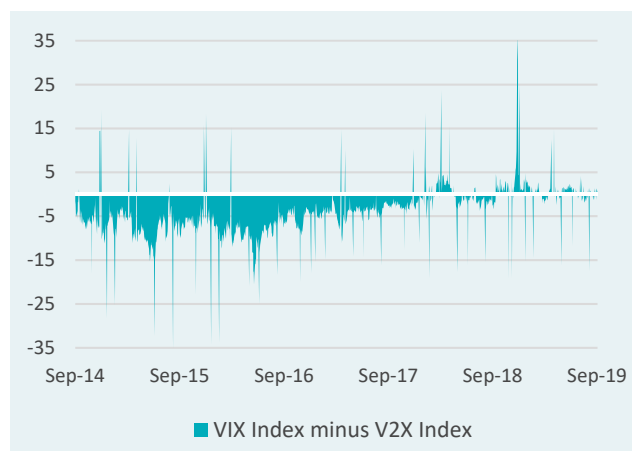
Despite the ratcheting up of trade tension in Q3, the realized trailing 30-day realized volatility on Chinese mainland shares was surprisingly low – falling from 18.0% to 12.9%. In comparison, U.S. 30-day volatility rose from 12.2% to 12.7%. Volatility of U.S. and China equities has only been this close 17% of the time. Looking ahead to Q4, despite realized volatility being low, it is important to remember that Chinese equities have been extremely volatile. As recent as 2014, 30-day annualized volatility reached 60% in mainland China.

U.S. IMPLIED VOLATILITY (VIX)



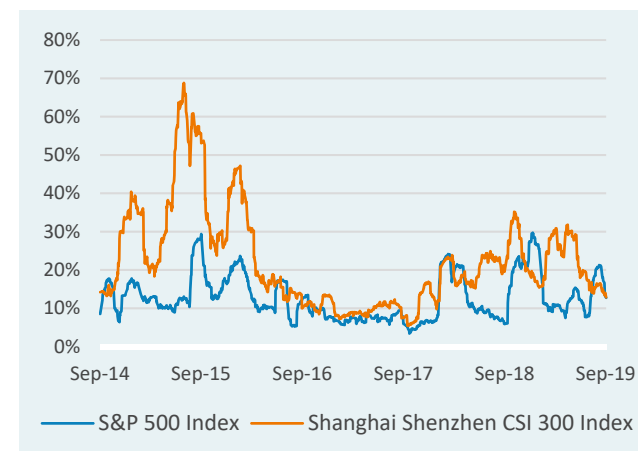
Source: CBOE, as of 9/30/19

U.S. IMPLIED VOLATILITY VS. EUROPEAN IMPLIED VOLATILITY



Source: Bloomberg, as of 9/30/19

30-DAY REALIZED VOLATILITY – U.S. LARGE CAP STOCKS VS. CHINESE MAINLAND STOCKS



Source: Bloomberg, as of 9/30/19

Long-term equity performance



Source: Morningstar, as of 9/30/19

Other assets

Currency

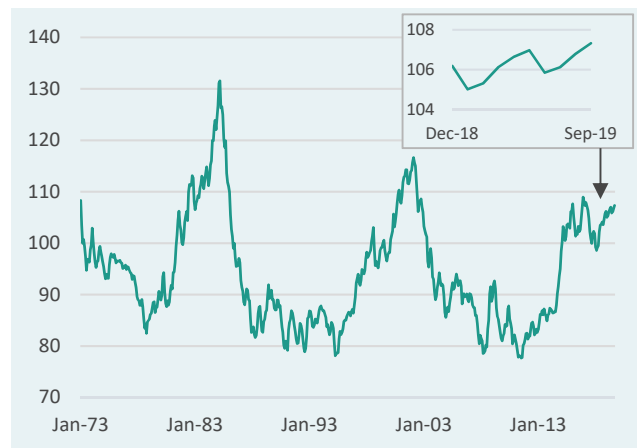
The U.S. dollar appreciated 2.6% in Q3 relative to a trade-weighted basket of currencies. Dollar volatility has been suppressed so far in 2019, following large swings experienced during years 2014-2018. Investors are pricing in a 78% chance of one more 0.25% rate cut by the end of 2019, and a 25% chance of 0.50% in rate cuts. The market continues to price in more aggressive easing than what the Federal Reserve has indicated, which may contribute to volatility if actual easing measures underwhelm the market.

A variety of market scenarios may lead to U.S. dollar

weakness in the short-term, including: aggressive easing by the Federal Reserve which leads to a convergence of U.S. and international interest rates levels, further upside surprise to U.S. inflation, and/or weakening U.S. economic conditions which brings the U.S. more in line with other developed economies.

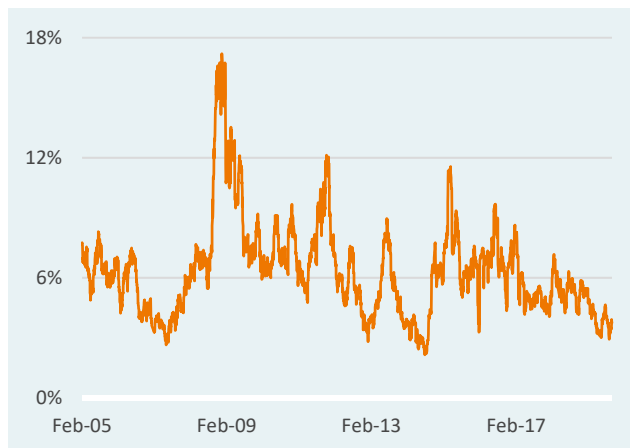
Emerging market currencies fell -4% quarter, on the back of U.S. dollar strength. These currencies remain very depressed relative to history.

U.S. DOLLAR TRADE WEIGHTED INDEX



Source: Federal Reserve, Verus, as of 9/30/19

BLOOMBERG DOLLAR SPOT INDEX REALIZED 30-DAY VOLATILITY



Source: Bloomberg, as of 9/30/19

JPM EMERGING MARKET CURRENCY INDEX



Source: Bloomberg, JPMorgan, as of 9/30/19

Appendix

Periodic table of returns

	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	YTD	5-Year	10-Year
Large Cap Growth	38.7	66.4	31.8	14.0	25.9	56.3	26.0	34.5	32.6	39.8	5.2	79.0	29.1	14.3	18.6	43.3	13.5	13.3	31.7	37.3	6.7	23.3	13.1	15.4
Large Cap Equity	27.0	43.1	22.8	8.4	10.3	48.5	22.2	21.4	26.9	16.2	1.4	37.2	26.9	7.8	18.1	38.8	13.2	5.7	21.3	30.2	1.9	18.5	9.9	13.5
Small Cap Growth	20.3	33.2	12.2	7.3	6.7	47.3	20.7	20.1	23.5	15.8	-6.5	34.5	24.5	2.6	17.9	34.5	13.0	0.9	17.3	25.0	0.0	16.3	8.8	13.1
Large Cap Value	19.3	27.3	11.6	3.3	1.6	46.0	18.3	14.0	22.2	11.8	-21.4	32.5	19.2	1.5	17.5	33.5	11.8	0.6	12.1	22.2	-1.5	13.8	8.1	11.6
Small Cap Equity	16.2	26.5	7.0	2.8	1.0	39.2	16.5	7.5	18.4	11.6	-25.9	28.4	16.8	0.4	16.4	33.1	6.0	0.0	11.8	21.7	-3.5	11.8	6.6	11.5
60/40 Global Portfolio	8.7	21.3	4.1	-2.4	-6.0	29.9	14.3	6.3	15.5	10.3	-33.8	23.3	16.1	-2.1	15.3	23.3	4.9	-0.8	11.2	14.6	-6.0	11.4	6.4	10.0
International Equity	15.6	24.3	6.0	2.5	-5.9	30.0	14.5	7.1	16.6	10.9	-28.9	27.2	16.7	0.1	16.3	32.5	5.6	-0.4	11.3	17.1	-4.8	9.7	4.6	9.3
US Bonds	4.9	20.9	-3.0	-5.6	-11.4	29.7	12.9	5.3	15.1	7.0	-35.6	20.6	15.5	-2.9	14.6	12.1	4.2	-1.4	8.0	13.7	-8.3	9.1	4.1	6.4
Small Cap Value	1.2	13.2	-7.3	-9.1	-15.5	25.2	11.4	4.7	13.3	7.0	-36.8	19.7	13.1	-4.2	11.5	11.0	3.4	-2.5	7.1	7.8	-9.3	7.3	3.3	5.0
Hedge Funds of Funds	-2.5	11.4	-7.8	-9.2	-15.7	23.9	9.1	4.6	10.4	5.8	-37.6	18.9	10.2	-5.5	10.5	9.0	2.8	-3.8	5.7	7.7	-11.0	5.7	2.0	4.1
Emerging Markets Equity	-5.1	7.3	-14.0	-12.4	-20.5	11.6	6.9	4.6	9.1	4.4	-38.4	11.5	8.2	-5.7	4.8	0.1	0.0	-4.4	2.6	7.0	-11.2	3.9	1.9	3.9
Real Estate	-6.5	4.8	-22.4	-19.5	-21.7	9.0	6.3	4.2	4.8	-0.2	-38.5	5.9	6.5	-11.7	4.2	-2.0	-1.8	-7.5	1.0	3.5	-12.9	3.3	0.9	2.9
Commodities	-25.3	-0.8	-22.4	-20.4	-27.9	4.1	4.3	3.2	4.3	-1.6	-43.1	0.2	5.7	-13.3	0.1	-2.3	-4.5	-14.9	0.5	1.7	-13.8	1.9	0.4	0.5
Cash	-27.0	-1.5	-30.6	-21.2	-30.3	1.0	1.4	2.4	2.1	-9.8	-53.2	-16.9	0.1	-18.2	-1.1	-9.5	-17.0	-24.7	0.3	0.9	-14.6	1.5	-8.6	-4.3

Large Cap Equity

Large Cap Value

Large Cap Growth

Small Cap Equity

Small Cap Value

Small Cap Growth

International Equity

Emerging Markets Equity

US Bonds

Cash

Commodities

Real Estate

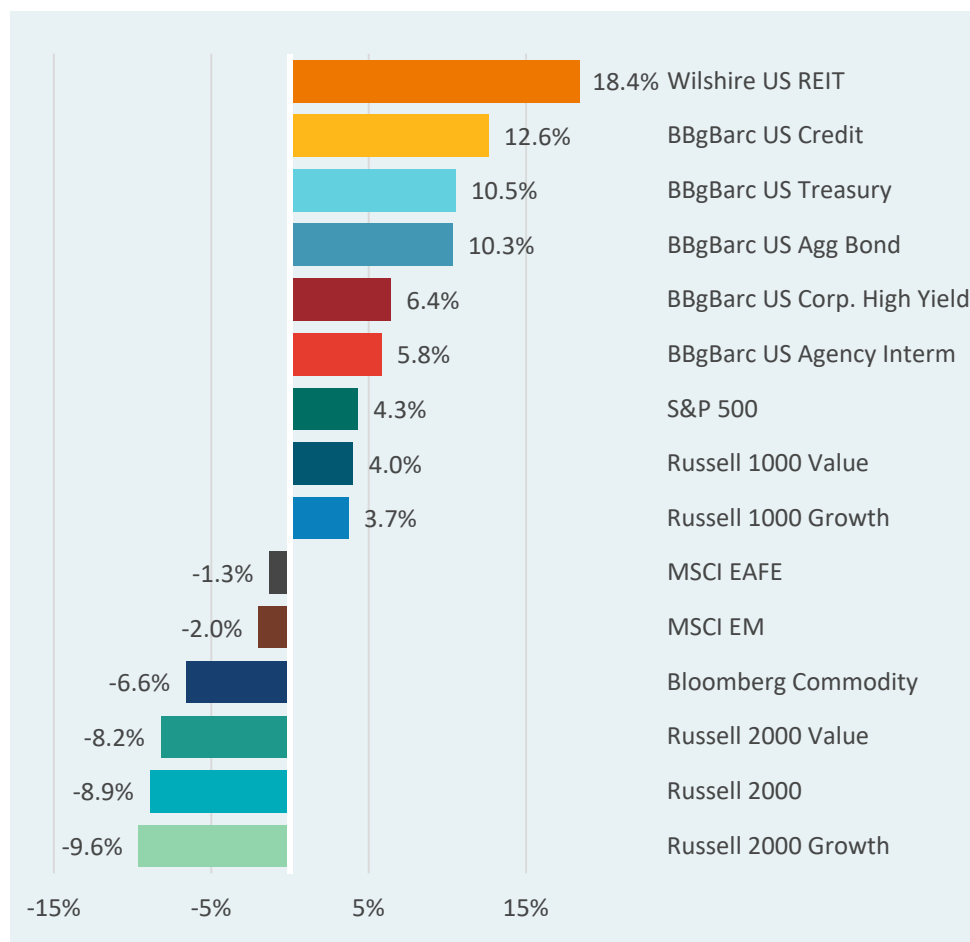
Hedge Funds of Funds

60% MSCI ACWI/40% BBgBarc Global Bond

Source Data: Morningstar, Inc., Hedge Fund Research, Inc. (HFR), National Council of Real Estate Investment Fiduciaries (NCREIF). Indices used: Russell 1000, Russell 1000 Value, Russell 1000 Growth, Russell 2000, Russell 2000 Value, Russell 2000 Growth, MSCI EAFE, MSCI EM, BBgBarc US Aggregate, T-Bill 90 Day, Bloomberg Commodity, NCREIF Property, HFRI FOF, MSCI ACWI, BBgBarc Global Bond. NCREIF Property Index performance data as of 6/30/19.

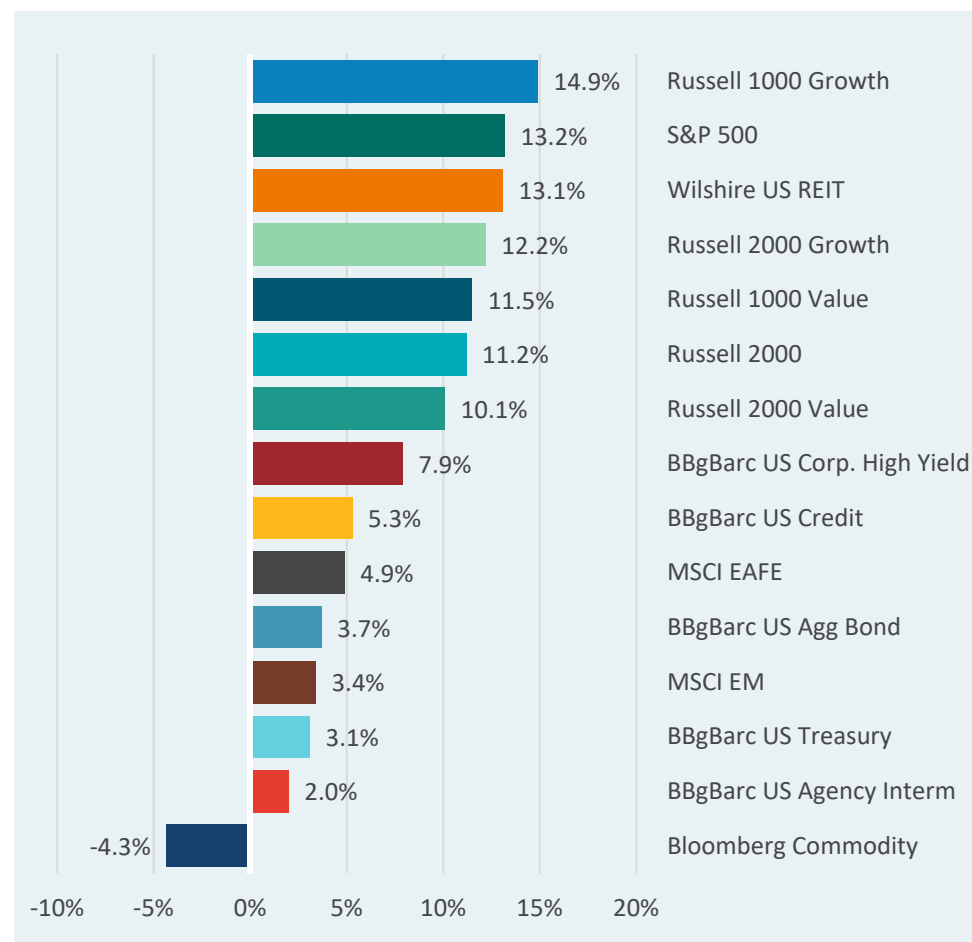
Major asset class returns

ONE YEAR ENDING SEPTEMBER



Source: Morningstar, as of 9/30/19

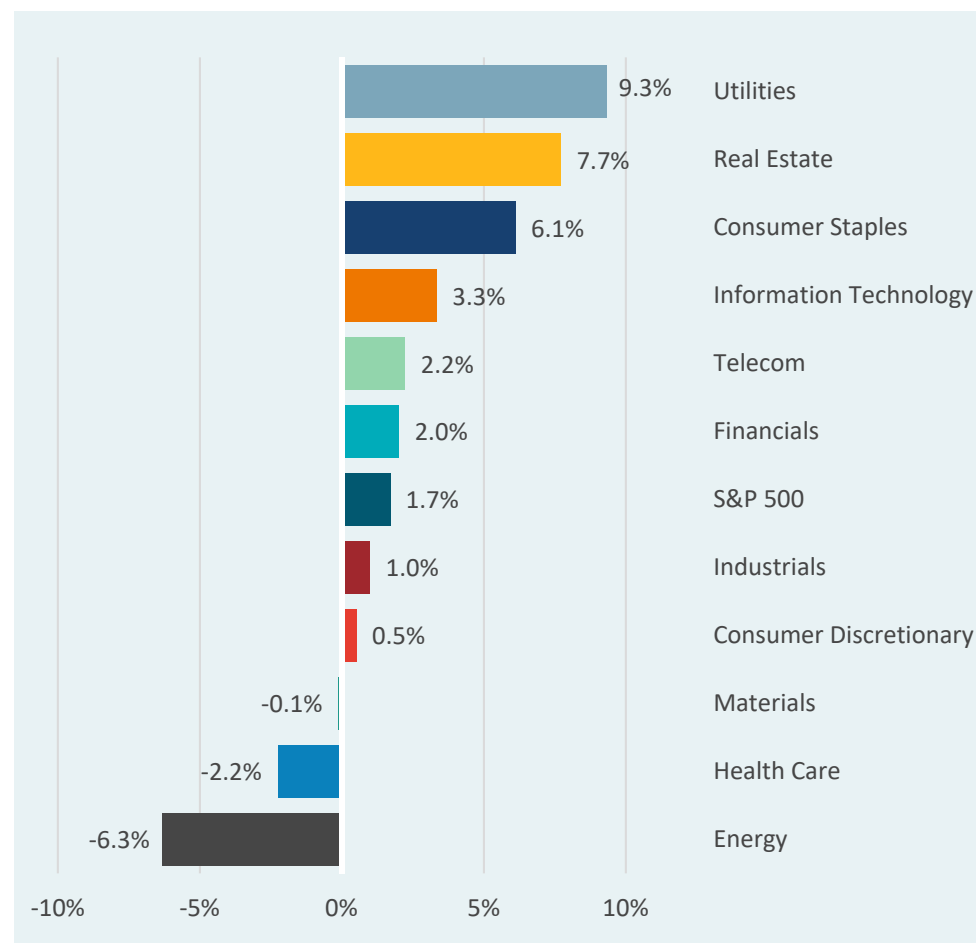
TEN YEARS ENDING SEPTEMBER



Source: Morningstar, as of 9/30/19

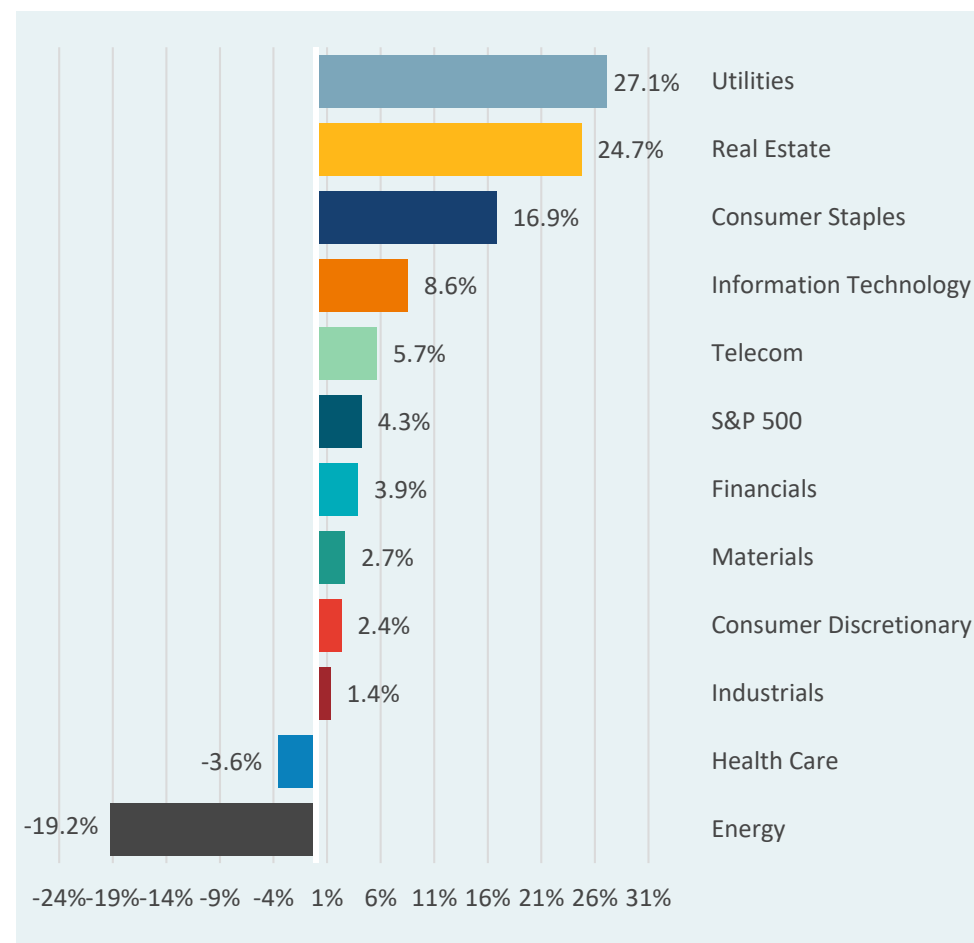
S&P 500 sector returns

Q3



Source: Morningstar, as of 9/30/19

ONE YEAR ENDING SEPTEMBER



Source: Morningstar, as of 9/30/19

Detailed index returns

DOMESTIC EQUITY

	Month	QTD	YTD	1 Year	3 Year	5 Year	10 Year
Core Index							
S&P 500	1.9	1.7	20.6	4.3	13.4	10.8	13.2
S&P 500 Equal Weighted	3.1	0.8	20.1	3.4	11.1	9.5	13.4
DJ Industrial Average	2.1	1.8	17.5	4.2	16.4	12.3	13.6
Russell Top 200	1.6	1.8	20.0	4.1	14.2	11.2	13.3
Russell 1000	1.7	1.4	20.5	3.9	13.2	10.6	13.2
Russell 2000	2.1	(2.4)	14.2	(8.9)	8.2	8.2	11.2
Russell 3000	1.8	1.2	20.1	2.9	12.8	10.4	13.1
Russell Mid Cap	2.0	0.5	21.9	3.2	10.7	9.1	13.1
Style Index							
Russell 1000 Growth	0.0	1.5	23.3	3.7	16.9	13.4	14.9
Russell 1000 Value	3.6	1.4	17.8	4.0	9.4	7.8	11.5
Russell 2000 Growth	(0.8)	(4.2)	15.3	(9.6)	9.8	9.1	12.2
Russell 2000 Value	5.1	(0.6)	12.8	(8.2)	6.5	7.2	10.1

INTERNATIONAL EQUITY

Broad Index							
MSCI ACWI	2.1	(0.0)	16.2	1.4	9.7	6.7	8.3
MSCI ACWI ex US	2.6	(1.8)	11.6	(1.2)	6.3	2.9	4.5
MSCI EAFE	2.9	(1.1)	12.8	(1.3)	6.5	3.3	4.9
MSCI EM	1.9	(4.2)	5.9	(2.0)	6.0	2.3	3.4
MSCI EAFE Small Cap	2.8	(0.4)	12.1	(5.9)	5.9	6.0	7.5
Style Index							
MSCI EAFE Growth	1.1	(0.4)	17.9	2.2	7.8	5.5	6.5
MSCI EAFE Value	4.8	(1.7)	7.7	(4.9)	5.1	1.0	3.2
Regional Index							
MSCI UK	4.2	(2.5)	10.1	(2.9)	4.6	0.4	4.8
MSCI Japan	4.0	3.1	11.1	(4.7)	6.2	5.6	5.5
MSCI Euro	2.8	(2.0)	13.9	(1.1)	7.1	2.4	3.1
MSCI EM Asia	2.0	(3.4)	6.0	(3.9)	6.3	4.1	5.2
MSCI EM Latin American	2.6	(5.6)	6.3	6.7	6.8	(0.8)	(0.5)

FIXED INCOME

	Month	QTD	YTD	1 Year	3 Year	5 Year	10 Year
Broad Index							
BBgBarc US TIPS	(1.4)	1.3	7.6	7.1	2.2	2.4	3.5
BBgBarc US Treasury Bills	0.2	0.6	1.9	2.4	1.5	1.0	0.6
BBgBarc US Agg Bond	(0.5)	2.3	8.5	10.3	2.9	3.4	3.7
Duration							
BBgBarc US Treasury 1-3 Yr	(0.1)	0.6	3.1	4.4	1.5	1.3	1.2
BBgBarc US Treasury Long	(2.5)	7.9	19.8	24.8	4.1	6.8	6.9
BBgBarc US Treasury	(0.8)	2.4	7.7	10.5	2.2	2.9	3.1
Issuer							
BBgBarc US MBS	0.1	1.4	5.6	7.8	2.3	2.8	3.1
BBgBarc US Corp. High Yield	0.4	1.3	11.4	6.4	6.1	5.4	7.9
BBgBarc US Agency Interm	(0.2)	1.0	4.1	5.8	1.9	2.0	2.0
BBgBarc US Credit	(0.7)	3.0	12.6	12.6	4.3	4.5	5.3

OTHER

Index							
Bloomberg Commodity	1.2	(1.8)	3.1	(6.6)	(1.5)	(7.2)	(4.3)
Wilshire US REIT	2.8	7.9	27.2	18.4	7.2	10.2	13.1
CS Leveraged Loans	0.4	0.9	6.4	3.1	4.7	4.1	5.4
Alerian MLP	0.8	(5.1)	11.8	(6.4)	(2.7)	(8.2)	7.0
Regional Index							
JPM EMBI Global Div	(0.5)	1.5	13.0	11.6	4.6	5.7	6.9
JPM GBI-EM Global Div	1.0	(0.8)	7.9	10.1	3.1	0.6	2.5
Hedge Funds							
HFRI Composite	(0.3)	(0.5)	6.7	0.3	3.8	2.9	4.0
HFRI FOF Composite	(0.6)	(1.1)	5.0	(0.2)	3.1	1.9	2.7
Currency (Spot)							
Euro	(1.8)	(0.3)	1.5	5.1	(2.1)	0.3	(1.9)
Pound	1.2	(3.2)	(3.2)	(5.5)	(1.7)	(5.3)	(2.6)
Yen	(1.0)	(4.3)	(4.6)	(6.1)	(1.0)	(2.9)	(2.9)

Source: Morningstar, HFR, as of 9/30/19

Definitions

Bloomberg US Weekly Consumer Comfort Index - tracks the public's economic attitudes each week, providing a high-frequency read on consumer sentiment. The index, based on cell and landline telephone interviews with a random, representative national sample of U.S. adults, tracks Americans' ratings of the national economy, their personal finances and the buying climate on a weekly basis, with views of the economy's direction measured separately each month. (www.langerresearch.com)

University of Michigan Consumer Sentiment Index - A survey of consumer attitudes concerning both the present situation as well as expectations regarding economic conditions conducted by the University of Michigan. For the preliminary release approximately three hundred consumers are surveyed while five hundred are interviewed for the final figure. The level of consumer sentiment is related to the strength of consumer spending. (www.Bloomberg.com)

NFIB Small Business Outlook - Small Business Economic Trends (SBET) is a monthly assessment of the U.S. small-business economy and its near-term prospects. Its data are collected through mail surveys to random samples of the National Federal of Independent Business (NFIB) membership. The survey contains three broad question types: recent performance, near-term forecasts, and demographics. The topics addressed include: outlook, sales, earnings, employment, employee compensation, investment, inventories, credit conditions, and single most important problem. (<http://www.nfib-sbet.org/about/>)

NAHB Housing Market Index - the housing market index is a weighted average of separate diffusion indices for three key single-family indices: market conditions for the sale of new homes at the present time, market conditions for the sale of new homes in the next six months, and the traffic of prospective buyers of new homes. The first two series are rated on a scale of Good, Fair, and Poor and the last is rated on a scale of High/Very High, Average, and Low/Very Low. A diffusion index is calculated for each series by applying the formula $(\text{Good-Poor} + 100)/2$ to the present and future sales series and $(\text{High/Very High-Low/Very Low} + 100)/2$ to the traffic series. Each resulting index is then seasonally adjusted and weighted to produce the HMI. Based on this calculation, the HMI can range between 0 and 100.

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Stanislaus County Employees' Retirement Association

Investment Performance Review

Period Ending: September 30, 2019



VERUSINVESTMENTS.COM

SEATTLE 206-622-3700

LOS ANGELES 310-297-1777

SAN FRANCISCO 415-362-3484

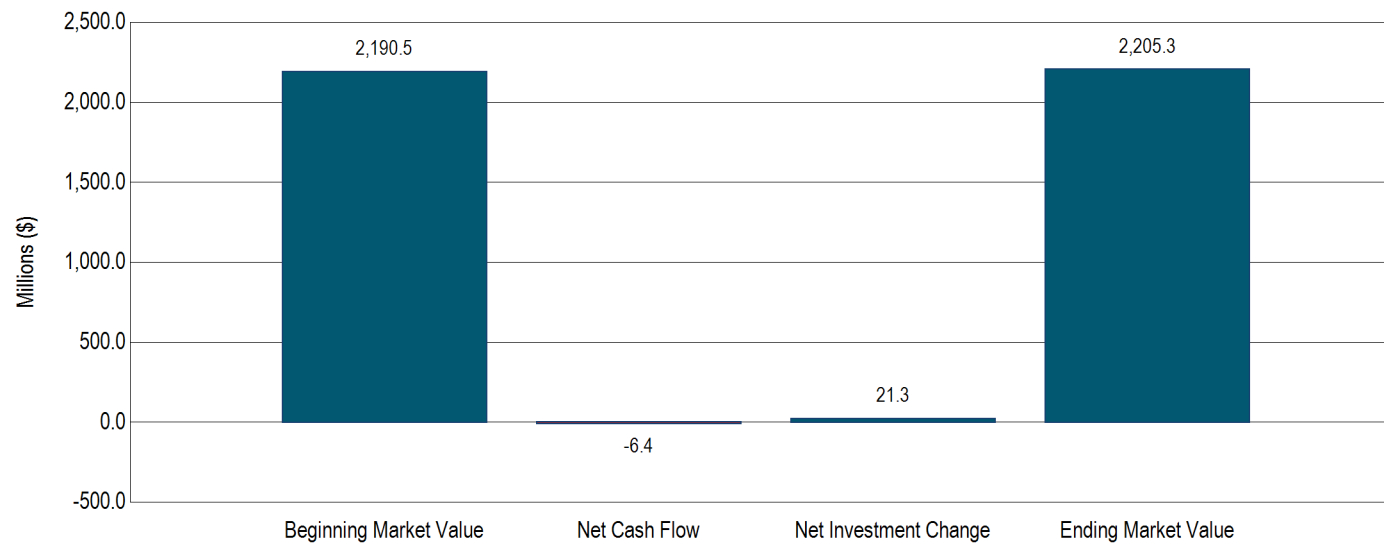
Total Fund Portfolio Reconciliation

Period Ending: September 30, 2019

Portfolio Reconciliation

	Last Three Months	Fiscal Year-To-Date	Year-To-Date
Beginning Market Value	\$2,190,456,401	\$2,190,456,401	\$1,989,872,398
Net Cash Flow	-\$6,441,293	-\$6,441,293	-\$23,702,909
Net Investment Change	\$21,329,528	\$21,329,528	\$239,175,147
Ending Market Value	\$2,205,344,636	\$2,205,344,636	\$2,205,344,636

Change in Market Value Last Three Months

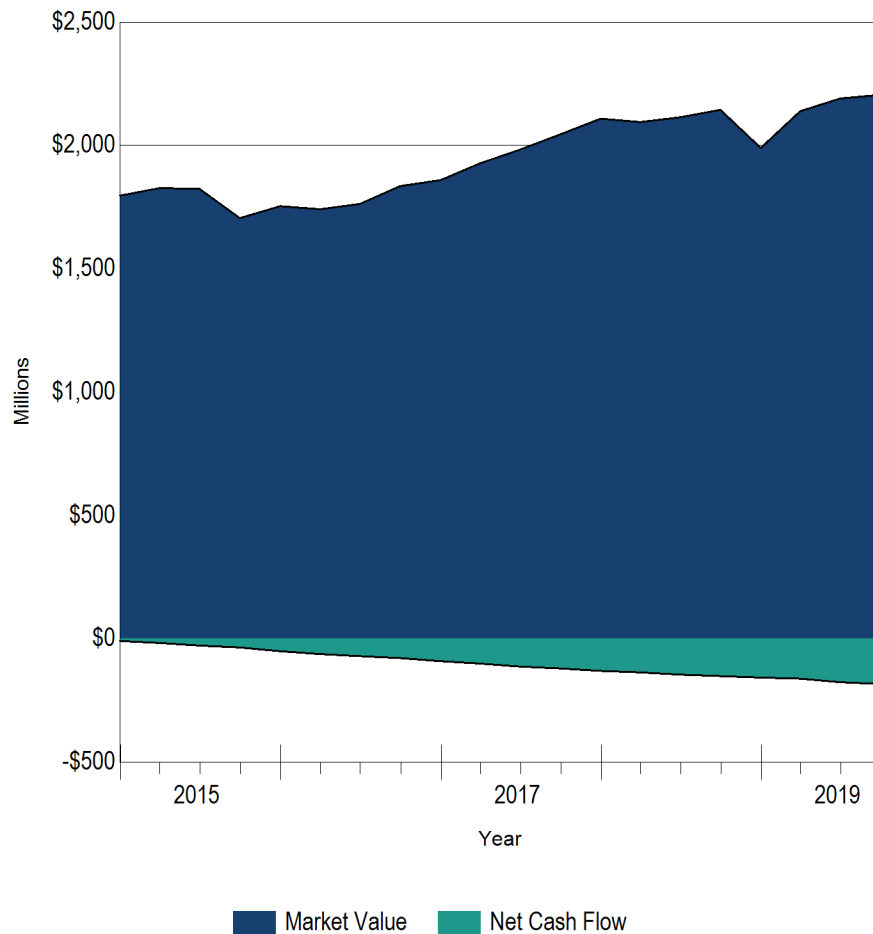


Contributions and withdrawals may include intra-account transfers between managers/funds.

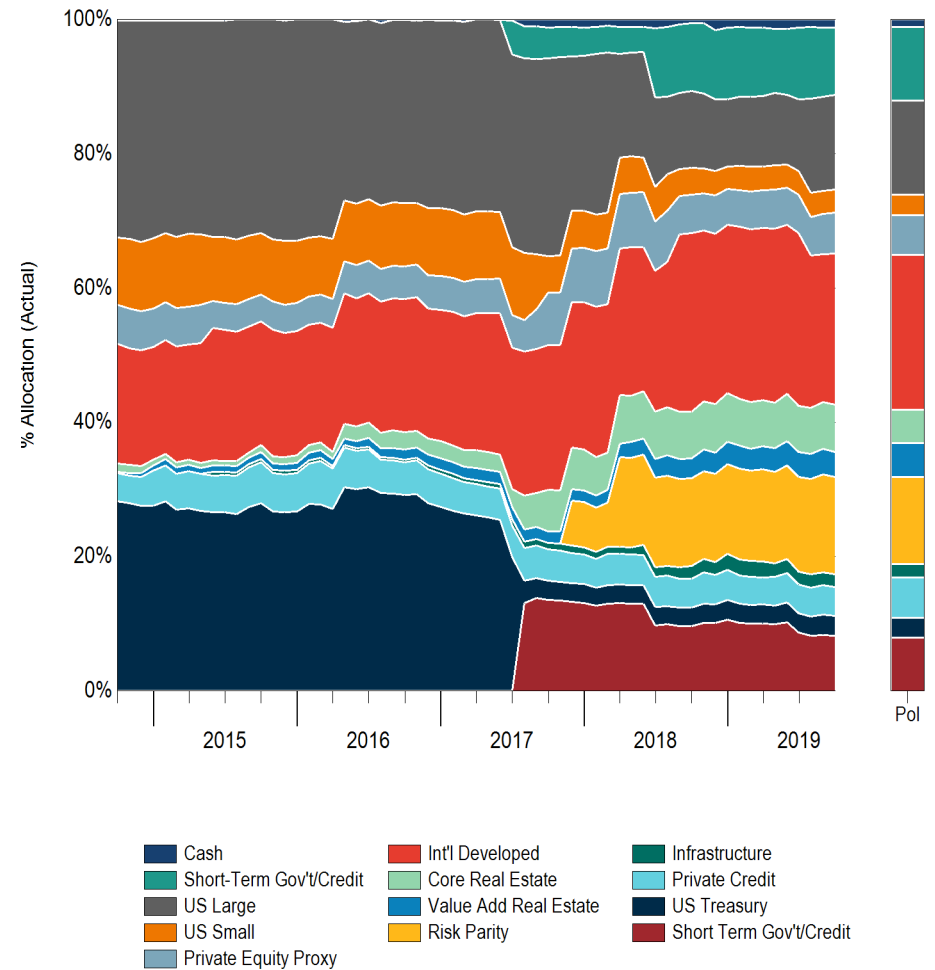
Total Fund Asset Allocation History

Period Ending: September 30, 2019

Market Value History
Cumulative Cash Flows

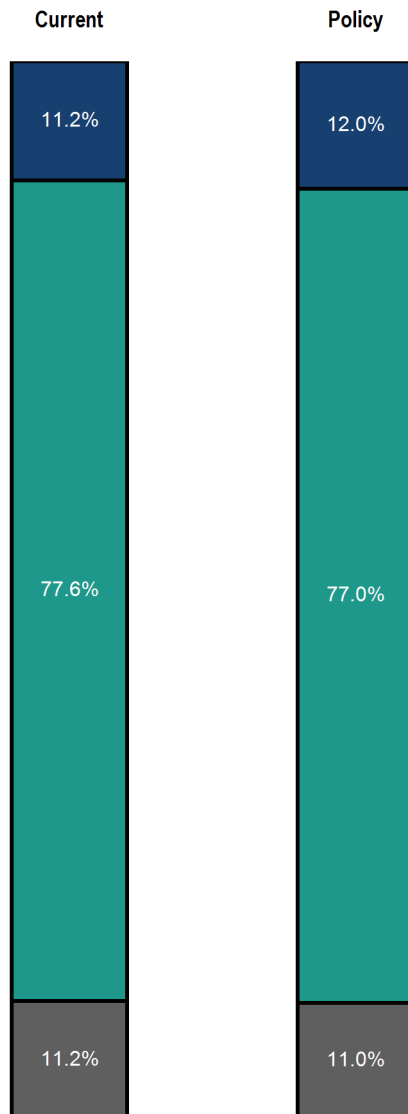


Asset Allocation History



Total Fund Asset Allocation vs. Policy

Period Ending: September 30, 2019



	Current	%	Policy	%
Liquidity Sub-Portfolio	\$246,941,449	11.2%	\$264,641,356	12.0%
Cash	\$26,432,511	1.2%	\$22,053,446	1.0%
Short-Term Gov't/Credit	\$220,508,938	10.0%	\$242,587,910	11.0%
Growth Sub-Portfolio	\$1,711,860,859	77.6%	\$1,698,115,370	77.0%
US Large	\$311,775,296	14.1%	\$308,748,249	14.0%
US Small	\$76,437,244	3.5%	\$66,160,339	3.0%
Private Equity Proxy	\$133,604,490	6.1%	\$132,320,678	6.0%
Int'l Developed	\$496,674,052	22.5%	\$507,229,266	23.0%
Core Real Estate	\$154,642,541	7.0%	\$110,267,232	5.0%
Value Add Real Estate	\$82,662,246	3.7%	\$110,267,232	5.0%
Risk Parity	\$319,005,753	14.5%	\$286,694,803	13.0%
Infrastructure	\$42,045,476	1.9%	\$44,106,893	2.0%
Private Credit	\$95,013,760	4.3%	\$132,320,678	6.0%
Risk-Diversifying Sub-Portfolio	\$246,542,328	11.2%	\$242,587,910	11.0%
US Treasury	\$64,294,111	2.9%	\$66,160,339	3.0%
Short Term Gov't/Credit	\$182,248,217	8.3%	\$176,427,571	8.0%
Total	\$2,205,344,636	100.0%	\$2,205,344,636	100.0%

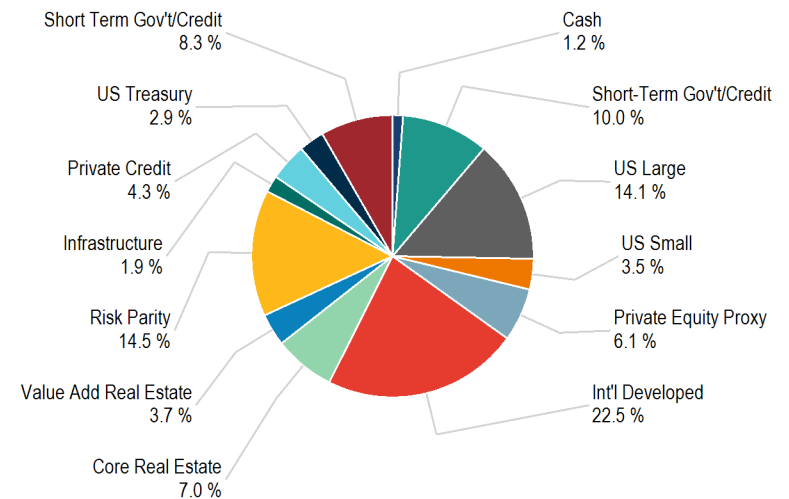
Russell 3000 Index serving as proxy for Private Equity while capital is being called. International Equity policy target consists of 21% international developed and 6% emerging markets.

Total Fund Executive Summary (Net of Fees)

Period Ending: September 30, 2019

	QTD	YTD	Fiscal YTD	1 Yr	3 Yrs	5 Yrs	10 Yrs
Total Fund	0.9	11.9	0.9	4.3	7.9	6.3	8.5
Policy Index	0.4	11.0	0.4	3.7	7.2	6.4	8.2
InvMetrics Public DB Net Rank	36	74	36	36	50	47	24
Liquidity Sub-Portfolio	1.5	6.7	1.5	7.4	2.7	2.0	--
StanCERA Liquidity Blended BM	0.7	3.3	0.7	4.4	1.8	1.5	--
Cash	0.6	1.1	0.6	1.6	1.3	1.2	--
FTSE T-Bill 1 Month TR	0.5	1.8	0.5	2.3	1.5	0.9	--
Short-Term Gov't/Credit	1.6	7.4	1.6	8.2	--	--	--
BBgBarc US Govt/Credit 1-3 Yr. TR	0.7	3.4	0.7	4.6	--	--	--
eV US Government Fixed Inc Net Rank	62	16	62	63	--	--	--
Growth Sub-Portfolio	0.8	13.9	0.8	3.5	9.6	7.3	--
StanCERA Growth Blended BM	0.3	13.1	0.3	3.2	9.0	--	--
US Large	1.2	19.2	1.2	2.2	13.0	10.1	--
Russell 1000	1.4	20.5	1.4	3.9	13.2	10.6	--
eV US Large Cap Equity Net Rank	52	51	52	54	38	41	--
US Small	-2.2	14.5	-2.2	-9.9	5.9	5.6	--
Russell 2000	-2.4	14.2	-2.4	-8.9	8.2	8.2	--
eV US Small Cap Value Equity Net Rank	85	54	85	73	55	69	--
Private Equity Proxy	1.2	20.1	1.2	8.5	14.7	11.5	13.6
Russell 3000 +3%	2.3	22.0	2.3	5.9	15.8	13.5	16.1
eV US Large Cap Equity Net Rank	53	41	53	13	23	22	23

Current Allocation



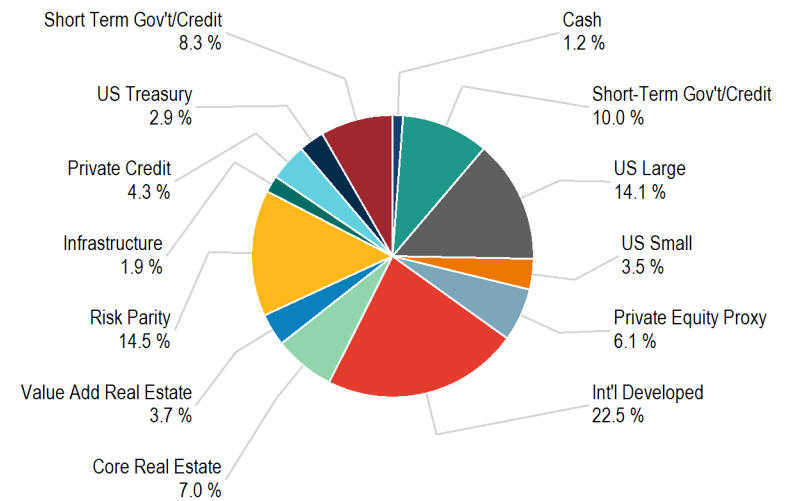
Policy Index (5/31/2019): 14% Russell 1000, 3% Russell 2000, 6% Russell 3000 + 3%, 23% MSCI ACWI ex-USA, 19% BBgBarc US Govt/Credit 1-3 Yr, 3% BBgBarc US Treasury 7-10 Yr, 5% NCREIF Property, 5% NCREIF Property +2%, 2% CPI +5%, 6% S&P/LSTA Leveraged Loan Index + 2%, 13% 60% MSCI ACWI / 40% BBgBarc Global Aggregate, and 1% Citi 1 Month T-Bills. StanCERA Liquidity Blended BM (8/31/2019): 92% BBgBarc US Govt/Credit 1-3 Yr. TR and 8% FTSE T-Bill 1 month TR. StanCERA Growth Blended BM (8/31/2019): 18% Russell 1000, 4% Russell 2000, 8% Russell 3000 + 3%, 30% MSCI ACWI ex-US Gross, 6% NCREIF Property, 6% actual private Value Add Real Estate returns, 17% 60% MSCI ACWI / 40% BBgBarc Global Aggregate, 3% actual Infrastructure returns, and 8% actual Private Credit returns. All data is preliminary.

Total Fund Executive Summary (Net of Fees)

Period Ending: September 30, 2019

	QTD	YTD	Fiscal YTD	1 Yr	3 Yrs	5 Yrs	10 Yrs
Int'l Developed	-1.4	11.3	-1.4	-2.7	6.1	3.2	5.1
MSCI ACWI ex USA Gross	-1.7	12.1	-1.7	-0.7	6.8	3.4	4.9
eV ACWI ex-US Equity Unhedged Net Rank	31	68	31	52	53	69	79
Core Real Estate	2.8	9.1	2.8	7.3	5.0	7.0	--
NCREIF Property Index	1.4	4.8	1.4	6.2	6.8	8.6	--
eV US REIT Net Rank	99	99	99	96	93	92	--
Value Add Real Estate	3.3	7.2	3.3	8.2	10.9	10.9	--
NCREIF Property Index +2%	1.9	6.4	1.9	8.3	8.9	10.7	--
Risk Parity	3.0	20.0	3.0	13.8	--	--	--
60% MSCI ACWI Net/40% BBgBarc Global Aggregate	0.3	12.4	0.3	4.2	--	--	--
Infrastructure	3.1	10.9	3.1	12.8	13.1	--	--
CPI + 5%	1.5	6.0	1.5	6.8	7.2	--	--
eV Infrastructure Net Rank	27	98	27	81	1	--	--
Private Credit	0.4	3.9	0.4	4.7	3.1	3.9	--
S&P/LSTA Leveraged Loan Index+2%	1.5	8.4	1.5	5.2	6.6	6.1	--
Risk-Diversifying Sub-Portfolio	1.4	5.6	1.4	7.2	3.0	3.4	4.5
StanCERA Risk-Diversifying Blended BM	1.3	5.2	1.3	7.1	2.0	2.2	2.3
US Treasury	2.9	8.8	2.9	11.8	4.3	4.2	4.9
BBgBarc US Treasury 7-10 Yr TR	2.7	9.8	2.7	14.0	2.4	3.8	4.4
eV US Government Fixed Inc Net Rank	1	1	1	1	1	1	1
Short-Term Gov't/Credit	0.9	4.6	0.9	5.8	--	--	--
BBgBarc US Govt/Credit 1-3 Yr. TR	0.7	3.4	0.7	4.6	--	--	--
eV US Short Duration Fixed Inc Net Rank	20	14	20	8	--	--	--

Current Allocation



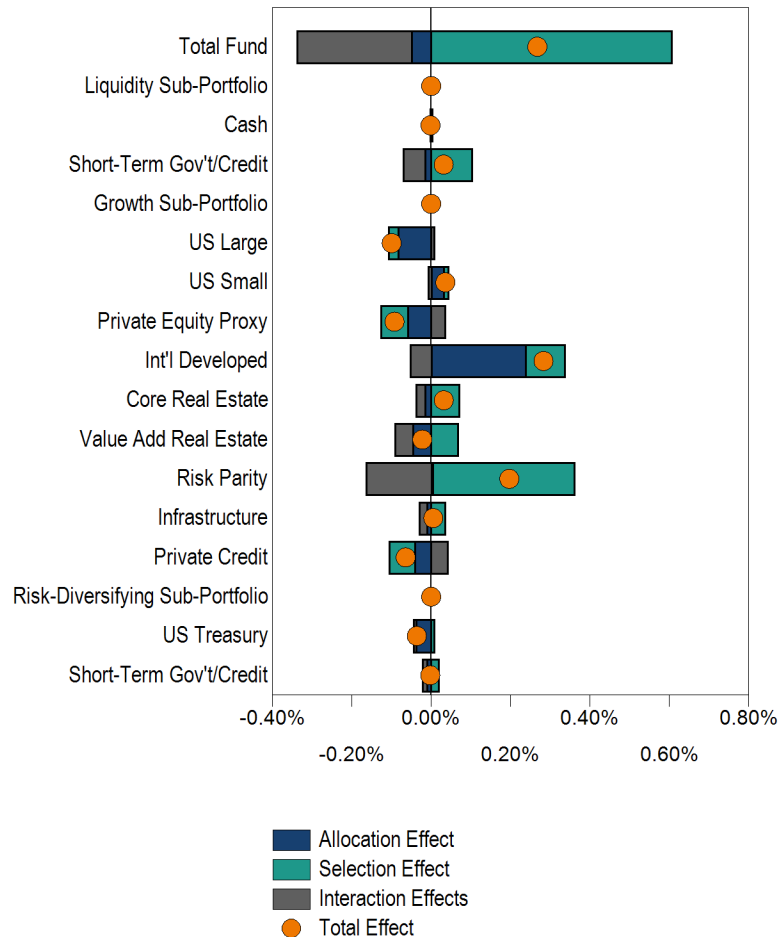
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Total Fund

Attribution Analysis - Asset Class Level (Net of Fees)

Period Ending: September 30, 2019

Attribution Effects Last Three Months



Performance Attribution

	Quarter
Wtd. Actual Return	0.94%
Wtd. Index Return *	0.41%
Excess Return	0.53%
Selection Effect	0.60%
Allocation Effect	-0.05%
Interaction Effect	-0.29%

*Calculated from benchmark returns and weightings of each component.

Attribution Summary Last Three Months

	Wtd. Actual Return	Wtd. Index Return	Excess Return	Selection Effect	Allocation Effect	Interaction Effects	Total Effects
Liquidity Sub-Portfolio	1.5%	0.7%	0.8%	--	--	--	--
Cash	0.6%	0.5%	0.1%	0.0%	0.0%	0.0%	0.0%
Short-Term Gov't/Credit	1.6%	0.7%	0.9%	0.1%	0.0%	-0.1%	0.0%
Growth Sub-Portfolio	0.8%	0.3%	0.5%	--	--	--	--
US Large	1.2%	1.4%	-0.2%	0.0%	-0.1%	0.0%	-0.1%
US Small	-2.2%	-2.4%	0.2%	0.0%	0.0%	0.0%	0.0%
Private Equity Proxy	1.2%	2.3%	-1.1%	-0.1%	-0.1%	0.0%	-0.1%
Int'l Developed	-1.4%	-1.8%	0.4%	0.1%	0.2%	-0.1%	0.3%
Core Real Estate	2.8%	1.4%	1.4%	0.1%	0.0%	0.0%	0.0%
Value Add Real Estate	3.3%	1.9%	1.3%	0.1%	0.0%	0.0%	0.0%
Risk Parity	3.0%	0.3%	2.7%	0.4%	0.0%	-0.2%	0.2%
Infrastructure	3.1%	1.5%	1.7%	0.0%	0.0%	0.0%	0.0%
Private Credit	0.4%	1.5%	-1.0%	-0.1%	0.0%	0.0%	-0.1%
Risk-Diversifying Sub-Portfolio	1.4%	1.3%	0.2%	--	--	--	--
US Treasury	2.9%	2.7%	0.2%	0.0%	0.0%	0.0%	0.0%
Short-Term Gov't/Credit	0.9%	0.7%	0.2%	0.0%	0.0%	0.0%	0.0%
Total	0.9%	0.4%	0.5%	0.6%	0.0%	-0.3%	0.3%

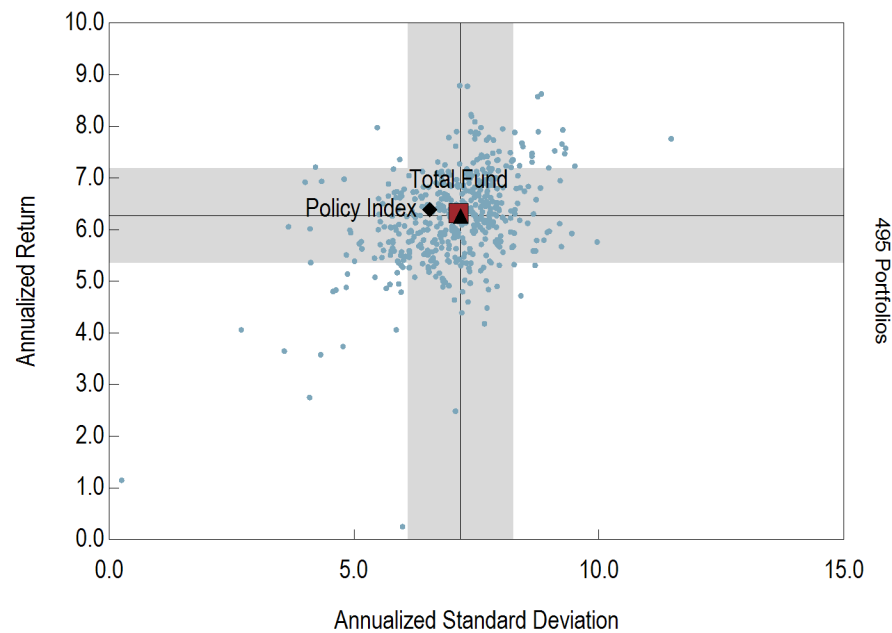
Policy Index (5/31/2019): 14% Russell 1000, 3% Russell 2000, 6% Russell 3000 + 3%, 23% MSCI ACWI ex-USA, 19% BBgBarc US Gov't/Credit 1-3 Yr, 3% BBgBarc US Treasury 7-10 Yr, 5% NCREIF Property, 5% NCREIF Property +2%, 2%

Total Fund Risk Analysis - 5 Years (Net of Fees)

Period Ending: September 30, 2019

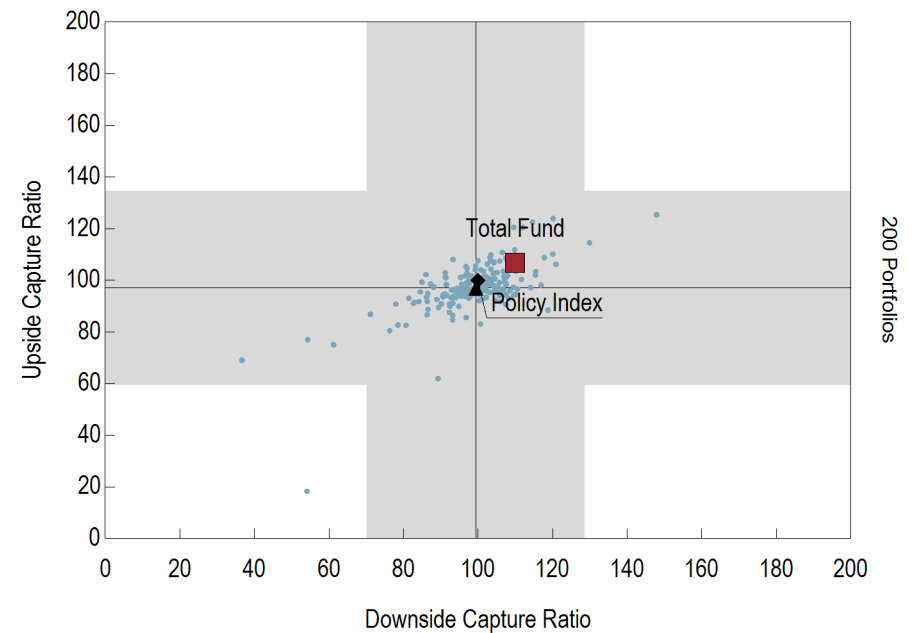
	Anlzd Ret	Ann Excess BM Return	Anlzd Std Dev	Anlzd Alpha	Beta	Tracking Error	R-Squared	Sharpe Ratio	Info Ratio	Up Mkt Cap Ratio	Down Mkt Cap Ratio
Total Fund	6.32%	-0.07%	7.13%	-0.53%	1.07	1.38%	0.97	0.75	-0.05	106.89%	109.96%
Policy Index	6.39%	0.00%	6.54%	0.00%	1.00	0.00%	1.00	0.83	--	100.00%	100.00%

Risk vs. Return



- Total Fund
- ◆ Policy Index
- ▲ Universe Median
- 68% Confidence Interval
- InvMetrics Public DB Net

Up Markets vs. Down Markets



- Total Fund
- ◆ Policy Index
- ▲ Universe Median
- 68% Confidence Interval
- InvMetrics Public DB Net

Total Fund Performance Summary (Net of Fees)

Period Ending: September 30, 2019

	Market Value	% of Portfolio	3 Mo	YTD	Fiscal YTD	1 Yr	3 Yrs	5 Yrs	10 Yrs	2018	2017	2016	2015	2014	Inception	Inception Date
Total Fund	2,205,344,636	100.0	0.9	11.9	0.9	4.3	7.9	6.3	8.5	-4.4	15.3	7.8	-0.6	6.5	8.9	Dec-94
Policy Index			0.4	11.0	0.4	3.7	7.2	6.4	8.2	-3.7	14.3	8.5	0.2	7.5	8.0	Dec-94
InvMetrics Public DB Net Rank			36	74	36	36	50	47	24	51	36	36	55	22		
Liquidity Sub-Portfolio	246,941,449	11.2	1.5	6.7	1.5	7.4	2.7	2.0	--	0.8	0.4	1.3	1.0	-43.6	9.7	Apr-11
StanCERA Liquidity Blended BM			0.7	3.3	0.7	4.4	1.8	1.5	--	1.6	0.8	1.2	0.6	0.7	1.3	Apr-11
Cash	26,432,511	1.2	0.6	1.1	0.6	1.6	1.3	1.2	--	1.6	0.9	1.3	1.0	-43.6	9.2	Apr-11
FTSE T-Bill 1 Month TR			0.5	1.8	0.5	2.3	1.5	0.9	--	1.8	0.8	0.2	0.0	0.0	0.6	Apr-11
Short-Term Gov't/Credit	220,508,938	10.0	1.6	7.4	1.6	8.2	--	--	--	0.6	--	--	--	--	3.8	Jun-17
BBgBarc US Govt/Credit 1-3 Yr. TR			0.7	3.4	0.7	4.6	--	--	--	1.6	--	--	--	--	2.3	Jun-17
eV US Government Fixed Inc Net Rank			62	16	62	63	--	--	--	87	--	--	--	--		
Insight	220,508,938	10.0	1.6	7.4	1.6	8.2	--	--	--	0.6	--	--	--	--	3.8	Jun-17
BBgBarc US Govt/Credit 1-3 Yr. TR			0.7	3.4	0.7	4.6	--	--	--	1.6	--	--	--	--	2.3	Jun-17
eV US Short Duration Fixed Inc Net Rank			1	1	1	1	--	--	--	96	--	--	--	--		
Growth Sub-Portfolio	1,711,860,859	77.6	0.8	13.9	0.8	3.5	9.6	7.3	--	-6.1	19.3	8.9	-0.8	6.9	6.9	Jul-15
StanCERA Growth Blended BM			0.3	13.1	0.3	3.2	9.0	--	--	-4.9	19.1	8.1	--	--	7.4	Jul-15
US Large	311,775,296	14.1	1.2	19.2	1.2	2.2	13.0	10.1	--	-4.0	21.1	10.8	0.5	12.5	9.8	Jul-15
Russell 1000			1.4	20.5	1.4	3.9	13.2	10.6	--	-4.8	21.7	12.1	0.9	13.2	10.6	Jul-15
eV US Large Cap Equity Net Rank			52	51	52	54	38	41	--	36	50	39	47	39		
BlackRock Russell 1000 Growth	154,878,643	7.0	1.5	23.3	1.5	3.7	16.9	13.4	--	-1.5	30.2	7.2	5.7	13.1	16.3	Jun-10
Russell 1000 Growth			1.5	23.3	1.5	3.7	16.9	13.4	--	-1.5	30.2	7.1	5.7	13.0	16.3	Jun-10
eV US Large Cap Growth Equity Net Rank			23	33	23	44	31	23	--	52	39	19	35	26		
BlackRock Russell 1000 Value	78,609,386	3.6	1.4	17.9	1.4	4.1	9.5	7.9	11.6	-8.2	13.8	17.3	-3.6	13.5	12.4	Jul-09
Russell 1000 Value			1.4	17.8	1.4	4.0	9.4	7.8	11.5	-8.3	13.7	17.3	-3.8	13.5	12.2	Jul-09
eV US Large Cap Value Equity Net Rank			53	42	53	31	55	42	35	41	83	20	57	24		
Dodge & Cox-Equity	78,287,267	3.5	0.3	13.0	0.3	-2.0	10.9	8.1	12.0	-6.5	16.9	21.2	-4.0	10.7	11.7	Dec-94
Russell 1000 Value			1.4	17.8	1.4	4.0	9.4	7.8	11.5	-8.3	13.7	17.3	-3.8	13.5	9.9	Dec-94
eV US Large Cap Value Equity Net Rank			81	91	81	80	30	35	23	27	49	6	59	63		

Policy Index (5/31/2019): 14% Russell 1000, 3% Russell 2000, 6% Russell 3000 + 3%, 23% MSCI ACWI ex-USA, 19% BBgBarc US Govt/Credit 1-3 Yr, 3% BBgBarc US Treasury 7-10 Yr, 5% NCREIF Property, 5% NCREIF Property +2%, 2% CPI +5%, 6% S&P/LSTA Leveraged Loan Index + 2%, 13% 60% MSCI ACWI / 40% BBgBarc Global Aggregate, 1% Citi 1 Month T-Bills. StanCERA Liquidity Blended BM (8/31/2019): 92% BBgBarc US Govt/Credit 1-3 Yr. TR and 8% FTSE T-Bill 1 month TR. StanCERA Growth Blended BM (8/31/2019): 18% Russell 1000, 4% Russell 2000, 8% Russell 3000 + 3%, 30% MSCI ACWI ex-US Gross, 6% NCREIF Property, 6% actual private Value Add Real Estate returns, 17% 60% MSCI ACWI / 40% BBgBarc Global Aggregate, 3% actual Infrastructure returns, and 8% actual Private Credit returns. All data is preliminary.

Total Fund Performance Summary (Net of Fees)

Period Ending: September 30, 2019

	Market Value	% of Portfolio	3 Mo	YTD	Fiscal YTD	1 Yr	3 Yrs	5 Yrs	10 Yrs	2018	2017	2016	2015	2014	Inception	Inception Date
US Small	76,437,244	3.5	-2.2	14.5	-2.2	-9.9	5.9	5.6	--	-16.7	14.8	16.2	-4.5	3.8	7.9	Apr-12
Russell 2000			-2.4	14.2	-2.4	-8.9	8.2	8.2	--	-11.0	14.6	21.3	-4.4	4.9	10.3	Apr-12
eV US Small Cap Value Equity Net Rank			85	54	85	73	55	69	--	67	16	95	48	62		
Capital Prospects	76,437,244	3.5	-2.2	14.5	-2.2	-9.9	7.2	6.7	--	-16.7	14.7	27.1	-7.5	5.1	--	Dec-08
Russell 2000 Value			-0.6	12.8	-0.6	-8.2	6.5	7.2	--	-12.9	7.8	31.7	-7.5	4.2	--	Dec-08
eV US Small Cap Value Equity Net Rank			85	54	85	73	34	47	--	67	17	39	73	50		
Private Equity Proxy	133,604,490	6.1	1.2	20.1	1.2	8.5	14.7	11.5	13.6	-0.2	21.2	11.7	1.4	13.7	9.2	Nov-03
Russell 3000 +3%			2.3	22.0	2.3	5.9	15.8	13.5	16.1	-2.2	24.1	15.7	3.5	15.6	12.1	Nov-03
eV US Large Cap Equity Net Rank			53	41	53	13	23	22	23	14	50	34	40	24		
Northern Trust Russell 3000	133,604,490	6.1	1.2	20.1	1.2	--	--	--	--	--	--	--	--	--	20.1	Dec-18
Russell 3000			1.2	20.1	1.2	--	--	--	--	--	--	--	--	--	20.1	Dec-18
eV US Large Cap Equity Net Rank			53	41	53	--	--	--	--	--	--	--	--	--		
Int'l Developed	496,674,052	22.5	-1.4	11.3	-1.4	-2.7	6.1	3.2	5.1	-15.8	27.4	5.3	-3.8	-4.5	6.0	Sep-04
MSCI ACWI ex USA Gross			-1.7	12.1	-1.7	-0.7	6.8	3.4	4.9	-13.8	27.8	5.0	-5.3	-3.4	6.1	Sep-04
eV ACWI ex-US Equity Unhedged Net Rank			31	68	31	52	53	69	79	51	74	20	77	64		
LSV Asset Mgt	248,877,925	11.3	-0.9	9.6	-0.9	-4.4	5.9	2.6	4.8	-16.9	27.5	8.2	-5.4	-4.2	5.9	Aug-04
MSCI ACWI ex USA Gross			-1.7	12.1	-1.7	-0.7	6.8	3.4	4.9	-13.8	27.8	5.0	-5.3	-3.4	6.3	Aug-04
eV ACWI ex-US Equity Unhedged Net Rank			18	76	18	70	58	76	81	63	73	8	86	62		
Fidelity	247,796,127	11.2	-2.0	13.0	-2.0	-0.9	6.2	3.5	5.2	-14.7	27.0	1.8	-2.3	-4.9	3.4	Apr-06
MSCI ACWI ex USA Gross			-1.7	12.1	-1.7	-0.7	6.8	3.4	4.9	-13.8	27.8	5.0	-5.3	-3.4	3.4	Apr-06
eV ACWI ex-US Equity Unhedged Net Rank			51	51	51	38	53	63	76	40	77	42	66	70		
Core Real Estate	154,642,541	7.0	2.8	9.1	2.8	7.3	5.0	7.0	--	1.6	5.2	5.2	-0.8	31.9	--	Mar-08
NCREIF Property Index			1.4	4.8	1.4	6.2	6.8	8.6	--	6.7	7.0	8.0	13.3	11.8	--	Mar-08
eV US REIT Net Rank			99	99	99	96	93	92	--	1	56	86	91	36		
Prime Property Fund	58,055,197	2.6	1.4	4.6	1.4	6.6	7.9	--	--	8.0	8.8	9.2	--	--	8.4	Sep-15
NCREIF-ODCE			1.3	3.8	1.3	5.6	7.3	--	--	8.3	7.6	8.8	--	--	8.0	Sep-15
eV US REIT Net Rank			99	99	99	97	46	--	--	1	10	14	--	--		
BlackRock US Real Estate	39,623,889	1.8	6.8	24.6	6.8	16.4	6.4	9.6	--	-4.2	3.7	6.6	4.4	31.9	9.4	Sep-12
DJ US Select RESI TR USD			6.8	24.6	6.8	16.4	6.5	9.7	--	-4.2	3.8	6.6	4.5	31.9	9.5	Sep-12
eV US REIT Net Rank			70	80	70	80	80	68	--	37	86	52	65	36		
PGIM Real Estate US Debt Fund	56,963,455	2.6	1.5	4.6	1.5	6.3	--	--	--	--	--	--	--	--	--	Sep-18
Gilberto-Levy Commercial Mortgage Performance Index			0.0	6.0	0.0	8.4	--	--	--	--	--	--	--	--	--	Sep-18
eV US REIT Net Rank			99	99	99	98	--	--	--	--	--	--	--	--		

Policy Index (5/31/2019): 14% Russell 1000, 3% Russell 2000, 6% Russell 3000 + 3%, 23% MSCI ACWI ex-USA, 19% BBgBarc US Gov't/Credit 1-3 Yr, 3% BBgBarc US Treasury 7-10 Yr, 5% NCREIF Property, 5% NCREIF Property +2%, 2%

Total Fund
Performance Summary (Net of Fees)

Period Ending: September 30, 2019

	Market Value	% of Portfolio	3 Mo	YTD	Fiscal YTD	1 Yr	3 Yrs	5 Yrs	10 Yrs	2018	2017	2016	2015	2014	Inception	Inception Date
Value Add Real Estate	82,662,246	3.7	3.3	7.2	3.3	8.2	10.9	10.9	--	11.7	11.9	8.8	18.9	--	10.5	Jul-14
NCREIF Property Index +2%			1.9	6.4	1.9	8.3	8.9	10.7	--	8.8	9.1	10.1	15.6	--	11.0	Jul-14
American Strategic Value Realty	52,655,541	2.4	1.9	6.1	1.9	7.8	9.5	--	--	9.2	10.1	11.7	18.3	--	11.6	Dec-14
NCREIF Property Index			1.4	4.8	1.4	6.2	6.8	--	--	6.7	7.0	8.0	13.3	--	8.4	Dec-14
Greenfield Gap VII	10,199,705	0.5	9.5	14.2	9.5	14.7	14.2	12.6	--	12.9	14.7	6.1	19.4	--	12.2	Jul-14
NCREIF ODCE + 1%			1.6	4.5	1.6	6.6	8.4	10.4	--	9.4	8.7	9.8	16.2	--	10.8	Jul-14
Greenfield Gap VIII	19,807,000	0.9	3.5	6.1	3.5	4.6	--	--	--	--	--	--	--	--	16.9	Apr-18
NCREIF ODCE + 1%			1.6	4.5	1.6	6.6	--	--	--	--	--	--	--	--	7.6	Apr-18
Risk Parity	319,005,753	14.5	3.0	20.0	3.0	13.8	--	--	--	-7.0	--	--	--	--	6.9	Nov-17
60% MSCI ACWI Net/40% BBgBarc Global Aggregate			0.3	12.4	0.3	4.2	--	--	--	-6.0	--	--	--	--	3.6	Nov-17
AQR Global Risk Premium - EL	158,801,166	7.2	1.9	17.8	1.9	10.5	--	--	--	--	--	--	--	--	8.3	Mar-18
60% MSCI ACWI Net/40% BBgBarc Global Aggregate			0.3	12.4	0.3	4.2	--	--	--	--	--	--	--	--	3.3	Mar-18
PanAgora Risk Parity Multi Asset	160,204,587	7.3	4.2	22.4	4.2	17.4	--	--	--	-7.6	--	--	--	--	7.6	Nov-17
60% MSCI ACWI Net/40% BBgBarc Global Aggregate			0.3	12.4	0.3	4.2	--	--	--	-6.0	--	--	--	--	3.6	Nov-17
Infrastructure	42,045,476	1.9	3.1	10.9	3.1	12.8	13.1	--	--	8.3	20.9	4.1	--	--	7.5	May-15
CPI + 5%			1.5	6.0	1.5	6.8	7.2	--	--	7.0	7.2	7.2	--	--	6.9	May-15
eV Infrastructure Net Rank			27	98	27	81	1	--	--	1	25	99	--	--		
MS Infrastructure Partners II	42,045,476	1.9	3.1	10.9	3.1	12.8	13.1	--	--	8.3	20.9	4.1	--	--	7.4	May-15
CPI + 5%			1.5	6.0	1.5	6.8	7.2	--	--	7.0	7.2	7.2	--	--	6.9	May-15
eV Infrastructure Net Rank			27	98	27	81	1	--	--	1	25	99	--	--		
Private Credit	95,013,760	4.3	0.4	3.9	0.4	4.7	3.1	3.9	--	4.2	-0.4	1.9	5.4	8.8	4.2	May-13
S&P/LSTA Leveraged Loan Index+2%			1.5	8.4	1.5	5.2	6.6	6.1	--	2.4	6.2	12.3	1.3	3.6	5.9	May-13
Medley Capital	12,870,163	0.6	-4.9	-8.5	-4.9	-14.8	-5.3	-1.7	--	-12.7	3.4	3.4	5.4	6.8	0.9	May-13
S&P/LSTA Leveraged Loan Index+2%			1.5	8.4	1.5	5.2	6.6	6.1	--	2.4	6.2	12.3	1.3	3.6	5.9	May-13
Raven Capital	14,178,247	0.6	2.2	7.2	2.2	9.5	1.5	2.1	--	5.3	-6.1	-3.6	1.2	7.6	-0.9	May-13
S&P/LSTA Leveraged Loan Index+2%			1.5	8.4	1.5	5.2	6.6	6.1	--	2.4	6.2	12.3	1.3	3.6	5.9	May-13
Raven Opportunity III	42,168,305	1.9	0.8	7.2	0.8	9.5	3.5	--	--	11.0	-7.4	-4.5	--	--	1.4	Jul-15
S&P/LSTA Leveraged Loan Index+2%			1.5	8.4	1.5	5.2	6.6	--	--	2.4	6.2	12.3	--	--	6.3	Jul-15
White Oak Pinnacle	25,797,045	1.2	1.8	5.0	1.8	7.7	6.1	7.0	--	8.4	2.0	5.9	8.6	14.4	11.0	Aug-13
S&P/LSTA Leveraged Loan Index+2%			1.5	8.4	1.5	5.2	6.6	6.1	--	2.4	6.2	12.3	1.3	3.6	6.0	Aug-13

Total Fund Performance Summary (Net of Fees)

Period Ending: September 30, 2019

	Market Value	% of Portfolio	3 Mo	YTD	Fiscal YTD	1 Yr	3 Yrs	5 Yrs	10 Yrs	2018	2017	2016	2015	2014	Inception	Inception Date
Risk-Diversifying Sub-Portfolio	246,542,328	11.2	1.4	5.6	1.4	7.2	3.0	3.4	4.5	1.1	3.8	5.2	0.2	6.1	4.9	Nov-03
<i>StanCERA Risk-Diversifying Blended BM</i>			1.3	5.2	1.3	7.1	2.0	2.2	2.3	1.4	1.3	1.3	0.9	3.0	--	Nov-03
US Treasury	64,294,111	2.9	2.9	8.8	2.9	11.8	4.3	4.2	4.9	0.7	5.0	5.2	0.2	6.1	5.2	Nov-03
<i>BBgBarc US Treasury 7-10 Yr TR</i>			2.7	9.8	2.7	14.0	2.4	3.8	4.4	0.9	2.6	1.1	1.6	9.0	4.9	Nov-03
<i>eV US Government Fixed Inc Net Rank</i>			1	1	1	1	1	1	1	86	1	1	78	6		
Northern Trust Intermediate Gov't Bond	46,476,837	2.1	1.2	5.2	1.2	7.5	--	--	--	1.4	--	--	--	--	2.8	Jul-17
<i>BBgBarc US Govt Int TR</i>			1.2	5.2	1.2	7.5	--	--	--	1.4	--	--	--	--	2.9	Jul-17
<i>eV US Government Fixed Inc Net Rank</i>			74	79	74	71	--	--	--	1	--	--	--	--		
Northern Trust Long Term Gov't Bond	17,817,274	0.8	7.8	19.6	7.8	24.6	--	--	--	-1.7	--	--	--	--	9.5	Jul-17
<i>BBgBarc US Govt Long TR</i>			7.8	19.6	7.8	24.6	--	--	--	-1.8	--	--	--	--	9.5	Jul-17
<i>US Long Duration Fixed Income Rank</i>			14	66	14	13	--	--	--	25	--	--	--	--		
Short-Term Gov't/Credit	182,248,217	8.3	0.9	4.6	0.9	5.8	--	--	--	1.2	--	--	--	--	2.0	May-17
<i>BBgBarc US Govt/Credit 1-3 Yr. TR</i>			0.7	3.4	0.7	4.6	--	--	--	1.6	--	--	--	--	2.2	May-17
<i>eV US Short Duration Fixed Inc Net Rank</i>			20	14	20	8	--	--	--	75	--	--	--	--		
DFA	182,248,217	8.3	0.9	4.6	0.9	5.8	--	--	--	1.2	--	--	--	--	2.6	Jul-17
<i>BBgBarc US Govt/Credit 1-3 Yr. TR</i>			0.7	3.4	0.7	4.6	--	--	--	1.6	--	--	--	--	2.2	Jul-17
<i>eV US Short Duration Fixed Inc Net Rank</i>			20	14	20	8	--	--	--	75	--	--	--	--		

Policy Index (5/31/2019): 14% Russell 1000, 3% Russell 2000, 6% Russell 3000 + 3%, 23% MSCI ACWI ex-USA, 19% BBgBarc US Gov't/Credit 1-3 Yr, 3% BBgBarc US Treasury 7-10 Yr, 5% NCREIF Property, 5% NCREIF Property +2%, 2% CPI +5%, 6% S&P/LSTA Leveraged Loan Index + 2%, 13% 60% MSCI ACWI / 40% BBgBarc Global Aggregate, 1% Citi 1 Month T-Bills. StanCERA Risk-Diversifying Blended BM (8/31/2019): 27% BBgBarc US Treasury 7-10 Yr. TR and 73% BBgBarc US Gov't/Credit 1-3 Yr. TR. All data is preliminary.

Total Fund

Closed End Funds - Investment Summary

Period Ending: September 30, 2019

			Verus Internal Analysis								
Inception Date	Manager Name/Fund Name	Estimated Market Value as of 9/30/2019 ³	Total Commitment	Capital Called	% Called	Remaining Commitment	Total Distributions	Distrib./ Paid-In (DPI) ¹	Tot. Value/ Paid-In (TVPI) ²	Latest Valuation	
Real Estate											
7/31/2014	Greenfield Gap VII	\$10,199,705	\$15,000,000	\$14,335,328	96%	\$664,672	\$11,499,348	80.2%	151.4%	6/30/2019	
6/30/2018	Greenfield Gap VIII	\$19,807,000	\$40,000,000	\$17,835,852	45%	\$22,164,148	\$0	N/A	111.1%	6/30/2019	
Total Real Estate		\$30,006,705	\$55,000,000	\$32,171,180	58%	\$22,828,820	\$11,499,348	35.7%	129.0%		
% of Portfolio (Market Value)		1.4%									
Direct Lending											
5/31/2013	Medley Capital	\$12,870,163	\$30,000,000	\$29,000,453	97%	\$999,547	\$22,943,895	79.1%	123.5%	6/30/2019	
5/31/2013	Raven Capital	\$14,178,247	\$40,000,000	\$34,505,763	86%	\$5,494,237	\$23,560,780	68.3%	109.4%	6/30/2019	
7/31/2015	Raven Opportunity III	\$42,168,305	\$50,000,000	\$41,719,265	83%	\$8,280,735	\$3,740,992	9.0%	110.0%	6/30/2019	
8/31/2013	White Oak Pinnacle	\$25,797,045	\$40,000,000	\$40,000,000 ⁴	100%	\$0	\$43,501,301	108.8%	173.2%	6/30/2019	
Total Direct Lending		\$95,013,760	\$160,000,000	\$145,225,481	91%	\$14,774,519	\$93,746,968	64.6%	130.0%		
% of Portfolio (Market Value)		4.3%									
Infrastructure											
5/31/2015	MS Infrastructure Partners II	\$42,045,476	\$50,000,000	\$50,130,435	100%	-\$130,435	\$18,608,746	37.1%	121.0%	6/30/2019	
Total Infrastructure		\$42,045,476	\$50,000,000	\$50,130,435	100%	-\$130,435	\$18,608,746	37.1%	121.0%		
% of Portfolio (Market Value)		1.9%									

1 (DPI) is equal to (capital returned / capital called)

2 (TVPI) is equal to (market value + capital returned)/ capital called

3 Last known market value + capital calls - distributions

4 Includes redeemed contributions, which are amounts withheld from distributions and applied to fulfill capital calls

Total Fund
Closed End Funds - IRR Summary

Period Ending: September 30, 2019

Real Estate	Inception	Fund Level (G)	StanCERA (G)	Fund Level (N)	StanCERA (N)	IRR Date
Greenfield Gap VII	7/31/2014	18.0%	18.5%	14.1%	14.0%	6/30/2019
NCREIF-ODCE PME					9.3%	6/30/2019
Direct Lending						
Medley Capital	5/31/2013	5.1%	3.6%	3.2%	1.3%	6/30/2019
S&P/LSTA Leveraged Loan Index PME					3.4%	6/30/2019
Raven Capital	5/31/2013	6.2%	6.2%	2.7%	2.7%	6/30/2019
S&P/LSTA Leveraged Loan Index PME					3.7%	6/30/2019
Raven Opportunity III	7/31/2015	10.8%	10.8%	5.6%	5.6%	6/30/2019
S&P/LSTA Leveraged Loan Index PME					4.9%	6/30/2019
White Oak Pinnacle	8/31/2013	10.2%	10.2%	7.3%	7.5%	6/30/2019
S&P/LSTA Leveraged Loan Index PME					3.9%	6/30/2019
Infrastructure						
MS Infrastructure Partners II	5/31/2015	21.2%	21.2%	14.0%	12.2%	6/30/2019
CPI PME					1.9%	6/30/2019

IRR information provided by managers.

Total Fund

Performance Analysis - 3 and 5 Years (Net of Fees)

Period Ending: September 30, 2019

3 Years

	Anlzd Ret	Ann Excess BM Return	Anlzd Std Dev	Anlzd Alpha	Beta	Tracking Error	R-Squared	Sharpe Ratio	Info Ratio	Up Mkt Cap Ratio	Down Mkt Cap Ratio
BlackRock Russell 1000 Growth	16.89%	0.00%	13.29%	0.01%	1.00	0.04%	1.00	1.16	0.00	100.00%	100.00%
BlackRock Russell 1000 Value	9.52%	0.09%	12.32%	0.11%	1.00	0.06%	1.00	0.65	1.60	100.23%	99.64%
Dodge & Cox-Equity	10.91%	1.48%	13.63%	0.93%	1.06	3.96%	0.92	0.69	0.37	113.53%	104.83%
Capital Prospects	7.23%	0.69%	17.65%	0.81%	0.98	3.28%	0.97	0.32	0.21	95.90%	94.63%
LSV Asset Mgt	5.93%	-0.92%	12.40%	-1.28%	1.05	2.97%	0.94	0.35	-0.31	101.89%	107.02%
Fidelity	6.21%	-0.64%	11.15%	-0.36%	0.96	2.07%	0.97	0.42	-0.31	93.08%	97.21%
Prime Property Fund	7.93%	0.63%	3.25%	0.26%	1.05	0.67%	0.96	1.96	0.93	109.24%	--
American Strategic Value Realty	9.51%	2.74%	3.91%	0.05%	1.40	1.31%	0.97	2.04	2.09	144.34%	--
BlackRock US Real Estate	6.45%	-0.03%	12.79%	-0.02%	1.00	0.05%	1.00	0.38	-0.73	99.68%	99.91%

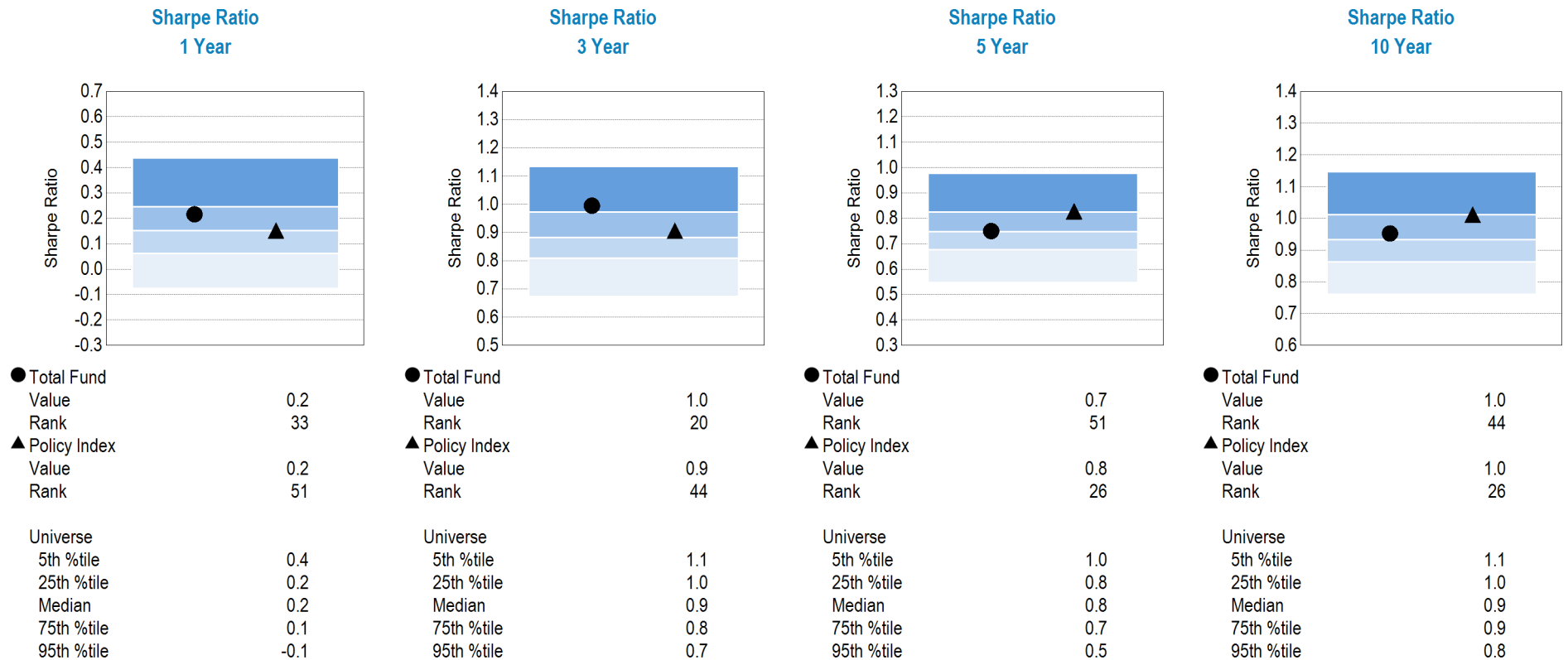
5 Years

	Anlzd Ret	Ann Excess BM Return	Anlzd Std Dev	Anlzd Alpha	Beta	Tracking Error	R-Squared	Sharpe Ratio	Info Ratio	Up Mkt Cap Ratio	Down Mkt Cap Ratio
BlackRock Russell 1000 Growth	13.42%	0.02%	12.88%	0.03%	1.00	0.04%	1.00	0.97	0.56	100.16%	100.01%
BlackRock Russell 1000 Value	7.89%	0.10%	11.91%	0.11%	1.00	0.06%	1.00	0.58	1.55	100.30%	99.68%
Dodge & Cox-Equity	8.10%	0.31%	13.54%	-0.34%	1.08	4.19%	0.91	0.53	0.07	112.65%	107.24%
Capital Prospects	6.67%	-0.50%	16.12%	-0.40%	0.99	2.95%	0.97	0.35	-0.17	92.18%	97.62%
LSV Asset Mgt	2.56%	-0.83%	13.63%	-1.07%	1.07	2.86%	0.96	0.12	-0.29	108.35%	107.31%
Fidelity	3.51%	0.12%	11.81%	0.35%	0.93	2.16%	0.97	0.21	0.06	89.63%	93.74%
BlackRock US Real Estate	9.62%	-0.06%	14.37%	-0.05%	1.00	0.05%	1.00	0.60	-1.39	99.54%	99.97%

Performance Analysis excludes closed end funds and those funds without 3 years of performance.

Total Fund Sharpe Ratio Rankings (Net of Fees)

Period Ending: September 30, 2019



Total Fund Investment Fund Fee Analysis

Period Ending: September 30, 2019

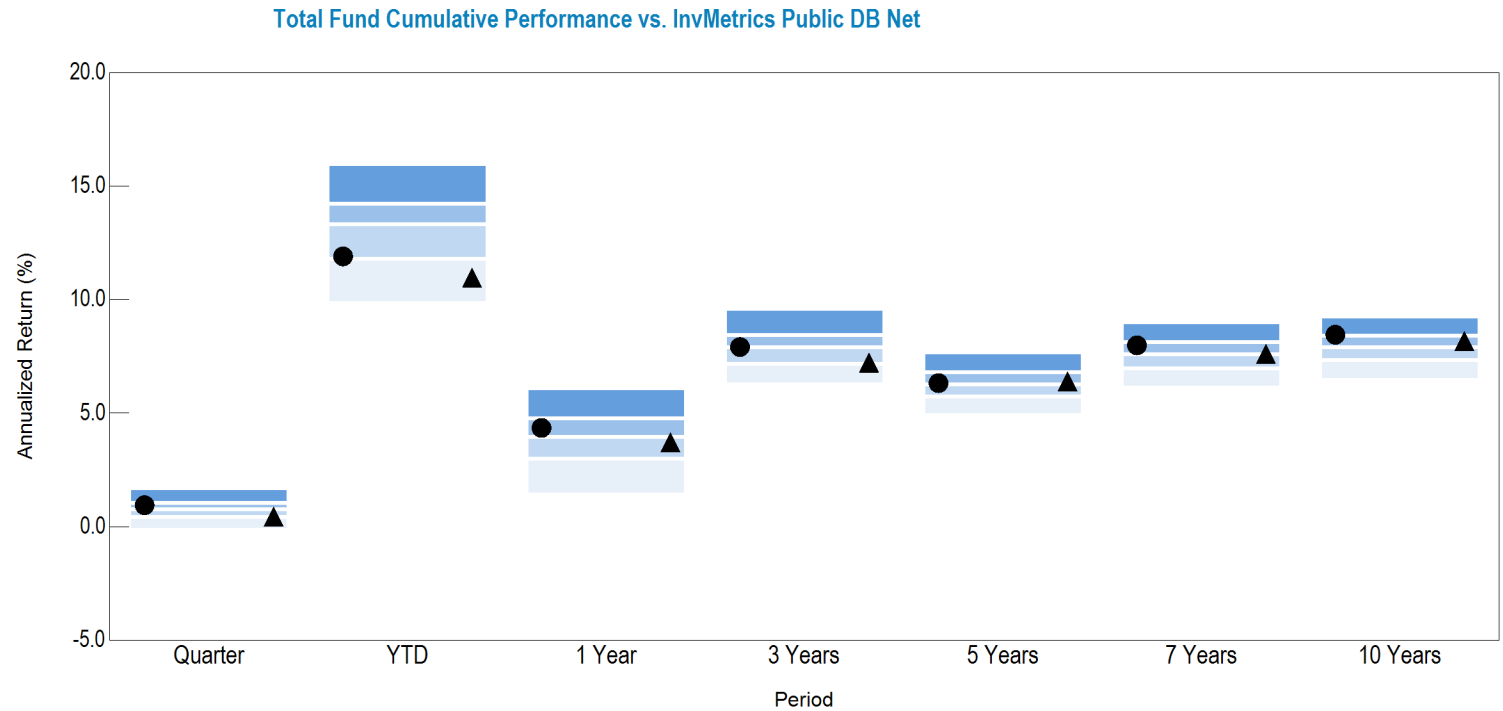
Name	Asset Class	Fee Schedule	Market Value	Estimated Fee Value	Estimated Fee
Cash Account	Cash and Equivalents	0.10% of Assets	\$26,432,453	\$26,432	0.10%
Insight	Domestic Fixed Income	0.12% of Assets	\$220,508,938	\$264,611	0.12%
BlackRock Russell 1000 Growth	Domestic Equity	0.02% of Assets	\$154,878,643	\$30,976	0.02%
BlackRock Russell 1000 Value	Domestic Equity	0.02% of Assets	\$78,609,386	\$15,722	0.02%
Dodge & Cox-Equity	Domestic Equity	0.40% of First 10.0 Mil, 0.20% of Next 90.0 Mil, 0.15% Thereafter	\$78,287,267	\$176,575	0.23%
Capital Prospects	Domestic Equity	0.75% of Assets	\$76,437,244	\$573,279	0.75%
Northern Trust Russell 3000	Domestic Equity	0.02% of Assets	\$133,604,490	\$26,721	0.02%
LSV Asset Mgt	International Equity	0.75% of First 25.0 Mil, 0.65% of Next 25.0 Mil, 0.55% of Next 50.0 Mil, 0.45% Thereafter	\$248,877,925	\$1,294,951	0.52%
Fidelity	International Equity	0.25% of Assets	\$247,796,127	\$619,490	0.25%
Prime Property Fund	Real Estate	0.84% of Assets	\$58,055,197	\$487,664	0.84%
BlackRock US Real Estate	Real Estate	0.09% of First 100.0 Mil, 0.07% Thereafter	\$39,623,889	\$35,662	0.09%
American Strategic Value Realty	Real Estate	1.25% of First 10.0 Mil, 1.20% of Next 15.0 Mil, 1.10% of Next 25.0 Mil, 1.00% Thereafter	\$52,655,541	\$606,555	1.15%
AQR Global Risk Premium - EL	Alternatives	0.38% of Assets	\$158,801,166	\$603,444	0.38%
PanAgora Risk Parity Multi Asset	Alternatives	0.35% of Assets	\$160,204,587	\$560,716	0.35%
Northern Trust Intermediate Gov't Bond	Domestic Fixed Income	0.05% of First 25.0 Mil, 0.04% Thereafter	\$46,476,837	\$21,091	0.05%
Northern Trust Long Term Gov't Bond	Domestic Fixed Income	0.05% of First 25.0 Mil, 0.04% Thereafter	\$17,817,274	\$8,909	0.05%
DFA	Domestic Fixed Income	0.20% of First 25.0 Mil, 0.10% Thereafter	\$182,248,217	\$207,248	0.11%
Total			\$1,904,877,938	\$5,560,045	0.29%

Closed end funds excluded from fee analysis. Fidelity has performance based fees which are not included in the analysis above; fee shown is the annual base fee only. Northern Trust aggregates StanCERA's Northern Trust Bond Funds.

Total Fund

Peer Universe Comparison: Cumulative Performance (Net of Fees)

Period Ending: September 30, 2019

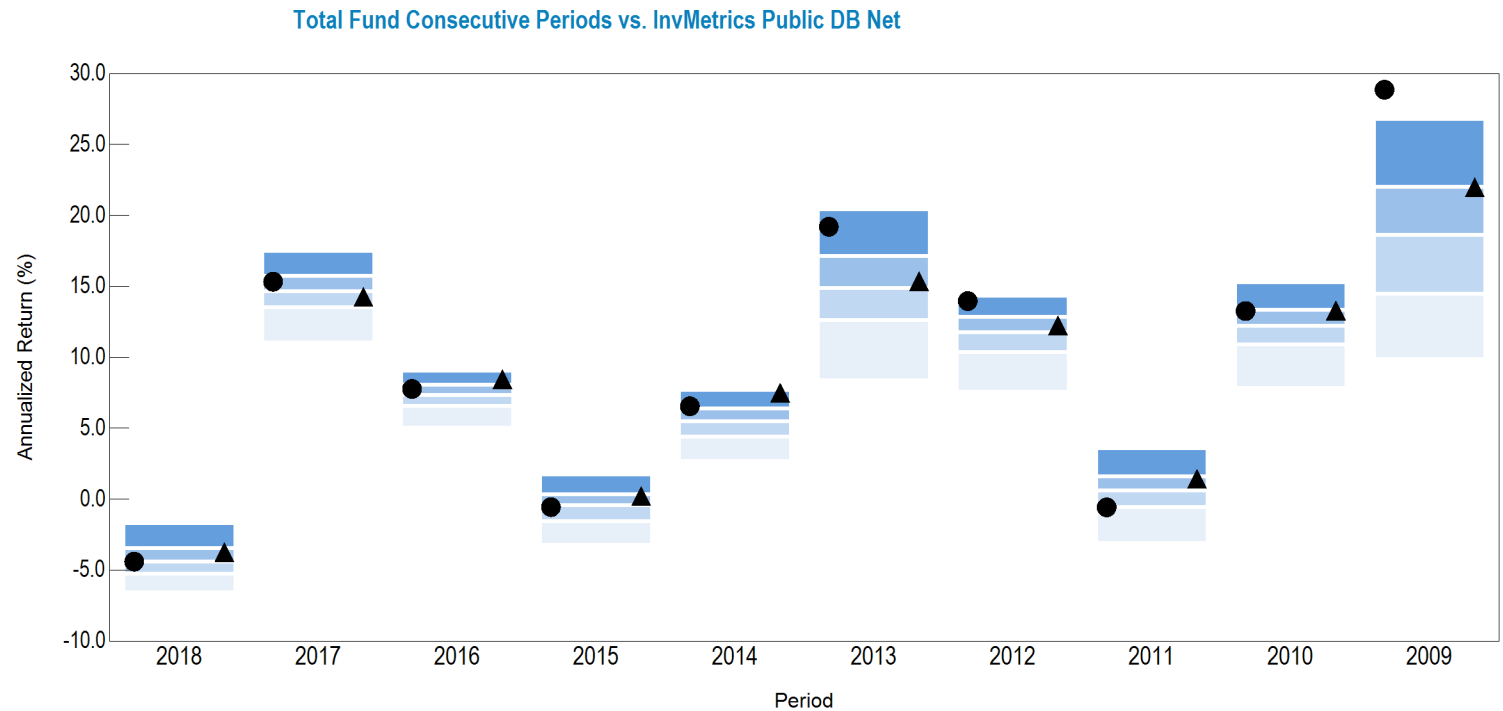


	Return (Rank)						
5th Percentile	1.7	15.9	6.1	9.6	7.7	9.0	9.2
25th Percentile	1.1	14.2	4.8	8.4	6.8	8.1	8.4
Median	0.8	13.3	4.0	7.9	6.3	7.6	7.9
75th Percentile	0.4	11.8	3.0	7.2	5.7	7.0	7.4
95th Percentile	-0.1	9.8	1.4	6.3	4.9	6.1	6.5
# of Portfolios	562	558	554	542	495	469	415
● Total Fund	0.9 (36)	11.9 (74)	4.3 (36)	7.9 (50)	6.3 (47)	8.0 (32)	8.5 (24)
▲ Policy Index	0.4 (76)	11.0 (85)	3.7 (58)	7.2 (75)	6.4 (44)	7.6 (50)	8.2 (37)

Total Fund

Peer Universe Comparison: Consecutive Periods (Net of Fees)

Period Ending: September 30, 2019



	Return (Rank)									
5th Percentile	-1.7	17.5	9.0	1.7	7.7	20.4	14.3	3.6	15.3	26.8
25th Percentile	-3.4	15.8	8.1	0.4	6.4	17.2	12.9	1.6	13.4	22.0
Median	-4.4	14.7	7.4	-0.4	5.5	14.9	11.8	0.6	12.2	18.6
75th Percentile	-5.2	13.6	6.6	-1.5	4.4	12.7	10.4	-0.5	10.9	14.5
95th Percentile	-6.5	11.1	5.0	-3.2	2.7	8.4	7.6	-3.1	7.9	9.9
# of Portfolios	496	269	269	262	210	191	159	137	131	128
● Total Fund	-4.4 (51)	15.3 (36)	7.8 (36)	-0.6 (55)	6.5 (22)	19.2 (12)	14.0 (9)	-0.6 (77)	13.3 (27)	28.9 (2)
▲ Policy Index	-3.7 (34)	14.3 (60)	8.5 (18)	0.2 (29)	7.5 (8)	15.4 (45)	12.3 (41)	1.4 (30)	13.3 (27)	22.0 (26)

Domestic Equity Managers

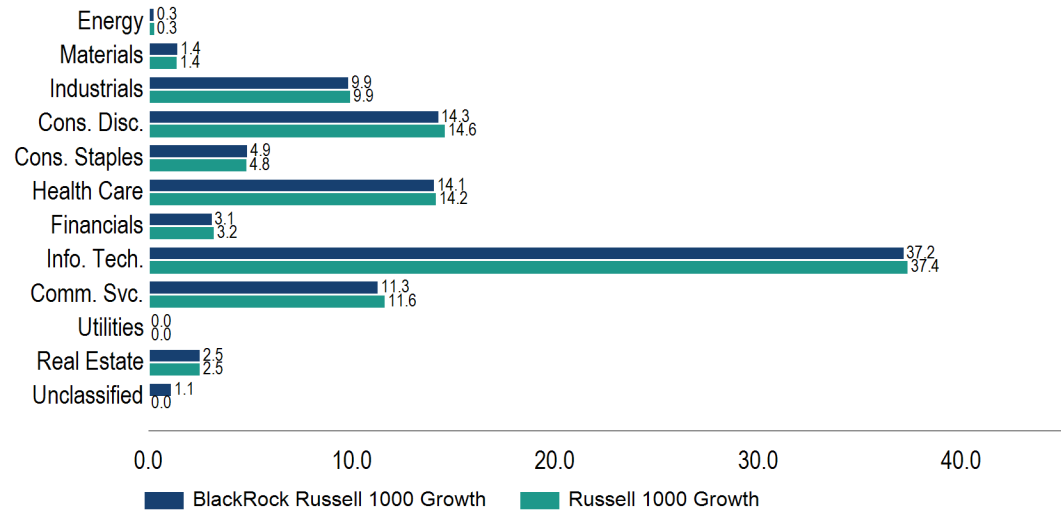
BlackRock Russell 1000 Growth Manager Portfolio Overview

Period Ending: September 30, 2019

Characteristics

	Portfolio	Russell 1000 Growth
Number of Holdings	530	526
Weighted Avg. Market Cap. (\$B)	298.57	300.55
Median Market Cap. (\$B)	12.13	12.24
Price To Earnings	26.73	26.74
Price To Book	8.07	8.05
Price To Sales	3.09	3.09
Return on Equity (%)	35.49	35.42
Yield (%)	1.22	1.21
Beta	1.00	1.00

Sector Allocation (%) vs Russell 1000 Growth



Largest Holdings

	End Weight	Return
MICROSOFT	7.45	4.14
APPLE	7.17	13.60
AMAZON.COM	5.09	-8.33
FACEBOOK CLASS A	3.02	-7.73
ALPHABET 'C'	2.63	12.78
ALPHABET A	2.59	12.78
VISA 'A'	2.12	-0.75
MASTERCARD	1.73	2.79
CISCO SYSTEMS	1.50	-9.16
MERCK & COMPANY	1.46	1.06

Bottom Contributors

	Avg Wgt	Return	Contribution
AMAZON.COM	1.88	-8.33	-0.16
NETFLIX	0.37	-27.14	-0.10
FACEBOOK CLASS A	1.11	-7.73	-0.09
UNITEDHEALTH GROUP	0.55	-10.53	-0.06
CISCO SYSTEMS	0.58	-9.16	-0.05
PAYPAL HOLDINGS	0.32	-9.50	-0.03
ILLUMINA	0.13	-17.37	-0.02
ADOBE (NAS)	0.35	-6.24	-0.02
ALIGN TECHNOLOGY	0.05	-33.90	-0.02
WORKDAY CLASS A	0.08	-17.33	-0.01

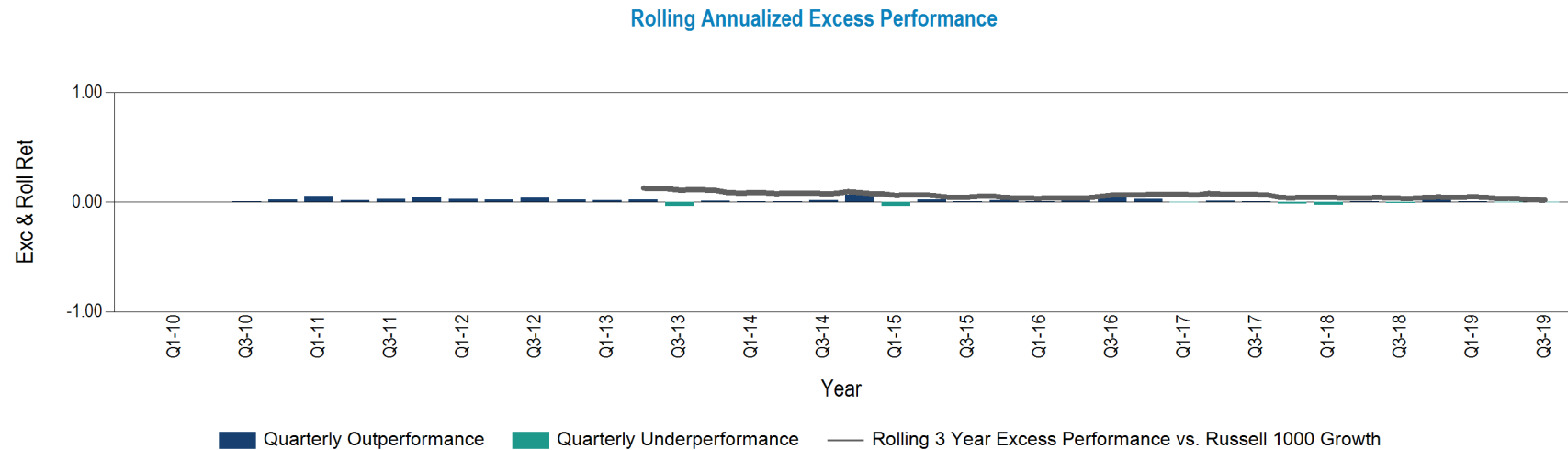
Top Contributors

	Avg Wgt	Return	Contribution
APPLE	2.19	13.60	0.30
ALPHABET 'C'	0.79	12.78	0.10
MICROSOFT	2.44	4.14	0.10
ALPHABET A	0.78	12.78	0.10
HOME DEPOT	0.31	12.24	0.04
TEXAS INSTRUMENTS	0.26	13.29	0.03
NIKE 'B'	0.25	12.17	0.03
UNITED PARCEL SER.'B'	0.17	16.99	0.03
COSTCO WHOLESALE	0.28	9.26	0.03
COCA COLA	0.32	7.70	0.02

Unclassified sector allocation includes cash allocations.

BlackRock Russell 1000 Growth Manager Performance Comparisons (Gross of Fees)

Period Ending: September 30, 2019



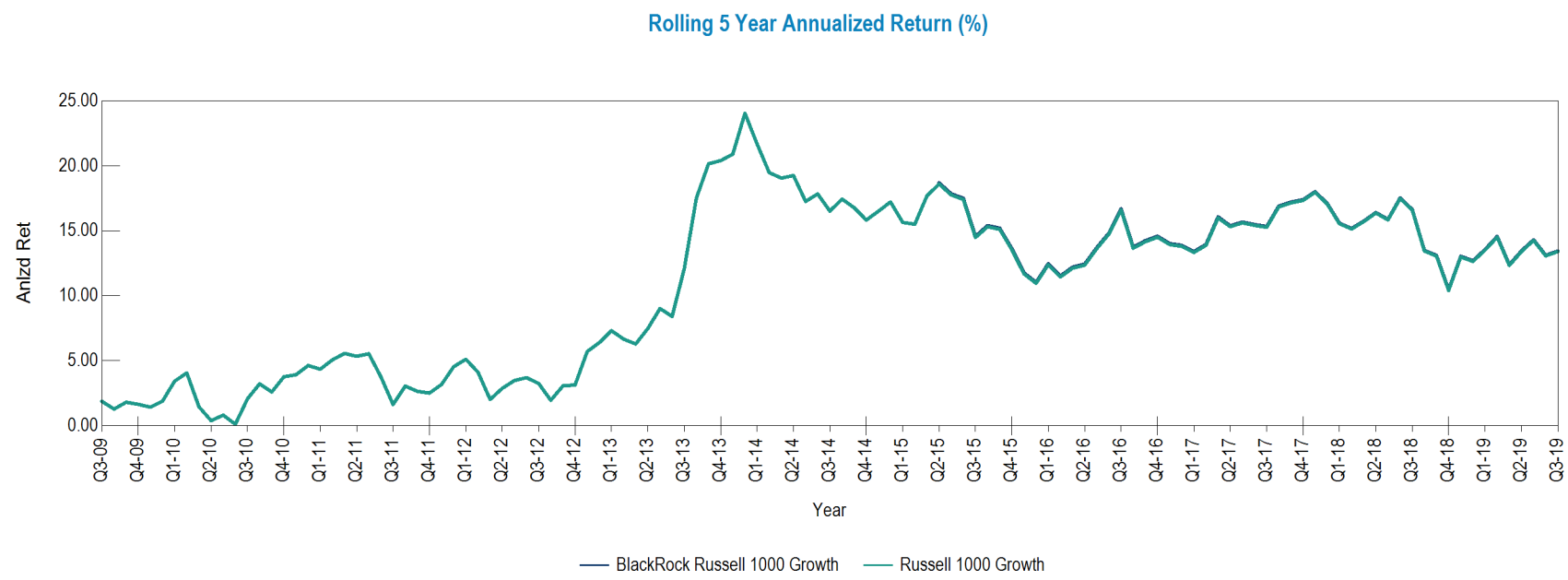
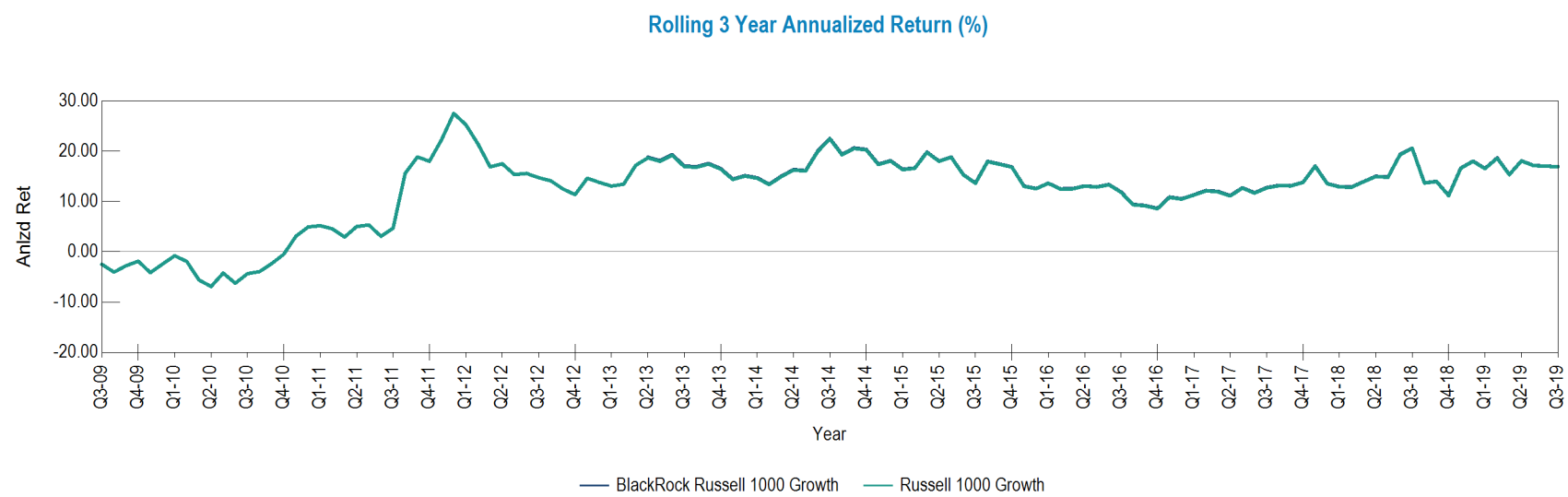
BlackRock Russell 1000 Growth vs. eV US Large Cap Growth Equity Net Universe



	Quarter	1 Year	3 Years	5 Years	10 Years	2018	2017	2016	2015	2014
Return (Rank)										
5th Percentile	3.2	11.4	19.8	15.2	15.7	5.8	36.0	10.8	11.4	16.7
25th Percentile	1.4	6.4	17.6	13.2	14.6	1.4	32.2	6.3	6.8	13.1
Median	0.2	2.9	15.7	12.1	13.7	-1.3	28.5	3.4	4.1	11.1
75th Percentile	-1.2	0.5	13.8	10.7	12.9	-4.1	25.2	0.8	1.6	8.7
95th Percentile	-4.5	-5.6	12.0	8.8	11.5	-8.4	19.5	-4.5	-2.3	5.5
# of Portfolios	179	176	169	161	138	179	182	182	175	180
● BlackRock Russell 1000 Growth	1.5 (23)	3.8 (43)	16.9 (31)	13.4 (23)	-- (--)	-1.5 (52)	30.2 (38)	7.2 (19)	5.7 (35)	13.1 (25)
▲ Russell 1000 Growth	1.5 (23)	3.7 (44)	16.9 (31)	13.4 (23)	14.9 (19)	-1.5 (52)	30.2 (38)	7.1 (20)	5.7 (35)	13.0 (28)

BlackRock Russell 1000 Growth
Manager Performance - Rolling 3 & 5 Year (Gross of Fees)

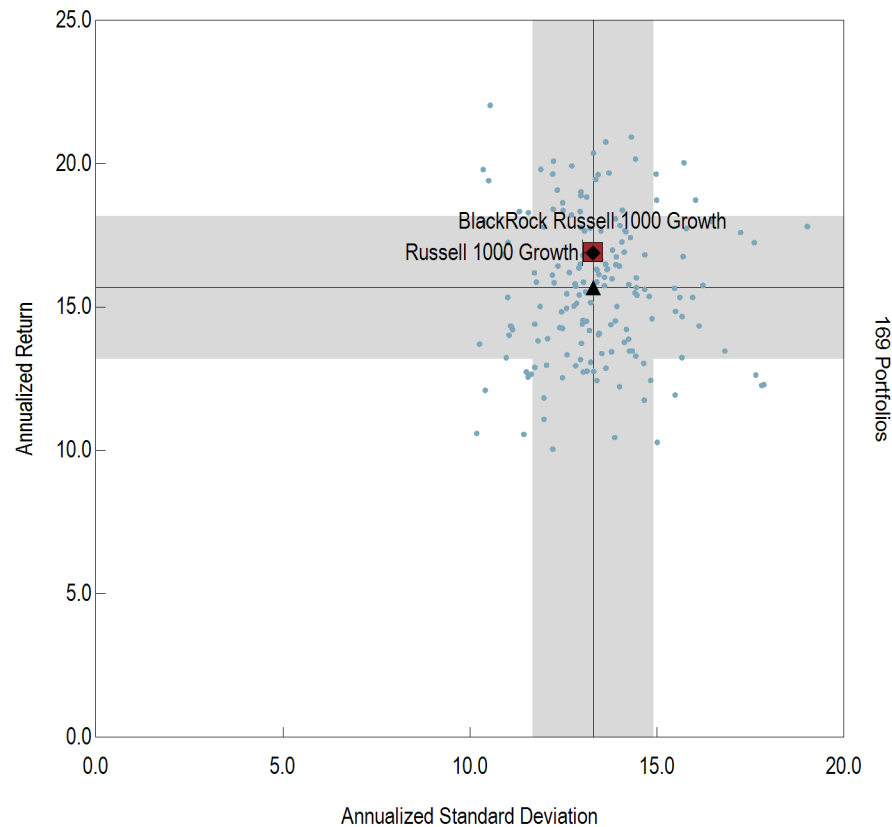
Period Ending: September 30, 2019



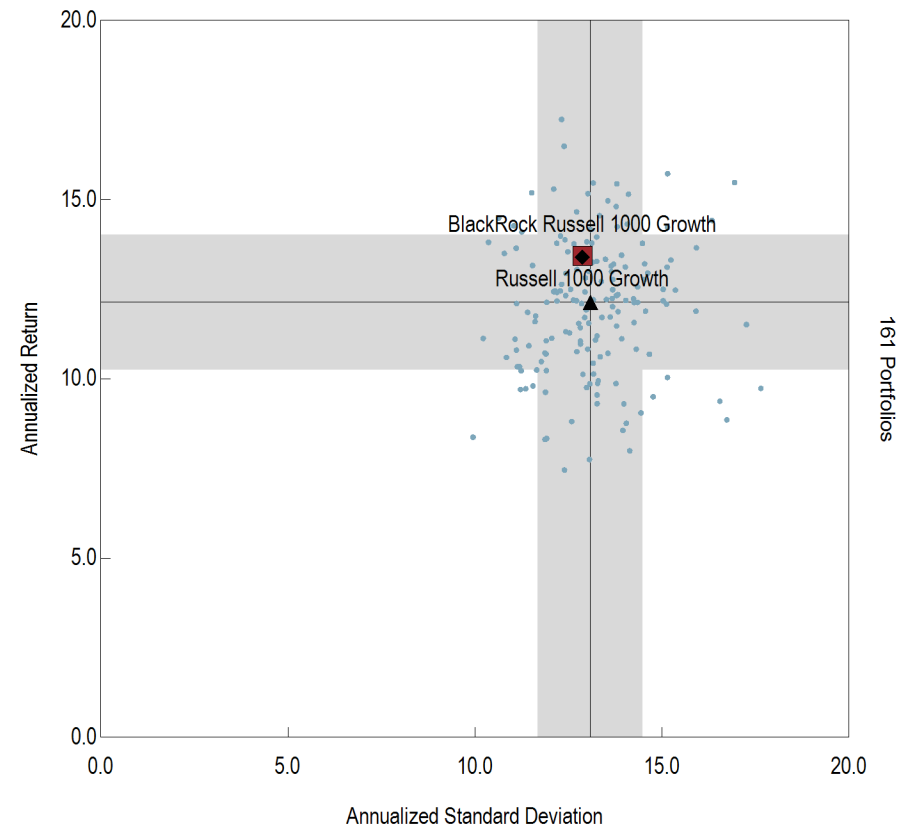
BlackRock Russell 1000 Growth Risk vs. Return 3 & 5 Year (Gross of Fees)

Period Ending: September 30, 2019

3 Years



5 Years



3 Years

	Anlzd Return	Anlzd Standard Deviation	Sharpe Ratio
BlackRock Russell 1000 Growth	16.91%	13.29%	1.16
Russell 1000 Growth	16.89%	13.30%	1.15
eV US Large Cap Growth Equity Net Median	15.68%	13.30%	1.07

5 Years

	Anlzd Return	Anlzd Standard Deviation	Sharpe Ratio
BlackRock Russell 1000 Growth	13.4%	12.9%	1.0
Russell 1000 Growth	13.4%	12.9%	1.0
eV US Large Cap Growth Equity Net Median	12.1%	13.1%	0.8

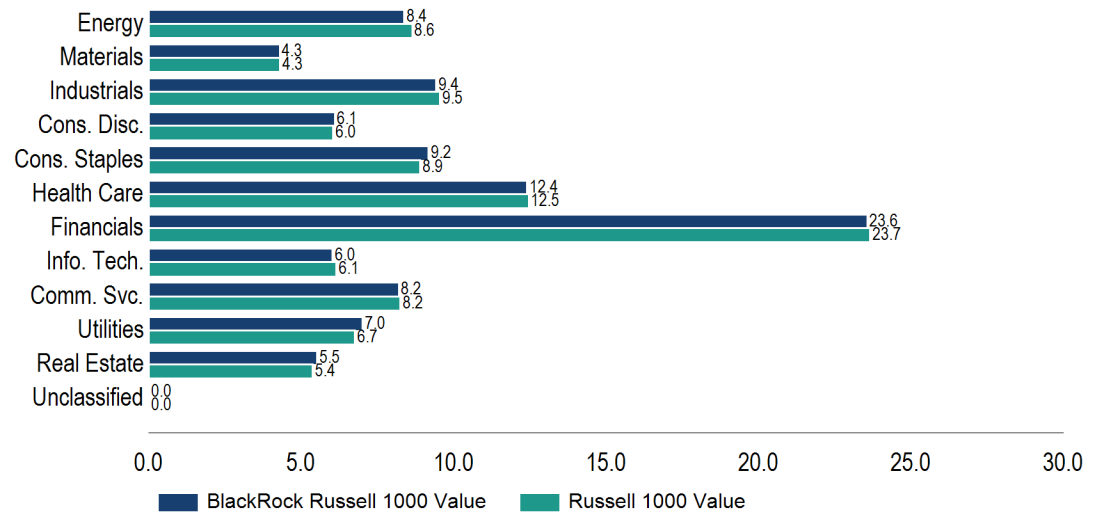
BlackRock Russell 1000 Value Manager Portfolio Overview

Period Ending: September 30, 2019

Characteristics

	Portfolio	Russell 1000 Value
Number of Holdings	761	760
Weighted Avg. Market Cap. (\$B)	114.46	114.23
Median Market Cap. (\$B)	8.95	8.98
Price To Earnings	16.78	16.68
Price To Book	2.25	2.24
Price To Sales	1.50	1.50
Return on Equity (%)	14.90	14.92
Yield (%)	2.63	2.62
Beta	1.00	1.00

Sector Allocation (%) vs Russell 1000 Value



Largest Holdings

	End Weight	Return
BERKSHIRE HATHAWAY 'B'	3.01	-2.42
JP MORGAN CHASE & CO.	2.76	6.01
EXXON MOBIL	2.21	-6.70
JOHNSON & JOHNSON	2.16	-6.42
PROCTER & GAMBLE	2.14	14.17
AT&T	2.04	14.64
VERIZON COMMUNICATIONS	1.84	6.78
BANK OF AMERICA	1.81	1.23
INTEL	1.69	8.37
WALT DISNEY	1.68	-6.10

Bottom Contributors

	Avg Wgt	Return	Contribution
PFIZER	0.59	-16.28	-0.10
EXXON MOBIL	0.80	-6.70	-0.05
JOHNSON & JOHNSON	0.78	-6.42	-0.05
WALT DISNEY	0.60	-6.10	-0.04
GENERAL ELECTRIC	0.22	-14.77	-0.03
EOG RES.	0.13	-20.07	-0.03
BERKSHIRE HATHAWAY 'B'	1.03	-2.42	-0.02
CHEVRON	0.59	-3.71	-0.02
ANTHEM	0.13	-14.65	-0.02
SCHLUMBERGER	0.14	-12.66	-0.02

Top Contributors

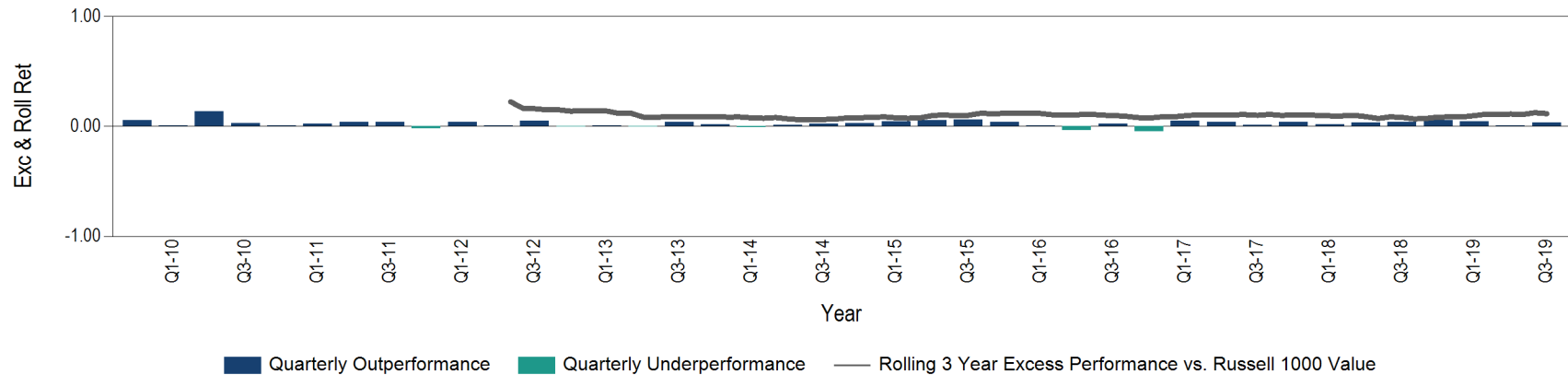
	Avg Wgt	Return	Contribution
PROCTER & GAMBLE	0.63	14.17	0.09
AT&T	0.60	14.64	0.09
JP MORGAN CHASE & CO.	0.89	6.01	0.05
INTEL	0.53	8.37	0.04
MEDTRONIC	0.32	12.71	0.04
VERIZON COMMUNICATIONS	0.58	6.78	0.04
WELLS FARGO & CO	0.47	7.77	0.04
NEXTERA ENERGY	0.24	14.37	0.03
WALMART	0.38	7.94	0.03
HOME DEPOT	0.24	12.24	0.03

Unclassified sector allocation includes cash allocations.

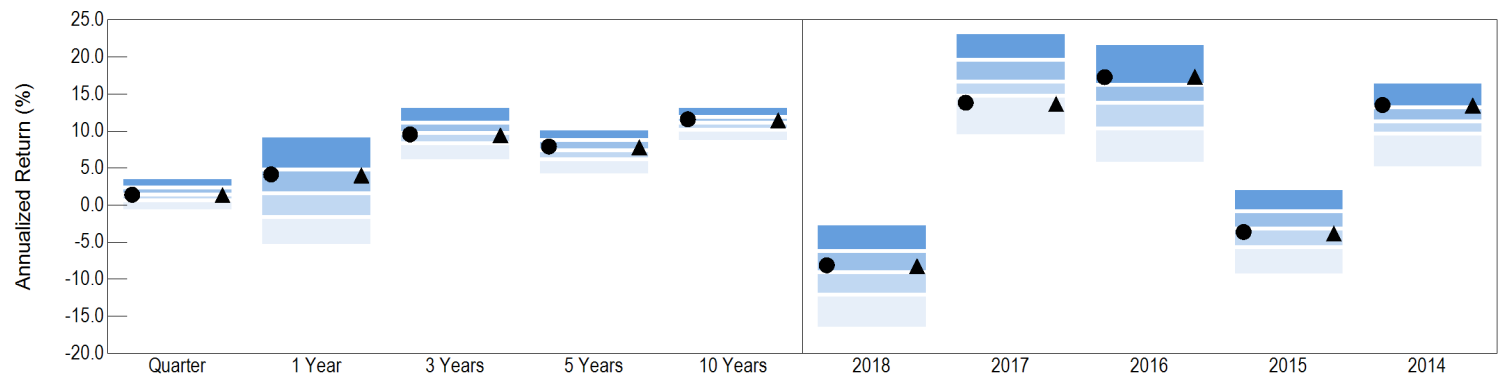
BlackRock Russell 1000 Value Manager Performance Comparisons (Gross of Fees)

Period Ending: September 30, 2019

Rolling Annualized Excess Performance



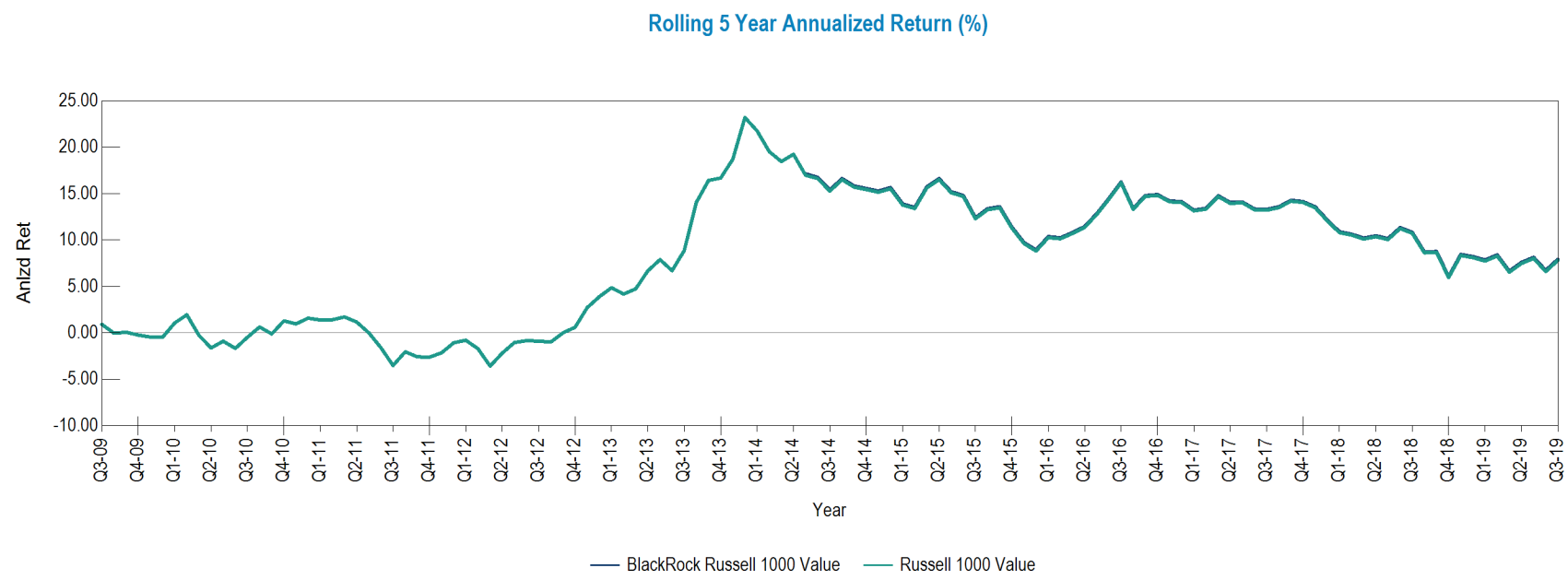
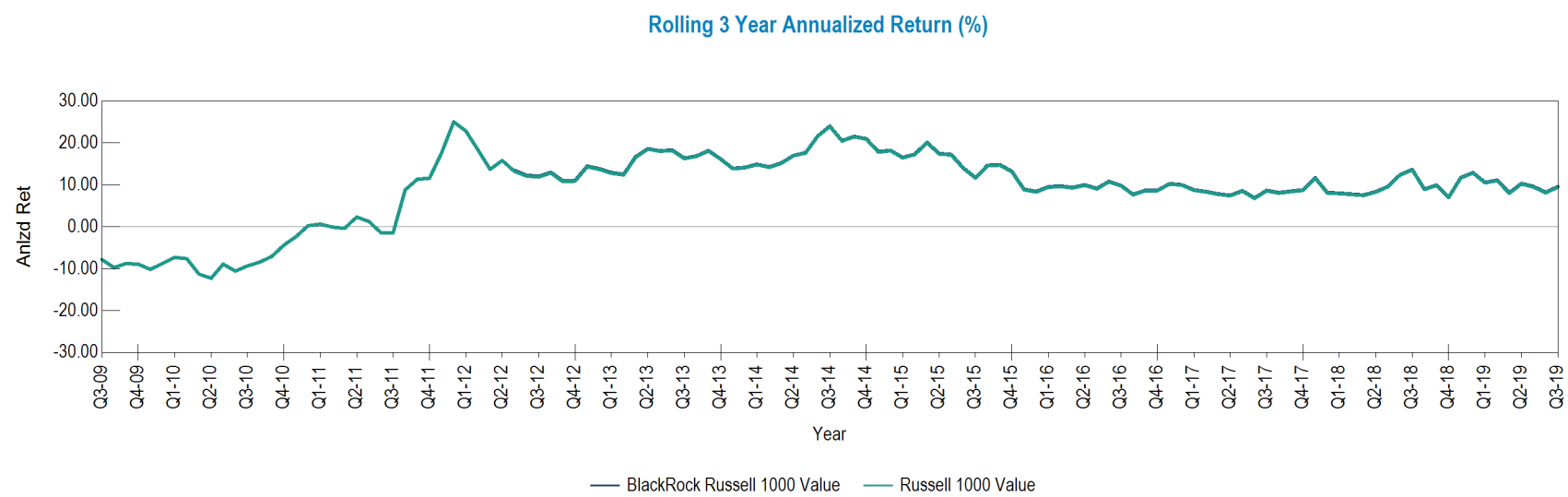
BlackRock Russell 1000 Value vs. eV US Large Cap Value Equity Net Universe



		Return (Rank)																			
5th Percentile		3.7	9.3	13.4	10.3	13.3	-2.5	23.3	21.8	2.2	16.6										
25th Percentile		2.5	4.9	11.1	8.8	12.0	-6.1	19.7	16.3	-0.8	13.3										
Median		1.5	1.7	9.8	7.5	11.2	-9.0	16.7	13.8	-3.1	11.3										
75th Percentile		0.7	-1.6	8.4	6.2	10.2	-12.0	14.8	10.4	-5.7	9.7										
95th Percentile		-0.8	-5.5	6.0	4.0	8.5	-16.7	9.4	5.6	-9.4	5.0										
# of Portfolios		236	231	226	218	176	239	231	225	195	197										
●	BlackRock Russell 1000 Value	1.4	(53)	4.1	(31)	9.5	(54)	7.9	(42)	11.6	(34)	-8.1	(40)	13.8	(83)	17.3	(20)	-3.6	(57)	13.5	(23)
▲	Russell 1000 Value	1.4	(55)	4.0	(32)	9.4	(57)	7.8	(44)	11.5	(39)	-8.3	(43)	13.7	(86)	17.3	(19)	-3.8	(59)	13.5	(24)

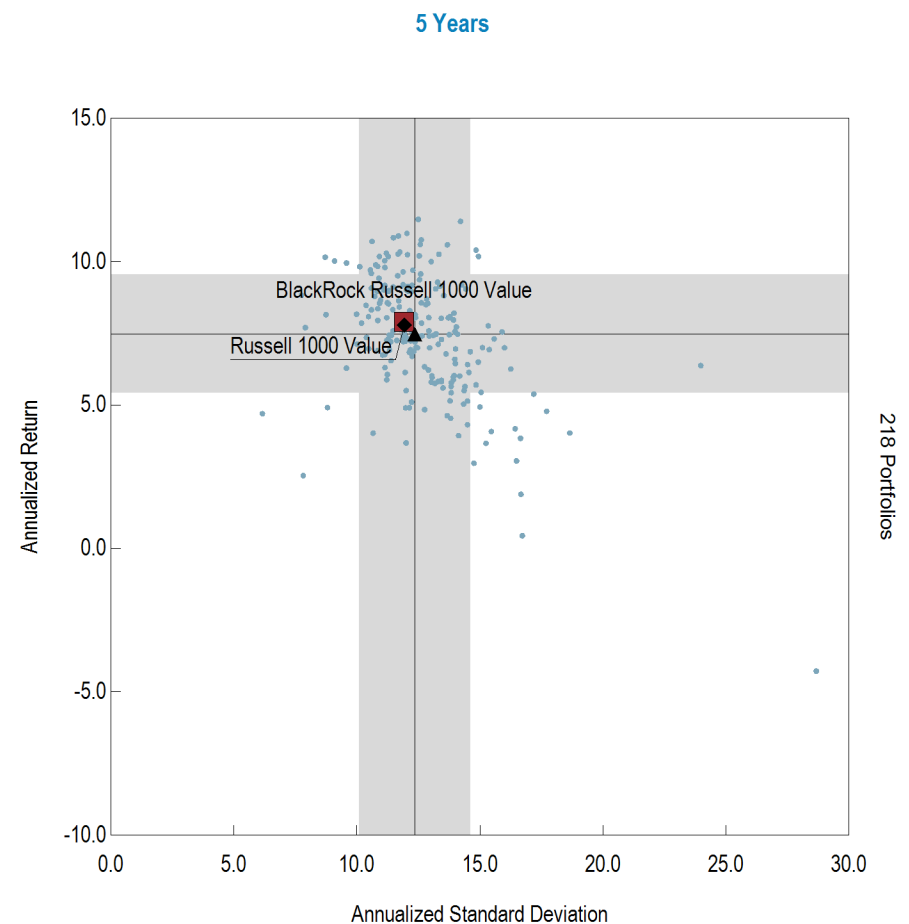
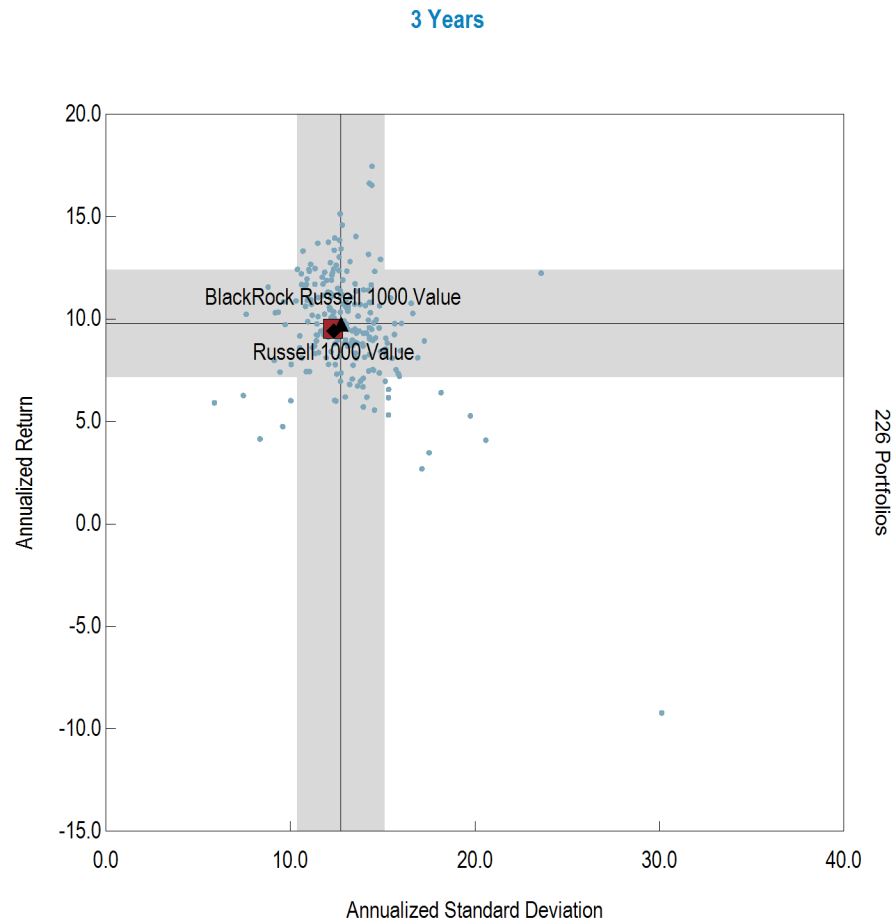
BlackRock Russell 1000 Value
Manager Performance - Rolling 3 & 5 Year (Gross of Fees)

Period Ending: September 30, 2019



BlackRock Russell 1000 Value Risk vs. Return 3 & 5 Year (Gross of Fees)

Period Ending: September 30, 2019



	3 Years		
	Anlzd Return	Anlzd Standard Deviation	Sharpe Ratio
BlackRock Russell 1000 Value	9.55%	12.32%	0.65
Russell 1000 Value	9.43%	12.34%	0.64
eV US Large Cap Value Equity Net Median	9.78%	12.74%	0.65

	5 Years		
	Anlzd Return	Anlzd Standard Deviation	Sharpe Ratio
BlackRock Russell 1000 Value	7.9%	11.9%	0.6
Russell 1000 Value	7.8%	11.9%	0.6
eV US Large Cap Value Equity Net Median	7.5%	12.4%	0.5

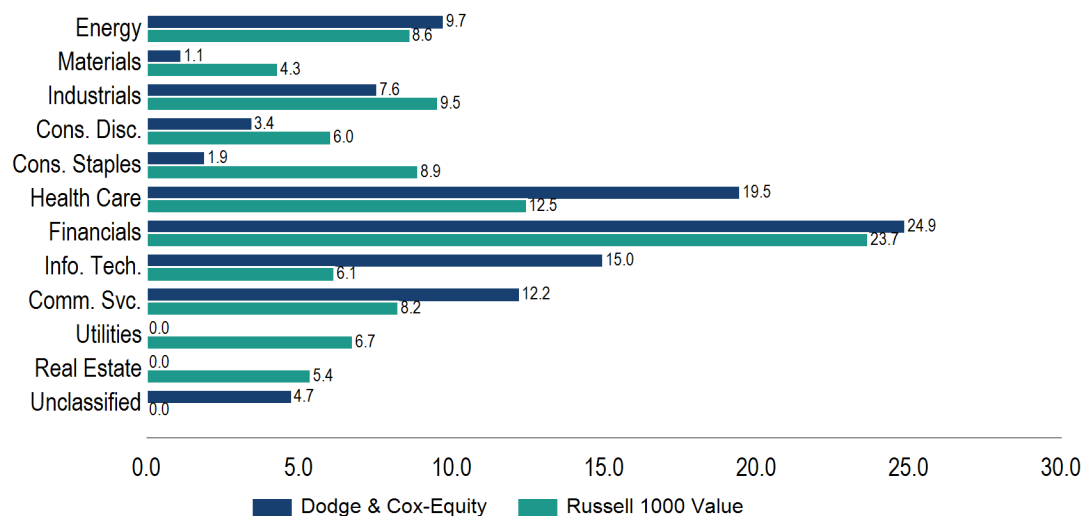
Dodge & Cox-Equity Manager Portfolio Overview

Period Ending: September 30, 2019

Characteristics

	Portfolio	Russell 1000 Value
Number of Holdings	66	760
Weighted Avg. Market Cap. (\$B)	102.15	114.23
Median Market Cap. (\$B)	34.10	8.98
Price To Earnings	14.34	16.68
Price To Book	2.22	2.24
Price To Sales	1.44	1.50
Return on Equity (%)	15.80	14.92
Yield (%)	2.53	2.62
Beta	1.03	1.00

Sector Allocation (%) vs Russell 1000 Value



Largest Holdings

	End Weight	Return
WELLS FARGO & CO	3.64	7.77
CHARLES SCHWAB	3.34	4.55
CAPITAL ONE FINL.	3.25	0.71
COMCAST A	3.25	7.14
ALPHABET 'C'	3.19	12.78
OCCIDENTAL PTL.	3.18	-10.00
CHARTER COMMS.CL.A	3.02	4.29
SANOFI ADR 2:1 (XSC)	2.99	7.07
BANK OF AMERICA	2.89	1.23
FEDEX	2.84	-10.98

Bottom Contributors

	Avg Wgt	Return	Contribution
FEDEX	3.10	-10.98	-0.34
OCCIDENTAL PTL.	2.72	-10.00	-0.27
MICRO FOCUS	0.60	-43.64	-0.26
INTL.SPN.ADR 1:1	0.66	-34.08	-0.22
CONCHO RESOURCES	0.66	-34.08	-0.22
HP	1.98	-8.23	-0.16
SCHLUMBERGER	1.17	-12.66	-0.15
UNITEDHEALTH GROUP	1.32	-10.53	-0.14
NOVARTIS 'B' SPN.ADR 1:1	2.35	-4.83	-0.11
APACHE	1.01	-10.71	-0.11
FOX A	0.81	-13.33	-0.11

Top Contributors

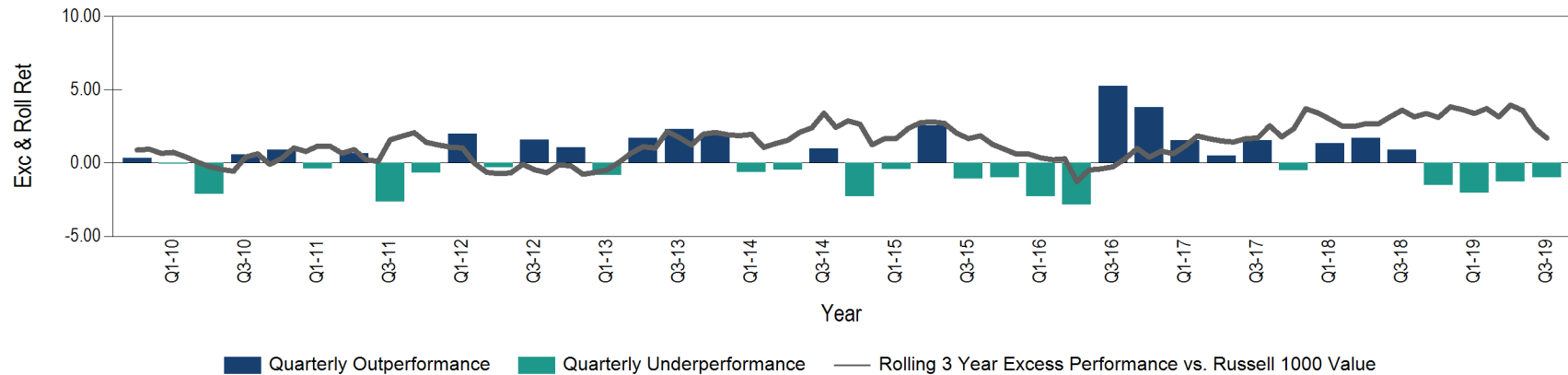
	Avg Wgt	Return	Contribution
ALPHABET 'C'	3.06	12.78	0.39
WELLS FARGO & CO	3.43	7.77	0.27
BRISTOL MYERS SQUIBB	1.96	12.80	0.25
COMCAST A	3.45	7.14	0.25
ASTRAZENECA	2.37	9.07	0.21
SPN.ADR.2:1	2.37	9.07	0.21
SANOFI ADR 2:1 (XSC)	2.77	7.07	0.20
GLAXOSMITHKLINE	2.23	7.87	0.18
SPN.ADR 1:2	2.23	7.87	0.18
CHARTER COMMS.CL.A	3.75	4.29	0.16
JP MORGAN CHASE & CO.	2.64	6.01	0.16
MICROCHIP TECH.	1.86	7.60	0.14

Unclassified sector allocation includes cash allocations.

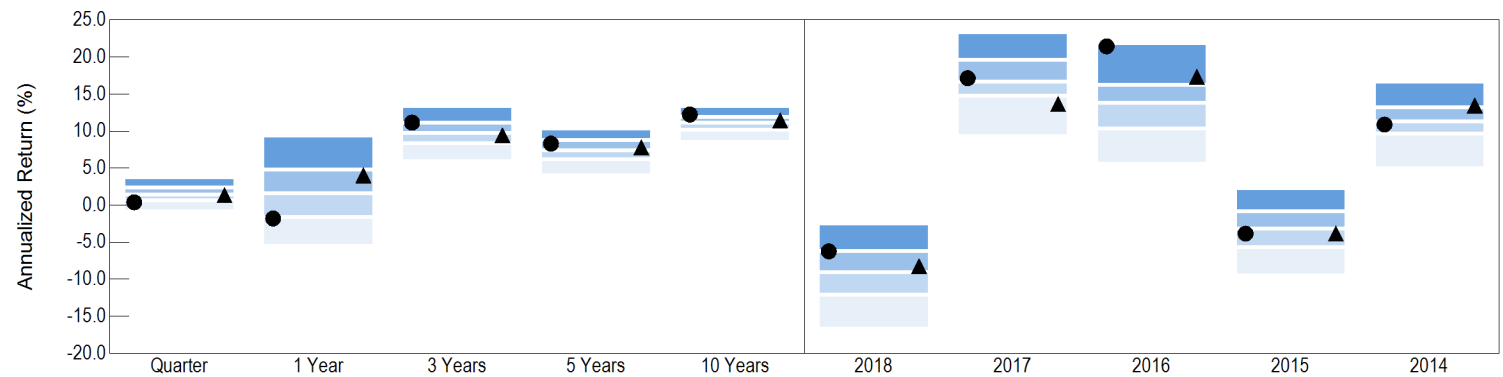
Dodge & Cox-Equity Manager Performance Comparisons (Gross of Fees)

Period Ending: September 30, 2019

Rolling Annualized Excess Performance

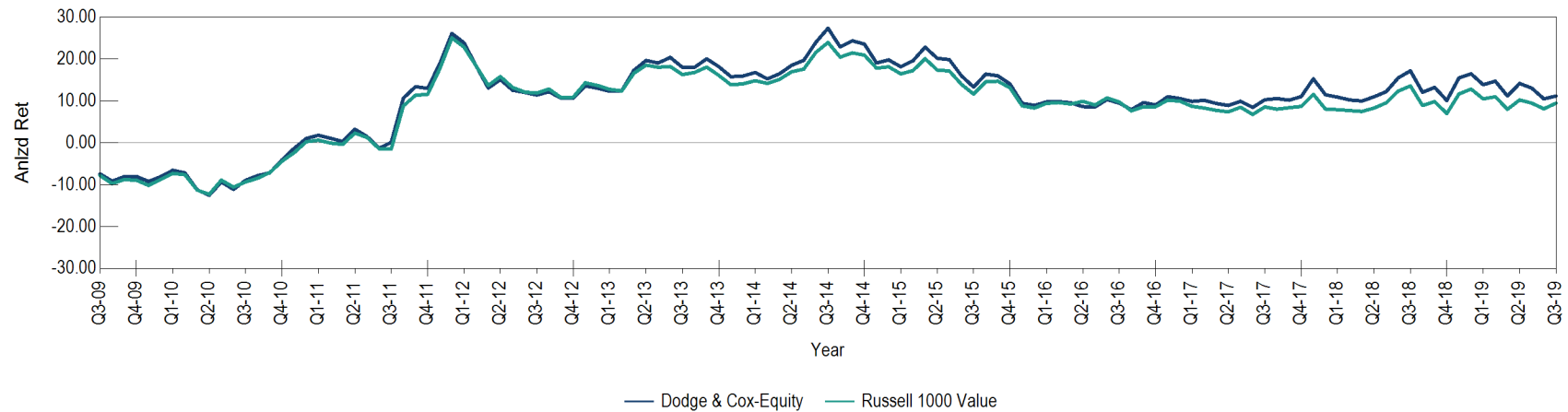


Dodge & Cox-Equity vs. eV US Large Cap Value Equity Net Universe

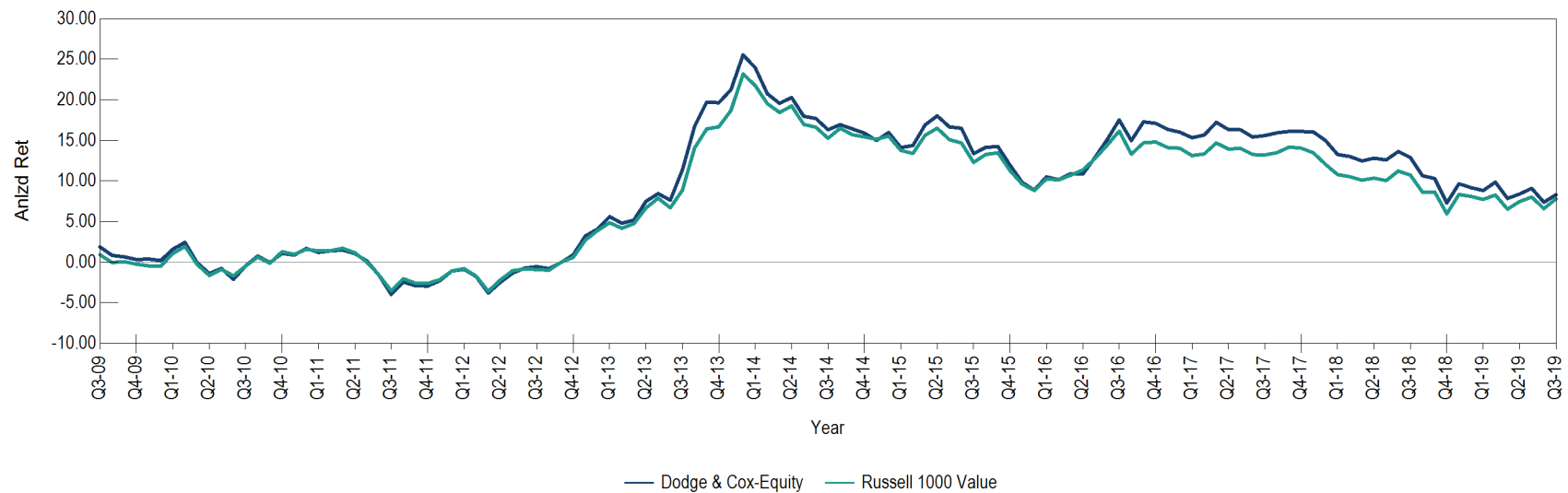


	Return (Rank)		Return (Rank)		Return (Rank)		Return (Rank)		Return (Rank)		Return (Rank)		Return (Rank)		Return (Rank)		Return (Rank)	
5th Percentile	3.7		9.3		13.4		10.3		13.3		-2.5		23.3		21.8		2.2	
25th Percentile	2.5		4.9		11.1		8.8		12.0		-6.1		19.7		16.3		-0.8	
Median	1.5		1.7		9.8		7.5		11.2		-9.0		16.7		13.8		-3.1	
75th Percentile	0.7		-1.6		8.4		6.2		10.2		-12.0		14.8		10.4		-5.7	
95th Percentile	-0.8		-5.5		6.0		4.0		8.5		-16.7		9.4		5.6		-9.4	
# of Portfolios	236		231		226		218		176		239		231		225		195	
● Dodge & Cox-Equity	0.4	(79)	-1.8	(78)	11.1	(25)	8.3	(33)	12.2	(17)	-6.3	(26)	17.1	(45)	21.4	(6)	-3.9	(59)
▲ Russell 1000 Value	1.4	(55)	4.0	(32)	9.4	(57)	7.8	(44)	11.5	(39)	-8.3	(43)	13.7	(86)	17.3	(19)	-3.8	(59)

Rolling 3 Year Annualized Return (%)

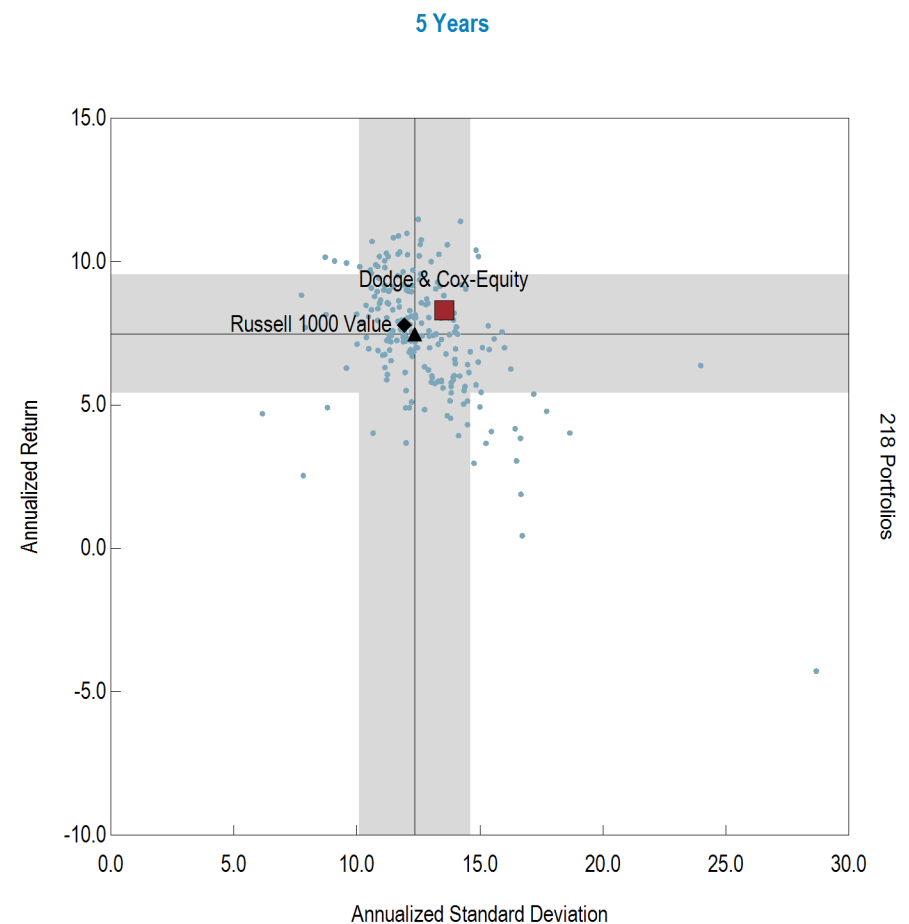
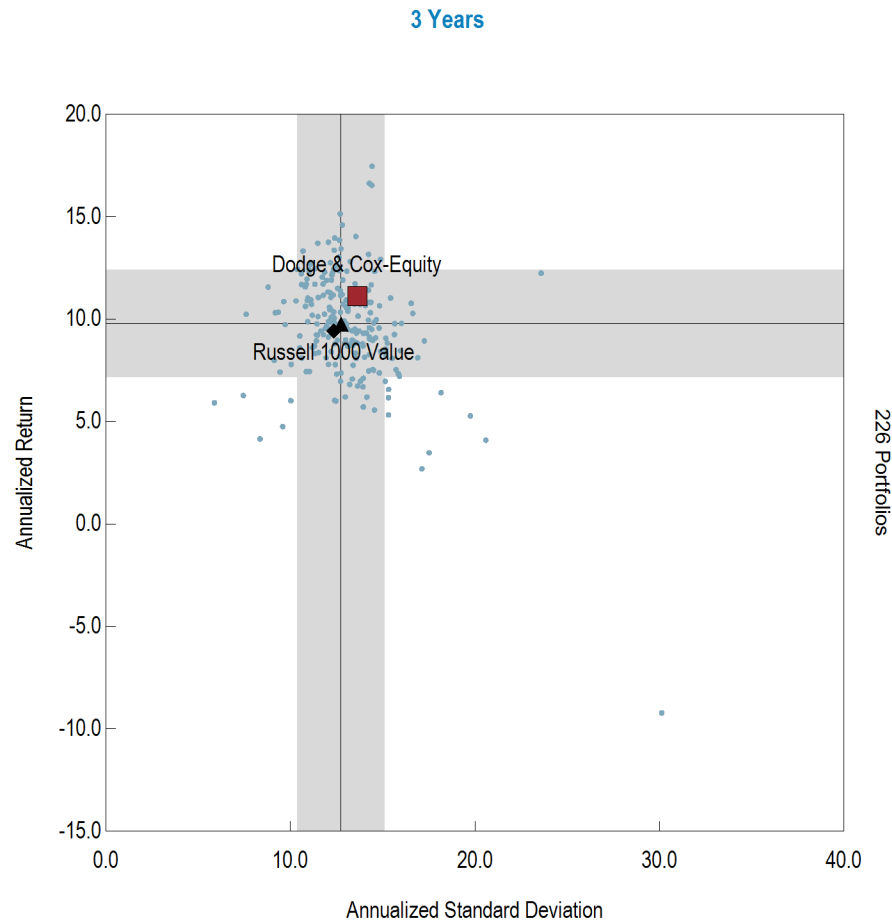


Rolling 5 Year Annualized Return (%)



Dodge & Cox-Equity Risk vs. Return 3 & 5 Year (Gross of Fees)

Period Ending: September 30, 2019



	3 Years		
	Anlzd Return	Anlzd Standard Deviation	Sharpe Ratio
Dodge & Cox-Equity	11.14%	13.63%	0.70
Russell 1000 Value	9.43%	12.34%	0.64
eV US Large Cap Value Equity Net Median	9.78%	12.74%	0.65

	5 Years		
	Anlzd Return	Anlzd Standard Deviation	Sharpe Ratio
Dodge & Cox-Equity	8.3%	13.5%	0.5
Russell 1000 Value	7.8%	11.9%	0.6
eV US Large Cap Value Equity Net Median	7.5%	12.4%	0.5

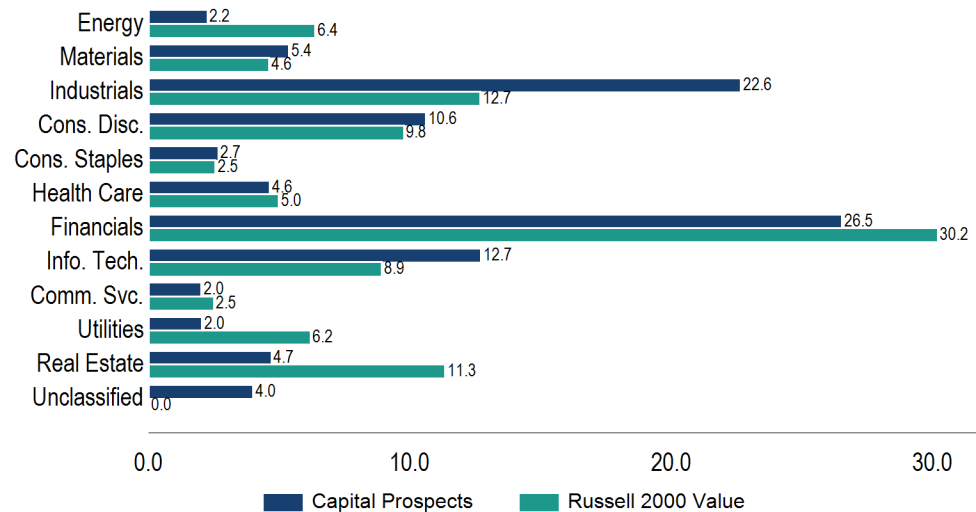
Capital Prospects Manager Portfolio Overview

Period Ending: September 30, 2019

Characteristics

	Portfolio	Russell 2000 Value
Number of Holdings	285	1,387
Weighted Avg. Market Cap. (\$B)	2.47	1.96
Median Market Cap. (\$B)	1.24	0.62
Price To Earnings	16.98	14.85
Price To Book	1.93	1.62
Price To Sales	0.98	0.92
Return on Equity (%)	9.98	5.44
Yield (%)	1.83	2.21
Beta	1.05	1.00

Sector Allocation (%) vs Russell 2000 Value



Largest Holdings

	End Weight	Return
ARCONIC	1.62	0.78
OFG BANCORP	1.26	-7.58
CROWN HDG.	1.26	8.12
AIR LEASE	1.25	1.45
LITTELFUSE	1.11	0.53
HOSTESS BRANDS CL.A	1.05	-3.15
CENTERSTATE BANK	0.87	4.61
KNOWLES	0.85	11.09
CINEMARK HOLDINGS	0.80	7.99
MODINE MANUFACTURING	0.80	-20.54

Bottom Contributors

	Avg Wgt	Return	Contribution
VERSO 'A'	0.85	-35.01	-0.30
MEREDITH	0.84	-32.54	-0.27
HILLENBRAND	0.72	-21.44	-0.15
OWENS ILLINOIS NEW	0.37	-40.23	-0.15
MODINE MANUFACTURING	0.69	-20.54	-0.14
QUOTIENT TECHNOLOGY	0.48	-27.19	-0.13
RANGE RES.	0.28	-45.02	-0.13
VERINT SYSTEMS	0.57	-20.45	-0.12
INGEVITY	0.54	-19.33	-0.11
TWIN DISC	0.33	-29.87	-0.10

Top Contributors

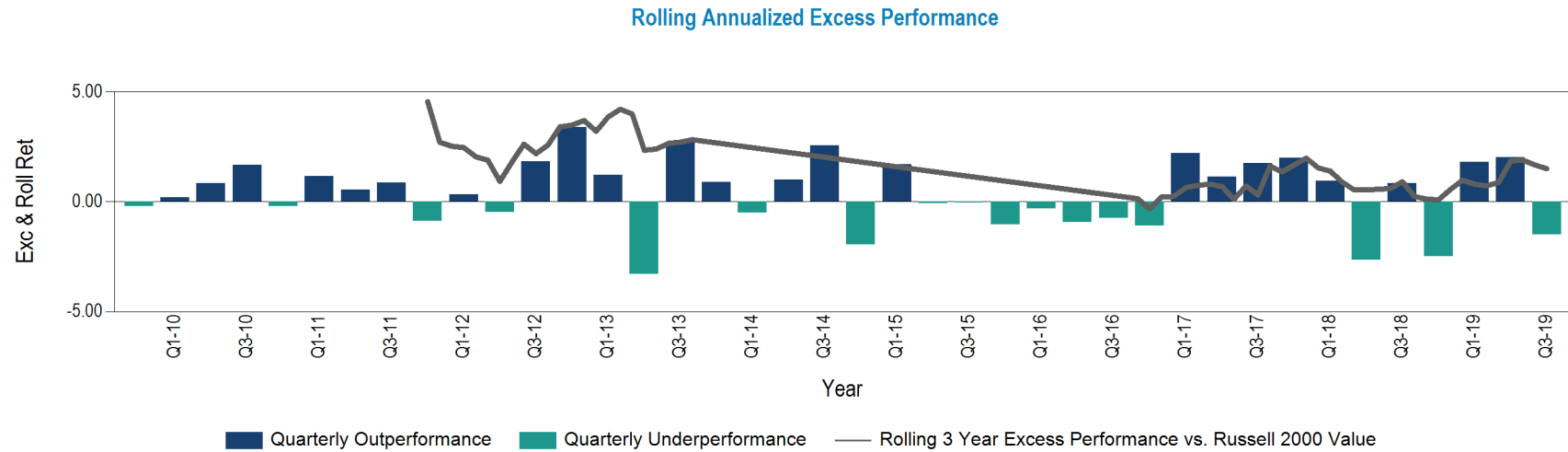
	Avg Wgt	Return	Contribution
TOWER INTERNATIONAL	0.56	58.62	0.33
MOBILE MINI	0.65	22.19	0.14
SPX	0.56	21.17	0.12
M/I HOMES	0.32	31.92	0.10
CROWN HDG.	1.21	8.12	0.10
UNIVERSAL ELECTRONICS	0.40	24.09	0.10
LATTICE SEMICONDUCTOR	0.36	25.33	0.09
KNOWLES	0.82	11.09	0.09
SP PLUS	0.56	15.88	0.09
HORACE MANN EDUCATORS	0.56	15.69	0.09

Unclassified sector allocation includes cash allocations.

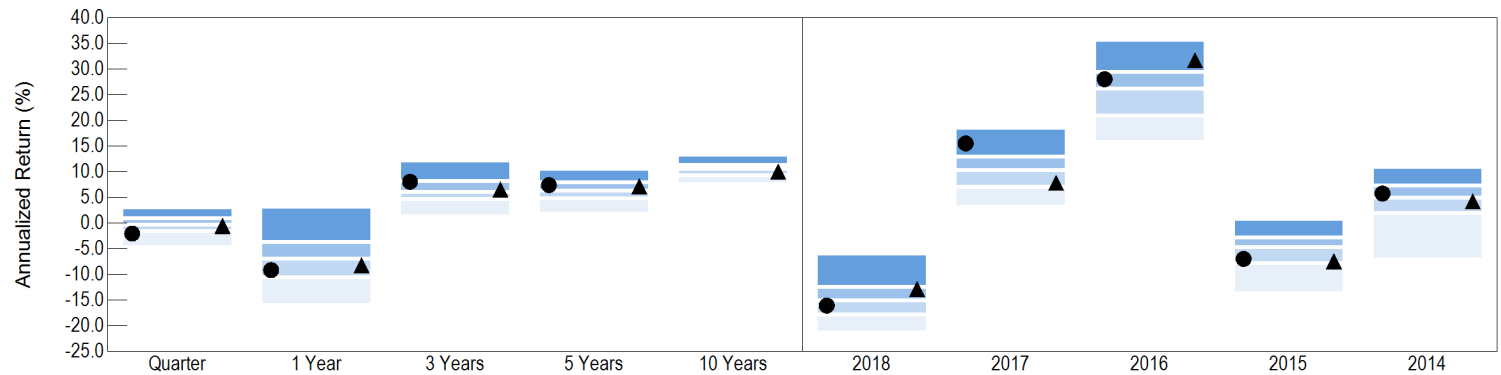
Capital Prospects

Manager Performance Comparisons (Gross of Fees)

Period Ending: September 30, 2019



Capital Prospects vs. eV US Small Cap Value Equity Net Universe



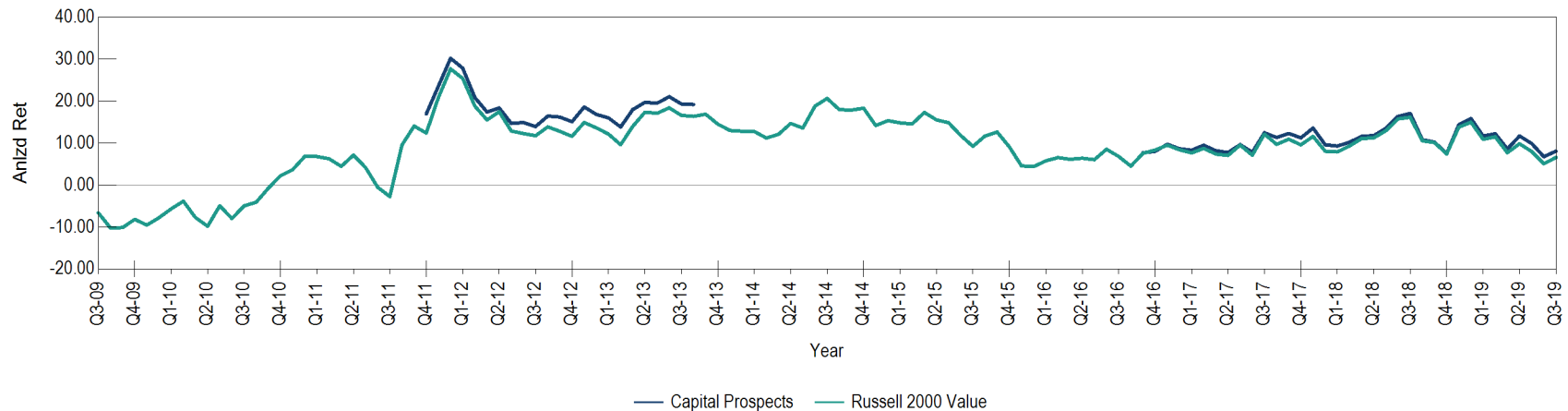
	Return (Rank)																			
5th Percentile	3.0		3.2		12.1		10.5		13.2		-6.0		18.6		35.7		0.8		10.9	
25th Percentile	1.0		-3.6		8.2		8.0		11.4		-12.4		13.1		29.5		-2.7		7.4	
Median	-0.3		-6.8		6.2		6.4		10.7		-15.0		10.3		26.2		-4.6		5.0	
75th Percentile	-1.5		-10.5		4.8		4.9		9.4		-17.8		7.2		21.1		-7.8		2.0	
95th Percentile	-4.7		-15.9		1.4		1.9		7.7		-21.3		3.3		15.9		-13.7		-7.0	
# of Portfolios	172		171		168		158		134		168		170		151		137		135	
● Capital Prospects	-2.1	(84)	-9.2	(66)	8.0	(27)	7.4	(32)	--	(--)	-16.1	(60)	15.5	(13)	28.1	(32)	-7.0	(71)	5.7	(44)
▲ Russell 2000 Value	-0.6	(57)	-8.2	(60)	6.5	(43)	7.2	(36)	10.1	(67)	-12.9	(31)	7.8	(70)	31.7	(15)	-7.5	(73)	4.2	(58)

Capital Prospects

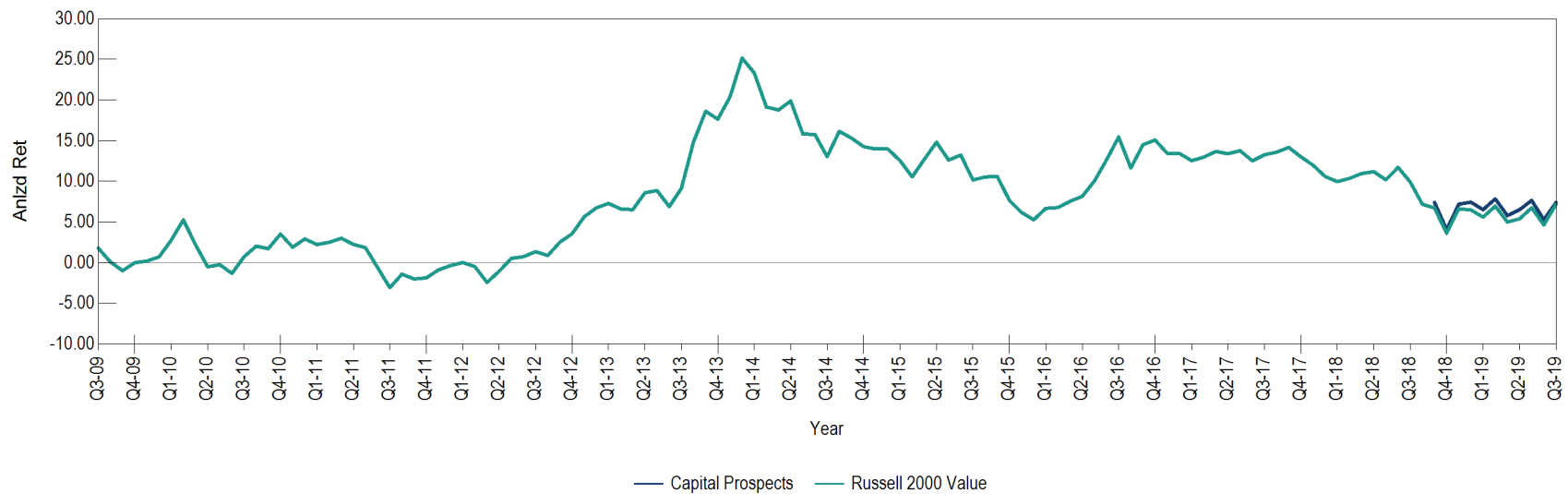
Manager Performance - Rolling 3 & 5 Year (Gross of Fees)

Period Ending: September 30, 2019

Rolling 3 Year Annualized Return (%)



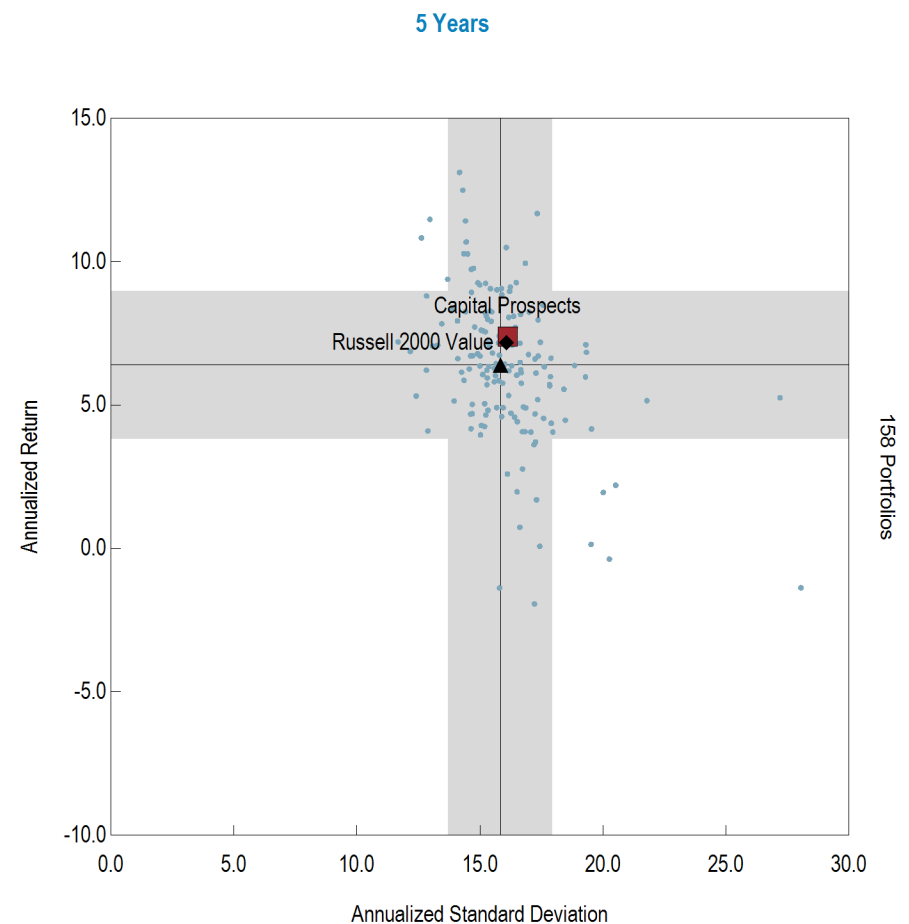
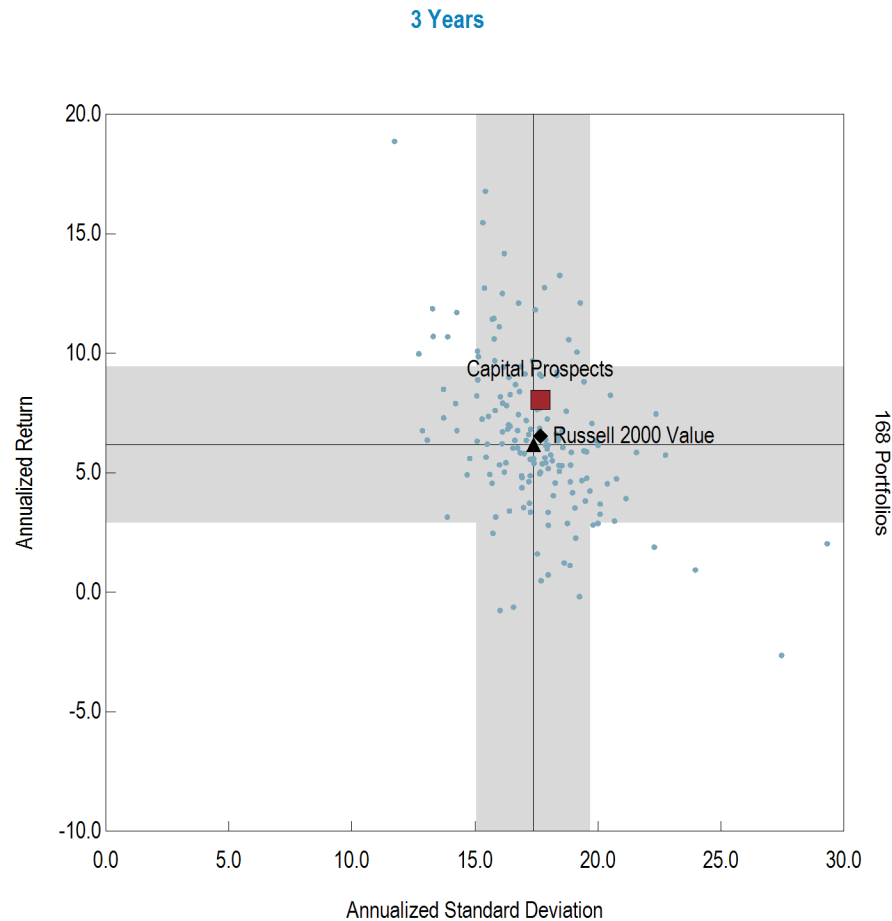
Rolling 5 Year Annualized Return (%)



Capital Prospects

Risk vs. Return 3 & 5 Year (Gross of Fees)

Period Ending: September 30, 2019



	3 Years		
	Anlzd Return	Anlzd Standard Deviation	Sharpe Ratio
Capital Prospects	8.04%	17.67%	0.37
Russell 2000 Value	6.54%	17.67%	0.28
eV US Small Cap Value Equity Net Median	6.18%	17.38%	0.27

	5 Years		
	Anlzd Return	Anlzd Standard Deviation	Sharpe Ratio
Capital Prospects	7.4%	16.1%	0.4
Russell 2000 Value	7.2%	16.1%	0.4
eV US Small Cap Value Equity Net Median	6.4%	15.8%	0.3

International Equity Managers

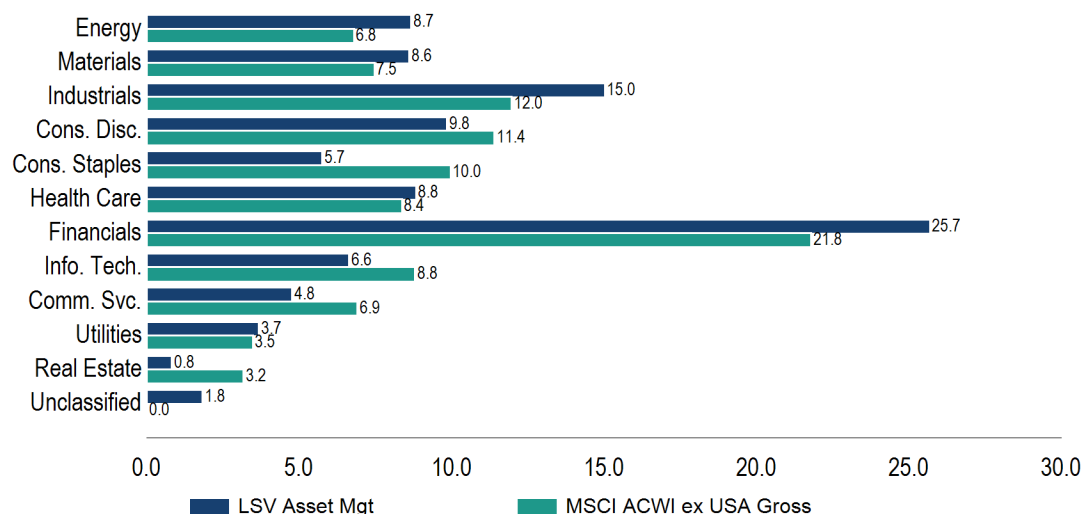
LSV Asset Mgt Manager Portfolio Overview

Period Ending: September 30, 2019

Characteristics

	Portfolio	MSCI ACWI ex USA Gross
Number of Holdings	266	2,206
Weighted Avg. Market Cap. (\$B)	35.76	64.02
Median Market Cap. (\$B)	6.29	7.29
Price To Earnings	9.80	14.97
Price To Book	1.61	2.31
Price To Sales	0.62	1.17
Return on Equity (%)	13.51	15.03
Yield (%)	4.48	3.26
Beta	0.99	1.00

Sector Allocation (%) vs MSCI ACWI ex USA Gross



Largest Holdings

	End Weight	Return
ROCHE HOLDING	2.49	3.40
SAMSUNG ELECTRONICS	1.71	0.74
SANOFI	1.68	7.27
GLAXOSMITHKLINE	1.48	8.36
TOTAL	1.48	-5.68
ENEL	1.45	9.20
KONINKLIJKE AHOLD DELHAIZE	1.38	12.73
ROYAL DUTCH SHELL B	1.36	-8.57
KDDI	1.31	4.63
BP	1.20	-7.43

Bottom Contributors

	Avg Wgt	Return	Contribution
TECK RESOURCES	0.48	-29.71	-0.14
SUBORDINATE VOTING B	1.60	-8.57	-0.14
ROYAL DUTCH SHELL B	0.39	-31.84	-0.12
ASSORE	0.29	-39.46	-0.11
DEUTZ	0.95	-11.46	-0.11
VOLVO B	0.46	-20.49	-0.09
BANK NEGARA INDONESIA	1.22	-7.43	-0.09
BP	1.45	-5.68	-0.08
TOTAL	0.28	-24.84	-0.07
HUSKY EN.	0.67	-10.08	-0.07
SKF B			

Top Contributors

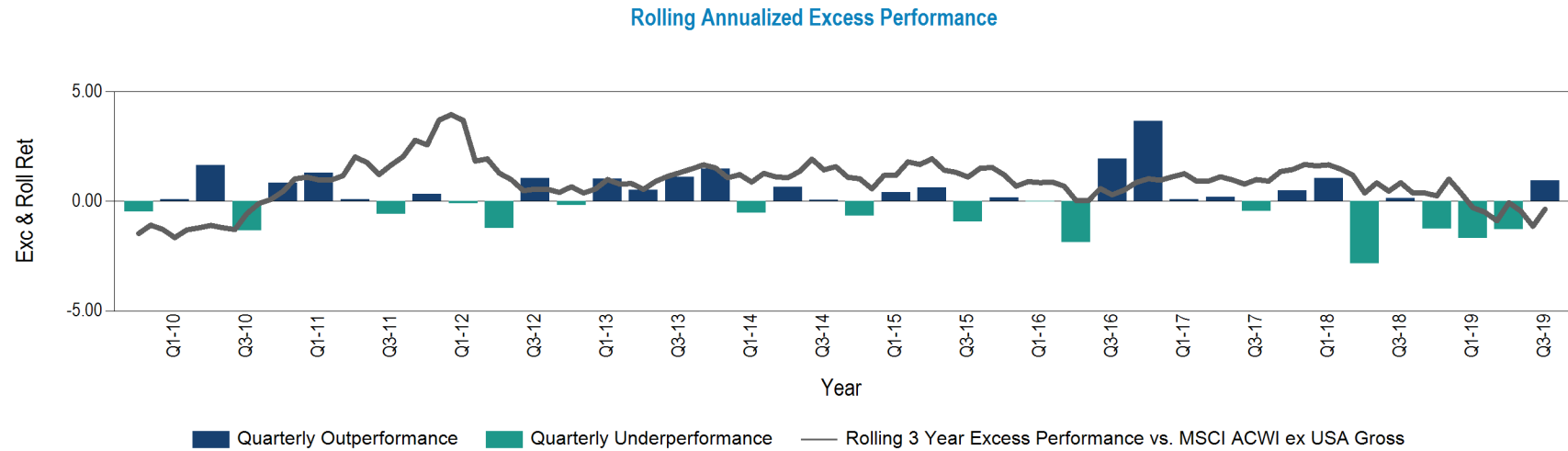
	Avg Wgt	Return	Contribution
NANYA TECHNOLOGY	0.50	39.95	0.20
JBS ON	0.45	42.18	0.19
KONINKLIJKE AHOLD	1.24	12.73	0.16
DELHAIZE	0.46	32.51	0.15
CHINA MED.SY.HDG.(DI)	1.45	9.20	0.13
ENEL	0.34	35.98	0.12
KING YUAN ELTN.	1.65	7.27	0.12
SANOFI	1.39	8.36	0.12
GLAXOSMITHKLINE	0.52	22.06	0.11
RADIANT OPTO-ELECTRONICS	0.35	32.16	0.11
LENDLEASE GROUP			
STAPLED UNITS			

Unclassified sector allocation includes cash allocations.

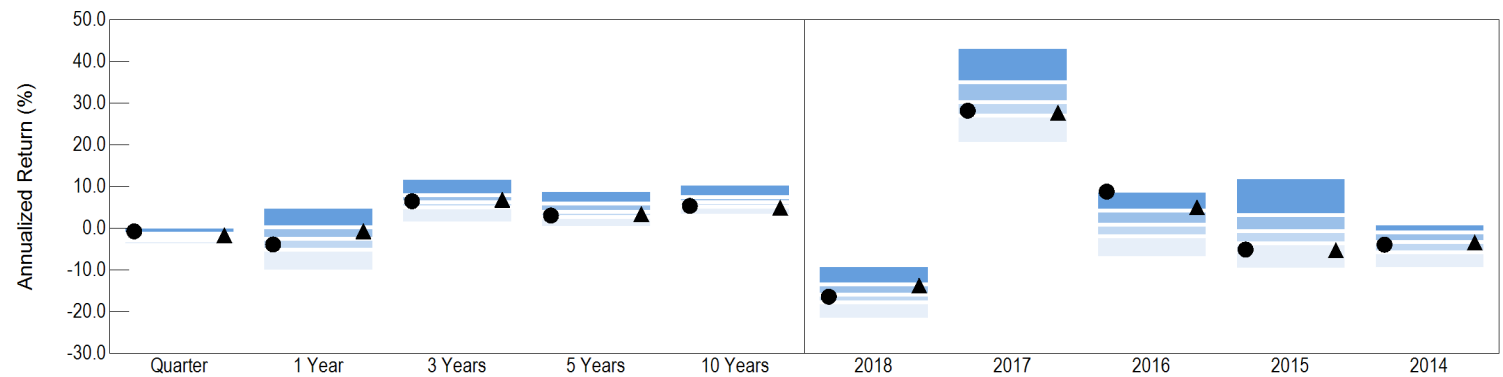
LSV Asset Mgt

Manager Performance Comparisons (Gross of Fees)

Period Ending: September 30, 2019

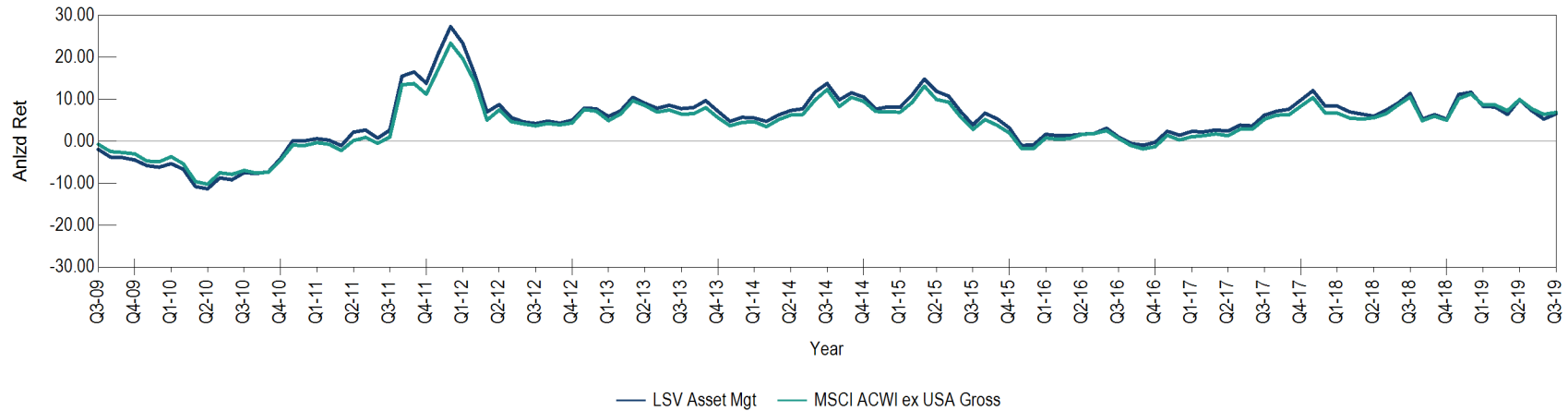


LSV Asset Mgt vs. eV ACWI ex-US Equity Unhedged Net Universe

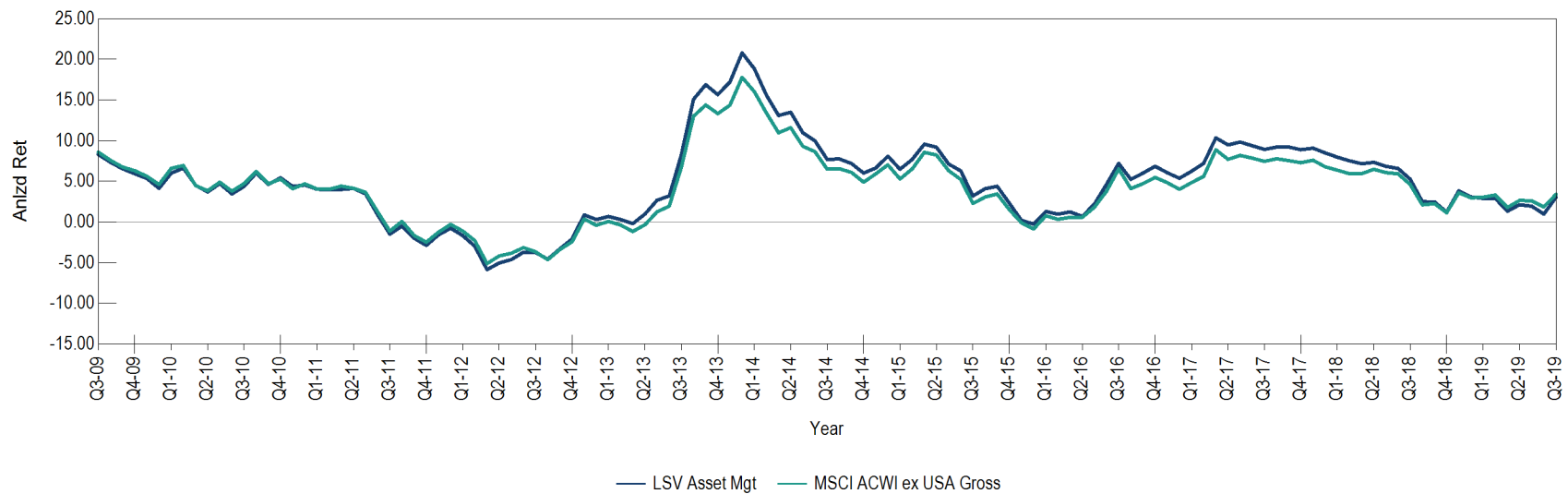


	Return (Rank)																			
5th Percentile	0.3		5.1		12.0		9.0		10.6		-8.9		43.4		9.0		12.2		1.0	
25th Percentile	-1.3		0.4		8.0		6.0		7.6		-13.4		35.1		4.3		3.2		-0.9	
Median	-2.0		-2.5		6.3		4.1		6.4		-15.8		30.3		0.8		-0.6		-3.2	
75th Percentile	-2.8		-5.1		5.0		2.8		5.2		-17.7		27.2		-1.8		-3.6		-5.7	
95th Percentile	-4.0		-10.4		1.3		0.1		3.1		-21.9		20.3		-7.0		-9.9		-9.8	
# of Portfolios	188		186		177		156		102		187		176		161		123		94	
● LSV Asset Mgt	-0.8	(16)	-3.9	(63)	6.5	(46)	3.0	(72)	5.3	(74)	-16.4	(59)	28.2	(67)	8.8	(7)	-5.1	(85)	-4.0	(57)
▲ MSCI ACWI ex USA Gross	-1.7	(38)	-0.7	(35)	6.8	(42)	3.4	(65)	4.9	(79)	-13.8	(30)	27.8	(70)	5.0	(22)	-5.3	(85)	-3.4	(52)

Rolling 3 Year Annualized Return (%)

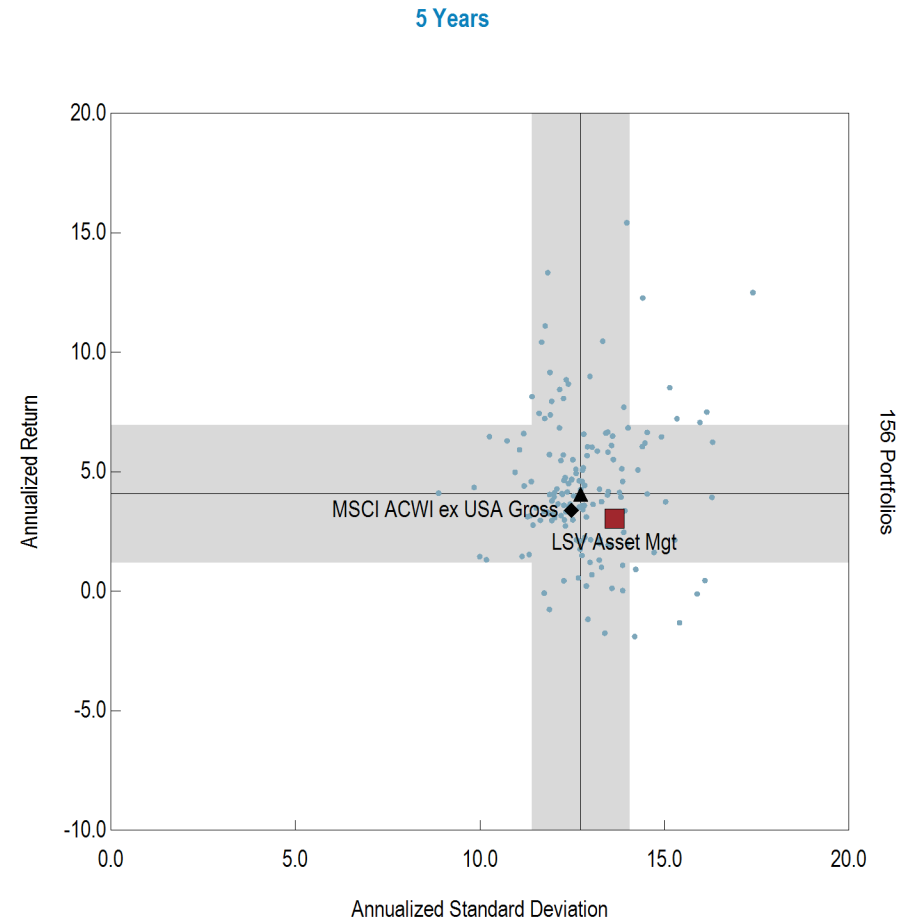
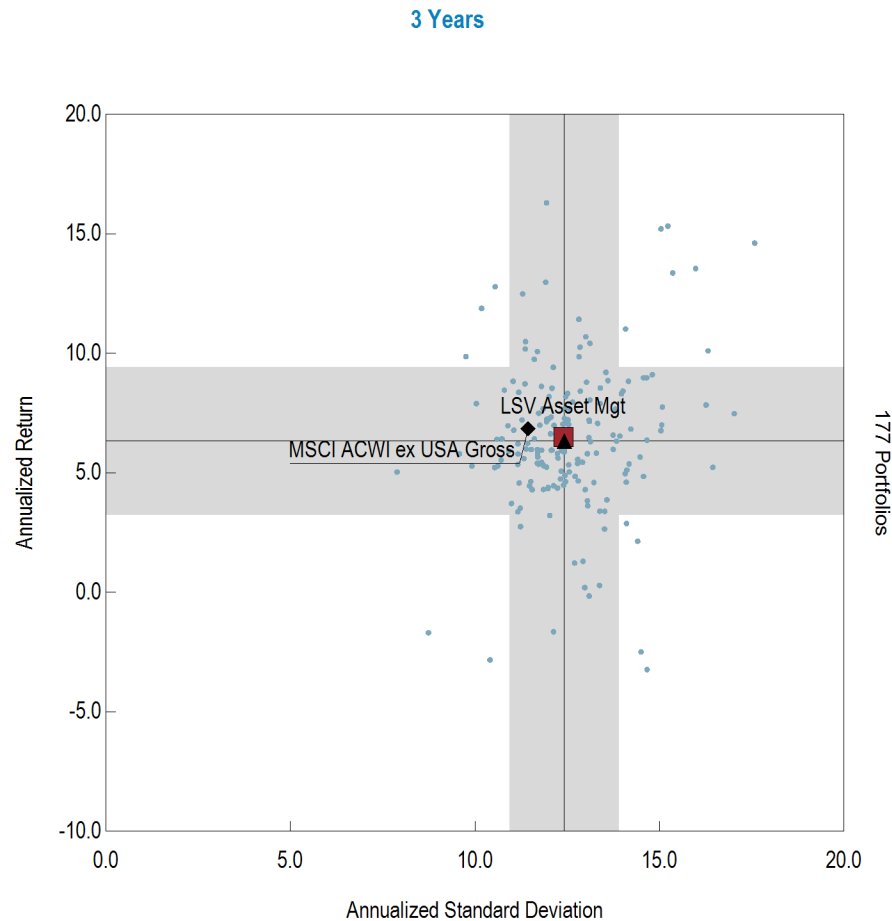


Rolling 5 Year Annualized Return (%)



LSV Asset Mgt
Risk vs. Return 3 & 5 Year (Gross of Fees)

Period Ending: September 30, 2019



	3 Years		
	Anlzd Return	Anlzd Standard Deviation	Sharpe Ratio
LSV Asset Mgt	6.48%	12.40%	0.40
MSCI ACWI ex USA Gross	6.85%	11.45%	0.46
eV ACWI ex-US Equity Unhedged Net Median	6.33%	12.42%	0.38

	5 Years		
	Anlzd Return	Anlzd Standard Deviation	Sharpe Ratio
LSV Asset Mgt	3.0%	13.6%	0.2
MSCI ACWI ex USA Gross	3.4%	12.5%	0.2
eV ACWI ex-US Equity Unhedged Net Median	4.1%	12.7%	0.2

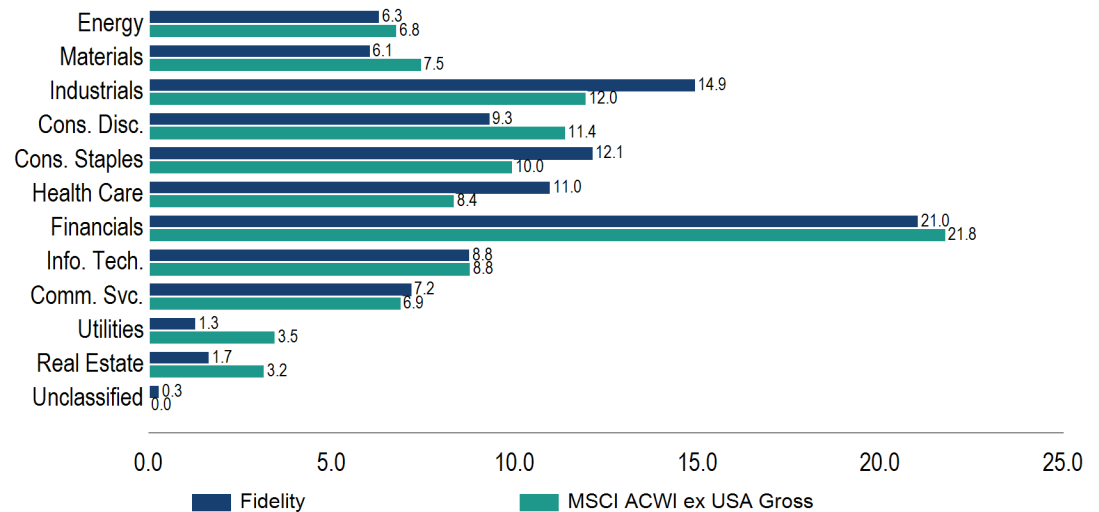
Fidelity Manager Portfolio Overview

Period Ending: September 30, 2019

Characteristics

	Portfolio	MSCI ACWI ex USA Gross
Number of Holdings	222	2,206
Weighted Avg. Market Cap. (\$B)	62.97	64.02
Median Market Cap. (\$B)	14.77	7.29
Price To Earnings	18.08	14.97
Price To Book	2.58	2.31
Price To Sales	1.31	1.17
Return on Equity (%)	16.40	15.03
Yield (%)	2.65	3.26
Beta	1.04	1.00

Sector Allocation (%) vs MSCI ACWI ex USA Gross



Largest Holdings

	End Weight	Return
AIA GROUP	2.27	-12.04
NESTLE 'R'	2.12	4.76
TENCENT HOLDINGS	1.85	-6.67
ROCHE HOLDING	1.82	3.40
SAP	1.81	-14.09
ROYAL DUTCH SHELL A	1.62	-8.77
TAIWAN SEMICON.MNFG.	1.36	14.80
SANOFI	1.30	7.27
TECHTRONIC INDS.	1.30	-8.34
TREASURY WINE ESTATES	1.19	20.90

Bottom Contributors

	Avg Wgt	Return	Contribution
SAP	1.86	-14.09	-0.26
AIA GROUP	1.94	-12.04	-0.23
SOFTBANK GROUP	1.04	-17.75	-0.18
ROYAL DUTCH SHELL A	1.61	-8.77	-0.14
FRESENIUS MED.CARE	0.94	-14.13	-0.13
PRUDENTIAL	0.72	-15.78	-0.11
TECHTRONIC INDS.	1.25	-8.34	-0.10
ARCELORMITTAL	0.40	-21.48	-0.09
BP	1.14	-7.43	-0.08
SIEMENS	0.82	-10.10	-0.08

Top Contributors

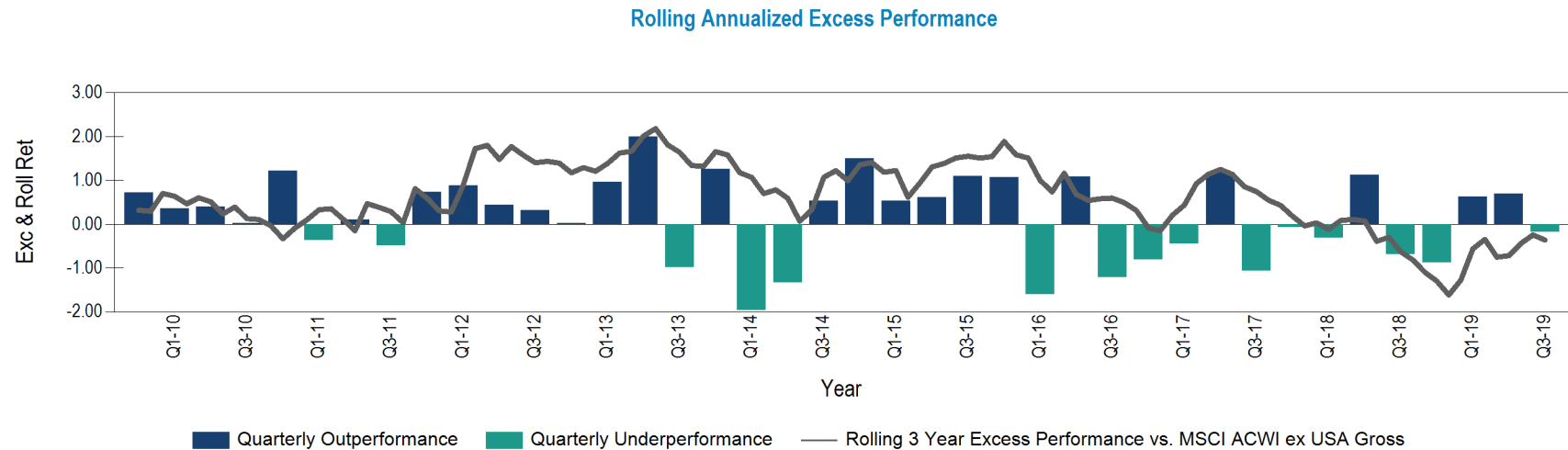
	Avg Wgt	Return	Contribution
TREASURY WINE ESTATES	0.90	20.90	0.19
LONDON STOCK EX.GROUP	0.51	29.36	0.15
ASML HOLDING	0.73	18.40	0.14
TOKYO ELECTRON	0.36	36.85	0.13
NESTLE 'R'	2.06	4.76	0.10
SHIN-ETSU CHEMICAL	0.58	15.91	0.09
SANOFI	1.13	7.27	0.08
DAIICHI SANKYO	0.36	20.98	0.08
TAIWAN SEMICON.MNFG.	0.50	14.80	0.07
TOKIO MARINE HOLDINGS	0.76	8.43	0.06

Unclassified sector allocation includes cash allocations.

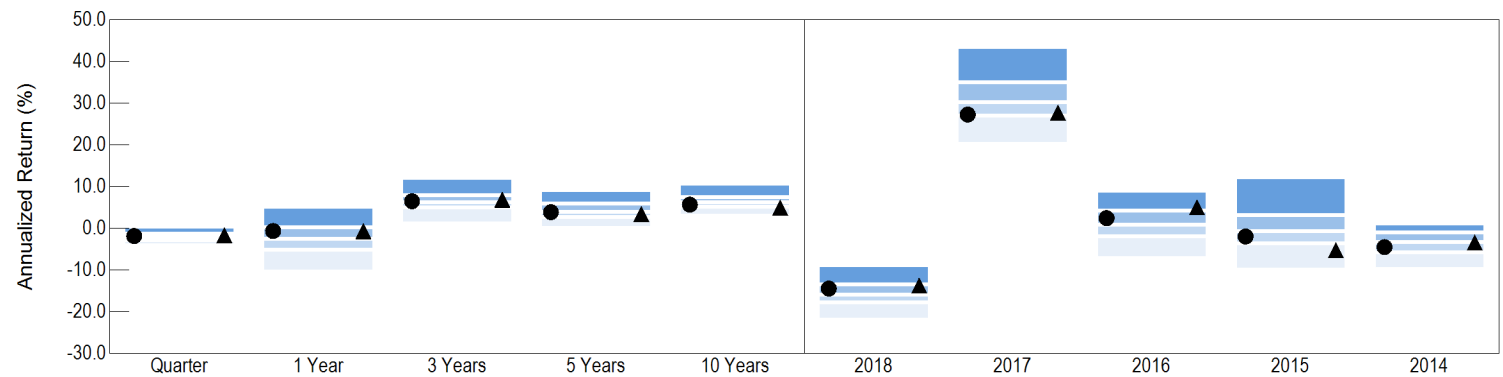
Fidelity

Manager Performance Comparisons (Gross of Fees)

Period Ending: September 30, 2019

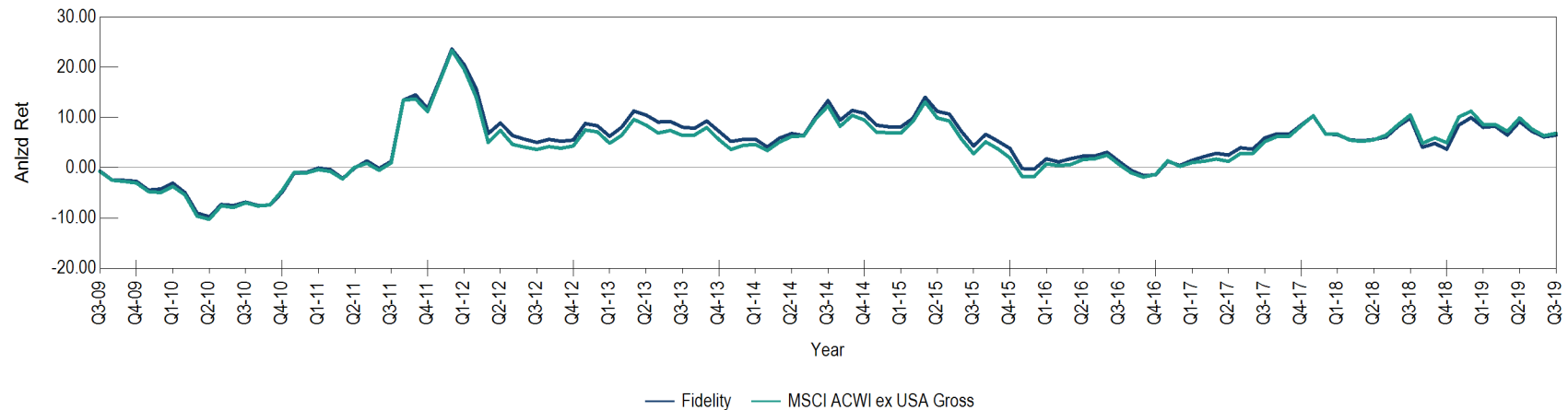


Fidelity vs. eV ACWI ex-US Equity Unhedged Net Universe

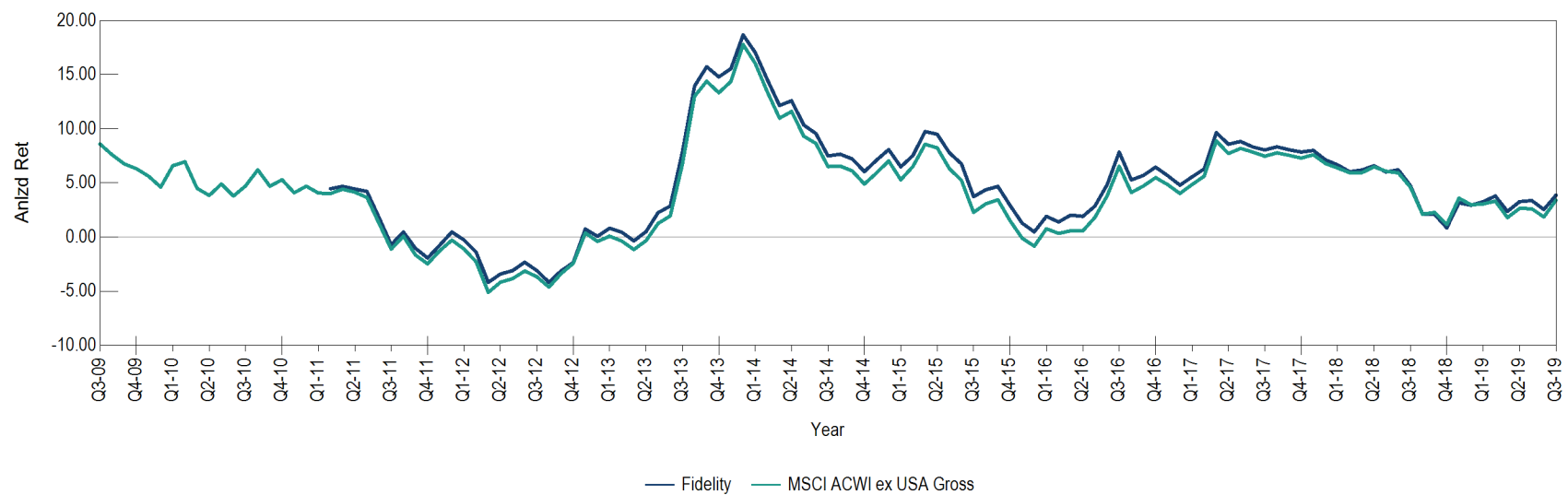


	Return (Rank)															
5th Percentile	0.3		5.1		12.0		9.0		10.6		-8.9		43.4		9.0	
25th Percentile	-1.3		0.4		8.0		6.0		7.6		-13.4		35.1		4.3	
Median	-2.0		-2.5		6.3		4.1		6.4		-15.8		30.3		0.8	
75th Percentile	-2.8		-5.1		5.0		2.8		5.2		-17.7		27.2		-1.8	
95th Percentile	-4.0		-10.4		1.3		0.1		3.1		-21.9		20.3		-7.0	
# of Portfolios	188		186		177		156		102		187		176		161	
● Fidelity	-1.9	(47)	-0.7	(35)	6.5	(46)	3.9	(56)	5.7	(69)	-14.5	(39)	27.3	(75)	2.4	(37)
▲ MSCI ACWI ex USA Gross	-1.7	(38)	-0.7	(35)	6.8	(42)	3.4	(65)	4.9	(79)	-13.8	(30)	27.8	(70)	5.0	(22)

Rolling 3 Year Annualized Return (%)



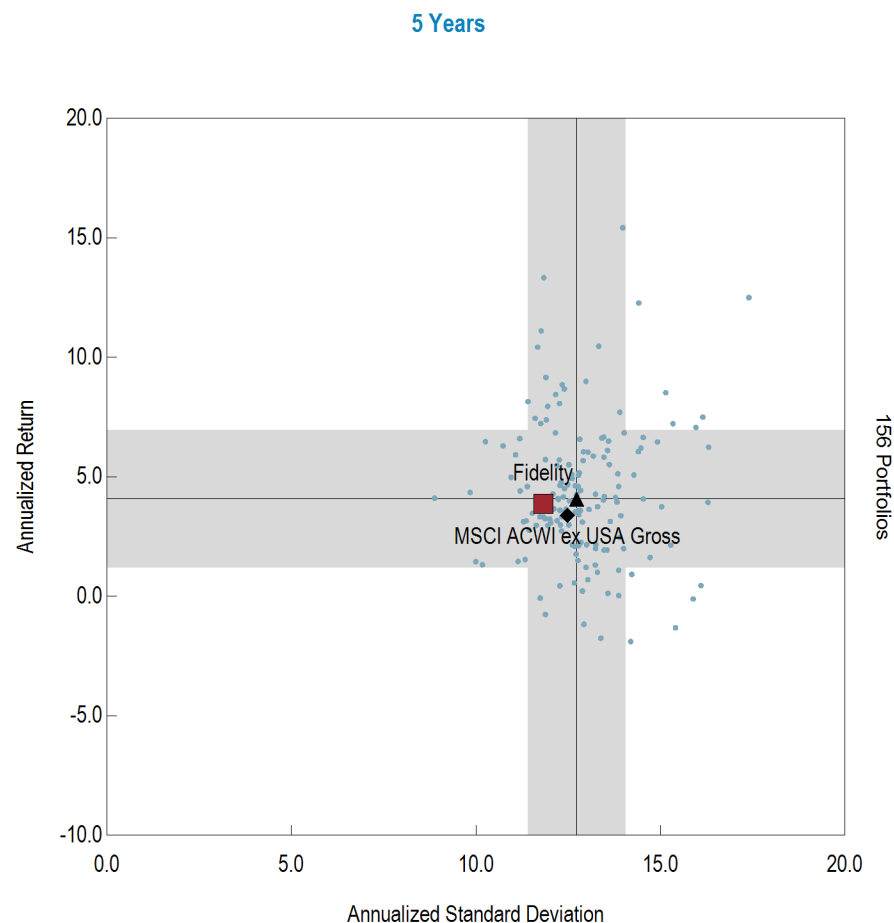
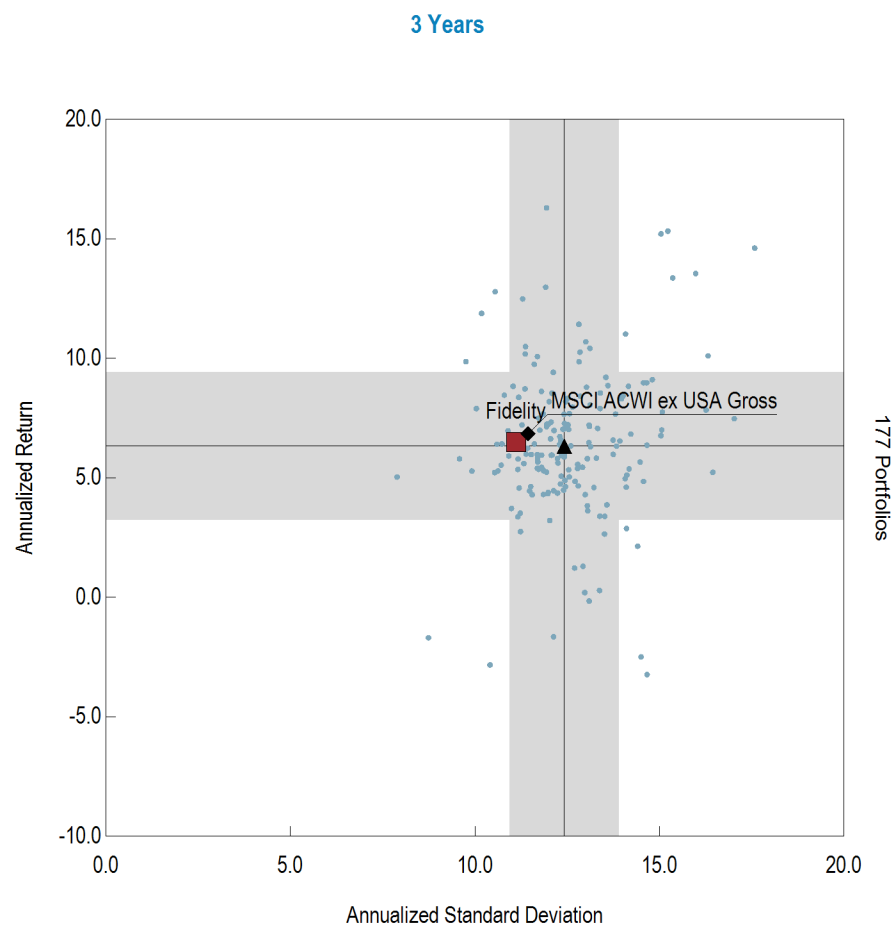
Rolling 5 Year Annualized Return (%)



Fidelity

Risk vs. Return 3 & 5 Year (Gross of Fees)

Period Ending: September 30, 2019



	3 Years		
	Anlzd Return	Anlzd Standard Deviation	Sharpe Ratio
Fidelity	6.48%	11.13%	0.44
MSCI ACWI ex USA Gross	6.85%	11.45%	0.46
eV ACWI ex-US Equity Unhedged Net Median	6.33%	12.42%	0.38

	5 Years		
	Anlzd Return	Anlzd Standard Deviation	Sharpe Ratio
Fidelity	3.9%	11.8%	0.2
MSCI ACWI ex USA Gross	3.4%	12.5%	0.2
eV ACWI ex-US Equity Unhedged Net Median	4.1%	12.7%	0.2

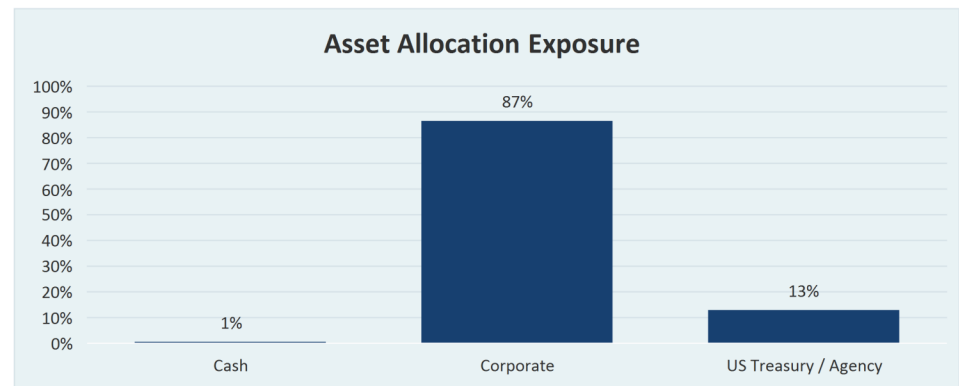
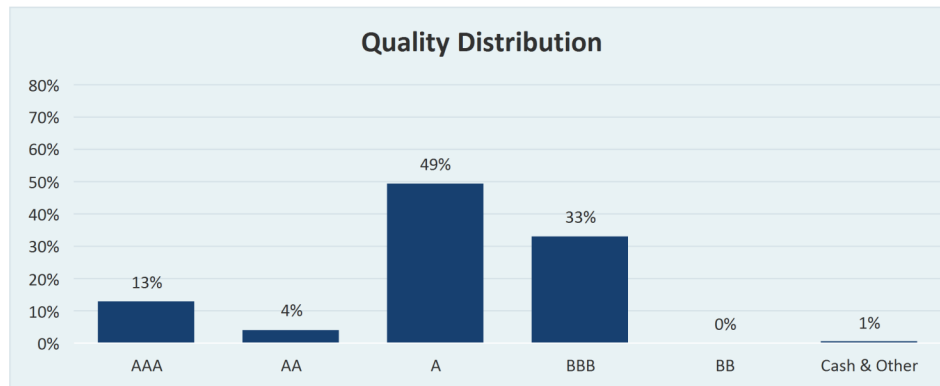
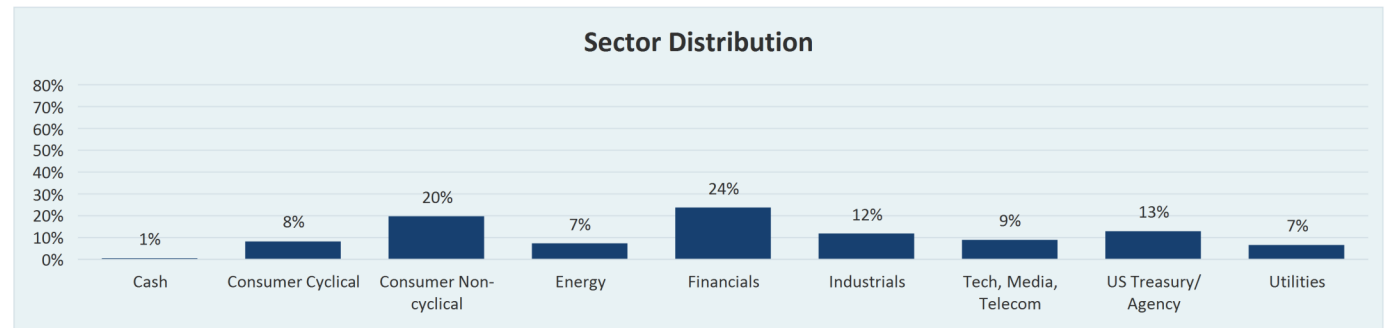
Domestic Fixed Income Managers

Insight

Manager Portfolio Overview

Period Ending: September 30, 2019

Summary	Portfolio
Average Quality	A
Effective duration (years)	4.16
Average Coupon	3.50%
Yield to Worst	2.53%

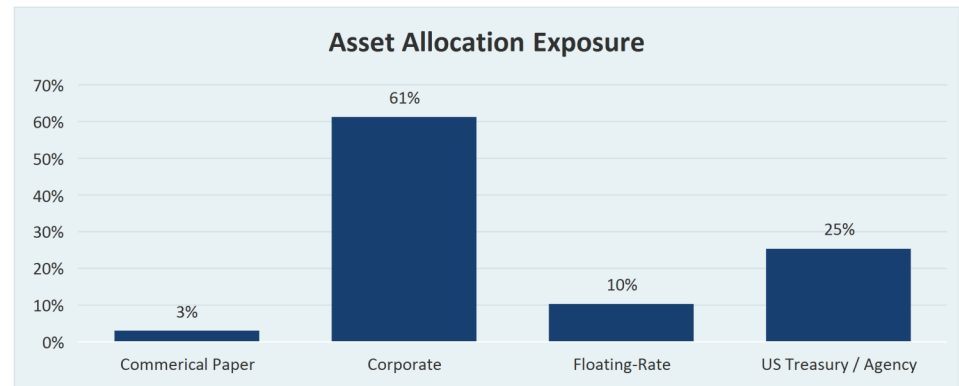
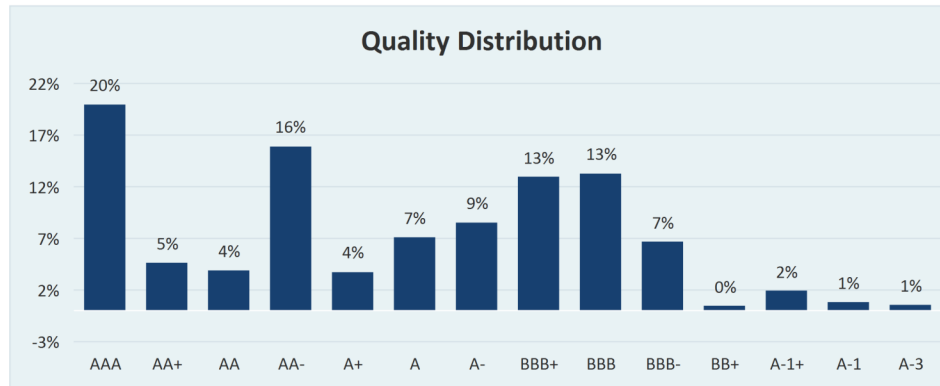
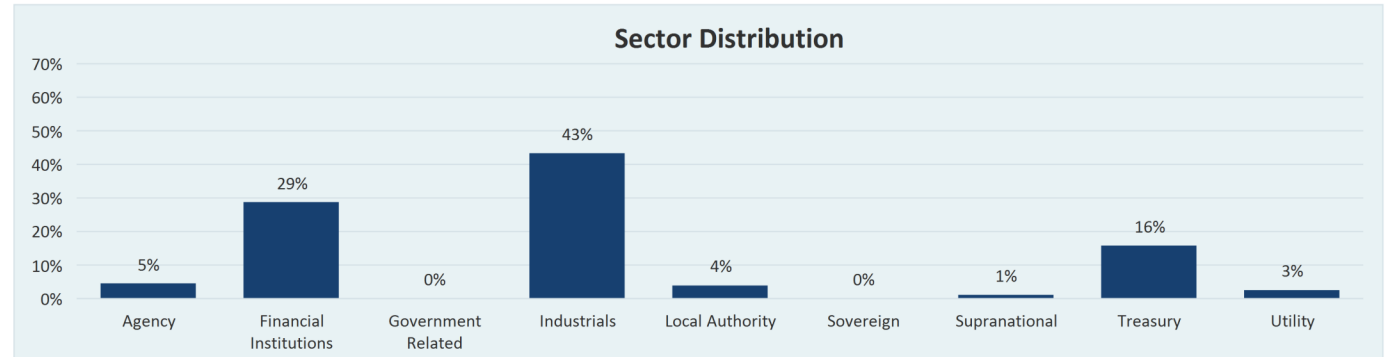


DFA

Manager Portfolio Overview

Period Ending: September 30, 2019

Summary	Portfolio
Average Quality	A+
Effective duration (years)	1.22
Average Coupon	2.80%
Yield to Worst	2.25%



Performance Return Calculations

Performance is calculated using Time Weighted Rates of Return (TWRR) methodologies. Monthly returns are geometrically linked and annualized for periods longer than one year.

Data Source

Verus is an independent third party consulting firm and calculates returns from best source book of record data. Returns calculated by Verus may deviate from those shown by the manager in part, but not limited to, differences in prices and market values reported by the custodian and manager, as well as significant cash flows into or out of an account. It is the responsibility of the manager and custodian to provide insight into the pricing methodologies and any difference in valuation.

Illiquid Alternatives

Due to the inability to receive final valuation prior to report production, closed end funds (including but are not limited to Real Estate, Hedge Funds, Private Equity, and Private Credit) performance is typically reported at a one-quarter lag. Valuation is reported at a one-quarter lag, adjusted for current quarter flow (cash flows are captured real time). Closed end fund performance is calculated using a time-weighted return methodology consistent with all portfolio and total fund performance calculations. For Private Markets, performance reports also include Verus-calculated multiples based on flows and valuations (e.g. DPI and TVPI) and manager-provided IRRs.

Manager Line Up

<u>Manager</u>	<u>Fund Incepted</u>	<u>Data Source</u>	<u>Manager</u>	<u>Fund Incepted</u>	<u>Data Source</u>
Northern Trust Russell 3000	12/31/2018	Northern Trust	Prime Property Fund	9/30/2015	Prime Property
BlackRock Russell 1000 Growth	6/30/2010	BlackRock	American Strategic Value Realty	12/31/2014	American Realty
BlackRock Russell 1000 Value	7/31/2009	BlackRock	BlackRock US Real Estate	9/30/2012	BlackRock
Dodge & Cox - Equity	12/31/1994	Northern Trust	Greenfield Gap	7/31/2014	Greenfield
Capital Prospects	12/31/2008	Northern Trust	Medley Capital	5/31/2013	Medley Capital
LSV Asset Mgt	8/31/2004	Northern Trust	Raven Capital	5/31/2013	Raven Capital
Fidelity	4/30/2006	Northern Trust	Raven Opportunity III	7/31/2015	Raven Capital
Insight	6/29/2017	Northern Trust	White Oak Pinnacle	8/31/2013	White Oak
DFA	7/31/2017	Northern Trust	PanAgora Risk Parity Multi Asset	11/30/2017	PanAgora
Northern Trust Intermediate Gov't Bond	7/31/2017	Northern Trust	AQR Global Risk Premium - EL	3/5/2018	AQR
Northern Trust Long Term Gov't Bond	7/31/2017	Northern Trust	MS Infrastructure	5/31/2015	Morgan Stanley
			PGIM Real Estate US Debt Fund	9/28/2018	Prudential

Policy & Custom Index Composition

Policy Index (5/31/2019):	14% Russell 1000, 3% Russell 2000, 6% Russell 3000 + 3%, 23% MSCI ACWI ex-USA, 19% BBgBarc US Gov't/Credit 1-3 Yr, 3% BBgBarc US Treasury 7-10 Yr, 5% NCREIF Property, 5% NCREIF Property +2%, 2% CPI +5%, 6% S&P/LSTA Leveraged Loan Index + 2%, 13% 60% MSCI ACWI / 40% BBgBarc Global Aggregate, 1% Citi 1 Month T-Bills.
US Equity Blended:	60% Russell 1000, 15% Russell 2000, 25% Russell 3000 + 3%.
Prior Policy Index:	10% Russell 1000, 3% Russell 2000, 6% Russell 3000 + 3%, 27% MSCI ACWI ex-USA, 20% BBgBarc US Gov't/Credit 1-3 Yr, 3% BBgBarc US Treasury 7-10 Yr, 5% NCREIF Property, 5% NCREIF Property +2%, 1% CPI +5%, 6% S&P/LSTA Leveraged Loan Index + 2%, 13% 60% MSCI ACWI / 40% BBgBarc Global Aggregate, 1% Citi 1 Month T-Bills.
StanCERA Liquidity Blended BM (8/31/2019):	92% BBgBarc US Gov't/Credit 1-3 Yr. TR and 8% FTSE T-Bill 1 Month TR.
StanCERA Growth Blended BM (8/31/2019):	18% Russell 1000, 4% Russell 2000, 8% Russell 3000 + 3%, 30% MSCI ACWI ex-US Gross, 6% NCREIF Property, 6% actual private Value Add Real Estate returns, 17% 60% MSCI ACWI/40% BBgBarc Global Aggregate, 3% actual Infrastructure returns, and 8% actual Private Credit returns.
StanCERA Risk-Diversifying Blended BM (8/31/2019):	27% BBgBarc US Treasury 7-10 Yr. TR and 73% BBgBarc US Gov't/Credit 1-3 Yr. TR.

Other Disclosures

Fiscal Year End: 6/30

Cash Account includes cash held at Northern Trust for all closed end funds and cash held by BlackRock.

Effective 1/01/2017, only traditional asset class (public equity, public fixed income, REITs) investment management fees will be included in the gross of fee return calculation.

All data prior to 6/30/2015 provided by the previous consultant.

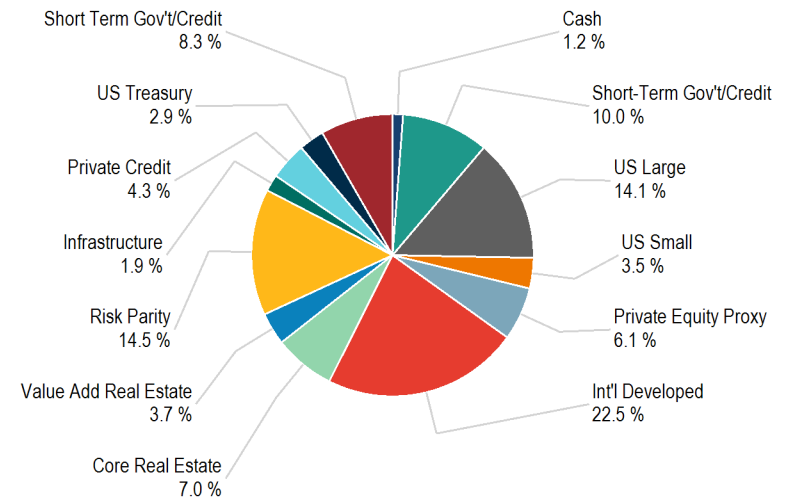
Appendix

Total Fund Executive Summary (Gross of Fees)

Period Ending: September 30, 2019

	QTD	YTD	Fiscal YTD	1 Yr	3 Yrs	5 Yrs	10 Yrs
Total Fund	1.0	12.2	1.0	4.7	8.3	6.7	8.8
<i>Policy Index</i>	<i>0.4</i>	<i>11.0</i>	<i>0.4</i>	<i>3.7</i>	<i>7.2</i>	<i>6.4</i>	<i>8.2</i>
Liquidity Sub-Portfolio	1.5	6.8	1.5	7.6	2.8	2.1	--
<i>StanCERA Liquidity Blended BM</i>	<i>0.7</i>	<i>3.3</i>	<i>0.7</i>	<i>4.4</i>	<i>1.8</i>	<i>1.5</i>	<i>--</i>
Cash	0.6	1.2	0.6	1.7	1.4	1.3	--
<i>FTSE T-Bill 1 Month TR</i>	<i>0.5</i>	<i>1.8</i>	<i>0.5</i>	<i>2.3</i>	<i>1.5</i>	<i>0.9</i>	<i>--</i>
Short-Term Gov't/Credit	1.6	7.5	1.6	8.4	--	--	--
<i>BBgBarc US Govt/Credit 1-3 Yr. TR</i>	<i>0.7</i>	<i>3.4</i>	<i>0.7</i>	<i>4.6</i>	<i>--</i>	<i>--</i>	<i>--</i>
Growth Sub-Portfolio	0.9	14.2	0.9	3.9	10.0	7.7	--
<i>StanCERA Growth Blended BM</i>	<i>0.3</i>	<i>13.1</i>	<i>0.3</i>	<i>3.2</i>	<i>9.0</i>	<i>--</i>	<i>--</i>
US Large	1.3	19.3	1.3	2.2	13.1	10.2	--
<i>Russell 1000</i>	<i>1.4</i>	<i>20.5</i>	<i>1.4</i>	<i>3.9</i>	<i>13.2</i>	<i>10.6</i>	<i>--</i>
US Small	-2.1	15.2	-2.1	-9.2	6.7	6.3	--
<i>Russell 2000</i>	<i>-2.4</i>	<i>14.2</i>	<i>-2.4</i>	<i>-8.9</i>	<i>8.2</i>	<i>8.2</i>	<i>--</i>
Private Equity Proxy	1.2	20.1	1.2	8.5	14.7	11.6	13.6
<i>Russell 3000 +3%</i>	<i>2.3</i>	<i>22.0</i>	<i>2.3</i>	<i>5.9</i>	<i>15.8</i>	<i>13.5</i>	<i>16.1</i>
Int'l Developed	-1.3	11.6	-1.3	-2.3	6.6	3.6	5.6
<i>MSCI ACWI ex USA Gross</i>	<i>-1.7</i>	<i>12.1</i>	<i>-1.7</i>	<i>-0.7</i>	<i>6.8</i>	<i>3.4</i>	<i>4.9</i>

Current Allocation

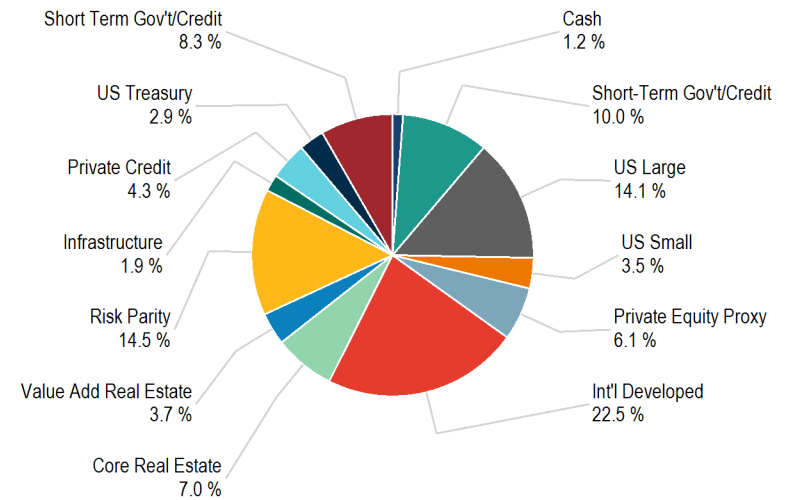


Total Fund Executive Summary (Gross of Fees)

Period Ending: September 30, 2019

	QTD	YTD	Fiscal YTD	1 Yr	3 Yrs	5 Yrs	10 Yrs
Core Real Estate	2.9	9.6	2.9	8.0	5.4	7.4	--
<i>NCREIF Property Index</i>	1.4	4.8	1.4	6.2	6.8	8.6	--
Value Add Real Estate	3.5	8.1	3.5	9.4	12.3	13.3	--
<i>NCREIF Property Index +2%</i>	1.9	6.4	1.9	8.3	8.9	10.7	--
Risk Parity	3.1	20.4	3.1	14.3	--	--	--
<i>60% MSCI ACWI Net/40% BBgBarc Global Aggregate</i>	0.3	12.4	0.3	4.2	--	--	--
Infrastructure	3.1	10.9	3.1	12.8	14.8	--	--
<i>CPI + 5%</i>	1.5	6.0	1.5	6.8	7.2	--	--
Private Credit	0.6	4.4	0.6	5.3	4.0	5.1	--
<i>S&P/LSTA Leveraged Loan Index+2%</i>	1.5	8.4	1.5	5.2	6.6	6.1	--
Risk-Diversifying Sub-Portfolio	1.5	5.7	1.5	7.3	3.1	3.6	4.6
<i>StanCERA Risk-Diversifying Blended BM</i>	1.3	5.2	1.3	7.1	2.0	2.2	2.3
US Treasury	3.0	8.9	3.0	11.8	4.3	4.3	5.0
<i>BBgBarc US Treasury 7-10 Yr TR</i>	2.7	9.8	2.7	14.0	2.4	3.8	4.4
Short-Term Gov't/Credit	0.9	4.7	0.9	5.9	--	--	--
<i>BBgBarc US Govt/Credit 1-3 Yr. TR</i>	0.7	3.4	0.7	4.6	--	--	--

Current Allocation



Total Fund
Performance Summary (Gross of Fees)

Period Ending: September 30, 2019

	Market Value	% of Portfolio	3 Mo	YTD	Fiscal YTD	1 Yr	3 Yrs	5 Yrs	10 Yrs	2018	2017	2016	2015	2014	Inception	Inception Date
Total Fund	2,205,344,636	100.0	1.0	12.2	1.0	4.7	8.3	6.7	8.8	-4.1	15.7	8.3	-0.2	6.9	9.2	Dec-94
<i>Policy Index</i>			0.4	11.0	0.4	3.7	7.2	6.4	8.2	-3.7	14.3	8.5	0.2	7.5	8.0	Dec-94
Liquidity Sub-Portfolio	246,941,449	11.2	1.5	6.8	1.5	7.6	2.8	2.1	--	0.9	0.5	1.5	1.0	-43.6	9.7	Apr-11
<i>StanCERA Liquidity Blended BM</i>			0.7	3.3	0.7	4.4	1.8	1.5	--	1.6	0.8	1.2	0.6	0.7	1.3	Apr-11
Cash	26,432,511	1.2	0.6	1.2	0.6	1.7	1.4	1.3	--	1.7	1.1	1.5	1.0	-43.6	9.2	Apr-11
<i>FTSE T-Bill 1 Month TR</i>			0.5	1.8	0.5	2.3	1.5	0.9	--	1.8	0.8	0.2	0.0	0.0	0.6	Apr-11
Short-Term Gov't/Credit	220,508,938	10.0	1.6	7.5	1.6	8.4	--	--	--	0.7	--	--	--	--	3.9	Jun-17
<i>BBgBarc US Govt/Credit 1-3 Yr. TR</i>			0.7	3.4	0.7	4.6	--	--	--	1.6	--	--	--	--	2.3	Jun-17
<i>Insight</i>	220,508,938	10.0	1.6	7.5	1.6	8.4	--	--	--	0.7	--	--	--	--	3.9	Jun-17
<i>BBgBarc US Govt/Credit 1-3 Yr. TR</i>			0.7	3.4	0.7	4.6	--	--	--	1.6	--	--	--	--	2.3	Jun-17
Growth Sub-Portfolio	1,711,860,859	77.6	0.9	14.2	0.9	3.9	10.0	7.7	--	-5.8	19.7	9.5	-0.4	7.4	7.4	Jul-15
<i>StanCERA Growth Blended BM</i>			0.3	13.1	0.3	3.2	9.0	--	--	-4.9	19.1	8.1	--	--	7.4	Jul-15
US Large	311,775,296	14.1	1.3	19.3	1.3	2.2	13.1	10.2	--	-3.9	21.3	11.0	0.7	12.6	10.0	Jul-15
<i>Russell 1000</i>			1.4	20.5	1.4	3.9	13.2	10.6	--	-4.8	21.7	12.1	0.9	13.2	10.6	Jul-15
<i>BlackRock Russell 1000 Growth</i>	154,878,643	7.0	1.5	23.3	1.5	3.8	16.9	13.4	--	-1.5	30.2	7.2	5.7	13.1	16.3	Jun-10
<i>Russell 1000 Growth</i>			1.5	23.3	1.5	3.7	16.9	13.4	--	-1.5	30.2	7.1	5.7	13.0	16.3	Jun-10
<i>BlackRock Russell 1000 Value</i>	78,609,386	3.6	1.4	17.9	1.4	4.1	9.5	7.9	11.6	-8.1	13.8	17.3	-3.6	13.5	12.4	Jul-09
<i>Russell 1000 Value</i>			1.4	17.8	1.4	4.0	9.4	7.8	11.5	-8.3	13.7	17.3	-3.8	13.5	12.2	Jul-09
<i>Dodge & Cox-Equity</i>	78,287,267	3.5	0.4	13.1	0.4	-1.8	11.1	8.3	12.2	-6.3	17.1	21.4	-3.9	10.9	11.9	Dec-94
<i>Russell 1000 Value</i>			1.4	17.8	1.4	4.0	9.4	7.8	11.5	-8.3	13.7	17.3	-3.8	13.5	9.9	Dec-94
US Small	76,437,244	3.5	-2.1	15.2	-2.1	-9.2	6.7	6.3	--	-16.1	15.7	17.1	-3.9	4.4	8.6	Apr-12
<i>Russell 2000</i>			-2.4	14.2	-2.4	-8.9	8.2	8.2	--	-11.0	14.6	21.3	-4.4	4.9	10.3	Apr-12
<i>Capital Prospects</i>	76,437,244	3.5	-2.1	15.2	-2.1	-9.2	8.0	7.4	--	-16.1	15.5	28.1	-7.0	5.7	--	Dec-08
<i>Russell 2000 Value</i>			-0.6	12.8	-0.6	-8.2	6.5	7.2	--	-12.9	7.8	31.7	-7.5	4.2	--	Dec-08
Private Equity Proxy	133,604,490	6.1	1.2	20.1	1.2	8.5	14.7	11.6	13.6	-0.2	21.2	11.8	1.4	13.7	9.2	Nov-03
<i>Russell 3000 +3%</i>			2.3	22.0	2.3	5.9	15.8	13.5	16.1	-2.2	24.1	15.7	3.5	15.6	12.1	Nov-03
<i>Northern Trust Russell 3000</i>	133,604,490	6.1	1.2	20.1	1.2	--	--	--	--	--	--	--	--	--	20.1	Dec-18
<i>Russell 3000</i>			1.2	20.1	1.2	--	--	--	--	--	--	--	--	--	20.1	Dec-18

Total Fund
Performance Summary (Gross of Fees)

Period Ending: September 30, 2019

	Market Value	% of Portfolio	3 Mo	YTD	Fiscal YTD	1 Yr	3 Yrs	5 Yrs	10 Yrs	2018	2017	2016	2015	2014	Inception	Inception Date
Int'l Developed	496,674,052	22.5	-1.3	11.6	-1.3	-2.3	6.6	3.6	5.6	-15.5	27.9	6.0	-3.4	-4.2	6.6	Sep-04
MSCI ACWI ex USA Gross			-1.7	12.1	-1.7	-0.7	6.8	3.4	4.9	-13.8	27.8	5.0	-5.3	-3.4	6.1	Sep-04
LSV Asset Mgt	248,877,925	11.3	-0.8	10.0	-0.8	-3.9	6.5	3.0	5.3	-16.4	28.2	8.8	-5.1	-4.0	6.4	Aug-04
MSCI ACWI ex USA Gross			-1.7	12.1	-1.7	-0.7	6.8	3.4	4.9	-13.8	27.8	5.0	-5.3	-3.4	6.3	Aug-04
Fidelity	247,796,127	11.2	-1.9	13.2	-1.9	-0.7	6.5	3.9	5.7	-14.5	27.3	2.4	-2.0	-4.5	3.9	Apr-06
MSCI ACWI ex USA Gross			-1.7	12.1	-1.7	-0.7	6.8	3.4	4.9	-13.8	27.8	5.0	-5.3	-3.4	3.4	Apr-06
Core Real Estate	154,642,541	7.0	2.9	9.6	2.9	8.0	5.4	7.4	--	1.9	5.5	5.8	-0.5	31.9	--	Mar-08
NCREIF Property Index			1.4	4.8	1.4	6.2	6.8	8.6	--	6.7	7.0	8.0	13.3	11.8	--	Mar-08
Prime Property Fund	58,055,197	2.6	1.7	5.5	1.7	7.9	9.1	--	--	9.1	9.9	10.4	--	--	9.6	Sep-15
NCREIF-ODCE			1.3	3.8	1.3	5.6	7.3	--	--	8.3	7.6	8.8	--	--	8.0	Sep-15
BlackRock US Real Estate	39,623,889	1.8	6.8	24.7	6.8	16.5	6.5	9.7	--	-4.1	3.8	6.6	4.4	31.9	9.5	Sep-12
DJ US Select RESI TR USD			6.8	24.6	6.8	16.4	6.5	9.7	--	-4.2	3.8	6.6	4.5	31.9	9.5	Sep-12
PGIM Real Estate US Debt Fund	56,963,455	2.6	1.6	5.0	1.6	6.7	--	--	--	--	--	--	--	--	--	Sep-18
Gilberto-Levy Commercial Mortgage Performance Index			0.0	6.0	0.0	8.4	--	--	--	--	--	--	--	--	--	Sep-18
Value Add Real Estate	82,662,246	3.7	3.5	8.1	3.5	9.4	12.3	13.3	--	12.9	13.5	10.3	21.7	--	12.8	Jul-14
NCREIF Property Index +2%			1.9	6.4	1.9	8.3	8.9	10.7	--	8.8	9.1	10.1	15.6	--	11.0	Jul-14
American Strategic Value Realty	52,655,541	2.4	2.1	6.8	2.1	8.6	10.7	--	--	10.2	11.5	13.1	21.4	--	13.2	Dec-14
NCREIF Property Index			1.4	4.8	1.4	6.2	6.8	--	--	6.7	7.0	8.0	13.3	--	8.4	Dec-14
Greenfield Gap VII	10,199,705	0.5	10.1	15.7	10.1	16.6	16.0	15.7	--	14.6	16.5	7.7	22.0	--	15.2	Jul-14
NCREIF ODCE + 1%			1.6	4.5	1.6	6.6	8.4	10.4	--	9.4	8.7	9.8	16.2	--	10.8	Jul-14
Greenfield Gap VIII	19,807,000	0.9	4.0	7.3	4.0	6.1	--	--	--	--	--	--	--	--	18.3	Apr-18
NCREIF ODCE + 1%			1.6	4.5	1.6	6.6	--	--	--	--	--	--	--	--	7.6	Apr-18
Risk Parity	319,005,753	14.5	3.1	20.4	3.1	14.3	--	--	--	-6.6	--	--	--	--	7.3	Nov-17
60% MSCI ACWI Net/40% BBgBarc Global Aggregate			0.3	12.4	0.3	4.2	--	--	--	-6.0	--	--	--	--	3.6	Nov-17
AQR Global Risk Premium - EL	158,801,166	7.2	2.0	18.1	2.0	10.9	--	--	--	--	--	--	--	--	8.7	Mar-18
60% MSCI ACWI Net/40% BBgBarc Global Aggregate			0.3	12.4	0.3	4.2	--	--	--	--	--	--	--	--	3.3	Mar-18

Total Fund
Performance Summary (Gross of Fees)

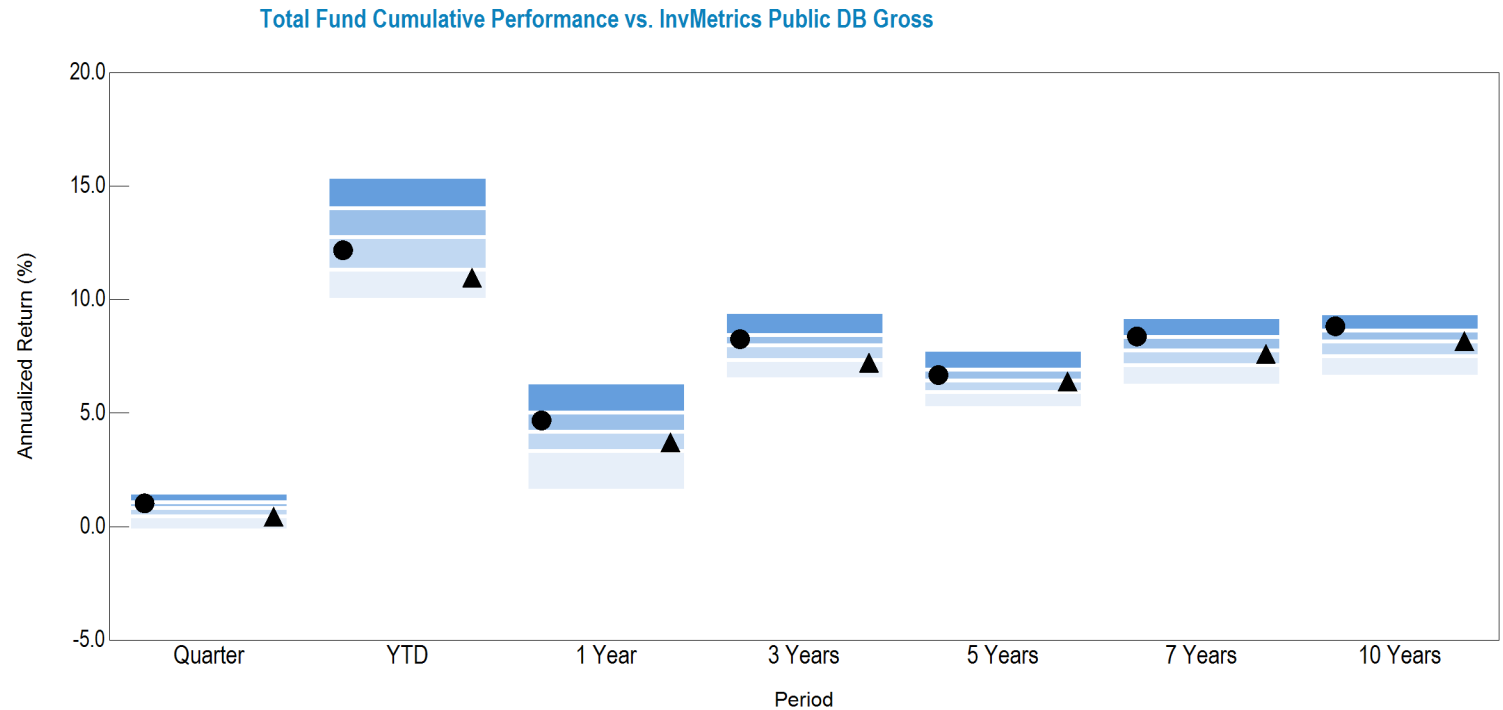
Period Ending: September 30, 2019

	Market Value	% of Portfolio	3 Mo	YTD	Fiscal YTD	1 Yr	3 Yrs	5 Yrs	10 Yrs	2018	2017	2016	2015	2014	Inception	Inception Date
PanAgora Risk Parity Multi Asset	160,204,587	7.3	4.3	22.7	4.3	17.8	--	--	--	-7.3	--	--	--	--	8.0	Nov-17
60% MSCI ACWI Net/40% BBgBarc Global Aggregate			0.3	12.4	0.3	4.2	--	--	--	-6.0	--	--	--	--	3.6	Nov-17
Infrastructure	42,045,476	1.9	3.1	10.9	3.1	12.8	14.8	--	--	8.3	20.9	12.8	--	--	10.5	May-15
CPI + 5%			1.5	6.0	1.5	6.8	7.2	--	--	7.0	7.2	7.2	--	--	6.9	May-15
MS Infrastructure Partners II	42,045,476	1.9	3.1	10.9	3.1	12.8	14.8	--	--	8.3	20.9	12.8	--	--	10.5	May-15
CPI + 5%			1.5	6.0	1.5	6.8	7.2	--	--	7.0	7.2	7.2	--	--	6.9	May-15
Private Credit	95,013,760	4.3	0.6	4.4	0.6	5.3	4.0	5.1	--	4.9	0.4	3.9	6.6	12.1	7.2	May-13
S&P/LSTA Leveraged Loan Index+2%			1.5	8.4	1.5	5.2	6.6	6.1	--	2.4	6.2	12.3	1.3	3.6	5.9	May-13
Medley Capital	12,870,163	0.6	-4.7	-7.7	-4.7	-13.8	-4.3	-0.8	--	-11.9	4.5	4.4	6.5	7.7	2.7	May-13
S&P/LSTA Leveraged Loan Index+2%			1.5	8.4	1.5	5.2	6.6	6.1	--	2.4	6.2	12.3	1.3	3.6	5.9	May-13
Raven Capital	14,178,247	0.6	2.2	7.2	2.2	9.5	1.7	3.1	--	5.3	-6.1	-2.1	2.7	13.7	2.3	May-13
S&P/LSTA Leveraged Loan Index+2%			1.5	8.4	1.5	5.2	6.6	6.1	--	2.4	6.2	12.3	1.3	3.6	5.9	May-13
Raven Opportunity III	42,168,305	1.9	0.8	7.2	0.8	9.5	4.2	--	--	11.0	-7.4	5.6	--	--	5.6	Jul-15
S&P/LSTA Leveraged Loan Index+2%			1.5	8.4	1.5	5.2	6.6	--	--	2.4	6.2	12.3	--	--	6.3	Jul-15
White Oak Pinnacle	25,797,045	1.2	2.2	6.1	2.2	9.3	7.6	8.1	--	10.0	3.6	6.8	9.3	16.5	14.4	Aug-13
S&P/LSTA Leveraged Loan Index+2%			1.5	8.4	1.5	5.2	6.6	6.1	--	2.4	6.2	12.3	1.3	3.6	6.0	Aug-13
Risk-Diversifying Sub-Portfolio	246,542,328	11.2	1.5	5.7	1.5	7.3	3.1	3.6	4.6	1.2	4.0	5.4	0.3	6.2	5.0	Nov-03
StanCERA Risk-Diversifying Blended BM			1.3	5.2	1.3	7.1	2.0	2.2	2.3	1.4	1.3	1.3	0.9	3.0	--	Nov-03
US Treasury	64,294,111	2.9	3.0	8.9	3.0	11.8	4.3	4.3	5.0	0.7	5.1	5.4	0.3	6.2	5.3	Nov-03
BBgBarc US Treasury 7-10 Yr TR			2.7	9.8	2.7	14.0	2.4	3.8	4.4	0.9	2.6	1.1	1.6	9.0	4.9	Nov-03
Northern Trust Intermediate Gov't Bond	46,476,837	2.1	1.2	5.2	1.2	7.6	--	--	--	1.5	--	--	--	--	2.9	Jul-17
BBgBarc US Govt Int TR			1.2	5.2	1.2	7.5	--	--	--	1.4	--	--	--	--	2.9	Jul-17
Northern Trust Long Term Gov't Bond	17,817,274	0.8	7.9	19.6	7.9	24.7	--	--	--	-1.7	--	--	--	--	9.5	Jul-17
BBgBarc US Govt Long TR			7.8	19.6	7.8	24.6	--	--	--	-1.8	--	--	--	--	9.5	Jul-17
Short-Term Gov't/Credit	182,248,217	8.3	0.9	4.7	0.9	5.9	--	--	--	1.3	--	--	--	--	2.1	May-17
BBgBarc US Govt/Credit 1-3 Yr. TR			0.7	3.4	0.7	4.6	--	--	--	1.6	--	--	--	--	2.2	May-17
DFA	182,248,217	8.3	0.9	4.7	0.9	5.9	--	--	--	1.3	--	--	--	--	2.8	Jul-17
BBgBarc US Govt/Credit 1-3 Yr. TR			0.7	3.4	0.7	4.6	--	--	--	1.6	--	--	--	--	2.2	Jul-17

Total Fund

Peer Universe Comparison: Cumulative Performance (Gross of Fees)

Period Ending: September 30, 2019

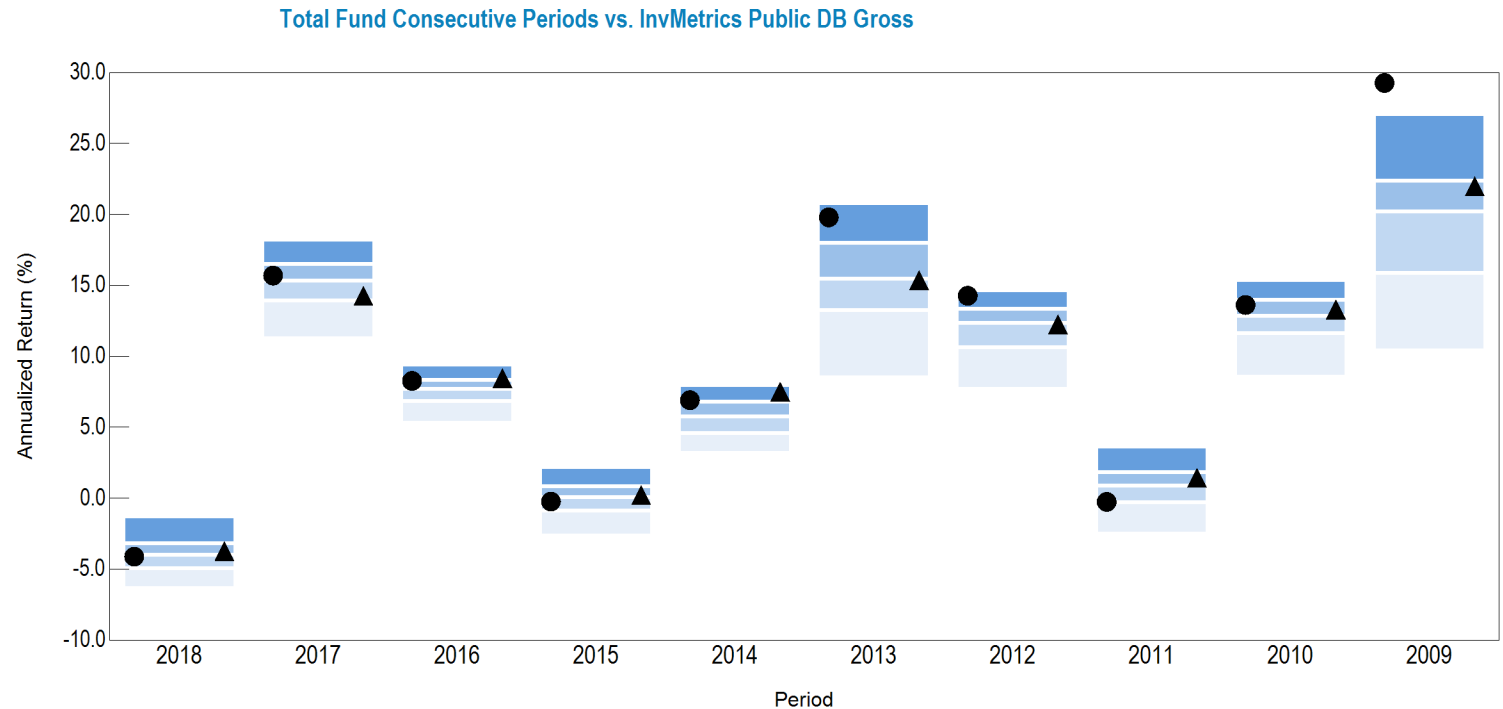


	Return (Rank)													
5th Percentile	1.5		15.4		6.3		9.4		7.8		9.2		9.4	
25th Percentile	1.1		14.0		5.0		8.4		6.9		8.4		8.7	
Median	0.8		12.8		4.2		8.0		6.5		7.8		8.2	
75th Percentile	0.5		11.3		3.4		7.4		6.0		7.1		7.5	
95th Percentile	-0.2		10.0		1.6		6.5		5.2		6.2		6.6	
# of Portfolios	343		339		336		325		315		297		267	
● Total Fund	1.0	(31)	12.2	(61)	4.7	(36)	8.3	(36)	6.7	(39)	8.4	(24)	8.8	(20)
▲ Policy Index	0.4	(78)	11.0	(81)	3.7	(64)	7.2	(81)	6.4	(53)	7.6	(59)	8.2	(50)

Total Fund

Peer Universe Comparison: Consecutive Periods (Gross of Fees)

Period Ending: September 30, 2019



	Return (Rank)									
5th Percentile	-1.3	18.2	9.4	2.2	8.0	20.8	14.6	3.6	15.4	27.0
25th Percentile	-3.1	16.5	8.4	0.9	6.8	18.0	13.4	1.9	14.0	22.4
Median	-4.0	15.3	7.7	0.1	5.8	15.5	12.4	0.9	12.9	20.2
75th Percentile	-4.9	14.0	6.9	-0.9	4.6	13.3	10.7	-0.3	11.7	15.9
95th Percentile	-6.3	11.3	5.3	-2.6	3.2	8.5	7.8	-2.5	8.6	10.5
# of Portfolios	319	304	305	316	248	231	236	206	188	184
● Total Fund	-4.1 (53)	15.7 (43)	8.3 (29)	-0.2 (60)	6.9 (23)	19.8 (12)	14.3 (10)	-0.3 (75)	13.6 (35)	29.3 (1)
▲ Policy Index	-3.7 (43)	14.3 (71)	8.5 (23)	0.2 (46)	7.5 (12)	15.4 (52)	12.3 (53)	1.4 (35)	13.3 (42)	22.0 (29)

Glossary

Allocation Effect: An attribution effect that describes the amount attributable to the managers' asset allocation decisions, relative to the benchmark.

Alpha: The excess return of a portfolio after adjusting for market risk. This excess return is attributable to the selection skill of the portfolio manager. Alpha is calculated as: $\text{Portfolio Return} - [\text{Risk-free Rate} + \text{Portfolio Beta} \times (\text{Market Return} - \text{Risk-free Rate})]$.

Benchmark R-squared: Measures how well the Benchmark return series fits the manager's return series. The higher the Benchmark R-squared, the more appropriate the benchmark is for the manager.

Beta: A measure of systematic, 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.

Book-to-Market: The ratio of book value per share to market price per share. Growth managers typically have low book-to-market ratios while value managers typically have high book-to-market ratios.

Capture Ratio: A statistical measure of an investment manager's overall performance in up or down markets. The capture ratio is used to evaluate how well an investment manager performed relative to an index during periods when that index has risen (up market) or fallen (down market). The capture ratio is calculated by dividing the manager's returns by the returns of the index during the up/down market, and multiplying that factor by 100.

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 maximize the benefits of diversification when constructing an investment portfolio.

Excess Return: A measure of the difference in appreciation or depreciation in the price of an investment compared to its benchmark, over a given time period. This is usually expressed as a percentage and may be annualized over a number of years or represent a single period.

Information Ratio: A measure of a manager's ability to earn excess return without incurring additional risk. Information ratio is calculated as: excess return divided by tracking error.

Interaction Effect: An attribution effect that describes the portion of active management that is contributable to the cross interaction between the allocation and selection effect. This can also be explained as an effect that cannot be easily traced to a source.

Portfolio Turnover: The percentage of a portfolio that is sold and replaced (turned over) during a given time period. Low portfolio turnover is indicative of a buy and hold strategy while high portfolio turnover implies a more active form of management.

Price-to-Earnings Ratio (P/E): Also called the earnings multiplier, it is calculated by dividing the price of a company's stock into earnings per share. Growth managers typically hold stocks with high price-to-earnings ratios whereas value managers hold stocks with low price-to-earnings ratios.

R-Squared: Also called the coefficient of determination, it measures the amount of variation in one variable explained by variations in another, i.e., the goodness of fit to a benchmark. In the case of investments, the term is used to explain the amount of variation in a security or portfolio explained by movements in the market or the portfolio's benchmark.

Selection Effect: An attribution effect that describes the amount attributable to the managers' stock selection decisions, relative to the benchmark.

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: $\text{Portfolio Excess Return} / \text{Portfolio Standard Deviation}$.

Sortino Ratio: Measures the risk-adjusted return of an investment, portfolio, or strategy. It is a modification of the Sharpe Ratio, but penalizes only those returns falling below a specified benchmark. The Sortino Ratio uses downside deviation in the denominator rather than standard deviation, like the Sharpe Ratio.

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%.

Style Analysis: A return based analysis designed to identify combinations of passive investments to closely replicate the performance of funds

Style Map: A specialized form or scatter plot chart typically used to show where a Manager lies in relation to a set of style indices on a two-dimensional plane. This is simply a way of viewing the asset loadings in a different context. The coordinates are calculated by rescaling the asset loadings to range from -1 to 1 on each axis and are dependent on the Style Indices comprising the Map.

Glossary

Long-Nickels ICM: IRR-based methodology developed by Austin Long and Craig Nickels that makes meaningful comparisons between private capital investments and indexes like the S&P 500 Total Return; known as Index Comparison Method (ICM), or Public Market Equivalent (PME). The methodology assumes buying and selling the index according to the timing and size of the cash flows between the investor and the private investment.

The direct opportunity cost comparison of how net funds invested in the private investment would have performed had they been invested in the stated index over the life of the particular investment. In calculation of the IRRICM, the private capital valuation is ignored and substituted instead with a ValuationICM. ValuationICM is essentially a sum of private capital contributions and distributions grown to the analysis date using the respective index values; contributions are treated as purchases into the index and are used to increase the ValuationICM, while distributions are treated as sales and are applied to reduce ValuationICM; the IRRICM then becomes a standard IRR calculation, using the original private capital transactions and ValuationICM substituted for the original private capital valuation.

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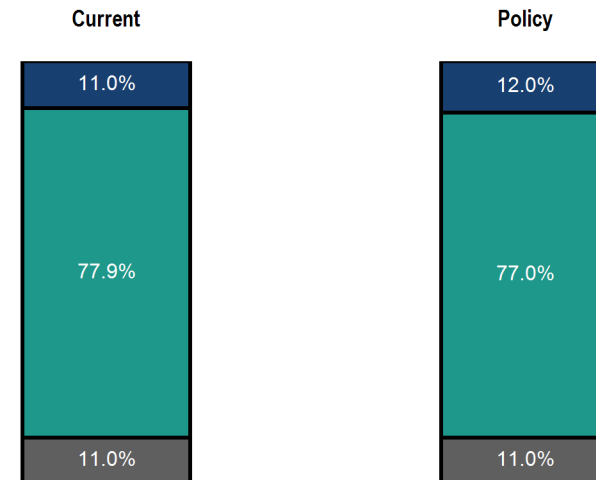
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Total Fund Flash Report (Net of Fees) - Preliminary

Period Ending: October 31, 2019

	Market Value	% of Portfolio	1 Mo	YTD	Fiscal YTD
Total Fund	2,239,800,360	100.0	1.7	13.8	2.6
<i>Policy Index</i>			1.6	12.8	2.1
Liquidity Sub-Portfolio	247,097,223	11.0	0.6	7.3	2.1
<i>StanCERA Liquidity Blended BM</i>			0.3	3.6	1.0
Cash	27,781,940	1.2	0.2	1.3	0.8
<i>FTSE T-Bill 1 Month TR</i>			0.2	1.9	0.7
Short-Term Gov't/Credit	219,315,283	9.8	0.7	8.1	2.3
<i>BBgBarc US Gov't/Credit 1-3 Yr. TR</i>			0.3	3.8	1.0
<i>Insight</i>	219,315,283	9.8	0.7	8.1	2.3
<i>BBgBarc US Gov't/Credit 1-3 Yr. TR</i>			0.3	3.8	1.0
Growth Sub-Portfolio	1,745,555,422	77.9	2.0	16.2	2.8
<i>StanCERA Growth Blended BM</i>			2.2	15.5	2.5
US Large	319,087,715	14.2	2.3	22.0	3.6
<i>Russell 1000</i>			2.1	23.1	3.6
<i>BlackRock Russell 1000 Growth</i>	159,247,206	7.1	2.8	26.8	4.3
<i>Russell 1000 Growth</i>			2.8	26.8	4.3
<i>BlackRock Russell 1000 Value</i>	79,717,040	3.6	1.4	19.6	2.8
<i>Russell 1000 Value</i>			1.4	19.5	2.8
<i>Dodge & Cox-Equity</i>	80,123,470	3.6	2.3	15.6	2.6
<i>Russell 1000 Value</i>			1.4	19.5	2.8
US Small	78,108,533	3.5	2.1	17.0	-0.2
<i>Russell 2000</i>			2.6	17.2	0.2
<i>Capital Prospects</i>	78,108,533	3.5	2.1	17.0	-0.2
<i>Russell 2000 Value</i>			2.4	15.5	1.8
Private Equity Proxy	136,481,913	6.1	2.2	22.7	3.4
<i>Russell 3000 +3%</i>			2.4	24.9	4.7
<i>Northern Trust Russell 3000</i>	136,481,913	6.1	2.2	22.7	3.4
<i>Russell 3000</i>			2.2	22.7	3.3

	Current	%	Policy	%
Liquidity Sub-Portfolio	\$247,097,223	11.0%	\$268,776,043	12.0%
Cash	\$27,781,940	1.2%	\$22,398,004	1.0%
Short-Term Gov't/Credit	\$219,315,283	9.8%	\$246,378,040	11.0%
Growth Sub-Portfolio	\$1,745,555,422	77.9%	\$1,724,646,277	77.0%
US Large	\$319,087,715	14.2%	\$313,572,050	14.0%
US Small	\$78,108,533	3.5%	\$67,194,011	3.0%
Private Equity Proxy	\$136,481,913	6.1%	\$134,388,022	6.0%
Int'l Developed	\$516,199,491	23.0%	\$515,154,083	23.0%
Core Real Estate	\$155,063,861	6.9%	\$111,990,018	5.0%
Value Add Real Estate	\$82,662,246	3.7%	\$111,990,018	5.0%
Risk Parity	\$320,566,465	14.3%	\$291,174,047	13.0%
Infrastructure	\$42,045,476	1.9%	\$44,796,007	2.0%
Private Credit	\$95,339,722	4.3%	\$134,388,022	6.0%
Risk-Diversifying Sub-Portfolio	\$247,147,715	11.0%	\$246,378,040	11.0%
US Treasury	\$64,275,361	2.9%	\$67,194,011	3.0%
Short Term Gov't/Credit	\$182,872,354	8.2%	\$179,184,029	8.0%
Total	\$2,239,800,360	100.0%	\$2,239,800,360	100.0%



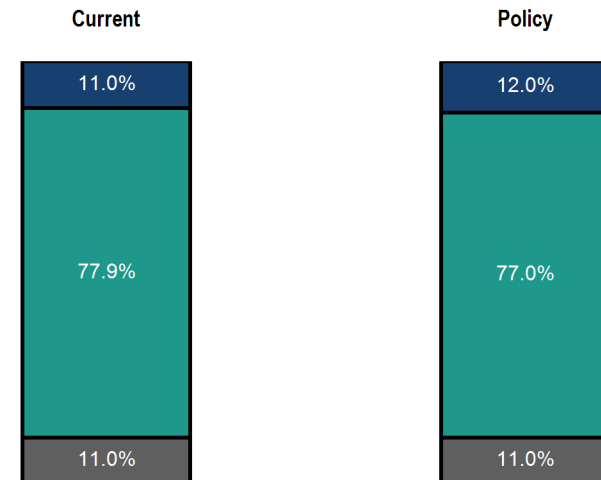
Policy Index (5/31/2019): 14% Russell 1000, 3% Russell 2000, 6% Russell 3000 + 3%, 23% MSCI ACWI ex-USA, 19% BBgBarc US Gov't/Credit 1-3 Yr, 3% BBgBarc US Treasury 7-10 Yr, 5% NCREIF Property, 5% NCREIF Property +2%, 2% CPI +5%, 6% S&P/LSTA Leveraged Loan Index + 2%, 13% 60% MSCI ACWI / 40% BBgBarc Global Aggregate, 1% Citi 1 Month T-Bills. All data is preliminary.

Total Fund Flash Report (Net of Fees) - Preliminary

Period Ending: October 31, 2019

	Market Value	% of Portfolio	1 Mo	YTD	Fiscal YTD
Int'l Developed	516,199,491	23.0	3.9	15.7	2.4
MSCI ACWI ex USA Gross			3.5	16.0	1.7
LSV Asset Mgt	260,045,028	11.6	4.5	14.5	3.6
MSCI ACWI ex USA Gross			3.5	16.0	1.7
Fidelity	256,154,463	11.4	3.4	16.8	1.3
MSCI ACWI ex USA Gross			3.5	16.0	1.7
Core Real Estate	155,063,861	6.9	0.3	9.4	3.1
NCREIF Property Index			N/A	4.8	1.4
Prime Property Fund	58,055,197	2.6	N/A	4.6	1.4
NCREIF-ODCE			N/A	3.8	1.3
BlackRock US Real Estate	40,045,209	1.8	1.1	25.9	8.0
DJ US Select RESI TR USD			1.1	26.0	8.0
PGIM Real Estate US Debt Fund	56,963,455	2.5	N/A	4.6	1.5
Gilberto-Levy Commercial Mortgage Performance Index			N/A	6.0	0.0
Value Add Real Estate	82,662,246	3.7	N/A	7.2	3.3
NCREIF Property Index +2%			N/A	6.5	2.1
American Strategic Value Realty	52,655,541	2.4	N/A	6.1	1.9
NCREIF Property Index			N/A	4.8	1.4
Greenfield Gap VII	10,199,705	0.5	N/A	14.2	9.5
NCREIF ODCE + 1%			N/A	4.6	1.6
Greenfield Gap VIII	19,807,000	0.9	N/A	6.1	3.5
NCREIF ODCE + 1%			N/A	4.6	1.6
Risk Parity	320,566,465	14.3	0.5	20.6	3.5
60% MSCI ACWI Net/40% BBgBarc Global Aggregate			1.9	14.5	2.2
AQR Global Risk Premium - EL	160,247,611	7.2	0.9	18.8	2.8
60% MSCI ACWI Net/40% BBgBarc Global Aggregate			1.9	14.5	2.2
PanAgora Risk Parity Multi Asset	160,318,854	7.2	0.1	22.5	4.3
60% MSCI ACWI Net/40% BBgBarc Global Aggregate			1.9	14.5	2.2

	Current	%	Policy	%
Liquidity Sub-Portfolio	\$247,097,223	11.0%	\$268,776,043	12.0%
Cash	\$27,781,940	1.2%	\$22,398,004	1.0%
Short-Term Gov't/Credit	\$219,315,283	9.8%	\$246,378,040	11.0%
Growth Sub-Portfolio	\$1,745,555,422	77.9%	\$1,724,646,277	77.0%
US Large	\$319,087,715	14.2%	\$313,572,050	14.0%
US Small	\$78,108,533	3.5%	\$67,194,011	3.0%
Private Equity Proxy	\$136,481,913	6.1%	\$134,388,022	6.0%
Int'l Developed	\$516,199,491	23.0%	\$515,154,083	23.0%
Core Real Estate	\$155,063,861	6.9%	\$111,990,018	5.0%
Value Add Real Estate	\$82,662,246	3.7%	\$111,990,018	5.0%
Risk Parity	\$320,566,465	14.3%	\$291,174,047	13.0%
Infrastructure	\$42,045,476	1.9%	\$44,796,007	2.0%
Private Credit	\$95,339,722	4.3%	\$134,388,022	6.0%
Risk-Diversifying Sub-Portfolio	\$247,147,715	11.0%	\$246,378,040	11.0%
US Treasury	\$64,275,361	2.9%	\$67,194,011	3.0%
Short Term Gov't/Credit	\$182,872,354	8.2%	\$179,184,029	8.0%
Total	\$2,239,800,360	100.0%	\$2,239,800,360	100.0%



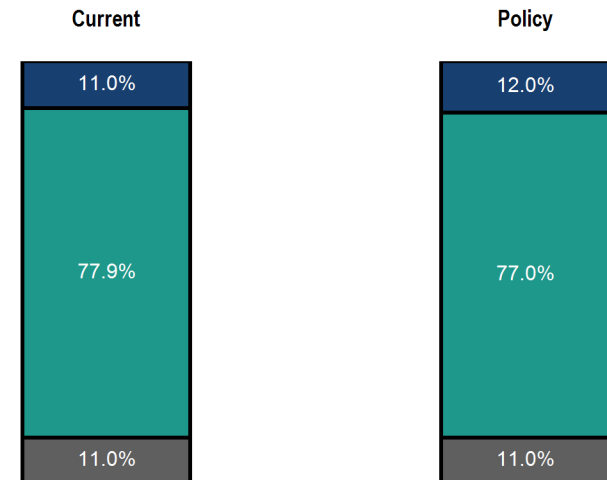
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Total Fund Flash Report (Net of Fees) - Preliminary

Period Ending: October 31, 2019

	Market Value	% of Portfolio	1 Mo	YTD	Fiscal YTD
Infrastructure	42,045,476	1.9	N/A	10.9	3.1
CPI + 5%			0.6	6.7	2.1
MS Infrastructure Partners II	42,045,476	1.9	N/A	10.9	3.1
CPI + 5%			0.6	6.7	2.1
Private Credit	95,339,722	4.3	1.7	5.7	2.2
S&P/LSTA Leveraged Loan Index+2%			-0.3	8.1	1.2
Medley Capital	12,870,163	0.6	N/A	-8.5	-4.9
S&P/LSTA Leveraged Loan Index+2%			-0.3	8.1	1.2
Owl Rock First Lien Fund	4,141,193	0.2	N/A	--	--
S&P/LSTA Leveraged Loan Index+2%			-0.3	--	--
Raven Capital	14,330,002	0.6	1.1	8.3	3.3
S&P/LSTA Leveraged Loan Index+2%			-0.3	8.1	1.2
Raven Opportunity III	37,726,235	1.7	2.5	9.9	3.3
S&P/LSTA Leveraged Loan Index+2%			-0.3	8.1	1.2
White Oak Pinnacle	26,272,129	1.2	1.8	6.9	3.7
S&P/LSTA Leveraged Loan Index+2%			-0.3	8.1	1.2
Risk-Diversifying Sub-Portfolio	247,147,715	11.0	0.2	5.9	1.7
StanCERA Risk-Diversifying Blended BM			0.3	5.5	1.6
US Treasury	64,275,361	2.9	0.0	8.8	2.9
BBgBarc US Treasury 7-10 Yr TR			0.2	10.0	2.9
Northern Trust Intermediate Gov't Bond	46,610,100	2.1	0.3	5.5	1.5
BBgBarc US Govt Int TR			0.3	5.5	1.5
Northern Trust Long Term Gov't Bond	17,665,261	0.8	-0.9	18.6	6.9
BBgBarc US Govt Long TR			-0.8	18.6	6.9
Short-Term Gov't/Credit	182,872,354	8.2	0.3	5.0	1.3
BBgBarc US Govt/Credit 1-3 Yr. TR			0.3	3.8	1.0
DFA	182,872,354	8.2	0.3	5.0	1.3
BBgBarc US Govt/Credit 1-3 Yr. TR			0.3	3.8	1.0

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Blended Benchmark Compositions

- StanCERA Liquidity Blended BM (8/31/2019): 92% BBgBarc US Govt/Credit 1-3 Yr. TR and 8% FTSE T-Bill 1 Month TR.
- StanCERA Growth Blended BM (8/31/2019): 18% Russell 1000, 4% Russell 2000, 8% Russell 3000 + 3%, 30% MSCI ACWI ex-US Gross, 6% NCREIF Property, 6% actual private Value Add Real Estate returns, 17% 60% MSCI ACWI/40% BBgBarc Global Aggregate, 3% actual Infrastructure returns, and 8% actual Private Credit returns.
- StanCERA Risk-Diversifying Blended BM (8/31/2019): 27% BBgBarc US Treasury 7-10 Yr. TR and 73% BBgBarc US Govt/Credit 1-3 Yr. TR.



November 26, 2019

Retirement Board Agenda Item

TO: Retirement Board

FROM: Rick Santos, Executive Director

- I. SUBJECT: Memorandum of Understanding Between Stanislaus County and StanCERA Regarding the Replacement Benefits Plan
- II. ITEM NUMBER: 9.a.
- III. ITEM TYPE: Discussion and Action
- IV. STAFF RECOMMENDATION: Ratify the Memorandum of Understanding (MOU) (attachment 2) between the County and StanCERA regarding the 415(b) replacement benefits plan
- V. ANALYSIS: As a way to encourage retirement savings, years ago the Federal Government implemented tax policy that allow pension plans the ability to accumulate contributions on a pre-tax basis and to avoid paying taxes on accrued investment income. This is generally known as a plan or trust having a "favorable tax status". For StanCERA and other governmental pension plans to maintain its favorable tax status requires the plan to remain "qualified" by satisfying certain requirements of IRS Code. One section of IRS code, 415(b), limits the amount that a qualified pension plan can pay out in retirement benefits to a member in any one year. However, it is not illegal to pay benefits above these set limits, so long as those additional amounts do not come from the qualified plan's trust.

In 2003, an agreement (MOU) was reached between Stanislaus County and StanCERA whereby the County agreed to pay benefits earned by retirees above the 415(b) limits. Essentially, the agreement stated that the County would be responsible for these payments and in return, StanCERA would inform the County of the amounts and timing of the required payments and adjust the County's contribution rates to recognize the fact that StanCERA would not be paying these additional amounts from the trust. To staff's knowledge, similar arrangements have been adopted by all 1937 Act Systems and CalPERS and CalSTRS.

Recently in a routine review of the process, it was discovered that while the County was reimbursing certain retirees for amounts above the limits, money was then being transferred from the StanCERA trust to reimburse the County. In retrospect, this was never the intent of the 2003 MOU and it is not entirely clear how and why this latter reimbursement arrangement transpired.

Through various meetings with the County, StanCERA Tax Counsel and StanCERA's actuary, the County and StanCERA agreed that the reimbursement process was in error and needed to be remedied. Subsequently, StanCERA has begun what is called a Voluntary Correction Process (VCP) with the IRS. This process will acknowledge the error, require the County to reimburse StanCERA for past transfers with actual trust earnings, provide a remedy going forward and amend our plan documents to describe the new process.

As part of the remedy, the County will reimburse the trust approximately \$1.81 million which includes both the flat dollar amounts and investment earnings at the actual return the trust realized over the period in question. The intent here is to put the trust in a position today which it would've been had these erroneous payments not actually occurred. On a going forward basis, the County and all affected departments will be solely responsible for payments to retirees above the 415(b) limits per the revised MOU. StanCERA will continue to inform the County when a retiree will require an

additional payment and for how much. Additionally, at the end of each year, the County and StanCERA will reconcile the payments and any adjustments made. Attachment 1 contains the revised “red-line” version of the new MOU. The substantive changes in the revised MOU include the following:

- Comment explicitly stating that no StanCERA assets shall be used to reimburse the County for payment of the additional benefits
- Comment removed that stated StanCERA will lower the County’s contribution rate when payments are made. Note that StanCERA has always supplied the County with a reduced employer contribution rate in recognition of the fact that additional benefits cannot be accrued in the System and StanCERA assets cannot be used to make these additional payments
- Comment removed that stated StanCERA shall treat each district separately regarding adjustment of contributions (see explanation in prior bullet point)
- Severability clause added
- Preservation of StanCERA Tax Status clause added

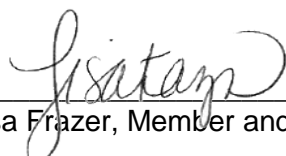
VI. RISK: None

VII. STRATEGIC PLAN: Strategic Objective IV: Refine StanCERA’s business and policy practices in ways that enhance stakeholder awareness, the delivery of member services and the ability of the Organization to administer the System effectively and efficiently*

VIII. ADMINISTRATIVE BUDGET IMPACT: NONE



Rick Santos, Executive Director



Lisa Frazer, Member and Employer Services Manager

**AMENDED AND RESTATED MEMORANDUM OF UNDERSTANDING
BETWEEN THE COUNTY OF STANISLAUS AND THE STANISLAUS
COUNTY EMPLOYEES' RETIREMENT ASSOCIATION REGARDING THE
STANISLAUS COUNTY REPLACEMENT BENEFITS PLAN**

This Amended and Restated Memorandum of Understanding- ("MOU") is entered into by and between the Stanislaus County Employees' Retirement Association ("StanCERA") and Stanislaus County ("County") to be effective beginning on September-November 123, 201903.

WHEREAS, StanCERA provides retirement benefits to employees of the County Stanislaus and to participating districts, and

WHEREAS, the amount of benefits that can be provided to StanCERA members is limited by Section 415(b) of the Internal Revenue Code ("section 415(b)" and "Code", respectively), and

WHEREAS, it is the County's responsibility under California vested rights rules to ensure that all retirement benefits that are earned by County employees are in fact paid, and

WHEREAS, the Code also- provides that a County can establish a replacement benefits plan to pay the full benefits earned by StanCERA members whose benefits are limited by Section 415(b), and

WHEREAS, such a replacement benefits plan is used by many other entities, in both the private and public sector, to replace benefits limited by section 415(b), and

WHEREAS, it is contemplated by the County Employees Retirement Law ("CERL") that each affected County will take action to replace the benefits that are limited by Section 415(b), and

WHEREAS, StanCERA's actuary has advised StanCERA that there is no net increase in the total cost of retirement benefits to the County of providing such a replacement benefits plan, and

WHEREAS, it would be to the benefit of StanCERA to ensure that all of its members receive the entire retirement benefits which they would earn under StanCERA but for the limits of the Code, and

WHEREAS, the most efficient way for the County to operate a replacement benefits plan is to enter into a memorandum of understanding with StanCERA setting out the responsibilities of the County and StanCERA with respect to such a plan, and

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WHEREAS, the most efficient way for the County to operate a replacement benefits plan is to enter into a memorandum of understanding with StanCERA setting out the responsibilities of the County and StanCERA with respect to such a plan, and

WHEREAS, some Districts located within the County also participate in StanCERA and the most efficient way for Districts to provide replacement benefits is to participate in a replacement benefits plan that is established by the County, sharing the cost thereof, and

WHEREAS, the County has provided to StanCERA the County's Replacement Benefits Plan, a copy of which is attached to hereto, and.

WHEREAS, the County and StanCERA entered into a memorandum of understanding on September 23, 2003 concerning the efficient operation of the County's Replacement Benefits Plan, and

WHEREAS, the parties desire to reaffirm and clarify their respective roles and responsibilities under the original memorandum of understanding.

NOW, THEREFORE, IN THE MOST EFFICIENT MANNER, THE ORIGINAL MEMORANDUM OF UNDERSTANDING-IT IS HEREBY AGREED-AMENDED AND RESTATED AND IN CONSIDERATION OF THE MUTUAL PROMISES, COVENANTS, TERMS, AND CONDITIONS HEREINAFTER CONTAINED, BY AND BETWEEN THE COUNTY OF STANISLAUS ("CountyOUNTY") AND THE STANISLAUS COUNTY EMPLOYEES' RETIREMENT ASSOCIATION ("StanCERA") HEREBY AGREE AS FOLLOWS:

1. Purpose of Agreement

This Amended and Restated Memorandum of Understanding- ("MOU") is entered into by the County and StanCERA in order to facilitate the efficient operation by the County of a replacement benefits plan ("Plan") that will provide benefits to retired StanCERA members whose benefits are limited by Section 415(b) of the Internal Revenue Code ("Code").

2. Payment of Replacement Benefits

(a) In accordance with the Plan, the County shall pay to affected retired members of StanCERA, and to their surviving beneficiaries (if any), the difference between the benefits that would be payable from StanCERA without regard to the limits of Section 415(b) of the Code and the benefits that can be paid by StanCERA without violating Section 415(b). These benefits are called "replacement benefits".

(b) The County shall pay replacement benefits from its general assets. No assets of StanCERA shall be used to pay replacement benefits and no assets of StanCERA shall be used to pay the cost of administration or any other costs regarding the operation of the Plan. No assets of StanCERA shall be used to reimburse the County for the payment of replacement benefits.

WHEREAS, some Districts located within the County also participate in StanCERA and the most efficient way for Districts to provide replacement benefits is to participate in a replacement benefits plan that is established by the County, sharing the cost thereof, and

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3. Determination of Amount of Replacement Benefits

- (a) In accordance with its responsibilities under Section 415(b), StanCERA shall determine the amount of benefits for any affected retired member and surviving beneficiaries that would be paid from StanCERA without the limits of Section 415(b), and shall determine the amount of the benefits that can be paid to such persons in accordance with the limits of Section 415(b). The difference between these two amounts (if any) is the amount of replacement benefits payable by the County under the Plan.
- (b) StanCERA shall make this determination for the first year that the benefits of any affected retired member or surviving beneficiary are limited by Section 415(b) and for each relevant year thereafter. This is needed because both the amount of the limits and the amount of StanCERA benefits may change annually.
- (c) To the extent that the amount of benefits that are limited by Section 415(b) change during the year, and in accordance with its responsibilities under Section 415(b), StanCERA shall recalculate the benefits payable by the County under the Plan.
- (d) In accordance with the Plan document, the County shall rely on the calculations by StanCERA set out in paragraphs (a), (b), and (c) of this section for purposes of determining the replacement benefits payable under the Plan.
- (e) As provided in Section 5 of this MOU, StanCERA shall communicate to the County the information determined under this Section 3.

4. Effect on County Contributions To StanCERA of Section 415(b) Limits

~~Upon recommendation of StanCERA's actuary and in accordance with its obligation to recommend County and district contribution rates under Sections 31453 and 31453.1 of the Government Code, StanCERA shall adjust the contributions required to be contributed by the County (and district to the extent that a district participates in the Plan) to take account of the limits of section 415(b).~~

4.5. Communications Between the County and StanCERA

- (a) StanCERA shall communicate to the County, in writing and as soon as reasonably practicable, all information known to StanCERA that is necessary or appropriate for the efficient administration of the Plan. This communication includes but is not limited to the following: the names and identifying numbers of the retired members and surviving beneficiaries whose benefits are limited in any year; the amounts of their replacement benefits (if any) and the calculations that support these amounts; the date as of which the replacement benefits will become payable during each year (if any); the amount by which the replacement benefits change during the year (if at all); ~~the amount of reduction in the County's contribution to StanCERA that will occur under section 4 hereof;~~ and the date that any replacement benefits must cease (for example, on the death of the retired

member). The County shall keep confidential all information received from StanCERA for the purpose of administering the Plan, to the extent permitted by law.

(b) The County shall communicate to StanCERA, in writing and as soon as reasonably practicable, all information that is necessary or appropriate for the efficient administration of the Plan. This communication includes but is not limited to the following: the names and identifying numbers of the Plan participants and eligible surviving beneficiaries who are paid replacement benefits; the amount of such payments; and the dates on which such payments occurred during the year.

56. Communications With Members

(a) StanCERA shall inform members, generally, that if their StanCERA benefits are limited by Section 415(b), the limited benefits will be replaced by the County in accordance with the Plan.

(b) In accordance with its responsibilities under Section 415(b), StanCERA shall be responsible for testing member benefits with respect to the Section 415(b) limits and if the benefits of a member or surviving beneficiary are limited by Section 415(b), StanCERA will so inform the affected individual in writing, and will inform him or her about the Plan and generally how it works.

(c) Upon receiving the needed information from StanCERA with respect to the amounts and timing of payment of replacement benefits, the County shall inform each affected individual about how the Plan works with respect to him or her, including the amounts that will be paid under the Plan for the particular year, the timing of such payments, any tax withholding elections available and all other information that is necessary or appropriate for operation of the Plan.

67. Districts

The Plan provides that Districts that participate in StanCERA may participate in the Plan, upon meeting the terms and conditions thereof. In such a case, the County will administer the Plan on behalf of and as agent of the District. For purposes of replacement benefit determinations, StanCERA shall treat retired District members (and their surviving beneficiaries) who participate in the Plan in the same manner as if they had been County employees under this MOU. ~~However, for purposes of Section 4 of this MOU, regarding adjustment of contributions, StanCERA shall treat each District separately and shall adjust the contributions of each District as recommended by StanCERA's actuary.~~

78. Reconciliation of Amounts

(a) Reconciliation of payments between StanCERA and the County

The County and StanCERA shall take all reasonable steps to reconcile, after the end of each year, the amounts of replacement benefits that have been identified as payable under the Plan by StanCERA and the amounts of replacement benefits that have actually been paid. In the event that the Plan has paid benefits which StanCERA determines should have been paid by StanCERA within the limits of section 415(b), StanCERA shall reimburse the County (or district, if applicable) for the payment of such benefits under the Plan. In the event that StanCERA has paid benefits which StanCERA determines should have been paid under the Plan, the Plan shall reimburse StanCERA for the payments of such benefits by StanCERA.

(b) Underpayments or overpayments to Plan Participants

Underpayments or overpayments to Plan Participants and beneficiaries shall be corrected by the County in accordance with the Plan or as required by law. It shall be the County's responsibility to collect any such overpayments and to pay any such underpayments. The County shall not seek any recourse against StanCERA relating to such overpayments or underpayments except to the extent that StanCERA is required to reimburse the County as provided in section 8(a) above.

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89. Tax Reporting

StanCERA and the County shall be separately responsible for their required reporting to the tax authorities, and neither shall be responsible for the other's reporting.

90. Indemnification and Hold Harmless

Each party to this MOU shall indemnify and hold the other harmless for any costs, damages, or other liabilities incurred hereunder on account of its own negligence or willful misconduct.

101. Miscellaneous

(a) Integration

This ~~Memorandum of Understanding~~MOU and the documents referenced herein constitute the entire agreement of the parties with respect to the subject matter hereof and supercede all prior agreements and understandings, both written and oral.

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(b) Amendment to MOU

This ~~Memorandum of Understanding~~MOU may only be amended pursuant to a written agreement executed by both parties hereto.

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(c) Notice of Amendment to Plan

The County will provide 30 days' written notice to StanCERA of any proposed revision to the Plan. Notice shall be addressed to the Chair of the Board of Retirement.

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(d) Termination of MOU

This MOU shall be effective beginning on the date set out on the first page hereof and shall continue in effect unless and until terminated by either party on 30 days written notice to the other. Notice shall be addressed to the Chair of the Board of Supervisors, for the County, and to the Chair of the Board of Retirement, for StanCERA.

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(e) One year review

The County and StanCERA will meet within one year from the effective date of this MOU to review the operations of this MOU and to make such revisions hereto as are mutually agreeable.

(f) Severability

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If any portion of this MOU or application thereof to any person or circumstance shall be declared invalid by a court of competent jurisdiction or if it is found in contravention of any federal, state or county statute, ordinance or regulation the remaining provisions of this MOU or the application thereof shall not be invalidated thereby and shall remain in full force and effect to the extent that the provisions of the MOU are severable.

(g) Preservation of StanCERA Tax Status

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This MOU shall not in any way jeopardize the tax qualified status of StanCERA. To maintain this qualified status, the parties shall take all necessary or appropriate action, including but not limited to amending this MOU, solely for the purpose of complying with applicable federal tax laws and regulations.

IN WITNESS WHEREOF, THIS AMENDED AND RESTATED MEMORANDUM OF UNDERSTANDING -HAS BEEN ENTERED INTO AS OF THE DATE SET FORTH ON THE FIRST PAGE HEREOF.

COUNTY OF STANISLAUS

STANISLAUS COUNTY EMPLOYEES'
RETIREMENT ASSOCIATION

By _____

By _____

Chairman of the Board of
Supervisors

Chairman of StanCERA's Board of Retirement

_____, 201903

_____, 20032019

Reviewed as to Form:

Reviewed as to Form:

~~Michael H. Krausnick~~ Thomas E. Boze
~~Halliday~~ Fred Silva

County Counsel
Attorney for the Board of Supervisors

~~Victoria A.~~

~~Deputy County General Legal~~ Counsel
Attorney for StanCERA

**AMENDED AND RESTATED MEMORANDUM OF UNDERSTANDING
BETWEEN THE COUNTY OF STANISLAUS AND THE STANISLAUS
COUNTY EMPLOYEES' RETIREMENT ASSOCIATION REGARDING THE
STANISLAUS COUNTY REPLACEMENT BENEFITS PLAN**

This Amended and Restated Memorandum of Understanding ("MOU") is entered into by and between the Stanislaus County Employees' Retirement Association ("StanCERA") and Stanislaus County ("County") to be effective beginning on November 1, 2019.

WHEREAS, StanCERA provides retirement benefits to employees of the County of Stanislaus and to participating districts ("Districts"), and

WHEREAS, the amount of benefits that can be provided to StanCERA members is limited by Section 415(b) of the Internal Revenue Code ("section 415(b)" and "Code", respectively), and

WHEREAS, it is the County's responsibility under California vested rights rules to ensure that all retirement benefits that are earned by County employees are in fact paid, and

WHEREAS, the Code also provides that a County can establish a replacement benefits plan to pay the full benefits earned by StanCERA members whose benefits are limited by Section 415(b), and

WHEREAS, such a replacement benefits plan is used by many other entities, in both the private and public sector, to replace benefits limited by section 415(b), and

WHEREAS, it is contemplated by the County Employees Retirement Law ("CERL") that each affected County will take action to replace the benefits that are limited by Section 415(b), and

WHEREAS, StanCERA's actuary has advised StanCERA that there is no net increase in the total cost of retirement benefits to the County of providing such a replacement benefits plan, and

WHEREAS, it would be to the benefit of StanCERA to ensure that all of its members receive the entire retirement benefits which they would earn under StanCERA but for the limits of the Code, and

WHEREAS, the most efficient way for the County to operate a replacement benefits plan is to enter into a memorandum of understanding with StanCERA setting out the responsibilities of the County and StanCERA with respect to such a plan, and

WHEREAS, some Districts located within the County also participate in StanCERA and the most efficient way for Districts to provide replacement benefits is to participate in a replacement benefits plan that is established by the County, sharing the cost thereof, and

WHEREAS, the County has provided to StanCERA the County's Replacement Benefits Plan, a copy of which is attached hereto, and

WHEREAS, the County and StanCERA entered into a memorandum of understanding on September 23, 2003 concerning the efficient operation of the County's Replacement Benefits Plan, and

WHEREAS, the parties desire to reaffirm and clarify their respective roles and responsibilities under the original memorandum of understanding.

NOW, THEREFORE, IN THE MOST EFFICIENT MANNER, THE ORIGINAL MEMORANDUM OF UNDERSTANDING IS HEREBY AMENDED AND RESTATED AND IN CONSIDERATION OF THE MUTUAL PROMISES, COVENANTS, TERMS, AND CONDITIONS HEREINAFTER CONTAINED, THE COUNTY OF STANISLAUS ("County") AND THE STANISLAUS COUNTY EMPLOYEES' RETIREMENT ASSOCIATION ("StanCERA") HEREBY AGREE AS FOLLOWS:

1. Purpose of Agreement

This Amended and Restated Memorandum of Understanding ("MOU") is entered into by the County and StanCERA in order to facilitate the efficient operation by the County of a replacement benefits plan ("Plan") that will provide benefits to retired StanCERA members whose benefits are limited by Section 415(b) of the Internal Revenue Code ("Code").

2. Payment of Replacement Benefits

(a) In accordance with the Plan, the County shall pay to affected retired members of StanCERA, and to their surviving beneficiaries (if any), the difference between the benefits that would be payable from StanCERA without regard to the limits of Section 415(b) of the Code and the benefits that can be paid by StanCERA without violating Section 415(b). These benefits are called "replacement benefits".

(b) The County shall pay replacement benefits from its general assets. No assets of StanCERA shall be used to pay replacement benefits and no assets of StanCERA shall be used to pay the cost of administration or any other costs regarding the operation of the Plan. No assets of StanCERA shall be used to reimburse the County for the payment of replacement benefits.

3. Determination of Amount of Replacement Benefits

- (a) In accordance with its responsibilities under Section 415(b), StanCERA shall determine the amount of benefits for any affected retired member and surviving beneficiaries that would be paid from StanCERA without the limits of Section 415(b), and shall determine the amount of the benefits that can be paid to such persons in accordance with the limits of Section 415(b). The difference between these two amounts (if any) is the amount of replacement benefits payable by the County under the Plan.
- (b) StanCERA shall make this determination for the first year that the benefits of any affected retired member or surviving beneficiary are limited by Section 415(b) and for each relevant year thereafter. Said annual determination is necessary since both the amount of the limits and the amount of StanCERA's benefits may change annually.
- (c) To the extent that the amount of benefits that are limited by Section 415(b) change during the year, and in accordance with its responsibilities under Section 415(b), StanCERA shall recalculate the benefits payable by the County under the Plan.
- (d) In accordance with the Plan document, the County shall rely on the calculations by StanCERA set out in paragraphs (a), (b), and (c) of this section for purposes of determining the replacement benefits payable under the Plan.
- (e) As provided in Section 4 of this MOU, StanCERA shall communicate to the County the information determined under this Section 3.

4. Communications Between the County and StanCERA

- (a) StanCERA shall communicate to the County, in writing and as soon as reasonably practicable, all information known to StanCERA that is necessary or appropriate for the efficient administration of the Plan. This communication includes but is not limited to the following: the names and identifying numbers of the retired members and surviving beneficiaries whose benefits are limited in any year; the amounts of their replacement benefits (if any) and the calculations that support these amounts; the date as of which the replacement benefits will become payable during each year (if any); the amount by which the replacement benefits change during the year (if at all); and the date that any replacement benefits must cease (for example, on the death of the retired member). The County shall keep confidential all information received from StanCERA for the purpose of administering the Plan, to the extent permitted by law.
- (b) The County shall communicate to StanCERA, in writing and as soon as reasonably practicable, all information that is necessary or appropriate for the efficient administration of the Plan. This communication includes but is not limited to the following: the names and identifying numbers of the Plan participants and eligible surviving beneficiaries who are paid replacement benefits; the amount of such payments; and the dates on which such payments occurred during the year.

5. Communications With Members

(a) StanCERA shall inform members, generally, that if their StanCERA benefits are limited by Section 415(b), the limited benefits will be replaced by the County in accordance with the Plan.

(b) In accordance with its responsibilities under Section 415(b), StanCERA shall be responsible for testing member benefits with respect to the Section 415(b) limits and if the benefits of a member or surviving beneficiary are limited by Section 415(b), StanCERA will so inform the affected individual in writing, and will inform him or her about the Plan and generally how it works.

(c) Upon receiving the needed information from StanCERA with respect to the amounts and timing of payment of replacement benefits, the County shall inform each affected individual about how the Plan works with respect to him or her, including the amounts that will be paid under the Plan for the particular year, the timing of such payments, any tax withholding elections available and all other information that is necessary or appropriate for operation of the Plan.

6. Districts

The Plan provides that Districts that participate in StanCERA may participate in the Plan, upon meeting the terms and conditions thereof. In such a case, the County will administer the Plan on behalf of and as agent of the District. For purposes of replacement benefit determinations, StanCERA shall treat retired District members (and their surviving beneficiaries) who participate in the Plan in the same manner as if they had been County employees under this MOU.

7. Reconciliation of Amounts

(a) Reconciliation of payments between StanCERA and the County

The County and StanCERA shall take all reasonable steps to reconcile, after the end of each year, the amounts of replacement benefits that have been identified as payable under the Plan by StanCERA and the amounts of replacement benefits that have actually been paid. In the event that the Plan has paid benefits which StanCERA determines should have been paid by StanCERA within the limits of section 415(b), StanCERA shall reimburse the County (or district, if applicable) for the payment of such benefits under the Plan. In the event that StanCERA has paid benefits which StanCERA determines should have been paid under the Plan, the Plan shall reimburse StanCERA for the payments of such benefits by StanCERA.

(b) Underpayments or overpayments to Plan Participants

Underpayments or overpayments to Plan Participants and beneficiaries shall be corrected by the County in accordance with the Plan or as required by law. It shall be the

County's responsibility to collect any such overpayments and to pay any such underpayments. The County shall not seek any recourse against StanCERA relating to such overpayments or underpayments except to the extent that StanCERA is required to reimburse the County as provided in section 7(a) above.

8. Tax Reporting

StanCERA and the County shall be separately responsible for their required reporting to the tax authorities, and neither shall be responsible for the other's reporting.

9. Indemnification and Hold Harmless

Each party to this MOU shall indemnify and hold the other harmless for any costs, damages, or other liabilities incurred hereunder on account of its own negligence or willful misconduct.

10. Miscellaneous

(a) Integration

This MOU and the documents referenced herein constitute the entire agreement of the parties with respect to the subject matter hereof and supercede all prior agreements and understandings, both written and oral.

(b) Amendment to MOU

This MOU may only be amended pursuant to a written agreement executed by both parties hereto.

(c) Notice of Amendment to Plan

The County will provide 30 days' written notice to StanCERA of any proposed revision to the Plan. Notice shall be addressed to the Chair of the Board of Retirement.

(d) Termination of MOU

This MOU shall be effective beginning on the date set out on the first page hereof and shall continue in effect unless and until terminated by either party on 30 days written notice to the other. Notice shall be addressed to the Chair of the Board of Supervisors, for the County, and to the Chair of the Board of Retirement, for StanCERA.

(e) One year review

The County and StanCERA will meet within one year from the effective date of this MOU to review the operations of this MOU and to make such revisions hereto as are mutually agreeable.

(f) Severability

If any portion of this MOU or application thereof to any person or circumstance shall be declared invalid by a court of competent jurisdiction or if it is found in contravention of any federal, state or county statute, ordinance or regulation the remaining provisions of this MOU or the application thereof shall not be invalidated thereby and shall remain in full force and effect to the extent that the provisions of the MOU are severable.

(g) Preservation of StanCERA Tax Status

This MOU shall not in any way jeopardize the tax qualified status of StanCERA. To maintain this qualified status, the parties shall take all necessary or appropriate action, including but not limited to amending this MOU, solely for the purpose of complying with applicable federal tax laws and regulations.

IN WITNESS WHEREOF, THIS AMENDED AND RESTATED MEMORANDUM OF UNDERSTANDING HAS BEEN ENTERED INTO AS OF THE DATE SET FORTH ON THE FIRST PAGE HEREOF.

COUNTY OF STANISLAUS

STANISLAUS COUNTY EMPLOYEES'
RETIREMENT ASSOCIATION

By_____

By_____

Chairman of the Board of
Supervisors

Chairman of StanCERA's Board of Retirement

_____, 2019

_____, 2019

Reviewed as to Form:

Reviewed as to Form:

Thomas E. Boze
County Counsel
Attorney for the Board of Supervisors

Fred Silva
General Legal Counsel
Attorney for StanCERA



November 26, 2019

Retirement Board Agenda Item

TO: Retirement Board

FROM: Mandip Dhillon, Internal Governance Chair

- I. SUBJECT: Internal Governance Committee - Receipt of the Comprehensive Annual Financial Report for the Fiscal Years ended June 30, 2019 and 2018
- II. ITEM NUMBER: 10.a.1
- III. ITEM TYPE: Discussion and Action
- IV. STAFF RECOMMENDATION: Accept Committee's Recommendation for Receipt of the Comprehensive Annual Financial Report (Attachment 1)
- V. ANALYSIS: The Internal Governance Committee met November 19, 2019 with internal staff and a partner and the auditors from the Brown Armstrong Accountancy Corporation. Brown Armstrong performed its audit in accordance with generally accepted auditing standards. Brown Armstrong did not provide any opinion regarding internal controls, however, it was noted that no internal control weaknesses were found. StanCERA received an unqualified opinion that the basic financial statements (beginning on page 20) present fairly the financial position of StanCERA in accordance with generally accepted accounting principles.

In the management comments, there were no material weaknesses or deficiencies found for FY 2019-2018. There was an agreed upon condition regarding methodology and reconciliation of the value of alternative investments from the prior year which was adjusted by StanCERA, however, it was suggested that StanCERA work with the custodial bank regarding using the same recording process. StanCERA management concurs with this suggestion.
- VI. RISK: None
- VII. STRATEGIC PLAN: Strategic Objective IV: Refine StanCERA's business and policy practices in ways that enhance stakeholder awareness, the delivery of member services and the ability of the Organization to administer the System effectively and efficiently.
- VIII. ADMINISTRATIVE BUDGET IMPACT: None

Natalie Davis, Fiscal Services Manager

Rick Santos, Executive Director

Comprehensive Annual Financial Report

For the Fiscal Years Ended

June 30, 2019 and 2018



Stanislaus County Employees' Retirement Association

(Pension Trust Fund of the County of Stanislaus)

Stanislaus, California

Stanislaus County Employees' Retirement Association

(Pension Trust Fund of the County of Stanislaus, California)

Comprehensive Annual Financial Report

**For the Years Ended
June 30, 2019 and 2018**

Issued By

**Rick Santos, CFA, ASA, MAAA
Executive Director**

**StanCERA
Staff**

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StanCERA secures and manages investment funds to provide benefits to its members.

Ensuring tomorrow's benefits through prudent management.

INTRODUCTION SECTION





LETTER OF TRANSMITTAL

November 13, 2019

Stanislaus County Employees' Retirement Association
Modesto, CA 95354

Dear Board Members:

Please find enclosed the Comprehensive Annual Financial Report (CAFR) of the Stanislaus County Employees' Retirement Association (StanCERA or the Plan) for the fiscal years ended June 30, 2019 and 2018. As of June 30, 2019, it is StanCERA's 71th year of operations.

The CAFR is a detailed financial report established by the Government Finance Officers Association (GFOA) for publicly disclosing the viability of a defined benefit public retirement system. The CAFR is intended to provide users with extensive reliable information for making management decisions, determining compliance with legal provisions, and demonstrates the responsible management and stewardship of StanCERA. StanCERA management is responsible for both the accuracy of the data and the completeness and fairness of the presentation of financial information within this CAFR, including all disclosures.

StanCERA is a multiple employer public employees' retirement system, established by Stanislaus County on July 1, 1948. StanCERA is operated and administered by the Board of Retirement (the Board) to provide retirement, disability, death and survivor benefits for its members under the California State Government Code, Section 31450 et seq. known as the County Employees Retirement Law of 1937 (CERL) and the Public Employees' Pension Reform Act (PEPRA).

StanCERA and Its Services

StanCERA was established by Stanislaus County to provide retirement allowances and other benefits to general and safety members employed by Stanislaus County. Currently, Stanislaus County and seven participating agencies are members of StanCERA. The participating agencies are:

City of Ceres
Stanislaus Council of Governments
Stanislaus County Superior Court
East Side Mosquito Abatement District
Hills Ferry Cemetery District
Keyes Community Services District
Salida Sanitary District

StanCERA and Its Services (continued)

StanCERA is governed by the California Constitution; the County Employees Retirement Law of 1937 (CERL); Public Employees' Pension Reform Act; and the bylaws, regulations, policies, and procedures adopted by the Board of Retirement. The Stanislaus County Board of Supervisors may also adopt resolutions, as permitted by the CERL, which may affect benefits to Stanislaus County members.

The Board of Retirement is responsible for the management of StanCERA and is comprised of nine members and two alternate members, one of whom is a safety alternate and the other a retiree alternate. The safety alternate seat is not currently filled. Four members are appointed by the Stanislaus County Board of Supervisors, one member and the alternate safety member are elected by the safety members, two members are elected by the general members, while the retiree and alternate retiree members are elected by the retired members. The Stanislaus County Treasurer serves as an ex-officio member. Members, with the exception of the Stanislaus County Treasurer, serve three-year terms with no term limits.

Financial Information

The accompanying financial statements are prepared using the accrual basis of accounting. Contributions from employers and members are recognized when received or when due pursuant to legal requirements. Benefits are recognized when due and payable in accordance with the terms of the plan. Expenses are recorded when corresponding liabilities are incurred regardless of when payment is due or made. Investments are recorded at the fair value of the asset.

An overview of StanCERA's fiscal operations for the years ended June 30, 2019 and 2018, is presented in the Management's Discussion and Analysis (MD&A) located in the financial section of the CAFR. This transmittal letter, together with the MD&A, provides an expanded view of the activities of StanCERA.

Brown Armstrong Accountancy Corporation, StanCERA's independent auditor, has audited the accompanying financial statements. Management believes an adequate system of internal controls is in place and the accompanying statements, schedules, and tables are fairly presented and free from material misstatement. The concept of reasonable assurance recognizes that first, the cost of a control should not exceed the benefits likely to be derived, and that second, the valuation of the cost and benefits requires estimates and judgments by management.

Internal controls over financial reporting cannot provide absolute assurance of achieving financial reporting objectives because of its inherent limitations. Internal controls over financial reporting are processes that involve human diligence and compliance and are subject to lapses in judgment and breakdowns resulting from human failures. Internal controls over financial reporting also can be circumvented by collusion or improper management override. Because of such limitations, there is a risk that material misstatements may not be prevented or detected within a timely basis by internal controls over financial reporting. However, these inherent limitations are known features of the financial reporting process. Therefore, it is possible to design safeguards into the process to reduce, but not eliminate, this risk.

Net Pension Liability and Actuarial Funding

StanCERA's funding objective is to meet long-term benefit obligations by maintaining a well-funded plan status and obtaining optimum investment returns. Pursuant to the CERL, StanCERA engages an independent actuary to perform an actuarial valuation of the Plan on an annual basis. Economic assumptions are normally reviewed every three years. Additionally, every three years, a triennial experience study is conducted, at which time non-economic assumptions are also updated. The most recent triennial experience study was conducted as of June 30, 2018 by Cheiron, Inc. Cheiron, Inc. conducted the last actuarial valuation as of June 30, 2018, the results of which were rolled forward to StanCERA's fiscal year ended June 30, 2019, and determined the Plan's funding ratio (ratio of fair value of assets to net pension liability) to be 76.7% using the recommended assumptions.

Investments

The Board of Retirement has exclusive control of all StanCERA investments and is responsible for establishing investment objectives, strategies, and policies. The California Constitution and Government Code Sections 31594 and 31595 authorize the Board of Retirement to invest in any investment deemed prudent in the Board's informed opinion.

The Board has adopted an Investment Policy, which provides a framework for the management of StanCERA's investments. This policy establishes StanCERA's investment objectives and defines the duties of the Board of Retirement, investment managers, and custodial bank. The asset allocation is an integral part of the Investment Policy and is designed to provide an optimum mix of asset classes with return expectations to ensure growth of assets to meet future liabilities, minimize employer contributions, and defray reasonable administrative costs. StanCERA engages an Investment Consultant to analyze the investment policy and strategy and to conduct periodic asset allocation and asset/liability studies on behalf of StanCERA. For the fiscal years ended June 30, 2019 and 2018, the Plan's investments provided a 5.1% and 8.1% rate of return, respectively. A summary of the asset allocation can be found in the Investment Section of this report.

Awards

StanCERA is the recipient of several awards. The Government Finance Officers Association of the United States and Canada (GFOA) awarded a Certificate of Achievement for Excellence in Financial Reporting to StanCERA for its Comprehensive Annual Financial Report (CAFR) for the year ended June 30, 2018. The Certificate of Achievement is a prestigious national award recognizing conformance with the highest standards for preparation of state and local government financial reports. This was the fourteenth consecutive year StanCERA has achieved this prestigious award.

In order to be awarded a Certificate of Achievement, a government unit must publish an easily readable and efficiently organized Comprehensive Annual Financial Report (CAFR), the contents of which meet or exceed program standards. The CAFR must satisfy both generally accepted accounting principles and applicable legal requirements.

Awards (continued)

A Certificate of Achievement is valid for a period of one year only. We believe our current report continues to conform to the Certificate of Achievement program requirements, and we are submitting it to the GFOA for evaluation.

StanCERA received the Award for Outstanding Achievement in Popular Annual Financial Reporting for the fiscal year ended June 30, 2018. This report provides all StanCERA members more concise and condensed information than can be found in the CAFR.

StanCERA also received the Public Pension Coordinating Council's Public Pension Standards 2018 Award, in recognition of meeting professional standards for plan design and administration as set forth in the Public Pension Standards.

The Public Pension Coordinating Council (PPCC) is a coalition of the following associations that represent public pension funds that cover the vast majority of public employees in the U.S.:

- National Association of State Retirement Administrators (NASRA)
- National Council on Teacher Retirement (NCTR)
- National Conference on Public Employee Retirement Systems (NCPERS)

The Public Pension Standards are intended to reflect minimum expectations for public retirement systems management and administration, and serve as a benchmark by which all defined benefit public plans should be measured.

Service Efforts and Accomplishments

Written communication for members continues to be a focus for StanCERA. Non retired members receive statements twice a year. Retirees receive printed advice notices with critical information monthly and to communicate the financial health of the fund, an easy-to-read Popular Annual Financial Report (PAFR) is distributed to all members annually.

StanCERA sponsors a one half day pre-retirement seminar to potential retirees annually, participates in the Stanislaus County new employee orientation workshop and continues to provide group educational programs at the work site for interested employees.

In addition, StanCERA continues to increase its website presence. Audio recordings of education seminars and Board meetings are available. Meeting agendas and minutes are posted timely. Policies, by-laws, member services and forms can be easily identified and downloaded. Members continue to visit the contribution and benefit calculators regularly.

Acknowledgement

The compilation of this report reflects the combined efforts of many people on StanCERA's staff. It is intended to provide reliable information as the basis for making management decisions, as a means for determining compliance with legal provisions, and as a means of determining responsible stewardship of the funds of StanCERA. Both the accuracy of the data presented and the completeness and fairness of the presentation of the CAFR are the responsibility of the management of StanCERA.

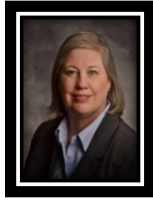
I congratulate the Board, staff and service providers of StanCERA for their commitment and for their diligent work to ensure the continued successful operation of StanCERA.

Sincerely,



Rick Santos, CFA, ASA, MAAA
Executive Director

**BOARD OF RETIREMENT
JUNE 30, 2019**



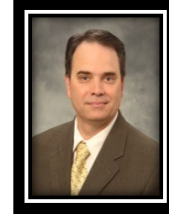
Seat # 1
Donna Riley
Ex-Officio, Treasurer/Tax Collector



Seat # 2
Mandip Dhillon
Trustee, Elected by Active General Membership



Seat # 3
Jeff Mangar
Trustee, Elected by Active General Membership



Seat # 4
Darin Gharat
Trustee, Appointed by the Board of Supervisors



Seat # 5
Mike Lynch
Trustee, Appointed by the Board of Supervisors



Seat # 6
Jim DeMartini
Chair, Appointed by the Board of Supervisors



Seat # 7
Sam Sharpe
Vice Chair, Elected by Active Safety Membership

Seat # 7a
Vacant

Alternate Trustee, Elected by Active Safety Membership



Seat # 8
Michael O'Neal
Trustee, Elected by Retired Membership



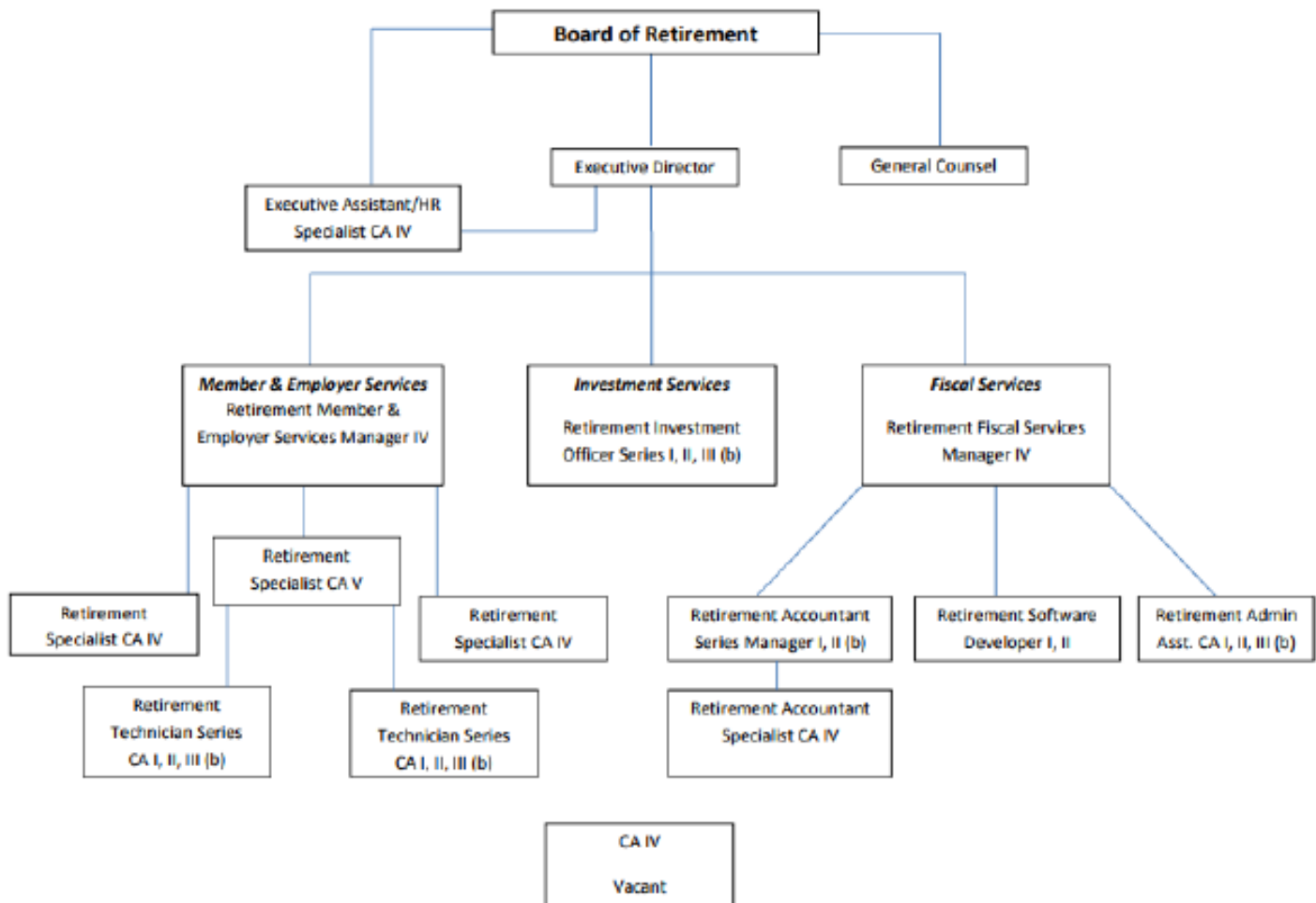
Seat # 8a
Rhonda Biesemeier
Alternate Trustee, Elected by Retired Membership



Seat # 9
Jeff Grover
Trustee, Appointed by the Board of Supervisors

StanCERA ORGANIZATIONAL CHART

Effective 2016



* Retirement Board utilizes private general legal counsel for administrative legal services. Private attorneys provide legal assistance for disability retirement applications.

PROFESSIONAL CONSULTANTS
JUNE 30, 2019

Consulting Services

Actuary

Cheiron, Inc.

Auditors

Brown Armstrong Accountancy Corporation

Investment Custodian

Northern Trust

Investment Consultant

Verus, Inc.

Legal Counsel

Damrell Nelson Schrimp Pallios

Pacher & Silva (General Legal Counsel)

Law Office of Ted M Cabral

Hansen Bridgett LLP

Reed Smith LLP

Technical & Data Services

Tyler, Inc.

SBT, County of Stanislaus

Investment Management Services*

Fixed Income

Insight

Dimensional Fund Advisors

Northern Trust Intermediate Bond

Northern Trust Long Term Bond

Large Cap Value Equity

Dodge & Cox

BlackRock R1000 Value

Large Cap Growth Equity

BlackRock R1000 Growth

Northern Trust Russell 1000

Small Cap Value Equity

Capital Prospects

International Equity

LSV Asset Management (Value)

Fidelity Asset Management (Growth)

Real Estate Securities

Black Rock US Real Estate Index

Private Credit

Medley Opportunity

Raven Capital Management, LLC

White Oak Global Advisors, LLC

Private Real Estate

American Realty Advisors

Greenfield Acquisition Partners

Morgan Stanley Prime Property

PGIM Real Estate U.S. Debt

Infrastructure

North Haven Partners II LP

Risk Parity

AQR

PanAgora

*Refer to the Investment Section for the Schedule of Investment Management Fees (Page 59) and Schedule of Commissions Paid (Page 60).



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Achievement
for Excellence
in Financial
Reporting**

Presented to

**Stanislaus County
Employees' Retirement Association
California**

For its Comprehensive Annual
Financial Report
for the Fiscal Year Ended

June 30, 2018

Christopher P. Morill

Executive Director/CEO



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For its Annual
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for the Fiscal Year Ended

June 30, 2018

Christopher P. Morill

Executive Director/CEO



Public Pension Coordinating Council

***Public Pension Standards Award
For Funding and Administration
2018***

Presented to

Stanislaus County Employees' Retirement Association

In recognition of meeting professional standards for
plan funding and administration as
set forth in the Public Pension Standards.

Presented by the Public Pension Coordinating Council, a confederation of

National Association of State Retirement Administrators (NASRA)
National Conference on Public Employee Retirement Systems (NCPERS)
National Council on Teacher Retirement (NCTR)

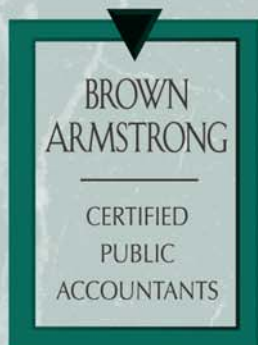
A handwritten signature in dark ink, reading 'Alan H. Winkle'. The signature is fluid and cursive, with the first name 'Alan' being more prominent than the last name 'Winkle'.

Alan H. Winkle
Program Administrator

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FINANCIAL SECTION





BROWN ARMSTRONG

Certified Public Accountants

INDEPENDENT AUDITOR'S REPORT

To the Board of Retirement and Internal Governance Committee of
Stanislaus County Employees' Retirement Association
Modesto, California

Report on the Basic Financial Statements

We have audited the accompanying Statements of Fiduciary Net Position of the Stanislaus County Employees' Retirement Association (StanCERA) as of June 30, 2019 and 2018, the related Statements of Changes in Fiduciary Net Position for the fiscal years then ended, and the related notes to the financial statements, which collectively comprise StanCERA's basic financial statements as listed in the table of contents.

Management's Responsibility for the Basic Financial Statements

Management is responsible for the preparation and fair presentation of these basic financial statements in accordance with accounting principles generally accepted in the United States of America; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of basic financial statements that are free from material misstatement, whether due to fraud or error.

Auditor's Responsibility

Our responsibility is to express an opinion on these financial statements based on our audits. We conducted our audits in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States. Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the basic financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the basic financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the basic financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to StanCERA's preparation and fair presentation of the basic financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of StanCERA's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the basic financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

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Opinion

In our opinion, the basic financial statements referred to above present fairly, in all material respects, the fiduciary net position of StanCERA as of June 30, 2019 and 2018, and the changes in fiduciary net position for the fiscal years then ended in accordance with accounting principles generally accepted in the United States of America.

Other Matters

Required Supplementary Information

Accounting principles generally accepted in the United States of America require that the management's discussion and analysis and required supplementary information (RSI), as listed in the table of contents be presented to supplement the basic financial statements. Such information, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board, who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the management's discussion and analysis and RSI in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

Other Information

Our audit was conducted for the purpose of forming an opinion on the financial statements that collectively comprise StanCERA's basic financial statements. The other supplemental information and the introductory, investment, actuarial, and statistical sections, as listed in the table of contents, are presented for purposes of additional analysis and are not a required part of the basic financial statements.

The other supplemental information is the responsibility of management and was derived from and relates directly to the underlying accounting and other records used to prepare the basic financial statements. Such information has been subjected to the auditing procedures applied in the audit of the basic financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the basic financial statements or to the basic financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America. In our opinion, the other supplemental information is fairly stated, in all material respects, in relation to the basic financial statements as a whole.

The introductory, investment, actuarial, and statistical sections have not been subjected to the auditing procedures applied in the audit of the basic financial statements and, accordingly, we do not express an opinion or provide any assurance on them.

Other Reporting Required by Government Auditing Standards

In accordance with *Government Auditing Standards*, we have also issued our report dated November 13, 2019, on our consideration of StanCERA's internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts, agreements, and other matters. The purpose of that report is to describe the scope of our testing of internal control over financial reporting and compliance and the results of that testing, and not to provide an opinion on the internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering StanCERA's internal control over financial reporting and compliance.

Bakersfield, California
November 13, 2019

BROWN ARMSTRONG
ACCOUNTANCY CORPORATION

Brown Armstrong
Accountancy Corporation

MANAGEMENT'S DISCUSSION AND ANALYSIS

This discussion and analysis of the Stanislaus County Employees' Retirement Association's (StanCERA or the Plan) financial performance provides an overview of the financial activities and funding conditions for the fiscal years ended June 30, 2019 and 2018. Please review information presented here in conjunction with the Letter of Transmittal and additional information provided.

Financial Highlights

- Fiduciary Net Position increased by \$81.3 million (or 3.8%) during fiscal year 2019 as a result of the fiscal year's activities.
- Contributions (employer and member), in total, increased by \$12.6 million (or 12.2%) during fiscal year 2019.
- Net investment income (including Net Appreciation in Fair Value of Investments) decreased by \$55.7 million (or 36.1%) during fiscal year 2019.
- Benefit payments increased by \$8.0 million (or 6.6%) during fiscal year 2019 from the prior fiscal year.

Plan Highlights

- Benefit plans for Tiers 2 and 3 were closed to new hires and Tiers 4 and 5 were adopted effective March 9, 2002 to provide retirement formulas commonly known as 2% at age 55 for active general members, and 3% at age 50 for active safety members. One district did not implement the new benefit plans. Members in the non-contributory Tier 3 were allowed to transfer into a contributory plan. Effective January 1, 2011, Tier 5 was closed and Tier 2 was re-opened for all new hires for Stanislaus County with the reduced benefit formulas of 2% at age 61 for most general members and 2% at 50 for safety members. Tier 2 was closed and Tier 6 was adopted effective January 1, 2013 for all new hires and provides 2% at 62 for general members and 2.7% at age 57 for safety members.
- In April of 2019 and 2018, a 3.0% cost-of-living increase was given to all retired, disabled, and beneficiary members receiving a recurring allowance except those retirees who received pensions for service as a Tier 3 non-contributory member.

Using the Annual Report

The financial statements reflect the activities of the Stanislaus County Employees' Retirement Association and are composed of the Statements of Fiduciary Net Position and the Statements of Changes in Fiduciary Net Position. These statements are presented on an accrual basis of accounting and reflect all trust activities as incurred.

Overview of the Basic Financial Statements

This Management's Discussion and Analysis is intended to serve as an introduction to StanCERA's basic financial statements, which are comprised of the following three components:

1. Statements of Fiduciary Net Position
2. Statements of Changes in Fiduciary Net Position
3. Notes to the Basic Financial Statements

StanCERA's basic financial statements and the note disclosures to the basic financial statements are in compliance with accounting principles generally accepted for governments (GAAP) within the United States as established by the Governmental Accounting Standards Board.

Financial Analysis

Statements of Fiduciary Net Position

The Statements of Fiduciary Net Position show the assets available for future payments to retirees and liabilities as of the fiscal year end. The following condensed comparative summary of Fiduciary Net Position demonstrates that the pension trust is primarily focused on the cash and investments and the restricted net position. This statement is also a good indicator of the financial strength of StanCERA.

Fiduciary Net Position, as of
June 30, 2019, 2018, and 2017

	2019	2018	2017	\$ Change 2019-2018	\$ Change 2018-2017
Current Assets	\$ 70,667,938	\$ 238,347,078	\$ 166,714,182	\$ (167,679,140)	\$ 71,632,896
Investments	2,290,474,786	2,012,777,600	2,062,347,484	277,697,186	(49,569,884)
Capital Assets	6,609,873	5,326,791	3,910,685	1,283,082	1,416,106
Total Assets	2,367,752,597	2,256,451,469	2,232,972,351	111,301,128	23,479,118
Total Liabilities	159,511,165	129,490,724	238,749,040	30,020,441	(109,258,316)
<i>Total Fiduciary Net Position Restricted for Pension Benefits</i>	<u>\$2,208,241,432</u>	<u>\$2,126,960,745</u>	<u>\$ 1,994,223,311</u>	<u>\$ 81,280,687</u>	<u>\$ 132,737,434</u>

Financial Analysis (continued)

Statements of Changes in Fiduciary Net Position

The Statements of Changes in Fiduciary Net Position provide an account of the fiscal years' additions to and deductions from Fiduciary Net Position.

Additions To Fiduciary Net Position
For The Fiscal Years Ended
June 30, 2019, 2018, and 2017

	2019	2018	2017	\$ Change 2019-2018	\$ Change 2018-2017
Employer Contributions	\$ 88,589,381	\$ 76,966,471	\$ 63,024,560	\$ 11,622,910	\$ 13,941,911
Plan Member Contributions	27,742,863	26,746,289	25,463,745	996,574	1,282,544
Net Investment Income (Loss)	99,280,525	154,988,199	252,309,705	(55,707,674)	(97,321,506)
<i>Total Additions</i>	<u>\$ 215,612,769</u>	<u>\$ 258,700,959</u>	<u>\$ 340,798,010</u>	<u>\$ (43,088,190)</u>	<u>\$ (82,097,051)</u>

Deductions From Fiduciary Net Position
For The Fiscal Years Ended
June 30, 2019, 2018, and 2017

Benefit Payments	\$ 129,100,668	\$ 121,138,269	\$ 114,290,758	\$ 7,962,399	\$ 6,847,511
Member Refunds - Termination	1,826,145	1,905,488	2,297,328	(79,343)	(391,840)
Member Refunds/Payouts - Death	847,878	128,359	255,772	719,519	(127,413)
Administrative Expenses	2,557,391	2,791,409	2,644,554	(234,018)	146,855
<i>Total Deductions</i>	<u>\$ 134,332,082</u>	<u>\$ 125,963,525</u>	<u>\$ 119,488,412</u>	<u>\$ 8,368,557</u>	<u>\$ 6,475,113</u>

Increase/(Decrease) in Fiduciary Net
Position Restricted for
Pension Benefits

	\$ 81,280,687	\$ 132,737,434	\$ 221,309,598	\$ (51,456,747)	\$ (88,572,164)
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Fiduciary Net Position Restricted
for Pension Benefits

Beginning of Year	2,126,960,745	1,994,223,311	1,772,913,713	132,737,434	221,309,598
End of Year	<u>\$2,208,241,432</u>	<u>\$2,126,960,745</u>	<u>\$1,994,223,311</u>	<u>\$ 81,280,687</u>	<u>\$ 132,737,434</u>

Additions to Fiduciary Net Position

A review of the Statement of Fiduciary Net Position shows that June 30, 2019 closed with assets exceeding liabilities by \$2.208 billion with all of the Fiduciary Net Position restricted for StanCERA's ongoing obligations to plan participants and their beneficiaries. The fiscal year ended June 30, 2018, closed with assets exceeding liabilities by \$2.127 billion. The \$81.3 million increase and \$132.7 million increase, respectively, in Fiduciary Net Position is a direct result of the changes in the financial market over the past two years. StanCERA remains in good financial condition.

Financial Analysis (continued)

Additions to Fiduciary Net Position (continued)

The primary sources to finance the benefits StanCERA provides are accumulated through return on investments and through the collection of member and employer contributions. The total for these income sources for fiscal year 2018-2019 resulted in a decrease of \$43.1 million, where fiscal year 2017-2018 resulted in a decrease of \$82.1 million. The decrease is primarily a result of the activity in the broad market, as discussed in the Investment Analysis below. Employer and member contributions increased by \$12.6 million (or 12.2%) from the contributions made in 2017-2018. Employer contribution increases in 2019 and 2018 are due mainly to a three-year phase in of the impact of changes to the economic and demographic assumptions first adopted for the June 30, 2015 actuarial valuation.

Deductions from Fiduciary Net Position

The primary uses of StanCERA's assets are the payment of benefits to retirees and their beneficiaries, refunds of contributions to terminated employees, and the costs of administering the Plan. These expenses for fiscal year 2018-2019 were \$134.3 million, an increase of \$8.4 million from prior year. This increase is mainly due to the increase in the number of retirees and the average amount that they are paid as well as acquiring a new pension system. For fiscal year 2017-2018, the expenses were \$126.0 million, an increase of \$6.5 million from prior year due to the increase in the number of retirees and the average amount they are paid. For fiscal year 2018-2019, administrative expense decreased by 8.4% from fiscal year 2017-2018. Total administrative expense represented 0.0828% of the accrued actuarial liability (funding basis) for fiscal year 2018-2019 and 0.1000% for fiscal year 2017-2018.

Overall Financial Condition

Investment Analysis

StanCERA's investment activity is a function of the underlying marketplace for the period measured and the investment policy's asset allocation.

Domestic equity returns for the fiscal year ended June 30, 2019 outperformed their benchmark by 30 basis points and international equity underperformed the benchmark by 260 basis points. Domestic equity returns for the fiscal year ended June 30, 2018 underperformed their benchmark by 110 basis points and international equity underperformed the benchmark by 160 basis points.

StanCERA's fixed income returns underperformed their benchmark by 140 basis points for the fiscal year ended June 30, 2019. For the fiscal year ended June 30, 2018, the Plan's fixed income returns outperformed their benchmark by 60 basis points.

For the fiscal year ended June 30, 2019, StanCERA's total portfolio underperformed its policy benchmark by 80 basis points with an overall return of 5.1%. For the fiscal year ended June 30, 2018, StanCERA's total portfolio outperformed its policy benchmark by 60 basis points with an overall return of 8.1%. Management believes the Plan remains in a very strong financial position to meet its obligations to the Plan participants and beneficiaries.

Overall Financial Condition (continued)

Net Pension Liability

The primary concern to most pension plan participants is the amount of resources available to pay benefits. Historically, pension plans have been under-funded when the employer fails to make actuarially determined contributions. All StanCERA employers have traditionally contributed the actuarially determined contribution as determined by the Plan's actuary.

An indicator of funding status is the ratio of the Fiduciary Net Position to the Total Pension Liability (TPL). An increase in the percentage over time usually indicates a plan is becoming financially stronger; however, a decrease will not necessarily indicate a plan is in financial decline. Changes in actuarial assumptions can significantly impact the Net Pension Liability (NPL). Performance in the stock and bond markets can have a material impact on the fair value of assets and Fiduciary Net Position.

The Net Pension Liability (NPL) as of June 30, 2018, rolled forward to StanCERA's fiscal year ended June 30, 2019, was \$660.2 million using the entry age normal cost method. The Board of Retirement approves the assumptions used by the actuary to perform their calculation. As of the most recent actuarial valuation dated June 30, 2018, rolled forward to June 30, 2019, StanCERA's Fiduciary Net Position was 77.0% of the total pension liability. The next actuarial valuation is scheduled for June 30, 2019 to be rolled forward to fiscal year ended June 30, 2020.

StanCERA's Fiduciary Responsibilities

StanCERA's Board of Retirement and management staff are fiduciaries of the pension trust fund. Under the California Constitution, the Fiduciary Net Position can only be used for the exclusive benefit of plan participants and their beneficiaries.

Requests for Information

This financial report is designed to provide the Board of Retirement, plan participants, taxpayers, investment professionals and creditors with a general overview of StanCERA's financial condition and to demonstrate StanCERA's accountability for the funds under its stewardship.

Questions concerning any of the information provided in this report or requests for additional financial information should be addressed to:

Rick Santos, CFA, ASA, MAAA
Executive Director
Stanislaus County Employees' Retirement Association
832 12th Street, Suite 600
Modesto, CA 95354

STANISLAUS COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
STATEMENTS OF FIDUCIARY NET POSITION
As of June 30, 2019 and 2018

	<u>June 30, 2019</u>	<u>June 30, 2018</u>
ASSETS		
Cash and Cash Equivalents (Note 4):	\$ 56,243,082	\$ 195,650,852
Receivables:		
Interest and Dividends	6,791,291	5,372,554
Securities Transactions	877,077	31,398,072
Contributions (Note 3)	6,666,983	5,897,011
Total Receivables	<u>14,335,351</u>	<u>42,667,637</u>
Prepaid Insurance	89,504	28,589
Capital Assets (Note 2):	6,609,873	5,326,791
Investments at Fair Value (Note 4):		
U.S. Government and Agency Obligations	128,247,054	67,691,981
Corporate Bonds	231,402,588	163,597,930
Emerging Market / Non-US Bonds	120,066,422	104,365,150
Domestic Equity	149,746,709	187,088,783
Domestic Equity Index Fund	280,245,220	355,389,874
International Equity	553,218,608	432,304,594
Real Estate Securities	37,095,763	128,978,153
Private Credit	95,094,309	94,881,719
Private Real Estate	197,966,376	79,771,614
Infrastructure	43,388,166	30,177,146
Risk Parity	309,627,036	283,242,444
Securities Lending Collateral	144,376,536	85,288,212
Total Investments	<u>2,290,474,787</u>	<u>2,012,777,600</u>
Total Assets	<u>2,367,752,597</u>	<u>2,256,451,469</u>
LIABILITIES		
Current Liabilities:		
Accounts Payable	12,596,100	12,052,811
Securities Transactions	2,143,529	31,754,701
Securities Lending Obligation (Note 4)	144,376,536	85,288,212
Total Current Liabilities	<u>159,116,165</u>	<u>129,095,724</u>
Long-Term Liabilities:		
Grant Deed Extension Fee	<u>395,000</u>	<u>395,000</u>
Total Liabilities	<u>159,511,165</u>	<u>129,490,724</u>
Fiduciary Net Position Restricted For Pension Benefits (Note 6)	<u>\$ 2,208,241,432</u>	<u>\$ 2,126,960,745</u>

The accompanying notes are an integral part of these financial statements.

STANISLAUS COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
STATEMENTS OF CHANGES IN FIDUCIARY NET POSITION
For the Fiscal Years Ended June 30, 2019 and 2018

	<u>June 30, 2019</u>	<u>June 30, 2018</u>
ADDITIONS		
Contributions (Note 5):		
Employer	\$ 88,589,381	\$ 76,966,471
Plan Members	27,742,863	26,746,289
Total Contributions	<u>116,332,244</u>	<u>103,712,760</u>
Investment Income:		
Net Appreciation in Fair Value of Investments	54,084,769	124,664,847
Interest and Dividends	<u>53,382,923</u>	<u>40,576,311</u>
Total Investment Gain	107,467,692	165,241,158
Net Income from Commission Recapture	22,395	15,091
Less: Investment Expense (Note 4)	<u>(9,008,420)</u>	<u>(11,120,770)</u>
Net Investment Income	<u>98,481,667</u>	<u>154,135,479</u>
Other Investment Income:		
Net Litigation Recovery Income	19,915	11,552
Rental Income	101,941	102,595
Other Investment Income	<u>202,284</u>	<u>189,290</u>
Net Other Investment Income	<u>324,140</u>	<u>303,437</u>
Securities Lending Activities (Note 4):		
Securities Lending Income	677,888	784,420
Less: Securities Lending Expense	<u>(203,170)</u>	<u>(235,137)</u>
Net Securities Lending Income	<u>474,718</u>	<u>549,283</u>
Total Investment Income	<u>99,280,525</u>	<u>154,988,199</u>
Total Additions	<u>215,612,769</u>	<u>258,700,959</u>
DEDUCTIONS		
Benefit Payments and Subsidies	129,100,668	121,138,269
Member Refunds - Termination	1,826,145	1,905,488
Member Refunds - Death	847,878	128,359
Administrative Expenses (Note 2)	<u>2,557,391</u>	<u>2,791,409</u>
Total Deductions	<u>134,332,082</u>	<u>125,963,525</u>
Net Increase	81,280,687	132,737,434
Fiduciary Net Position Restricted for Pension Benefits (Note 6)		
Beginning of Year	<u>2,126,960,745</u>	<u>1,994,223,311</u>
End of Year	<u>\$ 2,208,241,432</u>	<u>\$ 2,126,960,745</u>

The accompanying notes are an integral part of these financial statements.

NOTES TO BASIC FINANCIAL STATEMENTS

June 30, 2019 and 2018

NOTE 1 - DESCRIPTION OF PLAN

Description of System and Applicable Provisions of the Law

The Stanislaus County Employees' Retirement Association (StanCERA or the Plan) is an integrated public employee retirement system established under and subject to the legislative authority of the State of California as enacted and amended in the County Employees Retirement Law of 1937 (Chapter 677 Statutes of 1937) and the Public Employees' Pension Reform Act. It is a cost-sharing multiple-employer pension plan. StanCERA was established by the County of Stanislaus Board of Supervisors on July 1, 1948, and was integrated with Social Security on January 1, 1956.

Membership

StanCERA consists of employees from the County of Stanislaus, East Side Mosquito Abatement District, Hills Ferry Cemetery District, Keyes Community Service District, City of Ceres, Salida Sanitary District, Stanislaus County Superior Court, and Stanislaus Council of Governments. Each person entering employment full-time or permanent part-time (50% or more of the regular hours) becomes a member on the first day of employment. The structure of the Membership with StanCERA is as follows:

	June 30, 2019			June 30, 2018		
	General	Safety	Total	General	Safety	Total
Active Members:						
Vested & Non-vested	3,691	813	4,504	3,658	794	4,452
Total Active	3,691	813	4,504	3,658	794	4,452
Inactive Members:						
Deferred Members	803	211	1,014	780	207	987
Unclaimed Contributions	403	59	462	393	65	458
Total Inactive	1,206	270	1,476	1,173	272	1,445
Retired Members:						
Service Retirements	3,024	473	3,497	2,908	451	3,359
Disability Retirements	215	167	382	218	164	382
Survivor Payments	45	10	55	45	10	55
Total Retired	3,284	650	3,934	3,171	625	3,796
Total Membership	8,181	1,733	9,914	8,002	1,691	9,693

Active

StanCERA has Tiers 1, 2, 3, 4, 5 and 6 for General Members and Tiers 2, 4, 5 and 6 for Safety Members. All tiers are closed with the exception of Tier 6 for both General and Safety Members. Members of the Plan receive a 100% vested interest in the Plan after 5 years of service, except Tier 3 which requires 10 years of service.

NOTE 1 – DESCRIPTION OF PLAN (continued)

Benefits

StanCERA provides for retirement, disability, death, beneficiary, cost-of-living, and ad-hoc retirement benefits.

Service Retirement Benefit

Members of Tiers 1, 2, 4, and 5 with 10 years of service, who have attained the age of 50, are eligible to retire. Tier 3 members are eligible to retire with 10 years of service at age 55. Tier 6 members are eligible to retire with 5 years of service at age 50 for Safety members, and age 52 for General members. Members of Tiers 1, 2, 4, and 5 with 30 years of service (20 years for safety), regardless of age, are eligible to retire. The benefit is a percentage of monthly final average salary (FAS) per year of service, depending on age at retirement, and is illustrated below for representative ages. Government Code Section 31462 of the County Employees Retirement Law of 1937 defines the FAS as a member's average monthly compensation earned during any consecutive 12 months (applicable to members of Tiers 1, 4, and 5). Government Code Sections 31462.1 and 7522.32 use the member's average monthly compensation earned during any 36 consecutive months (applicable to members of Tiers 2, 3, and 6). For members integrated with Social Security, the benefit is reduced by 1/3 of the percentage shown below times the first \$350 of the monthly final average salary per year of service credited after January 1, 1956. Tier 6 is not integrated with Social Security.

Percentage of FAS:

Age	General						Safety		
	Tier 1	Tier 2	Tier 3	Tier 4	Tier 5	Tier 6	Tiers 1&2	Tiers 4&5	Tier 6
50	1.34	1.18	N/A	1.48	1.48	N/A	2.00	3.00	2.00
55	1.77	1.49	0.68*	1.95	1.95	1.30	2.62	3.00	2.50
60	2.34	1.92	1.14*	2.44	2.44	1.80	2.62	3.00	2.70
65	2.62	2.43	2.00*	2.62	2.62	2.30	N/A	N/A	2.70

* 1% of FAS for each year of service over 35 reduced by 1/35 of Social Security Benefits at age 65 not to exceed 35 years

Retiring members may choose from 4 different beneficiary retirement allowances. Most retirees elect to receive an unmodified allowance, which includes a continuation of 60% of the allowance to the retirees' surviving spouse or registered domestic partner.

Death Benefit-Before Retirement

Employed Less Than 5 Years

In addition to the return of contributions, a death benefit is payable to the member's beneficiary or estate equal to 1 month of salary for each completed year of service under the retirement system, based on the final year's average salary, not to exceed 6 months of salary (except Tier 3 members).

NOTE 1 – DESCRIPTION OF PLAN (continued)

Death Benefit-Before Retirement (continued)

Employed More than 5 Years

If a member dies while eligible for service retirement or non-service connected disability, the spouse or registered domestic partner receives 60% of the allowance that the member would have received for retirement benefits on the day of his or her death (except Tier 3 members).

If a member dies in the performance of duty, the spouse or registered domestic partner receives a monthly benefit of 50% of the member's final average salary (except Tier 3 members).

Death Benefit-After Retirement

If a member dies after retirement, a burial allowance of \$5,000 is paid to the beneficiary or estate (except Tier 3 members).

If the retirement benefit is for service-connected disability, 100% of the member's allowance as it was at death is continued to the surviving spouse or registered domestic partner for Tiers 1, 2, 4, 5, and 6. Tier 3 Members have no allowance continued to the surviving spouse or registered domestic partner.

If the retirement benefit is for other than service-connected disability, 60% of the member's allowance is continued to the surviving spouse or registered domestic partner for Tiers 1, 2, 4, 5, and 6, and 60% of the member's allowance is continued to the surviving spouse or registered domestic partner if the unmodified option is chosen at time of retirement.

Disability Benefit

Members with 5 years of service, regardless of age, are eligible for non-service connected disability (except Tier 3 members). The benefit may be up to 1/3 of final average salary. If the disability is service connected, the member may retire regardless of length of service, and the benefit is 50% of final average salary (except Tier 3 members).

Cost-of-Living Benefit

The current maximum increase in retirement allowance is 3% per year (except Tier 3). The increases are based on the change in the Bureau of Labor Statistics Consumer Price Index (CPI) in the San Francisco Bay area from January 1 to December 31, effective the following April 1.

Ad-Hoc Benefits

Ad-hoc benefits are non-vested benefits which are determined by the Board of Retirement subject to funding availability.

NOTE 1 – DESCRIPTION OF PLAN (continued)

Ad-Hoc Benefits (continued)

No ad-hoc benefits are currently being paid (effective since January 1, 2010). Changes in the excess earnings policy, approved by the Board of Retirement (Board) on May 25, 2012, placed additional restrictions on the Board of Retirement's ability to grant these benefits. The greatest restriction currently is the Plan must be 100% funded on a market basis prior to funding any ad-hoc benefit.

Contribution Rates

The County Employees Retirement Law of 1937 establishes the basic obligations for employer and member contributions to the retirement system. The actual employer and member contribution rates in effect each year are based on recommendations made by an independent actuary and adopted by the Board of Retirement.

StanCERA's policy for contributions states that actuarially determined rates expressed as a percentage of annual covered payroll are required to finance the costs of benefits earned by plan members during the year, with an additional amount to finance any unfunded liability. Level percentage of payroll employer contribution rates are determined using the entry age actuarial cost method. For funding purposes, StanCERA also uses the level entry age normal cost method with the Unfunded Actuarial Accrued Liability (UAAL) to amortize the unfunded liability. StanCERA's actuarially determined composite employer contribution rates for the years ended June 30, 2019 and June 30, 2018 were 29.01% and 24.99%, respectively, of annual payroll. Employee contribution rates are based on age of entry for Tiers 1, 2, 4 and 5 and range between 3.38% and 18.31% for the fiscal years ended June 30, 2019 and June 30, 2018. Tier 6 employer rates are based on 50% of the total normal cost. Tier 6 employee contribution rates are not based on age of entry and are a flat rate ranging between 8.04% and 15.41% for fiscal years ended June 30, 2019 and June 30, 2018.

NOTE 2 - SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Reporting Entity

StanCERA is governed by the Board of Retirement and is considered an independent legal entity. StanCERA is a component unit of Stanislaus County (the County) and is being reported as a Pension Trust Fund in the County's Financial Report in accordance with Governmental Accounting Standards Board (GASB) Statement No. 39, *Determining Whether Certain Organizations Are Component Units – an Amendment of GASB Statement No. 14*.

Basis of Accounting

StanCERA follows GASB accounting principles and reporting guidelines. The financial statements are prepared on a full accrual basis of accounting, which recognizes income when earned and expenses when incurred. Contributions from employers and members are recognized when received or when due pursuant to legal requirements. Benefits and refunds are recognized when due and payable in accordance with the terms of each plan.

NOTE 2 – SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (continued)

Cash and Cash Equivalents

Cash includes deposits with a financial institution and pooled cash with the Stanislaus County Treasurer. Pooled cash is reported at amortized cost, which approximates fair value. Income on pooled cash is allocated on StanCERA's average daily balance in relation to total pooled assets.

Investments

The Board of Retirement has exclusive control of the investments of StanCERA. Statutes authorize the Board to invest, or to delegate the authority to invest, in any investment allowed by statute and considered prudent in the informed opinion of the Board.

Investments are stated at fair value in accordance with GASB Statement No. 67, *Financial Reporting for Pension Plans – an Amendment of GASB Statement No. 25*. Values for stocks, publicly traded bonds, issues of the U.S. Government and its agencies, and real estate securities are valued according to sale prices of recognized exchanges as of the fiscal year end, with international securities reflecting currency exchange rates in effect at June 30, 2019 and 2018. Both domestic and international investments are denominated in U.S. currency. Private Credit Partnerships, Private Real Estate and Infrastructure investments are valued using their respective Net Asset Value (NAV) and are audited annually. The most significant input into the NAV of such an entity is the fair value of its investment holdings. These holdings are valued by the partnerships on a quarterly basis and the assumptions are based upon the nature of the investment and the underlying business. The valuation techniques vary based upon investment type and involve a certain degree of expert judgment.

Securities Transactions and Related Investment Income

Securities transactions are accounted for on a trade date basis. Interest income is recognized when earned and dividend income is recognized on the ex-dividend date. Stock dividends or stock splits are recorded as memo items and do not affect the total value of the securities.

Capital Assets

Capital assets, consisting of software development, the purchase of a condominium interest in one floor of an office building, and office equipment are presented at historical cost. StanCERA occupies 60% of the 6th floor of the office building, and 40% has been developed as office space which is currently leased out. Total cost of the capital assets as of June 30, 2019 and June 30, 2018 was \$8,507,983 and \$7,094,384, respectively, with accumulated depreciation of \$1,898,110 and \$1,767,593, respectively. Out of the total amount, \$3,331,295 and \$2,401,150, respectively, were not being depreciated due to the assets not being placed in service as of June 30, 2019 and June 30, 2018. Depreciation expense for the fiscal years ending June 30, 2019 and June 30, 2018 totaled \$130,517 and \$72,965, respectively. Depreciation is calculated using the straight-line method with an estimated life of 10 years for the software development, an estimated life of 99 years for the office space, an estimated life of 10 years for the leasehold improvements, and an estimated life of 5 years for office equipment.

NOTE 2 - SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (continued)

Capital Assets (continued)

	Net Balance at June 30, 2018	Reclassifications & Additions	Reclassifications & Deletions	Less Depreciation	Net Balance at June 30, 2019
Capital Assets, not being depreciated					
Tenant Improvements	\$ 390,438	\$ -	\$ -	\$ -	\$ 390,438
Pension Administration System	2,010,712	1,121,615	578,442		2,553,885
Board Room Expansion	-	78,335	-		78,335
Board Room Expansion TI	-	245,749	-		245,749
Audio Video System	-	62,888			62,888
Total Capital Assets, not being depreciated	2,401,150	1,508,587	578,442	-	3,331,295
Capital Assets, being depreciated					
Tyler Software	32,342	-	-	32,342	-
Real Estate Occupied	1,650,969	-	1,446	18,977	1,630,546
Real Estate Leased	1,100,864	-	457	12,654	1,087,753
Leasehold Improvements	131,240	-	93,085	5,703	32,452
Office Equipment	2,811	-	-	1,022	1,789
Security & Monitoring Equipment	-	-	-	-	-
Video Conferencing Equipment	2,879	-	-	864	2,015
Imaging System	-	578,442	-	57,844	520,598
Microfiche Scanner	4,536	-	-	1,111	3,425
Total Capital Assets, being depreciated	2,925,641	578,442	94,988	130,517	3,278,578
TOTAL	\$ 5,326,791	\$ 2,087,029	\$ 673,430	\$ 130,517	\$ 6,609,873

	Net Balance at June 30, 2017	Reclassifications & Additions	Reclassifications & Deletions	Less Depreciation	Net Balance at June 30, 2018
Capital Assets, not being depreciated					
Tenant Improvements	\$ 390,438	\$ -	\$ -	\$ -	\$ 390,438
Pension Administration System	541,945	1,468,767	-	-	2,010,712
Total Capital Assets, not being depreciated	932,383	1,468,767	-	-	2,401,150
Capital Assets, being depreciated					
Tyler Software	64,684	-	-	32,342	32,342
Tyler Software	1,669,946	-	-	18,977	1,650,969
Real Estate Occupied	1,113,518	-	-	12,654	1,100,864
Real Estate Leased	122,193	14,750	-	5,703	131,240
Leasehold Improvements	3,833	-	-	1,022	2,811
Office Equipment	-	-	-	-	-
Audio Recording System	385	-	-	385	-
Security & Monitoring Equipment	3,743	-	-	864	2,879
Video Conferencing Equipment	-	5,554	-	1,018	4,536
Microfiche Scanner	2,978,302	20,304	-	72,965	2,925,641
Total Capital Assets, being depreciated	\$ 3,910,685	\$ 1,489,071	\$ -	\$ 72,965	\$ 5,326,791
TOTAL					

Administrative Expenses

StanCERA's administrative expense is funded by the investment income and is limited to 0.21% of StanCERA's Actuarial Accrued Liability (AAL) pursuant to Government Code Section 31580.2. The law provides exemption from the limitation for the cost of computer consultation, hardware, and software. Total administrative expenses for the fiscal years ending June 30, 2019 and 2018 were \$2,557,391 and \$2,791,409, respectively, of which \$363,841 and \$253,810, respectively, were not subject to the administrative expense limitation. Administrative expenses subject to the limitation amounted to 0.0828% of AAL for the fiscal year ended June 30, 2019 and 0.1000% for the fiscal year ended June 30, 2018.

NOTE 2 - SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (continued)

Income Taxes

StanCERA qualifies as a pension trust under Section 401(a) of the Internal Revenue Code. No provision for income taxes has been made in the accompanying financial statements as the Plan is exempt from Federal and State income taxes under the provisions of the Internal Revenue Code Section 501 and the California Revenue and Taxation Code Section 23701, respectively.

Management's Estimates

The preparation of financial statements in conformity with generally accepted accounting principles requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities, contingent assets and liabilities, revenue, and expenses as of the date of the financial statements. Actual results could differ from those estimates.

Reclassifications

Certain fiscal year 2018 amounts have been reclassified to conform with the fiscal year 2019 presentation.

NOTE 3 – CONTRIBUTIONS RECEIVABLE

Contributions receivable represents withdrawals from employees' salaries and liabilities due by employers for retirement contributions for the month of June that were received in July. Contributions receivable as of June 30, 2019 and 2018 were \$6,666,983 and \$5,897,011, respectively.

NOTE 4 – CASH AND INVESTMENTS

The California State Constitution and the County Employees Retirement Law of 1937 give the Board the exclusive authority to invest the assets of StanCERA and the Board may, at its discretion, invest or delegate the authority to invest, such assets through the purchase, holding, or sale of any form or type of investment, financial instrument, or financial transaction when deemed prudent in the informed decision of the Board. StanCERA invests the assets according to a written Investment Policy established by the Board and currently employs external investment managers to manage the assets subject to the guidelines in the Investment Policy.

Deposits in Stanislaus County Treasury

Cash needed for StanCERA's daily operational purposes is pooled with other County funds by the County Treasurer for short-term investment purposes. The County is responsible for the control and safekeeping of all instruments of title and for all investments of the pooled funds. Investments in the County Investment Pool are managed according to the Investment Policy established by the County and are subject to regulatory oversight by the County's Treasury Oversight Committee. Participation in the County Investment Pool is not mandatory.

The fair value of StanCERA's shares in the pooled funds is the same as the value of the County Investment Pool. StanCERA's cash invested with the County Treasurer is reported at amortized cost, which approximates fair value totaling \$13,742,769 and \$10,881,315 at June 30, 2019 and 2018, respectively. Cash and investments included within the County Treasurer's Pool are described in the County's Financial Report.

NOTE 4 – CASH AND INVESTMENTS (continued)

Investments

Investment Policy – StanCERA’s policy in regard to the allocation of invested assets is established and may be amended by the Board. The investments of the Plan are trust funds and are held for the exclusive purpose of providing benefits to the participants in the Plan and their beneficiaries and defraying reasonable expenses of administering the Plan. The investments shall be diversified so as to minimize the risk of loss and to maximize the rate of return.

StanCERA’s Investment Program employs three functional Sub-portfolios to construct the comprehensive asset allocation: the Liquidity Sub-portfolio, the Growth Sub-portfolio and the Diversifying Sub-portfolio. The Liquidity Sub-portfolio will ensure adequate assets are available to pay benefits over an extended timeframe. The Growth Sub-portfolio will grow the invested assets over the long-term in order to pay future benefits. The Diversifying Sub-portfolio is to offset the investment risk of the Growth Sub-portfolio. The allocations to the Liquidity, Growth and Diversifying Sub-portfolios will vary over time and will be reviewed on an annual basis. The adopted asset allocation for the three Sub-portfolios is:

<u>Asset Class</u>	<u>June 30, 2019 Target Allocation</u>	<u>June 30, 2018 Target Allocation</u>
Domestic Equities	17.00%	24.00%
International Equities	23.00%	24.00%
Fixed Income	22.00%	22.00%
Real Estate Securities	5.00%	7.70%
Alternatives:		
Private Credit	6.00%	5.00%
Private Equity	6.00%	0.00%
Private Real Estate	5.00%	1.70%
Infrastructure	2.00%	0.60%
Risk Parity	13.00%	14.00%
Cash	1.00%	1.00%
	<u>100.00%</u>	<u>100.00%</u>

Rate of Return – For the fiscal years ended June 30, 2019 and June 30, 2018, the annual money-weighted rate of return on StanCERA’s investments was 5.1% and 8.1%, respectively. The money-weighted rate of return expresses investment performance, net of investment expense, adjusted for the changing amounts actually invested.

NOTE 4 – CASH AND INVESTMENTS (continued)

Fair Value Measurement

Fair value is the price that would be received to sell an investment in an orderly transaction between market participants at the measurement date. GASB Statement No. 72 (GASB 72), *Fair Value Measurement and Application*, was adopted by StanCERA during the fiscal year June 30, 2016 and was issued to address accounting and financial reporting issues related to fair value measurement.

StanCERA classifies the fair value measurements within the fair value hierarchy established by generally accepted accounting principles. The fair value measurements are classified according to the following hierarchy:

- Level 1 – Unadjusted quoted prices for identical investments in active markets.
- Level 2 – Quoted prices for similar investments in active markets; quoted prices for identical or similar investments in markets that are not active; and model-derived valuations in which all significant inputs and significant value drivers are observable.
- Level 3 – Investments with valuations derived from valuation techniques in which significant inputs or significant value drivers are unobservable.

Inputs used to measure fair value might fall in different levels of the fair value hierarchy; in which case, StanCERA defaults to the lowest level input that is significant to the fair value measurement in its entirety. In determining the appropriate levels, a detailed analysis was performed of the assets and liabilities that are subject to GASB 72.

The following tables present fair value measurements as of June 30, 2019 and June 30, 2018:

Investments Measured at Fair Value

Investments by Fair Value Level	43646	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
Fixed Income Securities				
Corporate and Other Credit	\$ 231,402,588	\$ -	\$ 231,402,588	\$ -
Emerging Market Non-U.S. Bonds	120,066,422	-	120,066,422	-
U.S. Government Agency	62,959,767	-	62,959,767	-
U.S. Treasury	65,287,287	-	65,287,287	-
Total Fixed Income Securities	<u>479,716,064</u>	<u>-</u>	<u>479,716,064</u>	<u>-</u>
Equity Securities				
Non-U.S. Equity	486,264,078	486,264,078	-	-
U.S. Equity	149,746,709	149,746,709	-	-
Commingled Equity Funds	280,245,220	-	280,245,220	-
Emerging Market Equity	66,954,530	-	66,954,530	-
Commingled Real Estate Funds	37,095,763	-	37,095,763	-
Total Equity Securities	<u>1,020,306,300</u>	<u>636,010,787</u>	<u>384,295,513</u>	<u>-</u>
Collateral from Securities Lending	<u>144,376,536</u>	<u>-</u>	<u>144,376,536</u>	<u>-</u>
Total Investments by Fair Value Level	<u>\$ 1,644,398,900</u>	<u>\$ 636,010,787</u>	<u>\$ 1,008,388,113</u>	<u>\$ -</u>
Investments Measured at the Net Asset Value (NAV)				
Private Credit	\$ 95,094,309			
Private Real Estate	197,966,376			
Infrastructure	43,388,166			
Risk Parity	309,627,036			
Total Investments Measured at the NAV	<u>646,075,887</u>			
Total Investments	<u>\$ 2,290,474,787</u>			

NOTE 4 – CASH AND INVESTMENTS (continued)

Fair Value Measurement (continued)

Investments Measured at Fair Value

Investments by Fair Value Level	6/30/2018	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
Fixed Income Securities				
Corporate and Other Credit	\$ 163,597,930	\$ -	\$ 163,597,930	\$ -
Emerging Market Non-U.S. Bonds	104,365,150	-	104,365,150	-
U.S. Government Agency	59,741,009	-	59,741,009	-
U.S. Treasury	7,950,972	-	7,950,972	-
Total Fixed Income Securities	335,655,061	-	335,655,061	-
Equity Securities				
Non-U.S. Equity	386,997,697	386,480,576	-	517,121
U.S. Equity	187,088,783	187,088,783	-	-
Commingled Equity Funds	355,389,874	-	355,389,874	-
Emerging Market Equity	45,306,897	-	45,306,897	-
Commingled Real Estate Funds	128,978,153	-	128,978,153	-
Total Equity Securities	1,103,761,404	573,569,359	529,674,924	517,121
Collateral from Securities Lending	85,288,212	-	85,288,212	-
Total Investments by Fair Value Level	\$ 1,524,704,677	\$ 573,569,359	\$ 950,618,197	\$ 517,121
Investments Measured at the Net Asset Value (NAV)				
Private Credit	\$ 94,881,719			
Private Real Estate	79,771,614			
Infrastructure	30,177,146			
Risk Parity	283,242,444			
Total Investments Measured at the NAV	488,072,923			
Total Investments	\$ 2,012,777,600			

Fixed Income Securities

Asset-Backed Securities, Mortgage-Backed Securities, and Non-U.S. Bonds are valued using a combination of the discounted cash flow income model and the matrix market model. Two proprietary discounted cash flow models are used: non-volatile tranche and volatile tranche. Prepayment speeds are derived from market participant quotes along with terms and conditions of the tranche and both are entered into the model to determine the evaluated price. Matrices are developed based on trade and quote activity of bonds with similar features including issuer, vintage and purpose of the underlying loan, prepayment speeds and credit ratings in order to identify trades and quotes for similar securities.

Corporate Bonds and Municipal Bonds are valued using the matrix market model. Model inputs are derived from the market, brokers, dealer, mutual funds, and vendor client base. Model inputs include, but are not limited to: spread benchmark curves, prepayment speeds, inputs to build curves/spreads, comparable trades, bid price or spread, discount rates, quotes, trade reports, and financial reports. US Government Agency and US Treasury Bills are valued using the consensus evaluation model and the matrix evaluation model. These model inputs come from market sources and integrate relative credit information, observed market movements, and sector news.

NOTE 4 – CASH AND INVESTMENTS (continued)

Fair Value Measurements (continued)

Prices are updated regularly by obtaining dealer quotes and other market information including live trading levels, when available.

Equity Securities

Equity securities are valued using the NASDAQ Official Closing Price which determines the market specific closing price for NASDAQ listed issues. For equity securities listed on exchanges, the last trade price is used. The last trade price is the price at which a specific security was last traded on the primary exchange. If the NASDAQ Official Closing Price or the last trade price is not available, a bid, ask/offer quote, is obtained from a third-party vendor.

Commingled funds are valued using the net asset value (NAV) which is the market value of all securities owned by the fund, minus its total liabilities, divided by the number of shares issued. Funds that are valued using the NAV are usually not reported within the fair value hierarchy. However, StanCERA's commingled funds are supported by audited financial statements which provide observable market data. Commingled funds are legally or contractually required to redeem at the NAV and therefore are classified as Level 2.

Investments Measured at the Net Asset Value (NAV)

Investments that are measured at fair value using the net asset value per share (or its equivalent) as a practical expedient are not classified in the fair value hierarchy.

The following tables present fair value measurements as of June 30, 2019:

Investments measured at NAV	Fair Value	Unfunded Commitment	Redemption Frequency If Currently Eligible	Redemption Notice Period
Private Credit Funds	\$ 95,094,309	\$ 19,305,108	Not Eligible	Not Applicable
Private Real Estate Funds	197,966,376	38,133,292	Quarterly, Not Eligible	5-90 Days, Not Applicable
Infrastructure Funds	43,388,166	8,251,433	Not Eligible	Not Applicable
Risk Parity Funds	309,627,036	-	Monthly	5-15 Days
Total Investment Measured at NAV	<u>\$ 646,075,887</u>	<u>\$ 65,689,833</u>		

Private Credit Funds consist of investments in four limited partnerships. The types of partnership strategies included in these funds are venture capital, growth equity, buyouts, special situations, mezzanine, and distressed debt. These funds are not eligible for redemption. Distributions are received as the underlying funds are liquidated, which can occur over the span of three to seven years. Total commitments for these funds are \$160.0 million, of which \$19.3 million is unfunded.

Private Real Estate Funds consist of investments in five limited partnerships. These funds are mainly invested in US commercial real estate. Shares of three of these funds can be redeemed at the request of the shareholders after a lockout period of up to two years. Distributions from each of these funds will be received as the underlying investments are liquidated. Three of these funds are open-ended and the distributions are reinvested. Liquidation of the underlying investments for one fund can occur over time up to eight years. Total commitments for these funds are \$217.0 million, of which \$38.1 million is unfunded.

NOTE 4 – CASH AND INVESTMENTS (continued)

Fair Value Measurements (continued)

Infrastructure Funds consist of one investment in a limited partnership. This fund is focused on opportunities in the energy, utilities and transportation sectors, and target investments in infrastructure assets globally within the Organization for Economic Cooperation and Development countries. The funds are not eligible for redemption. Distributions from this fund will be received as the underlying investments are liquidated, which can occur over the span of twelve years. Total commitments for this fund are \$50.0 million, of which \$8.3 million is unfunded.

Risk Parity Funds are mutual funds that invest in multiple asset classes represented by equity, fixed income, and commodities strategies in order to generate attractive risk-adjusted returns over time. These are open-ended funds and shares can be redeemed at the end of any given month at the request of the shareholder. Distributions for this fund are reinvested into the fund. Total commitments for this fund are \$280.0 million, and they are fully funded.

Securities Lending Program

The Board of Retirement permits StanCERA to participate in a securities lending program. StanCERA lends bonds and equities to various brokers for collateral that will be returned for the same securities plus a fee in the future. Transactions are collateralized at 102% of fair value for domestic securities and 105% of fair value for international securities. Collateral received may include cash, letters of credit, or securities. Because the loans were terminable-at-will, their duration did not match the duration of the investments made with cash collateral. Either StanCERA or the borrower can terminate all securities loaned on demand. There are no restrictions on the amount of securities that may be lent.

StanCERA's custodial bank administers its securities lending program. The cash collateral is reported on the financial statements as an asset and as a liability of StanCERA while the non-cash collateral is reported neither as an asset nor a liability in accordance with GASB Statement No. 28. StanCERA does not have the ability to pledge or sell collateral securities delivered absent a borrower default. The contract with the securities lending agent requires them to indemnify StanCERA if the borrower fails to return the securities (or if the collateral is not sufficient to replace the securities lent) or if the borrower fails to pay StanCERA for income distributions while the securities are on loan.

Investments made with cash collateral are classified by risk category. The average maturity of the loans is one week and are rated at least "A1" or "P1" by two nationally recognized statistical rating organizations or, if unrated, be determined by the bank to be of comparable quality. As of June 30, 2019, the fair value of securities on loan was \$141.3 million, with collateral received of \$144.4 million and non-cash collateral of \$29.4 million. As of June 30, 2018, the fair value of the securities on loan was \$83.1 million, with collateral received of \$85.3 million and non-cash collateral of \$13.6 million.

NOTE 4 – CASH AND INVESTMENTS (continued)

As of June 30, 2019 and 2018, StanCERA had no credit risk exposure to borrowers because the amount StanCERA owes the borrower exceeds the amount the borrower owes StanCERA. StanCERA's pro-rata share of net income derived from the securities lending transactions during fiscal years 2019 and 2018 was \$474,718 and \$549,283, respectively. These are separate investments made on StanCERA's behalf and not StanCERA's share of pooled investments. At June 30, 2019 and 2018, StanCERA had the following securities out on loan:

	June 30, 2019		June 30, 2018	
	Fair Value of Securities on Loan	Collateral Received	Fair Value of Securities on Loan	Collateral Received
U.S. Equities	\$ 43,850,944	\$ 44,651,808	\$ 43,828,737	\$ 45,059,247
U.S. Corporate Fixed	39,238,000	40,126,194	24,918,932	25,507,304
U.S. Agencies	-	-	2,743,737	2,800,888
U.S. Government Fixed	50,695,450	51,669,485	4,810,639	4,921,920
Non-U.S. Equities	7,547,775	7,929,049	3,843,821	3,978,228
Non-U.S. Government Fixed	-	-	1,978,688	2,015,000
Non-U.S. Agencies	-	-	986,816	1,005,625
Total Securities	141,332,169	144,376,536	83,111,370	85,288,212
Total Non-Cash Collateral	28,364,054	29,410,706	12,821,766	13,567,259
Total	<u>\$ 169,696,223</u>	<u>\$ 173,787,242</u>	<u>\$ 95,933,136</u>	<u>\$ 98,855,471</u>

Interest Rate Risk

Interest rate risk is the risk that changes in market interest rates will adversely affect the fair value of an investment. Duration is a measure of the price sensitivity of a fixed income portfolio to changes in market interest rates. Generally, the longer the maturity of an investment the greater the sensitivity of its fair value to changes in market interest rates.

Highly sensitive investments are certain debt investments whose terms may cause their fair value to be highly sensitive to market interest rate changes. Terms include such variables as embedded options, coupon multipliers, benchmark indices and reset dates. StanCERA's fixed income investments have embedded prepayment options that will typically cause prepayments by the obligees of the underlying investments when interest rates fall. Prepayments eliminate the stream of future interest payments and, therefore, diminish the fair value of the fixed income investment.

The following table shows the effective duration of StanCERA's fixed income investments by investment type.

	June 30, 2019		June 30, 2018	
	Fair Value	Effective Duration (in years)	Fair Value	Effective Duration (in years)
Fixed Income Securities				
Corporate Bonds	\$ 231,402,588	2.8	\$ 163,597,930	2.9
Emerging Market / Non-U.S. Bonds	120,066,422	2.4	104,365,150	3.0
Government Bonds	65,287,287	6.3	7,950,972	3.5
Government Agencies	62,959,767	0.8	59,741,009	0.1
Total Fixed Income Securities	<u>\$ 479,716,064</u>		<u>\$ 335,655,062</u>	

NOTE 4 – CASH AND INVESTMENTS (continued)

Credit Risk

Credit risk is the risk that an issuer of an investment will not fulfill its obligation to the holder of the investment. This is measured by the assignment of a rating by a nationally recognized statistical rating organization. In cases where credit ratings differ among rating agencies, the manager shall use the lowest of the ratings provided. StanCERA's custodial bank provided ratings for Moody's Investor Service (Moody's) and Standard & Poor's (S&P). Should the rating of a fixed income security fall below investment grade, the manager may continue to hold the security if they believe the security will be upgraded in the future, there is a low risk of default, and buyers will continue to be available throughout the anticipated holding period. The manager has the responsibility of notifying the Board whenever an issue falls below investment grade. Investment grade quality is defined as a Standard & Poor's rating of BBB or higher. The notification should include the manager's assessment of the issue's credit rating and its ongoing role in the portfolio. The Stanislaus County Investment Pool and the short-term investment funds held with fiscal agent are unrated.

The following table shows the quality of StanCERA's investments in fixed income securities.

S&P/Moody's Credit Rating	June 30, 2019		June 30, 2018	
	Percentage of Total Fixed Income	StanCERA's Fixed Income Securities	Percentage of Total Fixed Income	StanCERA's Fixed Income Securities
Aaa / AAA	2.47%	\$ 11,830,506	9.99%	\$ 33,538,553
Aa1 / AA+	1.22%	5,831,461	3.39%	11,392,391
Aa2 / AA	0.84%	4,022,701	0.44%	1,475,963
Aa3 / AA-	6.41%	30,731,875	7.33%	24,597,113
A1 / A+	8.01%	38,444,477	13.22%	44,382,479
A2 / A	3.96%	19,013,866	5.77%	19,351,750
A3 / A-	8.54%	40,983,675	9.13%	30,658,890
Baa1 / BBB+	16.25%	77,971,974	12.26%	41,140,602
Baa2 / BBB	15.75%	75,572,514	12.43%	41,716,009
Baa3 / BBB-	7.94%	38,099,541	6.38%	21,431,517
N/R	14.99%	71,926,187	17.29%	58,018,822
N/A	13.62%	65,287,287	2.37%	7,950,972
Total	100.00%	\$ 479,716,064	100.00%	\$ 335,655,061

N/R represents securities that are not rated.

N/A represents securities that are not applicable to the rating disclosure requirements.

NOTE 4 – CASH AND INVESTMENTS (continued)

Concentration of Credit Risk

Concentration of credit risk is the risk of loss due to a large concentration of investments in any one issuer. Investments issued or explicitly guaranteed by the US Government and investments in mutual funds, external investment pools, and other pooled investments are exempt from the disclosure requirements. As of June 30, 2019 and 2018, for separately managed investment accounts, StanCERA did not have investments in any one issuer representing 5% or more of the total portfolio.

Custodial Credit Risk

Custodial credit risk for deposits is the risk that, in the event of the failure of a depository financial institution, a government will not be able to recover its deposits or will not be able to recover collateral securities that are in the possession of an outside party. StanCERA does not have a formal policy for custodial credit risk for deposits. Under California Government Code, a financial institution is required to secure deposits in excess of \$250,000 made by state or local government units by pledging securities held in the form of an undivided collateral pool. The fair value of the pledged securities in the collateral pool must equal at least 110% of the total amount deposited by the public agencies. California law also allows financial institutions to secure governmental deposits by pledging first deed mortgage notes having a value of 150% of the secure public deposits. Such collateral is held by the pledging financial institution's trust department or agent in StanCERA's name. At fiscal year end, StanCERA had no custodial credit risk exposure to any depository financial institution. All deposits are placed with a custodial bank.

Custodial credit risk for investments is the risk that, in the event of the failure of the counter-party (e.g., broker-dealer) to a transaction, a government will not be able to recover the value of its investment or collateral securities that are in the possession of another party. StanCERA does not have a formal policy for custodial credit risk for investments. Investment securities are exposed to custodial credit risk if the securities are uninsured, not registered in the governmental entity's name, and held by the counter-party. StanCERA's investment securities are not exposed to custodial credit risk because all securities held by StanCERA's custodial bank are in StanCERA's name.

Foreign Currency Risk

Foreign currency risk is the risk that changes in exchange rates may adversely affect the fair value of an investment. StanCERA's external investment managers may invest in international securities and must follow StanCERA's Investment Guidelines pertaining to these types of investments.

American Depositary Receipts (ADR) are included in the U.S. Dollars. ADR represents underlying securities of non-U.S. companies traded on the US stock exchanges. Although the transactions are denominated in U.S. Dollars and not subject to foreign currency risk, these securities are reflected as part of the non-U.S. equities within International Equity Investments reported in the Statements of Fiduciary Net Position.

NOTE 4 – CASH AND INVESTMENTS (continued)

Foreign Currency Risk (continued)

StanCERA's exposure to foreign currency risk in U.S. dollars is as follows:

Currency	June 30, 2019	June 30, 2018
	Fair Value (in U.S. \$)	Fair Value (in U.S. \$)
Australian Dollar	\$ 24,696,796	\$ 22,572,293
Brazilian Real	6,605,690	1,129,731
British Pound	57,702,550	57,527,396
Canadian Dollar	38,168,668	27,534,006
Chilean Peso	1,501,431	1,524,385
Danish Krone	1,625,246	4,147,832
Euro Dollars	130,617,045	103,808,118
Hong Kong Dollar	44,237,396	28,646,018
Hungarian Forint	2,141,903	1,004,927
Indonesian Rupiah	2,447,002	1,256,863
Japanese Yen	83,953,251	72,637,597
Malaysian Renggit	1,484,859	1,041,961
New Israeli Shekel	208,126	538,455
New Taiwan Dollar	10,129,517	8,110,790
New Zealand Dollar	935,039	1,010,451
Norwegian Krone	5,142,485	4,896,867
Singapore Dollar	4,758,179	3,067,923
South African Rand	2,329,773	2,317,508
South Korean Won	12,712,983	9,721,857
Swedish Krona	10,618,115	5,372,742
Swiss Franc	32,707,910	20,970,083
Thailand Baht	1,590,847	1,208,436
Turkish Lira	1,875,577	1,652,052
U.S. Dollar	75,028,220	50,606,303
TOTAL	<u>\$ 553,218,608</u>	<u>\$ 432,304,594</u>

NOTE 4 – CASH AND INVESTMENTS (continued)

Commitments to Private Credit

At June 30, 2019 and June 30, 2018, StanCERA's total capital commitments to private credit partnerships was \$160,000,000 for both fiscal years. Of this amount, \$19,305,108 and \$33,618,205, respectively, remained unfunded and is not recorded on StanCERA's Statements of Fiduciary Net Position.

Commitments to Private Real Estate

At June 30, 2019 and June 30, 2018, StanCERA's total capital commitments to private real estate partnerships was \$217,000,000 and \$182,000,000, respectively. Of this amount, \$38,133,292 and \$115,712,327, respectively, was unfunded and is not recorded in StanCERA's Statement of Fiduciary Net Position.

Commitments to Infrastructure

At June 30, 2019 and June 30, 2018, StanCERA's total capital commitments to infrastructure was \$50,000,000 for both fiscal years. Of this amount, \$8,251,433 and \$32,347,520, respectively, was unfunded and is not recorded in StanCERA's Statement of Fiduciary Net Position.

Commitments to Risk Parity

At June 30, 2019 and June 30, 2018, StanCERA's total commitments to risk parity was \$280,000,000 for both fiscal years. Risk Parity was 100% funded for both fiscal years.

Investment Expense

Investment expense includes fees paid for investment consulting services, fund evaluation services, and securities custodian services. Fees paid are charged against the StanCERA's investment earnings pursuant to Government Code Sections 31596.1 and 31592.5.

Investment Expense

	June 30, 2019	June 30, 2018
Investment Managers	\$ 6,278,921	\$ 8,904,759
Investment Consultants	483,103	291,039
Custodial Fees	323,150	243,531
Investment Attorney	21,161	74,163
Other Investment Costs	1,758,022	1,515,476
Total Other Investment Expenses	\$ 8,864,357	\$ 11,028,968
Actuarial Fees	144,063	91,802
Total Investment Expenses	<u>\$ 9,008,420</u>	<u>\$ 11,120,770</u>

NOTE 5 - CONTRIBUTIONS

Contribution Rates

The County Employees Retirement Law of 1937 establishes the basic obligations for employer and member contributions to the retirement plan. The actual employer and member contribution rates in effect each year are based on recommendations made by an independent actuary and adopted by the Board.

StanCERA's policy for employer contributions states that actuarially determined rates expressed as a percentage of annual covered payroll are required to accumulate sufficient assets to pay benefits when due. Level percentage of payroll employer contribution rates are determined using the entry age actuarial cost method. StanCERA also uses the level entry age normal cost method with an UAAL to amortize any unfunded liability.

Member basic rates are based on a formula reflecting the age at entry into the Plan. For Tier 5 Safety, the rates are such as to provide an average monthly annuity at age 50 equal to 1/100 of the FAS. Tier 1 General Members pay rates that will provide an average annuity at age 60 of 1/100 of the FAS. Tier 4 General Members pay rates that will provide an average annuity at age 55 of 1/120 of the FAS. County (and former County agency) Safety and General Members in Tiers 1 and 4 pay one half of the aforementioned rates. General Members in Tier 2 pay rates to provide an average annuity of 1/120 of FAS at age 60. General Members in Tier 3 pay no member contributions. General Members in Tier 5 pay rates to provide an average annuity at age 55 of 1/120 of FAS. Both General and Safety Tier 6 Members pay approximately half of the actuarial determined normal cost rate for the benefit.

Member cost-of-living contributions, expressed as a percentage of their basic rates, are designed to pay for one-half of the cost-of-living liabilities for future service. For members integrated with Social Security, the above contributions are reduced by 1/3 of that portion of such contribution payable with respect to the first \$350 of monthly salary. Member contributions are refundable upon termination from the retirement system.

Contributions as a percentage of covered payroll for fiscal year ended June 30, 2019, are shown in the following table:

Employer	Employer Contributions	Member Contributions	Employer Contributions as a % of Covered Payroll
Stanislaus County	\$ 78,729,628	\$ 24,763,793	27.9203%
City of Ceres	5,036,102	1,434,982	1.7860%
Stanislaus Superior Court	3,938,872	1,265,380	1.3969%
Stanislaus Council of Governments	312,482	113,457	0.1108%
East Side Mosquito Abatement District	226,594	70,279	0.0804%
Salida Sanitary District	193,792	52,061	0.0687%
Keyes Community Services District	89,528	24,969	0.0317%
Hills Ferry Cemetery District	62,383	17,942	0.0221%
	<u>\$ 88,589,381</u>	<u>\$ 27,742,863</u>	<u>31.4169%</u>
Covered Payroll	\$ 281,979,654		

NOTE 5 – CONTRIBUTIONS (continued)

Contributions Rates (continued)

Contributions as a percentage of covered payroll for fiscal year ended June 30, 2018, are shown in the following table:

Employer	Employer Contributions	Member Contributions	Employer Contributions as a % of Covered Payroll
Stanislaus County	\$ 68,667,117	\$ 23,954,827	25.6212%
City of Ceres	4,265,800	1,347,708	1.5917%
Stanislaus Superior Court	3,305,021	1,185,394	1.2332%
Stanislaus Council of Governments	227,154	93,687	0.0848%
East Side Mosquito Abatement District	187,708	89,148	0.0700%
Salida Sanitary District	182,609	32,659	0.0681%
Keyes Community Services District	78,515	25,516	0.0293%
Hills Ferry Cemetery District	52,547	17,350	0.0196%
	<u>\$ 76,966,471</u>	<u>\$ 26,746,289</u>	<u>28.7179%</u>
Covered Payroll	\$ 268,009,042		

NOTE 6 – RESERVES

As required by the County Employees Retirement Law of 1937 or the Board's policies, the following reserves from Fiduciary Net Position Restricted for Pension Benefits must be established and used to account for the members' (employees and retirees) contributions.

Active Members' Reserve

This reserve represents the cumulative contributions made by active members (employees), after deducting refunds to the members, plus the investment earnings credited to the reserve at the assumed rate of return determined by the actuary. For fiscal years ended June 30, 2019 and 2018, the actuarial assumed rate of return was 7.25%. Based on Retirement Board policy when the Plan is below 100% funded on a market basis, the percentage allocated to Active Members' Reserve is capped at the actuarial assumed rate of return and will determine the semi-annual percent of interest to be posted to individual member account balances in the subsequent fiscal year.

Employer Reserves

These reserves represent the cumulative contributions made by the County and other employers. Interest earnings are credited to these reserves based on StanCERA's excess earnings policy.

Upon the retirement of an active member, an actuarially determined amount of the member's vested interest is transferred from the Employer Advance Reserve to the Retired Members' Pension Reserve.

NOTE 6 – RESERVES (continued)

Retired Members' Pension Reserve

These reserves are established to account for the unpaid retirees' pension benefits. Upon the retirement of an employee, member contributions plus the interest earnings credited to the member's account are transferred from the Active Members' Reserve account to the Retired Members' Annuity and Cost-of-Living Reserve accounts.

From these reserves, StanCERA pays the retiree benefits in an amount computed in accordance with the County Employees Retirement Law of 1937. Interest earnings are credited to this reserve based on StanCERA's excess earnings policy.

Retiree Burial Allowance Reserve

The burial allowance reserve is a benefit the Board of Retirement offers which pays the family member of a deceased retiree a lump sum death benefit. This benefit is available for all retirees whose last work in a 1937 Act Retirement System or California Public Employees Retirement System (CalPERS) was with StanCERA. Interest earnings are credited to this reserve based on StanCERA's excess earnings policy.

Contingency Reserve

This optional reserve represents earnings in excess of the total interest credited to contributions of the employer and employee and is funded at a minimum 1% of total valuation reserves prior to excess earnings distribution (Government Code Section 31592). It is used as a reserve against deficiencies in interest earnings in other years, losses on investments, and other contingencies. The Board set this reserve to 1% in May 2012 and it is reviewed and adjusted annually.

Undistributed Earnings/(Losses)

This "designation" account was established on June 30, 2003. It was used to minimize the impact of actuarial smoothing of assets and contains an accumulation of earnings or losses, which have not been distributed to any other reserve. This reserve has undistributed earnings or losses of \$0 and \$0 as of June 30, 2019 and 2018.

Other Reserves

These reserves are for Retirees' Special Cost-of-Living, Tier 3 Disability and Legal Contingencies.

NOTE 6 – RESERVES (continued)

Reserve Account Balances are as follows:

	June 30, 2019	June 30, 2018
Active Members' Reserve	\$ 588,122,376	\$ 535,714,800
Employer Advance Reserve	292,437,886	279,928,797
Employer Transfer from Non-Valuation Reserve	167,007,137	162,513,672
Retired Members' Pension Reserve	1,132,162,574	1,120,383,999
Retiree Burial Allowance Reserve	5,085,657	6,535,408
Contingency Reserve	21,347,701	19,760,251
Other Reserves		
Legal Contingency Reserve	2,076,541	2,122,258
Tier 3 Disability Reserve	1,560	1,560
Total Reserves	<u>\$ 2,208,241,432</u>	<u>\$ 2,126,960,745</u>

NOTE 7 – LITIGATION

StanCERA is a defendant in various lawsuits and claims arising in the ordinary course of its operations. StanCERA's management and legal counsel estimate the ultimate outcome of such litigation will not have a material effect on StanCERA's financial statements.

NOTE 8 – NET PENSION LIABILITY OF PARTICIPATING EMPLOYERS

Actuarial Assumptions

The actuarial assumptions used in the June 30, 2018 valuation were based on the results of an actuarial experience study for the period July 1, 2015 through June 30, 2018. Measurements as of the reporting date are based on the fair value of assets as of June 30, 2019, and the Total Pension Liability as of the valuation date, June 30, 2018, using update procedures to roll forward to StanCERA's fiscal year end of June 30, 2019. There were no significant events between the valuation date and the measurement date, so the roll forward procedures only included the addition of service cost offset by actual benefit payments.

The components of the Net Pension Liability of StanCERA at June 30, 2019 and June 30, 2018 were as follows:

	June 30, 2019	June 30, 2018
Total Pension Liability	\$ 2,868,469,377	\$ 2,772,667,458
Plan Fiduciary Net Position	<u>\$ (2,208,241,432)</u>	<u>\$ (2,126,960,745)</u>
Net Pension Liability	<u>\$ 660,227,945</u>	<u>\$ 645,706,713</u>

Plan Fiduciary Net Position as a percentage of the Total Pension Liability	77.0%	76.7%
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NOTE 8 – NET PENSION LIABILITY OF PARTICIPATING EMPLOYERS (continued)

Actuarial Assumptions (continued)

The Total Pension Liability was determined based on the June 30, 2018 and June 30, 2017 actuarial valuations rolled forward to June 30, 2019 and June 30, 2018, using the following actuarial assumptions, applied to all periods included in the measurement:

ACTUARIAL VALUATION ASSUMPTIONS		
Measurement Date	<u>June 30, 2019</u>	<u>June 30, 2018</u>
Investment Rate of Return	7.00%, net of investment expenses	7.25%, net of investment expenses
Projected Salary Increases	3.00%, per year plus merit component based on employee classification and years of service	3.25%, per year plus merit component based on employee classification and years of service
Attributed to Inflation	2.75%	3.00%
Cost-of-Living Adjustments	100% of Consumer Price Index (CPI) up to 3.0% annually with banking, 2.6% annual increases assumed	100% of Consumer Price Index (CPI) up to 3.0% annually with banking, 2.7% annual increases assumed

Post-retirement mortality rates for active Members are specified by the California Public Employees Retirement System (CalPERS) Pre-Retirement Non-Industrial Mortality table adjusted by 97.2% for males and 101.6% for females with generational mortality improvements projected from 2009 using Scale MP-2018. Duty related mortality rates are only applicable for Safety Active Members and are based on the CalPERS Pre-Retirement Industrial Death table without adjustment or projection.

Rates of mortality for retired Members and their beneficiaries are specified by the CalPERS Healthy Annuitant table adjusted by 104.5% for females and no adjustment for males with generational mortality improvements projected from 2009 using Scale MP-2018.

The long-term defined benefit pension plan return expectations were determined using a building-block approach. An inflation forecast is the baseline and various real return premiums (e.g., bonds, equities, etc.) are added to create nominal return expectations for each asset class. These expectations are combined to produce the long-term expected rate of return by weighting the expected nominal rates of return by the target asset allocation percentages and including an expected return from rebalancing uncorrelated asset classes.

NOTE 8 – NET PENSION LIABILITY OF PARTICIPATING EMPLOYERS (continued)

Actuarial Assumptions (continued)

Best estimates of geometric real rates of return for each major asset class included in the target asset allocation as of June 30, 2019 and June 30, 2018 are summarized in the following table:

Asset Class	2019	2018
	Long-Term Expected Real Rate of Return	Long-Term Expected Real Rate of Return
Domestic Equities		
U.S. Large Cap	5.80%	4.50%
U.S. Small Cap	5.40%	4.40%
International Equities		
Int'l Development	7.70%	8.60%
Emerging Market Equity	8.60%	7.30%
U.S. Fixed Income		
Core fixed income	3.30%	0.00%
U.S. Treasury	2.70%	2.40%
Short-term Gov/Credit	2.80%	2.50%
Real Estate		
Core	6.10%	6.00%
Value-add	8.10%	8.00%
Risk Parity	7.10%	7.20%
Private Equity	8.80%	6.40%
Private Credit	7.70%	6.90%
Infrastructure	7.90%	7.10%
Cash	2.10%	2.20%

Discount Rate

The discount rate used to measure the total pension liability for the years ended June 30, 2019 and June 30, 2018 were 7.00% and 7.25%, respectively. The projection of cash flows used to determine the discount rate assumed that contributions from plan members will be made at the current contribution rate and that contributions from the employers will be made at contractually required rates, actuarially determined. Based on those assumptions, the pension plan's fiduciary net position was projected to be available to make all projected future benefit payments of current plan members. Therefore, the long-term expected rate of return on pension plan investments was applied to all periods of projected benefit payments to determine the total pension liability.

NOTE 8 – NET PENSION LIABILITY OF PARTICIPATING EMPLOYERS (continued)

Sensitivity of the Net Pension Liability to Changes in the Discount Rate

The following presents the net pension liability of StanCERA calculated using the discount rate of 7.00% and 7.25%, as well as what the Plan's net pension liability would be if it were calculated using a discount rate that is one percentage point lower (6.00% and 6.25%) or one percentage point higher (8.00% and 8.25%) than the current rate for fiscal years ending June 30, 2019 and 2018:

Sensitivity of Net Pension Liability to Changes in Discount Rate				
		1% Decrease	Current	1% Increase
		6.00%	Discount Rate 7.00%	8.00%
June 30, 2019	Net Pension Liability	\$ 1,062,692,654	\$ 660,227,945	\$ 331,678,933
	Fiduciary Net Postion as a Percentage of Total Pension Liability	67.5%	77.0%	86.9%
		1% Decrease	Prior Discount Rate	1% Increase
		6.25%	7.25%	8.25%
June 30, 2018	Net Pension Liability	\$ 1,036,523,014	\$ 645,706,713	\$ 327,139,828
	Fiduciary Net Postion as a Percentage of Total Pension Liability	67.2%	76.7%	86.7%

NOTE 9 – SUBSEQUENT EVENTS

StanCERA has evaluated events through November 13, 2019, which is the date the financial statements were issued. No subsequent events took place after June 30, 2019.

REQUIRED SUPPLEMENTARY INFORMATION

Schedule of Changes in Net Pension Liability and Related Ratios

	June 30, 2019	June 30, 2018	June 30, 2017	June 30, 2016	June 30, 2015	June 30, 2014
Total Pension Liability						
Service cost	\$ 59,957,490	\$ 58,007,036	\$ 57,465,280	\$ 55,351,509	\$ 48,242,363	\$ 46,209,346
Interest (includes interest on service cost)	198,460,567	190,493,637	179,875,553	171,938,615	154,850,353	147,384,248
Changes of benefit terms	-	-	-	-	-	-
Differences between expected and actual experience	15,206,475	(12,172,006)	28,801,984	(6,424,597)	2,148,638	-
Changes of assumptions (3)	(46,047,924)	-	-	269,752,272	-	-
Benefit payments, including refunds of member contributions	(131,774,689)	(123,172,116)	(116,843,858)	(108,165,810)	(101,858,156)	(94,782,471)
Net change in total pension liability	95,801,919	113,156,551	149,298,959	382,451,989	103,383,198	98,811,123
Total pension liability - beginning	2,772,667,458	2,659,510,907	2,510,211,948	2,127,759,959	2,024,376,761	1,925,565,638
Total pension liability - ending	\$ 2,868,469,377	\$ 2,772,667,458	\$ 2,659,510,907	\$ 2,510,211,948	\$ 2,127,759,959	\$ 2,024,376,761
Fiduciary Net Position						
Contributions - employer	\$ 88,589,381	\$ 76,966,471	\$ 63,024,560	\$ 58,196,310	\$ 53,849,031	\$ 46,763,996
Contributions - member (1)	27,742,863	26,746,289	25,463,745	23,916,508	22,960,235	21,867,911
Total investment income (loss)	99,280,525	154,988,199	252,309,705	(31,322,276)	68,722,781	274,896,108
Benefit payments, including refunds of member contributions	(131,774,691)	(123,172,116)	(116,843,858)	(108,165,810)	(101,858,156)	(94,782,471)
Administrative expense	(2,557,391)	(2,791,409)	(2,644,554)	(2,315,223)	(2,378,966)	(2,249,260)
Net change in fiduciary net position	81,280,687	132,737,434	221,309,598	(59,690,491)	41,294,925	246,496,284
Fiduciary net position - beginning	2,126,960,745	1,994,223,311	1,772,913,713	1,832,604,204	1,791,309,279	1,544,812,995
Fiduciary net position - ending	\$ 2,208,241,432	\$ 2,126,960,745	\$ 1,994,223,311	\$ 1,772,913,713	\$ 1,832,604,204	\$ 1,791,309,279
Net pension liability - ending	\$ 660,227,945	\$ 645,706,713	\$ 665,287,596	\$ 737,298,235	\$ 295,155,755	\$ 233,067,482
Fiduciary net position as a percentage of the total pension liability	77.0%	76.7%	75.0%	70.6%	86.1%	88.5%
Covered payroll (2)	\$ 281,979,654	\$ 268,009,042	\$ 255,646,515	\$ 245,751,576	\$ 237,263,160	\$ 221,863,110
Net pension liability as a percentage of covered payroll	234.1%	240.9%	260.2%	300.0%	124.4%	105.1%

Note: Trend Information: Schedule will ultimately show information for ten years. Additional years will be displayed as they become available.

- (1) In accordance with GASB Statement No. 82, employer-paid member contributions are classified as Member Contributions.
- (2) In accordance with GASB Statement No. 82, Covered Payroll is the payroll on which contributions are based.
- (3) In 2016, amounts reported as changes of assumptions resulted primarily from changes to the assumed earnings rate from 7.75% to 7.25% and from adjustments to assumed life expectancies as a result of adopting mortality tables with generational improvements. In 2019, amounts reported as changes of assumptions resulted primarily from changes to the assumed earnings rate from 7.25% to 7.00% and from adjustments to mortality rates, disability rates, and retirement rates.

REQUIRED SUPPLEMENTARY INFORMATION (continued)

Schedule of Employer Contributions

Last 10 Fiscal Years for Fiscal Years Ending June 30

(Dollar amounts in thousands)

	2019	2018	2017	2016	2015
Actuarially Determined Contributions	\$ 88,589	\$ 76,966	\$ 63,025	\$ 58,196	\$ 53,849
Contributions in Relation to the					
Actuarially Determined Contributions	88,589	76,966	63,025	58,196	53,849
Contribution Deficiency/(Excess)	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>
Covered Payroll ⁽¹⁾	\$ 281,980	\$ 268,009	\$ 255,647	\$ 245,752	\$ 237,263
Contributions as a Percentage of					
Covered Payroll	31.42%	28.72%	24.65%	23.68%	22.70%
	2014	2013	2012	2011	2010
Actuarially Determined Contributions	\$ 46,764	\$ 39,077	\$ 41,614	\$ 47,657	\$ 31,814
Contributions in Relation to the					
Actuarially Determined Contributions	46,764	39,077	41,614	47,657	31,814
Contribution Deficiency/(Excess)	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>
Covered Payroll ⁽¹⁾	\$ 221,863	\$ 217,491	\$ 215,057	\$ 221,541	\$ 231,538
Contributions as a Percentage of					
Covered Payroll	21.08%	17.97%	19.35%	21.51%	13.74%

(1) In accordance with GASB Statement No. 82, Covered Payroll is the payroll on which contributions are based.

Schedule of Investment Returns

Last 10 Fiscal Years for Fiscal Years ending June 30

	2019	2018	2017	2016	2015
Annual money-weighted rate of					
return, net of investment expense	5.10%	8.10%	14.40%	-1.70%	4.20%
	2014	2013	2012	2011	2010
Annual money-weighted rate of					
return, net of investment expense	18.20%	14.50%	0.70%	22.90%	15.90%

NOTES TO REQUIRED SUPPLEMENTARY INFORMATION

Changes of benefit terms

There were no changes of benefit terms for fiscal year ended June 30, 2019.

Changes of assumptions

The amounts reported as changes in assumptions for fiscal year ending June 30, 2019 resulted primarily from changes to the assumed earnings rate from 7.25% to 7.00% and from adjustments to mortality rates, disability rates, and retirement rates. Mortality rates were adjusted to the CalPERS base table and the generational mortality improvement scales (from the 2015 to the 2018 tables). StanCERA adopted CalPERS State Safety rates for Safety service-connected disability rates and updated CalPERS non-service connected disability rates for General members. Retirement rates were lowered for pre-PEPRA General members from ages 55-60, and adjusted to CalPERS rates for PEPRA members (General and Safety).

Methods and Assumptions Used in Calculations of Actuarially Determined Contributions

The actuarially determined contribution amounts in the schedule of employer contributions are calculated as of June 30, 2017, two years prior to the end of the fiscal year in which contributions are reported. The following actuarial methods and assumptions were used to determine contribution rates reported in that schedule:

ACTUARIAL VALUATION METHODS AND ASSUMPTIONS

Valuation Date	June 30, 2017
Actuarial Cost Method	Entry Age Normal
Amortization Method	Level Percent of Pay
Remaining Amortization Period	Closed period - 19 Years
Asset Valuation Method	Actuarial value: Excess earnings smoothed over five years, 80% / 120% corridor around market
Actuarial Assumptions	
Investment Rate of Return	7.25%, net of investment expenses
Projected Salary Increases	3.25%, plus service-based rates
Attributed to Inflation	3.00%
Cost-of-Living Adjustments	100% of CPI to 3.0% annually with banking, 2.7% annual increases assumed
Mortality	<p>Rates of ordinary death for active Members are specified by the CalPERS Pre-Retirement Non-Industrial Mortality table, adjusted by 100.3% for males and 98.8% for females, with generational mortality improvements projected from 2009 using Scale MP-2015. Duty related mortality rates are only applicable for Safety Active Members, and are based on the CalPERS Pre-Retirement Individual Death table without adjustment or projection.</p> <p>Rates of mortality for healthy retired Members and their beneficiaries are specified by the CalPERS Healthy Annuitant table, adjusted by 93.4% for males and 107.9% for females, with generational mortality improvements projected from 2009 using Scale MP-2015. Separate mortality assumptions are used for disabled retirees.</p>

A complete description of the methods and assumptions used to determine contribution rates for the year ending June 30, 2019 can be found in the June 30, 2017 actuarial valuation report located on StanCERA's website, www.stancera.org.

OTHER SUPPLEMENTAL INFORMATION

SCHEDULE OF ADMINISTRATIVE EXPENSES For the Fiscal Years Ended June 30, 2019 and 2018

	2019	2018
Personnel Services:		
Salaries and Employee Benefits	\$ 1,491,409	\$ 1,370,711
Total Personnel Services	<u>1,491,409</u>	<u>1,370,711</u>
Professional Services:		
Computer and Software Services and Support	256,265	220,591
Outside Legal Counsel	102,356	604,623
Disability Hearing Officer/Medical Exams and Reviews	10,388	16,000
External Audit Fees	47,624	44,452
Other Professional Services	1,025	6,959
Total Professional Services	<u>417,658</u>	<u>892,625</u>
Office Expenses:		
Office Supplies	13,160	14,333
Minor Equipment and Computer Supplies	31,473	13,248
Stanislaus County Support Services	168,869	134,958
Contract Services	32,771	32,968
Communications	56,742	66,595
Publications	4,841	4,327
Total Office Expenses	<u>307,856</u>	<u>266,429</u>
Miscellaneous:		
Fiduciary and Staff - Education/Travel	117,425	89,627
Fiduciary and Staff - Meetings/Other Travel	8,300	6,800
Insurance	77,852	80,972
Memberships	6,374	11,280
Depreciation	130,517	72,965
Total Miscellaneous	<u>340,468</u>	<u>261,644</u>
TOTAL ADMINISTRATIVE EXPENSES	<u><u>\$ 2,557,391</u></u>	<u><u>\$ 2,791,409</u></u>

OTHER SUPPLEMENTAL INFORMATION (continued)

SCHEDULE OF INVESTMENT MANAGEMENT FEES AND OTHER INVESTMENT EXPENSES For the Fiscal Years Ended June 30, 2019 and 2018

	2019	2018
Investment Management Fees:		
Domestic Equity	\$ 796,475	\$ 1,708,833
International Equity	1,338,231	1,569,198
Fixed Income	520,469	475,320
Private Credit	(202,297)	1,972,012
Private Real Estate	2,088,524	1,853,891
Infrastructure	636,451	721,071
Real Estate Securities & Special Situations	67,413	147,006
Risk Parity	1,033,655	457,428
Total Investment Management Fees	<u>6,278,921</u>	<u>8,904,759</u>
Investment Consulting Fees	483,103	291,039
Investment Custodian Fees	323,150	243,531
Investment Legal Fees	21,161	74,163
Other Investment Related Expenses	<u>1,758,022</u>	<u>1,515,476</u>
Total Other Investment Expenses	<u>2,585,436</u>	<u>2,124,209</u>
Actuarial Fees	<u>144,063</u>	<u>91,802</u>
TOTAL INVESTMENT EXPENSES	<u>\$ 9,008,420</u>	<u>\$ 11,120,770</u>

SCHEDULE OF PAYMENTS TO CONSULTANTS For the Fiscal Years Ended June 30, 2019 and 2018

	2019	2018
Investment Professional Service Fees:		
Investment Consultants	\$ 483,103	\$ 291,039
Custodial Fees	323,150	243,531
Investment Attorney	21,161	74,163
Actuarial Fees	144,063	91,802
Total Investment Professional Service Fees	<u>\$ 971,477</u>	<u>\$ 700,535</u>

Administrative Professional Services Fees:		
Computer and Software Services and Support	\$ 256,265	\$ 220,591
Outside Legal Counsel	102,356	604,623
Disability Hearing Officer/Medical Exams and Reviews	10,388	16,000
External Audit Fees	47,624	44,452
Other Professional Services	1,025	6,959
Total Administrative Professional Services Fees	<u>\$ 417,658</u>	<u>\$ 892,625</u>

INVESTMENT SECTION



Stanislaus County Employee Retirement System

Summary

Verus independently calculates the Plan's performance using portfolio market valuation and transaction data provided by the Plan's custodian bank, Northern Trust. Performance calculations are presented, to the greatest degree possible, in accordance with the Global Investment Performance Standards published by the CFA Institute.

The StanCERA Total Fund returned 5.1% net of fees for the fiscal year compared to 5.9% for the Policy Index. The Total Fund earned 9.1%, 5.8%, and 9.8% net of fees for the trailing three-, five-, and ten-year periods ending June 30, 2019, respectively.

Domestic Equities' returns were more in line with expectations this past year. The Russell 3000, an all-cap equity index, returned 9.0% for the one-year ending June 30, 2019. StanCERA's Domestic Equity Portfolio returned 7.6% net of fees for the fiscal year compared to 8.4% for its custom policy index (60% Russell 1000 / 15% Russell 2000 / 25% Russell 3000 + 3%). The Plan's Domestic Equity Portfolio returned 14.3%, 9.3%, and 14.4% net of fees over the trailing three-, five-, and ten-year periods ending June 30, 2019, respectively.

International Equities suffered a bit this past year, represented by MSCI All Country World Index ex-US returning 1.8%. StanCERA's International Equity Portfolio also struggled, returning -0.8% net of fees for the fiscal year compared to the same index. The Plan's International Equity Portfolio fared better over the long term with returns of 9.2%, 2.4%, and 7.3% net of fees over the trailing three-, five-, and ten-year periods ending June 30, 2019, respectively.

The Domestic Fixed Income market bounced back from last year's lackluster performance as volatility in the equity markets drove investors to the more conservative fixed income asset class, as shown by the 7.9% returns of the Bloomberg Barclays US Aggregate Index for the one-year ending June 30, 2019. StanCERA's Domestic Fixed Income portfolio returned 6.5% net of fees for the fiscal year and returned 3.2%, 3.3%, and 5.0% net of fees over the trailing three-, five-, and ten-year periods ending June 30, 2019, respectively.

The US Real Estate market continued to experience some volatility but again generated a positive return for the fiscal year. StanCERA's Real Estate Portfolio returned 6.6% net of fees for the fiscal year compared to 9.8% for the Dow Jones US Select RESI Index. The Plan's Real Estate Portfolio returned 5.9%, 8.5%, and 9.5% net of fees over the trailing three-, five-, and ten-year periods ending June 30, 2019, respectively.

StanCERA's Private Credit Portfolio returned 3.7% net of fees for the fiscal year compared to a custom benchmark index (S&P/LSTA Leveraged Loan Index + 2%) of 6.0%. The Plan's Private Credit Portfolio returned 3.0% and 3.5% over the trailing three- and five-year periods ending June 30, 2019, respectively.

StanCERA's Risk Parity Portfolio was a bright spot in the overall Plan's performance, returning 9.3% net of fees for the one-year period ending June 30, 2019 compared to 6.1% for the custom benchmark (60% MSCI ACWI / 40% Bloomberg Barclays Global Aggregate Index).

StanCERA's Infrastructure Portfolio continues to be another source of strong returns for the Plan returning 12.4% net of fees for the fiscal year compared to 6.7% for the CPI +5% Index. The Plan's Infrastructure Portfolio returned 11.9% over the trailing three-year period ending June 30, 2019.

Investment Policy, Asset Deployment Policy and Performance Measurement Standards

StanCERA periodically reviews and updates its investment policy statement, asset allocation, and related procedures and processes. The primary investment objective is to earn a long-term return sufficient to avoid deterioration in funded status while assuming an acceptable level of investment risk. A secondary goal is to outperform the asset allocation-weighted benchmark (i.e. the "policy index"). At quarterly intervals, the System reviews performance at the total fund, asset-class composite and individual investment strategy levels. At each level, returns are evaluated against pre-determined benchmarks and peers.

The table below shows the current asset allocation as of June 30, 2019, reflective of the recently adopted structure:

Asset Class	Target Allocation
Liquidity Sub-Portfolio	12
Cash	1
Short-Term Gov't/Credit	11
Growth Sub-Portfolio	77
US Large	14
US Small	3
Private Equity	6
International Developed	23
Core Real Estate	5
Value Add Real Estate	5
Risk Parity	13
Infrastructure	2
Private Credit	6
Risk-Diversifying Sub-Portfolio	11
US Treasury	3
Short-Term Gov't/Credit	8
Total Allocation	100

Investment Objectives

Investment returns achieved through June 30, 2019 have been calculated using a time-weighted rate of return methodology based upon market values. In fiscal year 2019, StanCERA met its management goals of ensuring sufficient funds available to pay vested benefits and maintain supplemental benefits, complying with applicable fiduciary standards. The following table provides gross-of-fees returns and comparative rankings at the asset class composite and total fund levels:

Periods Ending June 30, 2019	One Year	Three Years	Five Years
US Equity	7.80%	14.50%	9.60%
60% Russell 1000 / 15% Russell 2000 / 25% Russell 3000 + 3%	8.40%	14.20%	10.10%
Rank*	53	26	56
International Equity	-0.40%	9.60%	2.80%
MSCI ACWI ex-US Index	1.80%	9.90%	2.60%
Rank	65	41	50
US Fixed Income	6.60%	3.30%	3.40%
Barclays US Aggregate	7.90%	2.30%	2.90%
Rank	77	49	45
Real Estate	7.30%	6.60%	9.50%
DJ US Select Real Estate	9.80%	3.70%	7.60%
Private Credit	4.30%	3.80%	4.90%
S&P/LSTA Leveraged Loan Index +2%	6.00%	7.30%	5.70%
Risk Parity	9.70%	--	--
60% MSCI ACWI / 40% Bloomberg Barclays Global Aggregate	6.10%	--	--
Infrastructure	12.40%	13.60%	--
CPI + 5%	6.70%	7.10%	--
Total Fund	5.40%	9.50%	6.20%
Policy Benchmark**	5.90%	8.30%	6.00%
Public Fund Median	6.23%	8.85%	5.90%
Rank	72	22	38

* Rankings based on InvestorForce's universe of all Public Defined Benefit Plans. Ranking 1 is highest, 100 is lowest.

** 14% Russell 1000, 3% Russell 2000, 6% Russell 3000, 23% MSCI ACWI ex-USA, 19% BBgBarc US Gov't/Credit 1-3 Yr, 3% BBgBarc US Treasury 7-10 Yr, 5% NCREIF Property, 5% NCREIF Property +2%, 2% CPI +5%, 6% S&P/LSTA Leveraged Loan Index +2%, 13% 60% MSCI ACWI / 40% BBgBarc Global Aggregate, 1% Citi 1 Month T-Bills.

Returns are gross of fees. Returns for periods greater than one-year are annualized. Results of all publicly traded investments are consistent with Global Investment Performance Standards (GIPS) as adopted by the CFA Board of Governors.

All of us here at Verus appreciate the opportunity to assist StanCERA in meeting the Plan's investment objectives. We look forward to continuing in our role of investment advisor and providing guidance to help navigate ever-changing markets.

Respectfully,

A handwritten signature in dark ink, reading "Eileen Neill". The signature is written in a cursive, flowing style.

Eileen L. Neill, CFA
Managing Director, Senior Consultant

ASSET ALLOCATION

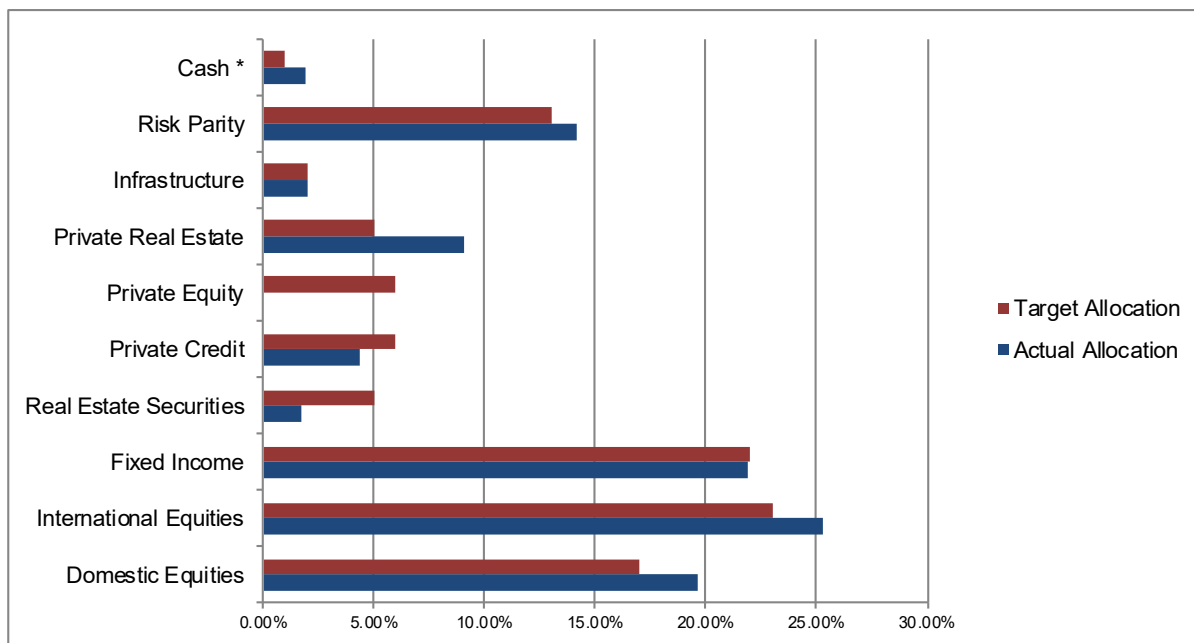
JUNE 30, 2019

Asset Class	Fair Value	Actual Allocation	Target Allocation
Domestic Equities	\$ 429,991,929	19.65%	17.00%
International Equities	553,218,608	25.28%	23.00%
Fixed Income	479,716,064	21.92%	22.00%
Real Estate Securities	37,095,763	1.69%	5.00%
Private Credit	95,094,309	4.34%	6.00%
Private Equity	-	0.00%	6.00%
Private Real Estate	197,966,376	9.05%	5.00%
Infrastructure	43,388,166	1.98%	2.00%
Risk Parity	309,627,036	14.15%	13.00%
Cash *	42,500,313	1.94%	1.00%
TOTAL PORTFOLIO**	\$ 2,188,598,564	100.00%	100.00%

* Excludes Pooled Cash in County Treasury of \$13,742,769.

** Excludes Securities Lending Cash Collateral.

StanCERA's Asset Allocation



SCHEDULE OF INVESTMENT RETURNS

As of June 30, 2019

Investment Managers	One Year	Three Year	Five Year	Ten Year
DOMESTIC EQUITY				
Northern Trust Russell 3000	N/A	N/A	N/A	N/A
<i>Russell 3000</i>	<i>N/A</i>	<i>N/A</i>	<i>N/A</i>	<i>N/A</i>
Dodge & Cox	4.0%	13.9%	8.2%	14.0%
BlackRock R1000 Value	8.6%	10.3%	7.6%	N/A
<i>Russell 1000 Value Index</i>	<i>8.5%</i>	<i>10.2%</i>	<i>7.5%</i>	<i>13.2%</i>
BlackRock R1000 Growth	11.6%	18.1%	13.4%	N/A
<i>Russell 1000 Growth Index</i>	<i>11.6%</i>	<i>18.1%</i>	<i>13.4%</i>	<i>N/A</i>
Capital Prospects	-5.7%	10.8%	5.8%	13.4%
<i>Russell 2000 Value Index</i>	<i>-6.2%</i>	<i>9.8%</i>	<i>5.4%</i>	<i>12.4%</i>
FIXED INCOME				
Dimensional Fund Advisors	5.4%	N/A	N/A	N/A
<i>ICE BofAML 1-5 Yrs US Corp & Govt TR</i>	<i>4.3%</i>	<i>N/A</i>	<i>N/A</i>	<i>N/A</i>
Insight	7.2%	N/A	N/A	N/A
<i>Barclays US Govt/Credit 1-5 Yr. TR Int TR</i>	<i>5.3%</i>	<i>N/A</i>	<i>N/A</i>	<i>N/A</i>
Northern Trust Intermediate Gov't Bond	6.2%	N/A	N/A	N/A
<i>Barclays US Govt Int TR</i>	<i>6.2%</i>	<i>N/A</i>	<i>N/A</i>	<i>N/A</i>
Northern Trust Long Term Gov't Bond	12.3%	N/A	N/A	N/A
<i>Barclays US Govt Long TR</i>	<i>12.3%</i>	<i>N/A</i>	<i>N/A</i>	<i>N/A</i>
INTERNATIONAL EQUITY				
LSV Asset Management	-2.8%	9.3%	1.7%	7.1%
Fidelity Asset Management	1.1%	8.9%	2.9%	7.4%
<i>MSCI ACWI ex US Index</i>	<i>1.8%</i>	<i>9.9%</i>	<i>2.6%</i>	<i>7.0%</i>
REAL ESTATE SECURITIES				
BlackRock US Real Estate Index	9.7%	3.7%	7.5%	N/A
<i>DJ US Select RESI TR USD</i>	<i>9.8%</i>	<i>3.7%</i>	<i>7.6%</i>	<i>N/A</i>
PRIVATE CREDIT *				
Medley Opportunity Fund II	1.3%	N/A	N/A	N/A
Raven Opportunity Fund I	2.0%	N/A	N/A	N/A
Raven Opportunity Fund III	5.5%			
White Oak Global Advisors	7.4%	N/A	N/A	N/A
<i>9% Annual</i>	<i>9.0%</i>	<i>N/A</i>	<i>N/A</i>	<i>N/A</i>
PRIVATE REAL ESTATE *				
Prime Property Fund	7.2%	8.2%	N/A	N/A
<i>NCREIF ODCE</i>	<i>6.4%</i>	<i>7.6%</i>	<i>N/A</i>	<i>N/A</i>
PGIM Real Estate U.S. Debt Fund	N/A	N/A	N/A	N/A
<i>N/A</i>	<i>N/A</i>	<i>N/A</i>	<i>N/A</i>	<i>N/A</i>
American Strategic Value Realty	7.8%	9.6%	N/A	N/A
<i>NCREIF Property Index</i>	<i>6.5%</i>	<i>6.9%</i>	<i>N/A</i>	<i>N/A</i>
BlackRock US Real Estate Index	9.7%	3.7%	7.5%	N/A
<i>DJ US Select RESI TR USD</i>	<i>9.8%</i>	<i>3.7%</i>	<i>7.6%</i>	<i>N/A</i>
Greenfield Acquisition Partners VII	13.4%	N/A	N/A	N/A
Greenfield Acquisition Partners VIII	N/A	N/A	N/A	N/A
<i>NCREIF ODCE +1%</i>	<i>7.4%</i>	<i>N/A</i>	<i>N/A</i>	<i>N/A</i>
INFRASTRUCTURE *				
North Haven Partners II	12.2%	N/A	N/A	N/A
<i>CPI + 5%</i>	<i>7.1%</i>	<i>N/A</i>	<i>N/A</i>	<i>N/A</i>
RISK PARITY				
AQR Global Risk Premium - EL	8.4%	N/A	N/A	N/A
PanAgora Risk Parity Multi Asset	10.3%	N/A	N/A	N/A
<i>60% MSCI ACWI</i>	<i>6.1%</i>	<i>N/A</i>	<i>N/A</i>	<i>N/A</i>
TOTAL FUND				
<i>Policy Index</i>	<i>5.1%</i>	<i>9.1%</i>	<i>5.8%</i>	<i>9.8%</i>
	<i>5.9%</i>	<i>8.3%</i>	<i>6.0%</i>	<i>9.4%</i>

Note: % taken from Verus Quarterly Report presented to Board of Retirement on 8/27/2019.

Using time-weighted rate of return based on the market rate of return.

Does not include Securites Lending Collateral.

* IRR since inception is reported. One, three, five, and ten year returns are not available for these investments.

SCHEDULE OF INVESTMENTS BY ASSET CLASS AND MANAGER
As of June 30, 2019

Investment Managers	Asset Class	Assets Under Management	% of Fund
DOMESTIC EQUITY			
Dodge & Cox	Large Cap Value	\$ 74,434,868	3.40%
BlackRock R1000 Value	Large Cap Value	28,600,999	1.31%
BlackRock R1000 Growth	Large Cap Growth	126,125,815	5.76%
Northern Trust Russell 1000	Large Cap Growth	-	0.00%
Northern Trust Russell 3000	Private Equity	125,518,406	5.74%
Capital Prospects	Small Cap Value	75,311,841	3.44%
FIXED INCOME			
Dimensional Fund Advisors	Core Bond	186,249,188	8.51%
Insight	Core Bond	231,004,254	10.55%
NT Intermediate Bond	Core Bond	45,938,523	2.10%
NT Long Term Bond	Core Bond	16,524,099	0.76%
INTERNATIONAL EQUITY			
LSV Asset Management	Equity Value	268,778,693	12.28%
Fidelity Asset Management	Equity Growth	284,439,915	13.00%
REAL ESTATE SECURITIES			
BlackRock US Real Estate	Real Estate Index	37,095,763	1.69%
PRIVATE CREDIT			
Medley Opportunity Fund II	Private Equity	12,870,265	0.59%
Raven Opportunity Fund I	Private Equity	14,178,245	0.65%
Raven Opportunity Fund III		42,168,305	1.93%
White Oak Global Advisors	Private Equity	25,877,494	1.18%
PRIVATE REAL ESTATE			
American Realty Advisors	Private Real Estate	51,666,921	2.36%
Greenfield Acquisition Partners VII LP	Private Real Estate	13,145,095	0.60%
Greenfield Acquisition Partners VIII LP	Private Real Estate	19,807,000	0.91%
PGIM	Private Real Estate	56,100,410	2.56%
Prime Property Fund	Private Real Estate	57,246,950	2.62%
INFRASTRUCTURE			
North Haven Partners II LP	Infrastructure	43,388,166	1.98%
RISK PARITY			
AQR	Risk Parity	155,849,400	7.12%
PanAgora	Risk Parity	153,777,636	7.03%
Total Assets Under Management		2,146,098,251	
Cash and Short-Term Investments	90 Day T-Bill	42,500,313	1.93%
Total Fund		\$ 2,188,598,564	100.00%

Note: Does not include Securities Lending Collateral.
Does not include cash in Treasury Pool.

LARGEST BOND HOLDINGS (BY FAIR VALUE)
JUNE 30, 2019

Shares	Bond	Fair Value
4,168,000	CR SUISSE GROUP 3.8% DUE 06-09-2023	4,322,516
3,900,000	INTEL CORP 3.7% DUE 07-29-2025	4,181,525
3,190,000	COLUMBIA PIPELN 4.5% DUE 06-01-2025	3,433,104
3,264,000	WILLIAMS PARTNERS 3.35% DUE 08-15-2022	3,326,666
3,254,000	NEWELL BRANDS INC 4% DUE 12-01-2024	3,312,640
3,165,000	SANTANDER UK GROUP 3.571% DUE 01-10-2023	3,220,052
2,930,000	SPECTRA ENERGY 4.75% DUE 03-15-2024	3,173,474
3,000,000	NORFOLK SOUTHN 3.65% DUE 08-01-2025	3,163,374
2,855,000	AMERICAN INTL GROUP INC 4.125% DUE 02-15-2024	3,025,289
3,000,000	TORONTO-DOMINION BANK MTN 3.0% 06-11-2020	3,021,660
2,969,000	PVTPL BAYER US FINANCE LLC 2.375% DUE 10-08-2019	2,965,105
2,845,000	CAMPBELL SOUP CO 3.95% DUE 03-15-2025	2,959,503
2,756,000	QUALCOMM INC 3.45% DUE 05-20-2025	2,860,816
2,663,000	HSBC HOLDINGS PLC 4.25% DUE 03-14-2024	2,811,326
2,549,000	CIMAREX ENERGY CO 4.375% DUE 06-01-2024	2,699,745
2,622,000	CAP 1 FINL CORP 3.2% DUE 02-05-2025	2,672,188
2,592,000	ENTERPRISE PRODS 3.35% DUE 03-15-2023	2,665,556
2,540,000	ORACLE CORP 3.4% DUE 07-08-2024	2,661,991
2,600,000	TOTAL CAP INTL 2.7% DUE 01-25-2023	2,639,471
2,606,000	SUMITOMO MITSUI 2.442% DUE 10-19-2021	2,609,711

LARGEST STOCK HOLDINGS (BY FAIR VALUE)
JUNE 30, 2019

Shares	Stock	Fair Value
24,600	ROCHE HLDGS AG GENUSSSCHEINE NPV	6,929,631
52,729	NESTLE SA CHF0 (REGD)	5,465,428
165,700	ROYAL DUTCH SHELL 'B'ORD EUR	5,442,978
490,400	AIA GROUP LTD NPV	5,288,474
38,169	SAP SE	5,249,058
56,900	SANOFI EUR	4,918,795
117,300	SAMSUNG ELECTRONIC KRW100	4,774,694
15,829	ROCHE HLDGS AG GENUSSSCHEINE NPV	4,458,908
134,645	ROYAL DUTCH SHELL 'A'SHS EUR	4,402,211
599,300	ENEL SPA EUR	4,190,445
523,500	TECHTRONIC INDUSTR NPV	4,007,078
69,600	TOTAL EUR	3,905,560
75,500	NIPPON TELEGRAPH & TELEPHONE CORP NPV	3,515,718
6,900	SWISS LIFE HOLDINGS AG	3,423,815
134,100	KDDI CORP NPV	3,414,733
169,200	GLAXOSMITHKLINE ORD GBP	3,395,064
13,700	ALLIANZ SE NPV(REGD)(VINKULIERT)	3,307,531
469,642	BP ORD USD	3,279,056
468,200	BP ORD USD	3,268,988
37,747	SANOFI EUR	3,263,089

A complete list of portfolio holdings is available on StanCERA's website at www.stancera.org or upon request.

SCHEDULE OF INVESTMENT MANAGEMENT FEES

For the Years Ended June 30, 2019 and 2018

	2019	2018
<u>Domestic Equities</u>		
BlackRock	\$ 22,733	\$ 43,792
Capital Prospects	601,752	843,544
Dodge & Cox	172,696	304,642
Jackson Square Partners	-	421,699
Legato Capital Management	-	118,106
Mellon Capital Management	-	5,902
NT Russell 1000	22,027	20,842
Total Domestic Equities	819,208	1,758,527
<u>International Equities</u>		
LSV Asset Management	663,439	938,512
Fidelity Asset Management	674,792	630,686
Total International Equities	1,338,231	1,569,198
<u>Fixed Income</u>		
Dimensional Fund Advisors	234,977	281,946
Dodge & Cox	-	16,762
Insight	259,478	127,888
NT Intermediate Bond	19,429	18,551
NT Long Term Bond	6,585	4,652
PIMCO	-	25,521
Total Fixed Income	520,469	475,320
<u>Real Estate Securities</u>		
BlackRock US Real Estate Index	44,680	97,312
Total Real Estate Securities	44,680	97,312
<u>Private Credit</u>		
Medley Opportunity Fund II	156,129	186,445
Raven Opportunity Fund I	230,841	276,921
Raven Opportunity Fund III	686,551	875,000
White Oak Global Advisors	(1,275,818)	633,646
Total Direct Lending	(202,297)	1,972,012
<u>Private Real Estate</u>		
American Realty Advisors	446,111	349,359
Greenfield Acquisition Partners VII	379,303	400,313
Greenfield Acquisition Partners VIII	465,114	939,726
Prime Property Fund	525,789	164,493
PGIM	272,207	-
Total Private Real Estate	2,088,524	1,853,891
<u>Infrastructure</u>		
North Haven Partners, LP	636,451	721,071
Total Infrastructure	636,451	721,071
<u>Risk Parity</u>		
AQR	544,002	171,396
PanAgora	489,653	286,032
Total Infrastructure	1,033,655	457,428
Total Investment Management Fees	6,278,921	8,904,759
<u>Other Investment Fees and Expenses</u>		
Consultant Fees	483,103	291,039
Custodial Fees	323,150	243,531
Investment Attorney	21,161	74,163
Other Investment Costs	1,758,022	1,515,476
Actuarial Fees	144,063	91,802
Total Other Investment Expenses	2,729,499	2,216,011
Total Investment Fees and Expenses	\$ 9,008,420	\$11,120,770

Commission Recapture Program

StanCERA participates in a commission recapture program administered by Cowen. The strategic objective of the Commission Recapture Program is to recapture a portion of trade commissions paid to brokers. The primary goal is to ensure that investment managers provide the best effort to optimize use of StanCERA's assets for the benefit of the members and beneficiaries by recapturing commissions paid on a specific percentage of trades sent to correspondent brokers on a timely basis. For fiscal years ending June 30, 2019 and 2018, Commission Recapture Income was \$22,395 and \$15,091, respectively.

Below are the commissions paid by StanCERA for fiscal year ending June 30:

		2019		
		<u># Shares</u>	<u>Commissions</u>	<u>Per Share</u>
<u>Domestic Equities</u>				
Capital Prospects		3,314,459	\$ 91,389	\$ 0.028
Dodge & Cox		698,941	6,146	0.009
Total Domestic Equities		4,013,400	97,535	0.024
<u>International Equities</u>				
LSV Asset Management		33,261,797	55,302	0.002
Fidelity Asset Management		21,927,235	175,868	0.008
Total International Equities		55,189,032	231,170	0.004
Total Investment Broker Commissions		<u>59,202,432</u>	<u>\$ 328,705</u>	<u>\$ 0.006</u>

		2018		
		<u># Shares</u>	<u>Commissions</u>	<u>Per Share</u>
<u>Domestic Equities</u>				
Capital Prospects		3,877,864	\$ 104,423	\$ 0.027
Dodge & Cox		3,508,233	23,237	0.007
Jackson Square Partners		2,662,942	77,838	0.029
Legato Capital Management		4,639,225	131,318	0.028
Total Domestic Equities		14,688,264	336,816	0.023
<u>International Equities</u>				
LSV Asset Management		35,115,634	30,657	0.001
Fidelity Asset Management		9,030,800	118,520	0.013
Total International Equities		44,146,434	149,177	0.003
Total Investment Broker Commissions		<u>58,834,698</u>	<u>\$ 485,993</u>	<u>\$ 0.008</u>

ACTUARIAL SECTION



Via Electronic Mail

September 19, 2019

Actuarial Certification

This is the Actuary's Certification Letter for the Actuarial Section of the Comprehensive Annual Financial Report (CAFR) for the StanCERA Retirement Plan (the Plan) as of June 30, 2019. This letter includes references to two documents produced by Cheiron for the Plan: the Actuarial Valuation Report as of June 30, 2018 (transmitted February 20, 2019) and the GASB 67/68 Report as of June 30, 2019 (transmitted September 19, 2019).

Actuarial Valuation Report as of June 30, 2018

The purpose of the annual Actuarial Valuation Report as of June 30, 2018 is to determine the actuarial funding status of StanCERA on that date and to calculate recommended contribution rates for the participating employers and Plan members for the Fiscal Year 2019-2020. The prior review was conducted as of June 30, 2017, and included recommended contribution rates for the Fiscal Year 2018-2019.

Actuarial funding is based on the Entry Age Normal Cost Method. Under this method, the employer contribution rate provides for current cost (normal cost) plus a level percentage of payroll to amortize the unfunded actuarial accrued liability (UAAL) plus expected administrative expenses. As of the valuation date (June 30, 2018), the amortization period is 18 years.

The funding objective of the Plan is to accumulate sufficient assets over each Member's working life to provide for Plan benefits after termination of employment or retirement. For actuarial valuation purposes, Plan assets are valued at Actuarial Value. Under this method, the assets used to determine employer contribution rates take into account market value by spreading all investment gains and losses (returns above or below expected returns) over a period of five years. The Actuarial Value is limited to no less than 80% and no more than 120% of market value.

The Board of Retirement is responsible for establishing and maintaining the funding policy of the Plan, subject to the laws of the State of California enacted under the County Employees Retirement Law of 1937 and subsequent legislation.

We prepared the following schedules, which we understand will be included in the Actuarial Section of the CAFR, based on the June 30, 2018 actuarial valuation. All historical information prior to the June 30, 2008 actuarial valuation shown in these schedules is based on information reported by the prior actuary, Buck Consultants.

- Statement of Current Actuarial Assumptions and Methods
- Membership Information (Active, Deferred, and Retired)

- Schedule of Retirees and Beneficiaries Added to and Removed from Rolls
- Development of 2018 Experience Gain/(Loss)
- Schedule of Funded Liabilities by Type (formerly referred to as the Solvency Test)
- Summary of Plan Provisions

We reviewed the actuarial assumptions shown in the schedules and found them to be reasonably appropriate for use under the Plan. The assumptions used in this report reflect the results of an Experience Study performed by Cheiron covering the period from July 1, 2015 through June 30, 2018, and approved by the Board. The assumptions used in the most recent valuation are intended to produce results that, in the aggregate, reasonably approximate the anticipated future experience of the Plan. The next experience analysis is expected to cover the years through 2021.

We certify that the valuation was performed in accordance with generally accepted actuarial principles and practices. In particular, the assumptions and methods used for funding purposes meet the requirements of the Actuarial Standards of Practice, in particular Standards No. 4, 27, 35, and 44.

GASB 67/68 Report as of June 30, 2019

The purpose of GASB 67/68 Report as of June 30, 2019 is to provide accounting and financial reporting information under GASB 67 for StanCERA and under GASB 68 for Stanislaus County and the other participating employers. This report is not appropriate for other purposes, including the measurement of funding requirements for StanCERA.

For financial reporting purposes, the Total Pension Liability is based on the June 30, 2018 actuarial valuation updated to the measurement date of June 30, 2019. There were no significant events of which we were aware between the valuation date and the measurement date so the update procedures only included the addition of service cost and interest cost offset by actual benefit payments.

Please refer to our GASB 67/68 report as of June 30, 2019 for additional information related to the financial reporting of the System. We prepared the following schedules for inclusion in the Financial Section of the CAFR based on the June 30, 2019 GASB 67/68 report:

- Change in Net Pension Liability
- Sensitivity of Net Pension Liability to Changes in Discount Rate
- Schedule of Changes in Net Pension Liability and Related Ratios
- Notes to the Schedule of Employer Contributions

We certify that the report was performed in accordance with generally accepted actuarial principles and practices. In particular, the assumptions and methods used for disclosure purposes have been prepared in accordance with our understanding of generally accepted accounting principles as promulgated by the GASB.

Disclaimers

In preparing our reports, we relied on information (some oral and some written) supplied by StanCERA. This information includes, but is not limited to, the plan provisions, employee data, and financial information. We performed an informal examination of the obvious characteristics of the data for reasonableness and consistency in accordance with Actuarial Standard of Practice No. 23.

Future actuarial measurements may differ significantly from the current measurements due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; and, changes in plan provisions or applicable law.

These reports are for the use of StanCERA and its auditor in preparing financial reports in accordance with applicable law and accounting requirements. Any other user of these reports is not an intended user and is considered a third party.

Cheiron's reports were prepared solely for StanCERA for the purposes described herein, except that the Plan's auditor may rely on these reports solely for the purpose of completing an audit related to the matters herein. They are not intended to benefit any third party, and Cheiron assumes no duty or liability to any such party.

We hereby certify that these reports and their contents have been prepared in accordance with generally recognized and accepted actuarial principles and practices and our understanding of the Code of Professional Conduct and applicable Actuarial Standards of Practice set out by the Actuarial Standards Board as well as applicable laws and regulations. Furthermore, as credentialed actuaries, we meet the Qualification Standards of the American Academy of Actuaries to render the opinion contained in this report. These reports do not address any contractual or legal issues. We are not attorneys and our firm does not provide any legal services or advice.

Respectfully Submitted,



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SUMMARY OF ASSUMPTIONS AND FUNDING METHODS

The following assumptions along with the post-retirement and pre-retirement demographic experiences are based on StanCERA's actuarial experience study from July 1, 2015 through June 30, 2018, approved by the StanCERA Board of Retirement on January 22, 2019. The actuarial valuation for fiscal year ending June 30, 2018 was approved by the StanCERA Board of Retirement on February 26, 2019, which incorporated the following assumptions. The purpose of the annual actuarial valuation report as of June 30, 2018 is to determine the actuarial funding status of StanCERA on that date and to calculate recommended contribution rates for the participating employers and StanCERA members for the fiscal year 2019-2020. The prior actuarial valuation conducted as of June 30, 2017 included recommended contribution rates for the fiscal year 2018-2019 which was approved by the StanCERA Board of Retirement on February 28, 2018.

Plan Description

A summary of plan provisions can be found in Note 1 of the Notes to Basic Financial Statements.

Actuarial Methods

Actuarial Cost Method

Annual contributions are computed under the Entry Age Normal Actuarial Cost Method, computed to the final decrement. A schedule of actuarially determined contributions compared to actual contributions can be found in the Required Supplementary Information section following the Notes to the Basic Financial Statements.

The excess of the Actuarial Accrued Liability over Plan assets is the Unfunded Actuarial Accrued Liability. The liability for each valuation group is amortized as a level percentage of payroll over a closed period (18 years as of the current valuation).

Actuarial Value of Plan Assets

The Actuarial Value of Plan Assets is a modified market-related value. The fair value of assets is adjusted to recognize, over a five-year period, differences between actual investment earnings and the assumed investment return. The Actuarial Value of Plan Assets is limited to no less the 80% and no more than 120% of the fair value. As of June 30, 2011, the Actuarial Value was reset to equal fair value.

ACTUARIAL VALUATION METHODS AND ASSUMPTIONS		
Valuation Date	June 30, 2018	June 30, 2017
Actuarial Cost Method	Entry Age Normal	Entry Age Normal
Amortization Method	Level percent of Pay	Level percent of Pay
Remaining Amortization Period	18 Years	19 Years
Asset Valuation Method	Modified Market-Related Value smoothed over a five year period	Modified Market-Related Value smoothed over a five year period

Actuarial Assumptions

1. Rate of Return – The annual rate of return is assumed to be 7.00% net of investment expenses.
2. Cost of Living – The cost of living is assumed to be 2.75% per year as measured by the Consumer Price Index.
3. Administrative Expenses – An allowance of \$2,825,625 has been included in the annual cost calculation.
4. Interest Credited to Employee Accounts – 0.25% annually.
5. Increases in Pay – Base salary increase is assumed at 3.00%. Assumed pay increases for active Members consist of increases due to salary adjustments (as noted above), plus service-based increases due to longevity and promotion, as shown below.

Longevity & Promotion Increases		
Service	Safety	General
0	5.00%	7.00%
1	5.00%	6.00%
2	5.00%	5.00%
3	5.00%	4.00%
4	5.00%	3.00%
5	3.50%	2.00%
6	2.50%	1.75%
7	1.50%	1.50%
8	1.25%	1.25%
9	1.00%	1.00%
10	0.75%	0.75%
11+	0.50%	0.50%

6. PEPRA Compensation Limit – Assumption used for increasing the compensation limit that applies to PEPRA members is 2.75%.
7. Post Retirement COLA – 100% of Consumer Price Index up to 3% annually with banking, 2.6% annual increases assumed.
8. Social Security Wage Base – For projecting the Social Security Benefit, the annual Social Security Wage Base increase is assumed to be 3.00% per year. General Tier 3 members have their benefits offset by an assumed Social Security Benefit.
9. Internal Revenue Code Section 415 Limit – not reflected in the valuation for funding purposes.
10. Internal Revenue Code Section 401(a)(17) – not reflected in the valuation for funding purposes.
11. Family Composition – Spouses of male members are assumed to be three years younger than the member. Spouses of female members are assumed to be two years older than the member.

Percent Married	
Gender	Percentage
Males	80%
Females	50%

Actuarial Assumptions (continued)

12. Accumulated Vacation Time Load – Active members' service retirement and related benefits are loaded by 1.75% for Safety Members and 1.00% for General Members.

13. Rates of Separation – Separate rates of termination are assumed among Safety and General Members. Termination rates do not apply once a member is eligible for retirement.

Termination (all types)		
Service	Safety	General
	All	All
0	18.0%	18.0%
1	14.0%	12.0%
2	11.7%	9.0%
3	9.4%	7.0%
4	7.1%	6.0%
5	5.0%	5.0%
10	3.5%	5.0%
15	2.9%	3.4%
20	1.5%	0.0%
25	1.3%	0.0%
30+	0.0%	0.0%

14. Withdrawal – Rates of withdrawal apply to active Members who terminate their employment and withdraw their member contributions. 50% of all General Member terminations with less than ten years of service and 20% of those with ten or more years of service are assumed to take a refund of contributions. 35% of all Safety Member terminations with less than ten years of service and 10% of those with ten or more years of service are assumed to take a refund of contributions.

15. Vested Termination – Rates of vested termination apply to active Members who terminate their employment after five years of service and leave their member contributions on deposit with the Plan. Tier 3 General Members are assumed to begin receiving benefits at age 65; all other General Members at age 58. Safety Members are assumed to begin receiving benefits at age 53. 50% of vested terminated General members are assumed to be reciprocal, and 65% of vested Safety members are assumed to be reciprocal. Reciprocal members are assumed to receive 3.75% annual pay increases from the date of transfer to the assumed retirement date.

16. Service Connected-Disability – Separate rates are assumed among Safety and General Members. Rates for both sexes for Safety Members are combined.

Service-Connected Disability			
Age	Safety	General	
	All	Female	Male
20	0.0020%	0.0002%	0.0043%
25	0.0760%	0.0004%	0.0102%
30	0.1700%	0.0008%	0.0211%
35	0.2640%	0.0024%	0.0284%
40	0.3600%	0.0056%	0.0401%
45	0.4570%	0.0101%	0.0613%
50	0.5570%	0.0162%	0.0897%
55	0.6580%	0.0249%	0.1227%
60	0.7620%	0.0349%	0.1637%
65	0.8690%	0.0000%	0.0000%

Actuarial Assumptions (continued)

17. Non Service-Connected Disability - Separate rates are assumed among Safety and General Members. Rates for both sexes for Safety Members are combined. Rates shown are applied after five years of service.

Non Service-Connected Disability			
Age	Safety All	General	
		Female	Male
20	0.0100%	0.0100%	0.0170%
25	0.0100%	0.0100%	0.0170%
30	0.0200%	0.0240%	0.0190%
35	0.0300%	0.0710%	0.0390%
40	0.0400%	0.1350%	0.1020%
45	0.0500%	0.1880%	0.1510%
50	0.0800%	0.1990%	0.1580%
55	0.1300%	0.1490%	0.1580%
60	0.2000%	0.1050%	0.1530%
65	0.2000%	0.0880%	0.1280%
70+	0.0000%	0.0840%	0.1020%

18. Rates for Mortality for Healthy Lives – Rates of mortality for active Members are specified by the CalPERS Pre-Retirement Non-Industrial Mortality table, adjusted by 97.2% for males and 101.6% for females, with generational mortality improvements projected from 2009 using SOA Scale MP-2018.

Mortality Rates			
Age	Duty Death	Ordinary Death - General & Safety	
	Safety All	Female	Male
20	0.0030%	0.0215%	0.0320%
25	0.0070%	0.0248%	0.0413%
30	0.0100%	0.0269%	0.0505%
35	0.0120%	0.0378%	0.0588%
40	0.0130%	0.0539%	0.0774%
45	0.0140%	0.0766%	0.1094%
50	0.0150%	0.1079%	0.1600%
55	0.0160%	0.1550%	0.2353%
60	0.0170%	0.2261%	0.3446%
65	0.0180%	0.3324%	0.4949%
70	0.0190%	0.4747%	0.6891%

Actuarial Assumptions (continued)

19. Disabled Member Mortality –

Nonservice-Connected Disability Members are specified by the CalPERS Non-Industrial Disable Annuitant Mortality table, adjusted 104.5% for females, with generational mortality improvements projected from 2009 using SOA Scale MP-2018.

Service-Connected Disability Members are adjusted by 101.9% for males using the same table and scale.

Diabled Mortality Rates				
	NonService Connected		Service Connected	
Age	Female	Male	Female	Male
45	0.8920%	1.2970%	0.2980%	0.3440%
50	1.2850%	1.7840%	0.4950%	0.5420%
55	1.3270%	2.0950%	0.4600%	0.6480%
60	1.5780%	2.6340%	0.6330%	0.8840%
65	2.1380%	3.1200%	1.0660%	1.4550%
70	2.9410%	3.8900%	1.7750%	2.2540%
75	4.0410%	5.3980%	2.9520%	3.9080%
80	6.2870%	8.2300%	4.9780%	6.7540%
85	10.3270%	13.1660%	7.9590%	10.5870%
90	16.8060%	18.4690%	12.3350%	16.4930%

20. Retired Member and Beneficiary Mortality - specified by the CalPERS Non-Industrial Disable Annuitant Mortality table, adjusted by 97.2% for males and 104.1% for females, with generational mortality improvements projected from 2009 using Scale MP-2018.

Retired Mortality Rates		
Age	Female	Male
45	0.2210%	0.2340%
50	0.5150%	0.5170%
55	0.4790%	0.6180%
60	0.5560%	0.7940%
65	0.7790%	1.0260%
70	1.3170%	1.7170%
75	2.2830%	2.9000%
80	3.8470%	5.1280%
85	6.9490%	9.1650%
90	12.8410%	15.7330%

21. Mortality Improvement – The mortality assumptions employ a fully generational mortality improvement projection from base year 2009 using Scale MP-2018.

Actuarial Assumptions (continued)

22. Service Retirement – Assumed to occur among eligible members in accordance with the following table for non-PEPRA tiers 1 through 5.

Service Retirement - General				Service Retirement - Safety			
	Years of Service				Years of Service		
Age	0-9	10-29	30+	Age	0-9	10-19	20+
40-44	0.00%	0.00%	0.00%	40-48	0.00%	0.00%	5.00%
45-49	0.00%	0.00%	10.00%	49	0.00%	0.00%	20.00%
50-54	0.00%	5.00%	10.00%	50	0.00%	10.00%	30.00%
55	0.00%	7.50%	20.00%	51	0.00%	10.00%	20.00%
56	0.00%	7.50%	20.00%	52	0.00%	10.00%	20.00%
57	0.00%	7.50%	20.00%	53	0.00%	10.00%	20.00%
58	0.00%	12.50%	20.00%	54	0.00%	10.00%	20.00%
59	0.00%	12.50%	20.00%	55	0.00%	10.00%	30.00%
60	0.00%	12.50%	25.00%	56	0.00%	10.00%	30.00%
61	0.00%	20.00%	25.00%	57	0.00%	10.00%	30.00%
62	0.00%	25.00%	40.00%	58	0.00%	10.00%	30.00%
63	0.00%	20.00%	25.00%	59	0.00%	10.00%	30.00%
64	0.00%	25.00%	25.00%	60	0.00%	25.00%	100.00%
65	0.00%	35.00%	35.00%	61	0.00%	25.00%	100.00%
66	0.00%	45.00%	45.00%	62	0.00%	25.00%	100.00%
67	0.00%	20.00%	25.00%	63	0.00%	25.00%	100.00%
68	0.00%	20.00%	25.00%	64	0.00%	25.00%	100.00%
69	0.00%	20.00%	25.00%	65	0.00%	100.00%	100.00%
70	50.00%	50.00%	100.00%	6	0.00%	100.00%	100.00%
71	50.00%	50.00%	100.00%	67	0.00%	100.00%	100.00%
72	50.00%	50.00%	100.00%	68	0.00%	100.00%	100.00%
73	50.00%	50.00%	100.00%	69	0.00%	100.00%	100.00%
74	50.00%	50.00%	100.00%	70+	100.00%	100.00%	100.00%
75+	100.00%	100.00%	100.00%				

Actuarial Assumptions (continued)

23. PEPRA – Retirement for members in PEPRA, Tier 6, are assumed to occur among eligible members in accordance with the sample rates below, from the full tables CALPERS Public Agency Miscellaneous 2% @ 62 table for General and the CALPERS Public Agency Safety Police 2.7% @ 57 table for Safety:

Service Retirement - General (PEPRA)				
	Years of Service			
Age	5	10	25	35
50-51	0.00%	0.00%	0.00%	0.00%
52	0.50%	0.80%	1.90%	3.80%
53	0.70%	1.10%	2.10%	4.80%
54	0.70%	1.10%	2.30%	5.40%
55	1.00%	1.90%	6.10%	15.20%
56	1.40%	2.60%	7.50%	16.70%
57	1.80%	2.90%	7.40%	14.30%
58	2.30%	3.50%	7.30%	13.50%
59	2.50%	3.80%	9.20%	17.50%
60	3.10%	5.10%	11.10%	18.30%
61	3.80%	5.80%	12.10%	23.20%
62	4.40%	7.40%	16.40%	27.10%
63	7.70%	10.50%	19.20%	26.60%
64	7.20%	10.10%	18.70%	27.60%
65	10.80%	14.10%	23.90%	34.80%
66	13.20%	17.20%	29.20%	42.60%
67	13.20%	17.20%	29.20%	40.50%
68	12.00%	15.60%	26.50%	38.70%
69	12.00%	15.60%	26.50%	36.80%
70	12.00%	15.60%	26.50%	38.70%
71	12.00%	15.60%	26.50%	38.70%
72	12.00%	15.60%	26.50%	38.70%
73	12.00%	15.60%	26.50%	38.70%
74	12.00%	15.60%	26.50%	38.70%
75+	100.00%	100.00%	100.00%	100.00%

Service Retirement - Safety (PEPRA)				
	Years of Service			
Age	5	10	25	35
50	5.00%	5.00%	5.00%	11.00%
51	4.00%	4.00%	5.75%	13.92%
52	3.80%	3.80%	5.80%	13.21%
53	3.80%	3.80%	7.74%	28.98%
54	3.80%	3.80%	9.31%	33.25%
55	6.84%	6.84%	13.40%	38.76%
56	6.27%	6.27%	12.28%	34.49%
57	6.00%	6.00%	11.75%	32.00%
58	8.00%	8.00%	13.75%	35.00%
59	8.00%	8.00%	14.00%	40.00%
60	15.00%	15.00%	15.00%	35.00%
61	14.40%	14.40%	14.40%	26.40%
62	15.00%	15.00%	15.00%	33.00%
63	15.00%	15.00%	15.00%	40.00%
64	15.00%	15.00%	15.00%	52.50%
65+	100.00%	100.00%	100.00%	100.00%

24. Changes in actuarial assumptions – Details of all assumption changes can be found in the Actuarial Experience Study Report on StanCERA's website at <http://www.stancera.org> for the period covering July 1, 2015 through June 30, 2018. The proposed assumptions were summarized and reviewed with the Board at the January 22, 2019 Board meeting, at which the Board provided direction to proceed with the valuation based on those assumptions.

Participant data on active and inactive Members and their beneficiaries as of the valuation date was supplied by the Plan staff on direction of the Executive Director on electronic media. Member data was neither verified nor audited.

**SCHEDULE OF ACTIVE MEMBER VALUATION DATA
FOR FISCAL YEARS ENDED JUNE 30**

Valuation Date	Plan Type	Number	Annual Salary	Average Annual Salary	% Increase (Decrease) in Average Salary	Number of Employers
6/30/2008	General	3,719	\$ 230,942,000	\$ 62,098	27.88%	8
	Safety	731	44,638,000	61,064	5.18%	
	Total	4,450	\$ 275,580,000	\$ 61,928	23.73%	
6/30/2009	General	3,627	\$ 201,144,000	\$ 55,457	-10.69%	8
	Safety	739	47,172,000	63,832	4.53%	
	Total	4,366	\$ 248,316,000	\$ 56,875	-8.16%	
6/30/2010	General	3,464	\$ 202,200,198	\$ 58,372	5.26%	8
	Safety	685	46,630,275	68,073	6.64%	
	Total	4,149	\$ 248,830,473	\$ 59,974	5.45%	
6/30/2011	General	3,232	\$ 184,906,498	\$ 57,211	-1.99%	8
	Safety	637	41,800,298	65,621	-3.60%	
	Total	3,869	\$ 226,706,796	\$ 58,596	-2.30%	
6/30/2012	General	3,233	\$ 179,260,736	\$ 55,447	-3.08%	8
	Safety	661	41,657,273	63,022	-3.96%	
	Total	3,894	\$ 220,918,009	\$ 56,733	-3.18%	
6/30/2013	General	3,230	\$ 176,437,755	\$ 54,625	-1.48%	8
	Safety	694	42,590,563	61,370	-2.62%	
	Total	3,924	\$ 219,028,318	\$ 55,818	-1.61%	
6/30/2014	General	3,303	\$ 179,606,090	\$ 54,377	-0.45%	8
	Safety	689	43,422,198	63,022	2.69%	
	Total	3,992	\$ 223,028,288	\$ 55,869	0.09%	
6/30/2015	General	3,421	\$ 188,550,804	\$ 55,116	1.36%	8
	Safety	723	49,166,923	68,004	7.91%	
	Total	4,144	\$ 237,717,727	\$ 57,364	2.68%	
6/30/2016	General	3,521	\$ 198,457,059	\$ 56,364	2.26%	8
	Safety	727	52,020,521	71,555	5.22%	
	Total	4,248	\$ 250,477,580	\$ 58,964	2.79%	
6/30/2017	General	3,552	\$ 201,758,423	\$ 56,801	0.78%	8
	Safety	757	54,385,261	71,843	0.40%	
	Total	4,309	\$ 256,143,684	\$ 59,444	0.81%	
6/30/2018	General	3,658	\$ 211,919,963	\$ 57,933	1.99%	8
	Safety	794	58,835,257	74,100	3.14%	
	Total	4,452	\$ 270,755,220	\$ 60,817	2.31%	

Note: The annual salary presented here is annualized historical salary. The covered payroll shown in the Notes to the Basic Financial Statements is actual pensionable salaries. Salary shown in the schedule of Funding Progress is based on projected salary from the actuarial valuation.

Note: The employers participating in the Plan include Stanislaus County, Stanislaus County Superior Court, City of Ceres and five small districts.

**SCHEDULE OF FUNDING PROGRESS
FOR YEARS ENDED JUNE 30**

Actuarial Valuation Date	Valuation Assets	¹	Actuarial Accrued Liability (AAL)	Unfunded AAL	Funded Ratio	Covered Payroll	Unfunded AAL as a % of Covered Payroll
2008	\$ 1,317,167,000	²	\$ 1,548,824,000	\$ 231,657,000	85.0%	\$ 275,580,000	84.1%
2009	\$ 1,171,767,000		\$ 1,653,716,000	\$ 481,949,000	70.9%	\$ 248,316,000	194.1%
2010	\$ 1,325,801,000		\$ 1,737,824,000	\$ 412,023,000	76.3%	\$ 248,830,473	165.6%
2011	\$ 1,372,046,000		\$ 1,757,717,000	\$ 385,671,000	78.1%	\$ 226,706,796	170.1%
2012	\$ 1,451,764,000		\$ 1,888,713,000	\$ 436,950,000	76.9%	\$ 220,918,009	197.8%
2013	\$ 1,524,076,000		\$ 1,919,227,000	\$ 395,151,000	79.4%	\$ 219,028,318	180.4%
2014	\$ 1,644,077,000		\$ 2,026,371,000	\$ 382,294,000	81.1%	\$ 223,028,288	171.4%
2015	\$ 1,763,629,000		\$ 2,391,522,000	\$ 627,893,000	73.7%	\$ 237,717,727	264.1%
2016	\$ 1,845,764,000		\$ 2,537,067,000	\$ 691,302,000	72.8%	\$ 250,477,580	276.0%
2017	\$ 1,968,231,000		\$ 2,648,162,000	\$ 679,930,000	74.3%	\$ 256,143,684	265.4%
2018	\$ 2,100,278,000		\$ 2,749,068,000	\$ 648,790,467	76.4%	\$ 270,755,220	239.6%

¹ Excludes value of Non-Valuation Reserves.

² Includes \$50 million transferred from Non-Valuation Reserves as of June 30, 2008.

**RETIREES AND BENEFICIARIES ADDED TO
AND REMOVED FROM RETIREE PAYROLL
FOR YEARS ENDED JUNE 30**

Actuarial Valuation Date	At Beginning of Year	Added During Year	Allowances Added	Removed During Year	Allowances Removed	At End of Year	Retiree Payroll	% Increase in Retiree Payroll	Average Annual Allowance
2008	2,445	369	\$ 9,084,777	148	\$ 1,731,738	2,666	\$ 63,296,000	19.18%	\$ 23,742
2009	2,666	156	\$ 2,168,425	71	\$ 647,870	2,751	\$ 66,720,003	5.41%	\$ 24,253
2010	2,751	159	\$ 3,349,900	80	\$ 751,427	2,830	\$ 71,464,735	7.11%	\$ 25,334
2011	2,830	263	\$ 4,724,416	78	\$ 1,194,042	3,015	\$ 74,826,404	4.70%	\$ 25,732
2012	3,015	226	\$ 3,565,634	99	\$ 978,729	3,142	\$ 80,157,222	7.12%	\$ 26,737
2013	3,142	198	\$ 6,036,138	91	\$ 1,144,584	3,249	\$ 89,975,736	12.25%	\$ 27,694
2014	3,249	222	\$ 6,703,273	86	\$ 1,725,066	3,385	\$ 96,405,454	7.15%	\$ 28,480
2015	3,385	237	\$ 7,778,716	83	\$ 2,043,313	3,539	\$ 104,052,097	7.93%	\$ 29,402
2016	3,539	211	\$ 7,066,750	99	\$ 2,160,689	3,651	\$ 111,260,240	6.93%	\$ 30,474
2017	3,651	202	\$ 6,749,973	107	\$ 2,471,229	3,746	\$ 117,901,627	5.97%	\$ 31,474
2018	3,746	233	\$ 7,555,825	123	\$ 3,109,178	3,856	\$ 124,995,337	6.02%	\$ 32,416

**SCHEDULE OF FUNDED LIABILITIES BY TYPE
(SOLVENCY TEST)
FOR YEARS ENDED JUNE 30**

Valuation Date	Actuarial Accrued Liabilities (AAL) for:			Actuarial Accrued Liabilities	Reported Assets	Portion of Accrued Liabilities Covered by Reported Assets		
	1	2	3			1	2	3
	Active Member Contributions	Retirees & Beneficiaries	Active Members Employer Portion					
2008	¹ \$ 272,657,000	\$ 739,838,000	\$ 536,329,000	\$ 1,548,824,000	\$ 1,317,167,000	100%	100%	57%
2009	\$ 298,342,000	\$ 781,082,000	\$ 574,292,000	\$ 1,653,716,000	\$ 1,171,767,000	100%	100%	16%
2010	\$ 323,940,000	\$ 829,323,000	\$ 584,561,000	\$ 1,737,824,000	\$ 1,325,801,000	100%	100%	30%
2011	\$ 337,201,000	\$ 897,384,000	\$ 523,133,000	\$ 1,757,717,000	\$ 1,372,046,000	100%	100%	26%
2012	\$ 351,569,000	\$ 987,546,000	\$ 549,598,000	\$ 1,888,713,000	\$ 1,451,764,000	100%	100%	20%
2013	² \$ 191,968,000	\$ 1,065,792,000	\$ 661,466,000	\$ 1,919,227,000	\$ 1,524,076,000	100%	100%	40%
2014	\$ 193,301,000	\$ 1,144,734,000	\$ 688,335,000	\$ 2,026,371,000	\$ 1,644,077,000	100%	100%	44%
2015	\$ 196,074,000	\$ 1,328,846,000	\$ 850,510,000	\$ 2,391,522,000	\$ 1,763,629,000	100%	100%	28%
2016	\$ 200,960,000	\$ 1,427,166,000	\$ 908,941,000	\$ 2,537,067,000	\$ 1,845,764,000	100%	100%	24%
2017	\$ 206,386,000	\$ 1,510,151,000	\$ 931,625,000	\$ 2,648,162,000	\$ 1,968,231,000	100%	100%	27%
2018	\$ 213,223,000	\$ 1,590,078,000	\$ 945,767,000	\$ 2,749,068,000	\$ 2,100,278,000	100%	100%	31%

¹ Reflects transfer as of June 30, 2008 of \$50 million from Non-Valuation to Valuation Reserves.

**ACTUARIAL ANALYSIS OF FINANCIAL EXPERIENCE
FOR YEARS ENDED JUNE 30**

Plan Year Ending	Actuarial (Gains)/Losses			Changes in Plan Provisions	Changes in Assumption/Methods
	Asset Sources	Liability Sources	Total		
2008	\$ (50,709,169)	\$ 67,324,195	\$ 67,324,195	\$ -	\$ -
2009	\$ 228,905,354	\$ 12,996,828	\$ 241,902,182	\$ -	\$ -
2010	\$ (76,507,113)	\$ 37,492,978	\$ 37,492,978	\$ -	\$ (51,743,766)
2011	\$ 49,205,018	\$ (2,387,353)	\$ 46,817,665	\$ -	\$ (72,085,966)
2012	\$ (5,283,786)	\$ 6,191,029	\$ 907,243	\$ -	\$ 52,606,350
2013	\$ 10,200,000	\$ 8,500,000	\$ 18,700,000	\$ -	\$ (63,400,000)
2014	\$ (22,600,000)	\$ 6,100,000	\$ (16,500,000)	\$ -	\$ 400,000
2015	\$ (20,600,000)	\$ (5,600,000)	\$ (26,200,000)	\$ -	\$ 269,800,000
2016	¹ \$ 16,300,000	\$ 28,900,000	\$ 45,200,000	\$ -	\$ -
2017	\$ (20,800,000)	\$ (8,900,000)	\$ (29,700,000)	\$ -	\$ -
2018	\$ (12,400,000)	\$ 16,800,000	\$ 4,400,000	\$ -	\$ (37,800,000)

¹ Changes due to Actuarial Audit included as Liability Loss of \$700,000.

A 10 year schedule of actuarially determined contributions compared to actual contributions can be found in the Required Supplementary Information to the Financial Statements on page 46.

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STATISTICAL SECTION



STATISTICAL INFORMATION

This section provides a multi-year trend of financial and demographic information to facilitate a more comprehensive understanding of this year's financial statements, note disclosures, and supplementary information covering StanCERA's Plan. The financial and operating information provides additional perspective, context, and detail for StanCERA's Fiduciary Net Position, revenues and expenses by source, number of retirees by benefit type, payments made to retirees by benefit type, membership history, and the participating employers. The financial and operating trend information is located below and on the following pages.

CHANGES IN FIDUCIARY NET POSITION

Last Ten Fiscal Years ending June 30

Additions To Fiduciary Net Position	2019	2018	2017	2016	2015
Employer Contributions	\$ 88,589,381	\$ 76,966,471	\$ 63,024,559	\$ 58,196,310	\$ 53,849,031
Plan Member Contributions	27,742,863	26,746,289	25,463,745	23,916,508	22,960,235
Net Investment Income (Loss)	99,280,525	154,988,199	252,309,706	(31,322,276)	68,722,781
<i>Total Additions</i>	<u>\$ 215,612,769</u>	<u>\$ 258,700,959</u>	<u>\$ 340,798,010</u>	<u>\$ 50,790,542</u>	<u>\$ 145,532,047</u>

Deductions From Fiduciary Net Position					
Pension Benefits	\$ 129,100,668	\$ 121,138,269	\$ 114,290,758	\$ 106,928,097	\$ 99,811,849
Refunds	2,674,023	2,033,847	2,553,100	1,237,713	2,046,307
Administrative Expense	2,557,391	2,791,409	2,644,554	2,315,223	2,378,966
<i>Total Deductions</i>	<u>\$ 134,332,082</u>	<u>\$ 125,963,525</u>	<u>\$ 119,488,412</u>	<u>\$ 110,481,033</u>	<u>\$ 104,237,122</u>

Increase (Decrease) in Fiduciary Net Position Restricted for Pension Benefits	\$ 81,280,687	\$ 132,737,434	\$ 221,309,598	\$ (59,690,491)	\$ 41,294,925
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Fiduciary Net Position Restricted for Pension Benefits					
Beginning of Year	2,126,960,745	1,994,223,311	1,772,913,713	1,832,604,204	1,791,309,279
End of Year	<u>\$2,208,241,432</u>	<u>\$2,126,960,745</u>	<u>\$1,994,223,311</u>	<u>\$1,772,913,713</u>	<u>\$1,832,604,204</u>

Additions To Fiduciary Net Position	2014	2013	2012	2011	2010
Employer Contributions	\$ 46,763,996	\$ 39,077,480	\$ 27,314,032	\$ 26,256,729	\$ 21,814,194
Plan Member Contributions	21,867,911	20,285,888	20,525,295	19,197,052	20,746,411
Net Investment Income (Loss)	274,896,108	189,988,287	3,724,754	261,842,492	165,053,844
<i>Total Additions</i>	<u>\$ 343,528,015</u>	<u>\$ 249,351,655</u>	<u>\$ 51,564,081</u>	<u>\$ 307,296,273</u>	<u>\$ 207,614,449</u>

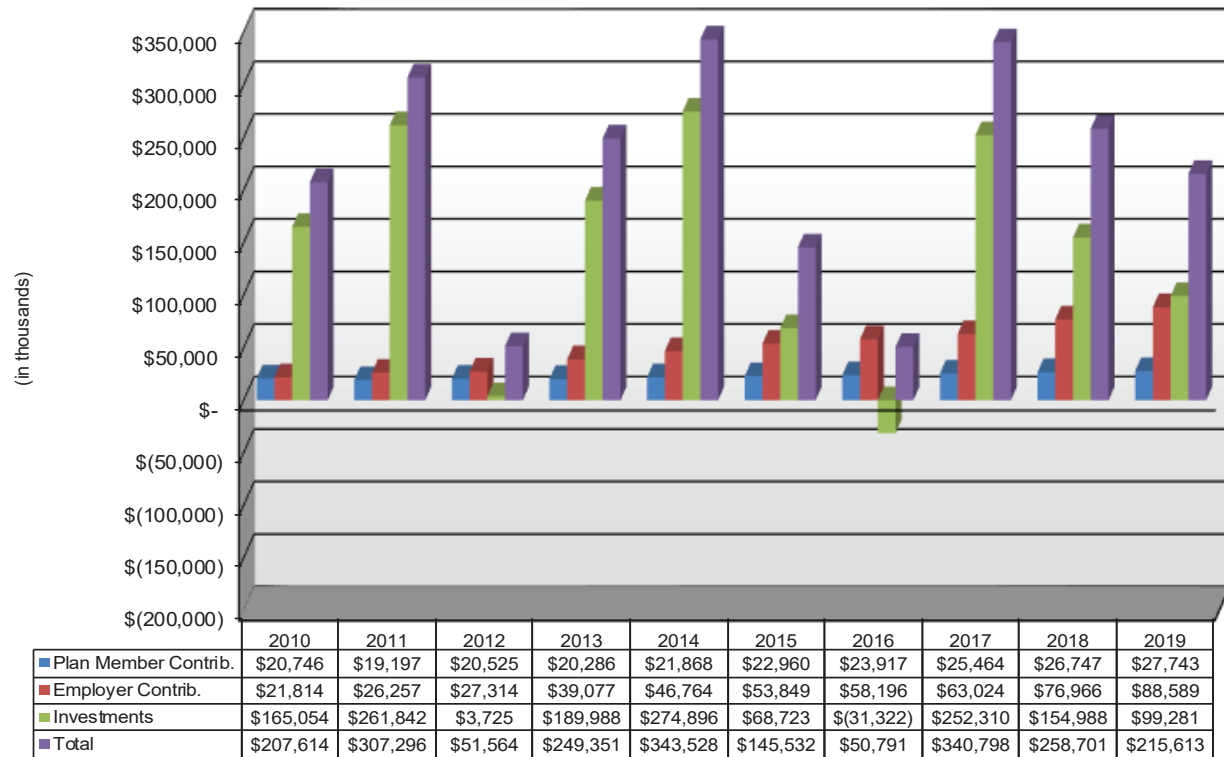
Deductions From Fiduciary Net Position					
Pension Benefits	\$ 93,076,127	\$ 86,722,499	\$ 80,062,975	\$ 74,725,248	\$ 71,286,016
Refunds	1,706,344	1,926,062	1,927,058	2,007,309	1,910,690
Administrative Expense	2,249,260	2,065,345	2,144,748	2,037,167	2,307,436
<i>Total Deductions</i>	<u>\$ 97,031,731</u>	<u>\$ 90,713,906</u>	<u>\$ 84,134,781</u>	<u>\$ 78,769,724</u>	<u>\$ 75,504,142</u>

Increase (Decrease) in Fiduciary Net Position Restricted for Pension Benefits	\$ 246,496,284	\$ 158,637,749	\$ (32,570,700)	\$ 228,526,549	132,110,307
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Fiduciary Net Position Restricted for Pension Benefits					
Beginning of Year	1,544,812,995	1,386,175,246	1,418,745,946	1,190,219,397	1,058,109,090
End of Year	<u>\$1,791,309,279</u>	<u>\$1,544,812,995</u>	<u>\$1,386,175,246</u>	<u>\$1,418,745,946</u>	<u>\$1,190,219,397</u>

Additions by Source

(for years ending June 30)



Data Source:

CAFR Financial Section, Statement of Changes in Fiduciary Net Position in Management Discussion

Deductions by Type

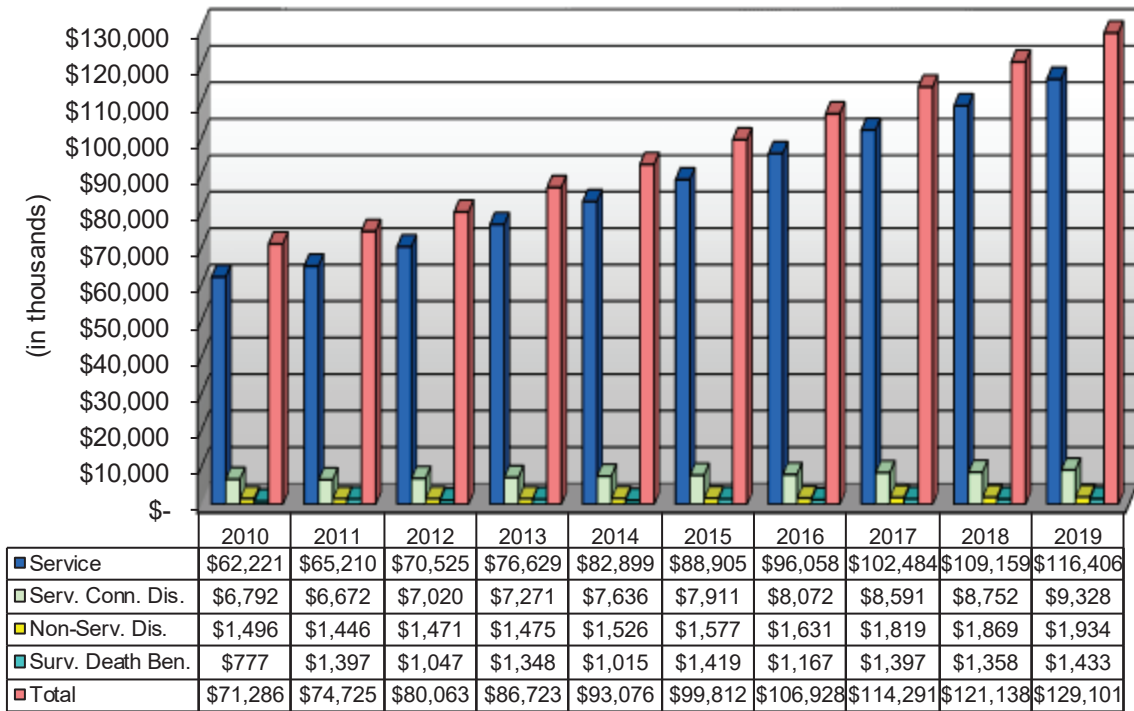
(for years ending June 30)



Data Source:

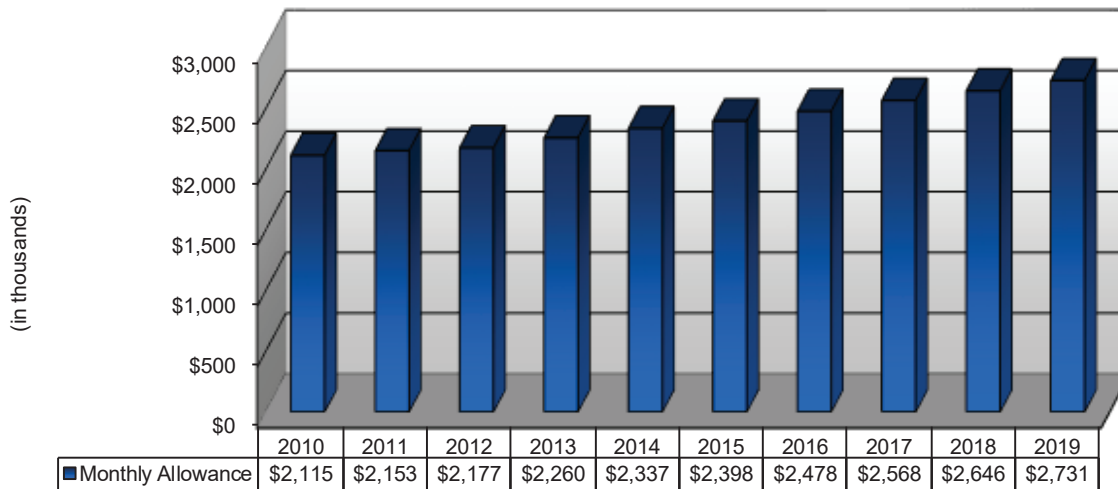
CAFR Financial Section, Statement of Changes in Fiduciary Net Position

Benefit Expense by Type (for years ending June 30)



Data Source: StanCERA Pension Administration System

Average Monthly Retirement Benefits (for years ending June 30)



Data Source: StanCERA Pension Administration System

RETIRED MEMBERS BY BENEFIT TYPE
as of June 30, 2019

<u>Amount Monthly Benefit</u>	<u>Total # Retirees</u>	<u>Service Retirement</u>	<u>Service Connected Disability</u>	<u>Non-Service Disability</u>	<u>Survivors</u>
General Members					
\$0-500	350	337	0	7	6
501-1,000	475	420	2	31	22
1,001-1,500	522	458	13	43	8
1,501-2,000	418	365	33	17	3
2,001-2,500	330	292	31	5	2
2,501-3,000	266	244	13	6	3
3,001-3,500	183	176	7	0	0
3,501-4,000	162	159	0	0	3
4,001-4,500	121	119	2	0	0
4,501-5,000	112	110	1	1	0
over 5,000	345	343	2	0	0
Totals	3,284	3,023	104	110	47
Safety Members					
\$0-500	28	14	12	2	0
501-1,000	25	21	0	2	2
1,001-1,500	31	29	0	1	1
1,501-2,000	45	37	3	5	0
2,001-2,500	37	29	5	2	1
2,501-3,000	66	26	39	0	1
3,001-3,500	95	37	55	1	2
3,501-4,000	55	39	16	0	0
4,001-4,500	47	35	11	0	1
4,501-5,000	32	31	0	0	1
over 5,000	189	175	12	0	2
Totals	650	473	153	13	11
TOTALS	3,934	3,496	257	123	58

Data Source: StanCERA Pension Administration System

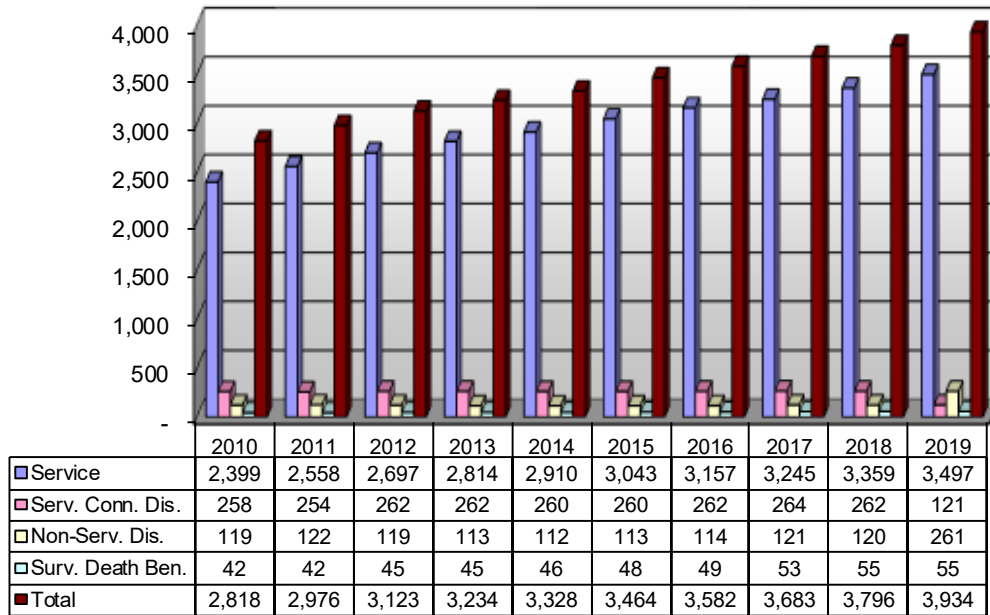
AVERAGE BENEFIT PAYMENTS

As of Fiscal Year End June 30

	Beneficiaries		Service Years Credited					
	& Dro's	0-5	5-10	10-15	15-20	20-25	25-30	30+
Fiscal Year Ending June 30, 2010								
Average Monthly Benefit	\$1,345	\$602	\$1,038	\$1,171	\$1,834	\$2,550	\$3,753	\$5,172
Avg Final Average Salary	\$1,106	\$3,177	\$2,516	\$2,322	\$2,400	\$2,486	\$3,233	\$4,192
Number of Active Retirees	366	157	330	536	434	405	318	270
Fiscal Year Ending June 30, 2011								
Average Monthly Benefit	\$1,362	\$621	\$1,044	\$1,192	\$1,843	\$2,581	\$3,785	\$5,260
Avg Final Average Salary	\$1,176	\$3,840	\$3,286	\$2,862	\$3,009	\$3,364	\$3,790	\$5,232
Number of Active Retirees	389	169	350	574	454	424	331	298
Fiscal Year Ending June 30, 2012								
Average Monthly Benefit	\$1,405	\$596	\$1,040	\$1,212	\$1,918	\$2,654	\$3,860	\$5,152
Avg Final Average Salary	\$2,612	\$4,848	\$3,857	\$3,620	\$3,963	\$4,393	\$4,812	\$5,815
Number of Active Retirees	383	176	366	606	484	446	335	320
Fiscal Year Ending June 30, 2013								
Average Monthly Benefit	\$1,430	\$657	\$1,100	\$1,295	\$2,003	\$2,792	\$4,007	\$5,309
Avg Final Average Salary	\$2,662	\$5,058	\$4,110	\$3,748	\$4,047	\$4,516	\$4,962	\$5,872
Number of Active Retirees	387	195	376	634	498	469	344	331
Fiscal Year Ending June 30, 2014								
Average Monthly Benefit	\$1,467	\$651	\$1,124	\$1,354	\$2,082	\$2,836	\$4,088	\$5,427
Avg Final Average Salary	\$2,745	\$5,272	\$4,205	\$3,927	\$4,235	\$4,596	\$5,089	\$5,948
Number of Active Retirees	389	206	394	680	524	488	353	349
Fiscal Year Ending June 30, 2015								
Average Monthly Benefit	\$1,508	\$638	\$1,143	\$1,403	\$2,164	\$2,938	\$4,217	\$5,566
Avg Final Average Salary	\$2,846	\$5,627	\$4,328	\$4,055	\$4,379	\$4,675	\$5,175	\$6,047
Number of Active Retirees	399	222	407	699	551	511	375	360
Fiscal Year Ending June 30, 2016								
Average Monthly Benefit	\$1,548	\$652	\$1,186	\$1,462	\$2,231	\$3,034	\$4,342	\$5,669
Avg Final Average Salary	\$2,901	\$5,766	\$4,535	\$4,187	\$4,513	\$4,779	\$5,297	\$6,061
Number of Active Retirees	412	230	420	699	573	525	398	380
Fiscal Year Ending June 30, 2017								
Average Monthly Benefit	\$1,620	\$791	\$1,203	\$1,520	\$2,338	\$3,172	\$4,482	\$5,790
Avg Final Average Salary	\$3,006	\$5,453	\$4,588	\$4,293	\$4,666	\$4,946	\$5,413	\$6,076
Number of Active Retirees	378	274	438	716	593	547	413	384
Fiscal Year Ending June 30, 2018								
Average Monthly Benefit	\$1,768	\$801	\$1,208	\$1,551	\$2,406	\$3,289	\$4,600	\$5,912
Avg Final Average Salary	\$3,617	\$5,738	\$4,679	\$4,379	\$4,776	\$5,123	\$5,512	\$6,102
Number of Active Retirees	333	281	461	732	614	548	430	397
Fiscal Year Ending June 30, 2019								
Average Monthly Benefit	\$1,851	\$891	\$1,222	\$1,616	\$2,503	\$3,493	\$4,713	\$6,057
Avg Final Average Salary	\$3,674	\$6,014	\$4,734	\$4,487	\$4,907	\$5,361	\$5,574	\$6,203
Number of Active Retirees	351	298	470	753	642	572	440	408

Membership History (Retired)

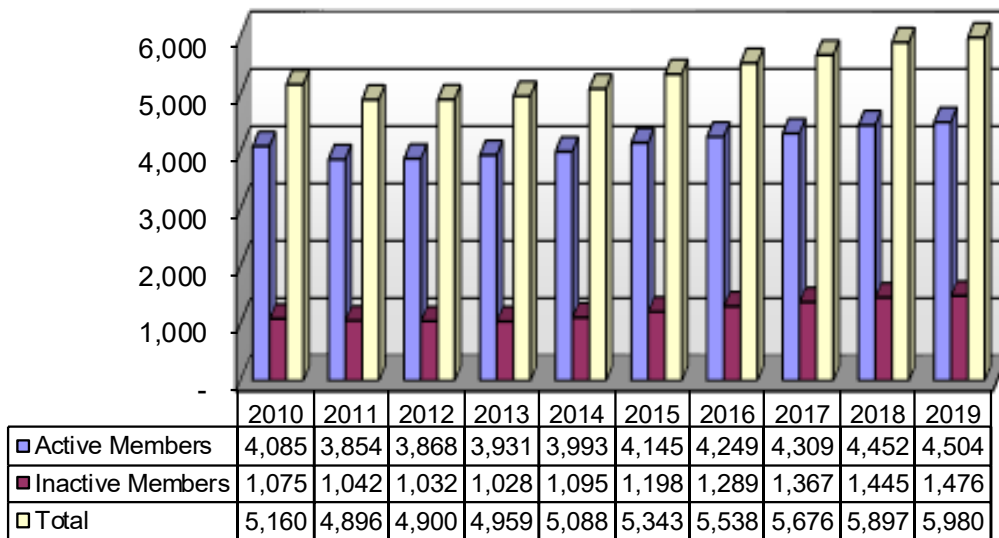
(for years ending June 30)



Data Source: StanCERA Pension Administration System

Membership History (Active & Deferred)

(for years ending June 30)



Data Source: StanCERA Pension Administration System

**PARTICIPATING EMPLOYERS AND ACTIVE MEMBERS
WITH PERCENTAGE OF TOTAL SYSTEM**

for years ended June 30

	<u>2019</u>		<u>2018</u>		<u>2017</u>		<u>2016</u>		<u>2015</u>	
<i>Stanislaus County:</i>										
General Members	3,305	73.4%	3,307	74.3%	3,202	74.3%	3,156	74.3%	3,062	73.9%
Safety Members	<u>734</u>	16.3%	<u>721</u>	16.2%	<u>676</u>	15.7%	<u>645</u>	15.2%	<u>643</u>	15.5%
Total	<u>4,039</u>		<u>4,028</u>		<u>3,878</u>		<u>3,801</u>		<u>3,705</u>	

Participating Agencies:

Stanislaus County Superior Court	239	5.3%	219	4.9%	217	5.0%	228	5.4%	224	5.4%
City of Ceres	185	4.1%	171	3.8%	180	4.2%	184	4.3%	181	4.4%
East Side Mosquito Abatement District	10	0.2%	9	0.2%	9	0.2%	10	0.2%	8	0.2%
Hills Ferry Cemetery	3	0.1%	3	0.1%	3	0.1%	3	0.1%	3	0.1%
Keyes Community Services District	7	0.2%	6	0.2%	6	0.2%	6	0.2%	6	0.2%
Salida Sanitary District	7	0.2%	6	0.1%	7	0.2%	7	0.2%	7	0.2%
Stanislaus Council of Governments	14	0.3%	10	0.2%	9	0.2%	10	0.2%	11	0.3%
Total	<u>465</u>		<u>424</u>		<u>431</u>		<u>448</u>		<u>440</u>	

Total Active Membership	<u><u>4,504</u></u>		<u><u>4,452</u></u>		<u><u>4,309</u></u>		<u><u>4,249</u></u>		<u><u>4,145</u></u>	
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	<u>2014</u>		<u>2013</u>		<u>2012</u>		<u>2011</u>		<u>2010</u>	
<i>Stanislaus County:</i>										
General Members	2,963	74.2%	2,903	73.8%	2,852	73.7%	2,841	73.7%	3,013	73.8%
Safety Members	<u>602</u>	15.1%	<u>606</u>	15.4%	<u>574</u>	14.8%	<u>553</u>	14.3%	<u>601</u>	14.7%
Total	3,565		3,509		3,426		3,394		3,614	

Participating Agencies:

Stanislaus County Superior Court	212	5.3%	205	5.2%	229	5.9%	245	6.4%	252	6.2%
City of Ceres	181	4.5%	178	4.5%	173	4.5%	173	4.5%	178	4.4%
East Side Mosquito Abatement District	9	0.2%	10	0.3%	10	0.3%	11	0.3%	11	0.3%
Hills Ferry Cemetery	3	0.1%	4	0.1%	4	0.1%	4	0.1%	4	0.1%
Keyes Community Services District	6	0.2%	5	0.2%	6	0.2%	6	0.2%	6	0.1%
Salida Sanitary District	7	0.2%	7	0.2%	7	0.2%	7	0.2%	7	0.1%
Stanislaus Council of Governments	10	0.3%	13	0.3%	13	0.3%	14	0.3%	13	0.3%
Total	<u>428</u>		<u>422</u>		<u>442</u>		<u>460</u>		<u>471</u>	

Total Active Membership	<u><u>3,993</u></u>		<u><u>3,931</u></u>		<u><u>3,868</u></u>		<u><u>3,854</u></u>		<u><u>4,085</u></u>	
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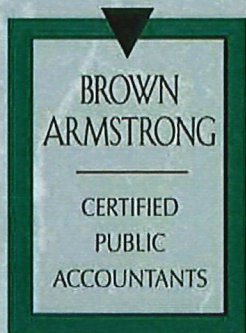
Data Source: StanCERA Pension Administration System

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(209) 525-6393
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Ensuring Tomorrow's Benefits Through Prudent Management



BROWN ARMSTRONG

Certified Public Accountants

REQUIRED COMMUNICATION TO THE MEMBERS OF THE BOARD OF RETIREMENT AND INTERNAL GOVERNANCE COMMITTEE IN ACCORDANCE WITH PROFESSIONAL STANDARDS (SAS 114)

To the Board of Retirement and Internal Governance Committee of
Stanislaus County Employees' Retirement Association
Modesto, California

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We have audited the financial statements of the Stanislaus County Employees' Retirement Association (StanCERA) as of and for the fiscal year ended June 30, 2019, and have issued our report dated November 13, 2019. Professional standards require that we provide you with information about our responsibilities under auditing standards generally accepted in the United States of America and *Government Auditing Standards*, as well as certain information related to the planned scope and timing of our audit. We have communicated such information in our letter to you dated July 17, 2019. Professional standards also require that we communicate to you the following information related to our audit.

Significant Audit Matters

Qualitative Aspects of Accounting Practices

Management is responsible for the selection and use of appropriate accounting policies. The significant accounting policies used by StanCERA are described in Note 2, Summary of Significant Accounting Policies, to the financial statements. No new accounting policies were adopted and the application of existing policies was not changed during the fiscal year ended June 30, 2019. We noted no transactions entered into by StanCERA during the fiscal year for which there is a lack of authoritative guidance or consensus. All significant transactions have been recognized in the financial statements in the proper period.

Accounting estimates are an integral part of the financial statements prepared by management and are based on management's knowledge and experience about past and current events and assumptions about future events. Certain accounting estimates are particularly sensitive because of their significance to the financial statements and because of the possibility that future events affecting them may differ significantly from those expected. The most sensitive estimates affecting StanCERA's financial statements were:

- Management's estimate of the fair value of investments, which was derived by various methods as detailed in the notes to the financial statements. We evaluated the key factors and assumptions used to develop the estimate of the fair value of investments in determining that it is reasonable in relation to the financial statements taken as a whole.
- The contribution amounts and net pension liability as detailed in the notes to the financial statements, which are based on the actuarially-presumed interest rate and assumptions. We evaluated the key factors and assumptions used to develop the estimates of contribution amounts and net pension liability in determining that they are reasonable in relation to the financial statements taken as a whole.

Certain financial statement disclosures are particularly sensitive because of their significance to financial statement users. The most sensitive disclosures affecting the financial statements were:

- The disclosures for cash and investments in Notes 2 and 4 to the financial statements, Summary of Significant Accounting Policies and Cash and Investments Disclosures, respectively, were derived from StanCERA's investment policy. Management's estimate of the fair value of investments was derived by various methods as detailed in the notes to the financial statements.
- Additionally, the disclosures related to the funding policies, net pension liability, and actuarial methods and assumptions in Note 1, Description of Plan; Note 5, Contributions; and Note 8, Net Pension Liability of Participating Employers Disclosures were derived from actuarial valuations, which involved estimates of the value of reported amounts and probabilities about the occurrence of future events far into the future.

The financial statement disclosures are neutral, consistent, and clear.

Difficulties Encountered in Performing the Audit

We encountered no significant difficulties in dealing with management in performing and completing our audit.

Corrected and Uncorrected Misstatements

Professional standards require us to accumulate all known and likely misstatements identified during the audit, other than those that are clearly trivial, and communicate them to the appropriate level of management. Management has corrected all such misstatements. In addition, none of the misstatements detected as a result of our audit procedures and corrected by management were material, either individually or in the aggregate, to the financial statements taken as a whole.

Disagreements with Management

For purposes of this letter, a disagreement with management is a financial accounting, reporting, or auditing matter, whether or not resolved to our satisfaction, that could be significant to the financial statements or the auditor's report. We are pleased to report that no such disagreements arose during the course of our audit.

Management Representations

We have requested certain representations from management that are included in the management representation letter dated November 13, 2019.

Management Consultations with Other Independent Accountants

In some cases, management may decide to consult with other accountants about auditing and accounting matters, similar to obtaining a "second opinion" on certain situations. If a consultation involves application of an accounting principle to StanCERA's financial statements or a determination of the type of auditor's opinion that may be expressed on those statements, our professional standards require the consulting accountant to check with us to determine that the consultant has all the relevant facts. To our knowledge, there were no such consultations with other accountants.

Other Audit Findings or Issues

We generally discuss a variety of matters, including the application of accounting principles and auditing standards, with management each year prior to retention as StanCERA's auditors. However, these discussions occurred in the normal course of our professional relationship and our responses were not a condition to our retention.

Other Matters

We applied certain limited procedures to the Management's Discussion and Analysis, Schedule of Changes in Net Pension Liability and Related Ratios, Schedule of Employer Contributions, Schedule of Investment Returns, and Notes to the Required Supplementary Information (RSI), which are RSI that supplement the basic financial statements. Our procedures consisted of inquiries of management regarding the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during the audit of the basic financial statements. We did not audit the RSI and do not express an opinion or provide any assurance on the RSI.

We were engaged to report on the Schedule of Administrative Expenses, Schedule of Investment Management Fees and Other Investment Expenses, and Schedule of Payments to Consultants, which accompany the financial statements but are not RSI. With respect to this other supplemental information, we made certain inquiries of management and evaluated the form, content, and methods of preparing the information to determine that the information complies with accounting principles generally accepted in the United States of America. The method of preparing it has not changed from the prior period, and the information is appropriate and complete in relation to our audit of the financial statements. We compared and reconciled the other supplemental information to the underlying accounting records used to prepare the financial statements or to the financial statements themselves.

We were not engaged to report on the introductory, investment, actuarial, and statistical sections, which accompany the financial statements but are not RSI. We did not audit or perform other procedures on this other information and we do not express an opinion or provide any assurance on it.

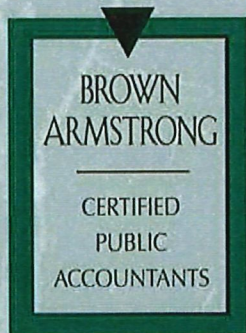
Restriction on Use

This information is intended solely for the use of the Board of Retirement, Internal Governance Committee, and management of StanCERA and is not intended to be, and should not be, used by anyone other than these specified parties.

BROWN ARMSTRONG
ACCOUNTANCY CORPORATION

Brown Armstrong
Accountancy Corporation

Bakersfield, California
November 13, 2019



BROWN ARMSTRONG

Certified Public Accountants

INDEPENDENT AUDITOR'S REPORT ON INTERNAL CONTROL OVER FINANCIAL REPORTING AND ON COMPLIANCE AND OTHER MATTERS BASED ON AN AUDIT OF FINANCIAL STATEMENTS PERFORMED IN ACCORDANCE WITH GOVERNMENT AUDITING STANDARDS

To the Board of Retirement and Internal Governance Committee of
Stanislaus County Employees' Retirement Association
Modesto, California

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We have audited, in accordance with the auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards* issued by the Comptroller General of the United States, the financial statements of the Stanislaus County Employees' Retirement Association (StanCERA) as of and for the fiscal year ended June 30, 2019, and the related notes to the financial statements, which collectively comprise StanCERA's basic financial statements, and have issued our report thereon dated November 13, 2019.

Internal Control Over Financial Reporting

In planning and performing our audit of the financial statements, we considered StanCERA's internal control over financial reporting (internal control) to determine the audit procedures that are appropriate in the circumstances for the purpose of expressing our opinions on the financial statements, but not for the purpose of expressing an opinion on the effectiveness of StanCERA's internal control. Accordingly, we do not express an opinion on the effectiveness of StanCERA's internal control.

A *deficiency in internal control* exists when the design or operation of a control does not allow management or employees, in the normal course of performing their assigned functions, to prevent, or detect and correct, misstatements on a timely basis. A *material weakness* is a deficiency, or a combination of deficiencies, in internal control, such that there is a reasonable possibility that a material misstatement of StanCERA's financial statements will not be prevented, or detected and corrected on a timely basis. A *significant deficiency* is a deficiency, or a combination of deficiencies, in internal control that is less severe than a material weakness, yet important enough to merit attention by those charged with governance.

Our consideration of internal control was for the limited purpose described in the first paragraph of this section and was not designed to identify all deficiencies in internal control that might be material weaknesses or significant deficiencies. Given these limitations, during our audit we did not identify any deficiencies in internal control that we consider to be material weaknesses. However, material weaknesses may exist that have not been identified.

Compliance and Other Matters

As part of obtaining reasonable assurance about whether StanCERA's financial statements are free from material misstatement, we performed tests of its compliance with certain provisions of laws, regulations, contracts, and agreements, noncompliance with which could have a direct and material effect on the determination of financial statement amounts. However, providing an opinion on compliance with those provisions was not an objective of our audit and, accordingly, we do not express such an opinion. The results of our tests disclosed no instances of noncompliance or other matters that are required to be reported under *Government Auditing Standards*.

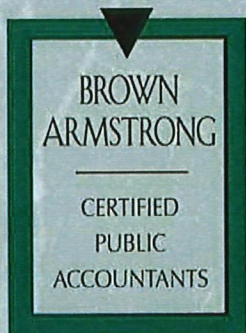
Purpose of this Report

The purpose of this report is solely to describe the scope of our testing of internal control and compliance and the results of that testing, and not to provide an opinion on the effectiveness of StanCERA's internal control or on compliance. This report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering StanCERA's internal control and compliance. Accordingly, this report is not suitable for any other purpose.

BROWN ARMSTRONG
ACCOUNTANCY CORPORATION

Brown Armstrong
Accountancy Corporation

Bakersfield, California
November 13, 2019



BROWN ARMSTRONG

Certified Public Accountants

AGREED UPON CONDITIONS REPORT DESIGNED TO IMPROVE EFFICIENCY, INTERNAL CONTROLS, AND/OR FINANCIAL REPORTING (MANAGEMENT LETTER)

To the Board of Retirement and Internal Governance Committee of
Stanislaus County Employees' Retirement Association
Modesto, California

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We have audited the financial statements of the Stanislaus County Employees' Retirement Association (StanCERA) as of and for the fiscal year ended June 30, 2019 and 2018, and have issued our report dated November 13, 2019. In planning and performing our audit of the financial statements of StanCERA, we considered its internal control structure over financial reporting (internal control) as a basis for designing our auditing procedures for the purpose of expressing our opinion on the financial statements, but not for the purpose of expressing an opinion on the effectiveness of StanCERA's internal control. Accordingly, we do not express an opinion on the effectiveness of StanCERA's internal control.

A deficiency in internal control exists when the design or operation of a control does not allow management or employees, in the normal course of performing their assigned functions, to prevent, or detect and correct, misstatements on a timely basis. A material weakness is a deficiency, or a combination of deficiencies, in internal control, such that there is a reasonable possibility that a material misstatement of the entity's financial statements will not be prevented, or detected and corrected on a timely basis.

Our consideration of internal control was for the limited purpose described in the first paragraph and was not designed to identify all deficiencies in internal control that might be material weaknesses. In addition, because of inherent limitations in internal control, including the possibility of management override of controls, misstatements due to error or fraud may occur and not be detected by such controls. Given these limitations during our audit, we did not identify any deficiencies in internal control that we considered to be material weaknesses. However, material weaknesses may exist that have not been identified.

During our audit, we became aware of one matter that is an opportunity for strengthening internal controls and operating efficiencies. The recommendation listed in this report summarizes our comment and suggestion regarding this matter.

We will review the status of the comment during our next audit engagement. We have already discussed the comment and suggestion with various StanCERA personnel, and we will be pleased to discuss this in further detail at your convenience, to perform any additional study of these matters, or to assist you in implementing the recommendations.

Restriction on Use

This report is intended solely for the information and use of the Board of Retirement, Internal Governance Committee, and management of StanCERA and is not intended to be, and should not be, used by anyone other than these specified parties.

BROWN ARMSTRONG
ACCOUNTANCY CORPORATION

Brown Armstrong
Accountancy Corporation

Bakersfield, California
November 13, 2019

Current Year Agreed Upon Conditions and Recommendations

Agreed Upon Condition 1 – Cost Methodology and Reconciliation

As a result of our prior year finding, StanCERA implemented a process to reconcile the cost for its alternative investments managers and created a detailed spreadsheet for each manager. However, per review of the cost reconciliation spreadsheet, the reconciliation did not reconcile to StanCERA's Custodian. The reconciliation noted comments for the variances that StanCERA noted between their records and the custodian. It is common practice to reconcile with the Custodian as the book of record, which assists in performing a comparison to ensure the cost value is accurately reported by StanCERA.

Recommendation

We recommend StanCERA consult with the Custodian to ensure the Custodian follows the same recording process, which should in turn minimize the reconciliation differences between StanCERA and the Custodian.

Management Response

StanCERA concurs with the above and will consult with the Custodian to ensure the Custodian follows the same recording process. StanCERA will also perform a reconciliation not only with the investment managers but with the custodial bank as well.

Prior Year Agreed Upon Conditions and Recommendations

Agreed Upon Condition 1 – Cost Methodology and Reconciliation

During our analysis of the cost value of alternative investments, we noted cost value differences between the Custodian and StanCERA's records. The differences noted appear to be a result of StanCERA and the Custodian using different methodologies to record investments. StanCERA uses the equity method of accounting for alternative investments, however, the Custodian does not record the investments in the same manner. As a result, it appears the cost of the investments in the general ledger is different in comparison to the Custodian's record. Both the Cost Method and Equity Method are acceptable valuation methods, but it is at StanCERA's discretion to choose which method to use. However, it is common practice to reconcile with the Custodian as the book of record, which is not being performed by StanCERA.

Recommendation

We recommend StanCERA consult with the Custodian to ensure the Custodian follows the same recording process, which should in turn minimize the reconciliation differences between StanCERA and the Custodian.

Management Response

StanCERA concurs with the above and will perform an analysis of the alternative investments and will adjust them to be reported using the Cost Method. StanCERA will also perform a reconciliation not only with the investment managers but with the custodial bank as well.

Current Year Status

StanCERA implemented a process to reconcile the cost for its alternative investments managers and created a detailed spreadsheet. However, per review of the cost reconciliation spreadsheet, it did not reconcile to StanCERA's Custodian. Instead the reconciliation noted comments for variances that StanCERA noted between its records and the Custodian's. As such, we will include this finding as a repeat recommendation; see current year recommendation # 1.



November 26, 2019

Retirement Board Agenda Item

TO: Retirement Board

FROM: Internal Governance Committee

- I. SUBJECT: Records Retention Policy
- II. ITEM NUMBER: 10.a.2
- III. ITEM TYPE: Discussion and Action
- IV. STAFF RECOMMENDATION: Accept Committee's Recommendation for full Board Approval of the Records Retention Policy and Schedule
- V. ANALYSIS: In order to comply with Federal, State, and Local regulations, in compliance with the County Employees Retirement Law of 1937 (CERL), StanCERA has developed a Records Retention Policy and Schedule encompassing all official records.

All official documents shall be stored electronically and retained per the Records Retention Schedule in accordance to Federal, State, and Local laws. This policy is in alignment with other 37 Act Systems and meets all requirements per Government Code §12236.

The policy has been review by legal counsel and accepted by the Internal Governace Committee.

- VI. RISK: None
- VII. STRATEGIC PLAN: Strategic Objective IV: Refine StanCERA's business and policy practices in ways that enhance stakeholder awareness, the delivery of member services and the ability of the Organization to administer the System effectively and efficiently.
- VIII. ADMINISTRATIVE BUDGET IMPACT: NONE

Lisa Frazer, Member and Employer Services Manager

Rick Santos, Executive Director

Stanislaus County Employees' Retirement Association

RECORDS RETENTION POLICY & SCHEDULE

Policy 1001

November 19, 2019



Purpose

To provide guidance to Stanislaus County Employees' Retirement Association (StanCERA) for efficient record management including the, retention and disposal of records in accordance with their administrative, legal, fiscal, and historic value.

Authority

County Employees Retirement Law of 1937 ("CERL"): Government Code §31537,
"The board may establish efficient records management procedures, which may include, but not need to be limited to, maintenance and, when determined by the board to be necessary, disposal of records in its jurisdiction."

Local Government Records Program, Government Code §12236, establishes guidelines for local government records retention.

Uniform Electronic Transaction Act, Civil Code §1633.1, provides requirements for an electronic record to be retained in lieu of the paper record. The law allows the electronic documents and electronic signatures to be enforceable in the same manner as paper documents.

Procedure

- I. This policy applies to official records. "Official Records" are records that reflect the final-official position or activities of StanCERA related to the specific content of record. StanCERA is not required to retain unofficial records. Unofficial records consist of works in progress, preliminary drafts, and copies of notes and records that have either not been finalized or approved.
- II. The Executive Director or Designee shall assume the duties of Records Manager and shall maintain a Records Retention Schedule listing the specific time frames to regularly purge documents consistent with this Policy and the law.
- III. Records shall be retained for at least the minimum period indicated in the Records Retention Schedule. Unless otherwise noted, the retention period on the schedule applied to all documents.
- IV. Board action is not required for the destruction of documents in accordance with the Records Retention Schedule.
- V. Minimum retention period shall be consistent with applicable laws, orders, rules, and regulations. When no such mandate exists, a reasonable retention period shall be established based upon StanCERA's business needs and the usefulness of the information. Once records have reached the end of their retention period, they will be disposed of in accordance with the Records Retention Schedule.
- VI. Imaged files or other electronic reproduction of records shall be deemed an "original" record of the paper record and the paper records may be destroyed, upon determination by the Executive Director, or Designee under the following conditions:
 - a. Records that were electronically imaged or recorded on a medium that is a trusted system that does not permit additions, deletions, or changes to the

original document;

- b. Device used to reproduce the record, paper, or document on the medium is one which accurately and legibly reproduces the original thereof, in all details and that does not permit additions, deletions, or changes to the original document images;
- c. Imaged or reproduced records are used by StanCERA in the ordinary conduct of its business in lieu of the paper records and made as accessible for public reference as the paper records were;
- d. Original paper documents can be destroyed after 30 days after imaged and committed to electronic record management system;
- e. A true electronic copy or paper copy of archival quality shall be kept in a safe and separate location for security purposes; and
- f. No pages of any record shall be destroyed if any page cannot be reproduced with full legibility. Every unreproducible page shall be permanently preserved in a manner that will afford easy reference.

VII. Exceptions to the Records Retention Policy may be made by the appropriate Manager in consultation with the Executive Director.

Litigation Hold

When StanCERA is involved in or anticipates that it may be involved in litigation, General Counsel will issue a litigation hold. This means all documents relating to the litigation matter must be kept in order to preserve any potential evidence. If StanCERA fails to do so, StanCERA can be sanctioned by the court for destroying evidence. A court has broad authority to impose these sanctions, which may include anything from unfavorable procedural rulings during trial to payment of monetary damages.

In the event StanCERA's General Counsel announces a litigation hold on any or all StanCERA records as a result of pending or anticipated litigation, all records covered by such litigation hold **MUST NOT** be discarded, deleted, or destroyed. Further, the IT department will suspend the automatic deletion of emails for all individuals covered by the litigation hold. Any questions regarding the litigation hold should be directed to General Counsel.

Policy Review

This Board shall review this policy at least every three years.

Policy History

Rick Santos, Executive Director

POLICY APPROVAL DATE: November 19, 2019

Records Retention Schedule

Government Code §25501.5, §26907, §31537

RECORD	RETENTION PERIOD	AUTHORITY/COMMENTS
Administration/Governance		
Board of Retirement Approved Policies	Permanent	Most recent electronic version is maintained or accessible by link on StanCERA Website. Previous versions are archived electronically.
Board of Retirement & Committee Agenda & Attachments/Minutes/Notices	Permanent	Agenda, minutes, and attachments are archived electronically.
Board of Retirement & Committee Meeting Audio/Video Recording	Permanent	File is formatted and sent to County I.T. Department and uploaded to County Media Server.
Board of Retirement Due Diligence Records	Permanent	
Board of Retirement Resolutions	Permanent	Most recent electronic version is maintained or accessible by link on StanCERA Website. Previous versions are archived electronically.
Trip Authorizations	FY + 5 Years	
Bylaws & Regulations	Permanent	Most recent electronic version is maintained or accessible by link on StanCERA Website. Previous versions are archived electronically.
Code of Fiduciary Conduct & Ethics	Permanent	Most recent electronic version is maintained or accessible by link on StanCERA Website. Previous versions are archived electronically.

Stanislaus County Employees' Retirement Association Records Retention Policy & Schedule 1001

RECORD	RETENTION PERIOD	AUTHORITY/COMMENTS
Conflict of Interest Code	Permanent	Most recent electronic version is maintained or accessible by link on StanCERA Website. Previous versions are archived electronically.
County Employees Retirement Law of 1937 (CERL)	Permanent	Most recent electronic version is maintained or accessible by link on StanCERA Website. Previous versions are archived electronically.
Office Correspondence	Department Head or Designee Discretion	
Fiscal Services		
Accounts Payable expenditure vouchers & invoices	FY + 5 years	
Accounts Receivables ledgers and schedules	FY + 5 years	
Active Contribution Document	Permanent	
Contracts (investment managers, investment consultant, auditors, actuary, etc.)	Active + 5 years	
Contribution batch detail	Permanent	
Departmental Receipts	FY + 5 years	
Deposit Permits	FY + 7 years	
Financial Statements, Auditors Reports & Workpapers	Permanent	
Forms: 1099 MISC	FY + 4 years	
Forms: 1099R's	FY + 4 years	1099R Data is stored in member record files and document may be reproduced if necessary.

Stanislaus County Employees' Retirement Association Records Retention Policy & Schedule 1001

RECORD	RETENTION PERIOD	AUTHORITY/COMMENTS
Garnishments	After final payment + 5 years	
General Ledger	Permanent	
Internal Audits	FY + 5 years	
Inventories of StanCERA Property	FY + 5 years	
Investment Asset Lists	Permanent	
Investment Reconciliations	FY + 5 years	
Journal Vouchers	FY + 5 years	
Oracle/QB's, Refund & Contribution Reconciliations	FY + 5 years	
Payroll Reports (Federal & State)	FY + 15 years	
Proposed Budgets, Final Budget	Permanent	
Purchasing Card Documentation	FY + 5 years	
Retiree Payroll (detail & checks/advice)	FY + 15 years	
Stale Dated Checks & Stop Payment Documents	FY + 5 years	
State Controller's Office & Census Bureau Reports	Permanent	
Member Services/Benefits		
Member Records	Life of member & beneficiary, plus 7 years	Members records are contained in Arriovs Imaging System. All documents received from or regarding member are scanned and verified to the member's

Stanislaus County Employees' Retirement Association Records Retention Policy & Schedule 1001

RECORD	RETENTION PERIOD	AUTHORITY/COMMENTS
		record, including initial membership documents, application for retirement, etc.
StanCERA Personnel		
Stanislaus County is the employee of record for StanCERA		
Accident Reports, Injury Claims, Settlements	Duration of employment	Destroy upon termination, send official record to Stanislaus County Personnel
Applications, Changes, & Terminations	Duration of employment	Destroy upon termination, send official record to Stanislaus County Personnel
Attendance Records	Duration of employment	Destroy upon termination, send official record to Stanislaus County Personnel
Employee Contracts	Duration of employment	Destroy upon termination, send official record to Stanislaus County Personnel
Insurance Records, Employees	Duration of employment	Destroy upon termination, send official record to Stanislaus County Personnel
Evaluation Forms	Duration of employment	Destroy upon termination, send official record to Stanislaus County Personnel
Garnishments	Duration of employment	Destroy upon termination, send official record to Stanislaus County Personnel
Job Descriptions	Duration of employment	Destroy upon termination, send official record to Stanislaus County Personnel
Payroll Records	Duration of employment	Destroy upon termination, send official record to Stanislaus County Personnel

Stanislaus County Employees' Retirement Association Records Retention Policy & Schedule 1001

RECORD	RETENTION PERIOD	AUTHORITY/COMMENTS
Workers Compensation	Duration of employment	Destroy upon termination, send official record to Stanislaus County Personnel