



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

September 24, 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 August 27, 2019 Meeting Minutes [View](#)
 - b. Monthly Staff Report [View](#)
 - c. Applications for Service Retirement(s) – **Government Code Sections 31499.14, 31670, 31662.2 & 31810**
 1. Cary, Debera – Treasurer/Tax Collector – Effective 09-11-19
 2. Drew, Morgan – Sheriff – Effective 09-13-19 *
 3. Hale, Melody – HSA – Effective 08-24-19
 4. Halverson, Angelique – Public Works– Effective 09-20-19
 5. McClaran, Eleanore – CSA – Effective 09-14-19
 6. McDonnell, Diane – Library – Effective 09-07-19
 7. Presto, Robert – CSA – Effective 09-28-19
 8. Preston, Stephen – BHRS – Effective 09-14-19
 9. Terry, Janice – Superior Courts – Effective 09-07-19
 10. Vaisau, Cathleen – CSA – Effective 09-21-19
 11. Warren, Billie – Planning – Effective 09-28-19
 12. West, Collette – BHRS – Effective 09-28-19

* Indicates Safety Personnel

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

1. Filgas, Bergen – CSA – Effective 06-21-19
2. Jones, Elizabeth – CSA – Effective 05-23-19
3. Garcia, Saul – Public Defender – Effective 07-12-19
4. Marrow, Sergio – BHRS – Effective 07-05-19
5. Naranjo, Ana Maria – Probation – Effective 08-02-19 *
6. Phitsamay, Amanda – CSA – Effective 08-09-2019
7. Urbina, Jorge – BHRS – Effective 06-01-19

** Indicates Safety Personnel*

e. Application for Disability Retirement – **Government Code Section 31724**

1. Sullivan, Patrick – Sheriff – Service-Connected – Effective 01-19-2018 *

f. Application of Death Benefit – **Government Code Section 31781**

1. Ruiz, Rayna – Health Services Agency – Non-Service Connected – Effective 08-2-2019 – Active Member

** Indicates Safety Personnel*

g. Information Technology Solutions (ITS) Project Update

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

h. Conference Summary Report [View](#)

i. Risk Parity Performance in Low Interest Rate Environment

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

j. Legislative Update [View](#)

k. Private Markets Commitment Notice [View](#)

7. Verus – Investment Consultant

a. August Flash Report [View](#)

8. Investment

a. Auxiliary Investment Report as of June 30 2019

1. AB2833 Auxiliary Report

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

2. Investment Fee Summary, Value Added and Cash Flow Reports

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

9. Administrative

None

10. Closed Session

a. Lease Negotiations with Potential Long-Term Tenant
Government Code Section 54956.8

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)

10. Closed Session (Cont.)

- 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)

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

12. Adjournment



BOARD OF RETIREMENT MINUTES
August 27, 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, Jeff Grover, Darin Gharat, Donna Riley, Sam Sharpe and Mandip Dhillon, Mike Lynch, Michael O'Neal and Jeff Mangar

Trustees Absent: NONE

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

Rick Santos, Executive Director announced that three trustees, Donna Riley, Sam Sharpe, and Mandip Dhillon have been added to the Pension Administration System Steering Committee.

5. Public Comment

None

6. Consent Items

a. Approval of the July 23, 2019 Meeting Minutes

b. Monthly Staff Report

c. Investment Work Plan

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

1. Clark, Cathleen – DCSS – Effective 06-29-19
2. Cover, Christine – CSA – Effective 07-19-19
3. Fernandez, Maria – HSA – Effective 08-31-19
4. Gobel, John – StanCERA – Effective 08-05-19
5. Gonzalez, Esperanza – CSA – Effective 07-23-19
6. Lema, Melanie – DCSS – Effective 08-30-19
7. Lignoski, Kenneth – Sheriff – Effective 08-15-19 *
8. McCall, William – CSA – Effective 08-03-19
9. Patel, Shobha – HSA – Effective 08-03-19
10. Perez, Roberta – HSA – Effective 08-17-19
11. Vaisau, Cathleen – CSA – 08-31-19
12. Zuniga, Stephanie – GSA – Effective 08-25-19

** Indicates Safety Personnel*

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

1. Bryant, Kyla – Workforce Development – Effective 07-05-19
 2. Badibanga, Shalene – CSA – Effective 06-28-19
 3. Harmanpreet, Sohal – Probation – Effective 05-25-19 *
 4. Jordan, Daryl – City of Ceres – Effective 09-07-18
 5. Tyler, Becky – BHRS – Effective 06-02-17
 6. Wright, Desnisha – BHRS – Effective 05-17-2019
- * Indicates Safety Personnel*

f. Approval of Disability Retirement – **Government Code Section 31724**

1. Pierce, Erica – Sheriff – Service-Connected – Effective 6-25-2018 *
 2. Humble, Shiloh – Sheriff – Service-Connected – Effective July 24, 2018 *
- * Indicates Safety Personnel*

g. Information Technology Solutions (ITS) Project Update

Motion was made by Trustee Gharat seconded by Trustee O'Neal to accept the consent items as presented.

Motion carried unanimously

7. Closed Session

Motion was made by Trustee Gharat seconded by Trustee Dhillon to go into closed session at 1:37pm.

Motion carried unanimously

- a. Conference with Legal Counsel to consider purchase or sale of a specific pension fund investment:
Government Code Section 54956.81
- 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 3:38 pm.

Motion carried unanimously

No read out from closed session

8. Verus – Investment Consultant

- a. July Flash Report
- b. Investment Performance 2019 Quarter 2

9. Investment

- a. Investment Policy Statement Directive #1 Update

Motion was made by Trustee Gharat seconded by Trustee Sharpe to accept the staff recommendation as presented.

Motion carried unanimously

10. Administrative

NONE

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

Trustee Sharpe will not be attending the Board of Retirement in September due to required County Training.

12. Adjournment

Meeting adjourned at 4:48 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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September 24, 2019

Retirement Board Agenda Item

TO: Retirement Board

FROM: Lisa Frazer, Member and Employer Services Manager
Stan Conwell, Retirement Investment Officer
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:* In August, Member and Employer Services Staff processed 35 new hires (33 General, 2 Safety) and 18 terminations. 2 estimate requests were prepared (generating 6 estimate calculations) and 3 buy-back requests were prepared, resulting in 14 contracts. 38 individual counseling sessions were held over the course of the month. On August 2, 2019, the Pre-Retirement Seminar was held at the Martin G. Petersen Event Center. 144 future retirees were in attendance who brought 33 guests. The event was a success and have begun planning for next year's event.
- b) *Investment Governance and Compliance* – During the month of August, staff transferred about \$12 Million in excess funds from the liquidity sub portfolio (Insight) to the growth sub portfolio. The excess \$12 Million was the amount remaining after Insight's annual portfolio update to match StanCERA's expected cash shortfalls. Work continued on a potential commitment with a private markets fund. Staff also researched the various approaches institutional investors can take in conducting legal due diligence of private market investments particularly in the area of fiduciary duty. Additional training on Northern Trust reporting tools and meetings with AQR and Grandview Partners took place.

Below is the monthly money transfer report:

From			To		
Manager	Asset Class	Amount	Manager	Asset Class	Amount
Insight	Fixed Income	\$-11.875 Million	BlackRock Russell 1000 Growth	Domestic Equity	\$1.7 Million
			BlackRock Russell 1000 Value	Domestic Equity	\$3.0 Million
			Northern Trust Russell 3000	Domestic Equity	\$6.5 Million
			Northern Trust	Cash	\$675,000

Manager Meeting Notes:

Grandview Partners

In August, staff met with Dean Sotter of Grandview Partners (formerly Greenfield) for an update on the firm and fund VII & VIII. While staff had been previously briefed on the changeover from Greenfield to Grandview, some time was spent on the reviewing how the transition was playing out since the prior update. To summarize, Grandview Partners was created after the general partners agreed to split up the firm with the majority of staff and existing funds moving under the Grandview Partners name. The transition appears to be progressing as expected and staff has no major concerns at this time. A portfolio update of Grandview/Greenfield VII & VIII followed. Both funds have made compelling investments in the industrial and residential real estate markets that have contributed well to their overall performance. Fund VII has finished its investment period while Fund VIII is actively investing capital with approximately \$30 million of StanCERA's \$55 million commitment remaining to be called. Staff also discussed at the meeting what future Grandview funds are in the works.

AQR

Staff joined a call with representatives from AQR for an overview and update of the risk parity fund. Some management team updates were provided and staff confirmed that the changes would have little impact on the operations of the fund. Performance was briefly discussed as well as the current portfolio positioning among asset groups. The remainder of the call focused on the change in AQR's portfolio implementation process. The systematic process AQR employs is periodically updated to simplify and improve the model. The current update involves changing the volatility forecasting assumptions to better predict actual realized volatility. The exposure limits could increase during low-risk environments under the new process, but the overall risk target of the strategy remains the same. The change is expected to increase the fund's performance and volatility slightly once it is fully implemented.

- c) *Fiscal Services* – Employer and employee contributions totaling \$5,149,728 were received through 16 different payroll batches and 7 service purchases in August. 15 contribution refunds and death benefit payouts totaling \$327,570 were processed. The retiree payroll for August totaled \$11,210,071 and was processed as scheduled.

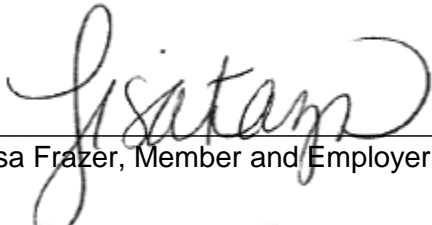
The RFP for General Legal Services is posted on StanCERA's website. Proposals are due no later than 4:30pm October 1, 2019. A committee has been formed to facilitate the RFP process. The committee members are Jim DeMartini, Jeff Mangar and Rhonda Biesemeier.

StanCERA has entered into a contract with MHD Group (a design and advertising company) to update our logo and redesign our website. A committee has been formed to oversee this project. The committee members are Mandip Dhillon, Micheal O'Neal, Rhonda Biesemeier and Jeff Mangar. Staff and the committee members met with Marcia Herrmann of MDH Group to discuss the new logo design. Seven designs were presented. Three were selected to be refined. We will be meeting again on October 3rd to further discuss the three selected.

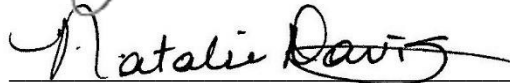
VI. RISK: None

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



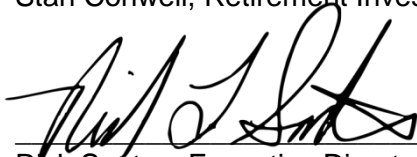
Lisa Frazer, Member and Employer Services Manager



Natalie Davis, Fiscal Services Manager



Stan Conwell, Retirement Investment Officer



Rick Santos, Executive Director



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September 24, 2019

Retirement Board Agenda Item

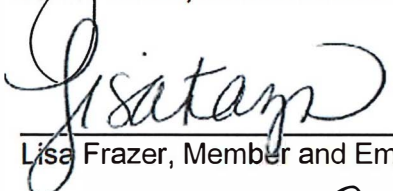
TO: Retirement Board

FROM: Jamie Borba, Member and Employer Services Specialist

- I. SUBJECT: Information Technology Solutions (ITS) Project
- II. ITEM NUMBER: 6.g.
- III. ITEM TYPE: Information Only
- IV. STAFF RECOMMENDATION: None
- V. ANALYSIS: The Pension Administration System (PAS) project continues to progress. The Enrollment and Reciprocity Workflows have been completed and testing has begun on Retiree Payroll and Employer Reporting. Staff is in the process of reviewing six (6) Business and Systems Requirement Documents (BSRD's) and constructing the functionalities of nine (9) workflows.
- 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



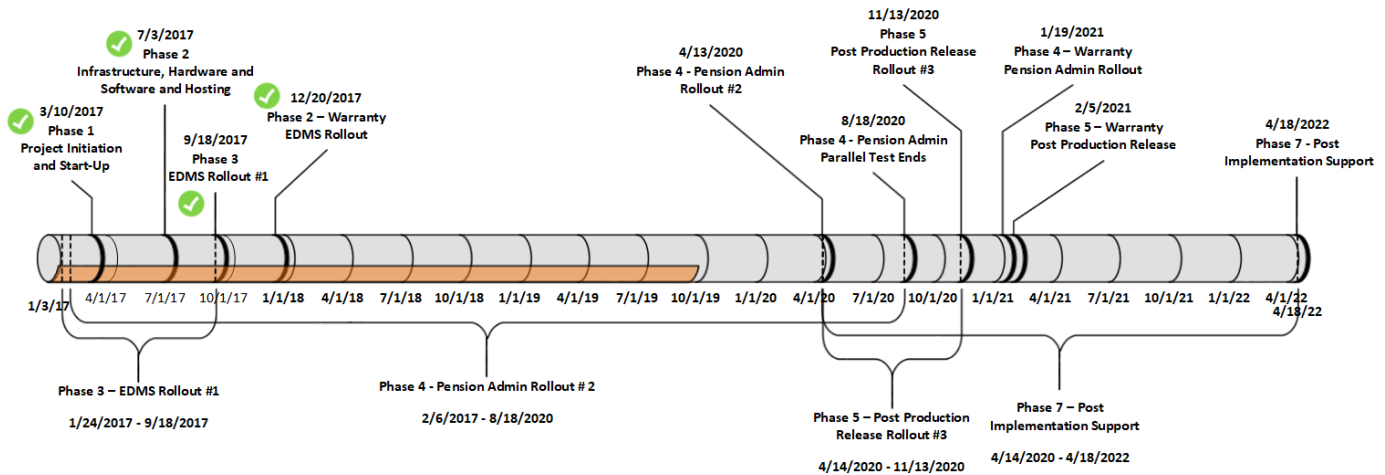
Rick Sanjos, Executive Director



PAS IMPLEMENTATION LINEA BI-WEEKLY STATUS UPDATE



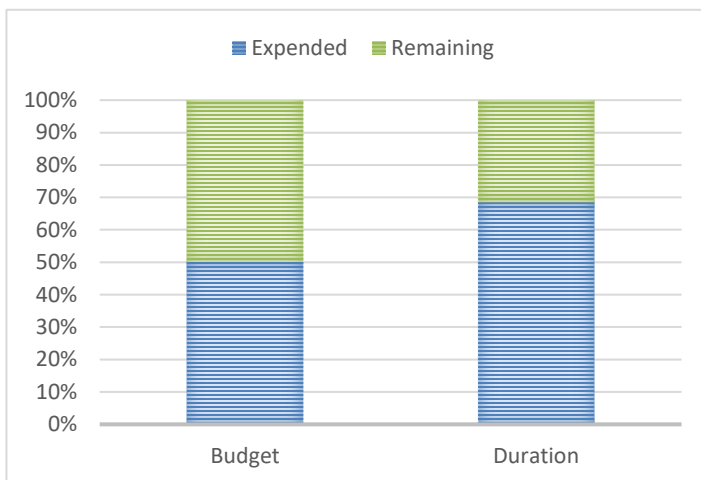
SPONSOR: Rick Santos **REPORT DATE:** 09-20-2019



Baseline 12/01/2016

STATUS

Risks & Issues:



Linea Budget as of 08/31/19

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

Accomplishments:

Upcoming:

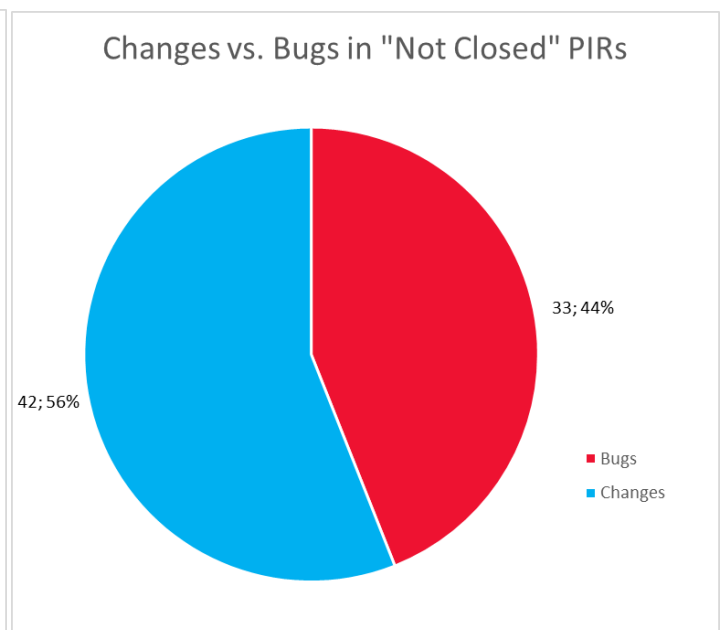
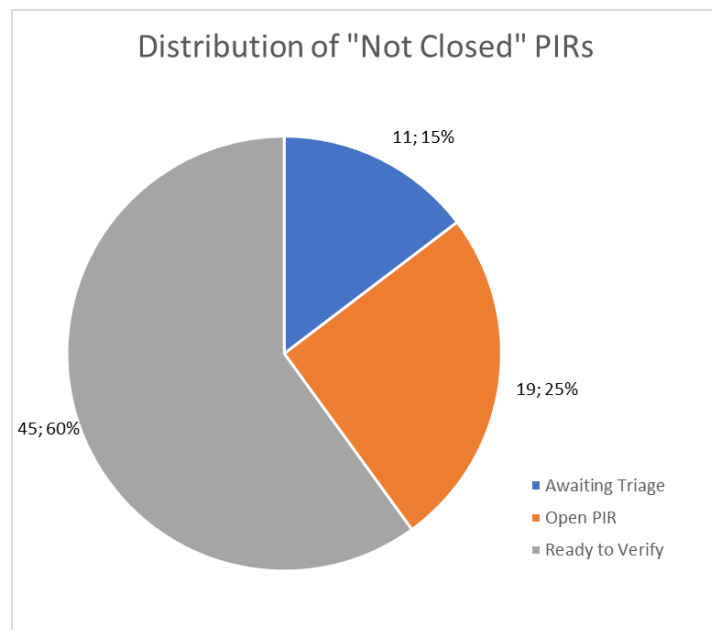
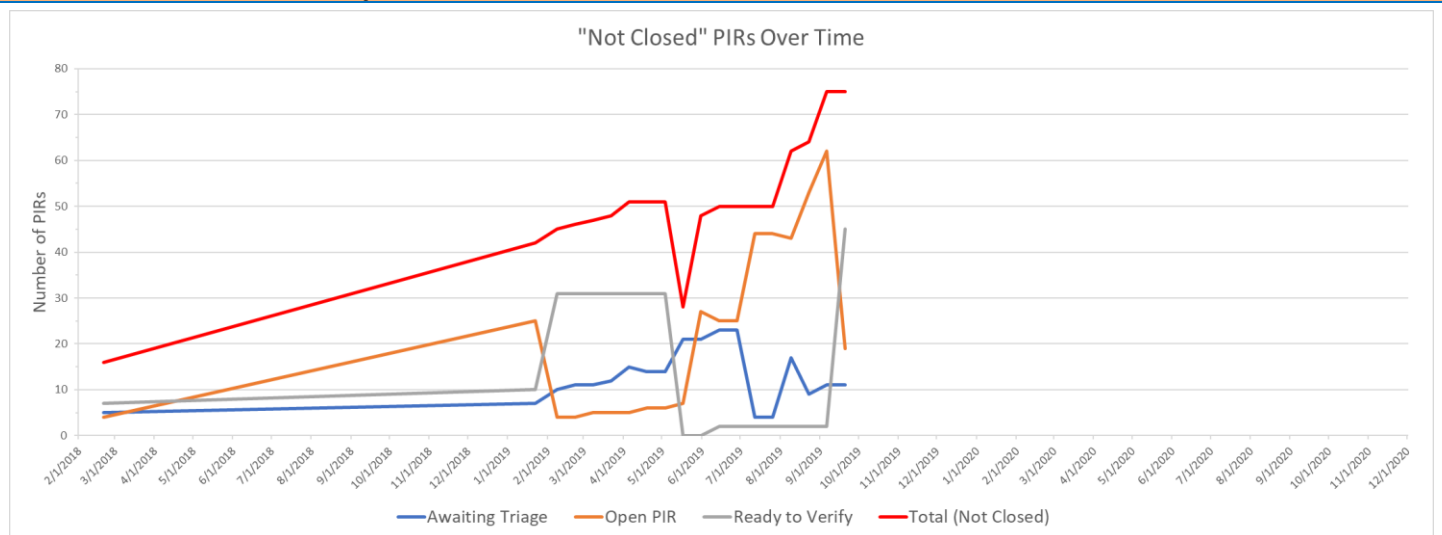
- R15 released to UAT on 09/16/19 and payroll interface test cases provided by Tegrit.
- Meeting of StanCERA leadership to discuss use of parallel testing in the project and following go-live.
- Received a new transmittal test file from City of Ceres and assisted with us of new employee status codes.
- Preparations for first meeting of augmented Steering Committee for defining policy and goals for implementing member self-service web portal.

- Retesting of R13 and R14 resolved PIRs and testing of new functionality released in R15.
- Continued analysis and evaluation of upload employer test files being received for consecutive pay periods.
- First meeting of augmented Steering Committee to begin defining organizational policy and goals for implementing the member self-service web portal.

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 (BSR054, BSR064, BSR065).
- 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





Conference Summary

1. **Attendee Name:** Jeff Mangar
2. **Event Name:** UC Berkeley 2019 SACRS Public Pension Investment Management Program
3. **Event Date:** 7/22-7/24/19
4. **Event Location:** Claremont Hotel Berkeley
5. **Describe what was good about the event:** "Modern Investment Theory & Practice for Retirement Systems" at UC Berkeley's Haas School of Business provided an update to current pension system issues. Topics included how to best diversify risk and generate higher returns; the predictability of long term asset returns; advanced portfolio analysis; alternative asset classes to protect against downside risk; alternative strategies to generate both alpha and uncorrelated returns; avoiding the pitfalls of behavioral biases; and recent cases defining fiduciary duties.

One of the more interesting discussions was about CalPERS' potential unfunded liabilities. The Federal Reserve System uses a new methodology devised by the Bureau of Economic Analysis (BEA). "The new method called 'projected benefit obligation' aligns pension assets and liabilities with government accounting standards. Using that method, CalPERS' current unfunded liabilities, officially at \$179 billion, could be closer to \$360 billion, completely overwhelming the fund's current assets and making it, on paper at least, insolvent." There was a discussion that pension systems should adopt the methodology now used by the BEA and the Federal Reserve to be more uniform for a more accurate comparable analysis between systems.

6. **Would you recommend this event to other trustees/staff:** YES
7. **Number of Education Credits:** 18 Hours



September 24, 2019

Retirement Board Agenda Item

TO: Retirement Board

FROM: Rick Santos, Executive Director

- I. SUBJECT: Risk Parity performance in a low interest rate environment
- II. ITEM NUMBER: 6.i
- III. ITEM TYPE: Information Only
- IV. STAFF RECOMMENDATION: None
- V. ANALYSIS: Recently a couple of questions were posed of staff regarding performance of the risk parity strategy in a low interest rate environment. As a reminder, the risk parity strategy attempts to derive its returns from a portfolio that has equal risk exposures to both equities and fixed income. Specifically, two questions were raised:

1. *In a scenario of negative interest rates extending to U.S. markets, how would the expected performance and risk profile change?*

The total portfolio performance would be lower just by the mere fact that interest rates are lower.

Since the total return on **any** investment is comprised of a bank or treasury return (the risk free return) plus the return from taking on risk (a risk premium), negative interest rates imply a negative risk free return (since one would not “pay” to take on risk). Consequently, the total return on **all** assets would suffer just because of the low interest rate environment.

The risk profile of the portfolio doesn’t change.

From a theoretical standpoint, there is nothing inherently different just because interest rates approach or fall below zero. The same applies when discussing the risk profile of the portfolio. Regardless of the level of interest rates (above, below or at zero), the likelihood of a subsequent interest rate move up or down or a shift in the shape of the yield curve (both examples of risk) is the same.

2. *In the same scenario, would the risk parity/process implementation change?*

It is anticipated that the processes and implementation of the risk parity strategy would not change under a low interest rate environment.

The answer to this question is predicated on the same assumption referred to in the first question. Namely, that from a theoretical standpoint, nothing is inherently different in the mechanics of the capital markets, simply because interest rates are at, above or below zero. Consequently, the risk parity manager stated that they do not anticipate their processes would be materially affected or changed if interest rates were to become negative in the U.S.

Attachment 1 provide the foundations for a much more indepth and theoretically rigorous answer to the questions posed.

It is interesting to note that the same implications from negative interest rates would hold for all other assets in StanCERA's total portfolio. Thus a low(er) interest rate environment would likewise produce smaller overall portfolio returns. It is also worth noting that the theoretical implications suggest that diversification benefits from holding multiple asset classes in a balanced portfolio would not be lost.

- VI. RISK: None
- VII. STRATEGIC PLAN: Strategic Objective II: Develop efficient and effective procedures for the evaluation, monitoring and disposition of StanCERA's active managers
- VIII. ADMINISTRATIVE BUDGET IMPACT: None

A handwritten signature in black ink, appearing to read 'Rick Santos', is written over a horizontal line.

Rick Santos, Executive Director



Alternative Investment Analyst Review

Editor's Letter: How to Evaluate the Performance of Alternative Assets

Hossein Kazemi

Alternative Premia, Alternative Price

Matthew Towsey, CAIA and Chris Walvoord, Aon Hewitt

What Rising Rates Mean for Hedge Fund Returns After Fees

Dan Covich, CAIA, Pavilion Alternatives Group

Private Equity: Manager Selection, Portfolio Construction, and Outperformance

Raymond Chan, Jeff Diehl, Miguel Gonzalo, and Tobias True, CAIA, Adam Street Partners

Asset Allocation in a Low Yield Environment

John Huss, Thomas Maloney, Zachary Mees, and Michael Mendelson, AQR Capital Management

Forecasting a Volatility Tsunami

Andrew Thrasher, Financial Enhancement Group

Alts Transparency: Finding the Right Balance

Paul Finlayson and Stuart Lawson, Northern Trust

Private Debt in an Institutional Portfolio

Sanjay Mistry and Tobias Ripka, Mercer Private Markets

De-Risking Concentrated Stock Positions

Tom Boczar and Nischal Pai, Intelligent Edge Advisors

The CAIA Endowment Investable Index

Hossein Kazemi, CAIA Association, and Kathryn Wilkens, CAIA, Pearl Quest

The MSCI Global Intel Report

Building Targeted Real Estate Portfolios,
MSCI Real Estate



Asset Allocation in a Low Yield Environment

Michael Mendelson
AQR Capital Management

John Huss
AQR Capital Management

Thomas Maloney
AQR Capital Management

Zachary Mees
AQR Capital Management

Executive Summary

In 2016, bond yields fell to unprecedented low levels in major markets — below zero, in some cases. This phenomenon challenged long-held assumptions about asset allocation. Many investors asked themselves whether holding very-low-yielding bonds was pointless, especially given expectations of future rises in yields.

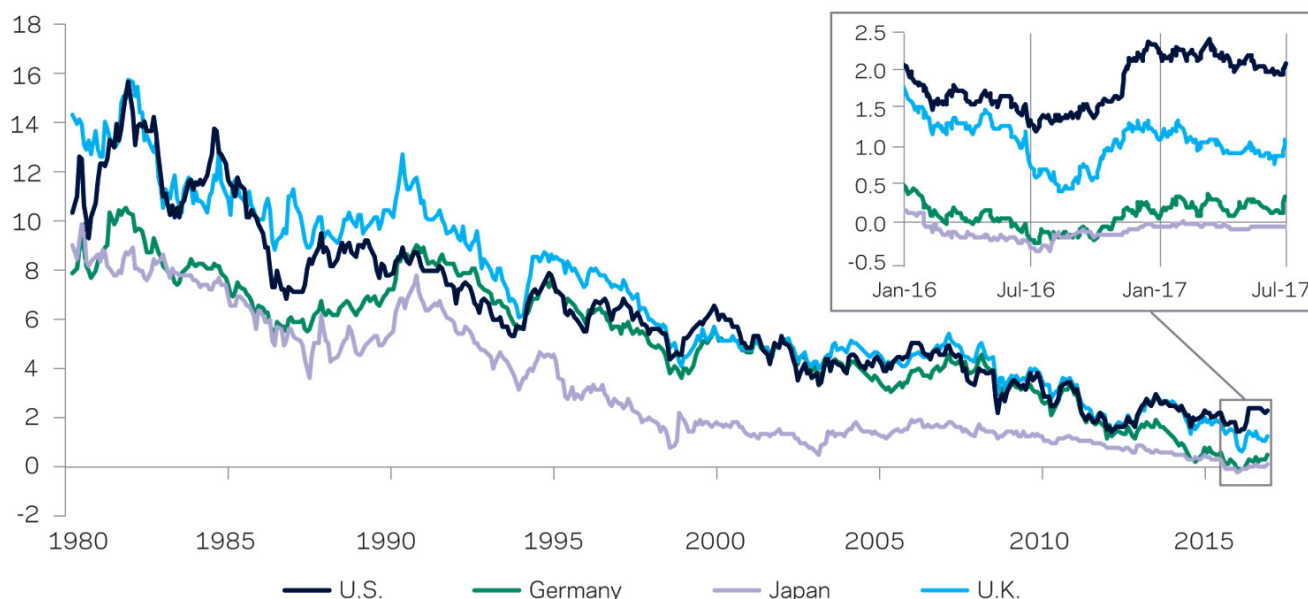
Does this exceptional environment demand exceptional action? We have long argued for strategic risk diversification across many return sources — including bonds — with, perhaps, modest tactical tilts. In this article we question the premises behind that preference in light of the current yield environment and find that they are still sound. Specifically, we argue that:

1. For asset allocation decisions, what matters is expected return *in excess of the investor's risk-free rate*, not expected total return. Expected total return

matters more broadly, of course, but asset allocation decisions only act directly on excess returns.

2. Mechanically and empirically, positive long term excess returns in bond markets are not generated by high (or low) yield levels but rather the average upward slope of yield curves.
3. Some measures of expected excess returns *are* low relative to history for bonds, as well as for equities. But tactical timing has an unimpressive track record, especially when based solely on valuation, and humility is therefore warranted in sizing tactical tilts. Even in a low yield environment, there are plausible scenarios where yields could go much lower.
4. While bonds should not be considered risk-reducing hedges, evidence does suggest they can remain useful

Exhibit 1: Nominal 10-Year Bond Yields for Four Developed Markets 1980-2017



Source: AQR, Bloomberg. For illustrative purposes only. Please read important disclosures at the end of this document.

diversifiers in many market environments. Investors should be cautious about forgoing potential diversification benefits, both within bond portfolios and across asset classes.

Unexplored Territory for Bond Yields

Nominal 10-year bond yields in a few major developed markets dropped below zero in 2016, though they have since rebounded slightly (see Exhibit 1). The events of 2016 contradicted a basic assumption about financial markets; in the past, most investors, including us, assumed the lower bound on nominal yields would be somewhere very close to zero. Very low interest rates raise important questions — for bond investors, but also for investors in equities and other assets. Are the near- zero or negative yields we observe just a short-term aberration? Do they imply that owning bonds, or at least some bonds, is pointless or a guaranteed loss? Can yields only go up from here or is it possible for yields to go even lower? In the following pages, we examine the implications of this peculiar situation for asset allocators.

Do Low Yields = Low Expected Returns for Bonds?

It's a common assumption that over a long period, a bond's yield is equal to its expected return. So, if yields are zero or less, the total return on bonds should be no better. Despite this being roughly true,¹ yield levels are astonishingly not as relevant for asset allocation as you might think! To demonstrate why, we first need to separate investment returns into two parts:

$$\text{Total Return} = \text{Risk-Free Rate} + \text{Excess Return}$$

The above formula is just a tautology, but it's crucial to understanding the implications of the current environment. The risk-free rate, as its name suggests, is what you get as basic compensation merely for *saving* (rather than *consuming*), but it does not include the return on taking risk. Excess return, on the other hand, is the return for taking the risk associated with

investing, and also potentially the return on investment insight or acumen. Since excess return is the only part of the equation which differs among assets, it is also the key consideration when allocating among them. The immediate implication is that, all else equal, if either the risk-free rate or excess returns are particularly low, then it's likely that the total return on the asset will be low as well. In a world of exceptionally low risk-free rates, whatever the return for risk-taking might be, the return for taking no risk (i.e., the return for saving) is so low that the sum of the two, the total return, is starting at a disadvantage. This applies equally to all investments, including equities.

One important note on the risk-free rate: investors can only earn the risk-free rate of their home currency. When investing in an asset denominated in a foreign currency, the investor either hedges the currency risk, thereby transparently earning interest at a rate close to their home currency risk-free rate, or the investor doesn't hedge and any increase (or decrease) in expected return is accompanied by currency risk (and thus not risk-free); either way, the investor's risk-free return is the same — it's the risk-free rate of their home currency.

Exhibit 2 on the next page shows headline 10-year yields for six major bond markets (dark blue) as well as the effective yield for a hedged U.S.-based investor (light blue). As you can see, the hedged U.S. investor's yield can be dramatically different from the yield earned by a local investor in each market. Indeed, for U.S., U.K., Canadian, or Australian investors, the effective yields earned on hedged 10-year bonds are clearly above zero for bonds from all G6 markets. Unfortunately, for investors domiciled in the Eurozone and Japan, expected total returns on global bonds are currently lower because euro and yen risk-free rates are lower. These investors need to start with lower total return expectations than their American or British peers because their risk-free rate is lower.

Exhibit 2: 10-Year Bond Yields for Six Developed Markets in a Hedged U.S. Investor's Portfolio



Source: AQR, Bloomberg. Yields as of December 31, 2016. Major government 10-year bond yields for G6 countries. The difference between hedged U.S. and local yields reflects the market implied short-term (3-month) interest rate differential between the U.S. dollar and the foreign currency, which is based largely on the difference in actual local risk-free rates, and also on relative supply and demand, deviating from covered interest rate parity. Deviations currently favor hedged U.S. investors and have in practice become more common since 2008, and may raise or lower currency-hedged yields, depending on the country. For illustrative purposes only. Please read important disclosures at the end of this document.

Exhibit 3: Average Yield vs. Average Subsequent 10-Year Stock and Bond Local Total Return

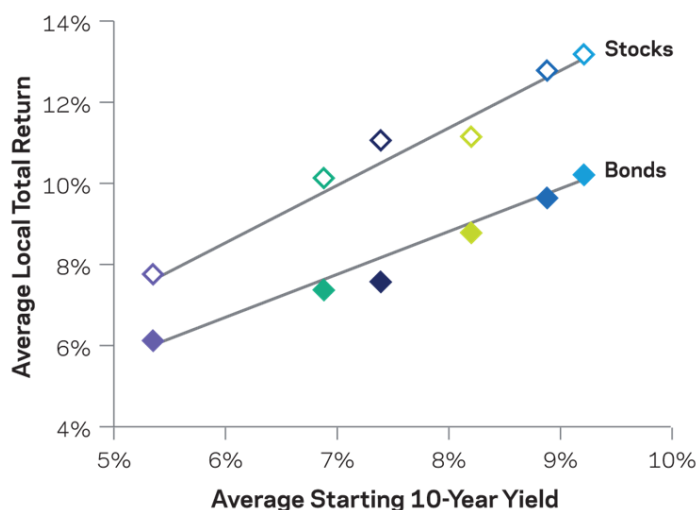
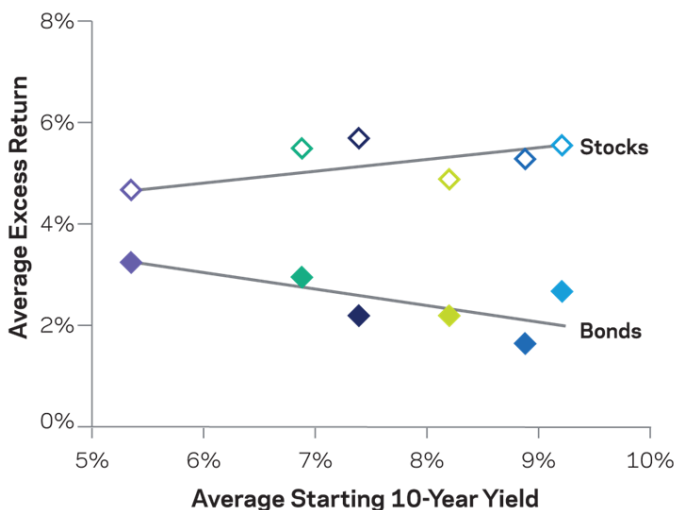


Exhibit 4: Average Yield vs. Average Subsequent 10-Year Stock and Bond Excess Return



Legend: Japan (purple diamond), Germany (green diamond), United States (dark blue diamond), Canada (yellow diamond), Australia (light blue diamond), United Kingdom (cyan diamond)

Source: AQR, Global Financial Data, DataStream, MSCI, Ibbotson, Bloomberg. January 1966 – December 2016. Government 10-year bond returns for G6 countries are defined as DataStream 10-Year Total Return indices and, prior to DataStream availability, Global Financial Data Total Return indices. Equity returns for G6 countries are defined as MSCI Total Return indices and, prior to MSCI availability, Global Financial Data Total Return indices, except for the U.S. which is defined as the S&P 500 Total Return and is sourced from Ibbotson prior to Bloomberg availability. Returns are excess of local currency Global Financial Data T-Bill Total Return indices. For illustrative purposes only. Please read important disclosures at the end of this document.

The Relationship between Yield Levels and Returns

In Exhibit 3 we use 50 years of data to compare the average level of 10-year bond yields to average subsequent 10-year stock and bond local total returns for six developed markets. We find a strong positive relationship.

This relationship is consistent with most investors' intuition, but interestingly it is the same for both stocks and bonds. Note also that these are the local total returns earned by six different investors each investing in their home country.

What about a single investor investing across all six markets? Excess return and the investor's own risk-free rate drive total returns in that case, since allocating to foreign markets does not, for better or worse, allow you to earn the risk-free return of those markets.² Furthermore, you can't do anything about your own risk-free rate; your investment decisions don't affect it, you just have to accept it. When we compare yield levels to subsequent excess returns across markets, we find a far weaker (actually non-existent or even backwards) relationship (Exhibit 4).

What is driving the difference between how excess returns and total returns are related to yield levels? The differences between the two figures are the differences in the average risk-free rates of these six markets. For instance, Japan has not only had the lowest average 10-year yield, but also the lowest risk-free rate. Over this 50-year period, a U.S. investor in Japanese bonds earned the U.S. risk-free rate plus the relatively healthy Japanese bond excess return, realizing a very different return outcome than a Japanese investor who earned the same excess return but a lower total return. This data reaffirms most investors' intuition that lower yields result in lower local total returns, and we also find the same is true for stocks. While it is nice to gain total return insight, when

that insight doesn't translate to excess returns, it isn't helpful in making asset allocation decisions, since asset allocation decisions affect only excess returns.

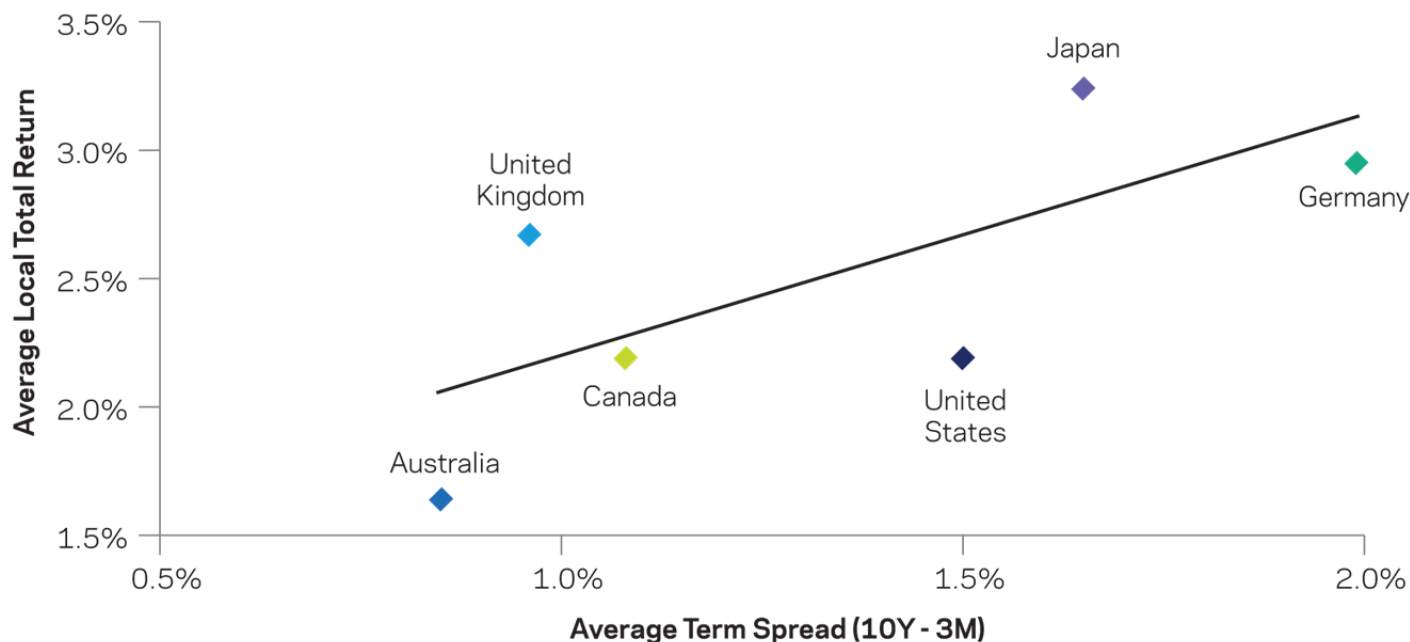
We've shown that markets with lower average yield levels have not delivered lower excess returns. It follows that recent low yields don't mechanically imply a low Sharpe ratio (and hence reduced allocation) for fixed income.³ But, if yield levels aren't the source of excess returns for bonds, what is?

The Term Premium as the Source of Excess Return

Bond excess returns are comprised of two parts: the term premium and capital gains/losses from unexpected changes in yields. The term premium is the excess return bond investors expect to earn for taking duration risk – that is for holding a long-term asset whose price can rise and fall with yield levels, rather than just buying a near-riskless asset like a 3-month Treasury bill.

The term premium itself has a (positive) average level but may also vary over time and across markets. How do we observe and measure the average term premium given its variation? We start by recognizing that the slope of the yield curve (difference between long-term and short-term yields) reflects some combination of the term premium and the expected future path of short rates. Over the long term, we expect changes in short rates to average out to zero.⁴ So our estimate of the long-term average term premium is just the long-term average slope of the yield curve. Exhibit 5 compares the average slope of the yield curve (10-year yield minus 3-month yield) to subsequent 10-year excess return on bonds across countries; we observe a strong positive relationship. In other words, bonds' positive long-term excess returns (their risk premium) originate from the average upward slope of yield curves, not the level of yields.

Exhibit 5: Average Yield Spread vs. Subsequent 10-Year Bond Excess Return



Source: AQR, Global Financial Data (GFD), DataStream, MSCI, Ibbotson, Bloomberg. January 1966 – December 2016. Average yield slope is the average monthly difference between local 10-year yields and local 3-month yields. See Exhibit 3 for additional source information. For illustrative purposes only. Please read important disclosures at the end of this document.

In the previous section we explained that there is no mechanical relationship that would cause low yield levels to impair bonds' ability to generate excess returns. Both our economic intuition and empirical studies imply that a structurally flat or inverted yield curve over the long term would reduce expected excess returns.

While the average slope of the yield curve explains average excess returns, year-on-year volatility is driven almost entirely by changes in the level of interest rates. Exhibit 6 shows the average level and time variation of these two components for U.S. Treasuries since 1954. Changes in yields have contributed almost nothing to average excess returns (as we would expect since these yield changes have averaged out to about zero), but they have driven almost all the volatility (blue bar).

Since we can identify the source of the long-term positive excess returns associated with the term premium, you might expect that we can easily identify and profit from its variation through time. Unfortunately, estimating the time-varying component of the term premium — the basis of a tactical view — is difficult, and any forecasting power is easily overwhelmed by unexpected changes in yields. In other words, timing bond markets is hard. But evidence suggests that the yield curve slope does have some ability to predict future excess returns. Notably, this simple measure of “carry” is more effective on paper as a tactical timing indicator than popular measures of valuation such as the real bond yield (the nominal yield minus expected inflation over the corresponding period).⁵

How Reliable Are Carry and Value Signals?

Exhibit 7 on the following page shows both measures for U.S. Treasuries since 1930. At the end of 2016, real bond yield (0.2%, 7th percentile) is near historical lows while slope (2.0%, 63rd

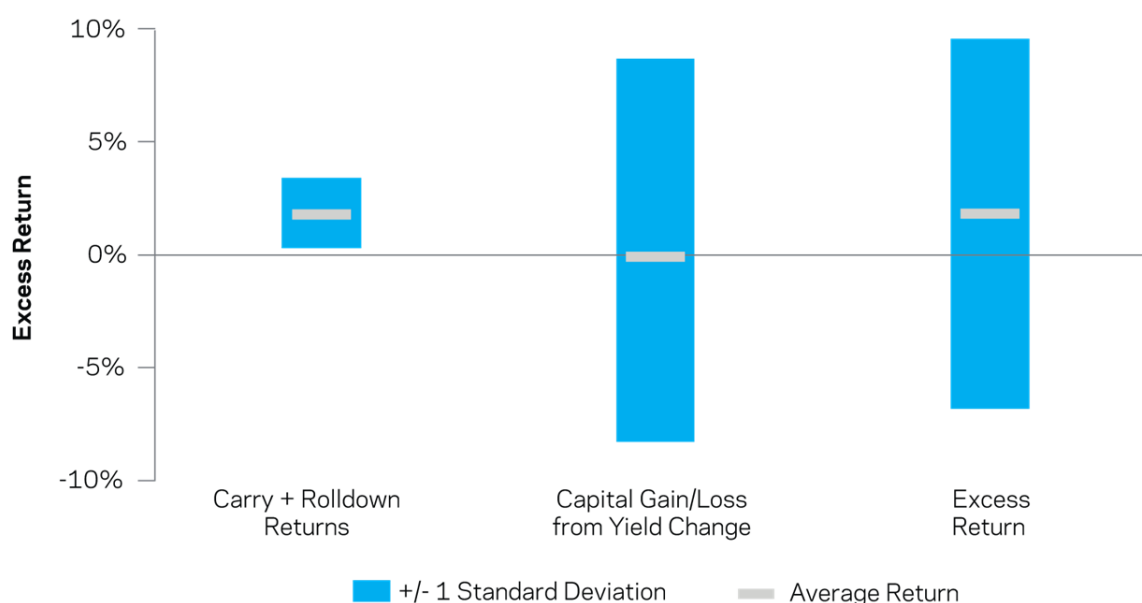
percentile) is above average. While “best guess” estimates of medium-term expected bond returns should account for both real yield levels and slope,⁶ Exhibit 7 shows that both indicators are fairly weakly related to subsequent near-term excess returns. Real bond yield levels that are high or low compared to their own history have often preceded the opposite return outcome, and an inverted yield curve (the most bearish carry signal) has often been followed by strong returns.

While a time series chart gives some historical perspective, it's hard to ascertain how much confidence we should have in these signals. To get a clearer picture, in Exhibits 8 and 9, both on the following page, we use box plots⁷ to compare the distribution of realized 1-year excess return outcomes for different quintiles of starting yield curve steepness and real bond yield. The full sample, denoted by the green box in both exhibits, shows that the majority of 1-year outcomes (the middle 80%) fall between -5% and +10% with an average annual excess return of about +2%.

When sorting return outcomes by the slope of the yield curve we do find that the average subsequent excess return increases with steepness, confirming our economic intuition. However, we also see that only the quintiles at the two extremes have averages meaningfully different from the full sample average. Furthermore, the majority of the realized outcomes across the quintiles (the blue boxes) fall in ranges which largely overlap across the quintiles. Even taking this historical study at face value (the many potential pitfalls of any study on trading signals being outside the scope of this paper), the results indicate that current yield curve slope may contain useful information on future excess returns, but uncertainty still dominates future outcomes.

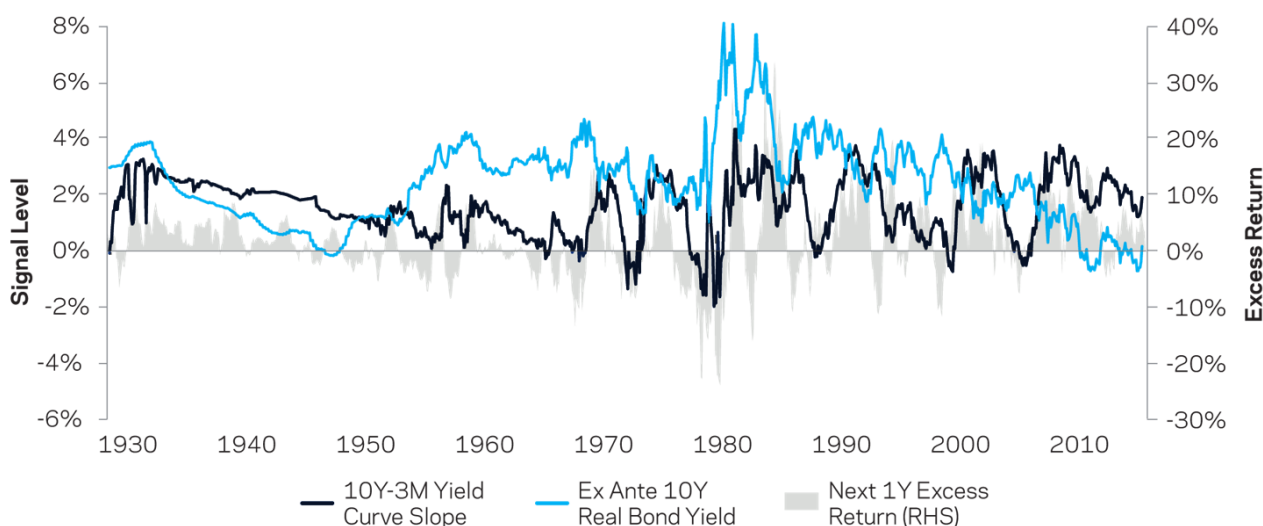
The story is similar when we sort return outcomes on starting real bond yield. On average, top quintile real yields have been

Exhibit 6: Decomposition of U.S. 10-Year Treasury Excess Return



Source: AQR, Bloomberg, Federal Reserve Economic Data. January 1954 – December 2016. Carry and roll-down returns are based on curve steepness and duration, capital gain/losses are based on changes in yields and average duration over the time period. The risk-free rate is assumed to be the U.S. 3-month T-Bill. For illustrative purposes only. Please read important disclosures at the end of this document.

Exhibit 7: U.S. Treasury Slope, Real Yield and Subsequent Excess Returns 1930 – 2016



Source: AQR, Bloomberg, Kozicki-Tinsley (2006), Federal Reserve Bank of Philadelphia, Blue Chip Economic Indicators, Consensus Economics. Real bond yield is 10-year real Treasury yield over 10-year inflation forecast as in *Expected Returns* (Ilmanen, 2011), with no rolldown added. Yield Curve Slope is 10-year Treasury yield minus 3-month Treasury bill yield. For illustrative purposes only. Please read important disclosures at the end of this document.

associated with higher one- year excess returns, though there is no discernable relationship across the other four quintiles. The overlapping range of realized outcomes across the quintiles again tells us that whatever the level of real yields, subsequent excess returns can vary greatly. Once again, the data makes only a modest case for using real yields as a signal for timing bonds.

Of course, there are myriad potential market timing signals beyond curve slope or real bond yield (momentum being another well-known candidate),⁸ but our goal in this section was not to discredit or discourage all market timing strategies. Rather, we hoped to illustrate that humility has historically been warranted

when attempting to tactically time bond markets, even when including insights on the source of bonds' strategic returns. We ask in the next section whether the current environment is a special case that might warrant a more confident tactical view.

Tactical Views in the Current Environment: Can Yields Only Go Up?

So far we've shown that nothing about the current yield environment contradicts the ability of bonds to continue to provide, on average, a risk premium (an excess return for taking risk). We've also documented the challenges of using estimates of

Exhibit 8: U.S. Treasury Excess Returns Sorted by Yield Curve Slope

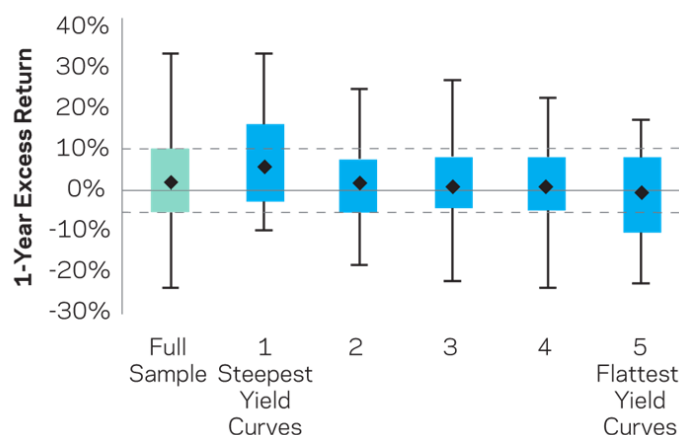
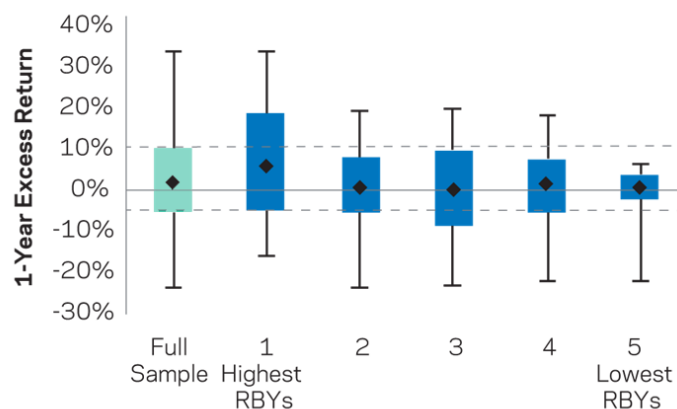


Exhibit 9: U.S. Treasury Excess Returns Sorted by Real Bond Yield



◆ Average Excess Return ■ 10th to 90th Percentile — Range of Outcomes

Source: AQR, Bloomberg, Kozicki-Tinsley (2006), Federal Reserve Bank of Philadelphia, Blue Chip Economic Indicators, Consensus Economics. See Exhibit 7 for additional sourcing information. For illustrative purposes only. Please read important disclosures at the end of this document. For illustrative purposes only. Please read important disclosures at the end of this document.

a time-varying term premium to profitably time bond markets. But isn't the current environment a special case? If there is a lower bound on yields somewhere near zero, prices of the lowest-yielding bonds can only fall. Surely, then, a more aggressive underweight is called for? Over the last several years as central banks in many countries continued to push interest rates lower and lower, many (including us) thought that it was reasonable to assume that yields could not go negative. The obvious reason for this is that paper money would provide an arbitrage; everyone could just hold cash in physical form rather than electronically. However, what we and many others have come to realize is that this "arbitrage" isn't practical in the real world. The zero lower bound is challenged by storage issues, transportation and transactional difficulties, and the ability and willingness of authorities to exacerbate these. At least three countries (Sweden, Denmark and Switzerland) have been able keep their interest rates materially below zero, which has contributed at times to a large stock of bonds with negative yields. At this point, we don't know where the lower bound on rates is located.

Another perspective on our newfound uncertainty on the lower bound for interest rates is the amount central banks have historically had to cut them in order to combat recessions. In past recessions, when unhindered by proximity to a perceived lower bound, central banks have had to cut rates by an average of 5%⁹ in order to stabilize economic growth and inflation. With Federal Reserve policy rates expected to peak below 3%¹⁰ before the next easing cycle (and other central banks jealously eyeing such rates from below), it is quite possible that negative interest rates might be a feature of future central bank policy both in the U.S. and abroad in the event of an economic downturn (they would likely employ other stimulative tools as well).

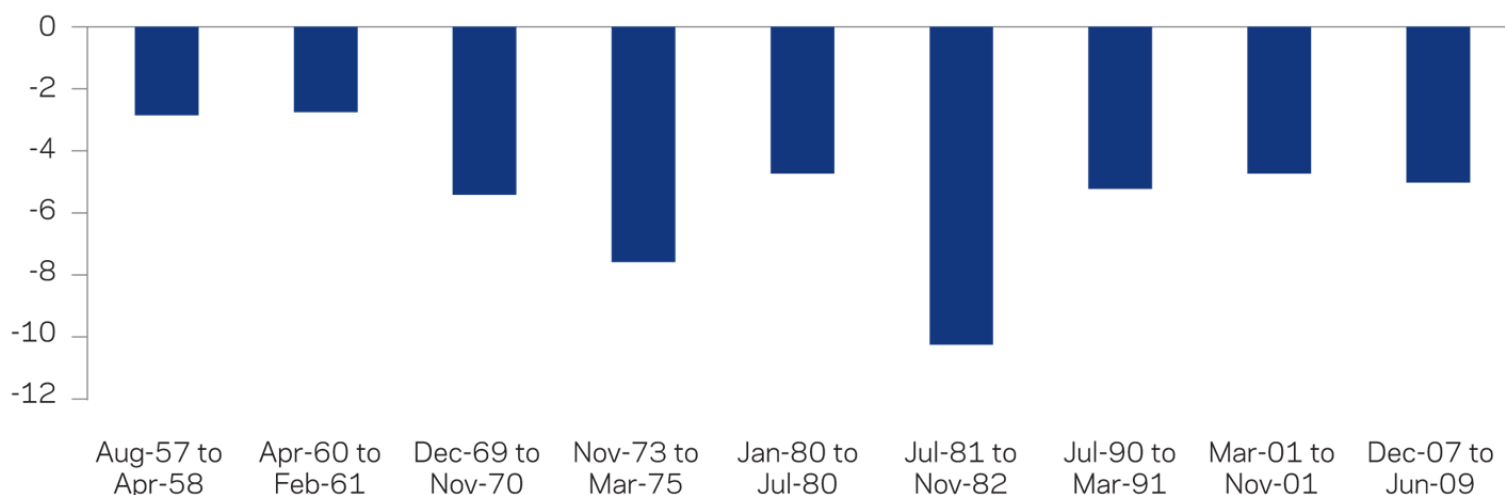
Depending on what economic scenario materializes in the coming years, we could see very different outcomes for yields. An improvement in labor markets and wages as central bank stimulus begins to work, or an increase in inflation as commodity prices recover, could lead to the higher yields many expect.¹¹ Alternatively, a movement towards recession or a continuation of below-trend growth and inflation across developed and emerging markets could keep yields low or even push them lower. In Exhibit 10, we observe that in each of the nine U.S. recessions since the data begins in 1954, the amount of easing required to stabilize the economy would result in a meaningfully negative fed funds rate in every instance, if begun from today's levels.

Note that we are not predicting a further significant fall in yields. We are simply acknowledging the possibility.¹² In short, we do not believe the current environment has caused yield changes to become suddenly easier to predict. The failure in recent years of valuation-driven models to accurately predict the prolonged bull market in bonds is an obvious example of the continued challenge.

Of course, just because predicting yield changes remains difficult does not mean tactical signals must be ignored entirely. When applying modest tactical tilts to a strategic base, there is a diversification benefit from combining multiple signals which is similar to the diversification benefit from allocating to multiple asset classes. Some bond market signals were bullish at the end of 2016 (e.g., 12-month trends in most markets), some were neutral (carry factors, since yield curves are close to average steepness), and others were bearish (negative short-term trends in most countries and longer-term valuation measures).

Even if all these different signals were in agreement, we would still favor only a modest tilt away from the strategic base. The size of

Exhibit 10: Fed Fund Rate Cuts in Last 9 Recession



Source: Federal Reserve, the Federal Reserve's Monetary Policy Toolkit: Past, Present, and Future. David Reifschneider (2016), "Gauging the ability of the FOMC to Respond to Future Recessions," Finance and Economics Discussion Series 2016-068 (Washington: Board of Governors of the Federal Reserve System, August) Note: For recessions prior to 1990, the total amount of easing is the difference between the maximum and the minimum monthly average of the effective fed funds rate in the period extending from six months prior to the start of the recession to six months after it ends. For the last three recessions, the periods of continuous reduction in the intended federal funds rate are June 1990 to Sept. 1992, Dec. 2000 to Jan. 2002, and Aug. 2007 to Dec. 2008. For illustrative purposes only. Please read important disclosures at the end of this document.

the tilt should depend both on the conviction in the view and on how much diversification the investment provides. We turn to this topic of diversification in our final section.

When Yields Are Low, Can Bonds Still Be Diversifying in a Portfolio?

We have explained why we think yields could conceivably move up or down even from low levels. It follows that bonds can still be useful diversifiers. However, to address the question of diversification more directly, we can observe the historical correlation of bonds to other asset classes across a range of yield change environments.

First, it is important to note that we do not consider bonds to be a “hedging asset”. That is, we don’t need bonds to exhibit negative correlation with other asset classes to add value as a diversifier (although in recent years they have indeed acted as valuable safe havens, negatively correlated to equity markets, especially in difficult environments). Rather we expect the correlation between bonds and other asset classes to average about zero — which is plenty diversifying (and consistent with long-term historical averages — substantial negative correlations are not the norm).

In Exhibit 11 we can see that over the past 70 years the average correlations between bonds and both stocks and commodities have indeed been close to zero. Furthermore, we see that for various definitions and phases of rising rates environments, equity-bond correlations are modestly higher but remain low in absolute terms (about 0.2 in both secular and rapidly rising rate periods). None of this means, of course, that in the next cycle we won’t see significantly positive correlations (which would reduce — but not eliminate — the diversification benefit of a meaningful allocation to bonds within a portfolio), but the long-term evidence shows low correlations between bonds and other asset classes tend to persist across interest rate environments.

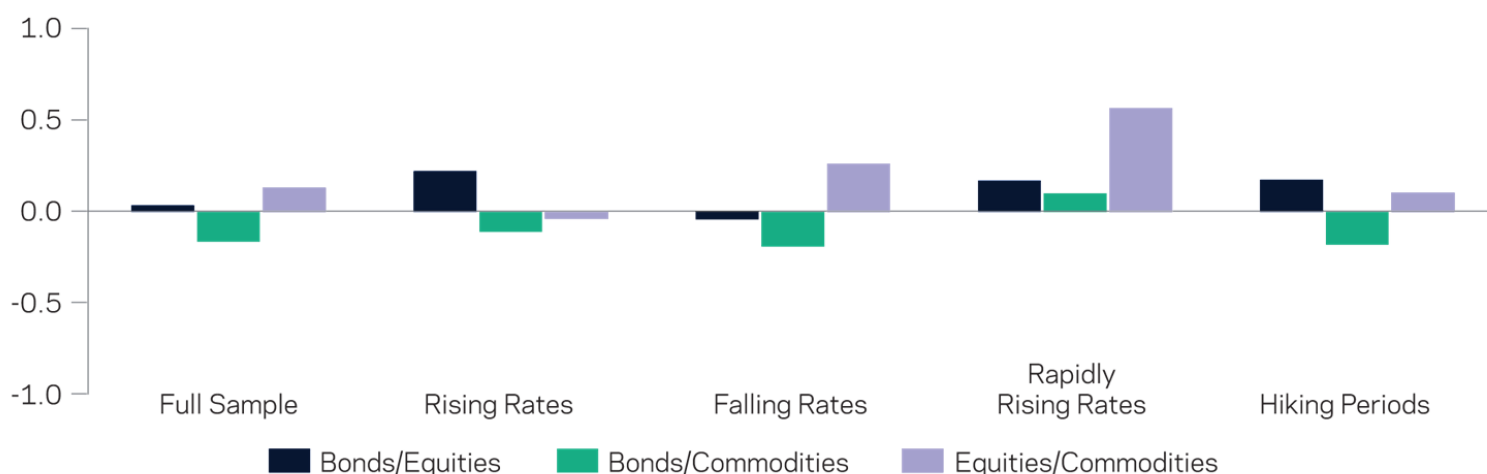
Conclusion

We think key parts of the current environment are often misunderstood — specifically the difference between the return on savings via the risk-free rate and what we earn from the risky portion of our investments, excess returns. We have demonstrated that low yields don’t mechanically imply a low risk premium or low excess returns. We’ve shown that the risk premium for bonds, the term premium, has been related to yield curve slope rather than to yield level. We also have reason to believe yields can still move in either direction, and could potentially go negative again in certain environments. Finally, we’ve shown evidence that bonds have been diversifying to stocks and commodities, even in rising rate environments.

Predicting the variation in excess returns (yield changes and term premium) is still a difficult task. Even though we do think we have useful tactical signals for making predictions about future returns, we believe that no tactical signal is powerful enough to warrant wholesale changes to a well-balanced strategic asset allocation.

Low risk-free rates are a material headwind to investors’ total returns, regardless of asset allocation. We say this because today’s risk-free rates affect more than just bonds and investors can’t do much about them. The decisions we do make, particularly on asset allocation, affect only excess returns, about which the low yield environment says little. Our conclusion then is that the odd environment that prevailed in 2016 and persists in 2017 does not contradict the strategic case to maintain a diversified asset allocation. Rather, it highlights the continued need for investors to diversify across more traditional and alternative return sources and size those return sources so they matter in their portfolio.

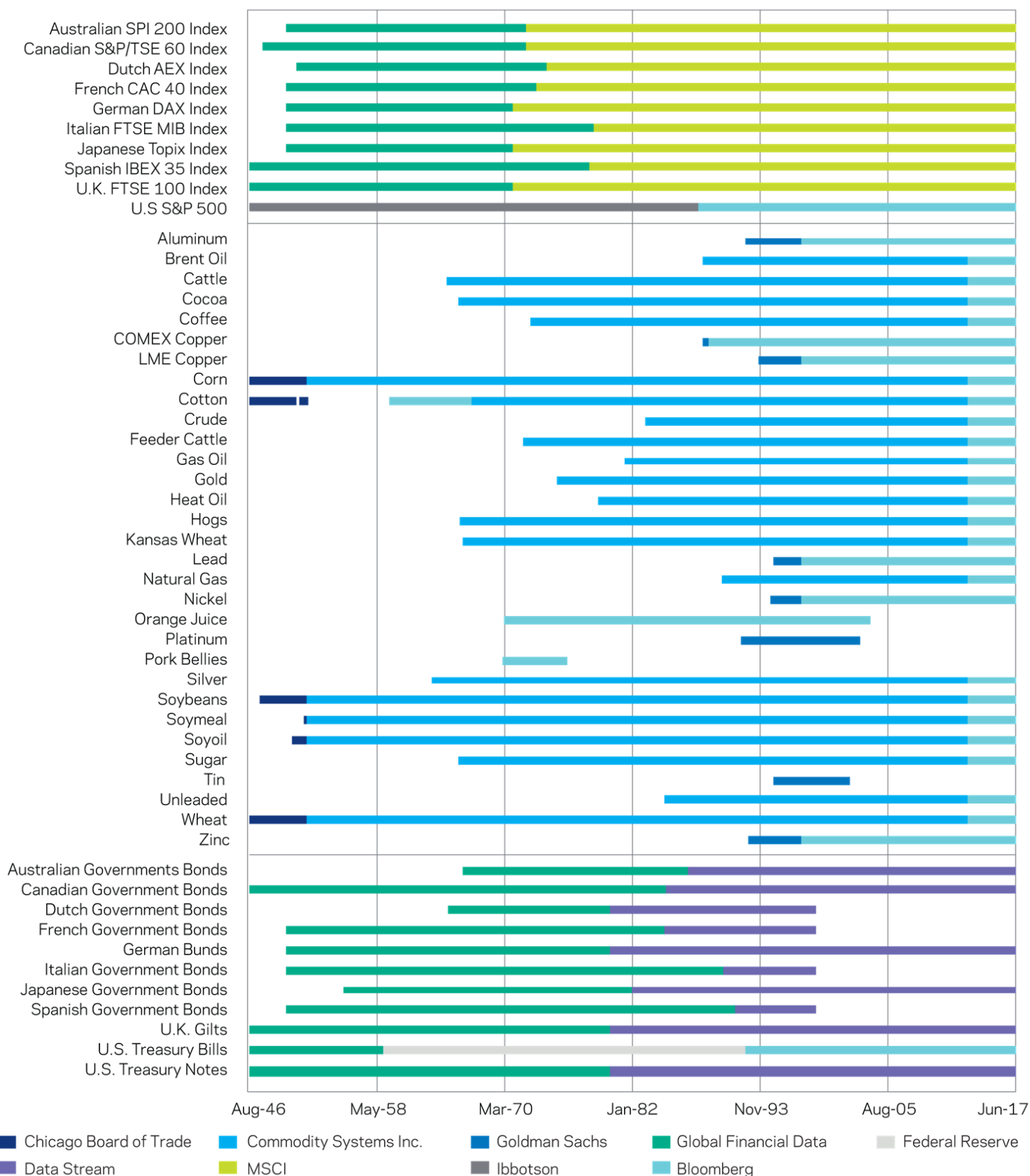
Exhibit 11: Asset Class Correlations in Different Environments 1946-2016



Source: AQR, Bloomberg, Federal Reserve Economic Data. Equities are GDP-weighted among available developed market large-cap indices. Bonds are GDP-weighted among available developed market 10-year government bonds. Commodities are equal-weighted among available commodity futures. Please see the Appendix for greater construction detail. Rising rates period is defined as May 1953 through September 1981. Falling rates period is defined as October 1981 through September 2016. Rapidly rising rates period is defined as October 1979 through September 1981. Hiking periods historical data is based on the effective fed funds rate, target fed funds rate, discount rate, and published records of intended policy actions. For illustrative purposes only. Please read important disclosures at the end of this document.

Appendix

GDP-weighted global equities, GDP-weighted global government bonds, and equal-weighted commodities, as shown in Exhibit 11, are based on the following data availability and sources.



Endnotes

1. Yield is approximately equal to nominal holding-period return (but not necessarily real return) for a hold-to-maturity investor.
2. There is some evidence that holding unhedged short-term debt in foreign currencies with higher risk-free rates has been a profitable trade on average, but this is not the same as accessing another market's risk-free rate (as it is certainly not risk-free).
3. There are some scenarios where the risk-free rate could influence asset allocation. For example, an investor with a total return objective may feel compelled to hold a sub-optimal allocation when the risk-free rate is low.
4. To be precise, we are assuming that market participants' expected changes in short rates averages out to zero. In so much as investors overestimated future rate increases on average, both the slope of the curve and excess returns would increase, but due to beneficial unexpected yield changes rather than a larger risk premium. In any case, the average shape of the curve (rather than the yield level) would be the explanatory factor for bond excess returns.
5. See for example Ilmanen (2011). The real bond yield is commonly used as a measure of valuation as it adjusts the nominal yield at each point in time by inflation expectations at that time.
6. See AQR *Alternative Thinking*, Q1 2017: "Capital Market Assumptions for Major Asset Classes." At very long horizons, starting yields matter less as future reinvestment yields dominate.
7. These plots show information about the distribution of return outcomes over the full sample (green box) and for different quintiles of the signal (blue boxes). The solid box denotes the middle 80% of each distribution, the diamond indicates the median, and the whiskers are the extreme maximum and minimum outcomes.
8. See also Asness, Ilmanen and Maloney (2016), which documents disappointing long-term performance for timing both equity and bond markets based on valuation measures in particular.
9. Agarwal, Ruchir, and Miles Kimball. "Enabling Deeper Negative Rates by Managing the Side Effects of a Zero Paper Currency Interest Rate Policy." www.brookings.edu/wp-content/uploads/2016/05/Managing-Side-Effects-of-Neg-Rates-20160606-Brookings-20-min.pdf.
10. Bloomberg. FOMC median members long-term prediction for the Fed Funds target rate.
11. But note that with the cushion of an upward-sloping yield curve, rising yields do not necessarily mean negative bond returns.
12. At the time of writing, the Federal Reserve continues to communicate an expectation of gradual interest rate increases. A change in this policy in either direction would likely affect bond yields.

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1. Ilmanen, Antti, "Capital Market Assumptions for Major Asset Classes," *AQR Alternative Thinking*, Q1 (2017).
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Authors' Bios



Michael A. Mendelson
AQR Capital Management

Michael is portfolio manager of AQR's risk parity strategies and a member of both the firm's strategic planning and risk committees. Prior to AQR, Michael was a managing director at Goldman Sachs & Co., where he founded the quantitative trading group. He has been a member of the Managed Funds Association's board of

directors and Chairman of its Trading and Markets Committee and is currently Chairman of its Government Affairs Committee. Michael earned an S.B. in mathematics, an S.B. in management, an S.B. in chemical engineering and an S.M. in chemical engineering, all from the Massachusetts Institute of Technology, and an M.B.A. from the University of California at Los Angeles.



Thomas S. Maloney
AQR Capital Management

Thomas is a member of the Portfolio Solutions Group, where he focuses on conducting investment research and using AQR's capabilities to enhance client portfolios. He contributes to white papers, engages clients on topics such as capturing alternative sources of return, and strategic asset allocation. He is co-author of

several published articles, including "Exploring Macroeconomic Sensitivities" (JoPM) and "Understanding Style Premia" (JOI). Prior to AQR, he was a senior quantitative analyst and portfolio manager at Brevan Howard Asset Management, specializing in quantitative macro strategies and portfolio construction. Thomas earned an M.Phys. in physics with first-class honors from the University of Oxford.



John J. Huss
AQR Capital Management

John is a senior researcher on AQR's Global Asset Allocation team and a portfolio manager for the firm's Alternative Total Return strategies. In these roles, he manages macroeconomic and portfolio construction research for Risk Parity and other asset allocation strategies. Prior to rejoining AQR, where he first worked from 2004 to 2008,

he was a vice president in RBC's Global Arbitrage and Trading division and a systematic portfolio manager for Tudor Investment Corp. John earned an S.B. in mathematics from the Massachusetts Institute of Technology.



Zachary Mees, CFA
AQR Capital Management

Zachary is a product specialist on AQR's Global Asset Allocation team focused primarily on the firm's Alternative Total Return strategies. In this role, he monitors portfolio performance, reviews accounts with clients, and presents risk parity strategies to investors. Prior to AQR, he was an asset allocation and risk analyst

at The Ford Foundation. Zach earned a B.S. in engineering management from the University of Arizona and an M.S. in quantitative finance from Fordham University.

We thank Gregor Andrade, Jordan Brooks, Antti Ilmanen and Chris Palazzolo for helpful comments and suggestions.



September 24, 2019

Retirement Board Agenda Item

TO: Retirement Board

FROM: Lisa Frazer, Member and Employer Services Manager

- I. SUBJECT: Legislation Update
- II. ITEM NUMBER: 6.j
- III. ITEM TYPE: Information Only
- IV. STAFF RECOMMENDATION: None
- V. ANALYSIS:

Assembly Bill 931, Boerner Horvath. Local boards and commissions: representations: appointments.

Status: September 6, 2019: Assembly 3rd Reading

Current law establishes the policy of the Legislature to ensure equal access to specific information about the many local regulating and advisory boards, commissions, and committees and to ensure equal opportunity to be informed of vacancies on those boards. Existing law requires each legislative body of a local agency to prepare an appointments list of all regular and ongoing boards, commissions, and committees that are appointed by the legislative body of the local agency. This bill, on and after January 1, 2030, would require, with respect to a city with a population of 50,000 or more, that the city not appoint members of nonsalaried, nonelected boards or commissions consisting of 5 or more members such that individuals of the same gender identity comprise more than 60% of the board or commission's membership.

Assembly Bill 1184, Gloria. Public records: writing transmitted by electronic mail: retention.

Status: September 10, 2019: Enrolled

The California Public Records Act requires a public agency to make public records available for inspection, subject to certain exceptions. Existing law specifies that public records include any writing containing information relating to the conduct of the public's business, including writing transmitted by electronic mail. This bill, unless a longer retention period is required by statute or regulation, or established by the Secretary of State pursuant to the State Records Management Act, require a public agency, for purposes of the California Public Records Act, to retain and preserve for at least two years every public record, as defined, that is transmitted by electronic by email.

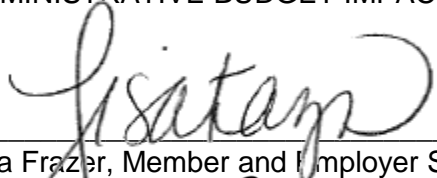
Assembly Bill 1320, Nazarian. Public employee retirement systems: prohibited investments: Turkey.

Status: September 3, 2019: Assembly 3rd Reading


The California Constitution grants the retirement board of a public employee retirement system plenary authority and fiduciary responsibility for investment of moneys and administration of the retirement fund and system. The California Constitution qualifies this grant of powers by reserving the Legislature the authority to prohibit investments if it is in the public interest and the prohibition satisfies standards of fiduciary care and loyalty required of a retirement board. Existing law prohibits the boards of administration of the Public Employees' Retirement System and the State Teachers' Retirement System from making investments in certain countries and in thermal coal companies, as specified, subject to the boards' plenary authority and fiduciary responsibility for investment and administration of the systems. This bill, upon the passage of a federal law that imposes sanctions

on the government of Turkey for failure to officially acknowledge its responsibility for the American Genocide, would prohibit the boards of administration of the Public Employees' Retirement System and the State Teachers' Retirement System from making additional or new investments, of public employee retirement funds in an investment vehicle in the government of Turkey that is issued by the government of Turkey or that is owned by the government of Turkey.

- 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



September 24, 2019

Retirement Board Agenda Item

TO: Retirement Board

FROM: Stan Conwell, Retirement Investment Officer

- I. SUBJECT: Private Markets Commitment Notice
- II. ITEM NUMBER: 6.k
- III. ITEM TYPE: Information Only
- IV. STAFF RECOMMENDATION: None.
- V. EXECUTIVE SUMMARY:

On September 23, 2019 StanCERA committed \$10 million to the Owl Rock First Lien Fund (ORFLF). Owl Rock Capital Advisors is a direct lender formed in 2016 that operates a direct lending only platform catered to upper middle market sponsors. The ORFLF is focused on lower yielding, less levered, first lien loans in established middle market companies with revenues ranging between \$100 million and \$2.5 billion and EBITDA between \$25 and \$250 million. The ORFLF will target investments with maturities between three and seven years and will generally range in size between \$25 and \$250 million.

StanCERA has a 6.0% target allocation to the private credit asset class with a sub-asset class target allocation of 4% to direct lending and 2% to special situations. The commitment to ORFLF will be allocated to the direct lending sub-asset class and is in compliance with StanCERA's Private Markets Investment Policy Statement. For each private market investment, several due diligence reports are completed by the investment consultant and staff. These reports contain confidential information and are available to Trustees for review upon request.

Owl Rock Due Diligence Reports:

- Attachment 1 - Executive Summary (Staff)
- Attachment 2 - Compliance Checklist (Staff)
- Attachment 3 - Executive Summary and Comprehensive Due Diligence Report (Consultant)
- Attachment 4 - Recommendation/Approval Memo (Consultant)
- Attachment 5 - Manager Pitchbook

- 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

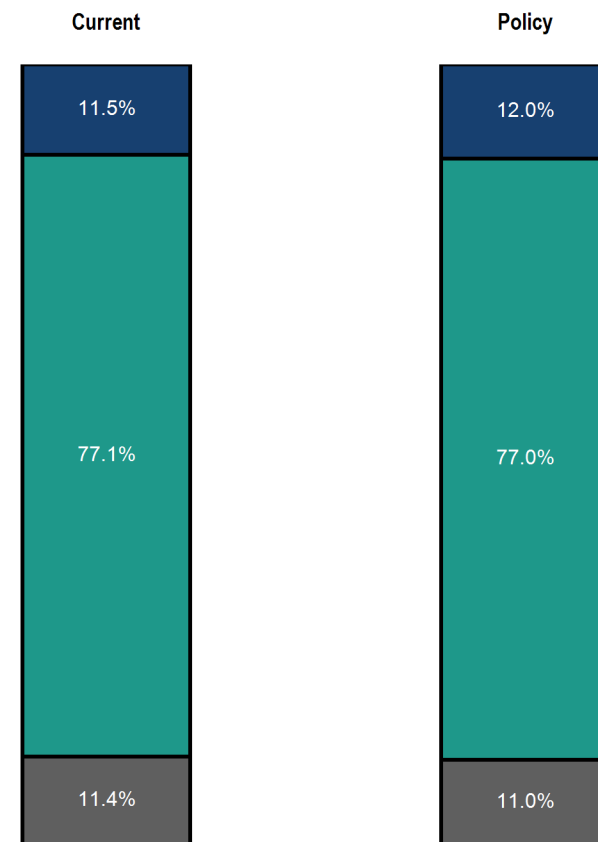

Rick Santos, Executive Director

Total Fund
Flash Report (Net of Fees) - Preliminary

Period Ending: August 31, 2019

	Market Value	% of Portfolio	1 Mo	YTD	Fiscal YTD
Total Fund	2,170,640,176	100.0	-1.1	10.0	-0.8
<i>Policy Index</i>			-1.0	9.6	-0.9
Liquidity Sub-Portfolio	250,082,291	11.5	1.7	6.9	1.8
<i>StanCERA Liquidity Blended BM</i>			0.8	3.3	0.7
Cash	26,241,413	1.2	0.2	1.0	0.4
<i>FTSE T-Bill 1 Month TR</i>			0.2	1.6	0.4
Short-Term Gov't/Credit	223,840,878	10.3	1.8	7.7	1.9
<i>BBgBarc US Govt/Credit 1-3 Yr. TR</i>			0.8	3.5	0.7
<i>Insight</i>	223,840,878	10.3	1.8	7.7	1.9
<i>BBgBarc US Govt/Credit 1-3 Yr. TR</i>			0.8	3.5	0.7
Growth Sub-Portfolio	1,673,530,349	77.1	-1.9	11.3	-1.5
<i>StanCERA Growth Blended BM</i>			-1.7	11.1	-1.4
US Large	306,697,353	14.1	-2.3	17.2	-0.4
<i>Russell 1000</i>			-1.8	18.5	-0.3
<i>BlackRock Russell 1000 Growth</i>	154,845,186	7.1	-0.8	23.2	1.5
<i>Russell 1000 Growth</i>			-0.8	23.3	1.5
<i>BlackRock Russell 1000 Value</i>	75,916,794	3.5	-2.9	13.9	-2.1
<i>Russell 1000 Value</i>			-2.9	13.8	-2.1
<i>Dodge & Cox-Equity</i>	75,935,374	3.5	-4.8	9.6	-2.7
<i>Russell 1000 Value</i>			-2.9	13.8	-2.1
US Small	73,292,151	3.4	-6.4	9.9	-6.2
<i>Russell 2000</i>			-4.9	11.8	-4.4
<i>Capital Prospects</i>	73,292,151	3.4	-6.4	9.9	-6.2
<i>Russell 2000 Value</i>			-5.6	7.3	-5.4
Private Equity Proxy	131,286,138	6.0	-2.0	18.0	-0.6
<i>Northern Trust Russell 3000</i>	131,286,138	6.0	-2.0	18.0	-0.6
<i>Russell 3000</i>			-2.0	18.0	-0.6

	Current	%	Policy	%
Liquidity Sub-Portfolio	\$250,082,291	11.5%	\$260,476,821	12.0%
Growth Sub-Portfolio	\$1,673,530,349	77.1%	\$1,671,392,936	77.0%
Risk-Diversifying Sub-Portfolio	\$247,027,536	11.4%	\$238,770,419	11.0%
Total	\$2,170,640,176	100.0%	\$2,170,640,176	100.0%



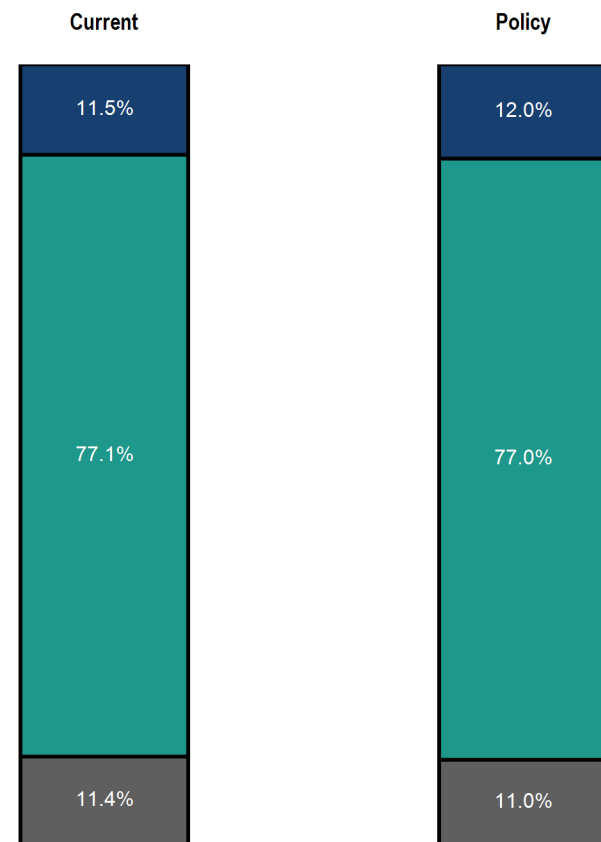
Policy Index (5/31/2019): 14% Russell 1000, 3% Russell 2000, 6% Russell 3000 + 3%, 23% MSCI ACWI ex-USA, 19% BBgBarc US Gov't/Credit 1-3 Yr, 3% BBgBarc US Treasury 7-10 Yr, 5% NCREIF Property, 5% NCREIF Property +2%, 2% CPI +5%, 6% S&P/LSTA Leveraged Loan Index + 2%, 13% 60% MSCI ACWI / 40% BBgBarc Global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

Total Fund Flash Report (Net of Fees) - Preliminary

Period Ending: August 31, 2019

	Market Value	% of Portfolio	1 Mo	YTD	Fiscal YTD
Int'l Developed	479,982,167	22.1	-3.5	7.6	-4.7
MSCI ACWI ex USA Gross			-3.1	9.2	-4.2
LSV Asset Mgt	237,870,743	11.0	-3.7	4.8	-5.2
MSCI ACWI ex USA Gross			-3.1	9.2	-4.2
Fidelity	242,111,424	11.2	-3.3	10.4	-4.2
MSCI ACWI ex USA Gross			-3.1	9.2	-4.2
Core Real Estate	95,824,159	4.4	0.9	9.8	1.6
NCREIF Property Index			0.0	3.3	0.0
Prime Property Fund	57,246,950	2.6	0.0	3.1	0.0
NCREIF-ODCE			0.0	2.4	0.0
BlackRock US Real Estate	38,577,209	1.8	2.4	21.3	4.0
DJ US Select RESI TR USD			2.4	21.4	4.0
Value Add Real Estate	137,774,035	6.3	0.0	4.7	1.2
NCREIF Property Index +2%			0.2	4.7	0.3
American Strategic Value Realty	51,666,921	2.4	0.0	4.1	0.0
NCREIF Property Index			0.0	3.3	0.0
Greenfield Gap VII	10,199,705	0.5	0.0	14.2	9.5
NCREIF ODCE + 1%			0.1	3.1	0.2
Greenfield Gap VIII	19,807,000	0.9	0.0	6.1	3.5
NCREIF ODCE + 1%			0.1	3.1	0.2
PGIM Real Estate US Debt Fund	56,100,410	2.6	0.0	3.0	0.0
Risk Parity	312,118,763	14.4	0.0	17.5	0.8
60% MSCI ACWI Net/40% BBgBarc Global Aggregate			-0.6	11.4	-0.5
AQR Global Risk Premium - EL	156,937,461	7.2	0.0	16.4	0.7
60% MSCI ACWI Net/40% BBgBarc Global Aggregate			-0.6	11.4	-0.5
PanAgora Risk Parity Multi Asset	155,181,302	7.1	0.0	18.6	0.9
60% MSCI ACWI Net/40% BBgBarc Global Aggregate			-0.6	11.4	-0.5

	Current	%	Policy	%
Liquidity Sub-Portfolio	\$250,082,291	11.5%	\$260,476,821	12.0%
Growth Sub-Portfolio	\$1,673,530,349	77.1%	\$1,671,392,936	77.0%
Risk-Diversifying Sub-Portfolio	\$247,027,536	11.4%	\$238,770,419	11.0%
Total	\$2,170,640,176	100.0%	\$2,170,640,176	100.0%



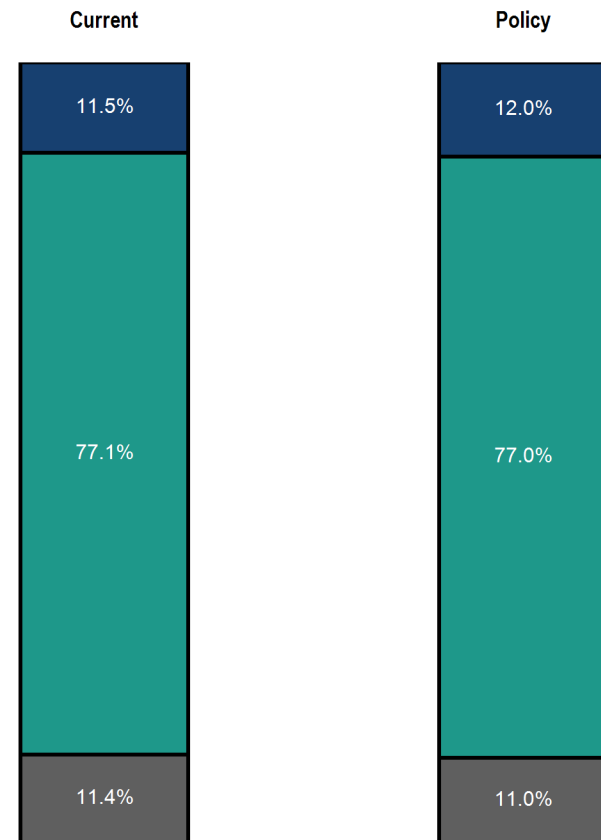
Policy Index (5/31/2019): 14% Russell 1000, 3% Russell 2000, 6% Russell 3000 + 3%, 23% MSCI ACWI ex-USA, 19% BBgBarc US Gov't/Credit 1-3 Yr, 3% BBgBarc US Treasury 7-10 Yr, 5% NCREIF Property, 5% NCREIF Property +2%, 2% CPI +5%, 6% S&P/LSTA Leveraged Loan Index + 2%, 13% 60% MSCI ACWI / 40% BBgBarc Global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

Total Fund Flash Report (Net of Fees) - Preliminary

Period Ending: August 31, 2019

	Market Value	% of Portfolio	1 Mo	YTD	Fiscal YTD
Infrastructure	42,045,476	1.9	0.0	10.9	3.1
CPI + 5%			0.4	5.5	1.0
MS Infrastructure Partners II	42,045,476	1.9	0.0	10.9	3.1
CPI + 5%			0.4	5.5	1.0
Private Credit	94,510,107	4.4	0.0	3.3	-0.2
S&P/LSTA Leveraged Loan Index+2%			-0.1	7.7	0.9
Medley Capital	12,870,163	0.6	0.0	-8.5	-4.9
S&P/LSTA Leveraged Loan Index+2%			-0.1	7.7	0.9
Raven Capital	14,178,247	0.7	0.0	7.2	2.2
S&P/LSTA Leveraged Loan Index+2%			-0.1	7.7	0.9
Raven Opportunity III	42,168,305	1.9	0.0	7.2	0.8
S&P/LSTA Leveraged Loan Index+2%			-0.1	7.7	0.9
White Oak Pinnacle	25,293,392	1.2	0.0	2.6	-0.5
S&P/LSTA Leveraged Loan Index+2%			-0.1	7.7	0.9
Risk-Diversifying Sub-Portfolio	247,027,536	11.4	1.6	5.8	1.6
StanCERA Risk-Diversifying Blended BM			1.7	5.5	1.6
US Treasury	64,964,001	3.0	4.1	10.0	4.0
BBgBarc US Treasury 7-10 Yr TR			4.0	11.1	3.9
Northern Trust Intermediate Gov't Bond	46,681,077	2.2	1.8	5.7	1.6
BBgBarc US Govt Int TR			1.8	5.6	1.6
Northern Trust Long Term Gov't Bond	18,282,924	0.8	10.5	22.7	10.7
BBgBarc US Govt Long TR			10.4	22.6	10.6
Short-Term Gov't/Credit	182,063,534	8.4	0.7	4.5	0.8
BBgBarc US Govt/Credit 1-3 Yr. TR			0.8	3.5	0.7
DFA	182,063,534	8.4	0.7	4.5	0.8
BBgBarc US Govt/Credit 1-3 Yr. TR			0.8	3.5	0.7

	Current	%	Policy	%
Liquidity Sub-Portfolio	\$250,082,291	11.5%	\$260,476,821	12.0%
Growth Sub-Portfolio	\$1,673,530,349	77.1%	\$1,671,392,936	77.0%
Risk-Diversifying Sub-Portfolio	\$247,027,536	11.4%	\$238,770,419	11.0%
Total	\$2,170,640,176	100.0%	\$2,170,640,176	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. PanAgora and AQR market values as of 7/31/2019. All data is preliminary.

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.



September 24, 2019

Retirement Board Agenda Item

TO: Retirement Board

FROM: Rick Santos, Executive Director

- I. SUBJECT: AB2833 Auxiliary Report
- II. ITEM NUMBER: 8.a.1
- III. ITEM TYPE: Information/Discussion
- IV. STAFF RECOMMENDATION: None
- V. ANALYSIS: Attachment 1 contains information regarding StanCERA's alternative type investments. In StanCERA's context, "alternative" type investments are defined as the private credit, infrastructure and active real estate investment styles. This information is required to be published at least annually and is a result of Assembly Bill 2833, signed by the Governor in September of 2016. The bill requires various information mostly related to performance, cash flows and their classification. Internal staff has been producing most of this information since October of 2014 with enhancements that came along later with the enactment of AB 2833.

Today, staff will spend time going over each of these investments in more detail (attachment 1). In addition, exhibits will be presented regarding a "roll up" of the alternative type investments at the style level and in the aggregate. Of interest to the Board are the following metrics and their definitions:

- Performance measures
 - Net internal rate of return (IRR) – The return on the investment since inception after fees. This measure includes all cash flows into and out of the investment, their timing and the ending fund value as of the measurement date. This measure is generally the most accurate, however, is highly dependent on the ending fund value as approximated by the general partner
 - Realization multiple (DPI) – This is a measure of the cash received by StanCERA relative to cash contributed. For instance, if this measure is \$0.75, then for every dollar StanCERA has contributed, it has received back 75 cents
 - Residual value to paid in multiple (RVPI) – This is a measure of the current fund value relative to cash contributed. For instance, if this measure is \$0.50, then for every dollar StanCERA has contributed, it holds an investment dollar valued at 50 cents. As is the net internal rate of return, this measure is highly dependent on the ending fund value approximated by the general partner
 - Investment multiple – This measure is simply the sum of the DPI and RVPI and is a widely quoted number in the investment world in a general sense
- Return decomposition – The return decomposition allows the investor to see the decomposition of the net internal rate of return from the following sources:
 - Return from income and cash flow – Generally, this is the return from interest, principal maturation and the timing of the cash flows from the investment. If this number is relatively high, then it can be said that the general partner is generating a

good portion of its returns from income and the timely return of contributions to the investor

- Return from expenses – This is the drag on return from expenses incurred by the fund. If this number is relatively high, then the return on investment is lower because of the high expense ratio
 - Return from gain/loss – This is the return due to gains and losses on the actual investments since purchase. This number is the sum of both realized and unrealized gains and losses. If this number is relatively high, then it can be considered that the general partner has made good investment choices
 - Interaction effect – This is the return due to the interaction between all of the sources mentioned above. In other words, the return from the other sources are not completely independent of one another
- Expense matrix – This is simply all the expenses/fees broken out by all sources reported to StanCERA by the general partner

In addition, attachment 1 contains a visual that quickly describes the changes in the investment's fund value over the past 8 periods. With this information, one can quickly see recent trends in the general partner's performance and its attribution.

- VI. RISK: None
- VII. STRATEGIC PLAN: Strategic Objective II: Develop efficient and effective procedures for the evaluation, monitoring and disposition of StanCERA's active managers
- VIII. ADMINISTRATIVE BUDGET IMPACT: None



Rick Santos, Executive Director

Fund Information

Manager Name:	Medley Opportunity Fund II L.P.
Analysis Date:	6/30/19
Reporting Frequency:	Quarterly
Manager Investment Style:	Private Credit
Fund Vintage Year:	2011
StanCERA Investment Start Date:	5/16/13
Initial Commitment:	\$30,000,000
Additional Commitments:	\$0
Total Commitment Funded:	\$29,000,453
Total Commitment Unfunded:	\$999,547
Fund Balance:	\$12,870,164

Fund Performance Measures Since Inception

Net Internal Rate of Return (IRR):	1.30%
Investment Multiple (TVPI):	\$1.15
Realization Multiple (DPI):	\$0.74
Residual Value to Paid in Multiple (RVPI):	\$0.41
Paid in Capital Multiple (PIC):	96.7%

Fund Balance Reconciliation Since Inception

Beginning Fund Balance	\$0
Capital Contributions	\$31,086,716
Distributions	-\$22,943,895
Expenses	-\$3,434,316
Income	\$17,222,127
Gain/(Loss)	<u>-\$9,060,469</u>
Ending Fund Balance	\$12,870,163

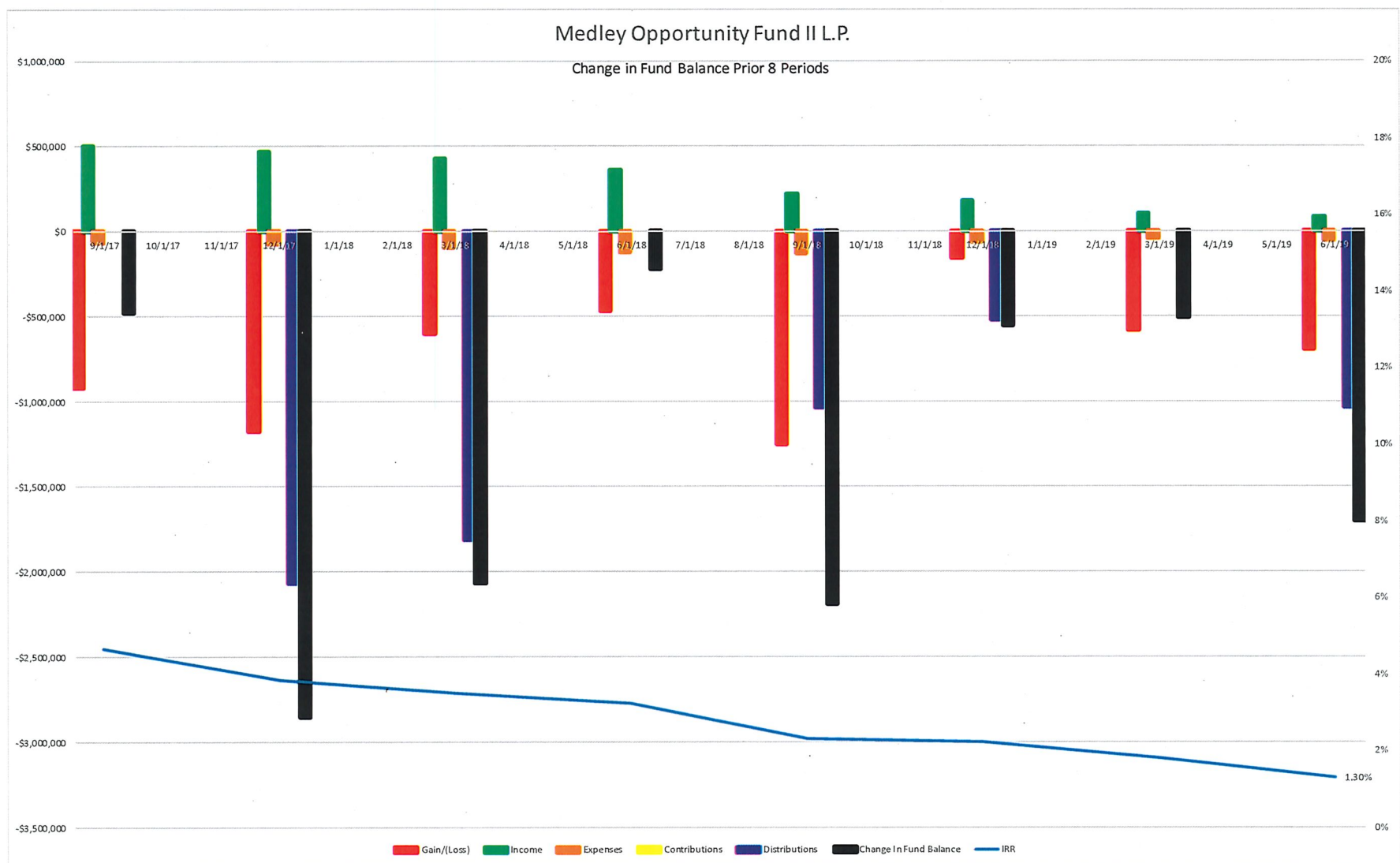
Internal Rate of Return Decomposition

Return from Income and Cash Flow	8.55%
Return from Expenses	-2.29%
Return from Gain/Loss	-5.52%
Interaction/Timing Effect:	<u>0.57%</u>
Net IRR Since Inception:	1.30%

Expense Matrix

Management Fee	\$2,422,820
Partnership Operations	\$1,011,497
Incentive Allocation	<u>-\$1</u>
Total	\$3,434,316

* Performance and return measures have not been reviewed, calculated or verified by the general partner or any of its affiliates



Fund Information

Manager Name:	White Oak Pinnacle Fund L.P.
Analysis Date:	6/30/19
Reporting Frequency:	Quarterly
Manager Investment Style:	Private Credit
Fund Vintage Year:	2012
StanCERA Investment Start Date:	8/2/13
Initial Commitment:	\$40,000,000
Additional Commitments:	\$0
Total Commitment Funded:	\$32,758,125
Total Commitment Unfunded:	\$7,241,875
Fund Balance:	\$25,877,494

Fund Performance Measures Since Inception

Net Internal Rate of Return (IRR):	7.40%
Investment Multiple (TVPI):	\$1.26
Realization Multiple (DPI):	\$0.79
Residual Value to Paid in Multiple (RVPI):	\$0.47
Paid in Capital Multiple (PIC):	81.9%

Fund Balance Reconciliation Since Inception

Beginning Fund Balance	\$0
Capital Contributions	\$55,047,161
Distributions	-\$43,420,852
Expenses	-\$3,585,449
Income	\$21,152,864
Gain/(Loss)	<u>-\$3,316,230</u>
Ending Fund Balance	\$25,877,494

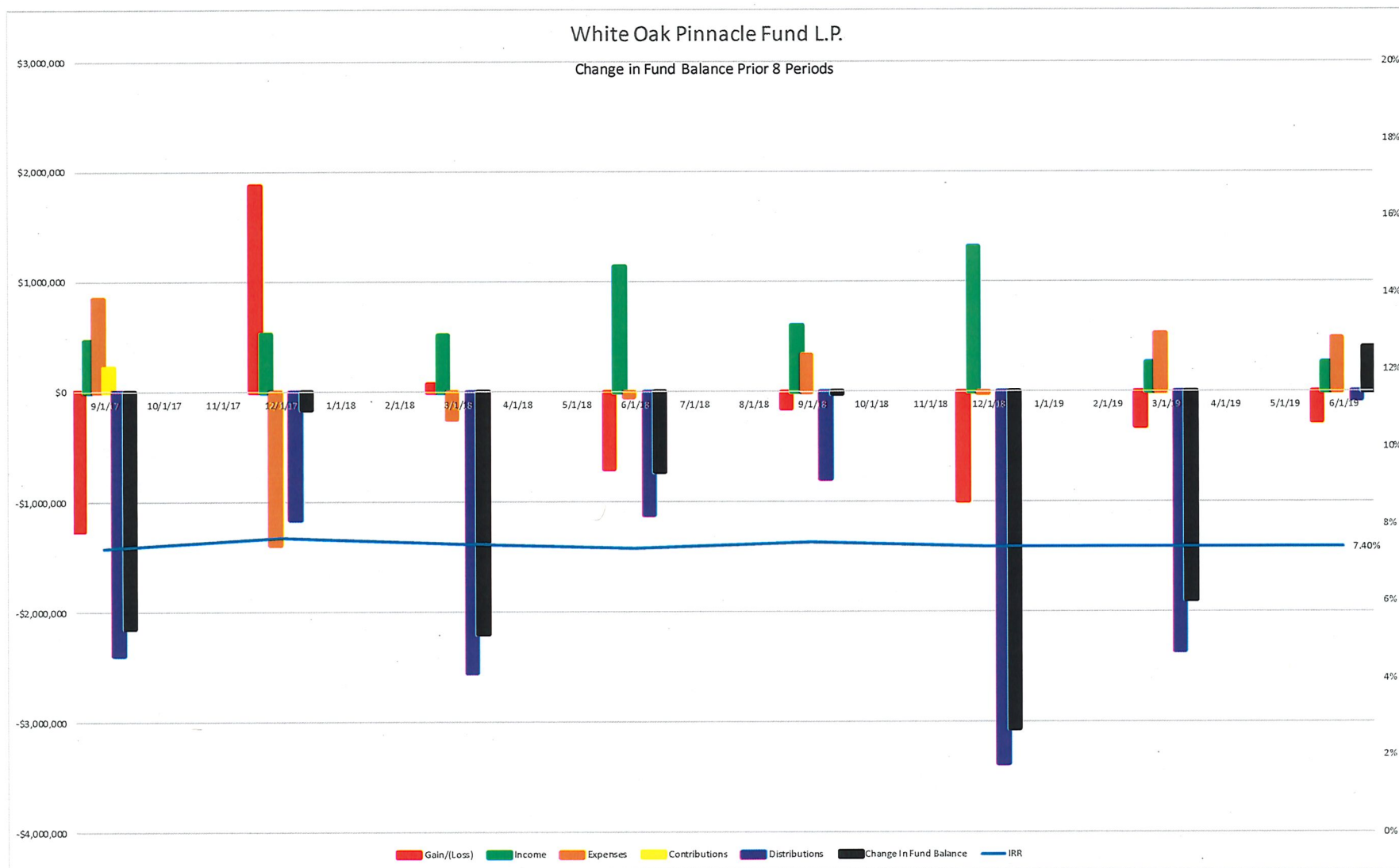
Internal Rate of Return Decomposition

Return from Income and Cash Flow	10.59%
Return from Expenses	-1.72%
Return from Gain/Loss	-1.59%
Interaction/Timing Effect:	<u>0.11%</u>
Net IRR Since Inception:	7.40%

Expense Matrix

Management Fee	\$3,965,985
Incentive Allocation	\$691,279
Other Expense	\$43,582
Management Fee Reimbursement	-\$1,611,884
General/Administrative Expense	<u>\$496,487</u>
Total	\$3,585,449

* Performance and return measures have not been reviewed, calculated or verified by the general partner or any of its affiliates



Fund Information

Manager Name:	Raven Asset-Based Opportunity Fund I L.P.
Analysis Date:	6/30/19
Reporting Frequency:	Quarterly
Manager Investment Style:	Private Credit
Fund Vintage Year:	2012
StanCERA Investment Start Date:	5/22/13
Initial Commitment:	\$40,000,000
Additional Commitments:	\$0
Total Commitment Funded:	\$34,505,763
Total Commitment Unfunded:	\$5,494,237
Fund Balance:	\$14,178,247

Fund Performance Measures Since Inception

Net Internal Rate of Return (IRR):	1.97%
Investment Multiple (TVPI):	\$1.09
Realization Multiple (DPI):	\$0.68
Residual Value to Paid in Multiple (RVPI):	\$0.41
Paid in Capital Multiple (PIC):	86.3%

Fund Balance Reconciliation Since Inception

Beginning Fund Balance	\$0
Capital Contributions	\$34,505,763
Distributions	-\$23,582,991
Expenses	-\$5,167,942
Income	\$12,804,820
Gain/(Loss)	<u>-\$4,381,404</u>
Ending Fund Balance	\$14,178,246

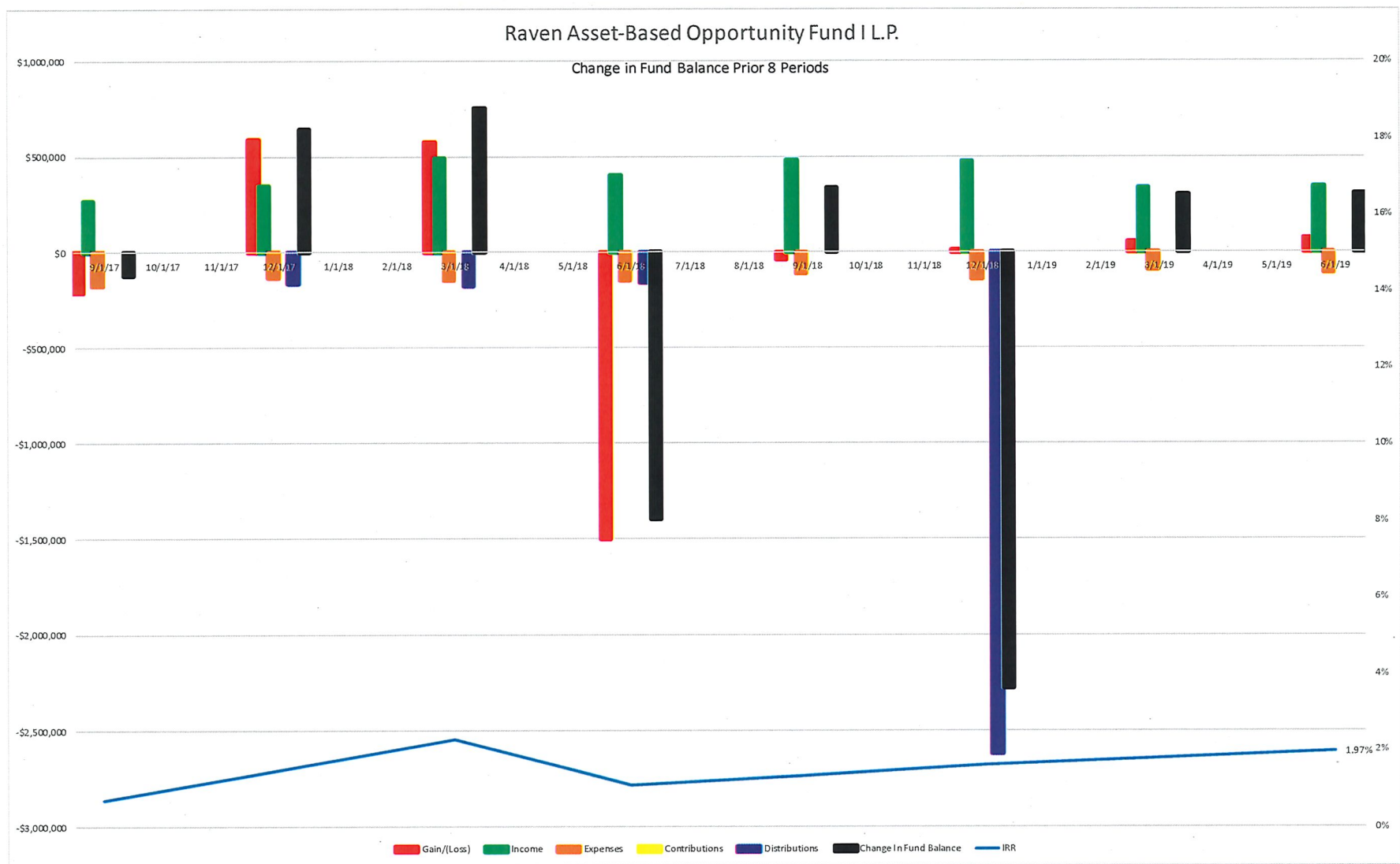
Internal Rate of Return Decomposition

Return from Income and Cash Flow	8.18%
Return from Expenses	-3.61%
Return from Gain/Loss	-3.10%
Interaction/Timing Effect:	<u>0.50%</u>
Net IRR Since Inception:	1.97%

Expense Matrix

Management Fee	\$3,308,744
Organizational Expense	\$92,275
Service Fee	\$339,601
Professional Fee	<u>\$1,427,322</u>
Total	\$5,167,942

* Performance and return measures have not been reviewed, calculated or verified by the general partner or any of its affiliates



Fund Information

Manager Name:	Raven Asset-Based Opportunity Fund III L.P.
Analysis Date:	6/30/19
Reporting Frequency:	Quarterly
Manager Investment Style:	Private Credit
Fund Vintage Year:	2015
StanCERA Investment Start Date:	7/6/15
Initial Commitment:	\$15,000,000
Additional Commitments:	\$35,000,000
Total Commitment Funded:	\$41,719,265
Total Commitment Unfunded:	\$8,280,735
Fund Balance:	\$42,168,307

Fund Performance Measures Since Inception

Net Internal Rate of Return (IRR):	5.53%
Investment Multiple (TVPI):	\$1.09
Realization Multiple (DPI):	\$0.20
Residual Value to Paid in Multiple (RVPI):	\$0.89
Paid in Capital Multiple (PIC):	83.4%

Fund Balance Reconciliation Since Inception

Beginning Fund Balance	\$0
Capital Contributions	\$47,196,919
Distributions	-\$9,492,000
Expenses	-\$4,725,322
Income	\$7,055,228
Gain/(Loss)	<u>\$2,133,480</u>
Ending Fund Balance	\$42,168,305

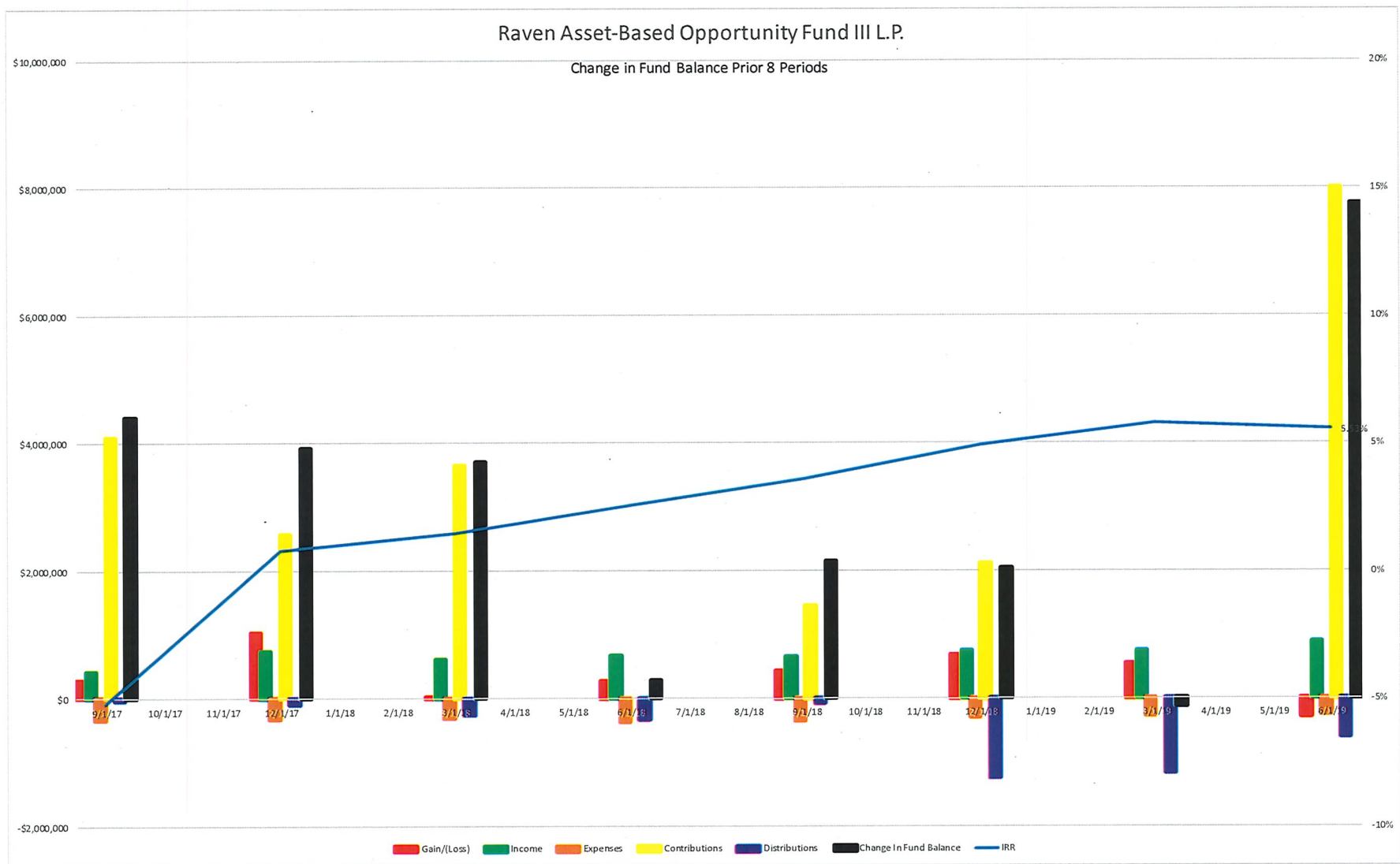
Internal Rate of Return Decomposition

Return from Income and Cash Flow	8.54%
Return from Expenses	-5.38%
Return from Gain/Loss	2.59%
Interaction/Timing Effect:	<u>-0.22%</u>
Net IRR Since Inception:	5.53%

Expense Matrix

Management Fee	\$3,316,345
Organizational Expense	\$80,143
Professional Fee	<u>\$1,328,834</u>
Total	\$4,725,322

* Performance and return measures have not been reviewed, calculated or verified by the general partner or any of its affiliates



Fund Information

Manager Name:	Greenfield GAP VII Management Fund, L.L.C
Analysis Date:	6/30/19
Reporting Frequency:	Quarterly
Manager Investment Style:	Value Added Real Estate
Fund Vintage Year:	2011
StanCERA Investment Start Date:	7/8/14
Initial Commitment:	\$15,000,000
Additional Commitments:	\$0
Total Commitment Funded:	\$10,322,382
Total Commitment Unfunded:	\$4,677,618
Fund Balance:	\$11,525,262

Fund Performance Measures Since Inception

Net Internal Rate of Return (IRR):	13.43%
Investment Multiple (TVPI):	\$1.41
Realization Multiple (DPI):	\$0.77
Residual Value to Paid in Multiple (RVPI):	\$0.64
Paid in Capital Multiple (PIC):	68.8%

Fund Balance Reconciliation Since Inception

Beginning Fund Balance	\$0
Capital Contributions	\$18,013,692
Distributions	-\$13,852,155
Expenses	-\$2,198,946
Income	\$2,283,844
Gain/(Loss)	<u>\$7,278,827</u>
Ending Fund Balance	\$11,525,262

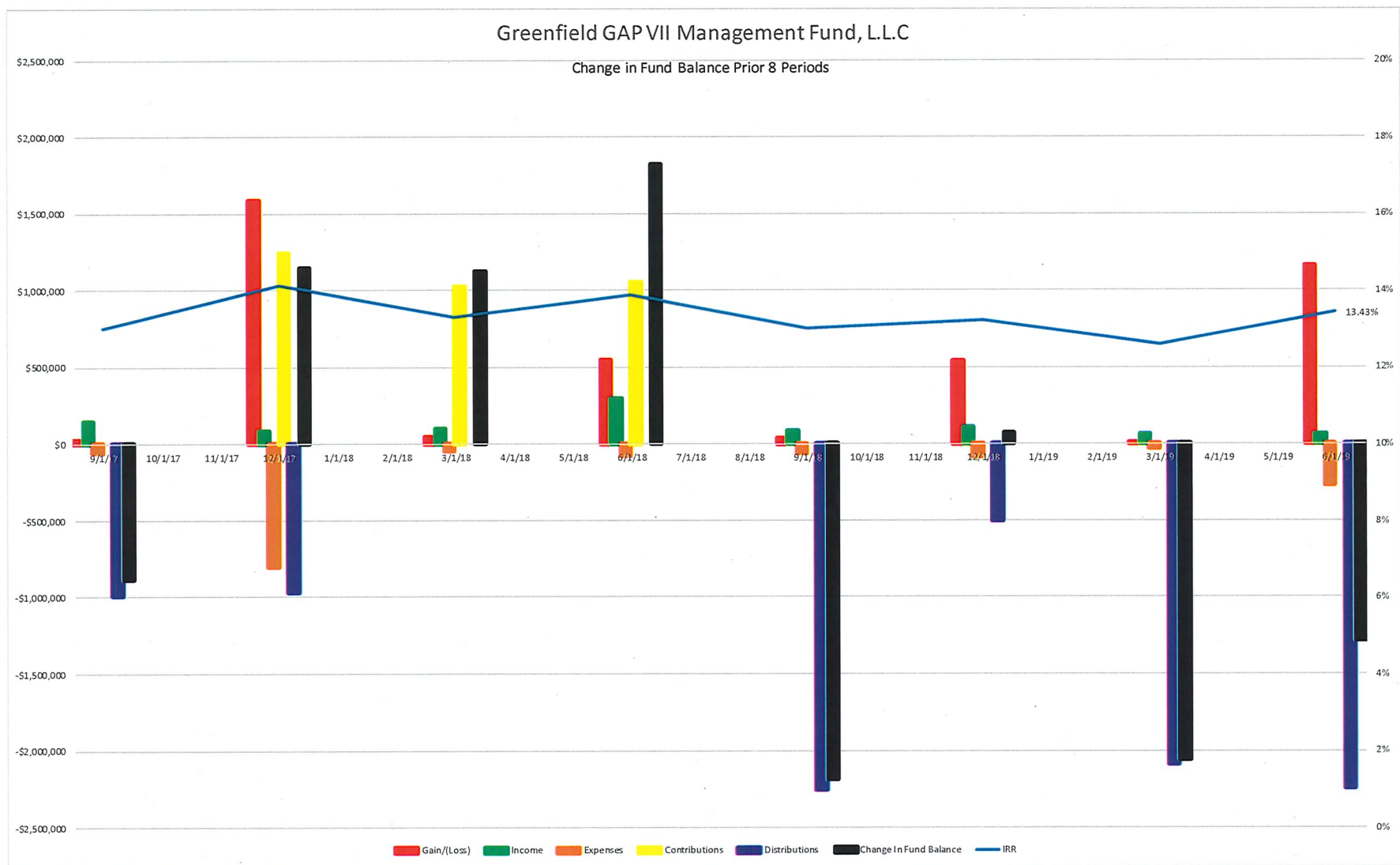
Internal Rate of Return Decomposition

Return from Income and Cash Flow	5.10%
Return from Expenses	-2.98%
Return from Gain/Loss	12.88%
Interaction/Timing Effect:	<u>-1.57%</u>
Net IRR Since Inception:	13.43%

Expense Matrix

Management Fee	\$1,235,884
Partnership Operations	\$52,179
Incentive Allocation	\$908,014
Interest Expense	<u>\$2,869</u>
Total	\$2,198,946

* Performance and return measures have not been reviewed, calculated or verified by the general partner or any of its affiliates



Fund Information

Manager Name:	Morgan Stanley Prime Property Fund, L.L.C
Analysis Date:	6/30/19
Reporting Frequency:	Quarterly
Manager Investment Style:	Core Real Estate
Fund Vintage Year:	1973
StanCERA Investment Start Date:	10/1/15
Initial Commitment:	\$15,000,000
Additional Commitments:	\$35,000,000
Total Commitment Funded:	\$50,000,000
Total Commitment Unfunded:	\$0
Fund Balance:	\$57,246,950

Fund Performance Measures Since Inception

Net Internal Rate of Return (IRR):	8.14%
Investment Multiple (TVPI):	\$1.14
Realization Multiple (DPI):	\$0.00
Residual Value to Paid in Multiple (RVPI):	\$1.14
Paid in Capital Multiple (PIC):	100.0%

Fund Balance Reconciliation Since Inception

Beginning Fund Balance	\$0
Capital Contributions	\$50,000,000
Distributions	\$0
Expenses	-\$1,022,245
Income	\$3,683,048
Gain/(Loss)	<u>\$4,586,148</u>
Ending Fund Balance	\$57,246,950

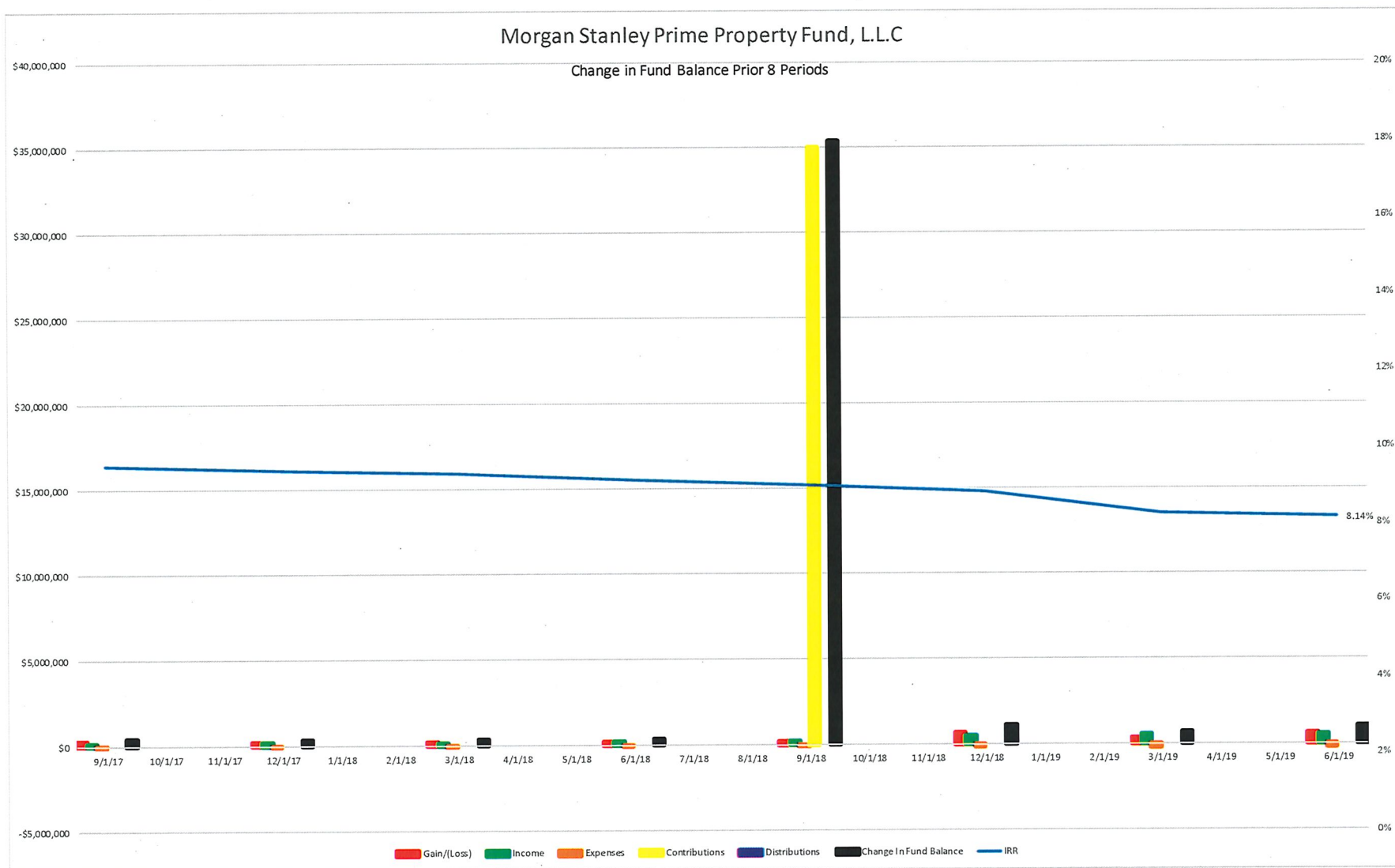
Internal Rate of Return Decomposition

Return from Income and Cash Flow	4.29%
Return from Expenses	-1.06%
Return from Gain/Loss	5.01%
Interaction/Timing Effect:	<u>-0.10%</u>
Net IRR Since Inception:	8.14%

Expense Matrix

Management Fee	\$778,913
Incentive Allocation	<u>\$243,332</u>
Total	\$1,022,245

* Performance and return measures have not been reviewed, calculated or verified
by the general partner or any of its affiliates



Fund Information

Manager Name:	American Realty Advisors Fund
Analysis Date:	6/30/19
Reporting Frequency:	Quarterly
Manager Investment Style:	Value Added Real Estate
Fund Vintage Year:	2009
StanCERA Investment Start Date:	12/15/14
Initial Commitment:	\$30,000,000
Additional Commitments:	\$28,000,000
Total Commitment Funded:	\$44,266,000
Total Commitment Unfunded:	\$13,734,000
Fund Balance:	\$51,666,921

Fund Performance Measures Since Inception

Net Internal Rate of Return (IRR):	10.39%
Investment Multiple (TVPI):	\$1.21
Realization Multiple (DPI):	\$0.05
Residual Value to Paid in Multiple (RVPI):	\$1.17
Paid in Capital Multiple (PIC):	76.3%

Fund Balance Reconciliation Since Inception

Beginning Fund Balance	\$0
Capital Contributions	\$44,266,000
Distributions	-\$2,031,680
Expenses	-\$1,587,741
Income	\$4,906,575
Gain/(Loss)	<u>\$6,113,767</u>
Ending Fund Balance	\$51,666,921

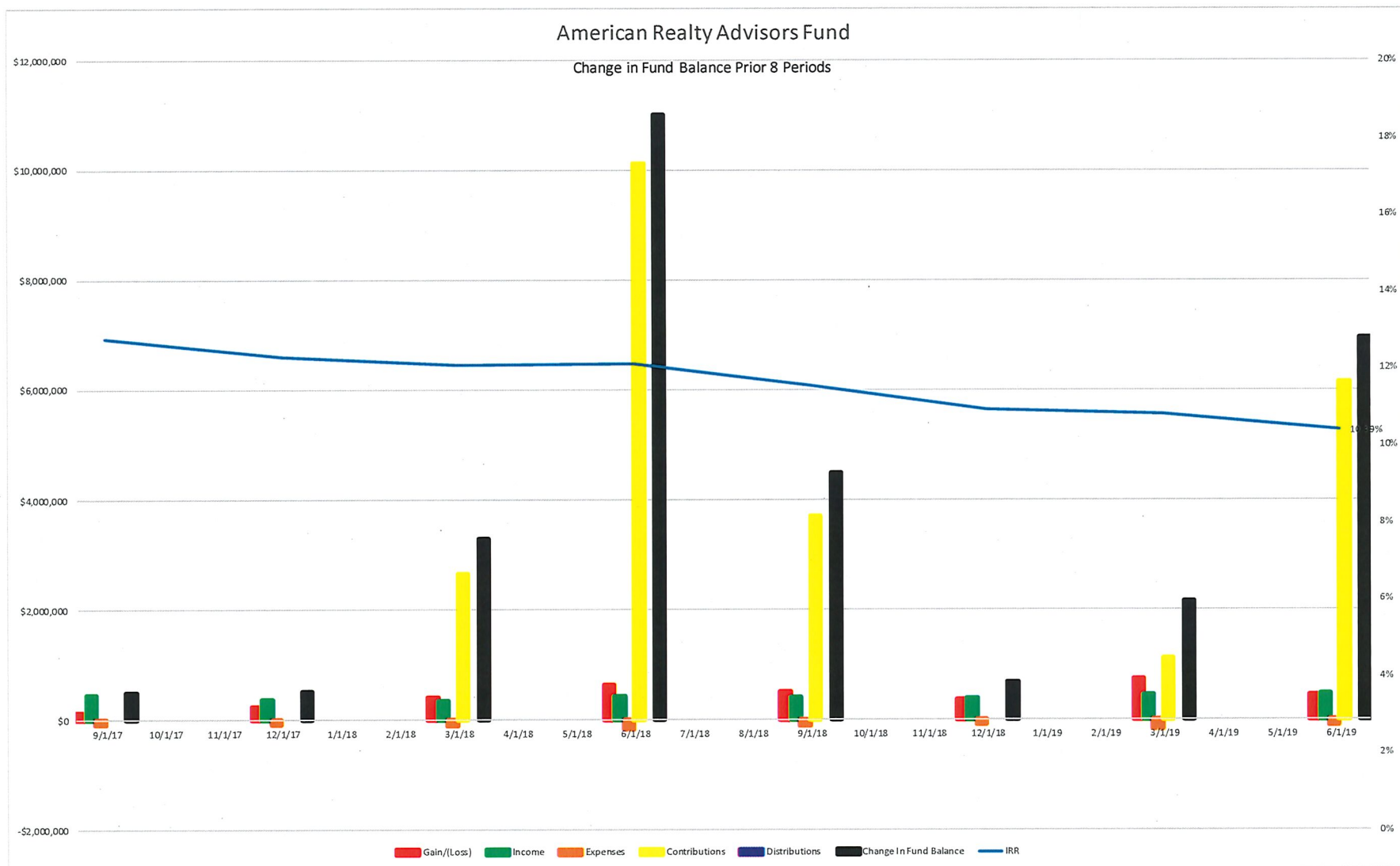
Internal Rate of Return Decomposition

Return from Income and Cash Flow	5.67%
Return from Expenses	-1.55%
Return from Gain/Loss	6.48%
Interaction/Timing Effect:	<u>-0.21%</u>
Net IRR Since Inception:	10.39%

Expense Matrix

Management Fee	\$1,224,119
Incentive Allocation	\$363,567
Offering Costs	<u>\$54</u>
Total	\$1,587,741

* Performance and return measures have not been reviewed, calculated or verified by the general partner or any of its affiliates



Fund Information

Manager Name:	North Haven Infrastructure II GP LP
Analysis Date:	6/30/2019
Reporting Frequency:	Quarterly
Latest Data Date:	6/30/2019
Manager Investment Style:	Infrastructure
Fund Vintage Year:	2015
StanCERA Investment Start Date:	5/19/2015
Initial Commitment:	\$50,000,000
Additional Commitments:	\$0
Total Commitment Funded:	\$33,839,832
Total Commitment Unfunded:	\$16,160,168
Fund Balance:	\$43,388,166

Fund Performance Measures Since Inception

Net Internal Rate of Return (IRR):	12.15%
Investment Multiple (TVPI):	\$1.17
Realization Multiple (DPI):	\$0.42
Residual Value to Paid in Multiple (RVPI):	\$0.75
Paid in Capital Multiple (PIC):	67.7%

Fund Balance Reconciliation Since Inception

Beginning Fund Balance	\$0
Capital Contributions	\$58,115,776
Distributions	-\$24,566,940
Expenses	-\$4,199,661
Income	\$1,651,815
Gain/(Loss)	<u>\$15,876,862</u>
Ending Fund Balance	\$46,877,852

Internal Rate of Return Decomposition

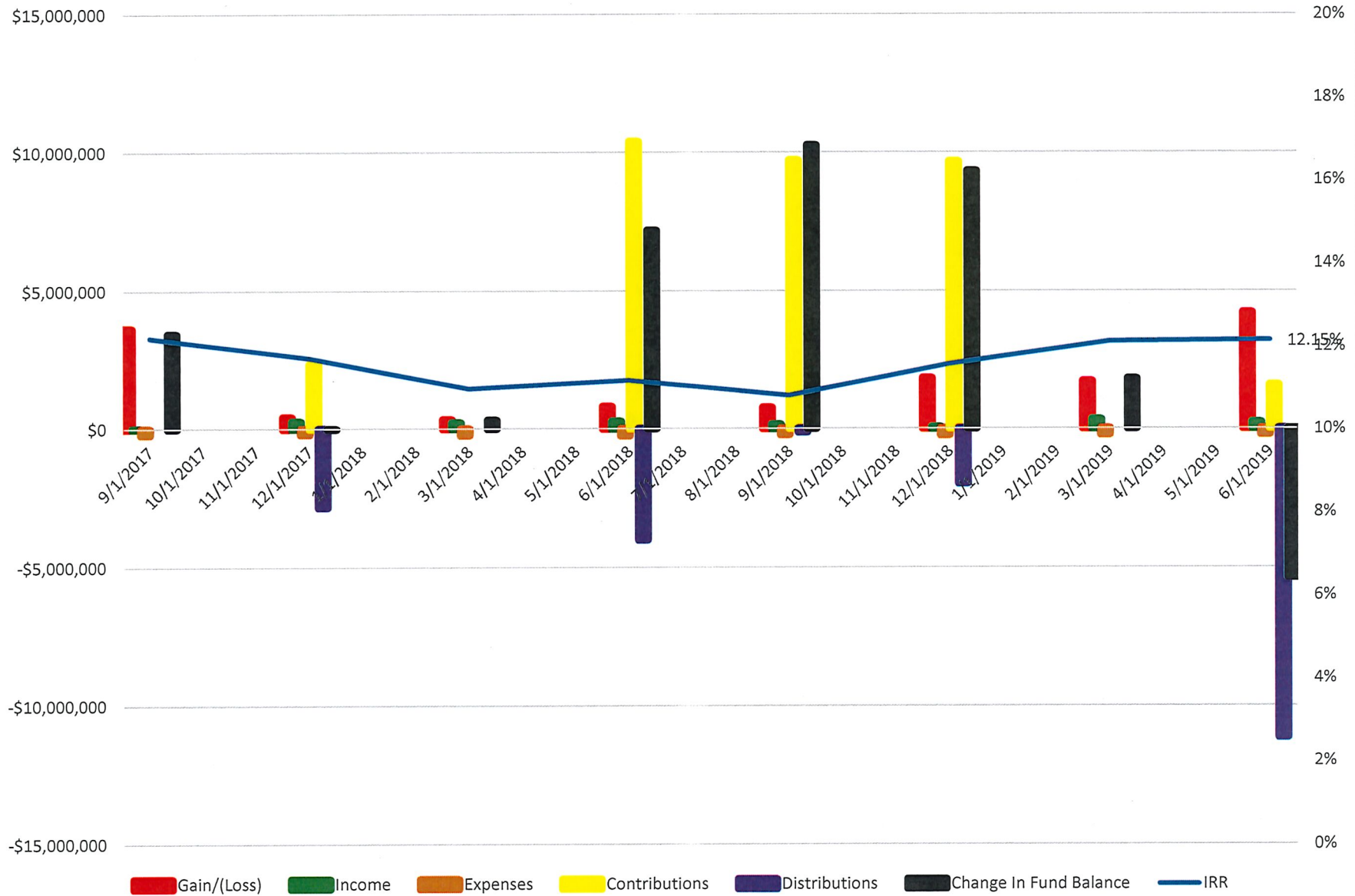
Return from Income and Cash Flow	-1.51%
Return from Expenses	-4.17%
Return from Gain/Loss	19.57%
Interaction/Timing Effect:	<u>-1.74%</u>
Net IRR Since Inception:	12.15%

Expense Matrix

Management Fee	\$3,373,096
Organizational Expense	\$52,991
Syndication Costs	\$65,354
General/Administrative Expense	\$249,014
Broken Deal Expense	\$267,706
Interest Expense	<u>\$191,500</u>
Total	\$4,199,661

* Performance and return measures have not been reviewed, calculated or verified by the general partner or any of its affiliates

Change in Fund Balance Prior 8 Periods



Direct Lending Program Performance

Analysis Date:	6/30/19	Expense Matrix Since Inception		
Program Name:	Direct Lending	Expense Type	Expense	% of Total
Program Inception Date:	5/16/13	Management Fee	\$13,013,894	67.2%
Total Commitment:	\$159,999,999	Partnership Operations	\$1,011,497	6.0%
Unfunded Commitment as of Analysis Date:	\$22,016,394	Organizational Expense	\$172,418	1.0%
% Funded as of Analysis Date:	86.24%	Incentive Allocation	\$691,278	4.1%
Program Fund Balance:	\$95,094,212	Offering Costs	\$0	0.0%
		Service Fee	\$339,601	2.0%
		Syndication Costs	\$0	0.0%
		Professional Fee	\$2,756,156	16.3%
		Other Expense	\$43,582	0.3%
		Management Fee Reimbursement	-\$1,611,884	-
		General/Administrative Expense	\$496,487	2.9%
		Broken Deal Expense	\$0	0.0%
		Interest Expense	\$0	0.0%
		Custody Fee	\$42,272	0.2%
		Dividend Expense	\$0	0.0%
		Performance Fee	\$0	0.0%
		Total	\$16,955,301	100.0%
Performance Measures				
Net IRR Since Inception:	4.13%			
Realization Multiple (DPI):	\$0.54			
Residual Value to Paid in Multiple (RVPI):	\$0.51			
Investment Multiple (TVPI):	\$1.05			
Net IRR Decomposition				
Return from Income & Cash Flow:	9.10%			
Return from Expenses:	-2.52%			
Return from Gain/Loss:	-2.17%			
Interaction Effect:	-0.28%			
Net IRR Since Inception:	4.13%			

Real Estate Program Performance

Analysis Date:	6/30/19	Expense Matrix Since Inception		
Program Name:	Real Estate	<u>Expense Type</u>	<u>Expense</u>	<u>% of Total</u>
Program Inception Date:	7/8/14	Management Fee	\$4,950,847	73.1%
Total Commitment:	\$217,000,000	Partnership Operations	\$60,231	0.9%
Unfunded Commitment as of Analysis Date:	\$40,646,238	Organizational Expense	\$0	0.0%
% Funded as of Analysis Date:	81.27%	Incentive Allocation	\$1,603,851	23.7%
Program Fund Balance:	\$196,346,542	Offering Costs	\$54	0.0%
		Service Fee	\$0	0.0%
		Syndication Costs	\$0	0.0%
		Professional Fee	\$0	0.0%
		Other Expense	\$0	0.0%
		Management Fee Reimbursement	\$0	-
		General/Administrative Expense	\$0	0.0%
		Broken Deal Expense	\$0	0.0%
		Interest Expense	\$123,901	1.8%
		Custody Fee	\$29,266	0.4%
		Dividend Expense	\$0	0.0%
		Performance Fee	\$0	0.0%
		Total	\$6,768,150	100.0%
Performance Measures				
Net IRR Since Inception:	11.22%			
Realization Multiple (DPI):	\$0.08			
Residual Value to Paid in Multiple (RVPI):	\$1.03			
Investment Multiple (TVPI):	\$1.11			
Net IRR Decomposition				
Return from Income & Cash Flow:	6.31%			
Return from Expenses:	-2.42%			
Return from Gain/Loss:	7.02%			
Interaction Effect:	0.31%			
Net IRR Since Inception:	11.22%			

Alternative Type Program Performance

Analysis Date:	6/30/19	Expense Matrix Since Inception		
Program Name:	Alternative Type	Expense Type	Expense	% of Total
Program Inception Date:	5/16/13	Management Fee	\$21,337,837	70.6%
Total Commitment:	\$426,999,999	Partnership Operations	\$1,071,728	3.8%
Unfunded Commitment as of Analysis Date:	\$78,822,800	Organizational Expense	\$225,409	0.8%
% Funded as of Analysis Date:	81.54%	Incentive Allocation	\$2,295,129	8.2%
Program Fund Balance:	\$334,828,919	Offering Costs	\$54	0.0%
		Service Fee	\$339,601	1.2%
		Syndication Costs	\$65,354	0.2%
		Professional Fee	\$2,756,156	9.9%
		Other Expense	\$43,582	0.2%
		Management Fee Reimbursement	-\$1,611,884	-
		General/Administrative Expense	\$745,501	2.7%
		Broken Deal Expense	\$267,706	1.0%
		Interest Expense	\$315,401	1.1%
		Custody Fee	\$79,851	0.3%
		Dividend Expense	\$0	0.0%
		Performance Fee	\$0	0.0%
		Total	\$27,931,425	100.0%
Performance Measures				
Net IRR Since Inception:	7.23%			
Realization Multiple (DPI):	\$0.32			
Residual Value to Paid in Multiple (RVPI):	\$0.76			
Investment Multiple (TVPI):	\$1.08			
Net IRR Decomposition				
Return from Income & Cash Flow:	7.74%			
Return from Expenses:	-2.81%			
Return from Gain/Loss:	2.09%			
Interaction Effect:	0.21%			
Net IRR Since Inception:	7.23%			



September 24, 2019

Retirement Board Agenda Item

TO: Retirement Board

FROM: Rick Santos, Executive Director

- I. SUBJECT: Investment Fee Summary, Value Added and Cash Flow Reports - June 30, 2019
- II. ITEM NUMBER: 8.a.2
- III. ITEM TYPE: Information/Discussion
- IV. STAFF RECOMMENDATION: None
- V. ANALYSIS: Attachment 1 contains the investment fee summary, value added and cash flow reports.

Investment Fee Summary – Over the past year StanCERA spent approximately \$8 million in fees to support its investments. This translates to a basis point (bps) figure of 36.5 and includes all fees including custodial. Over the past 5 years, the Organization has spent approximately \$46.5 million in fees which translates to 47 bps. The number has trended down over time due to performance fee give backs and lower custodial fees.

Value Added Report – Over the past year, the portfolio lost approximately \$14.5 million to the passive investment. Dodge & Cox equity (-\$3.5 million) and LSV (-\$11.8 million) comprised most of this loss. Capital Prospects managers outperformed their benchmark in the aggregate over this same period.

Cash Flow Report – This report is self-explanatory

- VI. RISK: None
- VII. STRATEGIC PLAN: Strategic Objective II: Develop efficient and effective procedures for the evaluation, monitoring and disposition of StanCERA's active managers
- VIII. ADMINISTRATIVE BUDGET IMPACT: None

Rick Santos, Executive Director



StanCERA Investment Fee Summary - By Asset Class

Fiscal Year to Date

7/1/2018 thru 6/30/2019

	Fees In Dollars						Annualized Fees in Basis Points				
	<u>Average AUM</u>	<u>Managerial</u>	<u>Performance*</u>	<u>Other</u>	<u>Custodial</u>	<u>Total</u>	<u>Managerial</u>	<u>Performance</u>	<u>Other</u>	<u>Custodial</u>	<u>Total</u>
Total StanCERA Portfolio	\$2,112,260,889	\$7,661,000	-\$1,447,553	\$1,508,363	\$244,861	\$7,966,671	35.1	-6.6	6.9	1.1	36.5

Fees By Asset Class

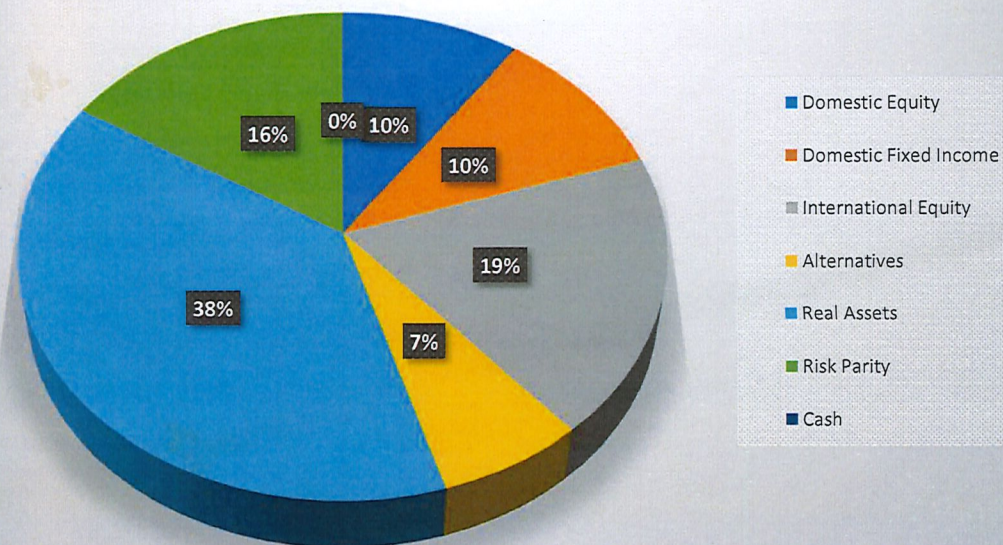
	Average AUM	Managerial	Performance	Other	Custodial	Total	Managerial	Performance	Other	Custodial	Total
Domestic Equity	\$423,832,207	\$727,598	\$0	\$0	\$48,093	\$775,691	3.3	0.0	0.0	0.2	3.6
Domestic Fixed Income	\$524,756,657	\$792,676	\$0	\$0	\$18,875	\$811,550	3.6	0.0	0.0	0.1	3.7
International Equity	\$535,188,349	\$1,338,231	\$0	\$0	\$154,258	\$1,492,489	6.1	0.0	0.0	0.7	6.8
Alternatives	\$92,116,605	\$1,469,847	-\$1,772,645	\$828,476	\$6,995	\$532,673	6.7	-8.1	3.8	0.0	2.4
Real Assets	\$233,399,365	\$2,393,745	\$325,092	\$349,387	\$11,647	\$3,079,870	11.0	1.5	1.6	0.1	14.1
Risk Parity	\$284,032,770	\$938,904	\$0	\$330,500	\$4,993	\$1,274,397	4.3	0.0	1.5	0.0	5.8
Cash	\$18,934,935	\$0	\$0	\$0	\$0	\$0	0.0	0.0	0.0	0.0	0.0

* Performance fees can be negative due to the clawback of incentive fees

Asset Class	Fees
Domestic Equity	\$775,691
Domestic Fixed Income	\$811,550
International Equity	\$1,492,489
Alternatives	\$532,673
Real Assets	\$3,079,870
Risk Parity	\$1,274,397
Cash	\$0

Total \$7,966,671

Fees By Asset Class





StanCERA Investment Fee Summary - By Investment Discretion

Fiscal Year to Date

7/1/2018 thru 6/30/2019

	Fees In Dollars						Annualized Fees in Basis Points				
	<u>Average AUM</u>	<u>Managerial</u>	<u>Performance*</u>	<u>Other</u>	<u>Custodial</u>	<u>Total</u>	<u>Managerial</u>	<u>Performance</u>	<u>Other</u>	<u>Custodial</u>	<u>Total</u>
Total StanCERA Portfolio	\$2,112,260,889	\$7,661,000	-\$1,447,553	\$1,508,363	\$244,861	\$7,966,671	35.1	-6.6	6.9	1.1	36.5

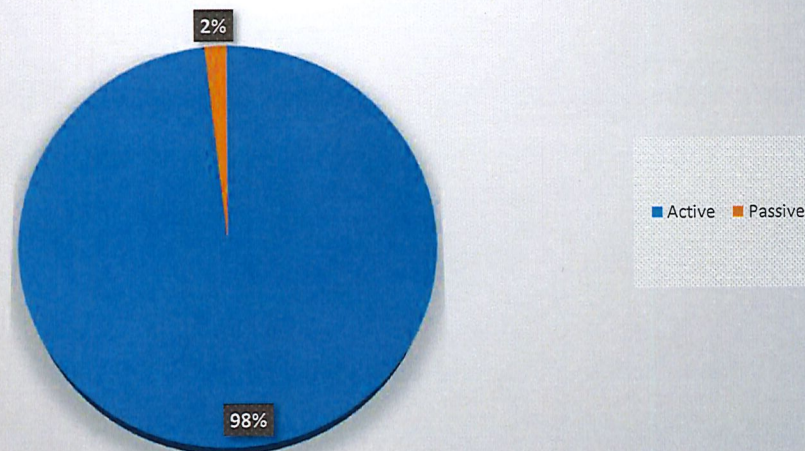
Fees By Investment Discretion

	<u>Average AUM</u>	<u>Managerial</u>	<u>Performance</u>	<u>Other</u>	<u>Custodial</u>	<u>Total</u>	<u>Managerial</u>	<u>Performance</u>	<u>Other</u>	<u>Custodial</u>	<u>Total</u>
Active	\$1,727,220,014	\$7,530,243	-\$1,447,553	\$1,508,363	\$237,742	\$7,828,794	34.5	-6.6	6.9	1.1	35.8
Passive	\$385,040,874	\$130,757	\$0	\$0	\$7,119	\$137,877	0.6	0.0	0.0	0.0	0.6

* Performance fees can be negative due to the clawback of incentive fees

Investment Discretion	<u>Fees</u>
Active	\$7,828,794
Passive	\$137,877
Total	\$7,966,671

Fees By Investment Discretion





StanCERA Investment Fee Summary - By Investment Style

Fiscal Year to Date

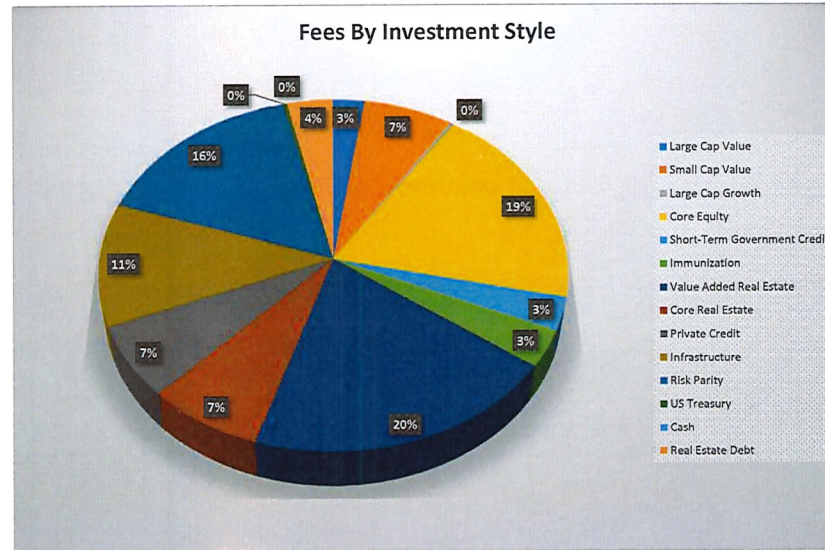
7/1/2018 thru 6/30/2019

	Fees In Dollars						Annualized Fees in Basis Points				
	Average AUM	Managerial	Performance*	Other	Custodial	Total	Managerial	Performance	Other	Custodial	Total
Total StanCERA Portfolio	\$2,112,260,889	\$7,661,000	-\$1,447,553	\$1,508,363	\$244,861	\$7,966,671	35.1	-6.6	6.9	1.1	36.5
Fees By Investment Style											
	Average AUM	Managerial	Performance	Other	Custodial	Total	Managerial	Performance	Other	Custodial	Total
Large Cap Value	\$111,986,381	\$179,081	\$0	\$0	\$10,368	\$189,449	0.8	0.0	0.0	0.0	0.9
Small Cap Value	\$80,158,224	\$502,937	\$0	\$0	\$34,002	\$536,939	2.3	0.0	0.0	0.2	2.5
Large Cap Growth	\$118,848,741	\$23,553	\$0	\$0	\$3,723	\$27,276	0.1	0.0	0.0	0.0	0.1
Core Equity	\$648,027,211	\$1,360,258	\$0	\$0	\$154,258	\$1,514,516	6.2	0.0	0.0	0.7	6.9
Short-Term Government Credit	\$209,005,532	\$234,977	\$0	\$0	\$8,277	\$243,254	1.1	0.0	0.0	0.0	1.1
Immunization	\$216,247,037	\$259,478	\$0	\$0	\$8,577	\$268,055	1.2	0.0	0.0	0.0	1.2
Value Added Real Estate	\$72,080,340	\$1,238,204	\$188,364	\$168,158	\$5,604	\$1,600,330	5.7	0.9	0.8	0.0	7.3
Core Real Estate	\$115,042,203	\$441,840	\$136,728	\$0	\$4,223	\$582,791	2.0	0.6	0.0	0.0	2.7
Private Credit	\$92,116,605	\$1,469,847	-\$1,772,645	\$828,476	\$6,995	\$532,673	6.7	-8.1	3.8	0.0	2.4
Infrastructure	\$46,276,822	\$713,701	\$0	\$181,229	\$1,820	\$896,750	3.3	0.0	0.8	0.0	4.1
Risk Parity	\$284,032,770	\$938,904	\$0	\$330,500	\$4,993	\$1,274,397	4.3	0.0	1.5	0.0	5.8
US Treasury	\$59,248,210	\$26,014	\$0	\$0	\$0	\$26,014	0.1	0.0	0.0	0.0	0.1
Cash	\$18,934,935	\$0	\$0	\$0	\$0	\$0	0.0	0.0	0.0	0.0	0.0
Real Estate Debt	\$40,255,879	\$272,207	\$0	\$0	\$2,021	\$274,228	1.2	0.0	0.0	0.0	1.3

* Performance fees can be negative due to the clawback of incentive fees

By Investment Style	Fees
Large Cap Value	\$189,449
Small Cap Value	\$536,939
Large Cap Growth	\$27,276
Core Equity	\$1,514,516
Short-Term Government Credit	\$243,254
Immunization	\$268,055
Value Added Real Estate	\$1,600,330
Core Real Estate	\$582,791
Private Credit	\$532,673
Infrastructure	\$896,750
Risk Parity	\$1,274,397
US Treasury	\$26,014
Cash	\$0
Real Estate Debt	\$274,228

Total \$7,966,671





Stanislaus County Employees' Retirement Association - Investment Fee Summary

7/1/2018 thru 6/30/2019

Manager Name	Fees in Dollars						Fees in Annualized Basis Points				
	Average AUM	Management	Performance	Other	Custodial	Total	Management	Performance	Other	Custodial	Total
Dodge Cox Equity	\$77,063,891	\$172,696	\$0	\$0	\$8,196	\$180,892	22.5	0.0	0.0	1.1	23.6
Bernzott	\$11,263,204	\$68,168	\$0	\$0	\$4,472	\$72,640	60.7	0.0	0.0	4.0	64.7
Jackson Square	\$11	\$0	\$0	\$0	\$1,286	\$1,286	0.0	0.0	0.0	-3630684.0	-3630684.0
LSV	\$266,458,017	\$663,439	\$0	\$0	\$99,328	\$762,767	25.0	0.0	0.0	3.7	28.7
Fidelity	\$268,730,333	\$674,792	\$0	\$0	\$54,930	\$729,722	25.2	0.0	0.0	2.1	27.2
Blackrock Value	\$34,922,489	\$6,385	\$0	\$0	\$2,172	\$8,557	1.8	0.0	0.0	0.6	2.5
Blackrock Growth	\$118,848,744	\$23,553	\$0	\$0	\$2,438	\$25,991	2.0	0.0	0.0	0.2	2.2
Raven Asset-Based Opportunity Fund I L.P.	\$14,369,863	\$230,841	\$0	\$212,900	\$1,701	\$445,442	161.2	0.0	148.7	1.2	311.0
White Oak Pinnacle Fund L.P.	\$27,297,464	\$396,327	-\$1,772,646	\$46,298	\$1,786	-\$1,328,236	145.7	-651.6	17.0	0.7	-488.2
Medley Opportunity Fund II L.P.	\$14,536,435	\$156,128	\$1	\$119,560	\$1,709	\$277,398	107.8	0.0	82.5	1.2	191.5
Blackrock US Real Estate	\$59,182,569	\$52,779	\$0	\$0	\$2,509	\$55,288	8.9	0.0	0.0	0.4	9.4
Greenfield GAP VII Management Fund, L.L.C	\$13,497,945	\$214,137	\$177,384	\$39,074	\$1,697	\$432,292	159.2	131.9	29.0	1.3	321.4
Channing	\$15,925,248	\$96,201	\$0	\$0	\$7,812	\$104,012	60.6	0.0	0.0	4.9	65.5
Inview	\$16,340,432	\$98,828	\$0	\$0	\$4,416	\$103,244	60.7	0.0	0.0	2.7	63.4
Keeley	\$10,583,475	\$64,073	\$0	\$0	\$4,731	\$68,803	60.7	0.0	0.0	4.5	65.2
Pacific Ridge	\$15,298,586	\$110,711	\$0	\$0	\$6,401	\$117,112	72.6	0.0	0.0	4.2	76.8
Walhausen	\$10,747,280	\$64,957	\$0	\$0	\$6,171	\$71,127	60.6	0.0	0.0	5.8	66.4
Morgan Stanley Prime Property Fund, L.L.C	\$55,859,634	\$389,061	\$136,728	\$0	\$1,713	\$527,502	69.9	24.6	0.0	0.3	94.8
American Realty Advisors Fund	\$45,225,708	\$524,070	-\$77,958	\$0	\$1,818	\$447,930	116.3	-17.3	0.0	0.4	99.4
North Haven Infrastructure II GP LP	\$46,276,822	\$713,701	\$0	\$181,229	\$1,820	\$896,750	154.8	0.0	39.3	0.4	194.4
Raven Asset-Based Opportunity Fund III L.P.	\$35,912,843	\$686,551	\$0	\$449,718	\$1,801	\$1,138,070	191.8	0.0	125.7	0.5	318.0
Insight Investment	\$216,247,037	\$259,478	\$0	\$0	\$8,577	\$268,055	12.0	0.0	0.0	0.4	12.4
Dimensional Fund Advisors	\$209,005,532	\$234,977	\$0	\$0	\$8,277	\$243,254	11.3	0.0	0.0	0.4	11.7
Northern Trust Cash Account	\$18,934,935	\$0	\$0	\$0	\$0	\$0	0.0	0.0	0.0	0.0	0.0
Northern Trust Long Term Bond Fund	\$15,001,032	\$6,584	\$0	\$0	\$0	\$6,584	4.4	0.0	0.0	0.0	4.4
Northern Trust Intermediate Term Bond Fund	\$44,247,177	\$19,429	\$0	\$0	\$0	\$19,429	4.4	0.0	0.0	0.0	4.4
Northern Trust Russell 1000 Fund	\$105,992,678	\$9,596	\$0	\$0	\$0	\$9,596	2.2	0.0	0.0	0.0	2.2
PanAgora Diversified Risk Multi-Asset Fund, Ltd.	\$139,862,056	\$489,653	\$0	\$101,964	\$2,483	\$594,100	35.1	0.0	7.3	0.2	42.6
Prudential	\$48,520,330	\$272,207	\$0	\$0	\$2,021	\$274,228	67.9	0.0	0.0	0.5	68.4
AQR Capital Management	\$144,170,714	\$449,251	\$0	\$228,536	\$2,511	\$680,298	31.3	0.0	15.9	0.2	47.3
Greenfield Acquisition Partners VIII, L.P.	\$13,356,687	\$499,997	\$88,938	\$129,084	\$2,088	\$720,107	375.6	66.8	97.0	1.6	541.0
Northern Trust Russell 3000 Fund	\$118,305,490	\$12,431	\$0	\$0	\$0	\$12,431	1.8	0.0	0.0	0.0	1.8



StanCERA Investment Fee Summary - By Asset Class

Fiscal Year to Date

7/1/2014 thru 6/30/2019

	Fees In Dollars						Annualized Fees in Basis Points				
	<u>Average AUM</u>	<u>Managerial</u>	<u>Performance*</u>	<u>Other</u>	<u>Custodial</u>	<u>Total</u>	<u>Managerial</u>	<u>Performance</u>	<u>Other</u>	<u>Custodial</u>	<u>Total</u>
Total StanCERA Portfolio	\$1,846,424,394	\$37,226,988	\$3,378,684	\$4,134,571	\$1,709,585	\$46,449,828	37.7	3.4	4.2	1.7	47.1

Fees By Asset Class

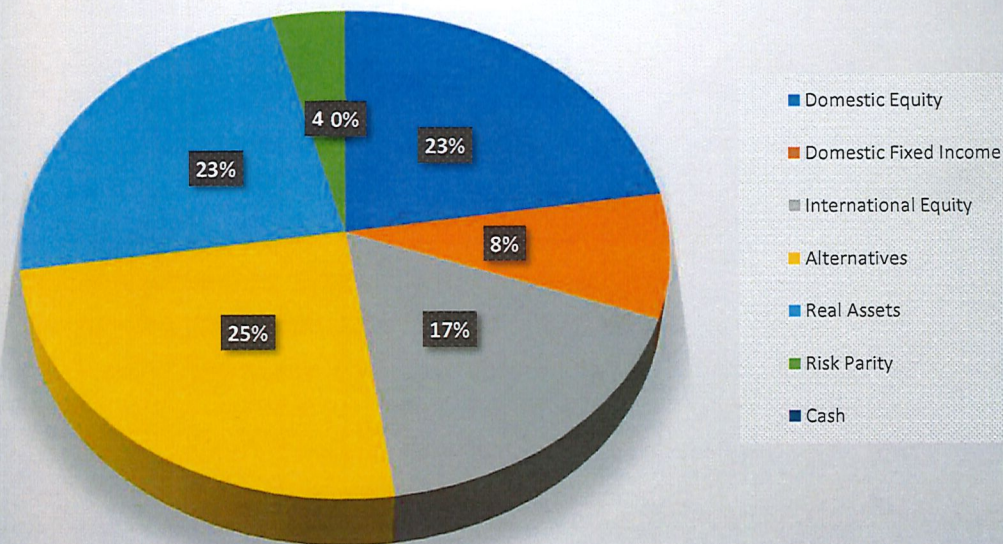
	Average AUM	Managerial	Performance	Other	Custodial	Total	Managerial	Performance	Other	Custodial	Total
Domestic Equity	\$690,474,478	\$9,881,699	\$0	\$0	\$585,622	\$10,467,321	10.0	0.0	0.0	0.6	10.6
Domestic Fixed Income	\$450,565,195	\$3,660,161	\$0	\$0	\$159,705	\$3,819,866	3.7	0.0	0.0	0.2	3.9
International Equity	\$403,240,532	\$5,181,363	\$1,889,149	\$0	\$861,886	\$7,932,398	5.2	1.9	0.0	0.9	8.0
Alternatives	\$93,901,745	\$8,853,175	-\$114,316	\$2,687,829	\$41,980	\$11,468,668	9.0	-0.1	2.7	0.0	11.6
Real Assets	\$118,468,127	\$8,254,258	\$1,603,851	\$1,010,751	\$51,479	\$10,920,339	8.4	1.6	1.0	0.1	11.1
Risk Parity	\$82,467,037	\$1,396,332	\$0	\$435,991	\$8,162	\$1,840,485	1.4	0.0	0.4	0.0	1.9
Cash	\$7,307,281	\$0	\$0	\$0	\$750	\$750	0.0	0.0	0.0	0.0	0.0

* Performance fees can be negative due to the clawback of incentive fees

Asset Class	Fees
Domestic Equity	\$10,467,321
Domestic Fixed Income	\$3,819,866
International Equity	\$7,932,398
Alternatives	\$11,468,668
Real Assets	\$10,920,339
Risk Parity	\$1,840,485
Cash	\$750

Total \$46,449,828

Fees By Asset Class





StanCERA Investment Fee Summary - By Investment Discretion

Fiscal Year to Date

7/1/2014

thru

6/30/2019

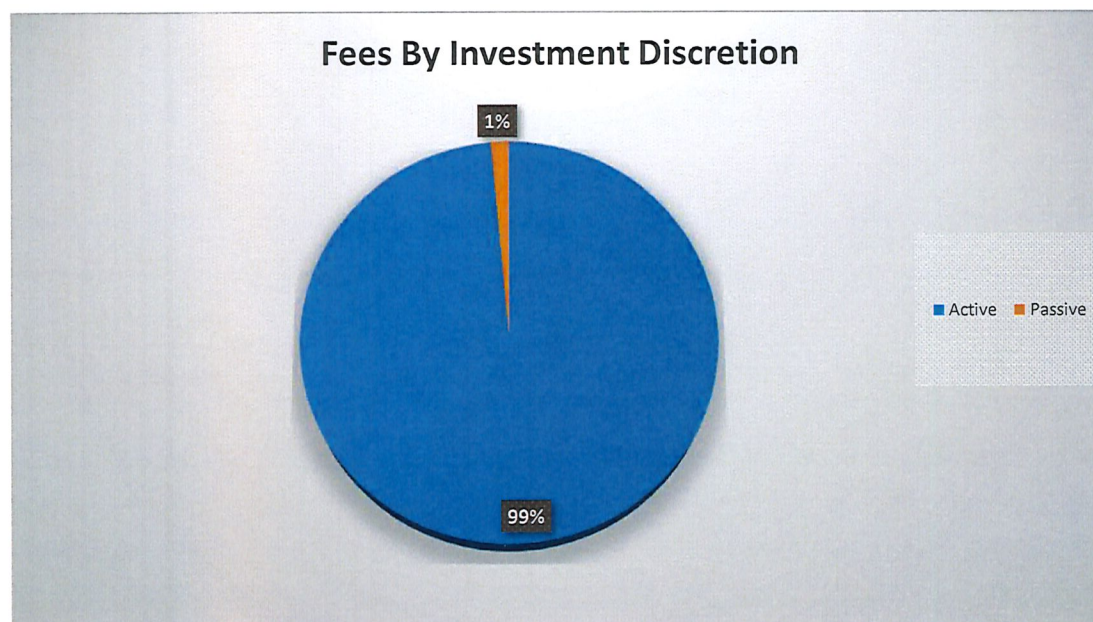
	Fees In Dollars						Annualized Fees in Basis Points				
	<u>Average AUM</u>	<u>Managerial</u>	<u>Performance*</u>	<u>Other</u>	<u>Custodial</u>	<u>Total</u>	<u>Managerial</u>	<u>Performance</u>	<u>Other</u>	<u>Custodial</u>	<u>Total</u>
Total StanCERA Portfolio	\$1,846,424,394	\$37,226,988	\$3,378,684	\$4,134,571	\$1,709,585	\$46,449,828	37.7	3.4	4.2	1.7	47.1

Fees By Investment Discretion

	<u>Average AUM</u>	<u>Managerial</u>	<u>Performance</u>	<u>Other</u>	<u>Custodial</u>	<u>Total</u>	<u>Managerial</u>	<u>Performance</u>	<u>Other</u>	<u>Custodial</u>	<u>Total</u>
Active	\$1,467,371,006	\$36,631,545	\$3,378,684	\$4,134,571	\$1,659,461	\$45,804,262	37.1	3.4	4.2	1.7	46.4
Passive	\$379,053,388	\$595,443	\$0	\$0	\$50,124	\$645,567	0.6	0.0	0.0	0.1	0.7

* Performance fees can be negative due to the clawback of incentive fees

Investment Discretion	<u>Fees</u>
Active	\$45,804,262
Passive	\$645,567
Total	\$46,449,828





StanCERA Investment Fee Summary - By Investment Style

Fiscal Year to Date

7/1/2014 thru 6/30/2019

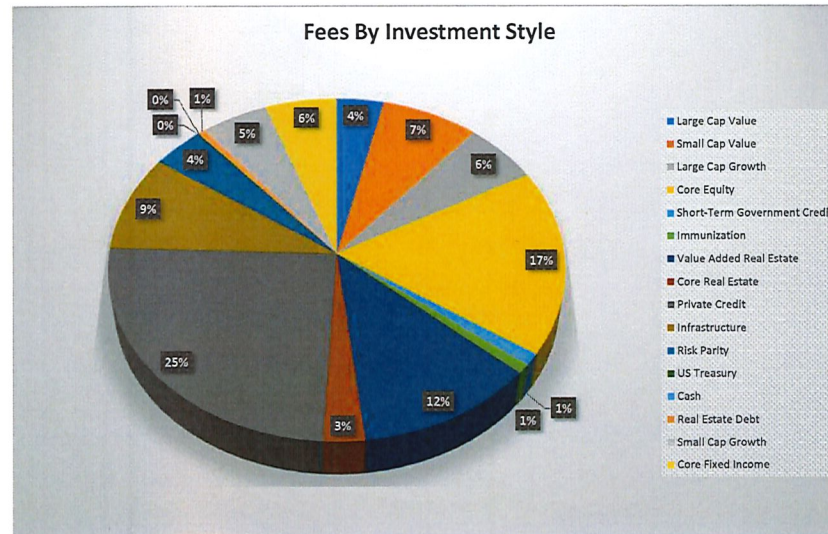
	Fees In Dollars						Annualized Fees in Basis Points				
	<u>Average AUM</u>	<u>Managerial</u>	<u>Performance*</u>	<u>Other</u>	<u>Custodial</u>	<u>Total</u>	<u>Managerial</u>	<u>Performance</u>	<u>Other</u>	<u>Custodial</u>	<u>Total</u>
Total StanCERA Portfolio	\$1,846,424,394	\$37,226,988	\$3,378,684	\$4,134,571	\$1,709,585	\$46,449,828	37.7	3.4	4.2	1.7	47.1

	Fees By Investment Style						Managerial	Performance	Other	Custodial	Total
	Average AUM	Managerial	Performance	Other	Custodial	Total					
Large Cap Value	\$251,272,792	\$1,616,435	\$0	\$0	\$78,163	\$1,694,598	1.6	0.0	0.0	0.1	1.7
Small Cap Value	\$93,600,723	\$3,277,253	\$0	\$0	\$204,523	\$3,481,776	3.3	0.0	0.0	0.2	3.5
Large Cap Growth	\$195,381,129	\$2,663,669	\$0	\$0	\$70,522	\$2,734,191	2.7	0.0	0.0	0.1	2.8
Core Equity	\$507,723,167	\$5,318,915	\$1,889,149	\$0	\$871,753	\$8,079,817	5.4	1.9	0.0	0.9	8.2
Short-Term Government Credit	\$91,438,962	\$516,923	\$0	\$0	\$19,061	\$535,984	0.5	0.0	0.0	0.0	0.5
Immunization	\$62,156,283	\$387,365	\$0	\$0	\$14,162	\$401,527	0.4	0.0	0.0	0.0	0.4
Value Added Real Estate	\$34,889,824	\$3,899,726	\$1,360,519	\$184,186	\$21,988	\$5,466,419	4.0	1.4	0.2	0.0	5.5
Core Real Estate	\$65,544,906	\$981,435	\$243,332	\$0	\$20,639	\$1,245,406	1.0	0.2	0.0	0.0	1.3
Private Credit	\$93,901,745	\$8,853,175	-\$114,316	\$2,687,829	\$41,980	\$11,468,668	9.0	-0.1	2.7	0.0	11.6
Infrastructure	\$18,033,397	\$3,373,096	\$0	\$826,565	\$8,853	\$4,208,514	3.4	0.0	0.8	0.0	4.3
Risk Parity	\$82,467,037	\$1,396,332	\$0	\$435,991	\$8,162	\$1,840,485	1.4	0.0	0.4	0.0	1.9
US Treasury	\$23,460,269	\$50,895	\$0	\$0	\$0	\$50,895	0.1	0.0	0.0	0.0	0.1
Cash	\$7,307,281	\$0	\$0	\$0	\$750	\$750	0.0	0.0	0.0	0.0	0.0
Real Estate Debt	\$8,029,118	\$272,207	\$0	\$0	\$2,021	\$274,228	0.3	0.0	0.0	0.0	0.3
Small Cap Growth	\$45,737,199	\$2,186,791	\$0	\$0	\$222,547	\$2,409,338	2.2	0.0	0.0	0.2	2.4
Core Fixed Income	\$265,480,563	\$2,432,770	\$0	\$0	\$124,461	\$2,557,231	2.5	0.0	0.0	0.1	2.6

* Performance fees can be negative due to the clawback of incentive fees

By Investment Style	Fees
Large Cap Value	\$1,694,598
Small Cap Value	\$3,481,776
Large Cap Growth	\$2,734,191
Core Equity	\$8,079,817
Short-Term Government Credit	\$535,984
Immunization	\$401,527
Value Added Real Estate	\$5,466,419
Core Real Estate	\$1,245,406
Private Credit	\$11,468,668
Infrastructure	\$4,208,514
Risk Parity	\$1,840,485
US Treasury	\$50,895
Cash	\$750
Real Estate Debt	\$274,228
Small Cap Growth	\$2,409,338
Core Fixed Income	\$2,557,231

Total \$46,449,828





Stanislaus County Employees' Retirement Association - Investment Fee Summary

7/1/2014

thru

6/30/2019

Manager Name	Fees in Dollars					Fees in Annualized Basis Points				
	Average AUM	Management	Performance	Other	Custodial	Total	Management	Performance	Other	Custodial
Dodge Cox Equity	\$154,395,300	\$1,520,158	\$0	\$0	\$64,280	\$1,584,438	19.7	0.0	0.0	0.8
PIMCO	\$97,042,656	\$1,155,601	\$0	\$0	\$46,241	\$1,201,841	37.6	0.0	0.0	1.5
Bernzott	\$12,755,415	\$434,709	\$0	\$0	\$27,437	\$462,147	68.2	0.0	0.0	4.3
Eudaimonia	\$9,386,528	\$207,171	\$0	\$0	\$56,109	\$263,280	105.9	0.0	0.0	28.7
Jackson Square	\$118,621,045	\$2,555,472	\$0	\$0	\$56,883	\$2,612,354	58.8	0.0	0.0	1.3
LSV	\$201,596,753	\$2,492,803	\$1,125,002	\$0	\$504,616	\$4,122,421	24.7	11.2	0.0	5.0
Dodge Cox Fixed Income	\$321,714,499	\$1,277,170	\$0	\$0	\$78,220	\$1,355,390	12.5	0.0	0.0	0.8
Fidelity	\$201,643,779	\$2,688,560	\$764,147	\$0	\$357,270	\$3,809,977	26.7	7.6	0.0	3.5
Blackrock Value	\$96,877,491	\$96,277	\$0	\$0	\$13,883	\$110,160	2.0	0.0	0.0	0.3
Blackrock Growth	\$108,414,028	\$108,197	\$0	\$0	\$13,640	\$121,836	2.0	0.0	0.0	0.3
Raven Asset-Based Opportunity Fund I L.P.	\$20,411,642	\$1,779,018	\$0	\$1,179,705	\$11,527	\$2,970,250	174.4	0.0	115.7	1.1
BNYM S&P	\$85,219,782	\$94,682	\$0	\$0	\$9,867	\$104,549	3.5	0.0	0.0	0.4
White Oak Pinnacle Fund L.P.	\$33,445,966	\$2,596,320	\$691,279	-\$594,582	\$11,424	\$2,704,441	155.4	41.4	-35.6	0.7
Medley Opportunity Fund II L.P.	\$24,251,812	\$1,161,492	-\$805,595	\$693,729	\$11,041	\$1,060,667	95.9	-66.5	57.2	0.9
Blackrock US Real Estate	\$45,818,965	\$202,522	\$0	\$0	\$12,734	\$215,256	8.8	0.0	0.0	0.6
Greenfield GAP VII Management Fund, L.L.C	\$11,865,926	\$1,235,884	\$908,014	\$55,048	\$10,131	\$2,209,077	215.8	158.5	9.6	1.8
AMI	\$18,361,932	\$488,104	\$0	\$0	\$19,097	\$507,201	91.2	0.0	0.0	3.6
CastleArk	\$12,772,750	\$337,737	\$0	\$0	\$58,705	\$396,443	99.3	0.0	0.0	17.3
Lee Munder	\$14,535,949	\$385,832	\$0	\$0	\$49,140	\$434,972	99.6	0.0	0.0	12.7
Rice Hall	\$21,637,341	\$567,780	\$0	\$0	\$21,359	\$589,139	90.0	0.0	0.0	3.4
Riverbridge	\$9,352,194	\$7	\$0	\$0	\$5,937	\$5,945	0.0	0.0	0.0	25.5
Stephens	\$9,768,049	\$3	\$0	\$0	\$8,259	\$8,262	0.0	0.0	0.0	33.9
Channing	\$20,443,838	\$700,543	\$0	\$0	\$41,032	\$741,575	68.6	0.0	0.0	4.0
Inview	\$20,416,814	\$687,644	\$0	\$0	\$28,170	\$715,814	67.4	0.0	0.0	2.8
Keeley	\$11,704,174	\$398,939	\$0	\$0	\$28,416	\$427,355	68.2	0.0	0.0	4.9
Pacific Ridge	\$15,827,509	\$631,024	\$0	\$0	\$41,029	\$672,053	79.8	0.0	0.0	5.2
Walthausen	\$12,452,973	\$424,394	\$0	\$0	\$38,439	\$462,833	68.2	0.0	0.0	6.2
Morgan Stanley Prime Property Fund, L.L.C	\$27,543,873	\$778,913	\$243,332	\$0	\$7,905	\$1,030,150	79.0	24.7	0.0	0.8
American Realty Advisors Fund	\$22,320,453	\$1,224,119	\$363,567	\$54	\$9,768	\$1,597,509	119.8	35.6	0.0	1.0
North Haven Infrastructure II GP LP	\$22,087,886	\$3,373,096	\$0	\$826,565	\$8,853	\$4,208,514	374.4	0.0	91.7	1.0
Raven Asset-Based Opportunity Fund III L.P.	\$20,615,875	\$3,316,345	\$0	\$1,408,977	\$7,988	\$4,733,310	420.3	0.0	178.6	1.0
Insight Investment	\$155,603,863	\$387,365	\$0	\$0	\$14,162	\$401,527	12.5	0.0	0.0	0.5
Dimensional Fund Advisors	\$239,077,515	\$516,923	\$0	\$0	\$19,061	\$535,984	11.3	0.0	0.0	0.4
Essex	\$13,775,561	\$77,144	\$0	\$0	\$519	\$77,664	111.8	0.0	0.0	0.8
Redwood	\$15,823,940	\$123,012	\$0	\$0	\$3,420	\$126,432	155.2	0.0	0.0	4.3
Northern Trust Cash Account	\$19,105,713	\$0	\$0	\$0	\$750	\$750	0.0	0.0	0.0	0.2
Northern Trust Long Term Bond Fund	\$14,874,227	\$12,915	\$0	\$0	\$0	\$12,915	4.4	0.0	0.0	0.0
Northern Trust Intermediate Term Bond Fund	\$43,856,899	\$37,981	\$0	\$0	\$0	\$37,981	4.3	0.0	0.0	0.0
Northern Trust Russell 1000 Fund	\$138,105,067	\$30,438	\$0	\$0	\$0	\$30,438	1.7	0.0	0.0	0.0
PanAgora Diversified Risk Multi-Asset Fund, Ltd.	\$139,934,179	\$775,685	\$0	\$163,447	\$4,581	\$943,713	35.2	0.0	7.4	0.2
Prudential	\$48,520,330	\$272,207	\$0	\$0	\$2,021	\$274,228	67.9	0.0	0.0	0.5
AQR Capital Management	\$143,827,685	\$620,647	\$0	\$272,544	\$3,582	\$896,773	32.4	0.0	14.2	0.2
Greenfield Acquisition Partners VIII, L.P.	\$11,943,963	\$1,439,723	\$88,938	\$129,084	\$2,088	\$1,659,833	967.6	59.8	86.8	1.4



StanCERA Value Added Report

7/1/2018

through

6/30/2019

<u>Manager</u>	<u>Average AUM</u>	<u>Average Cash Balance</u>	<u>Manager \$ Return</u>	<u>Manager Fees</u>	<u>Custodial Fees</u>	<u>Benchmark \$ Returns</u>	<u>Benchmark Fees*</u>	<u>Value Added</u>
Dodge Cox Equity	\$ 77,350,616	\$ 2,798,368	\$ 3,155,773	-\$172,696	-\$8,196	\$6,545,569	-\$19,271	\$ (3,551,416)
Bernzott	\$ 11,537,827	\$ 835,511	\$ 347,578	-\$74,158	-\$4,472	-\$719,434	-\$27,596	\$ 1,015,978
Dimensional Fund Advisors	\$ 208,826,718	\$ 15,560,216	\$ 10,505,102	-\$234,977	-\$8,277	\$10,056,777	-\$104,056	\$ 309,127
LSV	\$ 263,024,460	\$ 2,937,625	\$ (7,139,800)	-\$663,439	-\$99,328	\$4,731,422	-\$812,585	\$ (11,821,405)
Fidelity	\$ 265,093,767	\$ 2,128,745	\$ 3,386,476	-\$674,792	-\$54,930	\$4,768,646	-\$818,978	\$ (1,292,914)
Channing	\$ 16,406,545	\$ 882,668	\$ (643,110)	-\$104,627	-\$7,812	-\$1,023,020	-\$39,241	\$ 306,712
Inview	\$ 16,801,247	\$ 1,153,893	\$ (716,939)	-\$107,473	-\$4,416	-\$1,047,631	-\$40,185	\$ 258,988
Keeley	\$ 10,828,373	\$ 505,716	\$ (439,974)	-\$69,731	-\$4,731	-\$675,196	-\$25,899	\$ 186,660
Pacific Ridge	\$ 15,861,657	\$ 879,330	\$ (1,627,187)	-\$120,240	-\$6,401	-\$1,731,075	-\$37,938	\$ 15,184
Walhausen	\$ 11,035,723	\$ 742,801	\$ (617,444)	-\$70,727	-\$6,171	-\$688,126	-\$26,395	\$ 20,179

Totals	\$ 896,766,933	\$ 28,424,873	\$ 6,210,474	\$ (2,292,860)	\$ (204,732)	\$ 20,217,932	\$ (1,952,145)	\$ (14,552,906)
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* Benchmark fees are approximated based on a hypothetical investment in a passive fund/ETF



Cash Flow Report

April 2019 through June 2019

Beginning Cash Balance*	\$8,579,613
Cash Flow In	
Cash Draw From Managers	\$12,530,036
Employer Contributions	\$21,047,398
Employee Contributions	\$6,498,592
Employee Redeposits	\$133,795
Money Market Income	\$183,150
Rental Income	\$25,731
Commission Recapture	\$1,154
Litigation Recovery	\$32,001
W/O Cancelled checks	<u>\$3,758</u>
 Total Cash Flow In	 \$40,455,615
Cash Flow Out	
Retiree Payroll	\$33,115,986
StanCERA Payroll	\$360,516
StanCERA Operations Expense	\$200,417
Tyler Maintenance	\$13,319
Fixed Asset Purchases	\$334,119
Refunds	\$879,288
Death Benefits - Salary Based	\$42,960
Burial Allowance	\$110,000
Death Benefits - Lump Sum	\$19,019
Investment Consulting Fees	\$125,124
Actuarial Fees	\$31,000
Legal Fees	\$60,756
 Total Cash Flow Out	 \$35,292,504
 Ending Cash Balance	 \$13,742,724
Change in Cash Balance	\$5,163,111



Cash Flow Report

July 2018 through June 2019

Beginning Cash Balance*	\$10,881,269
Cash Flow In	
Cash Draw From Managers	\$22,642,501
Employer Contributions	\$88,015,295
Employee Contributions	\$27,290,215
Employee Redeposits	\$379,832
Money Market Income	\$183,150
Rental Income	\$101,944
Commission Recapture	\$6,643
Litigation Recovery	\$214,141
Additional Employer Contributions	<u>\$62</u>
W/O Cancelled checks	\$39,915
Total Cash Flow In	\$138,873,697
Cash Flow Out	
Retiree Payroll	\$127,920,324
StanCERA Payroll	\$1,461,408
StanCERA Operations Expense	\$895,528
Tyler Maintenance	\$65,824
Fixed Asset Purchases	\$1,235,215
Refunds	\$2,290,335
Death Benefits - Salary Based	\$110,745
Burial Allowance	\$405,000
Death Benefits - Lump Sum	\$383,843
Investment Consulting Fees	\$465,706
Actuarial Fees	\$104,592
Custodial Fees	\$77,180
Audit Fees	\$43,789
Legal Fees	\$555,806
Other Fees	-\$3,052
Total Cash Flow Out	\$136,012,243
Ending Cash Balance	\$13,742,724
Change in Cash Balance	\$2,861,455