

AGENDA

BOARD OF RETIREMENT 832 12th Street Ste. 600, **Wesley W. Hall Board Room**

April 28, 2020 1:30 p.m.

Modesto, CA 95354

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.

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.

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.

Pursuant to California Governor Gavin Newsom's Executive Order N-29-20, The Board of Retirement ("StanCERA") is authorized to hold public meetings via teleconference and to make public meetings accessible telephonically or otherwise electronically to all members of the public who wish to participate and to provide public comment to the local legislative body during the current health emergency.

The location of the meeting will be at 832 12th Street, Suite 600, Modesto, CA 95354. This site may be utilized as the calling center for some or all Trustees who will be communicating via teleconference. Due to the COVID-19 Pandemic, StanCERA's offices are currently closed to public access. As such, the public will not be granted access to StanCERA's offices to attend StanCERA's meeting. If you wish to join the meeting by teleconference as a member of the public and listen to the meeting then please dial in using your phone and call **209-689-0007 Access Code: 414752**. If you have any difficulty joining the meeting by teleconference, please call StanCERA's main office number: (209) 525-6393.

StanCERA offers several ways for the public to participate in its meetings without attending a meeting in person. If you wish to make either a general public comment or to comment on a specific agenda item, please submit your comment (if your comment pertains to a specific agenda item, please include the agenda item number in the subject line) and submit your comment via email or fax prior to the meeting. Written comments regarding StanCERA's agenda items can be submitted by 4:30 p.m. on the day before the board meetings via email to <u>Gomesk@Stancera.org</u> or via fax to 209-558-4976. Public comments of approximately 400 words or less submitted by email or fax by 4:30 p.m. the day before the meeting will be read during the StanCERA Board meeting in the public comment section of the agenda. Pursuant to Government Code section 54954.3(a), Public Comment or public comment on an Agenda Item are limited to three (3) minutes (400 words or less). In compliance with the Americans with Disabilities Act, a person requiring an accommodation, auxiliary aid, or service to participate in this meeting should contact StanCERA at (209) 525-6393, as far in advance as possible but no later than 48 hours before the scheduled event. StanCERA will provide its best effort to fulfill the request. Agendas and Minutes are on our website at <u>www.stancera.org</u>.

- 1. <u>Call Meeting to Order</u>
- 2. Pledge of Allegiance
- 3. Roll Call
- 4. Announcements
- 5. Public Comment
- 6. Consent Items
 - a. Approval of the February 25, 2020 Meeting Minutes View
 - b. Conference Report
 - c. Investment Matrix Agenda Item <u>View</u>
 - d. Private Markets Commitment Notice Insight Partners XI fund Agenda Item <u>View</u>
 - e. Auxiliary Investment Report as of 12/31/2019
 - 1. AB2833 Auxiliary Report Agenda Item <u>View</u> Attachment 1 <u>View</u>
 - 2. Investment Fee Summary, Value Added and Cash Flow Reports Agenda Item <u>View</u> Attachment 1 <u>View</u>
 - f. Legislative /Legal Update Agenda Item <u>View</u> Attachment 1 <u>View</u>
 - g. 2020 Executive Director Goals Update Quarter 1 Agenda Item <u>View</u> Attachment 1 <u>View</u>
 - h. Applications for Service Retirement(s) Government Code Sections 31499.14, 31670, 31662.2 & 31810
 - 1. Allen, Sheila BHRS Effective 03-21-20
 - 2. Angarole, David Sheriff Effective 03-14-20 *
 - 3. Antonucci, Shelly DCSS Effective 03-28-20
 - 4. Badal, Bella Environmental Resources Effective 03-28-20
 - 5. Baker, John DA Effective 04-24-20
 - 6. Barker, Barbara CEO Effective 03-28-20
 - 7. Bell, Ronda Stan Regional 911 Effective 03-27-20
 - 8. Borrelli, Annette Public Works Effective 03-29-20
 - 9. Bowman, Sue Workforce Dev Effective 03-14-20
 - 10. Brockman, Ray CSA Effective 02/01/2020
 - 11. Brown-Mason, Rhonda DCSS Effective 03-27-20
 - 12. Bunch, Kirk DA Effective 03-10-20 *
 - 13. Cain, Dawn Tax Collector Effective 03-31-20
 - 14. Calibro, Craig Probation Effective 03-28-20 *
 - 15. Castillo, Victoria DCSS Effective 03-28-20
 - 16. Cuevas, Esther CSA Effective 03-28-20
 - 17. De Jong, Elizabeth DA Effective 03-30-20
 - 18. De Leon, Thomas CSA Effective 03-14-20
 - 19. De Mass, Steven GSA Effective 02-08-20

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6. <u>Consent Items (Cont.)</u>

- 20. Delarosa-Putnam, Belinda Probation Effective 03-28-20 *
- 21. Dixon, Deborah DCSS Effective 03-28-20
- 22. Dominguez, Peggy CEO Effective 03-28-20
- 23. Fedorchak, Timothy CEO Effective 03-03-20
- 24. Fitzpatrick, John Public Works Effective 03-13-20
- 25. Ford, Linda Animal Services Effective 03-31-20
- 26. Gabrielson, Kathryn Superior Court Effective 03-12-20
- 27. Gee, Kirstie Probation Effective 03-14-20 *
- 28. Ghimenti, Ralph Sheriff Effective 03-14-20 *
- 29. Golden, Christi BHRS Effective 03-28-20
- 30. Gomez, Christina Superior Courts Effective 03-31-20
- 31. Gonzales, Karen StanCERA Effective 03-31-20
- 32. Grant, Sheelah CSA Effective 03-28-20
- 33. Gray, Lori CSA Effective 03-13-20
- 34. Graziose, Daniel Sheriff Effective 04-03-20 *
- 35. Harter, David CSA Effective 03-07-20
- 36. Hassard, Lorna HSA Effective 03-31-20
- 37. Hernandez, Cheryl Sheriff Effective 03-28-20
- 38. Hibbard, Melba OES Effective 03-28-20
- 39. Homen, Cynthia CSA Effective 03-06-20
- 40. Hott, Rhonda Probation Effective 03-28-20 *
- 41. Kellner, Lynne DCSS Effective 03-27-20
- 42. Keily, Erin Sheriff Effective 03-14-20 *
- 43. Kluding, Dennis BHRS Effective 03-27-20
- 44. Lazar, Vivian Workforce Development Effective 3-31-20
- 45. Lee, Christine DCSS Effective 04-02-20
- 46. Lewis, Diane Sheriff Effective 03-28-20
- 47. Longoria, Hector Sheriff Effective 03-17-20 *
- 48. Machado, Nancy HSA Effective 03-14-20
- 49. Marton, Deolinda CSA Effective 03-28-20
- 50. Maya, Mercedes Assessor Effective 03-28-20
- 51. Maze, Meri HSA Effective 03-03-20
- 52. McElligott, Richard Public Works Effective 03-27-20
- 53. McLain, Virginia HSA Effective 03-28-20
- 54. Meeks, Merete Assessor Effective 03-28-20
- 55. Mercer, Jayson Sheriff Effective 03-27-20 *
- 56. Morris, Rodney City of Ceres Effective 03-31-20
- 57. Nemeth, Sheila HSA Effective 03-26-20
- 58. Northard, Edward Environmental Resources Effective 03-05-20
- 59. Palecek III, Timothy Public Works Effective 03-27-20
- 60. Pena, Mary CSA Effective 03-28-20
- 61. Rakoncza, Keith Sheriff Effective 03-14-20 *
- 62. Ramirez, Juan CSA Effective 03-28-20
- 63. Rohoza, Delores Superior Court Effective 03-14-20
- 64. Sarasqueta, Phyllis HSA Effective 03-14-20
- 65. Sibley, Michelle DCSS Effective 03-27-20
- 66. Simas, Robbie Environmental Resources Effective 03-14-20
- 67. Spiegel, Stephen CSA Effective 03-08-20
- 68. Stinhilver, Sheryl CSA Effective 03-28-20
- 69. Taylor, Patricia HSA Effective 03-28-20
- 70. Thalongsinh, Phonethit CSA Effective 04-09-20
- 71. Thomas, Patricia H.- CEO Effective 03-28-20
- 72. Traverso, Steven Sheriff Effective 03-28-20 *
- 73. Valentin, Kelly Probation Effective 03-28-20
- 74. Van Tassell, Phyllis CSA Effective 03-28-20
- 75. Villarreal, Pamela BOS Effective 03-14-20

6. <u>Consent Items (Cont.)</u>

- 76. Watson, Kevin CEO Effective 03-28-20
- 77. Weese, Bonnie Clerk Recorder Effective 03-28-20

* Indicates Safety Personnel

- i. Applications for Deferred Retirement(s) Government Code Section 31700
 - 1. Damin, Jon City of Ceres Effective 03-06-2020
 - 2. Enriquez, Leticia CSA Effective 01-17-20
 - 3. Espejo, Ronald CSA Effective 11-14-19
 - 4. Flores-Villanueva, Francisco CSA Effective 12-05-19
 - 5. Henry, Amanda CSA Effective 01-03-20
 - 6. Huynh, Khaminh Probation Effective 02-28-20 *
 - 7. Lugo, Alejandra HSA Effective 10-28-19
 - 8. Martinez, Angela CSA Effective 03-09-20
 - 9. Pettigrew, April Probation Effective 03-06-20 *
 - 10. Porras, Jordan Environmental Resources Effective 08-02-19
 - 11. Sharma, Akaash Workforce Development Effective 08-02-19
 - 12. Serna, Sonya BHRS Effective 01-31-20
 - 13. Tseng, Alysha DA Effective 01-24-20
 - 14. Vieira Morais Filho, Jair BHRS Effective 09-13-19
 - * Indicates Safety Personnel
- j. Application for Service-Connected Disability Retirement Government Code Section 31724
 - Reed, Timothy Sheriff Service-Connected Effective 02.27.20 * ** Indicates Safety Personnel*
- k. Information Technology Solutions (ITS) Project Agenda Item <u>View</u> Attachment 1 <u>View</u>

7. <u>VERUS – Investment Consultant</u>

- a. February Flash Report View
- b. March Flash Report View
- c. 2020 Quarterly 1 Investment Reports Attachment 1 View
- d. Study Education Private Markets and Portfolio Review Attachment 1 View
- e. Investment Belief Language Recommendation Agenda Item <u>View</u> Attachment 1 <u>View</u> Attachment 2 <u>View</u>

8. Investment

a. Quarterly Staff Update.

9. <u>Administrative</u>

a. Quarterly Staff Update.

10. Closed Session

- a. 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)
- b. 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 54956.9(d)(4)
- c. Executive Director's Annual Review Public Employment Government Code Section 54957(b) (1)(2)
- 11. Members' Forum (Information and Future Agenda Requests Only)
- 12. Adjournment



BOARD OF RETIREMENT MINUTES February 25, 2020

1. Call Meeting to Order

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

- 2. <u>Pledge of Allegiance</u>
- 3. Roll Call

Trustees Present:	Darin Gharat, Mike Lynch, Jim DeMartini, Sam Sharpe, Donna Riley Jeff Grover, Jeff Mangar and Mandip Dhillon
Trustees Absent:	Michael O'Neal
Alternate Trustee:	Rhonda Biesemeier, Alternate Retiree Representative
Staff Present:	Rick Santos, Executive Director Natalie Davis, Fiscal Services Manager Kellie Gomes, Executive Board Assistant Stan Conwell, Retirement Investment Officer
Others Present:	Fred Silva, General Legal Counsel Eileen Neil, Verus Investment Consultant Steve Hempler , Verus Investment Consultant Graham Schmitt, Cherion Paul Schcumacher, Cherion

4. Announcements

Stan Conwell announced that there was an update to the Private Markets Commitment notice item 6.e since the agenda was posted. StanCERA Committed \$20M to Vista Equity Partners.

Stan Conwell announced the formation of the Ad Hoc Committee for the RFP for an Investment Consultant includes the following members Trustee Grover, Trustee Biesemeier, Trustee Lynch, Trustee O'Neal, Director Rick Santos, Retirement Investment Officer Stan Conwell and Fiscal Services Manager Natalie Davis. The key date to remember is April 21st. The Committee will select the winner from the finalist.

Director Santos announced that he would like to talk in more depth during line item 8 – Investments regarding the Greenfield transition that is currently on consent calendar.

Kellie Gomes reminded the Board that if a member of the Board would like to run for a seat on the SACRS Board the elections will be at the upcoming SACRS Spring conference and their letter of intent needs to be summited not later than March 1.

5. <u>Public Comment</u>

None

- 6. Consent Items
 - a. Approval of the January 28, 2020 Meeting Minutes

- b. Conference Report
- c. Fiscal year 2019-2020 Mid-Year Budget Review
- d. Information Technology Solutions (ITS) Project
- e. Private Markets Commitment Notice Vista Foundation Fund IV (VFF IV)
- f. Investment Matrix

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

- 1. Baker, Norma CEO Effective 02-29-20
- 2. Beyer, Thomas City of Ceres Effective 02-26-2020 *
- 3. Cavazos, Diana Superior Courts Effective 01-18-2020
- 4. Correa, Patrick Probation Effective 02-07-2020 *
- 5. Crowley, Geoffrey Sheriff Effective 02-27-2020 *
- 6. Fischer, Randolph DA Effective 02-29-2020
- 7. Fortner-Tiura, Vickie Sheriff Effective 02-29-2020
- 8. Hamasaki, Mike Probation Effective 02-29-20 *
- 9. Hoke, Jack Sheriff Effective 02-07-2020 *
- 10. Hutchinson, David DA Effective 02-04-2020 *
- 11. Lozano, Nancy Assessor Effective 02-01-2020
- 12. Moses, Michael BHRS Effective 02-14-2020
- 13. Papadopoulos, George DA Effective 02-08-2020 *
- 14. Reed, Timothy Sheriff Effective 02-11-2020 *
- 15. Sargent, Kenneth Sheriff Effective 02-15-2020 *
- 16. Shadel, Terrance Sherriff Effective 02-01-2020 *

* Indicates Safety Personnel

- h. Applications for Deferred Retirement(s) Government Code Section 31700
 - 1. Aguiniga, Julie BHRS Effective 07-31-19
 - 2. Chukwuka, Origram BHRS Effective 10-11-19
 - 3. Hardenbrook, Craig CSA Effective 01-24-19
 - 4. Johnson, Jill CSA Effective 01-04-14
 - 5. Ruiz, Antonio Parks and Recreation Effective 12-13-19
 - 6. Tobias, Marily Auditor Controller Effective 10-27-19

* Indicates Safety Personnel

- i. Application for Reciprocal Disability Retirement Government Code Section 31838.5
 - 1. Watson, David Sheriff Service-Connected Effective 08-02-19 *

* Indicates Safety Personnel

Motion was made by Trustee Gharat and seconded by Trustee Grover to accept the consent items as presented.

Motion carried unanimously

7. <u>VERUS – Investment Consultant</u>

- a. January Flash Report
- b. Investment Performance 2019 Quarter 4 Review
- c. Asset/Liability Study Education: Growth Sub-Portfolio & Asset Class Implementation Philosophy.

8. Investment

Discussion regarding Transition of Greenfields to Grandview.

9. <u>Administrative</u>

a. June 30, 2019 Actuarial Valuation Graham Schmidt and Paul Schcumacher

Motion was made by Trustee Gharat and seconded by Trustee Riley to accept the 2019 Actuarial Valuation as presented.

Motion carried unanimously

- b. Quarterly Staff Update
- c. 2020 NCPRS Legislative Conference Summary NCPRS -

Closed Session

Motion was made by Trustee Gharat and seconded by Trustee Grover go into closed session at 4:25pm

Motion carried unanimously

- a. 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)
- b. 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 54956.9(d)(4)
- c. Disability Retirement Application Government Code Section 31725 Butler, Cara – City of Ceres – Service-Connected – Application filed 12-30-2019
- e. San Joaquin County Employees' Retirement Association ("SJCERA") v. Travelers Casualty and Surety Company of America. Case No. 2:18-cv-02042-JAM-CKD. Government Code Section 54956.9(d)(4)
- d. Executive Director's Annual Review Public Employment Government Code Section 54957(b) (1)(2)

Motion was made by Trustee Gharat and seconded by Trustee Grover to to go in open session at 4:35pm

Motion carried unanimously

Read out from Closed session is as follows:

Item 10.c

Motion was made by Trustee Gharat and seconded by Trustee Biesemeier to accept the staff recommendation as follows:

1. To acknowledge that applicant, Cara Ann Butler is not permanently incapacitated for a substantial portion of the duties as Recreation Administrative Coordinator with the City of Ceres;

2. That the application of Cara Ann Butler for service-connected disability retirement be denied with the effective date of December 30, 2019.

Roll call vote was as follows: Trustee Gharat Yes

Trustee Lynch Yes Trustee DeMartini Yes Trustee Sharpe Yes Trustee Riley Yes Trustee Grover Yes Trustee Mangar Yes Trustee Dhillon Yes Trustee Biesemeier Yes Motion carried unanimously

Item 10e

Motion was made by Trustee Grover and seconded by Trustee Gharat to accept the staff recommendation to file an amicus brief in support of SJCERA in the matter of San Joaquin County Employees' Retirement Association v. Travelers Casualty and Surety Company for America, Case No. 2:18-CV-02042.

Roll call vote was as follows: Trustee Gharat Yes Trustee Lvnch Yes Trustee DeMartini Yes Trustee Sharpe Yes Trustee Riley Yes **Trustee Grover** Yes **Trustee Mangar** Yes Trustee Dhillon Yes **Biesemeier** Yes Motion carried unanimously

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

Board of Retirement Minutes February 25, 2020 Page 5

12. Adjournment

Meeting adjourned at 4:45 p.m.

Respectfully submitted,

Rick Santos, Executive Director

APPROVED AS TO FORM Fred Silva, GENERAL LEGAL COUNSEL

By

Fred Silva, General Legal Counsel



April 28, 2020

Retirement Board Agenda Item

TO: Retirement Board

FROM: Stan Conwell, Retirement Investment Officer

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

a) Investment Program Activities & Governance:

In March and April, investment staff members are operating under an enhanced investment governance framework in response to the coronavirus (COVID-19). This means the monitoring of StanCERA's portfolio and its managers occurs much more frequently as conditions and market volatility dictate. Daily monitoring of the portfolio took place during periods of extreme volatility to ensure the asset allocation remained within the ranges permitted by investment policy. Staff rebalanced domestic large cap equity towards target during the latter part of March. Please refer to the money transfer report for more details.

Enhanced governance also means more frequent contact with managers and a focused discussion on the impacts of current events on the firm and the fund. For example, the discussions centered around business continuity, including employee safety, cash and AUM levels for some managers, and potential impacts to the fund and the broader market. Clearly, much uncertainty remains in the market and the totality of COVID-19's impact has not fully played out. Given that, staff with continue to operate within the enhanced investment governance framework until more clarity is reached and conditions stabilize.

During February, staff continued to work with Verus on the preparations for the asset/liability study as well as discussions on potential private markets funds and the current pipeline of new funds coming to market. After multiple meetings with Grandview personnel, consultation with Verus, and sharing the proposed fund amendment with the Board, staff signed the amendment to transition the management of Greenfield VIII to Grandview partners. The amendment received the support of the remaining LPs and the fund changes are expected to go forward over the coming months.

b) Money Transfer Report:

March:

From		То			
Manager	Asset Class	Amount	Manager	Asset Class	Amount
StanCERA Cash	Cash	\$-13,014,000	BlackRock Russell 1000 Value	Public Equities	\$5,000,000
BlackRock US Public REIT	Real Estate	\$-5,000,000	Dodge & Cox Stock	Public Equities	\$5,000,000
			ARA Value Realty Fund	Real Estate	\$7,014,000
			Owl Rock First Lien Fund	Private Credit	\$1,000,000
Total		\$-18,014,000			\$18,014,000

February:

From		То			
Manager	Asset Class	Amount	Manager	Asset Class	Amount
StanCERA Cash	Cash	\$-2,912,091	Raven Opportunity Fund III	Private Credit	\$2,912,091

c) Manager Meeting Notes:

March:

During March staff contacted all StanCERA's investment managers in response to the COVID-19 outbreak. All managers in the portfolio have either fully or partially implemented their business continuity procedures and can function with minimal impact on operations or services. A large majority of StanCERA's managers, including some smaller firms, have experience navigating through uncertain times such as the GFC in 2008/2009 and are utilizing some of the lessons learned from that crisis to weather the current downturn. For private real estate funds, the COVID-19 impacts on portfolio valuations could be minimal for the quarter ending 3/31/2020 because the disruption occurred late in the quarter and much of the activity in these funds were locked in. However, the impact on valuations will appear in subsequent quarter's as assumptions are adjusted and price discovery returns to the market. Staff will continue to keep in close contact with StanCERA's managers during the COVID-19 disruption. Retirement Board – April 28, 2020 Investment Matrix Page 3

Insight

In early March, staff attended a call with the team at Insight for a portfolio update and market review. Insight manages the main portion of StanCERA's liquidity sub-portfolio. This sub-portfolio is a key part of the broader functionally focused portfolio as it prefunds benefit payments for retirees and protects StanCERA from being forced to raise cash to pay benefits during market dislocations such as the one we are currently experiencing. Approximately 8 years of cash shortfalls for benefit payments are currently managed by Insight. Insight takes StanCERA's estimated monthly cash shortfalls and optimizes a portfolio of primarily high-quality corporate and government bonds so coupon payments and bond maturities match StanCERA's cash needs. This mandate is often referred to as cash flow driven investing. At the time of the meeting many of Insight's employees were working from home without disruption in operations. The call focused on portfolio exposures by sectors and the possibility of credit downgrades. Insight's exposure to lower quality corporate bonds is minimal and a portion of the portfolio is allocated to US treasuries.

February:

Fidelity Institutional Asset Management (FIAM)

Staff met with the lead portfolio manager and the senior client relationship representative for a fund update. FIAM manages one of the two international equity funds in StanCERA's portfolio. FIAM has a growth mandate and invests broadly across international public markets including emerging markets. The fund's benchmark is the MSCI ACWI ex US and it targets a 2%-4% tracking error against that benchmark. The fund operates within a regional portfolio management framework to allow specialization within each region. There are four regional sub portfolios: Europe, Asia, emerging markets, and Canada. The main focus of the meeting was to go over the change in the emerging markets sub-portfolio. The emerging markets (EM) sleeve has been underperforming expectations and a new portfolio manager was selected to replace the existing EM sub portfolio manager. The new portfolio manager has a slightly different style with more of a focus on relatively less volatile large-cap securities. The EM sleeve benchmark will also be changed to match the updated style. The fund overall has been performing within expectations at the time of the meeting and staff will arrange a call with the new EM portfolio manager to go over the changes in more detail.

Capital Prospects

Staff scheduled a call with Capital Prospects for an update on the merger with Attucks asset management. The merger became official at the beginning of 2020 and the integration process is progressing as planned. The merger was vetted for a considerable amount of time prior to approval which contributed to the smooth integration of the two firms. Succession management and employee turnover was also a topic of concern and some time was devoted to reviewing the plans that are currently in place. A large competitor of Capital Prospects recently announced their closing, creating opportunities for Capital Prospects to expand their investor base.

In March, staff confirmed that Capital Prospect/Attucks have successfully transitioned to remote work. We also confirmed each of the sub-managers are able to continue operations during the disruption and that redundancies in many key areas are in place.

d) General Investment Consultant RFP Update

COVID-19 also affected the RFP for the Investment Consultant. Given the disruption to business operations caused by the outbreak, some accommodations were made to the RFP timeline and the requirements for submission. Broadly speaking, the timeline was pushed out a month. The deadline for submission is now April 24 and the preliminary date for awarding a contract by the committee is now May 19 following presentations by the finalists. Any presentations to the committee will likely occur via audio/video conference. Access to printing services is also limited, so the requirement to provide paper copies is now optional. Notifications of these changes were prominently posted on StanCERA's website.

e) Trainings/Conferences:

ILPA Institute: Private Equity Learning and Development Los Angeles, CA February 20-21

One of the many benefits of being a member of Institutional Limited Partners Association (ILPA), is gaining access to trainings and the educational resources of the ILPA Institute. The ILPA Institute, like the broader organization, is for LPs by LPs and provides an excellent way to educate, empower and connect LPs. Staff attended the Private Equity Introduction training course in Los Angeles, CA on February 20-21. The course was conducted by private equity practitioners with years of experience investing in private equity and negotiating the legal aspects of PE funds. One instructor is a private equity portfolio manager at a large public pension fund. The coursework focused on the following areas: private equity overview, key factors common to top private equity funds, legal aspects, finding and evaluating the best managers, due diligence, ILPA principles, and benchmarking and reporting. A few key takeaways include some key metrics to evaluate manager track records and as well as new and better approaches to conducting legal due diligence. Several case studies were also informative. Staff was also able to establish contacts with numerous California pension plans and other LPs active in private markets. Overall, the course was excellent experience for staff to develop expertise and connect with peers within the private equity space.

- VI. RISK: None
- VII. STRATEGIC PLAN: N/A
- VIII. ADMINISTRATIVE BUDGET IMPACT: None.

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Stan Conwell, Retirement Investment Officer



April 28, 2020

Retirement Board Agenda Item

TO: Retirement Board

FROM: Stan Conwell, Retirement Investment Officer

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

On March 20, 2020 StanCERA committed \$15 million to the Insight Partners XI fund (Insight XI). Insight Partners is a private equity firm focusing on growth stage software companies. Growth stage companies are those companies that have progressed past the startup phase and show potential for rapid growth. Insight XI is one of the largest private equity funds focused on growth stage software companies and will seek both minority and majority transactions in small to mid-cap sized software businesses. Insight was founded in 1995 and has invested \$20 Billion in over 300 companies. Verus reiterated their recommendation to invest in Insight XI in light of the ongoing COVID-19 market disruption citing Insight's experience successfully navigating through prior recessions.

StanCERA has a 6.0% target allocation to the private equity asset class with a sub-asset class target allocation of 4% to buyouts and 2% to venture capital. The commitment to the Insight Partners XI Fund will be allocated to the venture capital 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.

Insight XI 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: N/A
- VIII. ADMINISTRATIVE BUDGET IMPACT: None.

Stan Conwell, Retirement Investment Officer



April 28, 2020

Retirement Board Agenda Item

TO: Retirement Board

FROM: Stan Conwell, Retirement Investment Officer

- I. SUBJECT: AB2833 Auxiliary Report
- II. ITEM NUMBER: 6.e
- III. ITEM TYPE: Information Only
- 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 private real estate asset classes. This information is required to be published at least annually and is a result of Assembly Bill 2833 that went into effect January 1, 2017. 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 and enhance and update the report periodically to response to changing investment program and reporting requirements.

The report presents information about individual funds including general fund information, performance measures, fund balance reconciliation, performance decomposition, and fund expense information. A visual exhibit is also provided for each fund that 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.

The December 31[,] 2019 report includes data for all of StanCERA's alternative investment funds except for Medley Opportunity Fund II. The quarterly capital statements are produced later than normal due to the additional time needed to complete year-end audits and the statement from Medley was not available for inclusion in this report. Raven I reported a large unrealized loss as of December 31, 2019 as some of the fund's four remaining assets were impacted by the adverse market conditions surrounding the US-China trade negotiations.

Below are the metrics and their definitions used in the report:

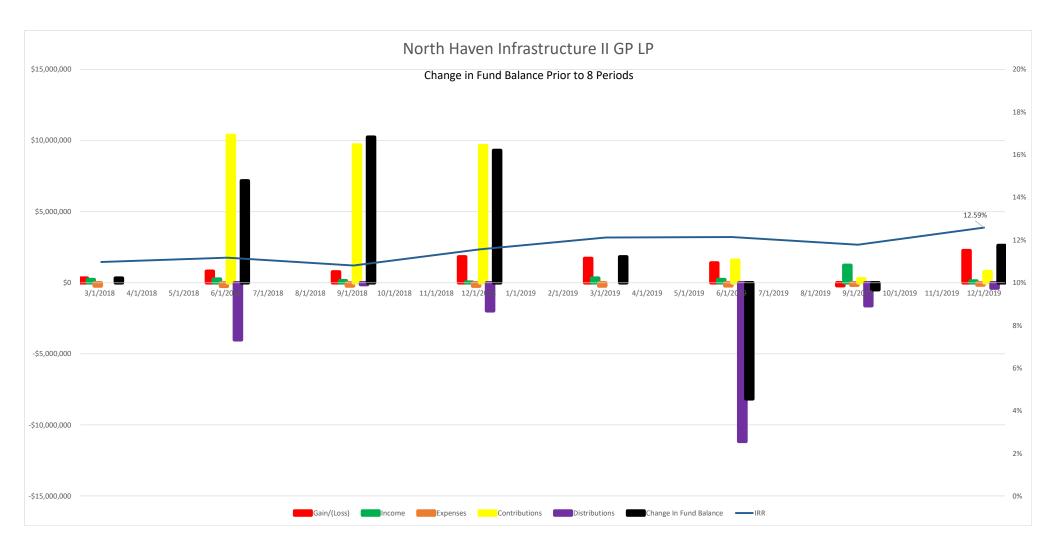
- Performance measures
 - Net internal rate of return (IRR) The return on the investment since inception after fees. This measure includes all cash flows into and out of the investment, their timing and the ending fund value as of the measurement date. This measure is generally the most accurate, however, is highly dependent on the ending fund value as approximated by the general partner.
 - Realization multiple or distributions to paid-in-capital (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-capital 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. Like IRR, this measure is highly dependent on the ending fund value approximated by the general partner.
- Investment multiple or total value to paid-in-capital (TVPI) 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
- 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.

Stan Conwell, Retirement Investment Officer

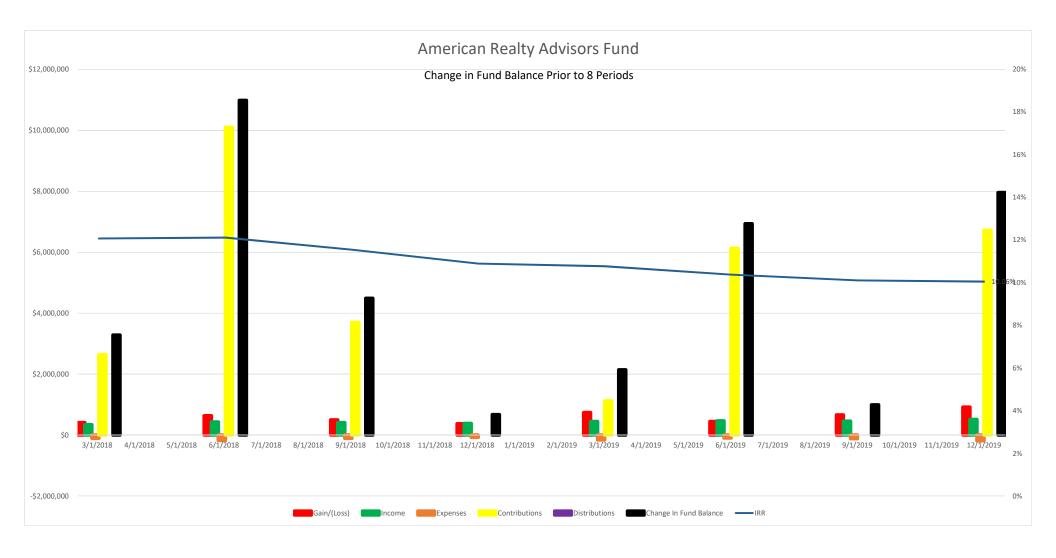
Fund Information			
Manager Name:	North Haven Infrastructure II GP LP		
Analysis Date:	12/31/2019		
Reporting Frequency:	Quarterly		
Latest Data Date:	12/31/2019		
Manager Investment Style:	Infrastructure		
Fund Vintage Year:	2015		
StanCERA Investment Start Date:	5/19/2015		
Initial Commitment:	\$50,000,000		
Additional Commitments:	\$0		
Total Commitment Funded:	\$32,903,880		
Total Commitment Unfunded:	\$17,096,120		
Fund Balance:	\$45,530,465		
Fund Performance Measures Since Incer	otion		
Net Internal Rate of Return (IRR):	12.59%		
Investment Multiple (TVPI):	\$1.22		
Realization Multiple (DPI):	\$0.45		
Residual Value to Paid in Multiple (RVPI):	\$0.77		
Paid in Capital Multiple (PIC):	65.8%		
Fund Balance Reconciliation Since Incep	tion		
Beginning Fund Balance	\$0		
Capital Contributions	\$59,173,117		
Distributions	-\$26,560,233		
Expenses	-\$4,525,111		
Income	\$3,000,646		
Gain/(Loss)	<u>\$15,137,732</u>		
Ending Fund Balance	\$46,226,151		
Internal Rate of Return Decompositio			
Return from Income and Cash Flow	3.09%		
Return from Expenses	-3.51% 14.27%		
Return from Gain/Loss			
Interaction/Timing Effect:	<u>-1.26%</u>		
Net IRR Since Inception:	12.59%		
Expense Matrix			
Management Fee	\$3,567,311		
Organizational Expense	\$52,991		
Syndication Costs	\$65,354		
Professional Fee	\$84,162		
General/Administrative Expense	\$296,087		
Broken Deal Expense	\$267,706		
Interest Expense	<u>\$191,500</u>		
Total	\$4,525,111		
* Performance and return measures have not been reviewed, calculate	ed or verified		
by the general partner or any of its affiliates			

by the general partner or any of its affiliates

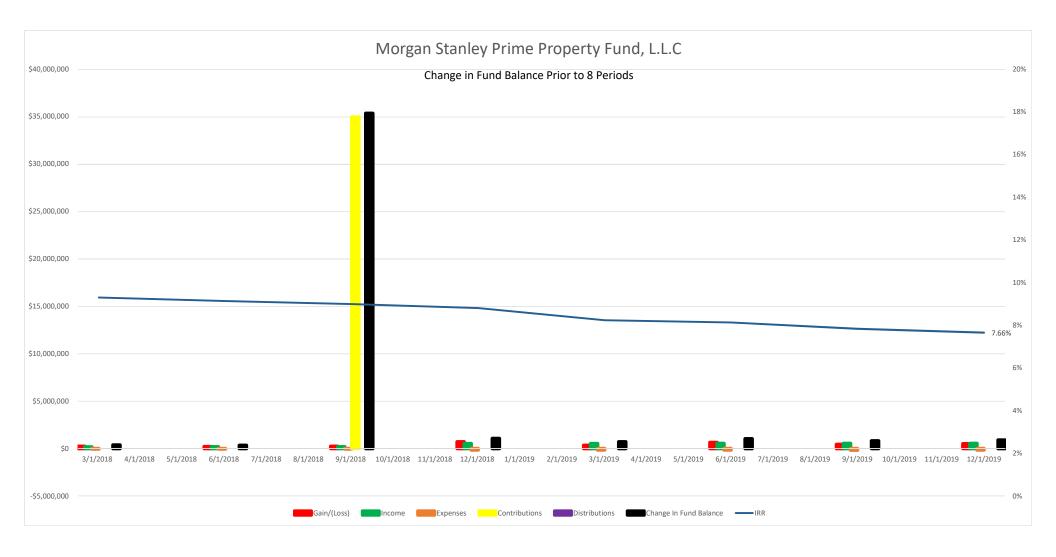


Fund Information

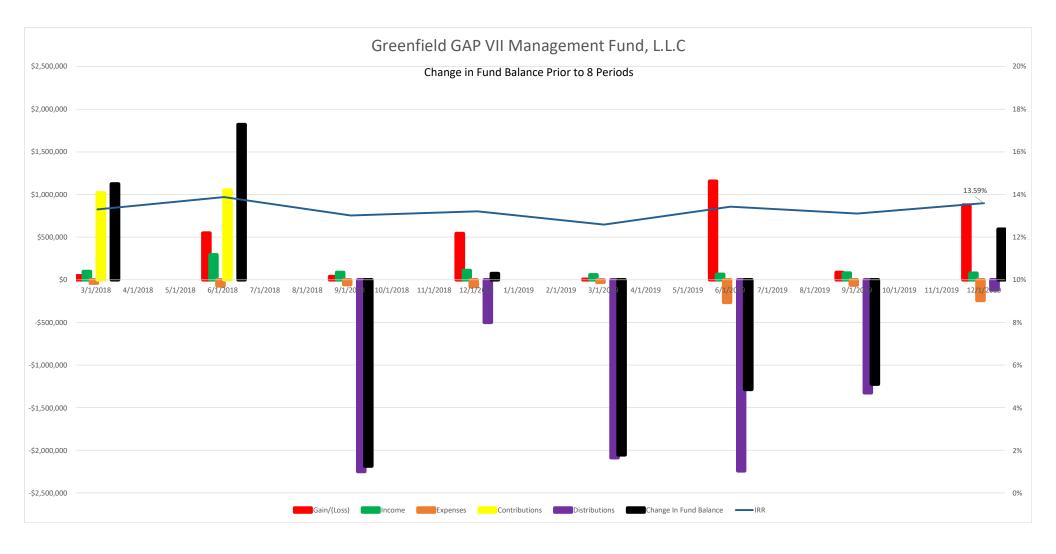
Fund mormation				
Manager Name:	American Realty Advisors Fund			
Analysis Date:	12/31/2019			
Reporting Frequency:	Quarterly			
Latest Data Date:	12/31/2019			
Manager Investment Style:	Value Added Real Estate			
Fund Vintage Year:	2009			
StanCERA Investment Start Date:	12/15/2014			
Initial Commitment:	\$30,000,000			
Additional Commitments:	\$28,000,000			
Total Commitment Funded:	\$50,986,000			
Total Commitment Unfunded:	\$7,014,000			
Fund Balance:	\$60,616,097			
Fund Performance Measures Since In	ception			
Net Internal Rate of Return (IRR):	10.06%			
Investment Multiple (TVPI):	\$1.23			
Realization Multiple (DPI):	\$0.04			
Residual Value to Paid in Multiple (RVPI):	\$1.19			
Paid in Capital Multiple (PIC):	87.9%			
Fund Balance Reconciliation Since Inc	ception			
Beginning Fund Balance	\$0			
Capital Contributions	\$50,986,000			
Distributions	-\$2,031,680			
Expenses	-\$1,890,333			
Income	\$5,866,307			
Gain/(Loss)	\$7,685,804			
Ending Fund Balance	\$60,616,097			
Internal Rate of Return Decomposi	ition			
Return from Income and Cash Flow	5.34%			
Return from Expenses	-1.43%			
Return from Gain/Loss	6.36%			
Interaction/Timing Effect:	<u>-0.22%</u>			
Net IRR Since Inception:	<u>-0.22%</u> 10.06%			
Net int Since inception.	10.00%			
Expense Matrix				
Management Fee	\$1,541,443			
Incentive Allocation	\$348,836			
Offering Costs	<u>\$54</u>			
Total	\$1,890,333			



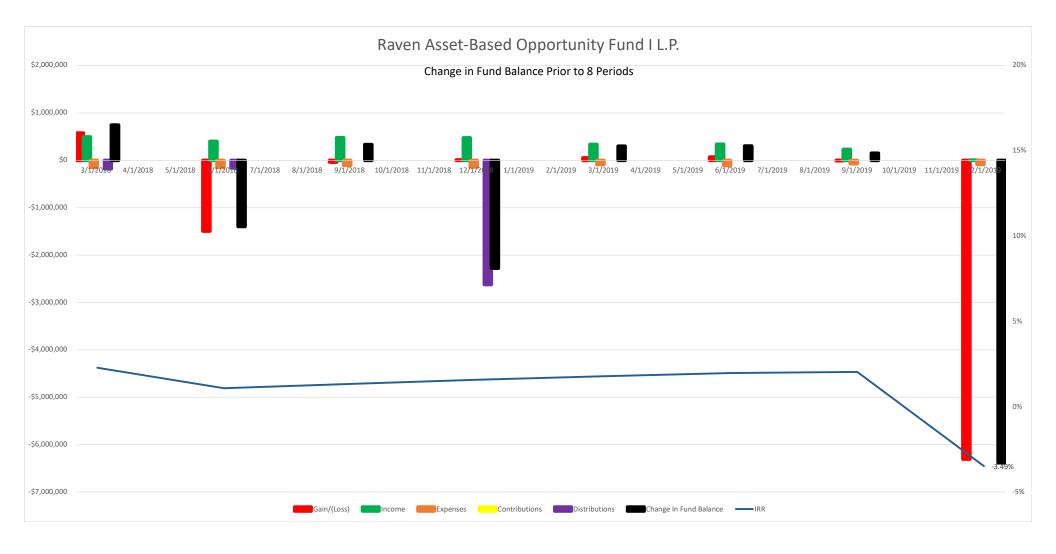
Manager Name:	Morgan Stanley Prime Property Fund, L.L.C			
Analysis Date:	12/31/2019			
Reporting Frequency:	Quarterly			
Latest Data Date:	12/31/2019			
Manager Investment Style:	Core Real Estate			
Fund Vintage Year:	1973			
StanCERA Investment Start Date:	10/1/2015			
Initial Commitment:	\$15,000,000			
Additional Commitments:	\$35,000,000			
Total Commitment Funded:	\$50,000,000			
Total Commitment Unfunded:	\$0			
Fund Balance:	\$58,942,128			
Fund Darfa	No second Circle Incontinu			
	mance Measures Since Inception			
Net Internal Rate of Return (IRR):	7.66%			
Investment Multiple (TVPI):	\$1.18			
Realization Multiple (DPI):	\$0.00			
Residual Value to Paid in Multiple (RVPI):	\$1.18			
Paid in Capital Multiple (PIC):	100.0%			
Fund Balanc	e Reconciliation Since Inception			
Beginning Fund Balance	\$0			
Capital Contributions	\$50,000,000			
Distributions	\$0			
Expenses	-\$1,348,309			
Income	\$4,771,762			
Gain/(Loss)	\$ <u>5,518,675</u>			
Ending Fund Balance	\$58,942,128			
listeria I D	and of Detume Decomposition			
	Rate of Return Decomposition			
Return from Income and Cash Flow	4.24%			
Return from Expenses	-1.06%			
Return from Gain/Loss	4.59%			
Interaction/Timing Effect:	<u>-0.10%</u>			
Net IRR Since Inception:	7.66%			
Expense Matrix				
Management Fee	\$1,021,048			
Incentive Allocation	<u>\$327,262</u>			
Total	\$1,348,309			



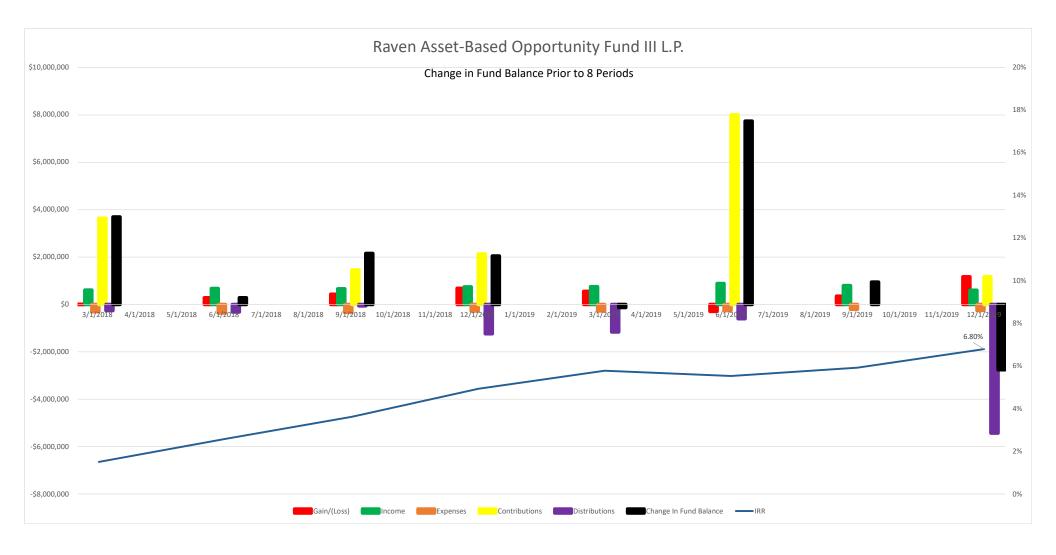
	Fund Information		
Manager Name:	Greenfield GAP VII Management Fund, L.L.C		
Analysis Date:	12/31/2019		
Reporting Frequency:	Quarterly		
Latest Data Date:	12/31/2019		
Manager Investment Style:	Value Added Real Estate		
Fund Vintage Year:	2011		
StanCERA Investment Start Date:	7/8/2014		
Initial Commitment:	\$15,000,000		
Additional Commitments:	\$0		
Total Commitment Funded:	\$9,290,850		
Total Commitment Unfunded:	\$5,709,150		
Fund Balance:	\$10,894,258		
Fund Pe	rformance Measures Since Inception		
Net Internal Rate of Return (IRR):	13.59%		
Investment Multiple (TVPI):	\$1.45		
Realization Multiple (DPI):	\$0.85		
Residual Value to Paid in Multiple (RVP	I): \$0.60		
Paid in Capital Multiple (PIC):	61.9%		
Fund Ba	lance Reconciliation Since Inception		
Beginning Fund Balance	so		
Capital Contributions	\$18,013,692		
Distributions	-\$15,295,375		
Expenses	-\$2,504,127		
Income	\$2,439,389		
Gain/(Loss)	\$2,455,505 \$8,240,679		
Ending Fund Balance	\$10,894,258		
	¢10,00 1,200		
Interr	nal Rate of Return Decomposition		
Return from Income and Cash Flow	5.14%		
Return from Expenses	-2.95%		
Return from Gain/Loss	13.40%		
Interaction/Timing Effect:	<u>-1.99%</u>		
Net IRR Since Inception:	13.59%		
Expense Matrix			
Management Fee	\$1,343,531		
Partnership Operations	\$91,067		
Incentive Allocation	\$1,066,660		
Interest Expense	\$2,869		
Total	\$2,504,127		



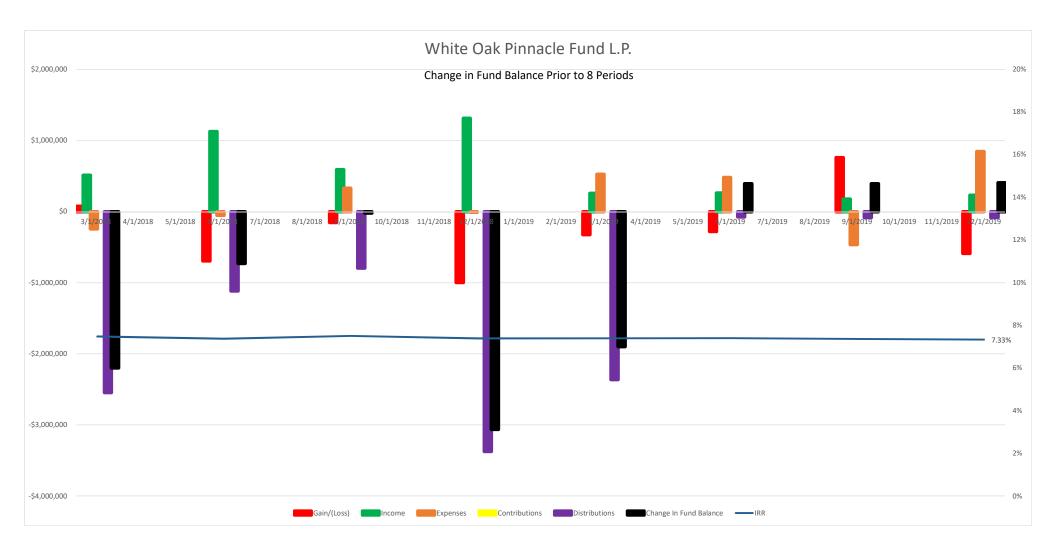
Fund mornation				
Manager Name:	Raven Asset-Based Opportunity Fund I L.P.			
Analysis Date:	12/31/2019			
Reporting Frequency:	Quarterly			
Latest Data Date:	12/31/2019			
Manager Investment Style:	Private Credit			
Fund Vintage Year:	2012			
StanCERA Investment Start Date:	5/22/2013			
Initial Commitment:	\$40,000,000			
Additional Commitments:	\$0			
Total Commitment Funded:	\$34,505,763			
Total Commitment Unfunded:	\$5,494,237			
Fund Balance:	\$7,944,078			
Fund Performance Measures Si	ince Inception			
Net Internal Rate of Return (IRR):	-3.49%			
Investment Multiple (TVPI):	\$0.91			
Realization Multiple (DPI):	\$0.68			
Residual Value to Paid in Multiple (RVPI):	\$0.23			
Paid in Capital Multiple (PIC):	86.3%			
Fund Balance Reconciliation Si	nce Incention			
Beginning Fund Balance	\$0			
Capital Contributions	\$34,505,763			
Distributions	-\$23,582,991			
Expenses	-\$5,326,782			
Income	\$13,046,984			
Gain/(Loss)	<u>-\$10,698,897</u>			
Ending Fund Balance	\$7,944,077			
Internal Rate of Return Deco	amposition			
Return from Income and Cash Flow	7.81%			
Return from Expenses	-4.69%			
Return from Gain/Loss	-4.03%			
Interaction/Timing Effect:				
Net IRR Since Inception:	<u>1.71%</u> -3.49%			
Net IKK Since inception.	-5.49%			
Expense Matrix				
Management Fee	\$3,361,709			
Organizational Expense	\$92,275			
Service Fee	\$339,601			
Professional Fee	\$1,533,197			
Total	\$5,326,782			



Fund mormati	-			
Manager Name:	Raven Asset-Based Opportunity Fund III L.P.			
Analysis Date:	12/31/2019			
Reporting Frequency:	Quarterly			
Latest Data Date:	12/31/2019			
Manager Investment Style:	Private Credit			
Fund Vintage Year:	2015			
StanCERA Investment Start Date:	7/6/2015			
Initial Commitment:	\$15,000,000			
Additional Commitments:	\$35,000,000			
Total Commitment Funded:	\$42,884,101			
Total Commitment Unfunded:	\$7,115,899			
Fund Balance:	\$40,355,950			
Fund Performance Measures	Since Incention			
Net Internal Rate of Return (IRR):	6.80%			
Investment Multiple (TVPI):	\$1.14			
Realization Multiple (DPI):	\$0.31			
Residual Value to Paid in Multiple (RVPI):	\$0.83			
Paid in Capital Multiple (PIC):	85.8%			
	03.07			
Fund Balance Reconciliation	Since Inception			
Beginning Fund Balance	\$0			
Capital Contributions	\$48,361,755			
Distributions	-\$14,926,304			
Expenses	-\$5,177,295			
Income	\$8,449,791			
Gain/(Loss)	<u>\$3,648,001</u>			
Ending Fund Balance	\$40,355,949			
Internal Rate of Return De	ecomposition			
Return from Income and Cash Flow	8.18%			
Return from Expenses	-4.55%			
Return from Gain/Loss	3.47%			
Interaction/Timing Effect:	-0.31%			
Net IRR Since Inception:	6.80%			
Expense Matrix				
Management Fee	\$3,644,885			
Partnership Operations	\$102,856			
Organizational Expense	\$80,659			
Professional Fee	<u>\$1,348,895</u>			
Total	\$5,177,295			



Manager Name:	White Oak Pinnacle Fund L.P.			
Analysis Date:	12/31/2019			
Reporting Frequency:	Quarterly			
Latest Data Date:	12/31/2019			
Manager Investment Style:	Private Credit			
Fund Vintage Year:	2012			
StanCERA Investment Start Date:	8/2/2013			
Initial Commitment:	\$40,000,000			
Additional Commitments:	\$0			
Total Commitment Funded:	\$32,758,125			
Total Commitment Unfunded:	\$7,241,875			
Fund Balance:	\$26,679,960			
Fund Performance Measures Since Incept				
Net Internal Rate of Return (IRR):	7.33%			
Investment Multiple (TVPI):	\$1.28			
Realization Multiple (DPI):	\$0.79			
Residual Value to Paid in Multiple (RVPI):	\$0.48			
Paid in Capital Multiple (PIC):	81.9%			
Fund Balance Reconciliation Since Inception				
Beginning Fund Balance	\$0			
Capital Contributions	\$55,047,161			
Distributions	-\$43,582,461			
Expenses	-\$3,202,225			
Income	\$21,560,949			
Gain/(Loss)	<u>-\$3,143,465</u>			
Ending Fund Balance	\$26,679,959			
Internal Pata of Paturn Decomposition				
Internal Rate of Return Decompositior Return from Income and Cash Flow	10.02%			
Return from Expenses	-1.40%			
Return from Gain/Loss	-1.40%			
Interaction/Timing Effect:				
Net IRR Since Inception:	<u>0.09%</u> 7.33%			
Net IKK Since inception.	7.55%			
Expense Matrix				
Management Fee	\$4,148,541			
Incentive Allocation	\$88,486			
Other Expense	\$80,574			
Management Fee Reimbursement	-\$1,611,862			
General/Administrative Expense	<u>\$496,487</u>			
Total	\$3,202,225			



Alternative Type Program Performance

Analysis Date:	12/31/2019	Expense Matrix Since Inception		
Program Name:	Alternative Type	<u>Expense Type</u>	Expense	<u>% of Total</u>
Program Inception Date:	5/22/2013	Management Fee	\$20,950,458	70.2%
Total Commitment:	\$406,999,999	Partnership Operations	\$360,427	1.3%
Unfunded Commitment as of Analysis Date:	\$76,540,384	Organizational Expense	\$225,925	0.8%
% Funded as of Analysis Date:	81.19%	Incentive Allocation	\$2,289,019	8.3%
Program Fund Balance:	\$335,731,022	Offering Costs	\$54	0.0%
		Service Fee	\$339,601	1.2%
Performance Measures		Syndication Costs	\$65 <i>,</i> 354	0.2%
Net IRR Since Inception:	7.35%	Professional Fee	\$2,986,640	10.8%
Realization Multiple (DPI):	\$0.30	Other Expense	\$80,574	0.3%
Residual Value to Paid in Multiple (RVPI):	\$0.80	Management Fee Reimbursement	-\$1,611,862	-
Investment Multiple (TVPI):	\$1.10	General/Administrative Expense	\$792,574	2.9%
		Broken Deal Expense	\$267,706	1.0%
Net IRR Decomposition		Interest Expense	\$702,986	2.6%
Return from Income & Cash Flow:	6.90%	Custody Fee	\$87 <i>,</i> 683	0.3%
Return from Expenses:	-2.86%	Dividend Expense	\$0	0.0%
Return from Gain/Loss:	3.02%	Performance Fee	<u>\$0</u>	<u>0.0%</u>
Interaction Effect:	<u>0.29%</u>	Total	\$27,537,139	100.0%
Net IRR Since Inception:	7.35%			

Real Estate Program Performance

Analysis Date:	12/31/2019	Expense Matrix Since Inception			
Program Name:	Real Estate	Expense Type	<u>Expense</u>	<u>% of Total</u>	
Program Inception Date:	7/8/2014	Management Fee	\$6,094,698	69.4%	
Total Commitment:	\$217,000,000	Partnership Operations	\$198,093	2.3%	
Unfunded Commitment as of Analysis Date:	\$33,592,253	Organizational Expense	\$0	0.0%	
% Funded as of Analysis Date:	84.52%	Incentive Allocation	\$2,200,533	25.0%	
Program Fund Balance:	\$211,137,933	Offering Costs	\$54	0.0%	
		Service Fee	\$0	0.0%	
Performance Measures		Syndication Costs	\$0	0.0%	
Net IRR Since Inception:	9.75%	Professional Fee	\$20,386	0.2%	
Realization Multiple (DPI):	\$0.09	Other Expense	\$0	0.0%	
Residual Value to Paid in Multiple (RVPI):	\$1.05	Management Fee Reimbursement	\$0	-	
Investment Multiple (TVPI):	\$1.14	General/Administrative Expense	\$0	0.0%	
		Broken Deal Expense	\$0	0.0%	
Net IRR Decomposition		Interest Expense	\$234,396	2.7%	
Return from Income & Cash Flow:	5.09%	Custody Fee	\$39,874	0.5%	
Return from Expenses:	-2.40%	Dividend Expense	\$0	0.0%	
Return from Gain/Loss:	6.74%	Performance Fee	<u>\$0</u>	<u>0.0%</u>	
Interaction Effect:	<u>0.32%</u>	Total	\$8,788,035	100.0%	
Net IRR Since Inception:	9.75%				

Private Credit Program Performance

Analysis Date:	12/31/2019	Expense Matrix Since Inception		
Program Name:	Private Credit	Expense Type	Expense	<u>% of Total</u>
Program Inception Date:	5/22/2013	Management Fee	\$11,288,449	68.1%
Total Commitment:	\$139,999,999	Partnership Operations	\$162,334	1.1%
Unfunded Commitment as of Analysis Date:	\$25,852,011	Organizational Expense	\$172,934	1.2%
% Funded as of Analysis Date:	81.53%	Incentive Allocation	\$88,486	0.6%
Program Fund Balance:	\$79,062,624	Offering Costs	\$0	0.0%
		Service Fee	\$339,601	2.4%
Performance Measures		Syndication Costs	\$0	0.0%
Net IRR Since Inception:	4.07%	Professional Fee	\$2,882,092	20.3%
Realization Multiple (DPI):	\$0.53	Other Expense	\$80,574	0.6%
Residual Value to Paid in Multiple (RVPI):	\$0.51	Management Fee Reimbursement	-\$1,611,862	-
Investment Multiple (TVPI):	\$1.03	General/Administrative Expense	\$496,487	3.5%
		Broken Deal Expense	\$0	0.0%
Net IRR Decomposition		Interest Expense	\$277,090	1.9%
Return from Income & Cash Flow:	8.93%	Custody Fee	\$37,337	0.3%
Return from Expenses:	-2.69%	Dividend Expense	\$0	0.0%
Return from Gain/Loss:	-1.90%	Performance Fee	<u>\$0</u>	<u>0.0%</u>
Interaction Effect:	<u>-0.27%</u>	Total	\$14,213,521	100.0%
Net IRR Since Inception:	4.07%			



April 28, 2020

Retirement Board Agenda Item

TO: Retirement Board

FROM: Stan Conwell, Retirement Investment Officer

- I. SUBJECT: Investment Fee Summary, Value Added and Cash Flow Reports December 31, 2019
- II. ITEM NUMBER: 6.e.2
- III. ITEM TYPE: Information Only
- IV. STAFF RECOMMENDATION: None
- V. ANALYSIS:

Attachment 1 contains the investment fee summary, value added and cash flow reports.

Investment Fee Summary – This report details StanCERA's investment management fees by asset class, manager discretion, investment style and individual manager. Fee data for this report began in July 2014 and is updated on at least a quarterly basis. For the period, 7/01/2014 to 12/31/2019, total investment fees were approximately \$50.0 Million or roughly 45 bps (0.45%) when annualized. There was a small drop from last quarter which was in line with the overall longer term trend down due to performance fee clawbacks and lower custodial fees.

Value Added Report – For the quarter ending 12/31/2019, the portfolio finished ahead of the comparable passive investment fund. The valued added totaled \$3.2 Million driven primarily by relative quarterly outperformance above the benchmark by LSV International and Dodge & Cox Equity.

Cash Flow Report – This report details StanCERA's cash activities.

- 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.

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Stan Conwell, Retirement Investment Officer

StanCERA Investment Fee Summary - By Asset Class

STANCERA

Fiscal Year to Date

7/1/2014 thru 12/31/2019

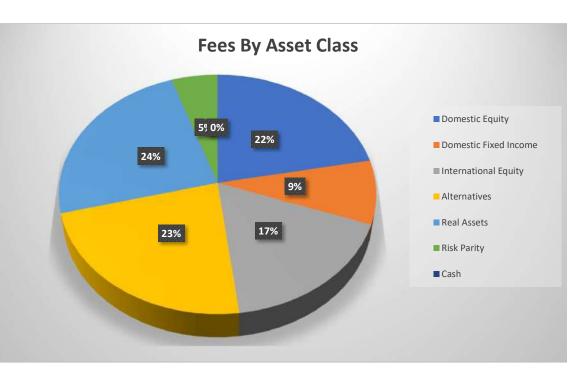
			Fees In Dollars					Annualized Fees in Basis Points				
	Average AUM	<u>Managerial</u>	Performance*	<u>Other</u>	<u>Custodial</u>	<u>Total</u>	Managerial	Performance	<u>Other</u>	<u>Custodial</u>	<u>Total</u>	
Total StanCERA Portfolio	\$1,880,257,174	\$40,638,827	\$2,800,509	\$4,677,724	\$1,955,579	\$50,072,638	36.9	2.5	4.2	1.8	45.4	

Fees By Asset Class

	i ees by Asset Class										
	Average AUM	Managerial	Performance	<u>Other</u>	<u>Custodial</u>	<u>Total</u>	Managerial	Performance	<u>Other</u>	<u>Custodial</u>	Total
Domestic Equity	\$676,209,354	\$10,348,806	\$0	\$0	\$631,122	\$10,979,928	9.4	0.0	0.0	0.6	10.0
Domestic Fixed Income	\$457,279,092	\$4,136,548	\$0	\$0	\$178,529	\$4,315,077	3.8	0.0	0.0	0.2	3.9
International Equity	\$412,876,027	\$5,824,155	\$1,895,023	\$0	\$1,024,363	\$8,743,541	5.3	1.7	0.0	0.9	7.9
Alternatives	\$93,881,597	\$9,265,959	-\$717,109	\$2,892,486	\$48,372	\$11,489,709	8.4	-0.7	2.6	0.0	10.4
Real Assets	\$126,860,906	\$9,084,816	\$1,622,595	\$1,205,587	\$61,093	\$11,974,091	8.2	1.5	1.1	0.1	10.9
Risk Parity	\$104,111,686	\$1,978,542	\$0	\$579,650	\$11,350	\$2,569,542	1.8	0.0	0.5	0.0	2.3
Cash	\$9,038,512	\$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	\$10,979,928
Domestic Fixed Income	\$4,315,077
International Equity	\$8,743,541
Alternatives	\$11,489,709
Real Assets	\$11,974,091
Risk Parity	\$2,569,542
Cash	\$750



Total

\$50,072,638

StanCERA Investment Fee Summary - By Investment Discretion



Active

Passive

Total

Fiscal Year to Date

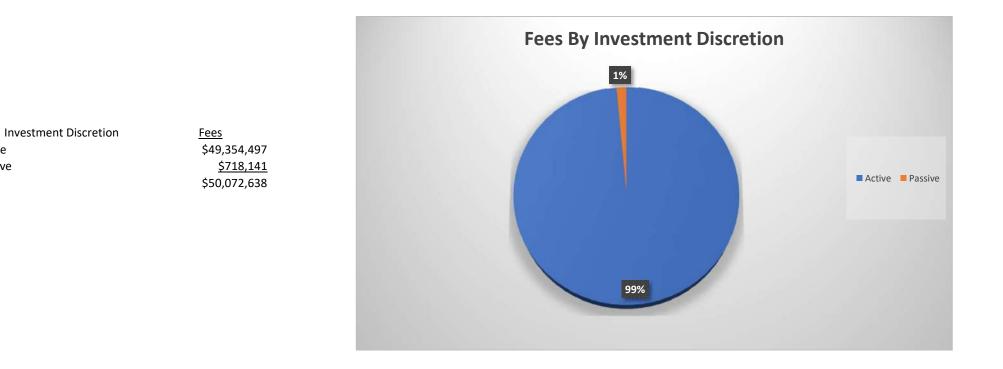
7/1/2014 thru 12/31/2019

—			F	ees In Dollars			A	nnualized Fees	in Basis	Points	
	Average AUM	Managerial	Performance*	<u>Other</u>	<u>Custodial</u>	<u>Total</u>	Managerial	<u>Performance</u>	<u>Other</u>	<u>Custodial</u>	<u>Total</u>
Total StanCERA Portfolio	\$1,880,257,174	\$40,638,827	\$2,800,509	\$4,677,724	\$1,955,579	\$50,072,638	36.9	2.5	4.2	1.8	45.4

Fees By Investment Discretion

	Average AUM	Managerial	<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	\$1,492,274,837	\$39,975,684	\$2,800,509	\$4,677,724	\$1,900,580	\$49,354,497	36.3	2.5	4.2	1.7	44.8
Passive	\$387,982,338	\$663,142	\$0	\$0	\$54,999	\$718,141	0.6	0.0	0.0	0.0	0.7

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



StanCERA Investment Fee Summary - By Investment Style



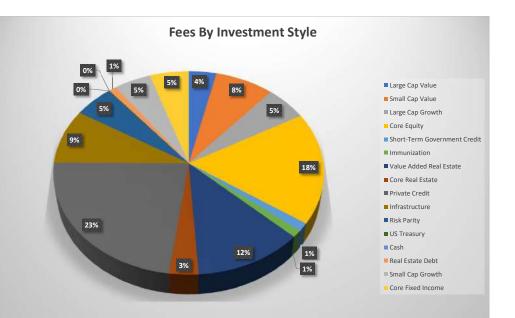
Fiscal Year to Date

7/1/2014 thru 12/31/2019

			F	ees In Dollars			Ar	nualized Fees i	n Basis	Points	
	Average AUM	Managerial	Performance*	<u>Other</u>	Custodial	<u>Total</u>	Managerial	Performance	<u>Other</u>	<u>Custodial</u>	Total
Total StanCERA Portfolio	\$1,880,257,174	\$40,638,827	\$2,800,509	\$4,677,724	\$1,955,579	\$50,072,638	36.9	2.5	4.2	1.8	45.4
				Fee	s By Investme	nt Style					
	Average AUM	Managerial	Performance	<u>Other</u>	<u>Custodial</u>	<u>Total</u>	<u>Managerial</u>	<u>Performance</u>	Other	<u>Custodial</u>	Total
Large Cap Value	\$242,962,497	\$1,716,449	\$0	\$0	\$87,681	\$1,804,130	1.6	0.0	0.0	0.1	1.6
Small Cap Value	\$92,221,319	\$3,615,374	\$0	\$0	\$238,877	\$3,854,251	3.3	0.0	0.0	0.2	3.5
Large Cap Growth	\$192,120,373	\$2,679,684	\$0	\$0	\$72,150	\$2,751,834	2.4	0.0	0.0	0.1	2.5
Core Equity	\$520,232,966	\$5,974,663	\$1,895,023	\$0	\$1,034,230	\$8,903,916	5.4	1.7	0.0	0.9	8.1
Short-Term Government Credit	\$99,987,380	\$621,784	\$0	\$0	\$27,369	\$649,153	0.6	0.0	0.0	0.0	0.6
Immunization	\$76,513,185	\$520,272	\$0	\$0	\$23,093	\$543,365	0.5	0.0	0.0	0.0	0.5
Value Added Real Estate	\$39,286,328	\$4,396,966	\$1,295,334	\$285,911	\$26,769	\$6,004,980	4.0	1.2	0.3	0.0	5.4
Core Real Estate	\$68,206,208	\$1,240,439	\$327,262	\$0	\$23,852	\$1,591,552	1.1	0.3	0.0	0.0	1.4
Private Credit	\$93,881,597	\$9,265,959	-\$717,109	\$2,892,486	\$48,372	\$11,489,709	8.4	-0.7	2.6	0.0	10.4
Infrastructure	\$19,368,370	\$3,447,411	\$0	\$919,676	\$10,472	\$4,377,559	3.1	0.0	0.8	0.0	4.0
Risk Parity	\$104,111,686	\$1,978,542	\$0	\$579,650	\$11,350	\$2,569,542	1.8	0.0	0.5	0.0	2.3
US Treasury	\$27,163,264	\$64,821	\$0	\$0	\$0	\$64,821	0.1	0.0	0.0	0.0	0.1
Cash	\$9,038,512	\$0	\$0	\$0	\$750	\$750	0.0	0.0	0.0	0.0	0.0
Real Estate Debt	\$12,449,495	\$496,900	\$0	\$0	\$3,607	\$500,507	0.5	0.0	0.0	0.0	0.5
Small Cap Growth	\$41,548,227	\$2,186,791	\$0	\$0	\$222,547	\$2,409,338	2.0	0.0	0.0	0.2	2.2
Core Fixed Income	\$241,165,768	\$2,432,770	\$0	\$0	\$124,461	\$2,557,231	2.2	0.0	0.0	0.1	2.3

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

By Investment Style	<u>Fees</u>
Large Cap Value	\$1,804,130
Small Cap Value	\$3,854,251
Large Cap Growth	\$2,751,834
Core Equity	\$8,903,916
Short-Term Government Credit	\$649,153
Immunization	\$543,365
Value Added Real Estate	\$6,004,980
Core Real Estate	\$1,591,552
Private Credit	\$11,489,709
Infrastructure	\$4,377,559
Risk Parity	\$2,569,542
US Treasury	\$64,821
Cash	\$750
Real Estate Debt	\$500,507
Small Cap Growth	\$2,409,338
Core Fixed Income	\$2,557,231





7/1/2014 thru 12/31/2019

			Fee	s in Dollars			F	ees in Annual	ized Ba	sis Points	
Manager Name	Average AUM	<u>Management</u>	Performance	<u>Other</u>	Custodial	Total	Management	Performance	<u>Other</u>	<u>Custodial</u>	Total
Dodge Cox Equity	\$147,680,249	\$1,612,239	\$0	\$0	\$72,170	\$1,684,409	19.8	0.0	0.0	0.9	20.7
PIMCO	\$97,042,656	\$1,155,601	\$0	\$0	\$46,241	\$1,201,841	37.6	0.0	0.0	1.5	39.1
Bernzott	\$12,617,216	\$481,281	\$0	\$0	\$31,504	\$512,785	69.3	0.0	0.0	4.5	73.9
Eudaimonia	\$9,386,528	\$207,171	\$0	\$0	\$56,109	\$263,280	105.9	0.0	0.0	28.7	134.6
Jackson Square	\$118,621,045	\$2,555,472	\$0	\$0	\$56,883	\$2,612,354	58.8	0.0	0.0	1.3	60.1
LSV	\$206,452,860	\$2,814,084	\$1,125,002	\$0	\$613,401	\$4,552,487	24.8	9.9	0.0	5.4	40.1
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	13.3
Fidelity	\$206,423,168	\$3,010,071	\$770,021	\$0	\$410,962	\$4,191,055	26.5	6.8	0.0	3.6	36.9
Blackrock Value	\$95,282,249	\$104,210	\$0	\$0	\$15,511	\$119,721	2.0	0.0	0.0	0.3	2.3
Blackrock Growth	\$113,118,402	\$124,212	\$0	\$0	\$15,267	\$139,480	2.0	0.0	0.0	0.2	2.2
Raven Asset-Based Opportunity Fund I L.P.	\$20,122,040	\$1,805,334	\$0	\$1,226,424	\$13,121	\$3,044,879	163.1	0.0	110.8	1.2	275.1
BNYM S&P	\$85,219,782	\$94,682	\$0	\$0	\$9 <i>,</i> 867	\$104,549	3.5	0.0	0.0	0.4	3.9
White Oak Pinnacle Fund L.P.	\$32,812,337	\$2,778,875	\$88,486	-\$557,569	\$13,018	\$2,322,811	154.0	4.9	-30.9	0.7	128.7
Medley Opportunity Fund II L.P.	\$23,670,999	\$1,185,787	-\$805,595	\$794 <i>,</i> 593	\$12,635	\$1,187,420	91.1	-61.9	61.0	1.0	91.2
Blackrock US Real Estate	\$45,061,484	\$219,391	\$0	\$0	\$14,353	\$233,744	8.9	0.0	0.0	0.6	9.4
Greenfield GAP VII Management Fund, L.L.C	\$11,791,388	\$1,289,774	\$910,558	\$61,221	\$11,725	\$2,273,278	205.2	144.9	9.7	1.9	361.7
AMI	\$18,361,932	\$488,104	\$0	\$0	\$19,097	\$507,201	91.2	0.0	0.0	3.6	94.7
CastleArk	\$12,772,750	\$337,737	\$0	\$0	\$58,705	\$396,443	99.3	0.0	0.0	17.3	116.5
Lee Munder	\$14,535,949	\$385,832	\$0	\$0	\$49,140	\$434,972	99.6	0.0	0.0	12.7	112.3
Rice Hall	\$21,637,341	\$567,780	\$0	\$0	\$21,359	\$589,139	90.0	0.0	0.0	3.4	93.4
Riverbridge	\$9,352,194	\$7	\$0	\$0	\$5 <i>,</i> 937	\$5 <i>,</i> 945	0.0	0.0	0.0	25.5	25.5
Stephens	\$9,768,049	\$3	\$0	\$0	\$8,259	\$8,262	0.0	0.0	0.0	33.9	33.9
Channing	\$20,001,643	\$765,244	\$0	\$0	\$51,053	\$816,297	69.6	0.0	0.0	4.6	74.2
Inview	\$19,993,397	\$753,213	\$0	\$0	\$32,014	\$785,226	68.5	0.0	0.0	2.9	71.4
Keeley	\$11,594,836	\$442,528	\$0	\$0	\$32,472	\$475,000	69.4	0.0	0.0	5.1	74.5
Pacific Ridge	\$15,750,385	\$705,478	\$0	\$0	\$47,679	\$753,157	81.4	0.0	0.0	5.5	86.9
Walthausen	\$12,263,842	\$467,630	\$0	\$0	\$44,155	\$511,785	69.3	0.0	0.0	6.5	75.9
Morgan Stanley Prime Property Fund, L.L.C	\$31,185,613	\$1,021,048	\$327,262	\$0	\$9 <i>,</i> 499	\$1,357,808	80.2	25.7	0.0	0.7	106.7
American Realty Advisors Fund	\$25,588,583	\$1,541,443	\$348 <i>,</i> 836	\$54	\$11,362	\$1,901,695	118.5	26.8	0.0	0.9	146.3
North Haven Infrastructure II GP LP	\$23,244,358	\$3,447,411	\$0	\$919 <i>,</i> 676	\$10,472	\$4,377,559	323.6	0.0	86.3	1.0	410.9
Raven Asset-Based Opportunity Fund III L.P.	\$21,939,271	\$3,495,963	\$0	\$1,429,038	\$9 <i>,</i> 599	\$4,934,600	367.9	0.0	150.4	1.0	519.3
Insight Investment	\$168,362,528	\$520,272	\$0	\$0	\$23,093	\$543 <i>,</i> 365	12.4	0.0	0.0	0.5	12.9
Dimensional Fund Advisors	\$227,749,031	\$621,784	\$0	\$0	\$27,369	\$649,153	11.3	0.0	0.0	0.5	11.8
Essex	\$13,775,561	\$77,144	\$0	\$0	\$519	\$77,664	111.8	0.0	0.0	0.8	112.5
Redwood	\$15,823,940	\$123,012	\$0	\$0	\$3,420	\$126,432	155.2	0.0	0.0	4.3	159.5
Northern Trust Cash Account	\$20,587,722	\$0	\$0	\$0	\$750	\$750	0.0	0.0	0.0	0.2	0.2
Northern Trust Long Term Bond Fund	\$15,398,964	\$16,687	\$0	\$0	\$0	\$16,687	4.3	0.0	0.0	0.0	4.3
Northern Trust Intermediate Term Bond Fund	\$44,372,118	\$48,134	\$0	\$0	\$0	\$48,134	4.3	0.0	0.0	0.0	4.3
Northern Trust Russell 1000 Fund	\$138,105,067	\$30,438	\$0	\$0	\$0	\$30,438	1.7	0.0	0.0	0.0	1.7
PanAgora Diversified Risk Multi-Asset Fund, Ltd.	\$144,550,600	\$1,054,308	\$0	\$229,100	\$6,174	\$1,289,582	35.1	0.0	7.6	0.2	42.9
Prudential	\$51,463,037	\$496,900	\$0	\$0	\$3,607	\$500,507	72.6	0.0	0.0	0.5	73.1
AQR Capital Management	\$148,211,822	\$924,234	\$0	\$350,550	\$5,175	\$1,279,959	34.0	0.0	12.9	0.2	47.1
Greenfield Acquisition Partners VIII, L.P.	\$13,264,460	\$1,565,749	\$35,940	\$224,636	\$3,682	\$1,830,007	674.7	15.5	96.8	1.6	788.6



StanCERA Value Added Report

through

10/1/2019

12/31/2019

<u>Manager</u>	<u>Average AUM</u>	Aver	<u>age Cash Balance</u>	Ma	nager \$ Return	Manager Fees	Custodial Fees	<u>Benchmark \$ Returns</u>	Benchmark Fees*	Value Added
Dodge Cox Equity	\$ 81,858,05	7\$	3,713,768	\$	7,629,334	-\$47,940	-\$2,792	\$6,064,247	-\$5,099	\$ 1,519,453
Bernzott	\$ 11,426,53	9\$	452,772	\$	1,246,878	-\$20,966	-\$1,345	\$970,122	-\$6,832	\$ 261,277
Dimensional Fund Advisors	\$ 182,918,49	3\$	49,175,553	\$	953,017	-\$52,405	-\$2,934	\$1,429,574	-\$22,787	\$ (509 <i>,</i> 109)
LSV	\$ 261,283,00	5\$	3,851,276	\$	26,394,736	-\$166,545	-\$38,197	\$23,485,893	-\$201,801	\$ 2,905,902
Fidelity	\$ 258,188,76	5\$	1,562,830	\$	22,420,812	-\$169,401	-\$18,360	\$23,207,762	-\$199,412	\$ (775 <i>,</i> 299)
Channing	\$ 15,755,45) \$	366,356	\$	1,224,870	-\$28,747	-\$4,377	\$1,337,650	-\$9,421	\$ (136,484)
Inview	\$ 15,965,03	1\$	562,833	\$	1,308,849	-\$29,173	-\$1,308	\$1,355,444	-\$9,546	\$ (67,529)
Keeley	\$ 10,619,68	1\$	275,540	\$	799 <i>,</i> 565	-\$19,372	-\$1,250	\$901,619	-\$6,350	\$ (116 <i>,</i> 326)
Pacific Ridge	\$ 15,402,74) \$	450,685	\$	1,771,075	-\$33,955	-\$2,725	\$1,613,040	-\$9,210	\$ 130,565
Walthausen	\$ 10,538,76	3\$	421,319	\$	918,903	-\$19,284	-\$1,891	\$894,749	-\$6,302	\$ 9,281

Totals

\$ 863,956,527 \$

60,832,933 \$ 64,668,039 \$

\$ (587,788) \$ (75,179) \$

61,260,101 \$ (476,75

(476,759) \$ 3,221,731

* Benchmark fees are approximated based on a hypothetical investment in a passive fund/ETF



Cash Flow Report

July 2019 through Dec 2019

Beginning Cash Balance*	\$13,742,724
Cash Flow In	
Cash Draw From Managers	\$13,661,384
Employer Contributions	\$49,962,893
Employee Contributions	\$15,472,865
Employee Redeposits	\$221,764
Rental Income	\$60,039
Commission Recapture	\$3,011
Litigation Recovery	\$982
W/O Cancelled checks	\$10,215
Total Cash Flow In	\$79,393,153
Cash Flow Out	
Retiree Payroll	\$67,227,728
StanCERA Payroll	\$883,336
StanCERA Operations Expense	\$412,311
Tyler Maintenance	\$26,638
Fixed Asset Purchases	\$610,066
Refunds	\$768,669
Death Benefits - Salary Based	\$69,767
Burial Allowance	\$95,000
Investment Consulting Fees	\$255,256
Actuarial Fees	\$75,992
Custodial Fees	\$493,916
Audit Fees	\$31,500
Legal Fees	\$256,792
Total Cash Flow Out	\$71,206,971
Ending Cash Balance	\$21,928,906
Change in Cash Balance	\$8,186,182



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April 28, 2020

Retirement Board Agenda Item

TO: Retirement Board

FROM: Lisa Frazer, Member and Employer Services Manager

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

Assembly Bill 2937, Fong. Nonservice-Connected Disability.

Status: March 4, 2020: Referred to Committee on Public Employment and Retirement. This bill would authorize a County Board of Supervisors to adopt a resolution that would remove the intemperate use of alcoholic liquor or drugs as a factor in the calculation of a nonservice-connected disability retirement allowance. The goal of the bill, according to the author, is to modernize the statute to reflect contemporary views of alcohol and drug addition. If viewing alcohol and drug use from a disease perspective rather than a moral failure, the benefit limitation therefore would be discriminatory and financially punitive for that member.

Coronavirus Aid, Relief, and Economic Security Act (CARES Act)

Status: Enacted March 27, 2020

There is a provision in the CARES Act that applies to 1937 Act systems. A participant who meets certain conditions may receive a coronavirus-related distribution from their retirement plan of up to \$100,000 at any time in 2020. The CARES Act defines a retirement plan to include a tax-qualifed 401(a) plan, such as a '37 Act system in addition to other specified plans. These distributions are exempt from the 10% early withdrawl penalty and can be included in the participant's income tax over three years. This distribution is not subject to the mandatory 20% withholding for "eligible rollover distributions." These provisions would apply to single sum distributions made from a withdrawl of member contributions or a death benefit if the member (or beneficiary), or their spouse or dependent, was diagnosed with coronavirus, or the member (or beneficiary) suffered from adverse financial consequences due to conrona virus.

- VI. RISK: None
- VII. STRATEGIC PLAN: None
- VIII. ADMINISTRATIVE BUDGET IMPACT: None

Lisa Frazer, Member and Employer Services Manager

Rick Santos, Executive Director

UPDATED Special Report To

SACRS Legislative

Committee

COVID-19 Legislative and Regulatory Issues

UPDATED April 15, 2020

Judy Boyette, *Partner* jboyette@hansonbridgett.com (415) 995-5115

Liz Masson, *Partner* Imasson@hansonbridgett.com (415) 995-5106

Erica Russell, *Attorney* erussell@hansonbridgett.com (415) 995-5895 The information in this report is intended to provide legal support to the Legislative Committee of the State Association of County Retirement Systems (SACRS) in its role as the Committee reviewing tax compliance issues for its membership. The Legislative Committee is tasked with monitoring tax compliance issues, making recommendations with respect to amending the County Employees' Retirement Law of 1937 (the '37 Act), or new model tax compliance regulations for SACRS member organizations.

This is an UPDATED Special Report covering recent developments related to the COVID-19 emergency pandemic as of April 15, 2020.

UPDATED Summary of FFCRA and the CARES Act for '37 Act Retirement Systems

The Families First Coronavirus Response Act (the "FFCRA") was enacted on March 18, 2020, and provides relief to individuals and businesses related to paid sick leave and extended family and medical leave, and provides expanded health services and unemployment assistance, related to the COVID-19 pandemic.

The Coronavirus Aid, Relief, and Economic Security Act (the "CARES Act") was enacted on March 27, 2020 and provides relief to individuals and businesses that have been negatively impacted by the COVID-19 pandemic.

CARES ACT PROVISIONS APPLICABLE TO '37 ACT SYSTEMS

We have determined that the CARES Act provisions related to coronavirus-related plan distributions apply to governmental tax-qualified defined benefit retirement systems, like the '37 Act systems, as described below.

Under the CARES Act, a participant who meets certain conditions can receive a coronavirusrelated distribution from their retirement plans of up to \$100,000 any time in 2020. For this purpose, the CARES Act defines a retirement plan to include a tax-qualified 401(a) plan, such as a '37 Act system, in addition to 401(k) plans, 403(b) plans and governmental 457(b) plans. These distributions are exempt from the 10% early withdrawal penalty, can be included in the participant's income tax over three years, and are not subject to the mandatory 20% withholding for "eligible rollover distributions." We believe that these provisions of the CARES Act would apply to single sum distributions made from the '37 Act systems on account of a withdrawal of member contributions or a death benefit if the member (or beneficiary), or their spouse or dependent, was diagnosed with coronavirus, or the member (or beneficiary) suffered from adverse financial consequences due to coronavirus.

There are two approaches that a retirement system could take with respect to dealing with potential coronavirus distributions.

First, if a retirement system wanted to make it easier for participants and beneficiaries to utilize the coronavirus-related distribution rules, the retirement system could provide a member who requests a refund of contributions (or a beneficiary who is to receive a death benefit) during 2020 with a self-certification form at the same time they are provided the required Code section 402(f) rollover notice. The self-certification form would indicate that in order for the distribution to qualify as a coronavirus-related distribution, the member (or beneficiary) must certify that either:

- the member (or beneficiary), or their spouse or dependent, was diagnosed with COVID-19 by a test approved by the Centers for Disease Control and Prevention (CDC), or
- the member (or beneficiary) is experiencing adverse financial consequences related to COVID-19 as a result of: being quarantined; being furloughed, laid off, or having reduced work hours; being unable to work due to lack of child care; closing or

reducing hours of a business owned or operated by the member (or beneficiary); or other factors as determined by the Secretary of the Treasury.

The CARES Act provides that plan administrators, like the '37 Act systems, can rely on a member's (or beneficiary's) self-certification that he or she meets the conditions for a coronavirus-related distribution. The member (or beneficiary) would also need to certify that the aggregate amount of coronavirus-related distributions received by the member (or beneficiary) from all plans maintained by a participating employer in the system will not exceed \$100,000.

If the '37 Act system received a properly completed self-certification form back from the member (or beneficiary) then the system would not withhold the required 20% tax withholding that would normally apply to these single sum distributions, which are otherwise treated as rollover eligible distributions.

While the CARES Act also provides that coronavirus-related distributions may be repaid to the plan within three years, this requirement only applies to plans that allow rollovers into the plan. It is our understanding that the '37 Act systems do not allow rollovers into the plans (although plan-to-plan transfers may be allowed for service credit purchases).

Alternatively, a '37 Act system may choose not to facilitate the treatment of single sum distributions as coronavirus-related distributions. In that case, we believe that individuals who would otherwise qualify to treat the distributions as coronavirus-related distributions may still do so on their own tax returns, and presumably receive a refund or an offset against taxes owed for the 20% required withholding on the refund of contributions or death benefit payment that would have been submitted to the IRS on their behalf by the '37 Act system.

Since the only types of distributions from '37 Act systems that would be eligible for treatment as coronavirus distributions are already allowable distributions under the '37 Act, we do not believe that a system would need to amend any regulations or that the '37 Act would need to be amended in order for members or beneficiaries who qualify to utilize this provision of the CARES Act. In any event, governmental plans have until the end of the 2024 plan year to amend their plans.

OTHER FFCRA AND CARES ACT PROVISIONS THAT MAY BE OF INTEREST BUT DO NOT DIRECTLY IMPACT '37 ACT SYSTEMS

Other than the coronavirus-related distribution provisions discussed above, the FFCRA and the CARES Act do not include any other provisions that impact governmental tax-qualified defined benefit retirement systems, like the '37 Act systems. However, certain provisions may impact those systems that are separate Special Districts and thus are "employers" for purposes of some of the new requirements. These laws also may affect benefits available to employees working for the system and members of the system. In addition, for those systems that also offer health benefits to retirees, there are provisions that will impact those benefits. So that you are aware of the most up to date information, we have included below brief summaries of helpful information, along with the links to postings on our website where you can find detailed information on COVID-19 related benefits issues. We are making every effort to keep the information on our website updated for legislation and regulatory developments as they happen.

New Paid Sick Leave and Extended Family Medical Leave

Under the FFCRA, certain employers, <u>including all governmental employers</u>, must provide expanded paid leave under the Family and Medical Leave Act (FMLA) and paid sick leave to employees in circumstances related to the COVID-19 emergency. Both new paid leave requirements are effective as of April 1, 2020, and are scheduled to expire on December 31, 2020. For more information about the new paid leave requirements, see our <u>article</u> published on March 19, 2020. Governmental employers are not eligible for the tax credits provided under the FFCRA.

In addition, because the FFCRA also provides that any required emergency paid sick and expanded FMLA leave is not wages for FICA purposes, governmental employers who provide voluntary Social Security coverage (or to the extent Social Security coverage is mandatory for certain employees) will be relieved of withholding FICA and paying the employer portion of FICA for any required emergency leave payments.

Deferral of FICA Taxes

The CARES Act allows employers (including governmental employers who pay employer FICA tax) to defer payment of the employer share of the 6.2% Social Security payroll tax otherwise due on employee wages for the period from March 27, 2020 through December 31, 2020. The employer may extend payment of the employment taxes owed for such period over the following two years, with half paid by December 31, 2021 and half paid by December 31, 2022.

Questions and Answers Related to COVID-19 Health Plan and Cafeteria (Code Section 125) Plan Issues

As a growing number of the workforce is being affected by the COVID-19 pandemic, employers are raising benefits questions, particularly with respect to group health plans. Our most recent update to Frequently Asked Questions related to group health plans and cafeteria plan coverage was issued on March 30, 2020. Of course, each County's or System's particular benefit plan provisions may impact the answer to some of these questions. Please feel free to reach out to your tax counsel or your contact in the Employee Benefits Group at Hanson Bridgett if you have specific questions about health benefits issues.

Information Regarding Economic Assistance for Employees (Including Defined Contribution Plan Changes for COVID-19 Relief)

The FFCRA and the CARES Act have included a number of provisions intended to provide for Coronavirus-related plan distribution and loan enhancements and waiver of required minimum distributions for defined contribution plans, but not for defined benefit plans. Governmental employers, like other employers, may wish to explore new options for qualified disaster relief payments, donated leave programs, Internal Revenue Code section 139 payments, and new ability to provide student loan assistance. Our March 30, 2020 article provides the most up to date information about economic assistance that may be available for your members or for employees of a '37 Act System that is a special district.

The CARES Act also provides for enhanced unemployment benefits for workers affected by the COVID-19 pandemic. See our article published on March 30, 2020 for more information.

Information Regarding Other Relief for Employers

Both the FFCRA and the CARES Act include tax credits and the CARES Act includes a forgivable loan that may be useful to private sector employers to maintain workers on their payroll. See our March 25, 2020 article, our March 27, 2020 article and our March 30, 2020 article for more information. These tax credits and the forgivable loans are not available to governmental employers.

Information Applicable Only to California Governmental Employers

We also have published a series of Questions and Answers directly related to issues for California governmental employers. You can find information about the treatment of rehired retirees and the break in service rules under the Governor's Executive Order N-25-20 in that article. We are updating these questions and answers for any new developments related to the COVID-19 emergency, so you may wish to check this information periodically.

Other Questions

If you have questions that we have not answered, please feel free to reach out to your contact in the Employee Benefits Group at Hanson Bridgett.

We invite you to visit Hanson Bridgett's Coronavirus (COVID-19) Resource Center – an online toolkit intended to help our clients confront and address legal issues arising from the ongoing COVID-19 pandemic, including a series of targeted alerts being updated on a daily basis. Hanson Bridgett has assembled a multidisciplinary response team available to help our clients navigate the myriad unique issues presented by the developing worldwide pandemic. As you might expect, our Employee Benefits Group have been heavily involved in producing this emerging information. There are also articles addressing issues for California public agencies that our firm published on March 13th, March 20th, and March 30th. You may sign up to receive notifications by email when new content is added to our COVID-19 Resource Center: <u>Subscribe</u> Here »



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April 28, 2020

Retirement Board Agenda Item

- TO: Retirement Board
- FROM: Rick Santos, Executive Director
 - I. SUBJECT: 2020 Executive Director Goals Update Quarter 1
 - II. ITEM NUMBER: 6.g
- III. ITEM TYPE: Information Only
- IV. STAFF RECOMMENDATION: None
- V. ANALYSIS: This is the Quarter 1 Executive Director goals update for 2020 (attachment 1). A large amount of work has already been completed on Strategic Objectives 1 and 2. These items are related to succession planning and the ITS project. Staff is pleased to report out that our data clean-up project has hit the 75% completion mark, well within our original goal at this time.

Staff has kept up on on-going general administrative tasks with one exception. Currently, there are 19 outstanding disability cases. This is the highest the number has been over the past 8 years and staff is currently looking into the bottleneck.

In general, progress made this year with regard to the Strategic Plan is considerable and as of today, staff feels that there should be no major impediments that would prevent us from completing our goals for 2020.

- VI. RISK: NONE
- VII. STRATEGIC PLAN: N/A
- VIII. ADMINISTRATIVE BUDGET IMPACT: NONE

Rick Santos, Executive Director



Executive Director Goals Q1 2020 Update

(Attachment 1)

General and/or Ongoing Items

- 1. Continued communication, outreach and transparency with major stakeholders such as County, County BOS, Local Governments, Special Districts and Employee Groups
 - > Staff meetings with all plan sponsors on a regular basis regarding ITS Project
 - Numerous broadcasting to retiree groups and all members through regular mail and email
 - Constant communication with County staff on current COVID issues
- 2. Maintenance of StanCERA's asset allocation targets
 - Targets being monitored on a daily basis and allocations being maintained within targets
- 3. Continued progress on the System data clean-up project
 - > Data clean up continuing using part-time staff
- 4. Director Professional Development
- 5. Facilitate RFP for General Investment Consultant
 - > RFP timeline extended one month
 - > RFP process expected to be completed by June/July
- 6. Oversee Information Technology Solutions Project
 - Project "go-live" date has been indefinitely pushed out
 - StanCERA, Linea and Tegrit staff still operating within the current "go-live" schedule
 - > Delay in "go-live" due to the lack of clarity in staff's ability to train Plan Sponsors
- 7. Oversee and completion of day to day administrative functions
 - All normal administrative functions completed on time; Disability backlog at 18 (note staff is currently looking into the backlog)
- 8. Biennial By-Law Review
 - Education Policy review complete
 - Staff review of policies needing changes
- 9. Completion of asset liability review
 - > Staff working with Investment Consultant on updating of Investment beliefs
 - Board education sessions on asset class
 - Note: given the current state of affairs, the actual asset allocation decision will most likely be delayed until late summer



Items Tied to the Strategic Plan

Strategic Objective #1

Develop an Organizational Structure reflective of our operational capabilities and succession planning needs

Strategic Plan Objective #1, Deliverables

- 1. Present the new Organizational Structure to StanCERA staff
 - Complete (Q1)
- 2. Evaluate job descriptions of StanCERA positions to ensure they are still relevant and upholding the Mission, Vision and business practices and processes of the Organization by Fiscal Services and Member and Employer Services Manager
 - Complete (Q1)
- 3. Develop the Job Description for the Organizational Support Manager position by StanCERA leadership
- 4. Evaluate StanCERA's internal operational needs as it supports the new Organizational Structure by StanCERA leadership
 - ✓ Define workflow processes in the new Pension Administration System that promote teamworking styles and mentorship
 - > In progress; staff has been developing work-flow processes (Q1)
- 5. Phased implementation of the new Organizational Structure by StanCERA leadership
 - ✓ Soft implementation by summer 2020
 - Team concept initiated and working in limited circumstances, however, due to current issues, the implementation phase is being delayed (Q1)
 - ✓ Complete implementation by end of 2020

Strategic Objective #2

Successful implementation/completion of the Pension Administration System (PAS)

Strategic Plan Objective #2, Deliverables

- 1. Integrate staff into all aspects of the PAS. Create an atmosphere of "ownership" of the project by employees
 - Maintain an internal PAS project manager position with at least 75% of the position's time spent on the project
 - StanCERA staff member dedicated 100% to project. Anticipate that this assignment will last through 2020 (Q1)
 - ✓ Create and implement a process whereby all line employees participate (within their relevant program area) in documenting current processes, assist in the



creation of new processes, test system functionality and ultimately be required to sign off on releases of the new system functionality

- Processes implemented as designed (Q1)
- Require at least one StanCERA manager participate in all process workflow development meetings
 - Currently, StanCERA has at least one program area specialist participate in workflow development sessions (Q1)
 - > At least one management staff participating in sessions (Q1)
- Require staff redundancy (more than 1) in all phases of the documentation and development of system functionality
 - Currently at least one StanCERA staff participating in system development (Q1)
 - Currently at least one StanCERA manager participating in system development (Q1)
 - Project also employing at least one external consultant participating in system development (Q1)
- 2. Develop and instill trust in the PAS so that Organizational "buyoff" of the system is achieved, thereby maximizing the potential efficiencies the System can offer
 - Maximize the number of test cases that are performed and analyzed regarding benefit estimation and calculation
 - ✓ Parallel test the Arrivos System (PAS) with the Tyler System (StanCERA's current system) for at least 2 weeks after "go live"
 - ✓ Staff training with live demos, data and actual cases/scenarios prior to "go live"
 - Two staff training sessions completed using actual data and work flow cases (Q1)
 - Project management currently developing "webinars" dedicated to staff training offsite (Q1)
 - Management to maintain a high degree of transparency amongst staff regarding all aspects of the project
 - > All staff are updated regularly on project issues and deadlines (Q1)
 - Maintain communication and encourage involvement by the Steering Committee and the Board regarding new functionality and business process changes inherent in the PAS
 - Monthly Steering Committee meetings (Q1)
 - Steering Committee kept informed on all ITS issues (Q1)
 - ✓ Create and maintain a Committee of no less than 2 trustees to oversee the electronic integration of customer service opportunities into the PAS
 - Committee created; 2 meetings held (Q1)
- 3. Strive to unlock the full value inherent in the PAS for both internal and external constituents
 - ✓ 65-70% of all data audits complete by "go live"
 - > 75% complete as of April 6, 2020. Item complete (Q1)
 - ✓ 85% of all data audits complete by end of 2020



- Creation of short online webinars members can use to understand their retirement benefits
- Revamp/revise the way information is dispensed to members at the Pre-Retirement Seminars. Consider more personalized (and less general) information and integrate the capabilities of the PAS at seminars
- ✓ Consider mid-career retirement seminars

Strategic Objective # 3

Development and implementation of a formalized succession plan for StanCERA

Strategic Plan Objective #3 Deliverables

- 1. Documentation of all StanCERA business processes and policies
 - ✓ Build training guidelines for each role that supports the Organizational Structure's natural progression
 - ✓ Research and source an appropriate knowledge management system meant to house the documentation of StanCERA's business processes and policies (this task is assigned within Strategic Objective #5)
 - Currently in progress

Strategic Objective #4

Development of a formalized Operational Risk Management Plan

Strategic Plan Objective #4 Deliverables

- 1. Reach out to other pension systems to gain further understanding of the requirements of an Operational Risk Management Plan
 - Complete (Q1)
- 2. Define StanCERA's operational objectives and objectives for each of the strategies within the strategic plan
- 3. Identify the risks within the Organization and determine the type of risk, the level of risk, cause of risk effect of the risk and the controls in place regarding the risk

Strategic Objective # 5

Process documentation and standardization of the Investment Governance Process

Strategic Plan Objective #5 Deliverables

- 1. Develop and maintain a comprehensive list of critical investment governance processes
 - \checkmark Identify and categorize tasks that require documentation
 - Complete (Q1)
 - ✓ Create a master calendar for investment governance
- 2. Research and source an appropriate knowledge management system



- ✓ Determine the design and scope of the desired system
 - Currently in progress
- Identify and select a system that provides the required functionality while also remaining compatible with the Organization's existing systems and resource constraints
- 3. Standardize the documentation process
 - ✓ Research methods to capture implicit knowledge in the documentation process
 - ✓ Create a procedure template appropriate for investment governance tasks



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April 28, 2020

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.k
- III. ITEM TYPE: Information Only
- IV. STAFF RECOMMENDATION: None
- V. ANALYSIS: The Pension Administration System (PAS) Project continues to forge ahead. The testing and sign-off of have been completed on the following processes: Lump Sum Payroll Process, Actuarial Extract, General Ledger Integration Employer Reporting, General Ledger Integration Lump Sum Payroll, Buyback Complete Workflow and Over-The-Counter Payment Workflow. Staff is currently reviewing two (2) Business and Systems Requirement Documents (BSRD's) for the General Ledger Integration Service Purchases and Employment Wages. Internal testing of the system and data conversion clean up is ongoing.

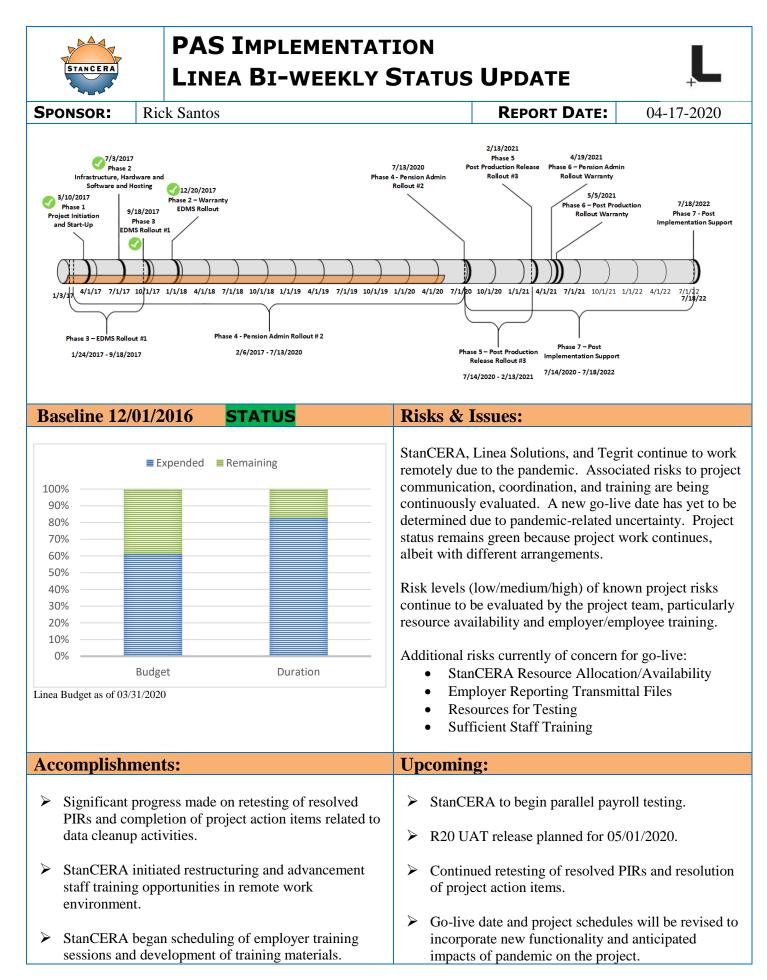
We have scheduled meetings with the County, Superior Courts, City of Ceres, and STanCOG during the month of May in order to train their staff on the employer reporting features of the PAS. These trainings will be conducted via teleconference.

- VI. RISK: None
- VII. STRATEGIC PLAN: Strategic Objective II: Successful implementation/completion of the Pension Administration System (PAS).
- VIII. ADMINISTRATIVE BUDGET IMPACT: None

Jamie/Borba, Member and Employer Services Specialist

Lisa Frazer, Member and Employer Services Manager

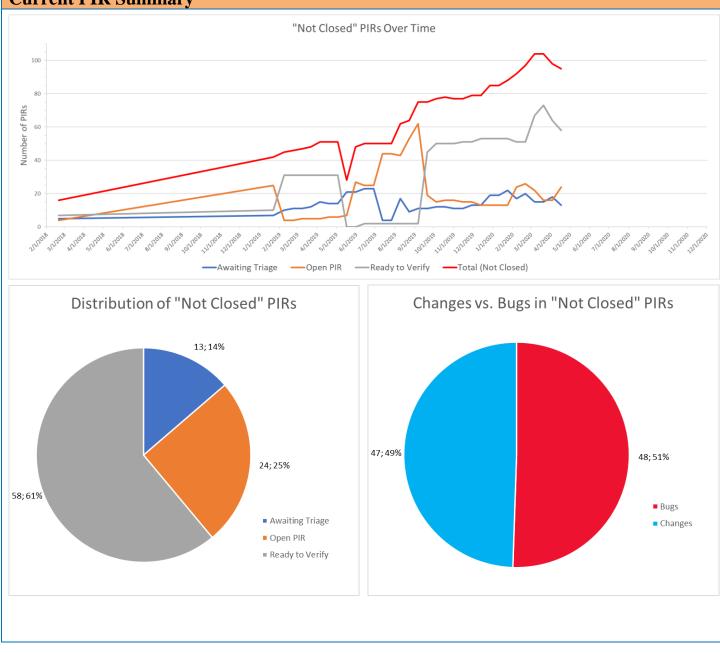
Rick Santos, Executive Director



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.
- **Current PIR Summary**

- Review and hold group review sessions for BSRD deliverables made by Tegrit (BSR013, BSR016, BSR047, BSR070).
- 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.



Period	Ending:	February	29,	2020
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	Market Value	% of Portfolio	1 Mo	YTD	Fiscal YTD
Total Fund	2,195,372,211	100.0	-4.2	-4.6	1.0
Policy Index			-4.1	-4.5	1.0
Liquidity Sub-Portfolio	246,324,392	11.2	0.9	2.2	4.7
StanCERA Liquidity Blended BM			0.8	1.3	2.6
Cash	29,241,062	1.3	0.1	0.3	1.3
FTSE T-Bill 1 Month TR			0.1	0.3	1.2
Short-Term Gov't/Credit	217,083,330	9.9	1.0	2.4	5.2
BBgBarc US Govt/Credit 1-3 Yr. TR			0.8	1.4	2.7
Insight	217,083,330	9.9	1.0	2.4	5.2
BBgBarc US Govt/Credit 1-3 Yr. TR			0.8	1.4	2.7
Growth Sub-Portfolio	1,696,698,547	77.3	-5.6	-6.5	0.1
StanCERA Growth Blended BM			-5.5	-6.4	0.2
Public Equities	385,751,222	17.6	-8.2	-9.2	-0.1
MSCI ACWI IMI NR			-8.2	-9.4	-1.4
US Large	313,759,346	14.3	-8.0	-8.2	1.9
Russell 1000			-8.2	-8.1	1.7
BlackRock Russell 1000 Growth	163,239,785	7.4	-6.8	-4.7	7.0
Russell 1000 Growth			-6.8	-4.7	7.0
BlackRock Russell 1000 Value	74,654,336	3.4	-9.7	-11.6	-3.7
Russell 1000 Value			-9.7	-11.6	-3.8
Dodge & Cox-Equity	75,865,224	3.5	-8.7	-11.6	-2.8
Russell 1000 Value			-9.7	-11.6	-3.8
US Small	71,991,877	3.3	-9.5	-13.7	-7.9
Russell 2000			-8.4	-11.4	-4.9
Capital Prospects	71,991,877	3.3	-9.5	-13.7	-7.9
Russell 2000 Value			-9.7	-14.6	-7.9
Private Equity Proxy	133,664,713	6.1	-8.2	-8.3	1.2
Russell 3000 +3%			-7.5	-7.5	4.0
Northern Trust Russell 3000	133,664,713	6.1	-8.2	-8.3	1.2
Russell 3000			-8.2	-8.3	1.2

	Current			0/
	ounon	%	Policy	%
Liquidity Sub-Portfolio	\$246,324,392	11.2%	\$263,444,665	12.0%
Cash	\$29,241,062	1.3%	\$21,953,722	1.0%
Short-Term Gov't/Credit	\$217,083,330	9.9%	\$241,490,943	11.0%
Growth Sub-Portfolio	\$1,696,698,547	77.3%	\$1,690,436,603	77.0%
US Large	\$313,759,346	14.3%	\$307,352,110	14.0%
US Small	\$71,991,877	3.3%	\$65,861,166	3.0%
Private Equity Proxy	\$133,664,713	6.1%	\$131,722,333	6.0%
Int'l Developed	\$483,519,925	22.0%	\$504,935,609	23.0%
Core Real Estate	\$145,055,440	6.6%	\$109,768,611	5.0%
Value Add Real Estate	\$89,896,378	4.1%	\$109,768,611	5.0%
Risk Parity	\$319,840,830	14.6%	\$285,398,387	13.0%
Infrastructure	\$40,196,420	1.8%	\$43,907,444	2.0%
Private Credit	\$98,773,619	4.5%	\$131,722,333	6.0%
Risk-Diversifying Sub- Portfolio	\$252,349,272	11.5%	\$241,490,943	11.0%
US Treasury	\$67,371,439	3.1%	\$65,861,166	3.0%
Short Term Gov't/Credit	\$184,977,833	8.4%	\$175,629,777	8.0%
Total	\$2,195,372,211	100.0%	\$2,195,372,211	100.0%









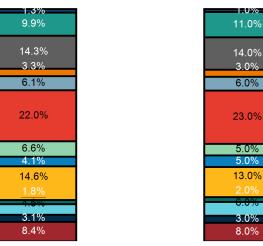
Period Ending: February 29, 2020

	Market Value	% of Portfolio	1 Mo	YTD	Fiscal YTD	
Int'I Developed	483,519,925	22.0	-8.2	-11.0	-4.0	
MSCI ACWI ex USA			-7.9	-10.4	-4.1	
LSV Asset Mgt	240,109,497	10.9	-8.8	-12.4	-4.3	
MSCI ACWI ex USA			-7.9	-10.4	-4.1	
Fidelity	243,410,428	11.1	-7.6	-9.6	-3.7	
MSCI ACWI ex USA			-7.9	-10.4	-4.1	
Core Real Estate	145,055,440	6.6	-1.8	-1.7	1.9	
NCREIF Property Index			N/A	N/A	3.0	
Prime Property Fund	58,942,128	2.7	N/A	N/A	3.0	
NCREIF-ODCE			N/A	N/A	2.8	
BlackRock US Real Estate	28,379,864	1.3	-8.4	-8.1	-3.0	
DJ US Select RESI TR USD			-8.4	-8.0	-3.0	
PGIM Real Estate US Debt Fund	57,733,448	2.6	N/A	N/A	2.9	
BBgBarc CMBS IG TR USD			1.9	4.4	6.0	
Value Add Real Estate	89,896,378	4.1	N/A	N/A	5.0	
NCREIF Property Index +2%			N/A	N/A	4.3	
American Strategic Value Realty	60,616,097	2.8	N/A	N/A	4.3	
NCREIF Property Index			N/A	N/A	3.0	
Greenfield Gap VII	9,986,855	0.5	N/A	N/A	10.6	
NCREIF ODCE + 1%			N/A	N/A	3.5	
Greenfield Gap VIII	19,293,426	0.9	N/A	N/A	3.9	
NCREIF ODCE + 1%			N/A	N/A	3.5	
Risk Parity	319,840,830	14.6	-2.4	-1.3	3.3	
60% MSCI ACWI Net/40% BBgBarc Global Aggregate			-4.6	-4.7	0.8	
AQR Global Risk Premium - EL	161,123,180	7.3	-2.5	-1.9	3.4	
60% MSCI ACWI Net/40% BBgBarc Global Aggregate			-4.6	-4.7	0.8	
PanAgora Risk Parity Multi Asset	158,717,650	7.2	-2.2	-0.7	3.2	
60% MSCI ACWI Net/40% BBgBarc Global Aggregate			-4.6	-4.7	0.8	

	Current	%	Policy	%
Liquidity Sub-Portfolio	\$246,324,392	11.2%	\$263,444,665	12.0%
Cash	\$29,241,062	1.3%	\$21,953,722	1.0%
Short-Term Gov't/Credit	\$217,083,330	9.9%	\$241,490,943	11.0%
Growth Sub-Portfolio	\$1,696,698,547	77.3%	\$1,690,436,603	77.0%
US Large	\$313,759,346	14.3%	\$307,352,110	14.0%
US Small	\$71,991,877	3.3%	\$65,861,166	3.0%
Private Equity Proxy	\$133,664,713	6.1%	\$131,722,333	6.0%
Int'l Developed	\$483,519,925	22.0%	\$504,935,609	23.0%
Core Real Estate	\$145,055,440	6.6%	\$109,768,611	5.0%
Value Add Real Estate	\$89,896,378	4.1%	\$109,768,611	5.0%
Risk Parity	\$319,840,830	14.6%	\$285,398,387	13.0%
Infrastructure	\$40,196,420	1.8%	\$43,907,444	2.0%
Private Credit	\$98,773,619	4.5%	\$131,722,333	6.0%
Risk-Diversifying Sub- Portfolio	\$252,349,272	11.5%	\$241,490,943	11.0%
US Treasury	\$67,371,439	3.1%	\$65,861,166	3.0%
Short Term Gov't/Credit	\$184,977,833	8.4%	\$175,629,777	8.0%
Total	\$2,195,372,211	100.0%	\$2,195,372,211	100.0%









Period Ending: February 29, 2020

	Market Value	% of Portfolio	1 Mo	YTD	Fiscal YTD
Infrastructure	40,196,420	1.8	N/A	N/A	5.3
CPI + 5%			0.7	1.5	4.3
MS Infrastructure Partners II	40,196,420	1.8	N/A	N/A	5.3
CPI + 5%			0.7	1.5	4.0
Private Credit	98,773,619	4.5	N/A	0.5	1.8
S&P/LSTA Leveraged Loan Index+2%			-1.2	-0.4	3.3
Medley Capital	10,505,757	0.5	N/A	N/A	-10.9
S&P/LSTA Leveraged Loan Index+2%			-1.2	-0.4	3.3
Owl Rock First Lien Fund	4,019,972	0.2	N/A	-0.1	
S&P/LSTA Leveraged Loan Index+2%			-1.2	-0.4	
Raven Capital	14,330,002	0.7	N/A	N/A	3.3
S&P/LSTA Leveraged Loan Index+2%			-1.2	-0.4	3.3
Raven Opportunity III	43,237,934	2.0	N/A	N/A	3.3
S&P/LSTA Leveraged Loan Index+2%			-1.2	-0.4	3.3
White Oak Pinnacle	26,679,955	1.2	N/A	1.9	5.7
S&P/LSTA Leveraged Loan Index+2%			-1.2	-0.4	3.3
Risk-Diversifying Sub-Portfolio	252,349,272	11.5	1.1	2.2	3.9
StanCERA Risk-Diversifying Blended BM			1.5	2.8	4.1
US Treasury	67,371,439	3.1	3.0	6.0	7.9
BBgBarc US Treasury 7-10 Yr TR			3.2	6.5	8.0
Northern Trust Intermediate Gov't Bond	47,899,102	2.2	1.6	3.1	4.3
BBgBarc US Govt Int TR			1.6	3.1	4.3
Northern Trust Long Term Gov't Bond	19,472,337	0.9	6.6	13.9	17.9
BBgBarc US Govt Long TR			6.6	13.9	17.8
Short-Term Gov't/Credit	184,977,833	8.4	0.4	0.8	2.4
BBgBarc US Govt/Credit 1-3 Yr. TR			0.8	1.4	2.7
DFA	184,977,833	8.4	0.4	0.8	2.5
BBgBarc US Govt/Credit 1-3 Yr. TR			0.8	1.4	2.7

	Current	%	Policy	%
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Short Term Gov't/Credit	\$184,977,833	8.4%	\$175,629,777	8.0%
Total	\$2,195,372,211	100.0%	\$2,195,372,211	100.0%

Current

Policy





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.



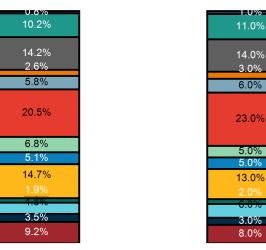
Period Ending: March 31, 2020

	Market Value	% of Portfolio	1 Mo	YTD	Fiscal YTD	
Total Fund	1,985,617,723	100.0	-9.3	-13.4	-8.3	
Policy Index			-8.3	-12.4	-7.4	
Liquidity Sub-Portfolio	217,946,339	11.0	-4.5	-2.4	0.1	
StanCERA Liquidity Blended BM			0.3	1.6	2.9	
Cash	15,074,021	0.8	0.2	0.4	1.5	
FTSE T-Bill 1 Month TR			0.1	0.4	1.4	
Short-Term Gov't/Credit	202,872,317	10.2	-5.0	-2.7	-0.1	
BBgBarc US Govt/Credit 1-3 Yr. TR			0.3	1.7	3.0	
Insight	202,872,317	10.2	-5.0	-2.7	-0.1	
BBgBarc US Govt/Credit 1-3 Yr. TR			0.3	1.7	3.0	
Growth Sub-Portfolio	1,515,339,166	76.3	-11.3	-17.0	-11.2	
StanCERA Growth Blended BM			-10.1	-15.8	-9.9	
Public Equities	333,042,135	16.8	-16.5	-24.3	-16.6	
MSCI ACWI IMI NR			-14.4	-22.4	-15.6	
US Large	281,086,379	14.2	-14.0	-21.0	-12.3	
Russell 1000			-13.2	-20.2	-11.8	_
BlackRock Russell 1000 Growth	147,201,980	7.4	-9.8	-14.1	-3.6	
Russell 1000 Growth			-9.8	-14.1	-3.6	
BlackRock Russell 1000 Value	67,281,388	3.4	-17.0	-26.6	-20.1	
Russell 1000 Value			-17.1	-26.7	-20.2	
Dodge & Cox-Equity	66,603,012	3.4	-19.7	-29.1	-22.0	
Russell 1000 Value			-17.1	-26.7	-20.2	
US Small	51,955,756	2.6	-27.9	-37.8	-33.5	
Russell 2000			-21.7	-30.6	-25.5	
Capital Prospects	51,955,756	2.6	-27.9	-37.8	-33.5	
Russell 2000 Value			-24.7	-35.7	-30.6	
Private Equity Proxy	115,300,878	5.8	-13.7	-20.9	-12.7	
Russell 3000 +3%			-13.3	-19.7	-9.8	
Northern Trust Russell 3000	115,300,878	5.8	-13.7	-20.9	-12.7	
Russell 3000			-13.8	-20.9	-12.7	

	Current	%	Policy	%
Liquidity Sub-Portfolio	\$217,946,339	11.0%	\$238,274,127	12.0%
Cash	\$15,074,021	0.8%	\$19,856,177	1.0%
Short-Term Gov't/Credit	\$202,872,317	10.2%	\$218,417,950	11.0%
Growth Sub-Portfolio	\$1,515,339,166	76.3%	\$1,528,925,647	77.0%
US Large	\$281,086,379	14.2%	\$277,986,481	14.0%
US Small	\$51,955,756	2.6%	\$59,568,532	3.0%
Private Equity Proxy	\$115,300,878	5.8%	\$119,137,063	6.0%
Int'l Developed	\$406,215,177	20.5%	\$456,692,076	23.0%
Core Real Estate	\$134,066,213	6.8%	\$99,280,886	5.0%
Value Add Real Estate	\$101,285,755	5.1%	\$99,280,886	5.0%
Risk Parity	\$292,272,805	14.7%	\$258,130,304	13.0%
Infrastructure	\$38,711,962	1.9%	\$39,712,354	2.0%
Private Credit	\$94,444,241	4.8%	\$119,137,063	6.0%
Risk-Diversifying Sub- Portfolio	\$252,332,218	12.7%	\$218,417,950	11.0%
US Treasury	\$69,706,578	3.5%	\$59,568,532	3.0%
Short Term Gov't/Credit	\$182,625,640	9.2%	\$158,849,418	8.0%
Total	\$1,985,617,723	100.0%	\$1,985,617,723	100.0%

Current







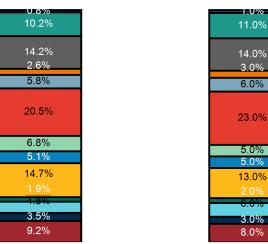
Period Ending: March 31, 2020

	Market Value	% of Portfolio	1 Mo	YTD	Fiscal YTD
Int'I Developed	406,215,177	20.5	-16.0	-25.2	-19.3
MSCI ACWI ex USA			-14.5	-23.4	-18.0
LSV Asset Mgt	198,671,008	10.0	-17.3	-27.5	-20.8
MSCI ACWI ex USA			-14.5	-23.4	-18.0
Fidelity	207,544,170	10.5	-14.8	-22.9	-17.9
MSCI ACWI ex USA			-14.5	-23.4	-18.0
Core Real Estate	134,066,213	6.8	-3.5	-5.1	-1.7
Prime Property Fund	59,298,963	3.0	0.6	0.6	3.6
NCREIF-ODCE			1.0	1.0	3.8
BlackRock US Real Estate	16,422,629	0.8	-22.3	-28.5	-24.6
DJ US Select RESI TR USD			-22.3	-28.5	-24.6
PGIM Real Estate US Debt Fund	58,344,620	2.9	1.1	1.1	4.0
BBgBarc CMBS IG TR USD			-3.7	0.5	2.1
Value Add Real Estate	101,285,755	5.1	N/A	4.8	10.0
NCREIF Property Index +2%			0.2	0.5	4.5
American Strategic Value Realty	67,630,097	3.4	N/A	N/A	4.3
NCREIF Property Index			N/A	N/A	3.0
Greenfield Gap VII	10,698,152	0.5	N/A	7.0	18.4
NCREIF ODCE + 1%			1.1	1.2	4.6
Greenfield Gap VIII	22,957,506	1.2	N/A	18.1	22.6
NCREIF ODCE + 1%			1.1	1.2	4.6
Risk Parity	292,272,805	14.7	-8.6	-9.8	-5.6
60% MSCI ACWI Net/40% BBgBarc Global Aggregate			-9.0	-13.3	-8.2
AQR Global Risk Premium - EL	147,900,082	7.4	-8.2	-10.0	-5.1
60% MSCI ACWI Net/40% BBgBarc Global Aggregate			-9.0	-13.3	-8.2
PanAgora Risk Parity Multi Asset	144,372,723	7.3	-9.0	-9.7	-6.1
60% MSCI ACWI Net/40% BBgBarc Global Aggregate			-9.0	-13.3	-8.2

	Current	%	Policy	%
Liquidity Sub-Portfolio	\$217,946,339	11.0%	\$238,274,127	12.0%
Cash	\$15,074,021	0.8%	\$19,856,177	1.0%
Short-Term Gov't/Credit	\$202,872,317	10.2%	\$218,417,950	11.0%
Growth Sub-Portfolio	\$1,515,339,166	76.3%	\$1,528,925,647	77.0%
US Large	\$281,086,379	14.2%	\$277,986,481	14.0%
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Infrastructure	\$38,711,962	1.9%	\$39,712,354	2.0%
Private Credit	\$94,444,241	4.8%	\$119,137,063	6.0%
Risk-Diversifying Sub- Portfolio	\$252,332,218	12.7%	\$218,417,950	11.0%
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Short Term Gov't/Credit	\$182,625,640	9.2%	\$158,849,418	8.0%
Total	\$1,985,617,723	100.0%	\$1,985,617,723	100.0%

Current

Policy





Period Ending: March 31, 2020

		Market Value	% of Portfolio	1 Mo	YTD	Fiscal YTD	
	Infrastructure	38,711,962	1.9	N/A	5.3	10.9	
	CPI + 5%			0.2	1.7	4.5	
	MS Infrastructure Partners II	38,711,962	1.9	N/A	5.3	10.9	
	CPI + 5%			0.2	1.7	4.2	
	Private Credit	94,444,241	4.8	N/A	-5.0	-3.8	
	S&P/LSTA Leveraged Loan Index+2%			-12.2	-12.6	-9.3	
	Medley Capital	10,177,631	0.5	N/A	-3.1	-13.7	
	S&P/LSTA Leveraged Loan Index+2%			-12.2	-12.6	-9.3	
	Owl Rock First Lien Fund	5,019,972	0.3	N/A	-0.1		
	S&P/LSTA Leveraged Loan Index+2%			-12.2	-12.6		
	Raven Capital	7,944,078	0.4	N/A	-44.6	-42.7	
	S&P/LSTA Leveraged Loan Index+2%			-12.2	-12.6	-9.3	
	Raven Opportunity III	44,724,086	2.3	N/A	3.8	7.2	÷,
	S&P/LSTA Leveraged Loan Index+2%			-12.2	-12.6	-9.3	2
	White Oak Pinnacle	26,578,475	1.3	N/A	1.9	5.7	
	S&P/LSTA Leveraged Loan Index+2%			-12.2	-12.6	-9.3	
	Risk-Diversifying Sub-Portfolio	252,332,218	12.7	0.0	2.2	3.9	
	StanCERA Risk-Diversifying Blended BM			1.2	4.0	5.4	
	US Treasury	69,706,578	3.5	3.5	9.7	11.6	
	BBgBarc US Treasury 7-10 Yr TR			3.5	10.1	11.8	
	Northern Trust Intermediate Gov't Bond	48,940,355	2.5	2.2	5.3	6.6	
	BBgBarc US Govt Int TR			2.0	5.2	6.4	
	Northern Trust Long Term Gov't Bond	20,766,223	1.0	6.6	21.5	25.7	
	BBgBarc US Govt Long TR			5.9	20.6	24.8	
	Short-Term Gov't/Credit	182,625,640	9.2	-1.3	-0.4	1.2	
1	BBgBarc US Govt/Credit 1-3 Yr. TR			0.3	1.7	3.0	
	DFA	182,625,640	9.2	-1.3	-0.4	1.2	
	BBgBarc US Govt/Credit 1-3 Yr. TR			0.3	1.7	3.0	

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Current

Policy





Blended Benchmark Compositions

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Item 7.c

PERSPECTIVES **THAT DRIVE ENTERPRISE SUCCESS**

PERIOD ENDING: MARCH 31, 2020

Investment Performance Review for

Stanislaus County Employees' Retirement Association

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VERUSINVESTMENTS.COM

 SEATTLE
 206-622-3700

 LOS ANGELES
 300-297-1777

 SAN FRANCISCO
 415-362-3484

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Investment Performance Review	TAB II

PERSPECTIVES THAT DRIVE ENTERPRISE SUCCESS

MARCH 2020 Capital Markets Update

Verus⁷⁷

Market commentary

U.S. ECONOMICS

- Roughly 17 million people, or around 10% of the U.S. labor force filed for unemployment in the final three weeks of March, indicating the historic impact the social distancing controls have had on the U.S. labor market. Claims are expected to remain high, and many analysts believe the recent claims data have been understated due to the sheer volume of claims perhaps overwhelming processing capacity.
- The broad U-3 unemployment rate rose from 3.5% to 4.4% in the March household survey. The number of unemployed people on temporary layoff more than doubled to 1.8 million, while the number of permanent job losers increased by 177,000 to reach 1.5 million.
- The NFIB Small Business Optimism Index registered its largest ever monthly decline in March, falling from 104.5 to 96.4. Surveys showed that most employers have been negatively impacted by COVID-19 and half can survive no longer than two months under current conditions.

U.S. EQUITIES

- The S&P 500 Index declined 12.4% over the period, marking its 15th worst monthly return since 1871. Before making a partial recovery in late March, the S&P 500 Price Index hit intra-month lows of 2237 on March 23rd and was down 24.3% over the month-to-date.
- The VIX Index of implied volatility reached levels not seen since the Global Financial Crisis, and hit an intra-day closing high of 82.7 on March 16th. During the Global Financial Crisis, the VIX briefly eclipsed 100.0 intra-day but never closed at a higher level than 80.9.
- The month-end forward P/E ratio of the S&P 500 Index was 15.9x, below the 5-year average (16.7) and above the 10-year average (15.0).

U.S. FIXED INCOME

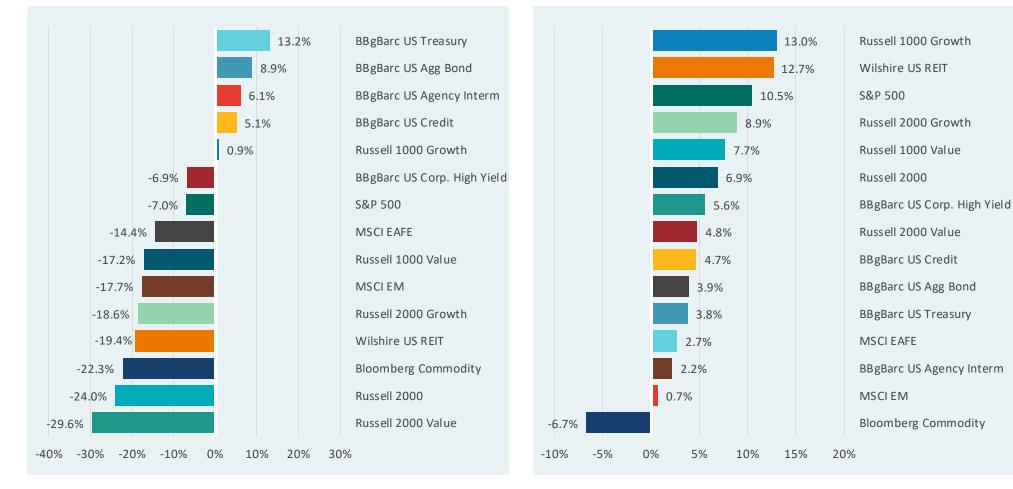
- The Federal Reserve responded quickly and forcefully to ensure the flow of credit to U.S. households and businesses. Over the course of the month, the Fed cut the range for federal funds from 1.50-1.75% to 0.00-0.25% and reintroduced several crisis-era liquidity programs from its arsenal of monetary policy tools.
- On March 15th, the Fed announced it would be buying \$700B in Treasuries and agency mortgage-backed securities. Later in the month, the Fed expanded its guidance on purchases, and pledged to buy securities "in the amounts needed to support smooth market functioning and effective transmission of monetary policy."
- U.S. Treasuries provided downside protection as yields pushed lower across the curve, and the 10-year Treasury yield fell from 1.15% to 0.67%. The Treasury curve steepened slightly as shorterterm yields fell further than yields on longer-dated Treasuries.

INTERNATIONAL MARKETS

- COVID-19 news flow gripped global markets as the epicenter of the pandemic moved from Wuhan to Italy and Spain, and then to the Eastern seaboard of the United States. The confirmed global death toll swelled from just under 3,000 to 42,107.
- Global governments raced to provide fiscal support to cushion the economic impacts of COVID-19 related disruptions. Japanese officials pledged support equal to roughly 20% of GDP, and U.S. officials passed a \$2.2 trillion package worth about 10% of GDP.
- Services purchasing managers' indices, which are less cyclical and normally stickier, plunged around the world. The J.P. Morgan Global Services PMI fell from 47.1 to 37.0 in March.

Major asset class returns

ONE YEAR ENDING MARCH



Source: Morningstar, as of 3/31/20

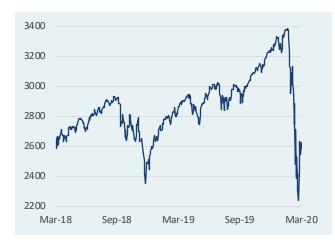
Source: Morningstar, as of 3/31/20

TEN YEARS ENDING MARCH

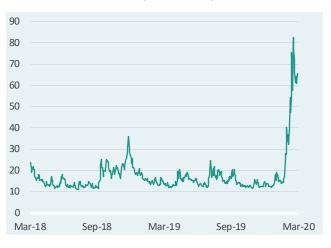
U.S. large cap equities

- The S&P 500 Index experienced a sharp decline in March and fell 12.4% over the month. Weakness was broad, and all eleven GICS sectors posted declines.
- Volatility reached historic levels over the month. The 10-day trailing annualized volatility of the S&P 500 Index rose from 27.8% to 73.5% and reached intramonth peaks of 127.3% on March 24th. Over 22 trading sessions, the average absolute value percentage move of the S&P 500 was 5.0%, and the index moved up or down by more than 7% on five separate occasions.
- The severe decline in the S&P 500 Index was exacerbated by the extraordinary demand and supply pressures faced by the Energy (-34.8%) sector. Poor performance from Financials (-21.3%) presented additional headwinds.
- According to FactSet, S&P 500 earnings are expected to decline -10.0% from the prior year in Q1 2020.
 Revenues are expected to grow +1.0% from the prior year, though revenue growth projections have fallen by 3.8% since the end of last year.

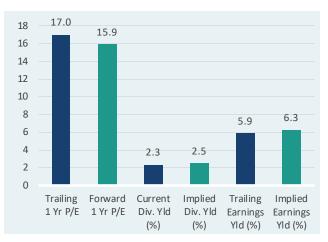
S&P 500 PRICE INDEX



IMPLIED VOLATILITY (VIX INDEX)



S&P 500 VALUATION SNAPSHOT



Source: Bloomberg, as of 3/31/20

Source: CBOE, as of 3/31/20

Source: Bloomberg, as of 3/31/20



Domestic equity size and style

- The value factor dramatically underperformed the growth factor in March. The Russell 3000 Value Index (-17.6%) underperformed the Russell 3000 Growth Index (-10.4%) by 7.2%. Over the year-to-date, the Russell 3000 Value Index has underperformed its growth counterpart by 12.5%.
- Large-cap equities proved significantly more insulated (relative to small-cap equities) from the spike in economic uncertainty generated by the COVID-19 outbreak. The Russell 1000 Index declined only -13.2% while the Russell 2000 Index lost -21.7%.
- Much of the underperformance of the value factor relative to the growth factor in March was explained by differences in sector composition across indices. Energy stocks in the S&P 500 fell -34.8% and drove the underperformance of value. Information Technology stocks in the index declined only -8.6% and helped to buoy declines in growth factor indices.
- Exposure to the momentum factor paid investors in March. The Bloomberg U.S. Pure Momentum Factor Index registered a +1.2% return for the month.

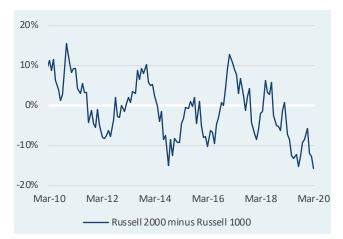


VALUE VS. GROWTH 1-YR ROLLING RELATIVE PERFORMANCE



Source: FTSE, Bloomberg, as of 3/31/20

SMALL VS. LARGE 1-YR ROLLING RELATIVE PERFORMANCE



Source: FTSE, Bloomberg, as of 3/31/20

Capital Markets Update March 2020

VALUE VS. GROWTH RELATIVE VALUATIONS

Verus⁷⁷

Source: Russell, Bloomberg, as of 3/31/20

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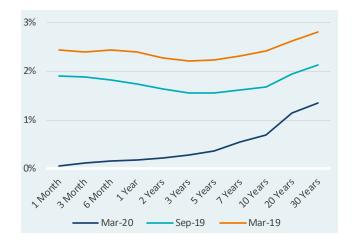
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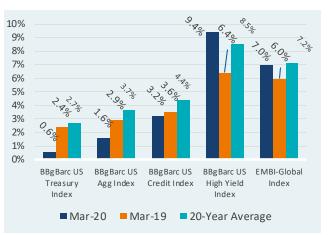
Fixed income

- To allay concerns over dollar liquidity in global dollar funding markets, the Federal Reserve opened dollar liquidity swap lines with foreign central banks, and rolled out a FIMA repo facility, allowing foreign central banks and monetary authorities to enter repurchase agreements with the Federal Reserve.
- Hard-currency denominated emerging market debt was the worst performer within fixed income (J.P. Morgan EMBI Global Diversified -13.8%). Several countries, including Mexico and South Africa, experienced sovereign debt rating downgrades.
- Breakeven inflation rates, which are calculated by subtracting TIPS yields from equivalent-maturity nominal Treasury yields, fell materially over the period. However, declines in breakeven inflation rates can also capture the effects of temporary liquidity imbalances. Treasury liquidity exceeded TIPS liquidity in March and drove some of the decline in breakeven inflation rates.
- U.S. investment grade credit spreads surged from
 1.22% to 2.72% and reached intra-month highs of
 3.73%. High-yield credit spreads spiked from 5.00% to as high as 11.00% and finished the month at 8.80%.

U.S. TREASURY YIELD CURVE



NOMINAL YIELDS



BREAKEVEN INFLATION RATES



Source: Bloomberg, as of 3/31/20

Source: Morningstar, as of 3/31/20

Source: Bloomberg, as of 3/31/20

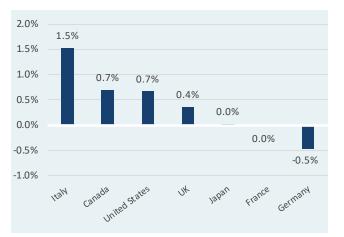


Global markets

- Global equities (MSCI ACWI) fell -13.5% and emerging market equities (-15.4%) underperformed. Within emerging market equity, the Latin American segment (-34.5%) significantly underperformed the Asian component (-11.7%) in U.S. dollar terms. Weakness in Latin American currencies, specifically the Mexican peso, versus the U.S. dollar, exacerbated weakness.
- International developed equities (MSCI EAFE) returned -13.3%, in line with the global benchmark. Eurozone equities (-17.2%) lagged Japanese equities (-7.1%) in dollar terms, and currency impacts were negligible.
- The Bloomberg Dollar Spot Index, which measures the strength of the U.S. dollar relative to both developed and emerging market currency pairs, advanced 3.1%. Between March 9th and March 23rd, the index gained 8.9% as dollar liquidity became constrained. The index gave back some of those gains by month-end as Fed intervention in dollar funding markets eased strains.
- On March 31st, the blended forward 12-month P/E ratio of the MSCI ACWI Index was 14.3, below the 5-year monthly average (15.3). If expected earnings were to fall by 20%, the current forward P/E would be 17.8x.

GLOBAL SOVEREIGN 10-YEAR YIELDS

Source: Bloomberg, as of 3/31/20

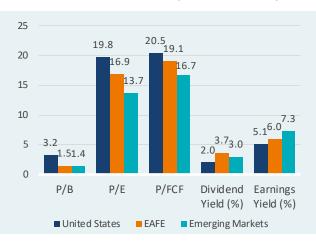


U.S. DOLLAR MAJOR CURRENCY INDEX

Source: Federal Reserve, as of 3/31/20



MSCI VALUATION METRICS (3-MONTH AVG)



Source: Bloomberg, as of 3/31/20

Commodities

- The Bloomberg Commodity Index declined -12.8% for the month, bringing year-to-date performance to -23.3%.
 While the entire commodity complex performed poorly, the decline in the overall index was driven primarily by a rout in the crude oil markets resulting in a -46.8% decline in the Petroleum component.
- A dearth in global oil demand driven by COVID-19 related economic disruptions and the concurrent emergence of a supply shock in the form of a price war between Saudi Arabia and Russia led the price of a barrel of West Texas Intermediate crude oil to fall from \$44.94 to \$20.48.
- At its March 6th meeting, OPEC elected not to extend the production cuts it had kept in place since December 2016. With the production cuts expiring at the end of March, the U.S. Energy Information Administration increased its forecast for OPEC liquid fuels production by 150,000 and 200,000 barrels per day in 2020 and 2021, respectively.
- The Bloomberg Precious Metals Sub-Index outperformed the overall index but still posted a return of -1.4%. Spot gold prices fell 0.5% to \$1,577 per ounce, faced with the dual pressures of rebalancing activity following strong relative performance, as well as a stronger U.S. dollar.

INDEX AND SECTOR PERFORMANCE

	Month	QTD	YTD	1 Year	3 Year	5 Year	10 Year
Bloomberg Commodity	(12.8)	(23.3)	(23.3)	(22.3)	(8.6)	(7.8)	(6.7)
Bloomberg Agriculture	(3.3)	(9.9)	(9.9)	(5.3)	(9.1)	(7.2)	(3.5)
Bloomberg Energy	(35.1)	(51.1)	(51.1)	(52.9)	(19.8)	(18.8)	(17.1)
Bloomberg Grains	(0.6)	(7.2)	(7.2)	(2.6)	(7.9)	(8.7)	(3.6)
Bloomberg Industrial Metals	(9.7)	(18.5)	(18.5)	(22.7)	(5.5)	(3.4)	(6.1)
Bloomberg Livestock	(13.5)	(28.1)	(28.1)	(35.5)	(11.0)	(9.7)	(5.6)
Bloomberg Petroleum	(46.8)	(60.1)	(60.1)	(57.6)	(19.6)	(18.2)	(14.5)
Bloomberg Precious Metals	(1.4)	(1.1)	(1.1)	15.7	3.7	3.2	1.7
Bloomberg Softs	(12.4)	(16.8)	(16.8)	(13.7)	(15.5)	(7.5)	(6.1)

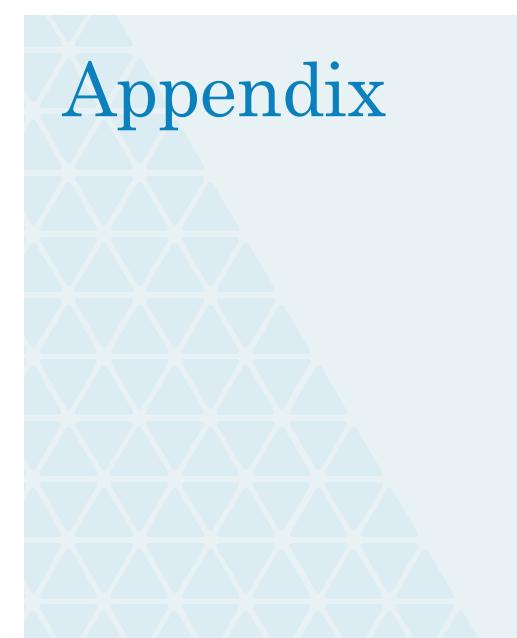


Source: Bloomberg, as of 3/31/20

COMMODITY PERFORMANCE



Source: Morningstar, as of 3/31/20





Periodic table of returns

Small Cap Value

BEST		1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	YTD	5-Year	10-Year
ā	US Bonds	38.7	66.4	31.8	14.0	25.9	56.3	26.0	34.5	32.6	39.8	5.2	79.0	29.1	14.3	18.6	43.3	13.5	13.3	31.7	37.3	6.7	36.4	3.1	10.4	13.0
Î	Cash	27.0	43.1	22.8	8.4	10.3	48.5	22.2	21.4	26.9	16.2	1.4	37.2	26.9	7.8	18.1	38.8	13.2	5.7	21.3	30.2	1.9	31.4	0.4	7.5	10.4
	Real Estate	20.3	33.2	12.2	7.3	6.7	47.3	20.7	20.1	23.5	15.8	-6.5	34.5	24.5	2.6	17.9	34.5	13.0	0.9	17.3	25.0	0.0	28.5	0.0	6.2	10.1
	Hedge Funds of Funds	19.3	27.3	11.6	3.3	1.6	46.0	18.3	14.0	22.2	11.8	-21.4	32.5	19.2	1.5	17.5	33.5	11.8	0.6	12.1	22.2	-1.5	26.5	-6.0	3.4	8.9
	60/40 Global Portfolio	16.2	26.5	7.0	2.8	1.0	39.2	16.5	7.5	18.4	11.6	-25.9	28.4	16.8	0.4	16.4	33.1	6.0	0.0	11.8	21.7	-3.5	25.5	-13.3	3.0	7.7
	Large Cap Growth	8.7	21.3	4.1	-2.4	-6.0	29.9	14.3	6.3	15.5	10.3	-33.8	23.3	16.1	-2.1	15.3	23.3	4.9	-0.8	11.2	14.6	-6.0	22.4	-14.1	1.9	6.9
	Large Cap Equity	15.6	24.3	6.0	2.5	-5.9	30.0	14.5	7.1	16.6	10.9	-28.9	27.2	16.7	0.1	16.3	32.5	5.6	-0.4	11.3	17.1	-4.8	22.0	-20.2	1.7	4.8
	International Equity	4.9	20.9	-3.0	-5.6	-11.4	29.7	12.9	5.3	15.1	7.0	-35.6	20.6	15.5	-2.9	14.6	12.1	4.2	-1.4	8.0	13.7	-8.3	18.6	-22.8	1.1	4.7
	Commodities	1.2	13.2	-7.3	-9.1	-15.5	25.2	11.4	4.7	13.3	7.0	-36.8	19.7	13.1	-4.2	11.5	11.0	3.4	-2.5	7.1	7.8	-9.3	18.4	-23.3	0.6	3.9
	Emerging Markets Equity	-2.5	11.4	-7.8	-9.2	-15.7	23.9	9.1	4.6	10.4	5.8	-37.6	18.9	10.2	-5.5	10.5	9.0	2.8	-3.8	5.7	7.7	-11.0	8.7	-23.6	-0.2	2.7
	Small Cap Growth	-5.1	7.3	-14.0	-12.4	-20.5	11.6	6.9	4.6	9.1	4.4	-38.4	11.5	8.2	-5.7	4.8	0.1	0.0	-4.4	2.6	7.0	-11.2	7.8	-25.8	-0.4	2.1
	Large Cap Value	-6.5	4.8	-22.4	-19.5	-21.7	9.0	6.3	4.2	4.8	-0.2	-38.5	5.9	6.5	-11.7	4.2	-2.0	-1.8	-7.5	1.0	3.5	-12.9	7.7	-26.7	-0.6	0.7
	Small Cap Equity	-25.3	-0.8	-22.4	-20.4	-27.9	4.1	4.3	3.2	4.3	-1.6	-43.1	0.2	5.7	-13.3	0.1	-2.3	-4.5	-14.9	0.5	1.7	-13.8	6.4	-30.6	-2.4	0.6
	Small Cap Value	-27.0	-1.5	-30.6	-21.2	-30.3	1.0	1.4	2.4	2.1	-9.8	-53.2	-16.9	0.1	-18.2	-1.1	-9.5	-17.0	-24.7	0.3	0.9	-14.6	2.1	-35.7	-7.8	-6.7
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WORST				la	rge Cap	. Fauity	,			Sm	all Can	Growth	.			Con	nmodit	ies								
5				_							•				- 1											
				La	rge Cap	o Value				Int	ernatic	onal Equ	iity			Rea	l Estate	2								
				La	rge Cap	o Growt	h			Em	erging	Market	s Equity	/		Hec	dge Fun	ds of Fu	nds							
				Sn	nall Cap	e Equity	,			US	Bonds					60%	6 MSCI /	ACWI/40)% BBg	Barc Glo	obal Boi	nd				

Source Data: Morningstar, Inc., Hedge Fund Research, Inc. (HFR), National Council of Real Estate Investment Fiduciaries (NCREIF). Indices used: Russell 1000, Russell 1000 Value, Russell 1000 Growth, Russell 2000, Russell 2000 Value, Russell 2000 Growth, MSCI EAFE, MSCI EM, BBgBarc US Aggregate, T-Bill 90 Day, Bloomberg Commodity, NCREIF Property, HFRI FOF, MSCI ACWI, BBgBarc Global Bond. NCREIF Property Index performance data as of 12/31/19.

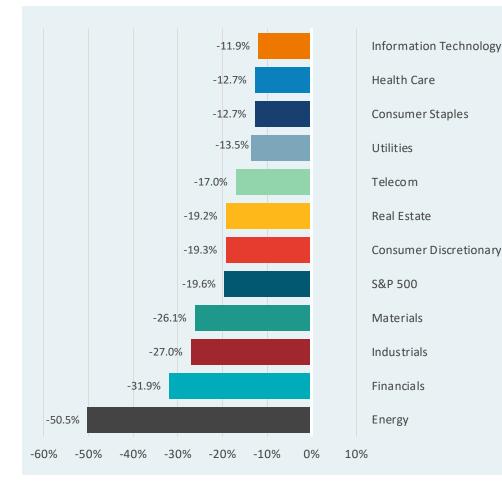
Cash



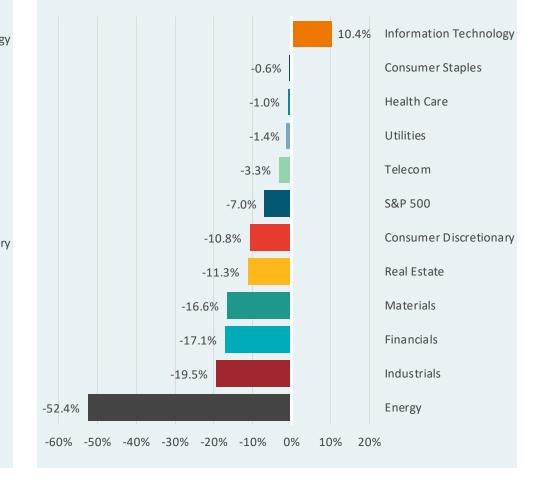
10

S&P 500 sector returns

Q1 2020



ONE YEAR ENDING MARCH



Source: Morningstar, as of 3/31/20

Source: Morningstar, as of 3/31/20

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Detailed index returns

DOMESTIC EQUITY							
	Month	QTD	YTD	1 Year	3 Year	5 Year	10 Year
Core Index							
S&P 500	(12.4)	(19.6)	(19.6)	(7.0)	5.1	6.7	10.5
S&P 500 Equal Weighted	(18.0)	(26.7)	(26.7)	(17.6)	(0.4)	2.8	9.2
DJ Industrial Average	(13.6)	(22.7)	(22.7)	(13.4)	4.4	6.9	10.0
Russell Top 200	(11.0)	(17.7)	(17.7)	(4.1)	6.7	7.9	11.0
Russell 1000	(13.2)	(20.2)	(20.2)	(8.0)	4.6	6.2	10.4
Russell 2000	(21.7)	(30.6)	(30.6)	(24.0)	(4.6)	(0.2)	6.9
Russell 3000	(13.8)	(20.9)	(20.9)	(9.1)	4.0	5.8	10.1
Russell Mid Cap	(19.5)	(27.1)	(27.1)	(18.3)	(0.8)	1.8	8.8
Style Index							
Russell 1000 Growth	(9.8)	(14.1)	(14.1)	0.9	11.3	10.4	13.0
Russell 1000 Value	(17.1)	(26.7)	(26.7)	(17.2)	(2.2)	1.9	7.7
Russell 2000 Growth	(19.1)	(25.8)	(25.8)	(18.6)	0.1	1.7	8.9
Russell 2000 Value	(24.7)	(35.7)	(35.7)	(29.6)	(9.5)	(2.4)	4.8
INTERNATIONAL EQUITY							
Broad Index							
MSCI ACWI	(13.5)	(21.4)	(21.4)	(11.3)	1.5	2.8	5.9
MSCI ACWI ex US	(14.5)	(23.4)	(23.4)	(15.6)	(2.0)	(0.6)	2.1
MSCI EAFE	(13.3)	(22.8)	(22.8)	(14.4)	(1.8)	(0.6)	2.7
MSCI EM	(15.4)	(23.6)	(23.6)	(17.7)	(1.6)	(0.4)	0.7
MSCI EAFE Small Cap	(17.2)	(27.5)	(27.5)	(18.1)	(2.9)	1.0	4.8
Style Index							
MSCI EAFE Growth	(9.2)	(17.5)	(17.5)	(5.8)	3.0	2.5	4.7
MSCI EAFE Value	(17.7)	(28.2)	(28.2)	(22.8)	(6.7)	(3.8)	0.6

1.6

3.8

1.1

3.5

(6.7)

Yen

	Month	QTD	YTD	1 Year	3 Year	5 Year	10 Year
Broad Index							
BBgBarc US TIPS	(1.8)	1.7	1.7	6.8	3.5	2.7	3.5
BBgBarc US Treasury Bills	0.3	0.6	0.6	2.4	1.8	1.2	0.7
BBgBarc US Agg Bond	(0.6)	3.1	3.1	8.9	4.8	3.4	3.9
Duration							
BBgBarc US Treasury 1-3 Yr	1.3	2.8	2.8	5.4	2.7	1.8	1.4
BBgBarc US Treasury Long	6.1	20.9	20.9	32.6	13.4	7.3	9.0
BBgBarc US Treasury	2.9	8.2	8.2	13.2	5.8	3.6	3.8
Issuer							
BBgBarc US MBS	1.1	2.8	2.8	7.0	4.0	2.9	3.3
BBgBarc US Corp. High Yield	(11.5)	(12.7)	(12.7)	(6.9)	0.8	2.8	5.6
BBgBarc US Agency Interm	0.9	2.9	2.9	6.1	3.2	2.3	2.2
BBgBarc US Credit	(6.6)	(3.1)	(3.1)	5.1	4.2	3.3	4.7
		(012)	(3.1)	5.1	4.2	5.5	4.7
OTHER		(012)	(3.1)	5.1	4.2	5.5	
OTHER	(12.8)	(23.3)	(23.3)	(22.3)	(8.6)	(7.8)	(6.7)
OTHER Index				_			
OTHER Index Bloomberg Commodity	(12.8)	(23.3)	(23.3)	(22.3)	(8.6)	(7.8)	(6.7)
OTHER Index Bloomberg Commodity Wilshire US REIT	(12.8) (20.0)	(23.3) (25.6)	(23.3) (25.6)	(22.3) (19.4)	(8.6) (2.5)	(7.8) 5.7	(6.7) 12.7
OTHER Index Bloomberg Commodity Wilshire US REIT CS Leveraged Loans	(12.8) (20.0) (12.5)	(23.3) (25.6) (13.2)	(23.3) (25.6) (13.2)	(22.3) (19.4) (9.5)	(8.6) (2.5) (0.7)	(7.8) 5.7 4.6	(6.7) 12.7 5.0
DTHER Index Bloomberg Commodity Wilshire US REIT CS Leveraged Loans Alerian MLP	(12.8) (20.0) (12.5)	(23.3) (25.6) (13.2)	(23.3) (25.6) (13.2)	(22.3) (19.4) (9.5)	(8.6) (2.5) (0.7)	(7.8) 5.7 4.6	(6.7) 12.7 5.0
DTHER Index Bloomberg Commodity Wilshire US REIT CS Leveraged Loans Alerian MLP Regional Index	(12.8) (20.0) (12.5) (48.1)	(23.3) (25.6) (13.2) (58.1)	(23.3) (25.6) (13.2) (58.1)	(22.3) (19.4) (9.5) (61.9)	(8.6) (2.5) (0.7) (29.9)	(7.8) 5.7 4.6 (21.1)	(6.7) 12.7 5.0 (4.7)
DTHER Index Bloomberg Commodity Wilshire US REIT CS Leveraged Loans Alerian MLP Regional Index JPM EMBI Global Div	(12.8) (20.0) (12.5) (48.1) (13.8)	(23.3) (25.6) (13.2) (58.1) (13.4)	(23.3) (25.6) (13.2) (58.1) (13.4)	(22.3) (19.4) (9.5) (61.9) (6.8)	(8.6) (2.5) (0.7) (29.9) 0.4	(7.8) 5.7 4.6 (21.1) 2.8	(6.7) 12.7 5.0 (4.7) 4.9
DTHER Index Bloomberg Commodity Wilshire US REIT CS Leveraged Loans Alerian MLP Regional Index JPM EMBI Global Div JPM GBI-EM Global Div	(12.8) (20.0) (12.5) (48.1) (13.8)	(23.3) (25.6) (13.2) (58.1) (13.4)	(23.3) (25.6) (13.2) (58.1) (13.4)	(22.3) (19.4) (9.5) (61.9) (6.8)	(8.6) (2.5) (0.7) (29.9) 0.4	(7.8) 5.7 4.6 (21.1) 2.8	(6.7) 12.7 5.0 (4.7) 4.9
DTHER Index Bloomberg Commodity Wilshire US REIT CS Leveraged Loans Alerian MLP Regional Index JPM EMBI Global Div JPM GBI-EM Global Div Hedge Funds	(12.8) (20.0) (12.5) (48.1) (13.8) (11.1)	(23.3) (25.6) (13.2) (58.1) (13.4) (15.2)	(23.3) (25.6) (13.2) (58.1) (13.4) (15.2)	(22.3) (19.4) (9.5) (61.9) (6.8) (6.5)	(8.6) (2.5) (0.7) (29.9) 0.4 (0.8)	(7.8) 5.7 4.6 (21.1) 2.8 0.3	(6.7) 12.7 5.0 (4.7) 4.9 0.5
DTHER Index Bloomberg Commodity Wilshire US REIT CS Leveraged Loans Alerian MLP Regional Index JPM EMBI Global Div JPM GBI-EM Global Div Hedge Funds HFRI Composite	(12.8) (20.0) (12.5) (48.1) (13.8) (11.1) (5.9)	(23.3) (25.6) (13.2) (58.1) (13.4) (15.2) (8.3)	(23.3) (25.6) (13.2) (58.1) (13.4) (15.2) (8.3)	(22.3) (19.4) (9.5) (61.9) (6.8) (6.5) (4.0)	(8.6) (2.5) (0.7) (29.9) 0.4 (0.8)	(7.8) 5.7 4.6 (21.1) 2.8 0.3 1.3	(6.7) 12.7 5.0 (4.7) 4.9 0.5 2.9
DTHER Index Bloomberg Commodity Wilshire US REIT CS Leveraged Loans Alerian MLP Regional Index JPM EMBI Global Div JPM GBI-EM Global Div Hedge Funds HFRI Composite HFRI FOF Composite	(12.8) (20.0) (12.5) (48.1) (13.8) (11.1) (5.9)	(23.3) (25.6) (13.2) (58.1) (13.4) (15.2) (8.3)	(23.3) (25.6) (13.2) (58.1) (13.4) (15.2) (8.3)	(22.3) (19.4) (9.5) (61.9) (6.8) (6.5) (4.0)	(8.6) (2.5) (0.7) (29.9) 0.4 (0.8)	(7.8) 5.7 4.6 (21.1) 2.8 0.3 1.3	(6.7) 12.7 5.0 (4.7) 4.9 0.5 2.9

(0.1)

0.7

0.7

2.5

1.1

2.1

Source: Morningstar, HFR, as of 3/31/20

(16.0)

(7.1)

(11.7)

(34.5)

(28.8)

(16.8)

(18.1)

(45.6)

(17.2) (27.0)

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(45.6)

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(6.7)

(18.3)

(12.1)

(40.8)

(4.9)

1.0

(4.4)

1.3

(13.0)

(3.3)

1.8

(2.3)

1.4

(5.9)



MSCI EM Latin American

Regional Index MSCI UK

MSCI Japan

MSCI Euro

MSCI EM Asia

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(1.4)

Notices & disclosures

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Stanislaus County Employees' Retirement Association

Investment Performance Review Period Ending: March 31, 2020



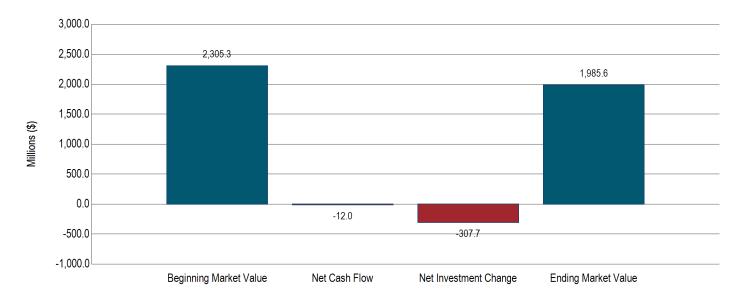
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Portfolio Reconciliation

	Last Three Months	Fiscal Year-To-Date	Year-To-Date
Beginning Market Value	\$2,305,291,730	\$2,190,456,401	\$2,305,291,730
Net Cash Flow	-\$12,017,454	-\$27,562,471	-\$12,017,454
Net Investment Change	-\$307,656,554	-\$177,276,208	-\$307,656,554
Ending Market Value	\$1,985,617,723	\$1,985,617,723	\$1,985,617,723

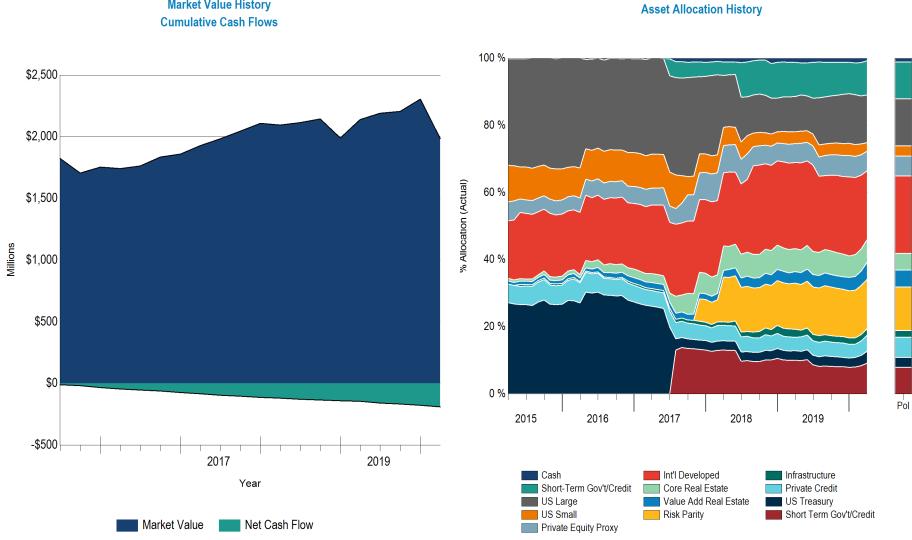
Change in Market Value Last Three Months



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



Market Value History





Total Fund Asset Allocation vs. Policy

Current	Policy		Current	%	Policy	%
Current	Policy	Liquidity Sub-Portfolio	\$217,946,339	11.0%	\$238,274,127	12.0%
0.8%	1.0%	Cash	\$15,074,021	0.8%	\$19,856,177	1.0%
40.00/		Short-Term Gov't/Credit	\$202,872,317	10.2%	\$218,417,950	11.0%
10.2%	11.0%	Growth Sub-Portfolio	\$1,515,339,166	76.3%	\$1,528,925,647	77.0%
		US Large	\$281,086,379	14.2%	\$277,986,481	14.0%
		US Small	\$51,955,756	2.6%	\$59,568,532	3.0%
44.00/		Private Equity Proxy	\$115,300,878	5.8%	\$119,137,063	6.0%
14.2%	14.0%	Int'l Developed	\$406,215,177	20.5%	\$456,692,076	23.0%
		Core Real Estate	\$134,066,213	6.8%	\$99,280,886	5.0%
2.6%		Value Add Real Estate	\$101,285,755	5.1%	\$99,280,886	5.0%
	3.0%	Risk Parity	\$292,272,805	14.7%	\$258,130,304	13.0%
5.8%	6.0%	Infrastructure	\$38,711,962	1.9%	\$39,712,354	2.0%
		Private Credit	\$94,444,241	4.8%	\$119,137,063	6.0%
		Risk-Diversifying Sub-Portfolio	\$252,332,218	12.7%	\$218,417,950	11.0%
		US Treasury	\$69,706,578	3.5%	\$59,568,532	3.0%
20.5%		Short Term Gov't/Credit	\$182,625,640	9.2%	\$158,849,418	8.0%
	23.0%	Total	\$1,985,617,723	100.0%	\$1,985,617,723	100.0%
6.8%	5.0%					
5.1%	5.0% 5.0%					
5.1%	5.0%					
5.1% 14.7% 1.9%	5.0% 13.0% 2.0%					
5.1% 14.7% 1.9% 4.8%	5.0%					
5.1% 14.7% 1.9%	5.0% 13.0% 2.0%					

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

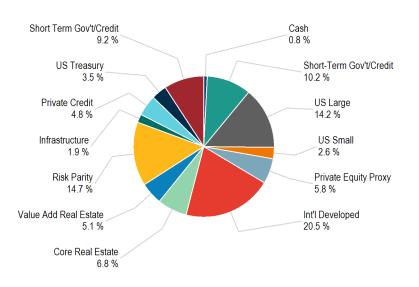


Total Fund Executive Summary (Net of Fees)

	QTD	Fiscal YTD	1 Yr	3 Yrs	5 Yrs	10 Yrs
Total Fund	-13.4	-8.3	-5.5	2.5	3.3	6.5
Policy Index	-12.4	-7.4	-4.7	2.7	3.6	6.5
InvMetrics Public DB Net Rank	44	49	54	56	46	26
Liquidity Sub-Portfolio	-2.4	0.1	2.4	2.0	1.6	
StanCERA Liquidity Blended BM	1.6	2.9	4.3	2.5	1.8	
Cash	0.4	1.5	1.7	1.5	1.3	
FTSE T-Bill 1 Month TR	0.4	1.4	2.0	1.7	1.1	
Short-Term Gov't/Credit	-2.7	-0.1	2.5			
BBgBarc US Govt/Credit 1-3 Yr. TR	1.7	3.0	4.5			
eV US Government Fixed Inc Net Rank	99	99	99			
Growth Sub-Portfolio	-17.0	-11.2	-8.3	2.2	3.5	7.7
StanCERA Growth Blended BM	-15.8	-9.9	-7.0	3.1		
Public Equities	-24.3	-16.6	-13.6	1.0	3.5	9.1
MSCI ACWI IMI NR	-22.4	-15.6	-12.7	0.8	2.4	5.8
US Large	-21.0	-12.3	-9.0	4.3	5.8	10.2
Russell 1000	-20.2	-11.8	-8.0	4.6	6.2	10.4
eV US Large Cap Equity Net Rank	51	46	47	40	37	35
US Small	-37.8	-33.5	-31.4	-10.2	-4.6	5.0
Russell 2000	-30.6	-25.5	-24.0	-4.6	-0.2	6.9
eV US Small Cap Value Equity Net Rank	77	75	69	59	80	59
Private Equity Proxy	-20.9	-12.7	-9.1	5.7	7.1	10.7
Russell 3000 +3%	-19.7	-9.8	-6.1	7.0	8.8	13.2
eV US Large Cap Equity Net Rank	51	48	47	33	26	29

Fiscal

Current Allocation



Policy Index (5/31/2019): 14% Russell 1000, 3% Russell 2000, 6% Russell 3000 + 3%, 23% MSCI ACWI ex-USA, 19% BBgBarc US 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, and 1% Citi 1 Month T-Bills. StanCERA Liquidity Blended BM (8/31/2019): 92% BBgbarc US Gov't/Credit 1-3 Yr. TR and 8% FTSE T-Bill 1 month TR. StanCERA Growth Blended BM (8/31/2019): 18% Russell 1000, 4% Russell 2000, 8% Russell 3000 + 3%, 30% MSCI ACWI ex-US Gross, 6% NCREIF Property, 6% actual private Value Add Real Estate returns, 17% 60% MSCI ACWI / 40% BBgBarc Global Aggregate, 3% actual Infrastructure returns, and 8% actual Private Credit returns.

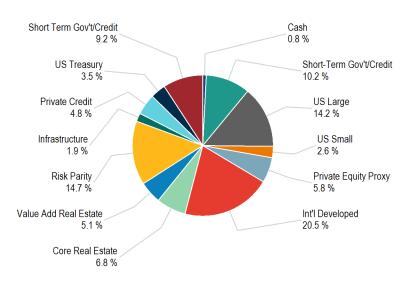


Total Fund Executive Summary (Net of Fees)

	QTD	Fiscal YTD	1 Yr	3 Yrs	5 Yrs	10 Yrs
Int'l Developed	-25.2	-19.3	-17.0	-3.2	-1.0	2.5
MSCI ACWI ex USA	-23.4	-18.0	-15.6	-2.0	-0.6	2.1
eV ACWI ex-US Large Cap Equity Net Rank	76	70	74	71	60	55
Core Real Estate	-5.1	-1.7	-0.3	3.5	2.1	4.7
NCREIF Property Index	N/A	3.0	4.5	6.2	7.5	10.1
InvMetrics Public DB Real Estate Priv Net Rank	98	98	96	96	98	99
Value Add Real Estate	4.8	10.0	11.4	11.2	12.3	
NCREIF Property Index +2%	N/A	4.5	6.6	8.3	9.6	
Risk Parity	-9.8	-5.6	-0.7			
60% MSCI ACWI Net/40% BBgBarc Global Aggregate	-13.3	-8.2	-4.9			
Infrastructure	5.3	10.9	15.2	17.1		
CPI + 5%	1.7	4.5	6.6	7.0		
eV Infrastructure Net Rank	1	1	1	1		
Private Credit	-5.0	-3.8	-2.4	1.8	1.9	
S&P/LSTA Leveraged Loan Index+2%	-12.6	-9.3	-7.3	1.2	3.2	
Risk-Diversifying Sub-Portfolio	2.2	3.9	5.9	3.9	3.4	4.3
StanCERA Risk-Diversifying Blended BM	4.0	5.4	7.6	3.8	2.6	2.7
US Treasury	9.7	11.6	15.3	7.2	5.3	5.2
BBgBarc US Treasury 7-10 Yr TR	10.1	11.8	16.2	7.0	4.4	5.4
eV US Government Fixed Inc Net Rank	1	1	1	1	1	1

Fiscal

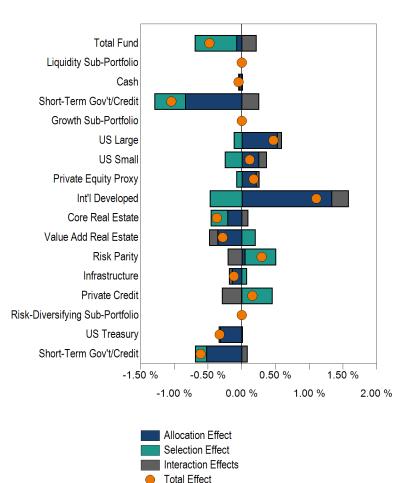
Current Allocation



Policy Index (5/31/2019): 14% Russell 1000, 3% Russell 2000, 6% Russell 3000 + 3%, 23% MSCI ACWI ex-USA, 19% BBgBarc US Govt/Credit 1-3 Yr, 3% BBgBarc US Treasury 7-10 Yr, 5% NCREIF Property, 5% NCREIF Property +2%, 2% CPI +5%, 6% S&P/LSTA Leveraged Loan Index + 2%, 13% 60% MSCI ACWI / 40% BBgBarc Global Aggregate, and 1% Citi 1 Month T-Bills. StanCERA Liquidity Blended BM (8/31/2019): 92% BBgbarc US Govt/Credit 1-3 Yr. TR and 8% FTSE T-Bill 1 month TR. StanCERA Growth Blended BM (8/31/2019): 18% Russell 1000, 4% Russell 2000, 8% Russell 3000 + 3%, 30% MSCI ACWI ex-US Gross, 6% NCREIF Property, 6% actual private Value Add Real Estate returns, 17% 60% MSCI ACWI / 40% BBgBarc Global Aggregate, 3% actual Infrastructure returns, and 8% actual Private Credit returns. NCREIF Property Index performance not available at time of production.



Attribution Effects Last Three Months



Performance Attribution

	Quarter
Wtd. Actual Return	-13.42%
Wtd. Index Return *	-12.46%
Excess Return	-0.96%
Selection Effect	-0.61%
Allocation Effect	-0.08%
Interaction Effect	0.21%

*Calculated from benchmark returns and weightings of each component.

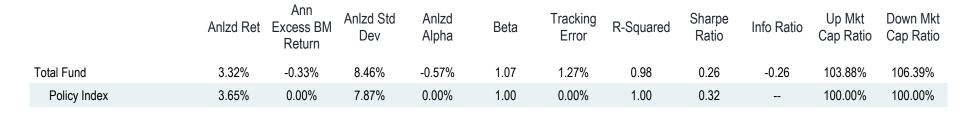
Attribution Summary Last Three Months												
		Wtd. Actual Return	Wtd. Index Return	Excess Return	Selection Effect	Allocation Effect	Interaction Effects	Total Effects				
	Liquidity Sub-Portfolio	-2.4%	1.6%	-4.0%								
	Cash	0.4%	0.4%	0.1%	0.0%	0.0%	0.0%	0.0%				
:	Short-Term Gov't/Credit	-2.7%	1.7%	-4.4%	-0.5%	-0.8%	0.2%	-1.0%				
	Growth Sub-Portfolio	-17.0%	-15.8%	-1.2%								
	US Large	-21.0%	-20.2%	-0.8%	-0.1%	0.5%	0.1%	0.5%				
	US Small	-37.8%	-30.6%	-7.1%	-0.2%	0.3%	0.1%	0.1%				
1	Private Equity Proxy	-20.9%	-19.7%	-1.1%	-0.1%	0.2%	0.0%	0.2%				
	Int'l Developed	-25.2%	-23.4%	-1.9%	-0.5%	1.3%	0.2%	1.1%				
	Core Real Estate	-5.1%	0.0%	-5.1%	-0.2%	-0.2%	0.1%	-0.4%				
	Value Add Real Estate	4.8%	0.5%	4.3%	0.2%	-0.4%	-0.1%	-0.3%				
	Risk Parity	-9.8%	-13.3%	3.5%	0.5%	0.0%	-0.2%	0.3%				
6	Infrastructure	5.3%	1.7%	3.7%	0.1%	-0.1%	0.0%	-0.1%				
	Private Credit	-5.0%	-12.6%	7.6%	0.4%	0.0%	-0.3%	0.2%				
	Risk-Diversifying Sub- Portfolio	2.2%	4.0%	-1.8%								
	US Treasury	9.7%	10.1%	-0.5%	0.0%	-0.3%	0.0%	-0.3%				
	Short-Term Gov't/Credit	-0.4%	1.7%	-2.1%	-0.2%	-0.5%	0.1%	-0.6%				
	Total	-13.4%	-12.5%	-1.0%	-0.6%	-0.1%	0.2%	-0.5%				

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, and 1% Cit 1 Month T-Bills. StanCERA Liquidity Blended BM (8/31/2019): 92% BBgbarc US Gov't/Credit 1-3 Yr. TR and 8% FTSE T-Bill 1 month TR. StanCERA Growth Blended BM (8/31/2019): 18% Russell 1000, 4% Russell 2000, 8% Russell 3000 + 3%, 30% MSCI ACWI ex-US Gross, 6% NCREIF Property, 6% actual private Value Add Real Estate returns, 17% 66% MSCI ACWI / 40% BBgBarc Global Aggregate, and 8% actual Private Credit returns.

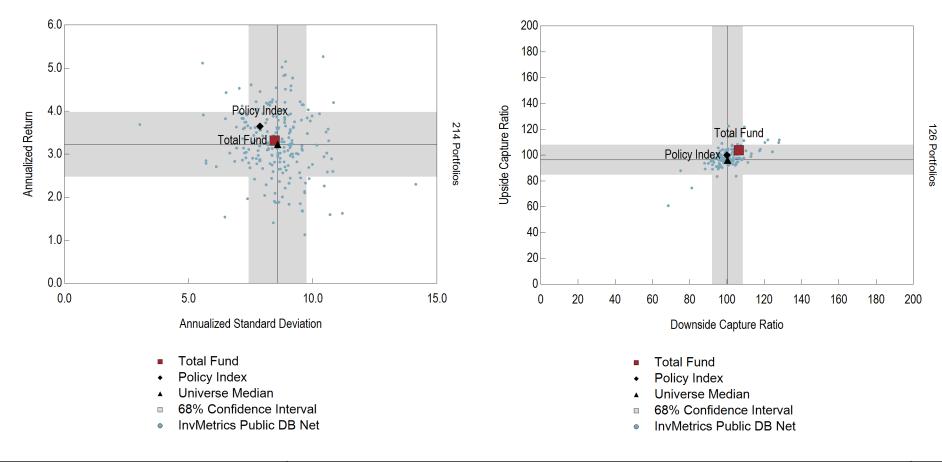


Total Fund Risk Analysis - 5 Years (Net of Fees)

Up Markets vs. Down Markets









Period Ending: March 31, 2020

	Market Value	% of Portfolio	3 Mo	Fiscal YTD	1 Yr	3 Yrs	5 Yrs	10 Yrs	2019	2018	2017	2016	2015	Inception	Inception Date
Total Fund	1,985,617,723	100.0	-13.4	-8.3	-5.5	2.5	3.3	6.5	17.4	-4.4	15.3	7.8	-0.6	8.3	Dec-94
Policy Index			-12.4	-7.4	-4.7	2.7	3.6	6.5	16.9	-3.7	14.3	8.5	0.2	7.5	Dec-94
InvMetrics Public DB Net Rank	-		44	49	54	56	46	26	77	51	36	36	55		
Liquidity Sub-Portfolio	217,946,339	11.0	-2.4	0.1	2.4	2.0	1.6		7.7	0.8	0.4	1.3	1.0	8.9	Apr-11
StanCERA Liquidity Blended BM			1.6	2.9	4.3	2.5	1.8		3.9	1.6	0.8	1.2	0.6	1.5	Apr-11
Cash	15,074,021	0.8	0.4	1.5	1.7	1.5	1.3		1.6	1.6	0.9	1.3	1.0	8.7	Apr-11
FTSE T-Bill 1 Month TR			0.4	1.4	2.0	1.7	1.1		2.2	1.8	0.8	0.2	0.0	0.6	Apr-11
Short-Term Gov't/Credit	202,872,317	10.2	-2.7	-0.1	2.5				8.5	0.6				2.5	Jun-17
BBgBarc US Govt/Credit 1-3 Yr. TR			1.7	3.0	4.5				4.0	1.6				2.7	Jun-17
eV US Government Fixed Inc Net Rank			99	99	99				1	87					
Insight	202,872,317	10.2	-2.7	-0.1	2.5				8.5	0.6				2.5	Jun-17
BBgBarc US Govt/Credit 1-3 Yr. TR			1.7	3.0	4.5				4.0	1.6				2.7	Jun-17
eV US Short Duration Fixed Inc Net Rank			86	79	60				1	96					
Growth Sub-Portfolio	1,515,339,166	76.3	-17.0	-11.2	-8.3	2.2	3.5	7.7	20.9	-6.1	19.3	8.9	-0.8	6.8	Dec-03
StanCERA Growth Blended BM			-15.8	-9.9	-7.0	3.1			20.7	-4.9	19.1	8.1			Dec-03
Public Equities	333,042,135	16.8	-24.3	-16.6	-13.6	1.0	3.5	9.1	29.4	-7.2	19.1	12.2	-0.6	7.4	Dec-03
MSCI ACWI IMI NR	-		-22.4	-15.6	-12.7	0.8	2.4	5.8	26.4	-10.1	23.9	8.4	-2.2	5.8	Dec-03
US Large	281,086,379	14.2	-21.0	-12.3	-9.0	4.3	5.8	10.2	30.6	-4.0	21.1	10.8	0.5	11.4	Dec-94
Russell 1000			-20.2	-11.8	-8.0	4.6	6.2	10.4	31.4	-4.8	21.7	12.1	0.9	9.2	Dec-94
eV US Large Cap Equity Net Rank			51	46	47	40	37	35	39	36	50	39	47		
BlackRock Russell 1000 Growth	147,201,980	7.4	-14.1	-3.6	0.9	11.3	10.4		36.4	-1.5	30.2	7.2	5.7	14.1	Jul-10
Russell 1000 Growth			-14.1	-3.6	0.9	11.3	10.4		36.4	-1.5	30.2	7.1	5.7	14.1	Jul-10
eV US Large Cap Growth Equity Net Rank			50	23	34	39	24		28	52	39	19	35		
BlackRock Russell 1000 Value	67,281,388	3.4	-26.6	-20.1	-17.0	-2.0	2.0	7.8	26.7	-8.2	13.8	17.3	-3.6	9.3	Jul-09
Russell 1000 Value			-26.7	-20.2	-17.2	-2.2	1.9	7.7	26.5	-8.3	13.7	17.3	-3.8	9.2	Jul-09
eV US Large Cap Value Equity Net Rank			53	54	52	55	48	42	47	41	83	20	57		
Dodge & Cox-Equity	66,603,012	3.4	-29.1	-22.0	-20.0	-2.8	2.5	8.1	23.9	-6.5	16.9	21.2	-4.0	10.4	Dec-94
Russell 1000 Value			-26.7	-20.2	-17.2	-2.2	1.9	7.7	26.5	-8.3	13.7	17.3	-3.8	8.6	Dec-94
eV US Large Cap Value Equity Net Rank			75	71	74	65	37	34	74	27	49	6	59		

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



Period Ending: March 31, 2020

	Market Value	% of Portfolio	3 Mo	Fiscal YTD	1 Yr	3 Yrs	5 Yrs		2019	2018	2017	2016	2015	Inception I	Inception Date
US Small	51,955,756	2.6	-37.8	-33.5	-31.4	-10.2	-4.6	5.0	25.1	-16.7	14.8	16.2	-4.5	7.7	Dec-08
Russell 2000			-30.6	-25.5	-24.0	-4.6	-0.2	6.9	25.5	-11.0	14.6	21.3	-4.4	9.2	Dec-08
eV US Small Cap Value Equity Net Rank			77	75	69	59	80	59	35	67	16	95	48		
Capital Prospects	51,955,756	2.6	-37.8	-33.5	-31.4	-10.0	-3.3	5.3	25.1	-16.7	14.7	27.1	-7.5	8.0	Dec-08
Russell 2000 Value			-35.7	-30.6	-29.6	-9.5	-2.4	4.8	22.4	-12.9	7.8	31.7	-7.5	6.9	Dec-08
eV US Small Cap Value Equity Net Rank	-		77	75	69	57	65	52	35	67	17	39	73		
Private Equity Proxy	115,300,878	5.8	-20.9	-12.7	-9.1	5.7	7.1	10.7	31.1	-0.2	21.2	11.7	1.4	7.9	Nov-03
Russell 3000 +3%			-19.7	-9.8	-6.1	7.0	8.8	13.2	34.0	-2.2	24.1	15.7	3.5	10.8	Nov-03
eV US Large Cap Equity Net Rank			51	48	47	33	26	29	37	14	50	34	40		
Northern Trust Russell 3000	115,300,878	5.8	-20.9	-12.7	-9.1				31.1					2.9	Dec-18
Russell 3000			-20.9	-12.7	-9.1				31.0					2.9	Dec-18
eV US Large Cap Equity Net Rank			51	48	47				37						
Int'l Developed	406,215,177	20.5	-25.2	-19.3	-17.0	-3.2	-1.0	2.5	21.8	-15.8	27.4	5.3	-3.8	4.5	Sep-04
MSCI ACWI ex USA			-23.4	-18.0	-15.6	-2.0	-0.6	2.1	21.5	-14.2	27.2	4.5	-5.7	4.2	Sep-04
eV ACWI ex-US Large Cap Equity Net Rank			76	70	74	71	60	55	66	58	61	17	68		
LSV Asset Mgt	198,671,008	10.0	-27.5	-20.8	-19.3	-4.9	-1.8	2.0	20.8	-16.9	27.5	8.2	-5.4	4.1	Sep-04
MSCI ACWI ex USA			-23.4	-18.0	-15.6	-2.0	-0.6	2.1	21.5	-14.2	27.2	4.5	-5.7	4.2	Sep-04
eV ACWI ex-US Large Cap Equity Net Rank			87	82	83	87	75	70	75	74	61	3	80		
Fidelity	207,544,170	10.5	-22.9	-17.9	-14.7	-1.6	-0.4	2.8	22.8	-14.7	27.0	1.8	-2.3	2.0	Apr-06
MSCI ACWI ex USA			-23.4	-18.0	-15.6	-2.0	-0.6	2.1	21.5	-14.2	27.2	4.5	-5.7	1.5	Apr-06
eV ACWI ex-US Large Cap Equity Net Rank			52	60	58	51	50	53	56	48	66	44	47		
Core Real Estate	134,066,213	6.8	-5.1	-1.7	-0.3	3.5	2.1	4.7	10.0	1.6	5.2	5.2	-0.8	1.9	Mar-08
NCREIF Property Index			N/A	3.0	4.5	6.2	7.5	10.1	6.4	6.7	7.0	8.0	13.3	6.0	Mar-08
InvMetrics Public DB Real Estate Priv Net Rank			98	98	96	96	98	99	6	99	89	94	98		
Prime Property Fund	59,298,963	3.0	0.6	3.6	5.5	7.2			6.2	8.0	8.8	9.2		8.0	Sep-15
NCREIF-ODCE			1.0	3.8	4.9	6.8			5.3	8.3	7.6	8.8		7.7	Sep-15
InvMetrics Public DB Real Estate Priv Net Rank			48	23	17	5			31	29	12	9			
BlackRock US Real Estate	16,422,629	0.8	-28.5	-24.6	-24.0	-4.3	-1.5		23.1	-4.2	3.7	6.6	4.4	3.9	Sep-12
DJ US Select RESI TR USD			-28.5	-24.6	-24.0	-4.3	-1.4		23.1	-4.2	3.8	6.6	4.5	3.9	Sep-12
PGIM Real Estate US Debt Fund	58,344,620	2.9	1.1	4.0	5.5				6.0					5.5	Sep-18
BBgBarc CMBS IG TR USD			0.5	2.1	5.4				8.3					6.3	Sep-18
InvMetrics Public DB Real Estate Priv Net Rank			18	9	16				37						

Policy Index (5/31/2019): 14% Russell 1000, 3% Russell 2000, 6% Russell 3000 + 3%, 23% MSCI ACWI ex-USA, 19% BBgBarc US Govt/Credit 1-3 Yr, 3% BBgBarc US Treasury 7-10 Yr, 5% NCREIF Property, 5% NCREIF Property +2%, 2% CPI +5%, 6% S&P/LSTA Leveraged Loan Index + 2%, 13% 60% MSCI ACWI / 40% BBgBarc Global Aggregate, and 1% Citi 1 Month T-Bills. StanCERA Liquidity Blended BM (8/31/2019): 92% BBgbarc US Govt/Credit 1-3 Yr. TR and 8% FTSE T-Bill 1 month TR. StanCERA Growth Blended BM (8/31/2019): 18% Russell 1000, 4% Russell 2000, 8% Russell 3000 + 3%, 30% MSCI ACWI ex-US Gross, 6% NCREIF Property, 6% actual private Value Add Real Estate returns, 17% 60% MSCI ACWI / 40% BBgBarc Global Aggregate, 3% actual Infrastructure returns, and 8% actual Private Credit returns. NCREIF Property Index performance not available at time of production.

Verus⁷⁷⁷

Period Ending: March 31, 2020

	Market Value	% of Portfolio	3 Mo	Fiscal YTD	1 Yr	3 Yrs	5 Yrs	10 Yrs	2019	2018	2017	2016	2015	Inception I	nception Date
Value Add Real Estate	101,285,755	5.1	4.8	10.0	11.4	11.2	12.3		9.0	11.7	11.9	8.8	18.9	10.8	Jul-14
NCREIF Property Index +2%			N/A	4.5	6.6	8.3	9.6		8.5	8.8	9.1	10.1	15.6	10.5	Jul-14
American Strategic Value Realty	67,630,097	3.4	N/A	4.3	6.1	8.2	10.4		8.5	9.2	10.1	11.7	18.3	10.9	Dec-14
NCREIF Property Index			N/A	3.0	4.5	6.2	7.5		6.4	6.7	7.0	8.0	13.3	7.8	Dec-14
Greenfield Gap VII	10,698,152	0.5	7.0	18.4	18.7	14.9	14.7		15.4	12.9	14.7	6.1	19.4	12.6	Jul-14
NCREIF ODCE + 1%			1.2	4.6	5.9	7.9	9.5		6.4	9.4	8.7	9.8	16.2	10.4	Jul-14
Greenfield Gap VIII	22,957,506	1.2	18.1	22.6	23.4				6.4					22.4	Apr-18
NCREIF ODCE + 1%			1.2	4.6	5.9				6.4					7.2	Apr-18
Risk Parity	292,272,805	14.7	-9.8	-5.6	-0.7				22.0	-7.0				1.5	Nov-17
60% MSCI ACWI Net/40% BBgBarc Global Aggregate			-13.3	-8.2	-4.9				18.6	-6.0				-1.0	Nov-17
AQR Global Risk Premium - EL	147,900,082	7.4	-10.0	-5.1	-0.3				21.9					2.7	Mar-18
60% MSCI ACWI Net/40% BBgBarc Global Aggregate			-13.3	-8.2	-4.9				18.6					-1.8	Mar-18
PanAgora Risk Parity Multi Asset	144,372,723	7.3	-9.7	-6.1	-1.0				22.1	-7.6				1.3	Nov-17
60% MSCI ACWI Net/40% BBgBarc Global Aggregate			-13.3	-8.2	-4.9				18.6	-6.0				-1.0	Nov-17
Infrastructure	38,711,962	1.9	5.3	10.9	15.2	17.1			13.1	8.3	20.9	4.1		8.3	May-15
CPI + 5%			1.7	4.5	6.6	7.0			7.4	7.0	7.2	7.2		6.8	May-15
eV Infrastructure Net Rank			1	1	1	1			99	1	25	99			
MS Infrastructure Partners II	38,711,962	1.9	5.3	10.9	15.2	17.1			13.1	8.3	20.9	4.1		8.2	May-15
CPI + 5%			1.7	4.2	6.2	6.9			7.0	7.0	7.2	7.2		6.7	May-15
eV Infrastructure Net Rank			1	1	1	1			99	1	25	99		-	
Private Credit	94,444,241	4.8	-5.0	-3.8	-2.4	1.8	1.9		4.8	4.2	-0.4	1.9	5.4	3.2	May-13
S&P/LSTA Leveraged Loan Index+2%			-12.6	-9.3	-7.3	1.2	3.2		10.8	2.4	6.2	12.3	1.3	3.7	May-13
Medley Capital	10,177,631	0.5	-3.1	-13.7	-16.7	-10.0	-4.3		-14.3	-12.7	3.4	3.4	5.4	-0.6	May-13
S&P/LSTA Leveraged Loan Index+2%			-12.6	-9.3	-7.3	1.2	3.2		10.8	2.4	6.2	12.3	1.3	3.7	May-13
Owl Rock First Lien Fund	5,019,972	0.3	-0.1											-0.1	Oct-19
S&P/LSTA Leveraged Loan Index+2%			-12.6											-10.6	Oct-19
Raven Capital	7,944,078	0.4	-44.6	-42.7	-41.5	-13.4	-10.1		8.3	5.3	-6.1	-3.6	1.2	-8.9	May-13
S&P/LSTA Leveraged Loan Index+2%			-12.6	-9.3	-7.3	1.2	3.2		10.8	2.4	6.2	12.3	1.3	3.7	May-13
Raven Opportunity III	44,724,086	2.3	3.8	7.2	10.3	9.3			9.9	11.0	-7.4	-4.5		2.6	Jul-15
S&P/LSTA Leveraged Loan Index+2%			-12.6	-9.3	-7.3	1.2			10.8	2.4	6.2	12.3		3.1	Jul-15
White Oak Pinnacle	26,578,475	1.3	1.9	5.7	7.6	6.0	6.3		6.9	8.4	2.0	5.9	8.6	10.7	Aug-13
S&P/LSTA Leveraged Loan Index+2%			-12.6	-9.3	-7.3	1.2	3.2		10.8	2.4	6.2	12.3	1.3	3.8	Aug-13

American Strategic Value Realty market value as of 12/31/2019, adjusted for any cash flows. NCREIF Property Index not available at time of production.



Period Ending: March 31, 2020

	Market Value	% of Portfolio	3 Mo	Fiscal YTD	1 Yr	3 Yrs	5 Yrs	10 Yrs	2019	2018	2017	2016	2015	Inception	Inception Date
Risk-Diversifying Sub-Portfolio	252,332,218	12.7	2.2	3.9	5.9	3.9	3.4	4.3	5.9	1.1	3.8	5.2	0.2	4.9	Nov-03
StanCERA Risk-Diversifying Blended BM			4.0	5.4	7.6	3.8	2.6	2.7	5.3	1.4	1.3	1.3	0.9		Nov-03
US Treasury	69,706,578	3.5	9.7	11.6	15.3	7.2	5.3	5.2	7.6	0.7	5.0	5.2	0.2	5.5	Nov-03
BBgBarc US Treasury 7-10 Yr TR			10.1	11.8	16.2	7.0	4.4	5.4	8.5	0.9	2.6	1.1	1.6	5.3	Nov-03
eV US Government Fixed Inc Net Rank			1	1	1	1	1	1	1	86	1	1	78		
Northern Trust Intermediate Gov't Bond	48,940,355	2.5	5.3	6.6	9.1				5.2	1.4				4.3	Jul-17
BBgBarc US Govt Int TR			5.2	6.4	8.9				5.2	1.4				4.3	Jul-17
eV US Government Fixed Inc Net Rank			44	58	59				79	1					
Northern Trust Long Term Gov't Bond	20,766,223	1.0	21.5	25.7	33.3				14.7	-1.7				14.0	Jul-17
BBgBarc US Govt Long TR			20.6	24.8	32.3				14.7	-1.8				13.7	Jul-17
US Long Duration Fixed Income Rank									72	25					
Short-Term Gov't/Credit	182,625,640	9.2	-0.4	1.2	2.8				5.4	1.2				2.2	Jul-17
BBgBarc US Govt/Credit 1-3 Yr. TR			1.7	3.0	4.5				4.0	1.6				2.7	Jul-17
eV US Short Duration Fixed Inc Net Rank			62	58	54				11	75					
DFA	182,625,640	9.2	-0.4	1.2	2.8				5.4	1.2				2.2	Jul-17
BBgBarc US Govt/Credit 1-3 Yr. TR			1.7	3.0	4.5				4.0	1.6				2.7	Jul-17
eV US Short Duration Fixed Inc Net Rank			62	58	54				11	75					

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

Verus⁷⁷⁷

Total Fund Private Markets - Investment Summary

			Verus Internal	Analysis							
Inception Date	Manager Name/Fund Name	Market Value as of 3/31/2020 ³	Total Commitment	Capital Called	% Called	Remaining Commitment	Total Distributions	Distrib./ Paid-In (DPI) ¹	Tot. Value/ Paid-In (TVPI) ²	IRR Since Inception ⁵	Latest Valuation
Real Estate											
7/31/2014	Greenfield Gap VII NCREIF-ODCE PME	\$10,698,152	\$15,000,000	\$14,335,328	96%	\$664,672	\$11,813,117	82.4%	157.0%	<i>14.2%</i> 9.1%	12/31/2019 12/31/2019
6/30/2018	Greenfield Gap VIII NCREIF-ODCE PME	\$22,957,506	\$40,000,000	\$19,201,369	48%	\$20,798,631	\$1,939,034	10.1%	129.7%	27.1% 6.6%	12/31/2019 12/31/2019
	Total Real Estate	\$33,655,658	\$55,000,000	\$33,536,697	61%	\$21,463,303	\$13,752,151	41.0%	141.4%		
	% of Portfolio (Market Value)	1.7%									
Direct Lend	ing										
5/31/2013	Medley Capital S&P/LSTA Leveraged Loan Index PME	\$10,177,631	\$30,000,000	\$29,000,453	97%	\$999,547	\$24,492,888	84.5%	119.6%	0.4% 3.5%	12/31/2019 12/31/2019
10/31/2019	Owl Rock First Lien Fund	\$5,019,972	\$10,000,000	\$5,141,193	51%	\$4,858,807	\$115,474	2.2%	99.9%	N/A	N/A
5/31/2013	Raven Capital S&P/LSTA Leveraged Loan Index PME	\$7,944,078	\$40,000,000	\$34,505,763	86%	\$5,494,237	\$23,560,780	68.3%	91.3%	-2.8% 3.8%	12/31/2019 12/31/2019
7/31/2015	Raven Opportunity III	\$44,724,086	\$50,000,000	\$47,252,238	95%	\$2,747,762	\$9,149,635	19.4%	114.0%	6.8%	12/31/2019
	S&P/LSTA Leveraged Loan Index PME									5.0%	12/31/2019
8/31/2013	White Oak Pinnacle S&P/LSTA Leveraged Loan Index PME	\$26,578,475	\$40,000,000	\$40,000,000	100%	\$0	\$43,683,947	109.2%	175.7%	7.5% 4.0%	12/31/2019 12/31/2019
	Total Direct Lending	\$94,444,241	\$170,000,000	\$155,899,647	92%	\$14,100,353	\$101,002,724	64.8%	125.4%		
	% of Portfolio (Market Value)	4.8%									
Infrastructu	Ire										
5/31/2015	MS Infrastructure Partners II CPI PME	\$38,711,962	\$50,000,000	\$50,536,641	101%	-\$536,641	\$18,608,746	36.8%	113.4%	12.6% 2.0%	12/31/2019 12/31/2019
	Total Infrastructure	\$38,711,962	\$50,000,000	\$50,536,641	101%	-\$536,641	\$18,608,746	36.8%	113.4%		
	% of Portfolio (Market Value)	1.9%									

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

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

3 Last known market value + capital calls - distributions

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

5 Net IRR is calculated on the cash flows of all the limited partners of the fund and is net of all fees. Each funds' IRR figure is provided by its respective manager. Benchmark IRRs are calculated using Long-Nickels ICM Methodology.

Verus⁷⁷

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

	Anlzd Ret	Ann Excess BM Return	Anlzd Std Dev	Anlzd Alpha	Beta	Tracking Error	R-Squared	Sharpe Ratio	Info Ratio	Up Mkt Cap Ratio	Down Mkt Cap Ratio
BlackRock Russell 1000 Growth	11.32%	0.00%	15.39%	0.01%	1.00	0.04%	1.00	0.62	0.04	99.97%	99.97%
BlackRock Russell 1000 Value	-2.05%	0.13%	16.75%	0.13%	1.00	0.06%	1.00	-0.22	2.17	100.31%	99.71%
Dodge & Cox-Equity	-2.84%	-0.66%	18.29%	-0.51%	1.07	3.56%	0.97	-0.25	-0.19	112.29%	107.79%
Capital Prospects	-9.98%	-0.47%	23.97%	0.11%	1.06	3.52%	0.98	-0.49	-0.13	102.26%	101.59%
LSV Asset Mgt	-4.89%	-2.93%	17.13%	-2.70%	1.12	3.21%	0.98	-0.39	-0.91	105.32%	112.37%
Fidelity	-1.56%	0.40%	14.93%	0.35%	0.98	2.07%	0.98	-0.22	0.19	96.53%	96.82%
Prime Property Fund	7.15%	0.34%	3.03%	0.16%	1.03	0.69%	0.95	1.79	0.49	105.35%	
American Strategic Value Realty	8.24%	2.09%	3.60%	0.02%	1.34	1.01%	0.98	1.81	2.07	136.65%	
BlackRock US Real Estate	-4.31%	-0.03%	18.35%	-0.03%	1.00	0.05%	1.00	-0.33	-0.57	99.69%	99.96%

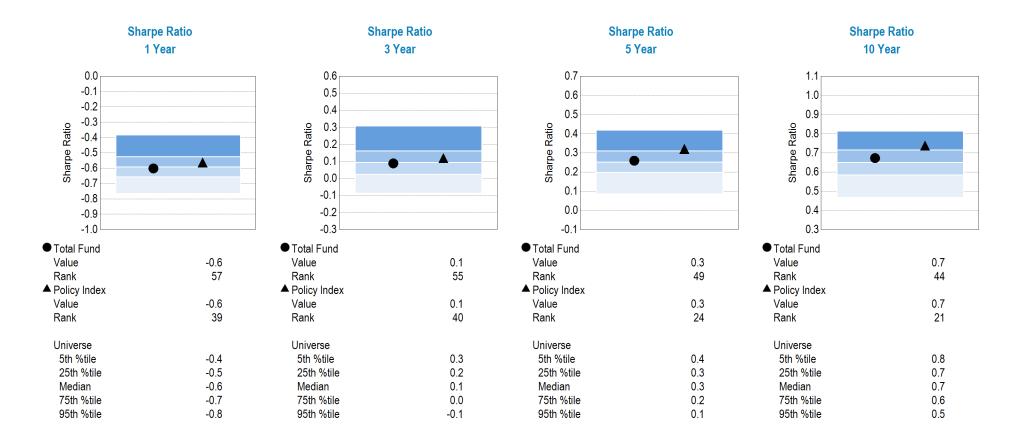
3 Years

				:	5 Years						
	Anlzd Ret	Ann Excess BM Return	Anlzd Std Dev	Anlzd Alpha	Beta	Tracking Error	R-Squared	Sharpe Ratio	Info Ratio	Up Mkt Cap Ratio	Down Mkt Cap Ratio
BlackRock Russell 1000 Growth	10.39%	0.02%	13.97%	0.03%	1.00	0.04%	1.00	0.66	0.67	100.07%	99.94%
BlackRock Russell 1000 Value	2.01%	0.11%	14.81%	0.11%	1.00	0.07%	1.00	0.06	1.64	100.27%	99.73%
Dodge & Cox-Equity	2.51%	0.61%	16.58%	0.44%	1.08	4.20%	0.94	0.08	0.14	117.95%	105.32%
Capital Prospects	-3.33%	-0.91%	20.80%	-0.83%	1.03	3.17%	0.98	-0.21	-0.29	93.61%	100.06%
LSV Asset Mgt	-1.79%	-1.15%	16.21%	-1.08%	1.10	3.13%	0.97	-0.18	-0.37	111.91%	107.14%
Fidelity	-0.41%	0.24%	14.00%	0.21%	0.95	2.17%	0.98	-0.11	0.11	90.95%	95.77%
BlackRock US Real Estate	-1.50%	-0.05%	17.17%	-0.05%	1.00	0.04%	1.00	-0.15	-1.14	99.63%	100.01%

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



Total Fund Sharpe Ratio Rankings (Net of Fees)





Total Fund Investment Fund Fee Analysis

Name	Asset Class	Fee Schedule	Market Value	Estimated Fee Value	Estimated Fee
Cash Account	Cash and Equivalents	0.10% of Assets	\$15,073,963	\$15,074	0.10%
Insight	Domestic Fixed Income	0.12% of Assets	\$202,872,317	\$243,447	0.12%
BlackRock Russell 1000 Growth	Domestic Equity	0.02% of Assets	\$147,201,980	\$29,440	0.02%
BlackRock Russell 1000 Value	Domestic Equity	0.02% of Assets	\$67,281,388	\$13,456	0.02%
Dodge & Cox-Equity	Domestic Equity	0.40% of First 10.0 Mil, 0.20% of Next 90.0 Mil, 0.15% Thereafter	\$66,603,012	\$153,206	0.23%
Capital Prospects	Domestic Equity	0.75% of Assets	\$51,955,756	\$389,668	0.75%
Northern Trust Russell 3000	Domestic Equity	0.02% of Assets	\$115,300,878	\$23,060	0.02%
LSV Asset Mgt	International Equity	0.75% of First 25.0 Mil, 0.65% of Next 25.0 Mil, 0.55% of Next 50.0 Mil, 0.45% Thereafter	\$198,671,008	\$1,069,020	0.54%
Fidelity	International Equity	0.25% of Assets	\$207,544,170	\$518,860	0.25%
Prime Property Fund	Real Estate	0.84% of Assets	\$59,298,963	\$498,111	0.84%
BlackRock US Real Estate	Real Estate	0.09% of First 100.0 Mil, 0.07% Thereafter	\$16,422,629	\$14,780	0.09%
American Strategic Value Realty	Real Estate	1.25% of First 10.0 Mil, 1.20% of Next 15.0 Mil, 1.10% of Next 25.0 Mil, 1.00% Thereafter	\$67,630,097	\$756,301	1.12%
AQR Global Risk Premium - EL	Alternatives	0.38% of Assets	\$147,900,082	\$562,020	0.38%
PanAgora Risk Parity Multi Asset	Alternatives	0.35% of Assets	\$144,372,723	\$505,305	0.35%
Owl Rock First Lien Fund	Alternatives	0.70% of Assets	\$5,019,972	\$35,140	0.70%
Northern Trust Intermediate Gov't Bond	Domestic Fixed Income	0.05% of First 25.0 Mil, 0.04% Thereafter	\$48,940,355	\$22,076	0.05%
Northern Trust Long Term Gov't Bond	Domestic Fixed Income	0.05% of First 25.0 Mil, 0.04% Thereafter	\$20,766,223	\$10,383	0.05%
DFA	Domestic Fixed Income	0.20% of First 25.0 Mil, 0.10% Thereafter	\$182,625,640	\$207,626	0.11%
Total			\$1,713,525,399	\$5,066,974	0.30%

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



-16.8

239

-13.4

-12.4

(44)

(25)

-16.8

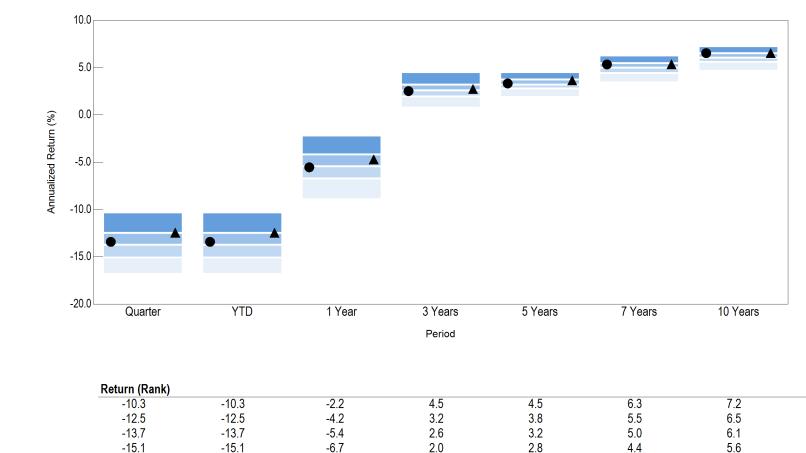
239

-13.4

-12.4

(44)

(25)



0.8

229

2.5

2.7

(56)

(45)

1.9

214

3.3

3.6

(46)

(29)

Total Fund Cumulative Performance vs. InvMetrics Public DB Net

-8.9

238

-5.5

-4.7

(54)

(33)



5th Percentile

25th Percentile

75th Percentile

95th Percentile

of Portfolios

Total Fund

▲ Policy Index

Median

3.5

196

5.3

5.4

(35)

(34)

4.7

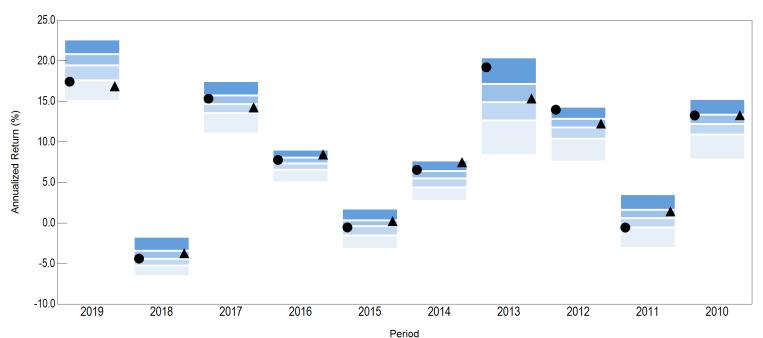
161

6.5

6.5

(26)

(25)



Total Fund Consecutive Periods vs. InvMetrics Public DB Net

	Return (Rank	()								
5th Percentile	22.6	-1.7	17.5	9.0	1.7	7.7	20.4	14.3	3.6	15.3
25th Percentile	20.8	-3.4	15.8	8.1	0.4	6.4	17.2	12.9	1.6	13.4
Median	19.5	-4.4	14.7	7.4	-0.4	5.5	14.9	11.8	0.6	12.2
75th Percentile	17.6	-5.2	13.6	6.6	-1.5	4.4	12.7	10.4	-0.5	10.9
95th Percentile	15.1	-6.5	11.1	5.0	-3.2	2.7	8.4	7.6	-3.1	7.9
# of Portfolios	550	496	269	269	262	210	191	159	137	131
Total Fund	17.4 (77)	-4.4 (51)	15.3 (36)	7.8 (36)	-0.6 (55)	6.5 (22)	19.2 (12)	14.0 (9)	-0.6 (77)	13.3 (27)
Policy Index	16.9 (84)	-3.7 (34)	14.3 (60)	8.5 (18)	0.2 (29)	7.5 (8)	15.4 (45)	12.3 (41)	1.4 (30)	13.3 (27)

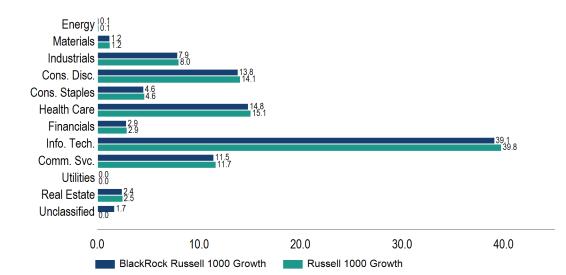


Domestic Equity Managers

BlackRock Russell 1000 Growth Manager Portfolio Overview

	Portfolio	Russell 1000 Growth
Number of Holdings	532	532
Weighted Avg. Market Cap. (\$B)	349.88	355.15
Median Market Cap. (\$B)	9.83	9.83
Price To Earnings	23.77	23.75
Price To Book	6.74	6.72
Price To Sales	3.97	3.97
Return on Equity (%)	35.35	35.36
Yield (%)	1.34	1.34
Beta	1.00	1.00

Characteristics



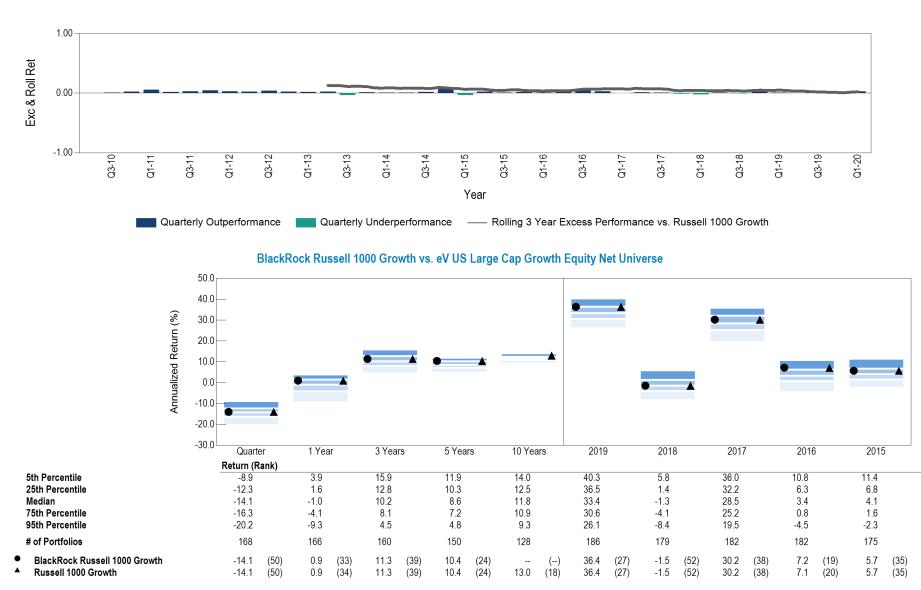
Sector Allocation (%) vs Russell 1000 Growth

Larges	st Holdings		Bott	tom Contribu	tors			Top Contributo	rs	
	End Weight	Return		Avg Wgt	Return	Contributio	n	Avg Wgt	Return	Contribution
MICROSOFT	9.02	0.28	APPLE	2.82	-13.20	-0.37	AMAZON.COM	1.65	5.51	0.09
APPLE	7.93	-13.20	BOEING	0.37	-53.94	-0.20	NETFLIX	0.29	16.05	0.05
AMAZON.COM	6.17	5.51	FACEBOOK CLASS A	1.06	-18.73	-0.20	NVIDIA	0.30	12.10	0.04
FACEBOOK CLASS A	3.02	-18.73	ALPHABET A	0.87	-13.25	-0.11	TESLA	0.13	25.26	0.03
ALPHABET 'C'	2.64	-13.03	ALPHABET 'C'	0.86	-13.03	-0.11	ELI LILLY	0.24	6.10	0.01
ALPHABET A	2.63	-13.25	MASTERCARD	0.57	-18.99	-0.11	VERTEX PHARMS.	0.12	8.68	0.01
VISA 'A'	2.09	-14.13	VISA 'A'	0.69	-14.13	-0.10	DEXCOM	0.04	23.10	0.01
UNITEDHEALTH GROUP	1.78	-14.83	UNITEDHEALTH GROUP	0.60	-14.83	-0.09	EQUINIX REIT	0.11	7.45	0.01
ISHARES RUSSELL 1000	1.68	-14.11	CISCO SYSTEMS	0.44	-17.44	-0.08	CITRIX SYS.	0.03	28.02	0.01
GROWTH ETF	1.00	-14.11	MERCK & COMPANY	0.47	-14.73	-0.07	MICROSOFT	2.57	0.28	0.01
MASTERCARD	1.62	-18.99								

Unclassified sector allocation includes cash allocations.

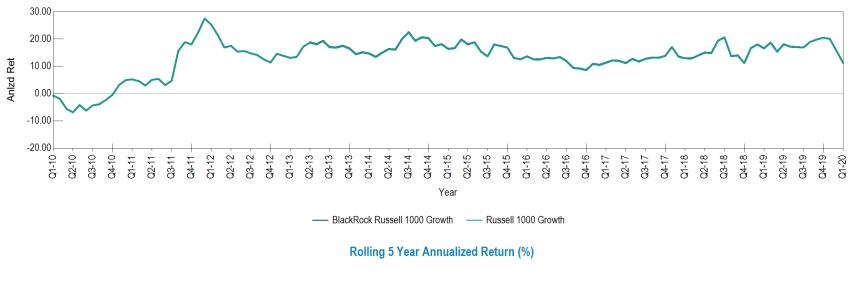


BlackRock Russell 1000 Growth Manager Performance Comparisons (Gross of Fees)

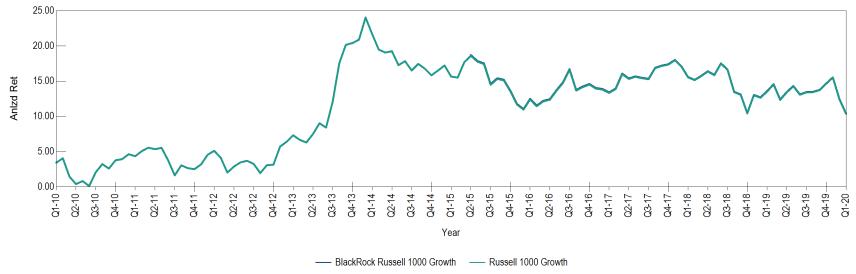


Rolling Annualized Excess Performance

Verus⁷⁷

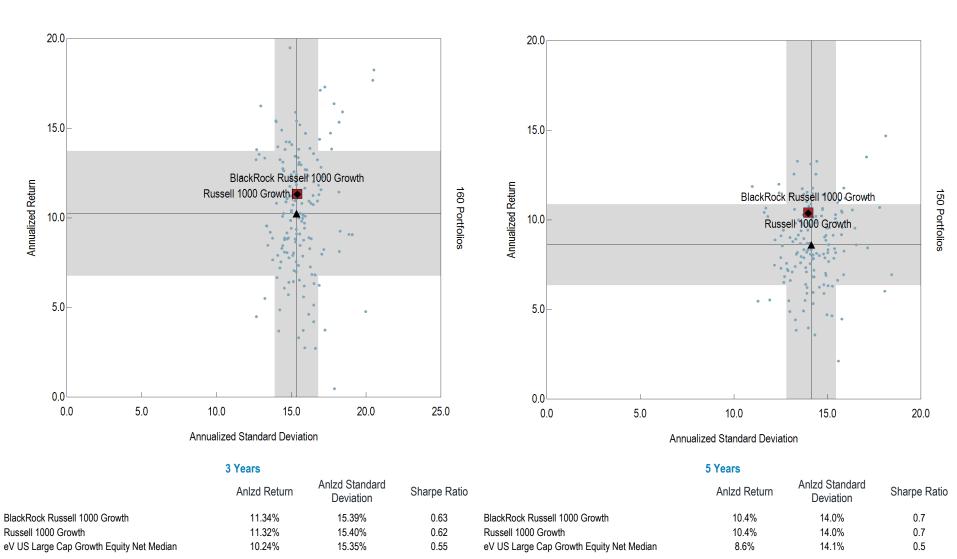


Rolling 3 Year Annualized Return (%)





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



3 Years

5 Years



BlackRock Russell 1000 Value Manager Portfolio Overview

Characteristics

	Portfolio	Russell 1000 Value
Number of Holdings	763	765
Weighted Avg. Market Cap. (\$B)	98.92	98.90
Median Market Cap. (\$B)	6.31	6.29
Price To Earnings	12.56	12.56
Price To Book	2.15	2.17
Price To Sales	1.86	1.86
Return on Equity (%)	15.02	15.02
Yield (%)	3.48	3.48
Beta	1.00	1.00

Energy 5.4 5.4 Materials 4.2 Industrials 9.5 Cons. Disc. 5.2 5.2 10.6 10.6 Cons. Staples Health Care 15.5 15.5 Financials 21.3 Info. Tech. 6.8 8.6 Comm. Svc. Utilities 7.8 Real Estate Unclassified 8.8 0.0 5.0 10.0 15.0 20.0 25.0 BlackRock Russell 1000 Value Russell 1000 Value

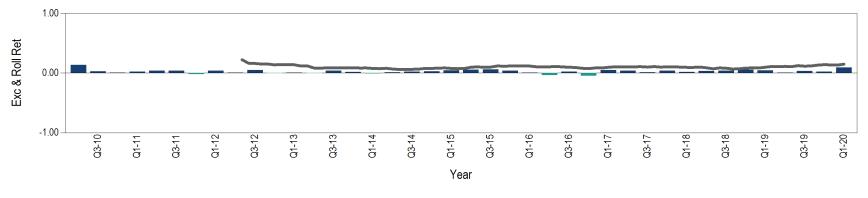
Sector Allocation (%) vs Russell 1000 Value

Largest	Holdings		Bott	om Contribu	tors		1	op Contributo	rs	
	End Weight	Return		Avg Wgt	Return	Contribution	1	Avg Wgt	Return	Contribution
BERKSHIRE HATHAWAY 'B'	3.42	-19.28	JP MORGAN CHASE &	1.01	-35.00	-0.35	GILEAD SCIENCES	0.16	16.19	0.03
JOHNSON & JOHNSON	2.83	-9.52	CO.		00.00	0.00	REGENERON PHARMS.	0.06	30.04	0.02
JP MORGAN CHASE & CO.	2.69	-35.00	EXXON MOBIL	0.68	-44.80	-0.31	DIGITAL REALTY TST.	0.06	17.02	0.01
PROCTER & GAMBLE	2.41	-11.40	BANK OF AMERICA	0.66	-39.32	-0.26	NORTONLIFELOCK	0.03	27.67	0.01
INTEL	2.22	-9.13	WELLS FARGO & CO	0.47	-46.09	-0.22	BIOGEN	0.08	6.62	0.01
VERIZON COMMUNICATIONS	2.13	-11.58	CHEVRON	0.53	-39.17	-0.21	SPRINT	0.01	65.45	0.00
AT&T	2.04	-24.41	BERKSHIRE HATHAWAY	1.03	-19.28	-0.20	QIAGEN	0.02	23.08	0.00
PFIZER	1.74	-15.84		0.50	22.04	0.40	NEWMONT	0.08	4.50	0.00
BANK OF AMERICA	1.63	-39.32	WALT DISNEY	0.58	-33.21	-0.19	PROGRESSIVE OHIO	0.07	5.30	0.00
WALT DISNEY	1.61	-33.21	CITIGROUP	0.40	-46.92	-0.19	LEGG MASON	0.01	37.24	0.00
			AT&T	0.66	-24.41	-0.16				
			RAYTHEON TECHNOLOGIES	0.28	-36.71	-0.10				

Holdings as of 2/29/2020. Unclassified sector allocation includes cash allocations.



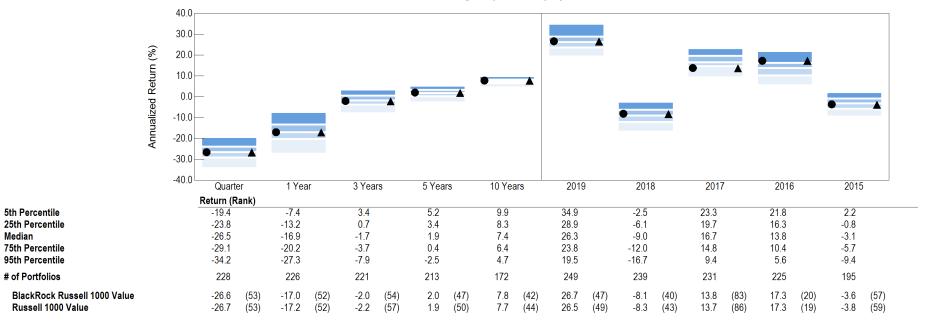
BlackRock Russell 1000 Value Manager Performance Comparisons (Gross of Fees)



Rolling Annualized Excess Performance



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





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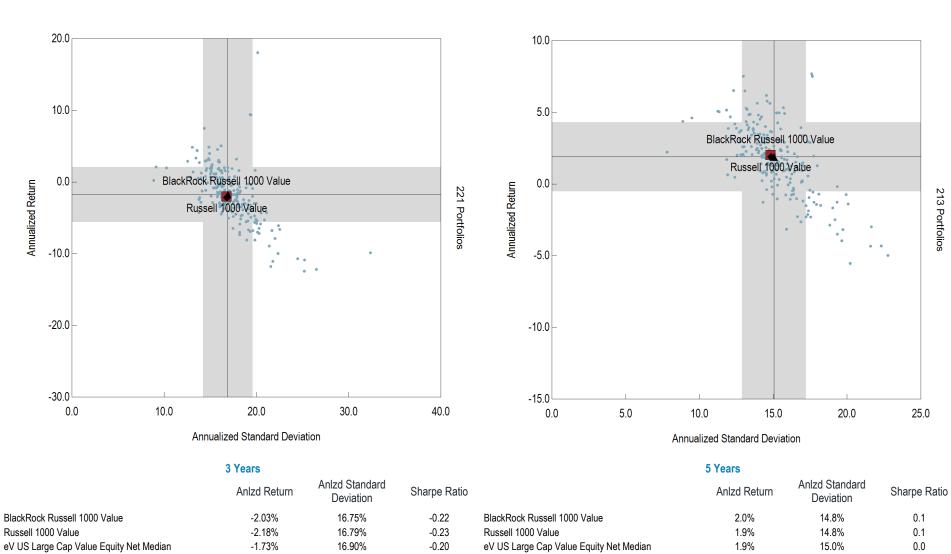


Rolling 3 Year Annualized Return (%)

----- BlackRock Russell 1000 Value ----- Russell 1000 Value



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



3 Years

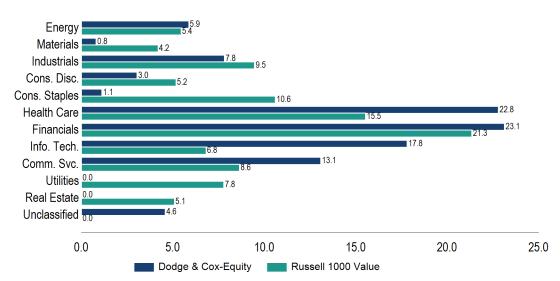
5 Years



Dodge & Cox-Equity Manager Portfolio Overview

Characteristics

	Portfolio	Russell 1000 Value
Number of Holdings	68	765
Weighted Avg. Market Cap. (\$B)	130.28	98.90
Median Market Cap. (\$B)	20.59	6.29
Price To Earnings	11.73	12.56
Price To Book	2.45	2.17
Price To Sales	1.46	1.86
Return on Equity (%)	14.94	15.02
Yield (%)	3.04	3.48
Beta	1.06	1.00

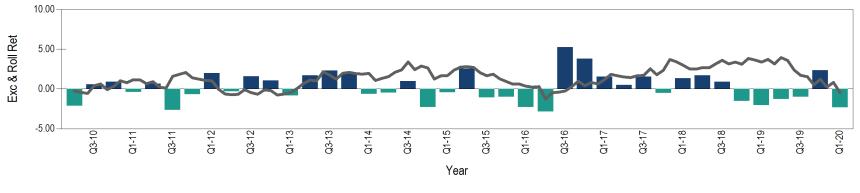


Sector Allocation (%) vs Russell 1000 Value

Largest Holdings			Bottom Contributors				Top Contributors			
	End Weight	Return		Avg Wgt	Return	Contribution	ı	Avg Wgt	Return	Contribution
CHARLES SCHWAB	3.95	-29.04	OCCIDENTAL PTL.	2.76	-70.13	-1.93	SPRINT	0.49	65.45	0.32
FEDEX	3.66	-19.40	CAPITAL ONE FINL.	3.30	-50.81	-1.68	GILEAD SCIENCES	1.30	16.19	0.21
ALPHABET 'C'	3.58	-13.03	WELLS FARGO & CO	3.36	-46.09	-1.55	ELI LILLY	0.92	6.10	0.06
MICROSOFT	3.50	0.28	BANK OF AMERICA	3.05	-39.32	-1.20	MICROSOFT	1.22	0.28	0.00
BANK OF AMERICA	3.27	-39.32	CHARLES SCHWAB	3.50	-29.04	-1.02	BIOMARIN PHARM.	0.32	-0.06	0.00
COMCAST A	3.22	-22.68	APACHE	1.01	-83.54	-0.84	ALPHABET A	0.17	-13.25	-0.02
HP	3.13	-14.77	METLIFE	2.00	-39.49	-0.79	ALNYLAM	0.53	-5.49	-0.03
CHARTER COMMS.CL.A	3.03	-10.05	BAKER HUGHES A	1.32	-58.69	-0.78	PHARMACEUTICALS	0.55	-0.49	
SANOFI ADR 2:1 (XSC)	3.00	-12.91	RAYTHEON	2.11	-36.71	-0.78	INCYTE	0.26	-16.14	-0.04
WELLS FARGO & CO	2.93	-46.09	TECHNOLOGIES				NEWS 'A'	0.16	-35.94	-0.06
			SCHLUMBERGER	1.14	-65.95	-0.75	CVS HEALTH	0.35	-19.60	-0.07

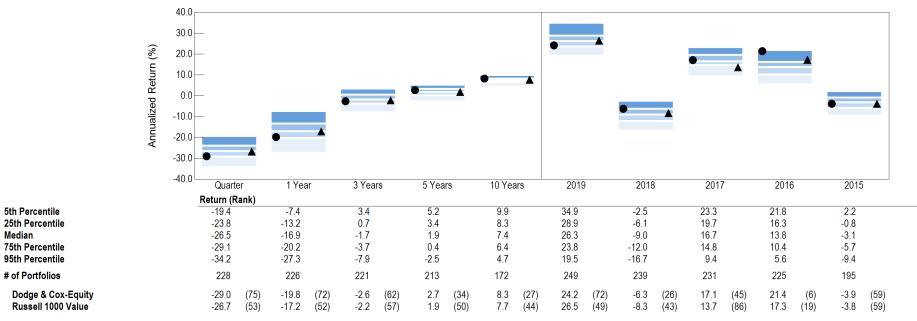
Holdings as of 2/29/2020. Unclassified sector allocation includes cash allocations.





Rolling Annualized Excess Performance

Quarterly Outperformance Quarterly Underperformance ----- Rolling 3 Year Excess Performance vs. Russell 1000 Value



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



Median

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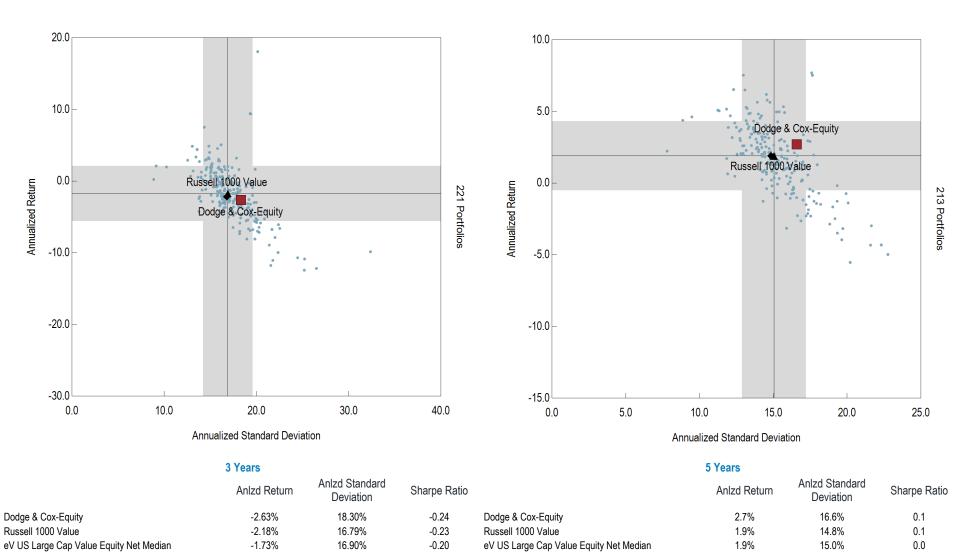


Rolling 3 Year Annualized Return (%)

---- Dodge & Cox-Equity ---- Russell 1000 Value



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



3 Years

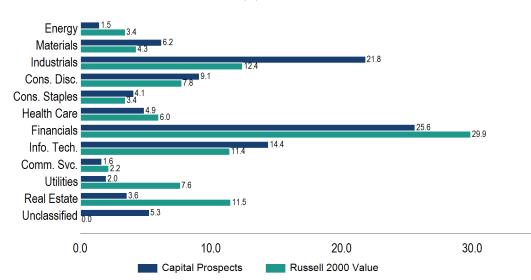
5 Years



Capital Prospects Manager Portfolio Overview

Characteristics

	Portfolio	Russell 2000 Value
Number of Holdings	269	1,391
Weighted Avg. Market Cap. (\$B)	1.81	1.62
Median Market Cap. (\$B)	0.98	0.42
Price To Earnings	11.38	10.46
Price To Book	1.82	1.64
Price To Sales	1.26	1.11
Return on Equity (%)	9.19	5.52
Yield (%)	2.57	3.17
Beta	1.08	1.00

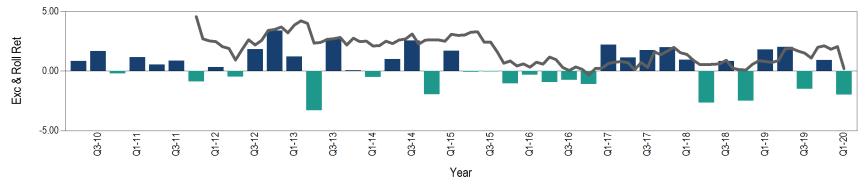


Sector Allocation (%) vs Russell 2000 Value

Larges	t Holdings		Bot	tom Contribu	tors		Top Contributors					
	End Weight	Return		Avg Wgt	Return	Contribution	ı	Avg Wgt	Return	Contribution		
CROWN HDG.	1.62	-19.99	CINEMARK HOLDINGS	1.11	-69.43	-0.77	VIRTU FINANCIAL CL.A	0.12	31.87	0.04		
LITTELFUSE	1.37	-30.08	AIR LEASE	1.25	-52.94	-0.66	QTS REALTY TRUST CL.A	0.40	7.96	0.03		
HOSTESS BRANDS CL.A	1.18	-26.68	OFG BANCORP	1.11	-52.36	-0.58	VISTA OUTDOOR	0.14	17.65	0.02		
HILLENBRAND	1.09	-41.91	GRANITE POINT	0.68	-72.42	-0.49	CSS INDS.	0.02	112.47	0.02		
DARLING INGREDIENTS	1.09	-31.73	MORTGAGE TRUST			0.40	COHERENT	0.01	-36.03	0.00		
AIR LEASE	0.98	-52.94	HOWMET AEROSPACE	1.02	-47.77	-0.49	TTEC HOLDINGS	0.09	-6.46	-0.01		
OFG BANCORP	0.95	-52.36	ONESPAWORLD	0.51	-75.83	-0.38	1-800-FLOWERS.COM 'A'	0.08	-8.76	-0.01		
ARTISAN PTNS.ASTMGMT. VERSO 'A'	0.94 0.94	-31.16 -37.44	HOLDINGS PEBBLEBROOK HOTEL	0.65	-59.34	-0.38	WRIGHT MEDICAL GROUP	0.13	-6.00	-0.01		
KNOWLES	0.92	-36.74		0.00	52.04	0.00	AMERESCO CLASS A	0.33	-2.69	-0.01		
			BANC OF CALIFORNIA HILLENBRAND	0.68 0.86	-53.21 -41.91	-0.36 -0.36	SILGAN HOLDINGS	0.17	-6.21	-0.01		
			VERSO 'A'	0.94	-37.44	-0.35						

Holdings as of 2/29/2020. Unclassified sector allocation includes cash allocations.

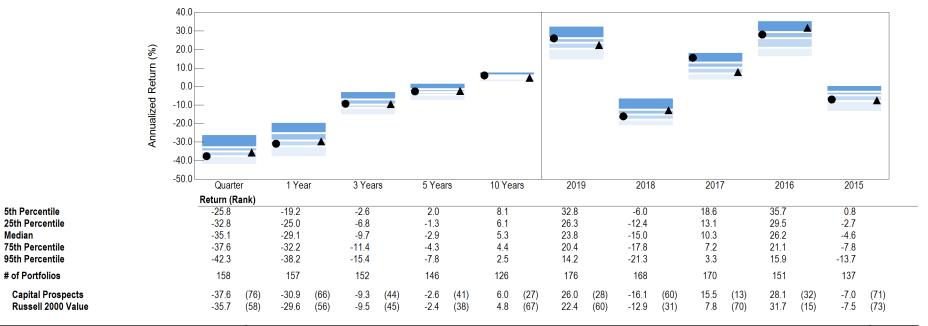




Rolling Annualized Excess Performance



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



Verus⁷⁷

Median

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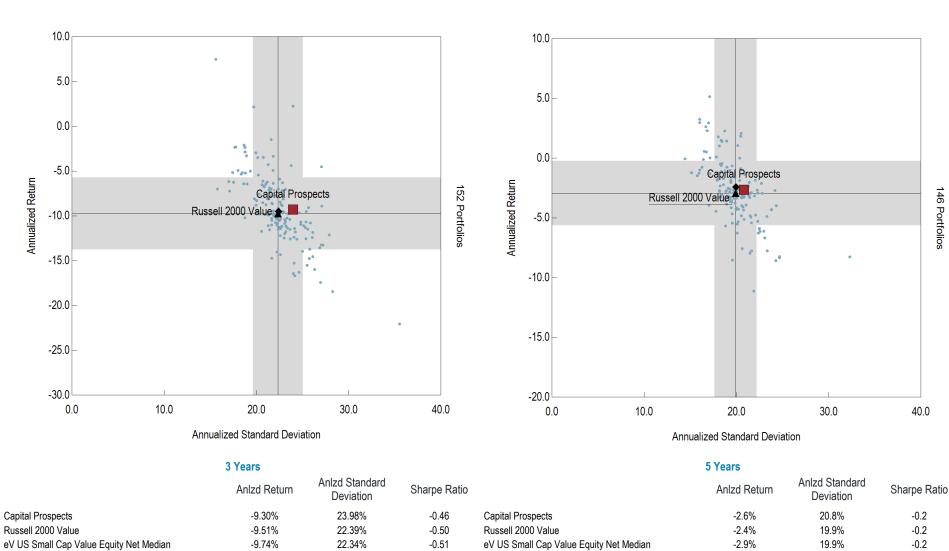
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Rolling 3 Year Annualized Return (%)



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



3 Years

5 Years



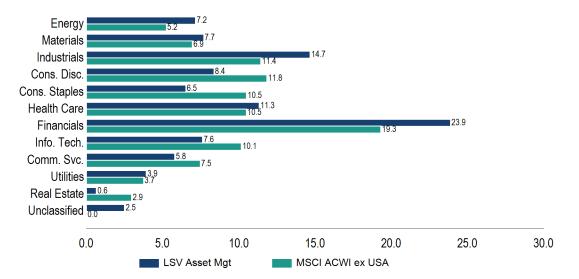
International Equity Managers

LSV Asset Mgt Manager Portfolio Overview

Characteristics

	Portfolio	MSCI ACWI ex USA
Number of Holdings	263	2,404
Weighted Avg. Market Cap. (\$B)	36.48	69.23
Median Market Cap. (\$B)	4.60	5.91
Price To Earnings	8.10	13.10
Price To Book	1.59	2.47
Price To Sales	0.66	1.32
Return on Equity (%)	13.32	15.47
Yield (%)	5.55	3.75
Beta	1.11	1.00

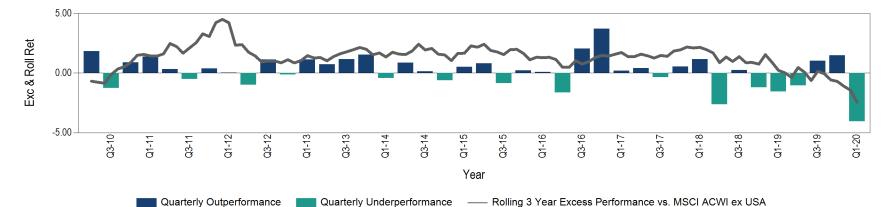
Sector Allocation (%) vs MSCI ACWI ex USA



Largest Holdings				Bottom Contributors						
	End Weight	Return		Avg Wgt	Return	Contribution	1	Avg Wgt	Return	Contribution
ROCHE HOLDING	3.77	3.03	MAGNA INTL.	1.04	-42.03	-0.44	ROCHE HOLDING	2.86	3.03	0.09
SAMSUNG ELECTRONICS	2.06	-18.71	CREDIT SUISSE GROUP	0.98	-38.90	-0.38	NTT DOCOMO INC	0.34	13.83	0.05
SANOFI	2.00	-12.59	SWISS LIFE HOLDING	1.14	-32.14	-0.37	UCB	0.49	8.91	0.04
KDDI	1.85	0.56	LUKOIL OAO SPN.ADR 1:1	0.92	-40.07	-0.37	SELCUK ECZA DEPOSU	0.19	10.58	0.02
NIPPON TELG. & TEL.	1.72	-4.31	TOTAL	1.31	-27.33	-0.36	METCASH	0.22	6.72	0.01
ENEL	1.69	-10.55	VOLKSWAGEN PREF.	0.85	-41.56	-0.35	CHINA RAILWAY CON.'H'	0.41	2.30	0.01
GLAXOSMITHKLINE	1.62	-19.20	SAMSUNG ELECTRONICS	1.87	-18.71	-0.35	KDDI	1.39	0.56	0.01
KONINKLIJKE AHOLD DELHAIZE	1.61	-6.68	CIA PARANAENSE DE	0.88	-39.92	-0.35	CASCADES	0.24	2.88	0.01
TOTAL	1.38	-27.33	ENERGIA COPEL PN				MICRO-STAR	0.19	1.41	0.00
BAE SYSTEMS	1.19	-13.53	REPSOL YPF	0.84	-41.53	-0.35	INTERNATIONAL	0.15	1.71	0.00
			ALLIANZ	1.10	-30.91	-0.34	LONKING HOLDINGS	0.25	-0.33	0.00

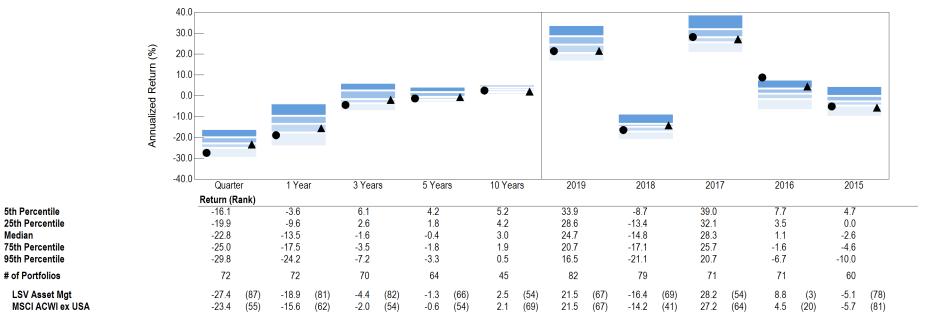
Holdings as of 2/29/2020. Unclassified sector allocation includes cash allocations.





Rolling Annualized Excess Performance



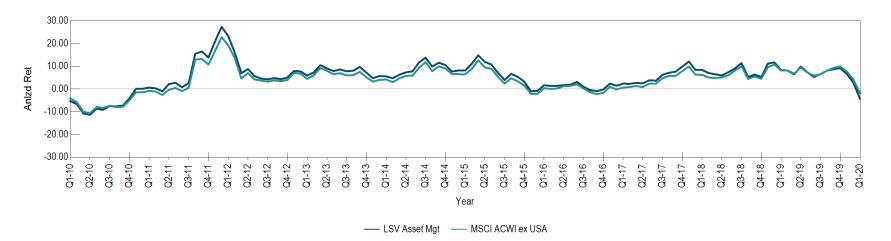




Median

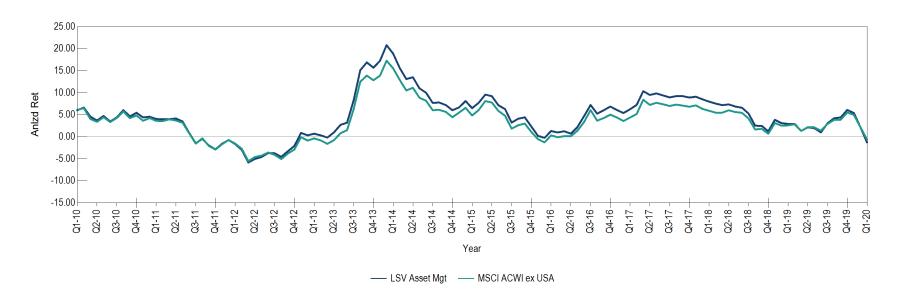
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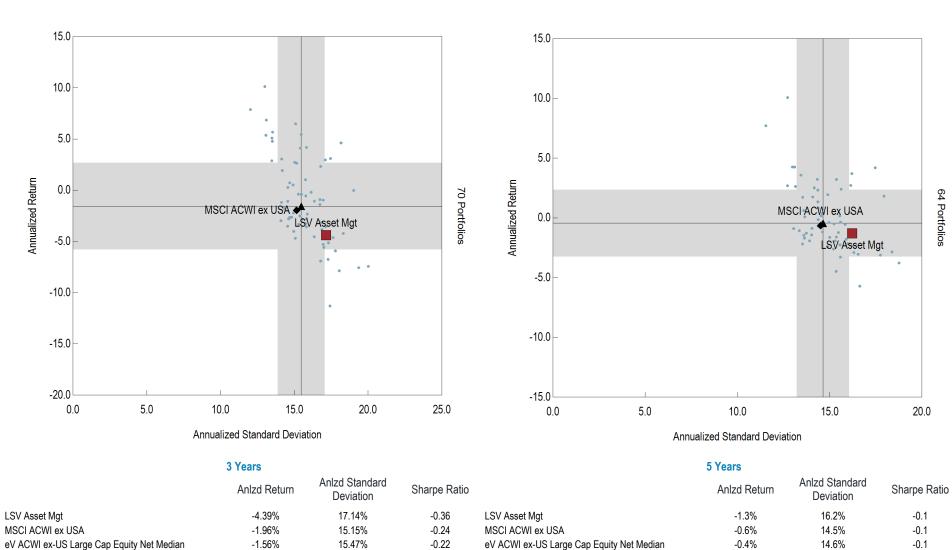
Rolling 3 Year Annualized Return (%)







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



3 Years

5 Years



Fidelity Manager Portfolio Overview

Characteristics

	Portfolio	MSCI ACWI ex USA
Number of Holdings	252	2,168
Weighted Avg. Market Cap. (\$B)	70.78	70.61
Median Market Cap. (\$B)	13.87	7.21
Price To Earnings	17.90	14.97
Price To Book	2.63	2.38
Price To Sales	1.47	1.27
Return on Equity (%)	16.10	15.19
Yield (%)	2.80	3.32
Beta		1.00

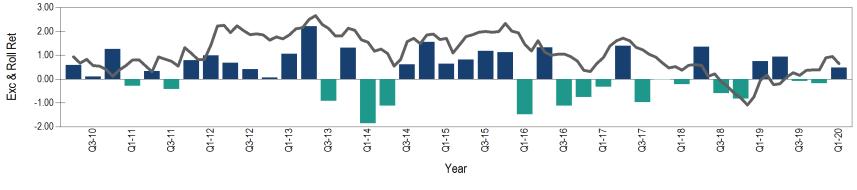
Energy 5.8 Materials Industrials 14.7 11.8 Cons. Disc. 9.8 11.8 9.9 9.5 Cons. Staples Health Care 12.6 9.2 Financials 18.9 21.3 9.8 10.5 Info. Tech. Comm. Svc. 7.0 **Utilities** 1.1 3.7 Real Estate Unclassified 70.7 0.0 5.0 10.0 15.0 20.0 25.0 Fidelity MSCI ACWI ex USA

Sector Allocation (%) vs MSCI ACWI ex USA

Larges	Botte	om Contribu	tors	T	op Contributo					
	End Weight	Return		Avg Wgt	Return	Contribution	ı	Avg Wgt	Return	Contribution
TENCENT HOLDINGS	2.27	16.85	TREASURY WINE	0.89	-43.77	-0.39	TECHTRONIC INDS.	1.40	7.61	0.11
NESTLE 'N'	2.22	-1.79	ESTATES				TENCENT HOLDINGS	0.60	16.85	0.10
ROCHE HOLDING	2.13	3.75	ROYAL DUTCH SHELL A	1.46	-24.26	-0.35	CHUGAI PHARM.	0.38	24.44	0.09
AIA GROUP	2.09	-1.48	SAP	1.84	-11.01	-0.20	VINDA INTERNATIONAL	0.16	47.22	0.07
SAP	1.92	-11.01	BP	1.06	-17.11	-0.18	HDG.	0.10	41.ZZ	0.07
TECHTRONIC INDS.	1.67	7.61	AXA	1.07	-15.47	-0.17	Tencent Holdings Ord Shs	0.43	16.85	0.07
SANOFI	1.45	-1.06	SIEMENS	0.86	-18.78	-0.16	ROCHE HOLDING	1.88	3.75	0.07
TAIWAN SEMICON.MNFG.	1.39	5.18	MARUI GROUP	0.84	-18.83	-0.16	CELLNEX TELECOM	0.52	12.06	0.06
ROYAL DUTCH SHELL A	1.28	-24.26	SAFRAN	0.85	-16.72	-0.14	SHOPIFY	0.13	38.44	0.05
FRESENIUS MED.CARE	1.20	2.82	ASAHI GROUP HOLDINGS	0.62	-19.23	-0.12	SUBD.VTG.SHS.'A'	0.15	50.77	0.00
			CRH (DUB)	0.91	-12.60	-0.11	LONDON STOCK EX.GROUP	0.50	8.86	0.04
							SHOPIFY 'A' (NYS)	0.09	37.58	0.03

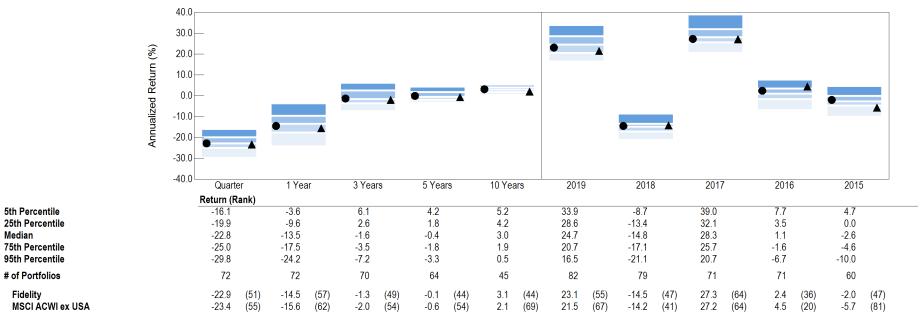
Holdings as of 2/29/2020. Unclassified sector allocation includes cash allocations.





Rolling Annualized Excess Performance

Quarterly Outperformance Quarterly Underperformance ----- Rolling 3 Year Excess Performance vs. MSCI ACWI ex USA



Fidelity vs. eV ACWI ex-US Large Cap Equity Net Universe



5th Percentile

of Portfolios

Fidelity

Median

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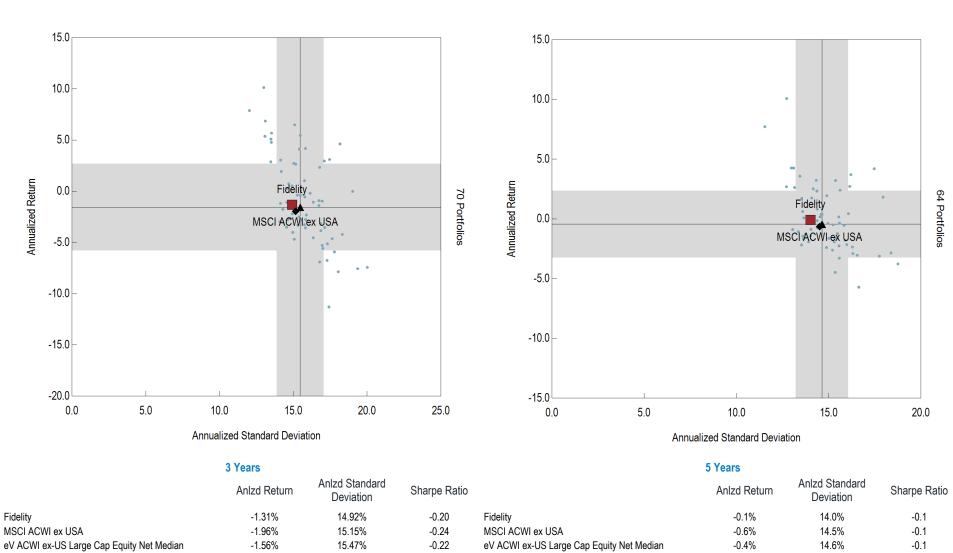
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Rolling 3 Year Annualized Return (%)



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



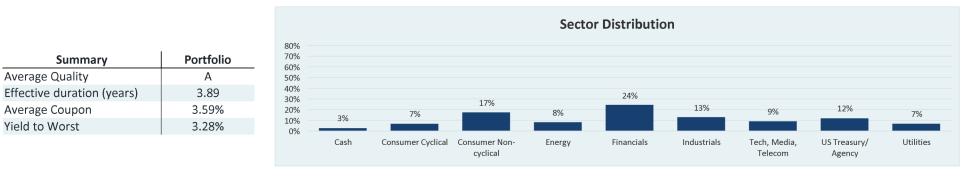
3 Years

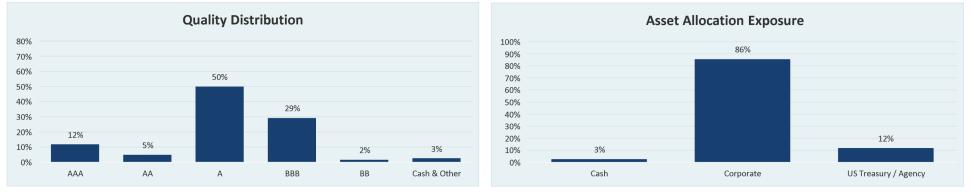
5 Years



Domestic Fixed Income Managers

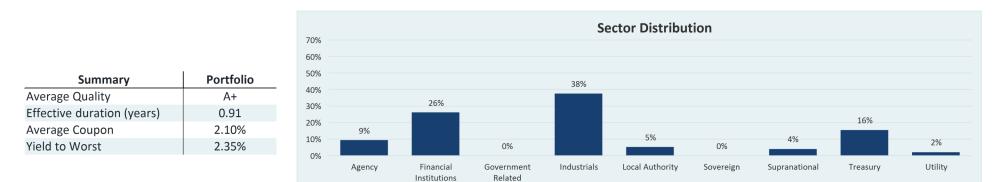
Insight Manager Portfolio Overview



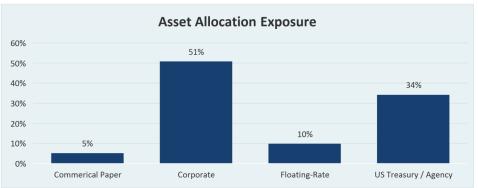




DFA Manager Portfolio Overview









Performance Return Calculations

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

Data Source

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

Illiquid Alternatives

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

<u>Manager</u>	Fund_Incepted	Data_Source	<u>Manager</u>	Fund_Incepted	Data_Source
Northern Trust Russell 3000	12/31/2018	Northern Trust	American Strategic Value Realty	12/31/2014	American Realty
BlackRock Russell 1000 Growth	6/30/2010	BlackRock	BlackRock US Real Estate	9/30/2012	BlackRock
BlackRock Russell 1000 Value	7/31/2009	BlackRock	Greenfield Gap	7/31/2014	Greenfield
Dodge & Cox - Equity	12/31/1994	Northern Trust	Medley Capital	5/31/2013	Medley Capital
Capital Prospects	12/31/2008	Northern Trust	Raven Capital	5/31/2013	Raven Capital
LSV Asset Mgt	8/31/2004	Northern Trust	Raven Opportunity III	7/31/2015	Raven Capital
Fidelity	4/30/2006	Northern Trust	White Oak Pinnacle	8/31/2013	White Oak
Insight	6/29/2017	Northern Trust	PanAgora Risk Parity Multi Asset	11/30/2017	PanAgora
DFA	7/31/2017	Northern Trust	AQR Global Risk Premium - EL	3/5/2018	AQR
Northern Trust Intermediate Gov't Bond	7/31/2017	Northern Trust	MS Infrastructure	5/31/2015	Morgan Stanley
Northern Trust Long Term Gov't Bond	7/31/2017	Northern Trust	PGIM Real Estate US Debt Fund	9/28/2018	Prudential
Prime Property Fund	9/30/2015	Prime Property	Owl Rock First Lien Fund	10/31/2019	Owl Rock

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

US Equity Blended: 60% Russell 1000, 15% Russell 2000, 25% Russell 3000 + 3%.

Prior Policy Index: 10% Russell 1000, 3% Russell 2000, 6% Russell 3000 + 3%, 27% MSCI ACWI ex-USA, 20% BBgBarc US Gov't/Credit 1-3 Yr, 3% BBgBarc US Treasury 7-10 Yr, 5% NCREIF Property, 5% NCREIF Property +2%, 1% CPI +5%, 6% S&P/LSTA Leveraged Loan Index + 2%, 13% 60% MSCI ACWI / 40% BBgBarc Global Aggregate, 1% Citi 1 Month T-Bills.

StanCERA Liquidity Blended 92% BBgBarc US Govt/Credit 1-3 Yr. TR and 8% FTSE T-Bill 1 Month TR. BM (8/31/2019):

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 27% BBgBarc US Treasury 7-10 Yr. TR and 73% BBgBarc US Govt/Credit 1-3 Yr. TR. Blended BM (8/31/2019):



Other Disclosures

Fiscal Year End: 6/30

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

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

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

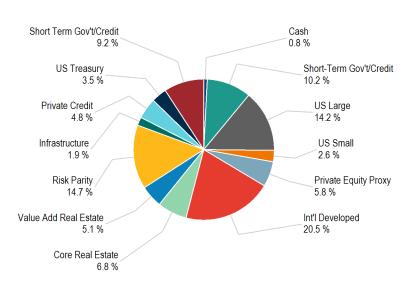


Appendix

Total Fund Executive Summary (Gross of Fees)

	QTD	Fiscal YTD	1 Yr	3 Yrs	5 Yrs	10 Yrs
Total Fund	-13.4	-8.1	-5.3	2.8	3.7	6.9
Policy Index	-12.4	-7.4	-4.7	2.7	3.6	6.5
Liquidity Sub-Portfolio	-2.4	0.1	2.5	2.2	1.7	
StanCERA Liquidity Blended BM	1.6	2.9	4.3	2.5	1.8	
Cash	0.5	1.6	1.8	1.6	1.4	
FTSE T-Bill 1 Month TR	0.4	1.4	2.0	1.7	1.1	
Short-Term Gov't/Credit	-2.7	0.0	2.7			
BBgBarc US Govt/Credit 1-3 Yr. TR	1.7	3.0	4.5			
Growth Sub-Portfolio	-16.9	-11.0	-8.0	2.6	3.9	8.1
StanCERA Growth Blended BM	-15.8	-9.9	-7.0	3.1		
Public Equities	-24.2	-16.5	-13.4	1.3	3.8	9.4
MSCI ACWI IMI NR	-22.4	-15.6	-12.7	0.8	2.4	5.8
US Large	-21.0	-12.3	-8.9	4.4	5.9	10.4
Russell 1000	-20.2	-11.8	-8.0	4.6	6.2	10.4
US Small	-37.6	-33.2	-30.9	-9.6	-3.9	5.7
Russell 2000	-30.6	-25.5	-24.0	-4.6	-0.2	6.9
Private Equity Proxy	-20.9	-12.7	-9.1	5.7	7.1	10.7
Russell 3000 +3%	-19.7	-9.8	-6.1	7.0	8.8	13.2

Current Allocation

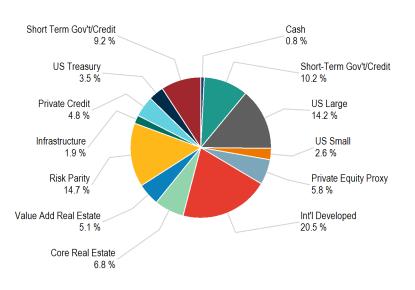




Total Fund Executive Summary (Gross of Fees)

	QTD	Fiscal YTD	1 Yr	3 Yrs	5 Yrs	10 Yrs
Int'I Developed	-25.2	-19.1	-16.7	-2.8	-0.5	2.9
MSCI ACWI ex USA	-23.4	-18.0	-15.6	-2.0	-0.6	2.1
Core Real Estate	-5.0	-1.3	0.3	3.9	2.6	5.4
NCREIF Property Index	N/A	3.0	4.5	6.2	7.5	10.1
Value Add Real Estate	4.8	10.5	12.2	12.3	13.8	
NCREIF Property Index +2%	N/A	4.5	6.6	8.3	9.6	
Risk Parity	-9.8	-5.3	-0.3			
60% MSCI ACWI Net/40% BBgBarc Global Aggregate	-13.3	-8.2	-4.9			
Infrastructure	5.3	10.9	15.2	17.1		
CPI + 5%	1.7	4.5	6.6	7.0		
Private Credit	-4.9	-3.6	-2.0	2.4	2.9	
S&P/LSTA Leveraged Loan Index+2%	-12.6	-9.3	-7.3	1.2	3.2	
Risk-Diversifying Sub-Portfolio	2.2	3.9	6.0	4.0	3.5	4.4
StanCERA Risk-Diversifying Blended BM	4.0	5.4	7.6	3.8	2.6	2.7
US Treasury	9.7	11.7	15.4	7.2	5.4	5.4
BBgBarc US Treasury 7-10 Yr TR	10.1	11.8	16.2	7.0	4.4	5.4
Short-Term Gov't/Credit	-0.4	1.3	2.9			
BBgBarc US Govt/Credit 1-3 Yr. TR	1.7	3.0	4.5			

Current Allocation



NCREIF Property Index not available at time of production.



Total Fund Performance Summary (Gross of Fees)

Period Ending: March 31, 2020

Market	/alue	% of Portfolio	3 Mo	Fiscal YTD	1 Yr	3 Yrs	5 Yrs	10 Yrs	2019	2018	2017	2016	2015	Inception	nception Date
Total Fund 1,985,67	7,723	100.0	-13.4	-8.1	-5.3	2.8	3.7	6.9	17.8	-4.1	15.7	8.3	-0.2	8.6	Dec-94
Policy Index			-12.4	-7.4	-4.7	2.7	3.6	6.5	16.9	-3.7	14.3	8.5	0.2	7.5	Dec-94
Liquidity Sub-Portfolio 217,94	6,339	11.0	-2.4	0.1	2.5	2.2	1.7		7.9	0.9	0.5	1.5	1.0	9.0	Apr-11
StanCERA Liquidity Blended BM			1.6	2.9	4.3	2.5	1.8		3.9	1.6	0.8	1.2	0.6	1.5	Apr-11
Cash 15,07	4,021	0.8	0.5	1.6	1.8	1.6	1.4		1.7	1.7	1.1	1.5	1.0	8.8	Apr-11
FTSE T-Bill 1 Month TR			0.4	1.4	2.0	1.7	1.1		2.2	1.8	0.8	0.2	0.0	0.6	Apr-11
Short-Term Gov't/Credit 202,87	2,317	10.2	-2.7	0.0	2.7				8.7	0.7				2.6	Jun-17
BBgBarc US Govt/Credit 1-3 Yr. TR			1.7	3.0	4.5				4.0	1.6				2.7	Jun-17
Insight 202,87	2,317	10.2	-2.7	0.0	2.7				8.7	0.7				2.6	Jun-17
BBgBarc US Govt/Credit 1-3 Yr. TR			1.7	3.0	4.5				4.0	1.6				2.7	Jun-17
Growth Sub-Portfolio 1,515,33	9,166	76.3	-16.9	-11.0	-8.0	2.6	3.9	8.1	21.4	-5.8	19.7	9.5	-0.4	7.2	Dec-03
StanCERA Growth Blended BM			-15.8	-9.9	-7.0	3.1			20.7	-4.9	19.1	8.1			Dec-03
Public Equities 333,04	2,135	16.8	-24.2	-16.5	-13.4	1.3	3.8	9.4	29.7	-6.9	19.5	12.6	-0.4	7.8	Dec-03
MSCI ACWI IMI NR			-22.4	-15.6	-12.7	0.8	2.4	5.8	26.4	-10.1	23.9	8.4	-2.2	5.8	Dec-03
US Large 281,08	6,379	14.2	-21.0	-12.3	-8.9	4.4	5.9	10.4	30.7	-3.9	21.3	11.0	0.7	11.6	Dec-94
Russell 1000			-20.2	-11.8	-8.0	4.6	6.2	10.4	31.4	-4.8	21.7	12.1	0.9	9.2	Dec-94
BlackRock Russell 1000 Growth 147,20	1,980	7.4	-14.1	-3.5	0.9	11.3	10.4		36.4	-1.5	30.2	7.2	5.7	14.2	Jul-10
Russell 1000 Growth			-14.1	-3.6	0.9	11.3	10.4		36.4	-1.5	30.2	7.1	5.7	14.1	Jul-10
BlackRock Russell 1000 Value 67,28	1,388	3.4	-26.6	-20.1	-17.0	-2.0	2.0	7.8	26.7	-8.1	13.8	17.3	-3.6	9.3	Jul-09
Russell 1000 Value			-26.7	-20.2	-17.2	-2.2	1.9	7.7	26.5	-8.3	13.7	17.3	-3.8	9.2	Jul-09
Dodge & Cox-Equity 66,60	3,012	3.4	-29.0	-21.8	-19.8	-2.6	2.7	8.3	24.2	-6.3	17.1	21.4	-3.9	10.6	Dec-94
Russell 1000 Value			-26.7	-20.2	-17.2	-2.2	1.9	7.7	26.5	-8.3	13.7	17.3	-3.8	8.6	Dec-94
US Small 51,95	5,756	2.6	-37.6	-33.2	-30.9	-9.6	-3.9	5.7	26.0	-16.1	15.7	17.1	-3.9	8.5	Dec-08
Russell 2000			-30.6	-25.5	-24.0	-4.6	-0.2	6.9	25.5	-11.0	14.6	21.3	-4.4	9.2	Dec-08
Capital Prospects 51,95	5,756	2.6	-37.6	-33.2	-30.9	-9.3	-2.6	6.0	26.0	-16.1	15.5	28.1	-7.0	8.7	Dec-08
Russell 2000 Value			-35.7	-30.6	-29.6	-9.5	-2.4	4.8	22.4	-12.9	7.8	31.7	-7.5	6.9	Dec-08
Private Equity Proxy 115,30	0,878	5.8	-20.9	-12.7	-9.1	5.7	7.1	10.7	31.1	-0.2	21.2	11.8	1.4	8.0	Nov-03
Russell 3000 +3%			-19.7	-9.8	-6.1	7.0	8.8	13.2	34.0	-2.2	24.1	15.7	3.5	10.8	Nov-03
Northern Trust Russell 3000 115,30	0,878	5.8	-20.9	-12.7	-9.1				31.1					3.0	Dec-18
Russell 3000			-20.9	-12.7	-9.1				31.0					2.9	Dec-18



Total Fund Performance Summary (Gross of Fees)

	Market Value	% of Portfolio	3 Mo	Fiscal YTD	1 Yr	3 Yrs	5 Yrs	10 Yrs	2019	2018	2017	2016	2015	Inception	Inception Date
Int'l Developed	406,215,177	20.5	-25.2	-19.1	-16.7	-2.8	-0.5	2.9	22.3	-15.5	27.9	6.0	-3.4	5.0	Sep-04
MSCI ACWI ex USA			-23.4	-18.0	-15.6	-2.0	-0.6	2.1	21.5	-14.2	27.2	4.5	-5.7	4.2	Sep-04
LSV Asset Mgt	198,671,008	10.0	-27.4	-20.5	-18.9	-4.4	-1.3	2.5	21.5	-16.4	28.2	8.8	-5.1	4.6	Sep-04
MSCI ACWI ex USA			-23.4	-18.0	-15.6	-2.0	-0.6	2.1	21.5	-14.2	27.2	4.5	-5.7	4.2	Sep-04
Fidelity	207,544,170	10.5	-22.9	-17.7	-14.5	-1.3	-0.1	3.1	23.1	-14.5	27.3	2.4	-2.0	2.4	Apr-06
MSCI ACWI ex USA			-23.4	-18.0	-15.6	-2.0	-0.6	2.1	21.5	-14.2	27.2	4.5	-5.7	1.5	Apr-06
Core Real Estate	134,066,213	6.8	-5.0	-1.3	0.3	3.9	2.6	5.4	10.7	1.9	5.5	5.8	-0.5	2.6	Mar-08
NCREIF Property Index			N/A	3.0	4.5	6.2	7.5	10.1	6.4	6.7	7.0	8.0	13.3	6.0	Mar-08
Prime Property Fund	59,298,963	3.0	0.9	4.5	6.7	8.3			7.4	9.1	9.9	10.4		9.1	Sep-15
NCREIF-ODCE			1.0	3.8	4.9	6.8			5.3	8.3	7.6	8.8		7.7	Sep-15
BlackRock US Real Estate	16,422,629	0.8	-28.5	-24.5	-23.9	-4.2	-1.4		23.1	-4.1	3.8	6.6	4.4	3.9	Sep-12
DJ US Select RESI TR USD			-28.5	-24.6	-24.0	-4.3	-1.4		23.1	-4.2	3.8	6.6	4.5	3.9	Sep-12
PGIM Real Estate US Debt Fund	58,344,620	2.9	1.1	4.2	5.8				6.4					5.9	Sep-18
BBgBarc CMBS IG TR USD			0.5	2.1	5.4				8.3					6.3	Sep-18
Value Add Real Estate	101,285,755	5.1	4.8	10.5	12.2	12.3	13.8		10.1	12.9	13.5	10.3	21.7	12.9	Jul-14
NCREIF Property Index +2%			N/A	4.5	6.6	8.3	9.6		8.5	8.8	9.1	10.1	15.6	10.5	Jul-14
American Strategic Value Realty	67,630,097	3.4	N/A	4.8	6.7	9.2	11.7		9.6	10.2	11.5	13.1	21.4	12.4	Dec-14
NCREIF Property Index			N/A	3.0	4.5	6.2	7.5		6.4	6.7	7.0	8.0	13.3	7.8	Dec-14
Greenfield Gap VII	10,698,152	0.5	7.0	18.9	19.8	16.4	16.4		16.8	14.6	16.5	7.7	22.0	15.3	Jul-14
NCREIF ODCE + 1%			1.2	4.6	5.9	7.9	9.5		6.4	9.4	8.7	9.8	16.2	10.4	Jul-14
Greenfield Gap VIII	22,957,506	1.2	18.1	23.1	24.4				7.6					23.5	Apr-18
NCREIF ODCE + 1%			1.2	4.6	5.9				6.4					7.2	Apr-18
Risk Parity	292,272,805	14.7	-9.8	-5.3	-0.3				22.4	-6.6				1.9	Nov-17
60% MSCI ACWI Net/40% BBgBarc Global Aggregate			-13.3	-8.2	-4.9				18.6	-6.0				-1.0	Nov-17
AQR Global Risk Premium - EL	147,900,082	7.4	-9.9	-4.8	0.1				22.3					3.1	Mar-18
60% MSCI ACWI Net/40% BBgBarc Global Aggregate			-13.3	-8.2	-4.9				18.6					-1.8	Mar-18
PanAgora Risk Parity Multi Asset	144,372,723	7.3	-9.6	-5.9	-0.7				22.6	-7.3				1.7	Nov-17
60% MSCI ACWI Net/40% BBgBarc Global Aggregate			-13.3	-8.2	-4.9				18.6	-6.0				-1.0	Nov-17

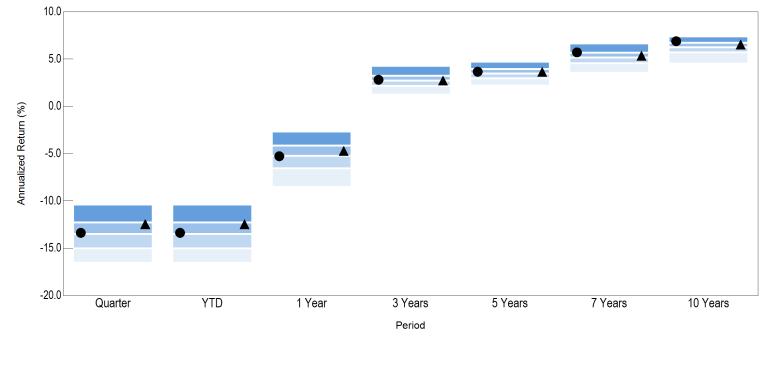
American Strategic Value Realty market value as of 12/31/2019, adjusted for any cash flows. NCREIF Property Index not available at time of production.



Total Fund Performance Summary (Gross of Fees)

	Market Value	% of Portfolio	3 Mo	Fiscal YTD	1 Yr	3 Yrs	5 Yrs	10 Yrs	2019	2018	2017	2016	2015	Inception	nception Date
Infrastructure	38,711,962	1.9	5.3	10.9	15.2	17.1			13.1	8.3	20.9	12.8		11.0	May-15
CPI + 5%			1.7	4.5	6.6	7.0			7.4	7.0	7.2	7.2		6.8	May-15
MS Infrastructure Partners II	38,711,962	1.9	5.3	10.9	15.2	17.1			13.1	8.3	20.9	12.8		11.0	May-15
CPI + 5%			1.7	4.2	6.2	6.9			7.0	7.0	7.2	7.2		6.7	May-15
Private Credit	94,444,241	4.8	-4.9	-3.6	-2.0	2.4	2.9		5.3	4.9	0.4	3.9	6.6	6.0	May-13
S&P/LSTA Leveraged Loan Index+2%			-12.6	-9.3	-7.3	1.2	3.2		10.8	2.4	6.2	12.3	1.3	3.7	May-13
Medley Capital	10,177,631	0.5	-3.1	-13.3	-16.1	-9.2	-3.4		-13.4	-11.9	4.5	4.4	6.5	1.1	May-13
S&P/LSTA Leveraged Loan Index+2%			-12.6	-9.3	-7.3	1.2	3.2		10.8	2.4	6.2	12.3	1.3	3.7	May-13
Owl Rock First Lien Fund	5,019,972	0.3	0.0											0.2	Oct-19
S&P/LSTA Leveraged Loan Index+2%			-12.6											-10.6	Oct-19
Raven Capital	7,944,078	0.4	-44.6	-42.7	-41.5	-13.4	-9.7		8.3	5.3	-6.1	-2.1	2.7	-6.2	May-13
S&P/LSTA Leveraged Loan Index+2%			-12.6	-9.3	-7.3	1.2	3.2		10.8	2.4	6.2	12.3	1.3	3.7	May-13
Raven Opportunity III	44,724,086	2.3	3.8	7.2	10.3	9.3			9.9	11.0	-7.4	5.6		6.4	Jul-15
S&P/LSTA Leveraged Loan Index+2%			-12.6	-9.3	-7.3	1.2			10.8	2.4	6.2	12.3		3.1	Jul-15
White Oak Pinnacle	26,578,475	1.3	2.2	6.4	8.7	7.5	7.6		8.1	10.0	3.6	6.8	9.3	13.9	Aug-13
S&P/LSTA Leveraged Loan Index+2%			-12.6	-9.3	-7.3	1.2	3.2		10.8	2.4	6.2	12.3	1.3	3.8	Aug-13
Risk-Diversifying Sub-Portfolio	252,332,218	12.7	2.2	3.9	6.0	4.0	3.5	4.4	6.0	1.2	4.0	5.4	0.3	5.0	Nov-03
StanCERA Risk-Diversifying Blended BM			4.0	5.4	7.6	3.8	2.6	2.7	5.3	1.4	1.3	1.3	0.9		Nov-03
US Treasury	69,706,578	3.5	9.7	11.7	15.4	7.2	5.4	5.4	7.7	0.7	5.1	5.4	0.3	5.6	Nov-03
BBgBarc US Treasury 7-10 Yr TR			10.1	11.8	16.2	7.0	4.4	5.4	8.5	0.9	2.6	1.1	1.6	5.3	Nov-03
Northern Trust Intermediate Gov't Bond	48,940,355	2.5	5.3	6.6	9.1				5.3	1.5				4.4	Jul-17
BBgBarc US Govt Int TR			5.2	6.4	8.9				5.2	1.4				4.3	Jul-17
Northern Trust Long Term Gov't Bond	20,766,223	1.0	21.5	25.8	33.3				14.8	-1.7				14.1	Jul-17
BBgBarc US Govt Long TR			20.6	24.8	32.3				14.7	-1.8				13.7	Jul-17
Short-Term Gov't/Credit	182,625,640	9.2	-0.4	1.3	2.9				5.5	1.3				2.4	Jul-17
BBgBarc US Govt/Credit 1-3 Yr. TR			1.7	3.0	4.5				4.0	1.6				2.7	Jul-17
DFA	182,625,640	9.2	-0.4	1.3	2.9				5.5	1.3				2.4	Jul-17
BBgBarc US Govt/Credit 1-3 Yr. TR			1.7	3.0	4.5				4.0	1.6				2.7	Jul-17

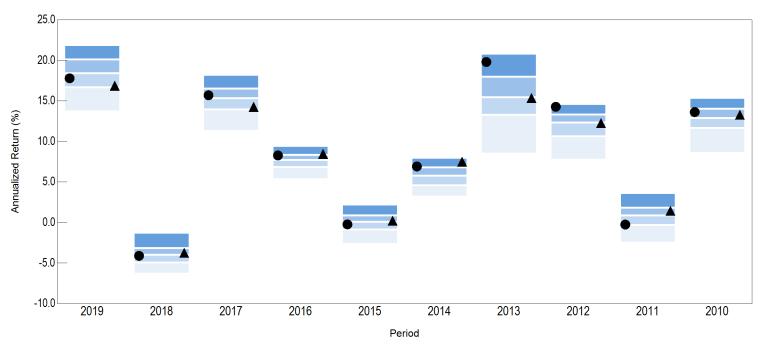




Total Fund Cumulative Performance vs. InvMetrics Public DB Gross

	Return (Ra	nk)												
5th Percentile	-10.4		-10.4		-2.7		4.3		4.7		6.6		7.4	
25th Percentile	-12.3		-12.3		-4.1		3.3		4.0		5.7		6.7	
Median	-13.5		-13.5		-5.2		2.7		3.5		5.2		6.3	
75th Percentile	-15.0		-15.0		-6.5		2.2		3.0		4.6		5.7	
95th Percentile	-16.5		-16.5		- <mark>8</mark> .5		1.3		2.2		3.6		4.6	
# of Portfolios	169		169		167		160		158		148		131	
Total Fund	-13.4	(48)	-13.4	(48)	-5.3	(52)	2.8	(48)	3.7	(42)	5.7	(25)	6.9	(17)
Policy Index	-12.4	(31)	-12.4	(31)	-4.7	(42)	2.7	(51)	3.6	(43)	5.4	(41)	6.5	(37)





Total Fund Consecutive Periods vs. InvMetrics Public DB Gross

	Return (Rank)									
5th Percentile	21.9	-1.3	18.2	9.4	2.2	8.0	20.8	14.6	3.6	15.4
25th Percentile	20.1	-3.1	16.5	8.4	0.9	6.8	18.0	13.4	1.9	14.0
Median	18.4	-4.0	15.3	7.7	0.1	5.8	15.5	12.4	0.9	12.9
75th Percentile	16.7	-4.9	14.0	6.9	-0.9	4.6	13.3	10.7	-0.3	11.7
95th Percentile	13.7	-6.3	11.3	5.3	-2.6	3.2	8.5	7.8	-2.5	8.6
# of Portfolios	330	319	304	305	316	248	231	236	206	188
 Total Fund Policy Index 	17.8 (60) 16.9 (72)	-4.1 (53) -3.7 (43)	15.7 (43) 14.3 (71)	8.3 (29) 8.5 (23)	-0.2 (60) 0.2 (46)	6.9 (23) 7.5 (12)	19.8 (12) 15.4 (52)	14.3 (10) 12.3 (53)	-0.3 (75) 1.4 (35)	13.6 (35) 13.3 (42)



Glossary

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

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

Benchmark R-squared: Measures how well the Benchmark return series fits the manager's return series. The higher the Benchmark R-squared, the more appropriate the benchmark is for the manager. Beta: A measure of systematic, or market risk; the part of risk in a portfolio or security that is attributable to general market movements. Beta is calculated by dividing the covariance of a security by the variance of the market.

Book-to-Market: The ratio of book value per share to market price per share. Growth managers typically have low book-to-market ratios while value managers typically have high book-to-market ratios. Capture Ratio: A statistical measure of an investment manager's overall performance in up or down markets. The capture ratio is used to evaluate how well an investment manager performed relative to an index during periods when that index has risen (up market) or fallen (down market). The capture ratio is calculated by dividing the manager's returns by the returns of the index during the up/down market, and multiplying that factor by 100.

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

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

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

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

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

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

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

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

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

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

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

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

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

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Glossary

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

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



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Verus receives universe data from InvMetrics, eVestment Alliance, and Morningstar. We believe this data to be robust and appropriate for peer comparison. Nevertheless, these universes may not be comprehensive of all peer investors/managers but rather of the investors/managers that comprise that database. The resulting universe composition is not static and will change over time. Returns are annualized when they cover more than one year. Investment managers may revise their data after report distribution. Verus will make the appropriate correction to the client account but may or may not disclose the change to the client based on the materiality of the change.

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The role of asset classes

		RETUR	N ROLES		DIVERSIFIC	ATION & VOLATI	ILITY ROLES	HOW MACRO OUTLOOK/GDP AFFECTS ROLE		
	Benefit from GDP Growth	Earn Risk Premium	Produce Stable Income	Hedge Against Inflation	Low Absolute Volatility	Low Corr. To Other Assets	Reduce Portfolio Volatility	Elements of Return for Asset Class	Sensitivity to GDP	
Public Equities					\bigcirc	\bigcirc	\bigcirc	PEs, Dividends, Earnings Growth		
Private Equities			\bigcirc		\bigcirc		\bigcirc	PEs (exits), Financing, Opportunity Set		
Fixed (Treasury)	\bigcirc	\bigcirc						Direct Link to Yields		
Fixed (Credit)								Direct Link to Yields, Credit Spreads		
Real Estate								Unemployment, Vacancies, Cap Rates		
		-								
MAGNITUDE					\bigcirc					
	High	Med-High	Medium	Low	None					



Private equity

ROLE

Target allocation: 6%

RETURN DRIVERS

+ Dividend yield

exposure, skill

+ Real earnings growth

+/- Change in valuations

+ Leverage, concentrated factor

= Expected nominal return

(Price/Earnings ratio)

+ Inflation

- Enhance equity portfolio returns through private market dealsourcing, structuring, leverage and skilled management of underlying portfolio companies.
- Use of leverage, financial engineering, and capital restructuring may be used to potentially boost returns.

RISKS

Market risk

Illiquidity risk

Operational risk

Higher interest rates

Sensitivity to economic growth

Highly dependent on active

management skill / selection

 Manager selection is vital in this space to ensure the higher associated fees of private equity are justified.

	Correlation	Excess Return*				
Private Equity	1.0	0.0				
US Large Equity	0.6	0.2				
US Small Equity	0.6	1.0				
Global Equity	0.6	3.9				
US Core	-0.1	8.4				

PRIVATE FOILITY

10 Year correlation as of 12/31/18, 10 year annualized return as of 9/30/18

*Excess Return = asset class shown in header minus asset class shown horizontally in left row Source: Morningstar

Α	В	S	0	L	U	Т	Е	R	ISK	5
•	-	~	-	_	-		_			•



FACTOR RISK CONTRIBUTION



Source: Barra, Burgiss private equity benchmark, as of 12/6/18

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Private credit

ROLE

- Target allocation: 6%
- Earn a credit risk premium.
- Enhance returns within fixed income portfolios through sourcing and structuring of private market investments.
- Enhance returns by taking on additional risks such as illiquidity, leverage, issuer size, and lack of credit rating to earn credit premia.

	PRIVATE CREDIT
	Correlation
Private Credit	1.0
US Treasury	-0.4
Global Credit	0.5
US Core	0.0
US Large Equity	0.4
Bank Loans	1.0

10 Year correlation as of 12/31/14, 10 year annualized return as of 5/31/15 *Excess Return = asset class shown in header minus asset class shown horizontally in left row Source: MPI

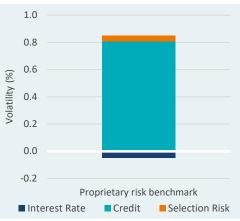
DRIVATE CREDIT

RETURN DRIVERS	RISKS
+ US Intermediate Treasury	Higher interest rates
+ Option-adjusted-spread	Credit risk
 Effective default rate = default rate * (1-recovery rate) 	Illiquidity risk
+ Illiquidity, issuer size, lack of credit rating transparency, and other risks which may generate additional credit premia	Operational risk
= Expected nominal return	Dependent on active management skill / selection

ABSOLUTE RISK



FACTOR RISK CONTRIBUTION



Source: Verus, Barra, as of 12/6/18

Note: Private credit risk is proxied using our model for bank loans



Real estate

ROLE

Target allocation: 10%

RETURN DRIVERS

+ Capitalization rate

+ Real income growth

- Capital expenditures

= Expected nominal return

+ Inflation

- Stable income with inflation protection over longer periods as rents and revenue exhibit inflation sensitivity. Short-term correlation with inflation may be low.
- Enhance returns through skilled management to source and manage profitable deals in less efficient markets.
- Real estate tends to move with economic progress, which allows real estate investors to participate in economic growth.

RISKS

Illiquidity risk

Operational risk

Dependent on active

Higher interest rates

management skill / selection

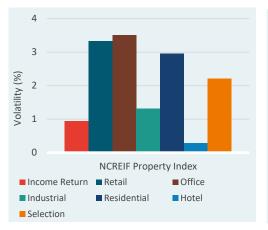
Sensitivity to economic growth

	Correlation	Excess Return*
Real Estate	1.0	0.0
REITs	0.7	-4.7
US Core	0.1	4.0
Inflation	-0.1	5.7
Global Equity	0.5	-2.0
US Large Equity	0.6	-5.6

10 Year correlation as of 12/31/18, 10 year annualized return as of 12/31/18

*Excess Return = asset class shown in header minus asset class shown horizontally in left row Source: Morningstar

ABSOLUTE RISK



FACTOR RISK CONTRIBUTION

REAL ESTATE



Source: NCREIF, Barra, as of 4/8/19





Infrastructure

ROLE

- Target allocation: 2%
- A real asset whose value is less correlated to economic movements.
- Preserving value while providing moderate returns.
- Infrastructure is designed to provide a better yield than government bonds, a bit of inflation protection and reduced risk of capital loss during economic downturns due to the regulated and/or contracted nature of the asset class's cash flows

RISKS

Illiquidity risk

Operational risk

Dependent on active

Political and regulatory risk

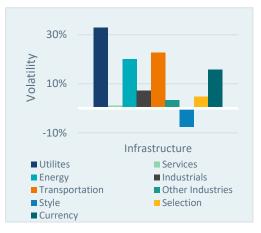
management skill / selection

	Correlation	Excess Return*
Infrastructure	1.0	0.0
REITs	0.7	-4.6
US Core Fixed Income	0.1	4.1
Inflation	0.1	5.8
Global Equity	0.9	-1.9
US Large Equity	0.8	-5.5

10 Year correlation as of 12/31/18, 10-year annualized return as of 12/31/18

*Excess Return = asset class shown in header minus asset class shown horizontally in left row Source: Morningstar

ABSOLUTE RISK



FACTOR RISK CONTRIBUTION

INFRASTRUCTURE



Source: S&P Global Infrastructure, Barra, as of 12/31/19



RETURN DRIVERS

+ Project revenue

+ Capital appreciation

- Capital expenditures

= Expected nominal return

Benchmarking private markets portfolios



Why benchmarks matter?

-Benchmarks matter because they:

- Reflect Board's desired asset class and sub-asset class risk, or 'beta' exposures
- Enable Board and staff to adequately monitor whether investment program is meeting established goals
 - Provides link between expectations and success
- Benchmark selection is most important decision Board makes behind setting asset allocation policy



Preferred benchmark qualities¹

- Specified in advance benchmark is specified prior to start of evaluation period and known to all parties
- 2. Appropriate benchmark is consistent with manager's investment style or area of expertise
- **3.** *Measurable* benchmark return is readily calculable on reasonably frequent, consistent basis
- 4. Unambiguous benchmark securities' identities and weights are clearly defined
- Reflective of current investment opinions manager has current knowledge of benchmark securities or factor exposures
- 6. Accountable manager is aware of and accepts accountability for benchmark constituents and performance
- 7. Investable benchmark can be passively replicated

1 Source: Managing Investment Portfolios: A Dynamic Process (CFA Institute Investment Series), by John L. Maginn, Donald L. Tuttle, Dennis W. McLeavey and Jerald E. Pinto, 2007



Other preferred qualities

- Consistent with proxies used in asset allocation policy development
- Reflective of risk as well as return of the asset class, subasset class or strategy
- -Available in a timely, cost efficient manner
- -Commonly used by similar investors



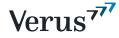
Types of Benchmarks and Level of Benchmark Quality

Benchmark TypeQualityExamplesPublic market asset class (relative)HighRussell 3000, MSCI ACWI, BloombergBarclays AggregatePublic markets strategy style (relative)HighRussell 2000 Value or Growth, BB U.S. Govt/Cred 1 – 3 YearBlended based upon underlying component weights (relative)High to ModerateTotal fund policy benchmark, 60% MSCI ACWI/40% BB Global AggregateReal return (absolute)UninvestableCPI + 5%Benchmark plus (relative)UninvestableRussell 3000 + 3%, S&P/LTSA Leveraged Loan Index + 2%Absolute return (i.e., hurdle rate)UninvestableSurgiss, NCREIF ODCE, Public Funds > \$1BPublic markets equivalent ("PME") (relative)ModerateLong-Nickels, Direct Alpha		Benchmark	
BloombergBarclays AggregatePublic markets strategy style (relative)HighRussell 2000 Value or Growth, BB U.S. Govt/Cred 1 – 3 YearBlended based upon underlying component weights (relative)High to ModerateTotal fund policy benchmark, 60% MSCI ACWI/40% BB Global AggregateReal return (absolute)UninvestableCPI + 5%Benchmark plus (relative)UninvestableRussell 3000 + 3%, S&P/LTSA Leveraged Loan Index + 2%Absolute return (i.e., hurdle rate)Uninvestable7.5%Peer universe (relative)UninvestableBurgiss, NCREIF ODCE, Public Funds > S1B	Benchmark Type	Quality	Examples
Image: Constraint of the second sec	Public market asset class (relative)	High	
weights (relative)ACWI/40% BB Global AggregateReal return (absolute)UninvestableCPI + 5%Benchmark plus (relative)UninvestableRussell 3000 + 3%, S&P/LTSA Leveraged Loan Index + 2%Absolute return (i.e., hurdle rate)Uninvestable7.5%Peer universe (relative)UninvestableBurgiss, NCREIF ODCE, Public Funds > \$1B	Public markets strategy style (relative)	High	
Benchmark plus (relative)UninvestableRussell 3000 + 3%, S&P/LTSA Leveraged Loan Index + 2%Absolute return (i.e., hurdle rate)Uninvestable7.5%Peer universe (relative)UninvestableBurgiss, NCREIF ODCE, Public Funds > \$1B		High to Moderate	
Absolute return (i.e., hurdle rate)Uninvestable7.5%Peer universe (relative)UninvestableBurgiss, NCREIF ODCE, Public Funds > \$1B	Real return (absolute)	Uninvestable	CPI + 5%
Peer universe (relative) Uninvestable Burgiss, NCREIF ODCE, Public Funds > \$18	Benchmark plus (relative)	Uninvestable	
\$1B	Absolute return (i.e., hurdle rate)	Uninvestable	7.5%
Public markets equivalent ("PME") (relative) Moderate Long-Nickels, Direct Alpha	Peer universe (relative)	Uninvestable	
	Public markets equivalent ("PME") (relative)	Moderate	Long-Nickels, Direct Alpha



StanCERA benchmark quality summary

Asset Class/Strategy	Benchmark	Benchmark Type	Benchmark Quality
otal Fund	Weighted blend of underlying strategy benchmarks	Weighted blend of underlying strategy benchmarks	NA
quidity	Weighted blend of underlying strategy benchmarks	Weighted blend of underlying strategy benchmarks	NA
ĩash	FTSE T-Bill 1 Month	Published public market benchmark	High
hort-Term Gov't/Credit	BBgBarc US Govt/Credit 1-3 Year	Published public market benchmark	High
Insight	BBgBarc US Govt/Credit 1-3 Year	Published public market benchmark	High
owth	Weighted blend of underlying strategy benchmarks	Weighted blend of underlying strategy benchmarks	NA
IS Large	Russell 1000	Published public market market capitalization weighted	High
BlackRock	Russell 1000 Growth	Published public market market capitalization weighted	High
BlackRock	Russell 1000 Value	Published public market market capitalization weighted	High
Dodge & Cox	Russell 1000 Value	Published public market market capitalization weighted	High
IS Small	Russell 2000	Published public market market capitalization weighted	High
Capital Prospects	Russell 2000 Value	Published public market market capitalization weighted	High
rivate Equity Proxy	Russell 3000 +3%	Public markets benchmark "plus"	Uninvestable
Northern Trust	Russell 3000	Published public market market capitalization weighted	High
nt'l Developed	MSCI ACWI ex-US	Published public market market capitalization weighted	High
LSV	MSCI ACWI ex-US	Published public market market capitalization weighted	High
Fidelity	MSCI ACWI ex-US	Published public market market capitalization weighted	High
ore Real Estate	NCREIF Property	Peer Universe	Uninvestable
Prime	NCREIF ODCE	Peer Universe	Uninvestable
BlackRock	DJ US Select RESI	Peer Universe	Uninvestable
PGIM	BBgBarc CMBS IG	Published public market benchmark	High
alue Add Real Estate	NCREIF Property +2%	Peer Universe "plus"	Uninvestable
American Strategic	NCREIF Property	Peer Universe	Uninvestable
Greenfield Gap VII	NCREIF ODCE +1%	Peer Universe "plus"	Uninvestable
Greenfield Gap VIII	NCREIF ODCE +1%	Peer Universe "plus"	Uninvestable
isk Parity	60%/40% MSCI ACWI/BBGobal Aggregate	Weighted blend of public markets benchmarks	High
AQR	60%/40% MSCI ACWI/BBGobal Aggregate	Weighted blend of public markets benchmarks	High
PanAgora	60%/40% MSCI ACWI/BBGobal Aggregate	Weighted blend of public markets benchmarks	High
frastructure	CPI +5%	Real Return	Uninvestable
Morgan Stanley	CPI +5%	Real Return	Uninvestable
rivate Credit	S&P/LSTA Leveraged Loan +2%	Public markets benchmark "plus"	Uninvestable
Medley	S&P/LSTA Leveraged Loan +2%	Public markets benchmark "plus"	Uninvestable
Owl Rock	S&P/LSTA Leveraged Loan +2%	Public markets benchmark "plus"	Uninvestable
Raven	S&P/LSTA Leveraged Loan +2%	Public markets benchmark "plus"	Uninvestable
White Oak	S&P/LSTA Leveraged Loan +2%	Public markets benchmark "plus"	Uninvestable
k-Diversifying	Weighted blend of underlying strategy benchmarks	Weighted blend of underlying strategy benchmarks	NA
S Treasury	BBgBarc US Treasury 7-10 Year	Published public market benchmark	High
Northern Trust	BBgBarc US Govt Intermediate	Published public market benchmark	High
Northern Trust	BBgBarc US Govt Long	Published public market benchmark	High
hort-Term Gov't/Credit	BBgBarc US Govt/Credit 1-3 Year	Published public market benchmark	High
DFA	BBgBarc US Govt/Credit 1-3 Year	Published public market benchmark	High



Benchmark issues – private markets

• Three primary types of benchmarks for private markets

Benchmark	Public markets "plus	Peer Group	PME
Definition	Published public markets benchmark plus a premium (e.g. S&P 500 +4%)	Universe of limited partner private markets funds across sectors and vintage years	Internal rate of return calculated using published public market index and partnership cash flows
Calculation methodology	Time weighted rate of return ("TWRR")	Internal rate of return ("IRR")	IRR
How commonly used?	Most commonly used among plan sponsors	Typically used by larger, more sophisticated plan sponsors	Used by private market fund of funds and consultants and beginning to be employed by plan sponsors
Quality	Uninvestable	Uninvestable	Moderate to High
Notes	 Easiest to use and understand 	 Less misfit risk. Better alignment due to IRR calculation 	 Allows direct comparison between public markets and private markets
	 Currently employed StanCERA for Private Equities 	 Currently employed by StanCERA for real estate 	 More complex to understand and to calculate relative to others
	 Benchmark misfit risk is largest compared to others 	 Subject to typical peer group cons such as survivorship and selection biases 	 Least amount of benchmark misfit risk



Time weighted rates of return vs. internal rates of return

- Time weighted rates of return ("TWRR") is industry standard return calculation methodology for public market investment portfolios.
 - TWRR measures compound growth rate and is not sensitive to withdrawals or contributions unless they comprise 10% or more of portfolio value for that measurement period
 - This methodology is summarized as follows : $HPR = MV^{END} MV^{BEG}$

TWRR = $\{(1 + HPR_{N-1})^*(1 + HPR_N)\}$ -1; WHERE HPR = HOLDING PERIOD RETURN

- To obtain multi-month and annualized returns, the monthly TWRRs are linked together and annualized: (1+ compounded TWRR)1/n -1
- For individual private markets portfolios and asset classes, industry convention is to employ an Internal Rate of Return ("IRR") calculation methodology
 - IRR is discount rate that sets present value of all cash flows (positive and negative) to net present value of zero. This methodology is summarized as follows:

$$\sum_{t=0}^{n} \frac{\mathrm{CF}_{t}}{\left(1 + \mathrm{IRR}\right)^{t}} = 0$$

 Unlike TWRR calculation, IRR calculation methodology does not produce discreet individual holding period returns. Instead, IRR is single calculation that considers all cash flows which have occurred during entire life of investment to end of current measurement period. It is considered a 'time-weighted mean' return



StanCERA benchmark observations

- Majority of current benchmarks are high quality
- Verus recommends re-visiting private markets benchmarks to determine if higher quality benchmarks are feasible to implement
 - Upcoming asset/liability study process presents opportunity to assess benchmarks along with asset allocation policy
- Verus also recommends adoption of benchmark philosophy, benchmark goals and benchmark selection framework
 - Adoption of a benchmark philosophy statement provides appropriate governance for, and transparency to, benchmark selection process
 - Benchmark philosophy articulates key tenets of beliefs regarding benchmarks as well as Board's benchmark preferences
 - Preferences tend to be based upon principles of benchmark quality



Growth sub-portfolio review – private markets



Current Growth Sub-Portfolio structure – private markets performance

Asset Class/PME Benchmark	Market Value (as of 12/31/19)	IRR Since Inception (as of 12/31/19)
Value-added Real Estate		
Greenfield Gap VII	\$10,894,258	14.18%
NCREIF-ODCE PME		9.12%
Greenfield Gap VIII	\$24,896,540	26.99%
NCREIF-ODCE PME		6.60%
Direct Lending		
Medley Capital	\$8,806,243	0.57%
S&P/LSTA Leveraged Loan PME		3.54%
Owl Rock First Lien Fund	\$4,082,637	-0.80%
S&P/LSTA Leveraged Loan PME		12.68%
Raven Capital I	\$6,914,732	-3.93%
S&P/LSTA Leveraged Loan PME		3.78%
Raven Opportunity III	\$50,870,015	15.67%
S&P/LSTA Leveraged Loan PME		4.96%
White Oak Pinnacle	\$26,679,955	7.47%
S&P/LSTA Leveraged Loan PME		3.95%
Infrastructure		
MS Infrastructure Partners II	\$45,530,465	12.61%
CPI PME		2.00%



Partnership Review – Real Estate Greenfield Acquisition Partners VII (GAP VII)

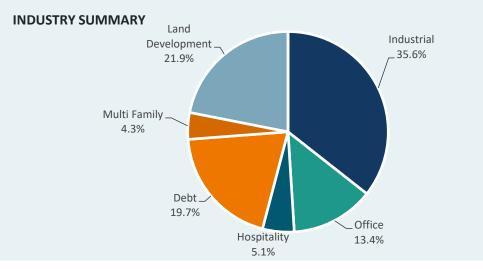
Fund Strategy

Greenfield is a private equity real estate investment firm headquartered in Westport, CT. with \$4.0 billion under management. Greenfield invests equity across multiple investment types including industrial, office, air cargo assets, hospitality and multifamily units. In 2018 22 professionals spun-out of Greenfield to form Grandview which currently acts as a sub-advisor to the Greenfield funds.

Investment Characteristics

Currency:	USD	
Region:	North America	
Vintage Year:	2014	
Sub-Asset Class:	Value-Added Real Estate	
Funding		
Commitment Date:	July 31, 2014	
Fund Term:	June 18, 2023	
Commitment:	\$15,000,000	
Contributions:	\$14,335,328	
Distributions:	\$11,617,011	
Market Value:	\$10,894,258	
Unfunded Commitment:*	\$2,164,672	
*Includes \$1,500,000 of recallable distributions		

Period Ending: December 31, 2019



Portfolio Update

As of December 31, 2019, \$365.5 million or 96% of the \$382.4 million in committed equity has been called and \$296.2 million has been distributed, resulting in a DPI of 81%. GAP VII is currently projected to generate a net IRR of 14.0% and a net equity multiple of 2.0x.

- 1. There are 20 positions left in the portfolio with the seven largest holding representing nearly 66% of the value.
- 2. The Fund sold two investments in the third quarter; an industrial property for 1.6x gross multiple and an office park for 2.5x gross multiple.

Performance

NET IRR:	14.2%
Net Multiple:	1.57x

Performance: Exceeding Expectation



Partnership Review – Real Estate Greenfield Acquisition Partners VIII (GAP VIII)

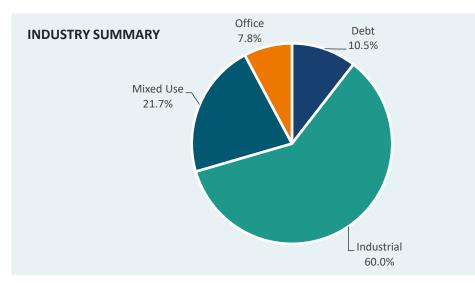
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Investment Characteristics

Currency:	USD
Region:	North America
Vintage Year:	2018
Sub-Asset Class:	Value-Added Real Estate
Funding	
Commitment Date:	June 30, 2018
Fund Term:	April 27, 2026
Commitment:*	\$40,000,000
Contributions:	\$19,130,897
Distributions:	\$0
Market Value:	\$24,896,540
Unfunded Commitment:	\$20,869,103

Period Ending: December 31, 2019



Portfolio Update

As of December 31, 2019, \$70 million or 48% of the \$146.4 million in committed equity has been called with no distributions. The Fund has made seven investments and sold one.

- 1. Early in 2020 the Partners of Grandview were approached by an outside investor to help consolidate the management of GAP VIII which would replace a Key Man by purchasing their interest in the Fund.
- 2. Additionally, that investor would commit an additional \$50 million (aka. B-shares) to invest alongside existing Limited Partners in any new deals.
- 3. In March of 2020 it was unanimously agreed by the Limited Partners to the pursue the transaction.

Performance

NET IRR:	27.0%
Net Multiple:	1.04x

Performance: Too Early to Tell



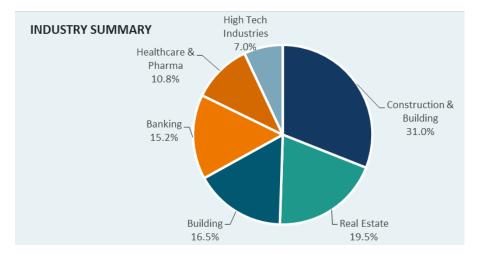
StanCERA April 28, 2020

Partnership Review – Private Credit Medley Capital

Fund Strategy

Medley Capital focuses on generating current income and capital appreciation by lending directly to privately-held middle market companies to help these companies expand their businesses, refinance and make acquisitions.

Period Ending: December 31, 2019



Portfolio Update

As of December 31, 2019, \$561 million or 96.6% of the \$581 million in committed equity has been called. The Fund has realized a total of \$812 million; \$50 million in 2019.

- 1. The Fund has 25 remaining investments and 3 equity positions through warrants.
- 2. 30.4% of the remaining portfolio is in first lien senior secured positions with an average position size of \$11 million.
- 3. The remaining weighted average life of the fund is 1.6 years with a majority of loans coming due in Q1 & Q2 of 2021. However, the GP is in negotiations with a few sponsors to refinance out their positions earlier.

Performance

NET IRR:	0.6%	Performance:	Below Expectations
Net Multiple:	1.02x		

Investment Characteristics

Currency:	USD
Region:	North America
Vintage Year:	2011
Sub-Asset Class:	Direct Lending
Funding	
Commitment Date:	May 31, 2013
Fund Term:	June 2021
Commitment:	\$30,000,000
Contributions:	\$29,000,453
Distributions:	\$24,492,888
Market Value:	\$10,505,757
Unfunded Commitment:	\$99,547

Verus⁷⁷

Partnership Review – Private Credit Raven Asset-Based Opportunity Fund ("RBOF")

Fund Strategy

RBOF's focus is on generating risk-adjusted returns and current income through asset-based direct lending, acquisitions of assets with contractual rights to cash flows, and opportunistic equity investments. The Partnership adopts a directly originated, single-lender approach and primarily focuses on senior-secured first lien direct loan opportunities issued by a single issuer in the middle-market. The Partnership's secondary focus has been opportunistic acquisitions of certain cashflowing assets, as well as mezzanine and opportunistic equity investments.

Investment Characteristics

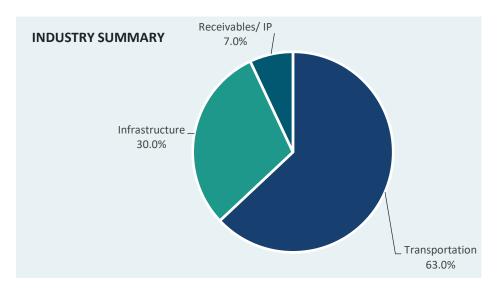
Currency:	USD
Region:	North America
Vintage Year:	2012
Sub-Asset Class:	Direct Lending
Funding	
Commitment Date:	May 31, 2013
Fund Term:*	June 2020
Commitment:	\$40,000,000
Contributions:	\$34,505,763
Distributions:	\$23,560,780
Market Value:	\$14,330,002
Unfunded Commitment:	\$5,494,237

* The general partner is expected to ask for a 1-year extension to liquidate the

Fund. No management fee will be charged during the extension.

Verus⁷⁷⁷

Period Ending: December 31, 2019



Portfolio Update

As of December 31, 2019, \$154 million or 117% of the \$132 million in committed equity has been called and has realized a total of \$131 million.

- 1. RBOF has realized seven investments (six loan positions and one equity position) for a gross IRR of 18.5% and 1.33x multiple.
- 2. The Fund has six remaining investments; five of which have an exit/maturity date of 4/30, while one is currently liquidating.
- 3. The Fund underperformance is heavily weighted toward investments where the Fund took equity positions in shipping and medical/legal receivables.

Performance

NET IRR:	-3.9%	Performance:	Below Expectations
Net Multiple:	1.21x		

Partnership Review – Private Credit Raven Asset-Based Opportunity Fund III ("RBOF III")

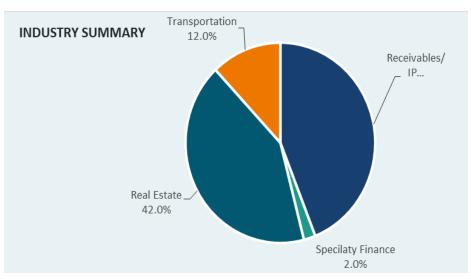
Fund Strategy

RBOF III focuses on generating risk-adjusted returns and current income through asset-based direct lending, acquisitions of assets with contractual rights to cash flows, and opportunistic equity investments. The Partnership adopts a directly originated, single-lender approach and primarily focuses on senior-secured first lien direct loan opportunities issued by a single issuer in the middle-market. The Partnership's secondary focus has been opportunistic acquisitions of certain cashflowing assets, as well as mezzanine and opportunistic equity investments.

Investment Characteristics

Currency:	USD
Region:	North America
Vintage Year:	2015
Sub-Asset Class:	Direct Lending
Funding	
Commitment Date:	July 31, 2015
Fund Term:	August 2022
Commitment:	\$50,000,000
Contributions:	\$42,884,101
Distributions:	\$9,149,635
Market Value:	\$38,869,797
Unfunded Commitment:	\$7,115,899

Period Ending: December 31, 2019



Portfolio Update

As of December 31, 2019, \$435 million or 94.5% of the \$460 million in committed capital has been called with a realized a total of \$231 million.

- 1. RBOF III has realized four investments out of 28 investments for a 1.1x multiple.
- 2. The remaining 24 investments have varying maturity dates with the majority coming due in 2022 (Receivables) and 2024 (Real Estate). All investments are tracking at or above cost.

Performance

NET IRR:	15.7%	Performance: Too Early to Tell
Net Multiple:	1.12x	



Partnership Review – Private Credit White Oak Pinnacle

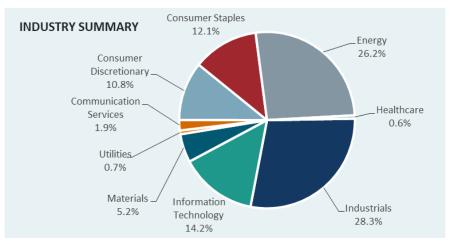
Fund Strategy

White Oak Pinnacle focuses on making senior secured loans to non-sponsored, privately-held borrowers in the North America. The Fund seeks to make investments that do not involve private equity sponsors, which typically involve syndication and/or subordination to other lenders and less favorable terms as a result of a competitive bidding process.

Investment Characteristics

Currency:	USD
Region:	North America
Vintage Year:	2012
Sub-Asset Class:	Direct Lending
Funding	
Commitment Date:	Aug 31, 2013
Fund Term:	December 2020
Commitment:	\$40,000,000
Contributions:	\$40,000,000
Distributions:	\$43,582,467
Market Value:	\$26,190,963
Unfunded Commitment:	\$0

Period Ending: December 31, 2019



Portfolio Update

As of December 31, 2019, \$490 million or 135% of the \$364 million in committed capital has been called with a realized a total of \$167 million.

- 1. White Oak Pinnacle has realized 42 of 62 loans with 20 loans still outstanding.
- 2. The remaining outstanding loans average just over a four-year holding period.
- 3. The majority of loans outstanding are Term Loans (49.9%) followed by Opportunistic Loans (29.2%) and Asset Backed/ Equipment Loans (15.2%).

Performance

NET IRR: 7.5% Net Multiple: 1.74x Performance: Meeting Expectations

Verus⁷⁷⁷

Partnership Review – Private Credit Owl Rock First Lien Fund

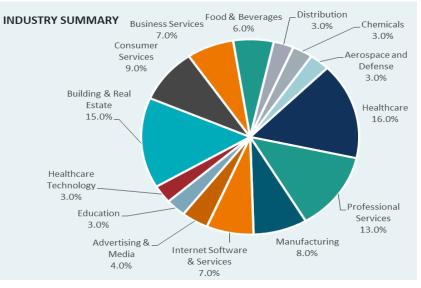
Fund Strategy

The Fund will seek to generate 6-7% on an unlevered basis and 10% with 2x leverage over a cycle. The portfolio is expected to comprise first lien loans with an average loan to value below 50% and broadly diversified across industries with a target of 40-60 loans. Owl Rock targets investments with maturities between three and seven years; generally ranging in size between \$25 and \$250 million and revenue of \$100 million to \$2.5 billion. The use of proceeds includes growth, acquisitions, market or product expansion, refinancing and recapitalization.

Investment Characteristics

Currency:	USD
Region:	North America
Vintage Year:	2019
Sub-Asset Class:	Direct Lending
Funding	
Commitment Date:	Oct 31, 2019
Fund Term:	December 2026
Commitment:	\$10,000,000
Contributions:	\$4,000,000
Distributions:	\$0
Market Value:	\$4,082,637
Unfunded Commitment:	\$6,000,000

Period Ending: December 31, 2019



Portfolio Update

StanCERA invested in the Owl Rock First Lien Fund in October 2019.

As of December 31, 2019, Owl Rock has invested a total of \$1.1 billion across twenty-eight investments.

The weighted average revenue of the borrowers is \$526 million, and the weighted average EBITDA is \$107 million. Net Loan-to-Value through their last dollar out is 35%. The portfolio is 100% first lien and 100% floating rate.

Performance

NET IRR: -0.8% Net Multiple: 1.0x Performance: Too Early to Tell



Partnership Review – Infrastructure North Haven Infrastructure Partners II (NHIP II)

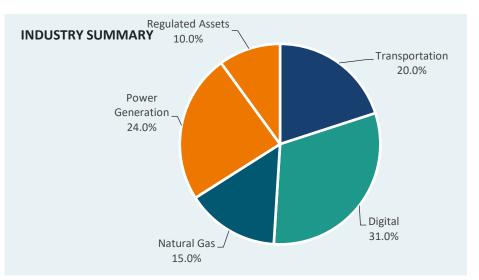
Fund Strategy

North Haven Infrastructure Partners II is a closed private equity real estate fund managed by Morgan Stanley Infrastructure. The Fund pursues a global Organization for Economic Co-operation and Development ("OECD") core-plus strategy focused on the acquisition of private infrastructure assets with the potential to be transformed into core assets. Such assets may include carve-outs, privatizations, generally undermanaged assets, or assets with the potential for scalable expansion through organic growth or follow-on acquisitions.

Investment Characteristics

Currency:	USD
Region:	Global (OECD)
Vintage Year:	2015
Sub-Asset Class:	Infrastructure
Funding	
Commitment Date:	May 31, 2015
Fund Term:	June 2027
Commitment:	\$50,000,000
Contributions:	\$54,896,944
Distributions:	\$22,979,746
Market Value:	\$45,530,465
Unfunded Commitment:	\$7,603,349

Period Ending: December 31, 2019



Portfolio Update

As of December 31, 2019, \$3.2 billion or 89% of the \$3.6 billion in committed capital has been invested across 10 portfolio companies. The Fund has distributed \$1.2 billion from the sale of two investments.

- 1. In April 2019 the fund exited a holding company which consisted of two natural gas gathering stations located adjacent to each other in West Virginia. The sale was to a strategic investor, which returned a 2.0x gross multiple of invested cash and a 21.9% gross IRR.
- 2. NHIP II currently has nine portfolio companies marked at 1.32x multiple of invested capital.

Performance

NET IRR: 12.6% Net Multiple:

Performance: Meeting Expectations



Private Equity Investment Plan: 2020-2022

New Commitments Required to Achieve Target Allocations / Diversification*

Buyout:	5-6 new funds	\$155 million
Venture Capital:	3-5 new funds	\$50 million
Direct Lending:	3-5 new funds	\$60 million
Debt/Spec. Sits:	4-6 new funds	\$80 million

*All projected commitments (number and size) subject to bottom-up evaluation of GPs and market opportunities.



Private markets pacing analysis

(in millions)	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Plan Assets	\$2,192	\$2,326	\$2,481	\$ 2,645	\$2,820	\$3,007	\$3,206	\$3,419	\$3,647	\$3,889
Annual Commitment	\$10	\$135	\$120	\$90	\$90	\$90	\$90	\$90	\$90	\$90
Private Equity	-	75	80	50	40	40	40	40	40	40
Venture Capital	-	20	20	10	10	10	10	10	10	10
Buyout	-	55	60	40	30	30	30	30	30	30
Private Credit	10	60	40	40	50	50	50	50	50	50
Direct Lending	10	20	20	20	20	20	20	20	20	20
Special Situations	-	40	20	20	30	30	30	30	30	30
Private Markets										
(\$ amount)	\$101	\$110	\$144	\$198	\$254	\$317	\$380	\$421	\$415	\$366
(% of assets)	4.6%	4.7%	5.8%	7.5%	9.0%	10.6%	11.9%	12.3%	11.4%	9.4%
Target										
(\$ amount)	\$263	\$279	\$298	\$317	\$338	\$361	\$385	\$410	\$438	\$467
Private Markets (% of assets)	12%	12%	12%	12%	12%	12%	12%	12%	12%	12%
Allocation vs. Target										
(\$ amount)	(\$162)	(\$169)	(\$154)	(\$120)	(\$84)	(\$44)	(\$4)	\$10	(\$23)	(\$100)
(% of assets)	-7.4%	-7.3%	-6.2%	-4.5%	-3.0%	-1.4%	-0.1%	0.3%	-0.6%	-2.6%



Private markets pacing analysis

Increase commitments in early years to reach target within 5-7 years





Next steps

-May - Review and discussion of role of Diversifying Sub-Portfolio

- Finalize Board investment philosophy
- -June Present initial asset/liability study results; elicit Board feedback
- -July Present final asset/liability study results and recommendations



Appendix – PME methodologies



Summary of PME Methodologies

PME Comparison Quick Reference Guide

	Long Nickels (ICM)	PME+	Kaplan Schoar	GEM IPP	Bison (Hamilton Lane) PME	mPME	Direct Alpha
Description	First and most basic attempt to simulate a passive investment in a public index using timing & sizing of cash flows to come up with a comparable PME IRR	Uses a fixed scaling factor to adjust PME distributions	A market adjusted cash multiple: the ratio of cash needed to invest in public markets in order to match private markets distributions	Measures the excess arithmetic returns generated by a private markets portfolio over a public index	Uses the Kaplan Schoar multiple as a scaling factor to adjust PME contributions	Uses a time varying scaling factor to adjust PME distributions	Uses the geometric return spread generated by a private markets portfolio over a public index
Origination	Austin Long and Craig Nickels	Capital Dynamics	Steve Kaplan and Antoinette Schoar	Global Endowment Management	Bison and Hamilton Lane	Cambridge Associates	Gredil, Oleg and Griffiths
Origination Year	1996	2003	2005	2008	2011	2013	2014
Output	IRR	IRR	Multiple	IRR Premium	IRR	IRR	IRR Premium
Key Facts	 Wide adoption as it was first to market PME NAV doesn't liquidate when PE fund does Can go short the market 	 Avoids shorting the market PME NAV liquidates the same time as PE NAV Undefined until there is a distribution Sensitive to early distributions – can inflate spread 	 Avoids shorting the market Widely used by academics Output is a multiple instead of IRR, which can be an issue for reporting 	 Avoids shorting the market PME NAV liquidates the same time as PE NAV Direct calculation of performance (rather than an indirect estimate) Output is a return spread instead of reference index IRR 	 Avoids shorting the market PME NAV liquidates the same time as PE NAV PME contributions no longer match PE contributions 	 Avoids shorting the market PME NAV liquidates the same time as PE NAV Scaling factor is time varying: each cash flow scaled by a different factor Relies on interim NAVs to create scaling factor PME NAV does not match PE NAV 	 Avoids shorting the market PME NAV liquidates the same time as PE NAV Direct calculation of outperformance (rather than an indirect estimate) Output is a return spread instead of reference index IRR

Source: Cobalt for Limited Partners, "Public Market Equivalent Benchmarking in Private Equity"

Verus⁷⁷



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April 28, 2020

Retirement Board Agenda Item

TO: Retirement Board

FROM: Stan Conwell, Retirement Investment Officer

- I. SUBJECT: Investment belief language recommendation
- II. ITEM NUMBER: 7.e
- III. ITEM TYPE: Discussion and Action
- IV. STAFF RECOMMENDATION: Approve recommended investment belief statements as presented
- V. ANALYSIS:

At the February meeting there was discussion around asset class implementation philosophy particularly as it relates to public market assets. Staff and Verus took the feedback from the Board and formulated investment belief statements. The Board will have an opportunity to review the proposed language and provide edits if needed. Staff and Verus are recommending the addition of three investment beliefs to StanCERA's investment policy statement. Please refer to the Verus memo and the redline of the Investment Policy Statement for the proposed changes.

Attachment 1: Verus proposed Investment Beliefs Attachment 2: Redline of changes to Investment Policy Statement

- VI. RISK: None
- VII. STRATEGIC PLAN: N/A
- VIII. ADMINISTRATIVE BUDGET IMPACT: None.

Stan Conwell, Retirement Investment Officer



Memorandum

То:	Members of the Board, Stanislaus County Employees Retirement Association ("StanCERA")	
From:	Eileen Neill, CFA, Managing Director, Senior Consultant	
Date:	March 24, 2020	
RE:	Draft Investment Philosophy Language for Investment Policy Statement	
CC:	Rick Santos, Executive Director, Stan Conwell, Retirement Investment Officer	

At the February 25, 2020 StanCERA Board meeting, we had a discussion regarding articulation of how investment decisions are made beyond the asset allocation decision. We discussed the various theoretical and empirical underpinnings which institutional investors generally rely upon as the basis for key investment decisions, such as for example the allocation of equity capital between U.S. and non-U.S. markets. At that meeting, the Board expressed its views and generally concurred with implementing a theoretically based investment philosophy as part of its investment policy. Verus took the Board's direction at that meeting to draft language reflective of the Board's opinion regarding theoretically based decision making as it relates to the allocation of assets within asset classes (e.g., U.S. versus non-U.S. equities; large cap versus small cap equities), benchmark selection and active versus passive investing. The following represents this draft language for the Board to consider and revise as it deems appropriate.

Theoretical and empirical evidence should be basis for strategic investment structure decisions

For any asset class, the Board intends to gain exposure to the entire investable opportunity set and to capture the greatest depth of available investment options. The Board relies on prevailing investment theory for institutional investors to guide its investment decisions regarding investment structures. Basing decisions upon widely accepted investment theory removes behavioral risk bias and injects objectivity to investment decisions. Asset allocation decisions are predicated on Modern Portfolio Theory ("MPT") as the Board prefers to minimize risk at any given level of expected return. Major investment structure decisions such as U.S. versus Non-U.S. equities and large cap versus small cap equities will be guided by the Capital Asset Pricing Model ("CAPM"). The Board will adopt the respective market benchmark allocations as under CAPM, the broad (i.e., total market) market benchmarks should reflect the highest risk-adjusted returns available.

Compensated versus uncompensated risks

The Board is willing to take risks for which it expects to be compensated and to avoid those which may not be consistently rewarded. This stance is supported by CAPM, which assumes that only market risk is consistently rewarded and risks taken away from the market portfolio will not be compensated over time. For public markets, the Board will be guided by market capitalization-oriented benchmarks in establishing systematic (i.e., market) exposures within asset classes in the determination of investment structures.

Active versus Passive investing

The Board believes active management can provide positive value-added returns; however, the board recognizes the role an allocation to passive investments can serve to provide an efficient approach to achieve benchmark returns as well as provide liquid and low-cost implementation which can also facilitate rebalancing activities. The Board will employ active management in market segments where it believes the Board has a high probability of being able to identify skillful value-adding investment managers. Passive management will be utilized in market segments where the Board does not have high conviction in its' ability to identify skillful investment managers







Stanislaus County Employees' Retirement Association

Investment Policy Statement

Adopted: April 27, 1999 Restated May 28, 2019



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The Stanislaus County Employees' Retirement Association ("StanCERA") is a public employee retirement system that was established by the County of Stanislaus on July 1, 1948. StanCERA is administered by the StanCERA Board of Retirement ("the Board") to provide service retirement, disability, death and survivor benefits for county employees and other participating agencies under the County Employees Retirement Law of 1937, California Government Code Section 31450 *et. seq.* (CERL) and the California Public Employees' Pension Reform Act of 2013, California Government Code Section 7522 *et. seq.* (PEPRA) and other applicable laws.

1. Purpose

StanCERA has established an investment program ("Investment Program") designed to provide sufficient assets in a timely manner to pay the benefits due to participants today and in the future, over the long-term. The purpose of this Investment Policy Statement ("IPS") is to establish the policies that will guide the Investment Program. This IPS is intended to provide guidance to the Board and to its delegates, the Staff and third-party professionals. This IPS is supported by the Board's Investment Directives, the Investment Processes ("Processes"), and other Board policies that reflect the needs of the defined benefit plan ("Plan") that the Board administers. The Investment Directives, Policies and other Board documents hereto are incorporated into this IPS and made a part hereof by this reference.

2. Authority

The Investment Program shall be managed in accordance with applicable law, including but not limited to the following:

- The assets of the Plan are trust funds and shall be held for the exclusive purposes of providing benefits to the participants in the Plan and their beneficiaries and defraying reasonable expenses of administering the Plan (Cal. Const. art. XVI, sec. 17(b); Cal. Govt. Code sec. 31595).
- The Board and its officers and employees shall discharge their duties with respect to the system:
 - a) Solely in the interest of, and for the exclusive purposes of providing benefits to, participants and their beneficiaries, minimizing employer contributions thereto, and defraying reasonable expenses of administering the system.
 - b) With the care, skill, prudence, and diligence under the circumstances then prevailing that a prudent person acting in a like capacity and familiar with these matters would use in the conduct of an enterprise of a like character and with like aims.
 - c) Shall diversify the investments of the system so as to seek an appropriate riskadjusted rate of return consistent with the financial characteristics of the sponsors, unless under the circumstances it is clearly prudent not to do so.

(Cal. Const. art. XVI sec. 17(b), (c) and (d); Cal. Gov. Code Sec. 31595 (a), (b) and (c)).



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3. Governance

The Board hereby adopts a governance model whereby specific authority, responsibility, and accountability are either retained by the Board or delegated to others based on areas of expertise and appropriate oversight. The Board retains sole responsibility governing the Plan, setting investment policy, and monitoring the Investment Program. It may choose to delegate specific areas of responsibility provided it retains appropriate oversight of the delegated activity.

A. Roles and Responsibilities

1. BOARD OF RETIREMENT

The Board maintains the sole and plenary authority and fiduciary responsibility for the Investment Program. The Board also understands it may delegate certain responsibilities under the Investment Program for purposes of administrative efficiency and expertise. The areas of the Investment Program the Board may not delegate include:

- The governance model of the Investment Program
- Establishing and maintaining investment policy, including:
 - Investment philosophy
 - This IPS
 - Investment objectives
 - Strategic asset allocation
 - o Allocation-level performance benchmarks
 - Risk philosophy
- Engaging Board consultants and service providers
- Monitoring the Investment Program
- 2. STAFF

StanCERA Staff ("Staff"), is broadly responsible for supporting the Board in the effective execution of its fiduciary duties. The Executive Director, or his or her designee, has been delegated authority to execute specific elements of the Investment Program as outlined in any approved investment-related policy.

For purposes of this document, "Investment Staff" shall be defined as the Executive Director and anyone in the Retirement Investment Officer classification.

3. GENERAL INVESTMENT CONSULTANT

The General Investment Consultant ("Consultant") is engaged by the Board to provide independent, objective investment advice. The Consultant is and shall agree to be a fiduciary to the Plan under California law. The Consultant works with Staff in the development of recommendations while recognizing its fiduciary duty is to provide prudent investment advice to the Board. The Consultant provides advice without discretionary authority to execute on its advice. The specific duties of the Consultant are contained in the Revised Model Agreement for Investment Consulting Services, and generally include providing advice with respect to:



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- Investment strategy development and implementation
- Investment policy development
- Asset allocation among classes and subclasses
- Investment manager selection, evaluation and termination
- Investment performance monitoring
- Investment risk monitoring
- Investment fee analysis and negotiation
- Capital markets projections
- Coordination with the Plan's actuary in conducting periodic asset/liability studies and other required reporting
- Board education

4. SPECIALTY INVESTMENT CONSULTANTS

Specialty consultants may be hired by the Board to work with Staff, the Consultant, and/or the Board. These will typically be asset class consultants (e.g., real estate, private equity, hedge funds) that may operate on a discretionary or non-discretionary basis, as directed by the Board, to meet the objectives of the Investment Program.

5. INVESTMENT MANAGERS

Investment Managers are delegated the responsibility of investing and managing Plan assets in accordance with this IPS and all other applicable laws and the terms of the applicable investment documents evidencing StanCERA's acquisition of an interest in an investment vehicle, and other controlling documents. Each Investment Manager must be (1) an investment advisor registered under the Investment Advisors Act of 1940; (2) a bank, as defined in that Act; (3) an insurance company qualified under the laws of more than one state to perform the services of managing, acquiring or disposing of the Plans' assets; (4) a trust operating as an investment company under the Investment Company Act of 1940; or (5) a state-chartered trust company authorized to carry on a trust banking business. Each Investment Manager shall agree that it is a fiduciary of the Plan under California law. Subject to this IPS and their specific contractual obligations to the Plan, Investment Managers are responsible for making all investment decisions on a discretionary basis regarding assets placed under their jurisdiction and will be accountable for achieving their investment objectives. Such discretion shall include decisions to buy, hold, and sell investments in amounts and proportions that are reflective of the stated investment mandate.

6. CUSTODIAN BANK

The Custodian Bank, selected by the Board to act as the principal custodian of assets of the trust, is delegated the responsibility of holding the assets and evidence of interests owned by StanCERA in investment vehicles and cash (and equivalents). The Custodian Bank accepts a fiduciary duty to hold such assets separate and apart from its own assets (other than cash that is held as a deposit obligation with its



banking department). The Custodian Bank also accepts fiduciary duties with respect to any Plan assets for which it maintains or exercises any discretionary authority. The Board may authorize the Custodian Bank to invest in temporary short-term fixed income investments both for the investment strategies and as a part of the cash portion of Plan assets. Such investments will be managed in general accordance with short-term fixed income investment guidelines as detailed in the Custodial Agreement. Cash managed for investment strategies shall be considered to be subportions of the assets managed by the directing Investment Managers.

4. Investment Philosophy

The Investment Philosophy represents the foundational principles on which the Investment Program is based. Every investment decision should be made with these foundational principles in mind to promote the fulfillment of the fiduciary obligations. The statements below set forth the Board's Investment Philosophy:

Plan objectives should guide all decision making

The Investment Program is designed to provide benefits to participants over a long term without accepting undue risks that could be detrimental to the participants or Plan sponsors. The Investment Program, therefore, must be managed in a prudent manner recognizing the relationships between the benefits promised to participants and their beneficiaries, the financial health of the Plan sponsors, and the exposures within the Investment Program.

Asset allocation drives portfolio volatility and returns

It is impossible to accurately and consistently predict the future; therefore, the Plan is required to be prudently diversified across and within asset classes in anticipation of various economic conditions. In a well-diversified portfolio, the overall volatility of investment returns is principally driven by the asset allocation and secondarily driven by the individual investment strategies. As such, asset allocation is the primary tool by which the Board can manage the expected risk/return profile of the Plan.

Short-term investing

Over shorter investment periods, volatility can be more detrimental to the success of the Investment Program. Because paying benefits to participants and their beneficiaries occurs continuously, the forced selling of assets during broad market corrections to meet these payments could result in the long-term impairment of investable capital. By maintaining a portion of the portfolio invested in low-volatility, highly liquid securities and investment strategies, the Investment Program will be able to mitigate or avoid the forced selling of assets during broad market corrections.

Long-term investing

Over longer investment periods, volatility can be managed more effectively to produce beneficial results for the Investment Program. Market corrections will occur and when they do, patient and well-capitalized investors are able to wait until the market recovery



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takes place. Additionally, broad market corrections have historically provided investment opportunities for those with available capital and the foresight to make additional investments.

Fees

Fees directly impact the investment results of the Investment Program but are necessary to appropriately compensate the investment management of the Investment Program. Fees must, therefore, be measured closely against the value the Investment Program expects to earn and aligned to ensure incentives are consistent with the objectives of the Plan.

Theoretical and empirical evidence should be the basis for strategic investment structure decisions

For any asset class, the Board intends to gain exposure to the entire investable opportunity set and to capture the greatest depth of available investment options. The Board relies on prevailing investment theory for institutional investors to guide its investment decisions regarding investment structures. Basing decisions upon widely accepted investment theory removes behavioral risk bias and injects objectivity to investment decisions. Asset allocation decisions are predicated on Modern Portfolio Theory ("MPT") as the Board prefers to minimize risk at any given level of expected return. Major investment structure decisions such as U.S. versus Non-U.S. equities and large cap versus small cap equities will be guided by the Capital Asset Pricing Model ("CAPM"). The Board will adopt the respective market benchmark allocations as under CAPM, the broad (i.e., total market) market benchmarks should reflect the highest risk-adjusted returns available.

Compensated versus uncompensated risks

The Board is willing to take risks for which it expects to be compensated and to avoid those which may not be consistently rewarded. This stance is supported by CAPM, which assumes that only market risk is consistently rewarded, and risks taken away from the market portfolio will not be compensated over time. For public markets, the Board will be guided by market capitalization-oriented benchmarks in establishing systematic (i.e., market) exposures within asset classes in the determination of investment structures.

Active versus Passive investing

The Board believes active management can provide positive value-added returns; however, the board recognizes the role an allocation to passive investments can serve to provide an efficient approach to achieve benchmark returns as well as provide liquid and low-cost implementation which can also facilitate rebalancing activities. The Board will employ active management in market segments where it believes the Board has a high probability of being able to identify skillful value-adding investment managers. Passive management will be utilized in market segments where the Board does not have high conviction in its' ability to identify skillful investment managers.



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5. Investment Objectives

The investment objectives of the Investment Program are:

- To provide liquidity to meet retiree benefit payments in a timely manner;
- To produce long-term growth to meet future retiree benefit payments and, if applicable, to close a funding gap over time; and
- To protect the assets against the adverse impacts of rising inflation and investment market volatility.

Investment objectives specific to the individual investment strategies are further defined in the Board's Investment Strategy portion of this IPS.

6. Investment Strategy

The Board has chosen to employ an investment strategy that seeks to align the Investment Program with the investment objectives listed in Section 5 of this IPS. The strategy divides the portfolio into three functional sub-portfolios—Liquidity, Growth, and Diversifying—to address each investment objective highlighted in Section 5. The Liquidity Sub-portfolio is dedicated to funding near-term benefit payments. It is joined with the longer-term Growth Sub-portfolio as well as the Diversifying Sub-portfolio, which is intended to offset some of the investment risks embedded in the Growth Sub-portfolio. While the three sub-portfolios are aligned with the investment objectives individually, collectively they allow the Investment Program to provide appropriate risk and return characteristics.

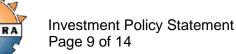
A. Asset Allocation

The Board has adopted a strategic asset allocation based on the Plan's projected actuarial liabilities, liquidity needs, risk tolerance and the risk/return expectations for various asset classes. This asset allocation seeks to optimize long-term returns for the level of risk the Board considers appropriate. The current asset allocation table may be found in Directive #1.

Since projected liability and risk/return expectations will change over time, the Board will conduct a periodic review of the strategic asset allocation to maintain an expected optimal allocation. The Board may also revise the asset allocation in response to significantly changing conditions that have affected valuations and forward-looking expected returns of asset classes. The Board will review capital market expectations annually. The result of this review will be used to update the Investment Directives as needed.

B. Functional Sub-portfolios

As noted previously, the investment strategy for the Investment Program employs three functional sub-portfolios to construct the comprehensive asset allocation. The allocation to the Liquidity Sub-portfolio is assessed annually and is based on the projected benefit payments and expenses of the Plan. The remaining assets are invested in the Growth and Diversifying sub-portfolios. Annually the Board shall review the relative size and composition of these sub-portfolios and revise them as necessary through Investment Directives. The functional sub-portfolios are set forth below:



1. LIQUIDITY SUB-PORTFOLIO

The purpose of the Liquidity Sub-portfolio is to ensure adequate assets are available to pay benefits over an extended timeframe as outlined in the Investment Directives. The Board will establish a target allocation amount of a specific number of months of the difference between contributions and benefit payments plus expenses ("shortfall") in the Liquidity Sub-portfolio. The assets will be invested in highly liquid, low volatility securities expected to generate modest levels of return while preserving capital throughout a market cycle. This portfolio will contain assets such as cash, short-term bonds, laddered government bonds, and other investments that provide fixed, contractual cash flows with a minimum level of credit risk. As a secondary purpose, a portion of the Liquidity Sub-portfolio may be allocated to the Growth Sub-portfolio during broad market corrections so long as at least 48 months of projected shortfall is maintained in the Liquidity Sub-portfolio.

The success of the Liquidity Sub-portfolio will be measured by its ability to directly fund each year's annual benefit payments without having to draw from other sources of capital or add any unfunded liabilities to the System to meet this obligation. It will accomplish this objective through low-risk, cash flowing investments, as well as providing a stable offset to the rest of the portfolio during periods of severe market stress.

2. GROWTH SUB-PORTFOLIO

The purpose of the Growth Sub-portfolio is to grow invested assets over the long term in order to pay future benefits. Assets from the Growth Sub-portfolio may be sold over time and transferred to the Liquidity Sub-portfolio as needed. This portfolio is characterized by a long investment horizon and can, therefore, accept a higher level of volatility. Assets in this portfolio may be volatile, have reduced liquidity, and derive the bulk of their return from capital appreciation. These assets include public and private equity, corporate and other debt with credit risk premiums, private real estate and other private assets.

The success of this portfolio will be measured primarily by compounded annual growth rates in conjunction with the annualized standard deviation of returns as the primary measure of risk. Performance evaluation will, therefore, focus on the long-term total risk-adjusted return of the portfolio.

3. DIVERSIFYING SUB-PORTFOLIO

The purpose of the Diversifying Sub-portfolio is to offset the investment risk of the Growth Sub-portfolio. Investment strategies in the Diversifying Sub-portfolio are expected to have return profiles that have a low correlation to those in the Growth Sub-portfolio. This is expected to effectively dampen the market volatility across the entire portfolio. As a secondary objective, the investment strategies in the Diversifying Sub-portfolio will offer additional sources of return to those in the Liquidity and Growth sub-portfolios. Assets in the Diversifying Sub-portfolio may be sold



during times of market stress or when the assets in the Growth Sub-portfolio are impaired in order to fund the Liquidity Sub-portfolio.

The success of the Diversifying Sub-portfolio will be measured by its ability to offset declines in value in the Growth Sub-portfolio, as well as its ability to provide liquidity during times of market stress.

4. INTERACTION BETWEEN THE FUNCTIONAL SUB-PORTFOLIOS

The allocations to the Liquidity, Growth, and Diversifying sub-portfolios will vary over time. The Liquidity Sub-portfolio will operate as a drawdown vehicle to pay benefits and expenses. The Growth and Diversifying sub-portfolios will be subject to the volatility of the markets in which each functional sub-portfolio invests. In order to reallocate between the functional sub-portfolios, the Board will conduct two annual reviews: an annual capital markets review to assess the relative value and risks associated with each asset class; and an annual funding plan to determine how to replenish the Liquidity Sub-portfolio.

An annual review of the capital markets will be delivered to the Board by the Consultant. The Consultant will provide the Board current forward-looking risk and return assumptions for all major asset classes. In conjunction with this review, the Consultant will also provide a recommendation of how best to allocate assets within each functional sub-portfolio. If necessary, the Consultant will recommend changes in target allocations to the underlying asset classes in order to deploy the Investment Program's assets effectively in the upcoming year.

Additionally, and in coordination with the capital markets review, Staff will present an annual funding plan, which will provide a recommendation of how best to replenish the Liquidity Sub-portfolio program to maintain the required number of months of shortfall coverage. Staff will provide an annual report to the Board on the progress of funding the Liquidity Sub-portfolio through a combination of harvesting income from the Growth and Diversifying sub-portfolios, asset sales in the Growth and/or Diversifying sub-portfolios or the use of contributions. Under normal market conditions, the balance in the Liquidity Sub-portfolio is expected to vary between 60 and 108 months of projected benefit payments and expenses.

C. Investment Strategy Attributes

All investment strategies, whether currently used by the Investment Program or being considered for inclusion in the Investment Program, will be evaluated on their own unique risk and return characteristics as well as their contribution to the overall Investment Program's risk and return characteristics. Other risks pertaining to the individual investment strategies and/or the firm managing the strategy will also be considered.

Fees and expenses of the investment strategies will be closely evaluated against competitive strategies and the value provided for the services rendered. While lower fees are clearly preferred over higher fees, the Plan seeks to identify investment strategies capable of providing value for participants by generating investment returns in excess of



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benchmark returns plus fees. Fee structures will be evaluated to ensure appropriate incentives are provided to achieve the desired outcomes for the Investment Program.

D. Rebalancing

The Board recognizes there may be a cost to maintaining strict adherence to a target asset allocation in terms of both transaction costs and opportunity costs. The Board also recognizes that the benefit of cost minimization must be balanced against the assumption of active risk associated with allowing variances to asset allocation targets.

Portfolio rebalancing shall be conducted in order to meet two distinct objectives. The first objective is to maintain the long-term strategic asset allocation targets approved by the Board. The second is to capture valuation-based opportunities by deviating from the long-term strategic asset allocation targets as deemed appropriate by the Board.

Special consideration will be given to illiquid asset classes recognizing that the funding and redemption processes are different than those of the liquid asset classes. As such, each illiquid asset class is assigned a specific liquid asset class to function as a holding asset class while the corresponding illiquid strategies are being funded.

E. Managing Investment Strategies

While the Board believes the vast majority of investment return over the long term is dependent on the asset allocation decision, it recognizes additional risk and return may be generated by how the asset allocation is implemented.

1. HIRING A NEW MANAGER

The Consultant shall conduct all investment due diligence activities in connection with hiring new managers. In all cases, the hiring process must be consistent with the requirements for vendor selection detailed in the Processes and other Plan policy documents (e.g., Procurement of Products and Services Policy, Placement Agent Disclosure Policy, Conflict of Interest Code). The Executive Director shall have authority to execute the contracts consistent with the Processes.

<u>Quiet period.</u> During the process of hiring a new manager, a "quiet period" will apply during the evaluation process, during which time no Board member may knowingly have any communication with any actual or potential candidate for the mandate, unless authorized by the Board in connection with the due diligence process in selecting managers. The quiet period shall cease upon the Board's entering into a contract for the Investment Manager(s) selected for the mandate. The Consultant is responsible for alerting the candidates to the quiet period and its restrictions. A violation of the quiet period rule may result in disqualification of the candidate or other appropriate Board action.

In all cases, the hiring process must be consistent with the requirements for vendor selection detailed in the Procedures and other Plan policy documents (e.g., procurement policy, placement agent policy).



2. TERMINATING EXISTING MANAGERS

The Board recognizes investments may need to be adjusted or removed from the Plan portfolio from time to time for a variety of reasons, including:

- Organizational changes including those to the people and processes in place
- Manager's style has deviated from initial investment thesis
- A manager's style, strategy, ethics, or philosophy is no longer appropriate for the Investment Program
- Underperformance relative to benchmark or other expectations
- Uncompetitive pricing vis-à-vis available alternatives

Absent emergency circumstances (described below), prior to terminating a manager, the Consultant and/or Staff shall present a detailed termination memo to the Board that includes:

- Purpose of the mandate
- Reason(s) for termination
- Specific plan to replace or temporarily invest the assets

Emergency termination. An "emergency" will be deemed to exist when an investment strategy suffers the resignation or other loss of an investment manager and no appropriate replacement is available; when an investment manager dissolves, ceases to exist, or is otherwise incapable of carrying out its activities in the ordinary course of its business; when an investment manager is actually or effectively "shut down" by a regulatory agency of a state or the Federal government or is accused of theft or fraud by a regulatory agency or other government body; when the Plan's investment is in jeopardy of material loss; or when such other developments with the investment manager give concern to the Consultant or Investment Staff that the investment is no longer prudent for the Program. Action to transfer management of the affected investment strategy shall be taken as soon as possible after StanCERA learns of the emergency. In the case of an emergency, Investment Staff will attempt to notify the Chair and Vice Chair of the Board immediately; notify the Custodian Bank that the Investment Manager's Managed Account is to be frozen and, except for those trades which are pending, no further trading is authorized; and may call an emergency meeting of the Board to take further action.

7. Risk Philosophy

The Board recognizes that the assumption of investment risk is necessary to meet the Plan's objectives. Investment risk is viewed as both the annualized standard deviation of investment returns (volatility) and drawdown exposure. Drawdown exposure measures the expected investment loss during a market correction. Additional sources of risk include regulatory, governmental, counterparty, environmental, social and currency, among others. Investment risk, in and of itself, is neither intrinsically good nor bad; it is a condition accepted in the pursuit of investment returns. The goal in managing investment risk is to ensure that an acceptable level of risk is being taken at the total Plan portfolio level. To accomplish this goal, the Plan



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invests in broad asset classes, via specific investment strategies within those asset classes, which have desirable expected return, risk, and correlation characteristics. While the individual strategies have a wide range of risk and return characteristics, the correlations between the strategies allow for effective portfolio diversification.

The approach used in constructing the portfolio further focuses on the risk characteristics by ensuring the preservation of the Liquidity Sub-portfolio assets as detailed previously in this IPS. Because these assets are invested in lower risk and lower return investments, the assets are well protected. This then allows for the Growth Sub-portfolio to assume greater investment risk in pursuit of higher expected returns. The Diversifying Sub-portfolio then offsets a portion of the investment risk embedded in the Growth Sub-portfolio to protect against drawdown risks.

8. Portfolio Monitoring

Delegation of investment functions by the Board requires proper oversight. Reporting processes are, therefore, designed to provide the Board with this oversight. Accurate, timely, and clear reporting to the Board of the Plan's assets, investment returns and risks, portfolio costs, and investment decisions are essential to assisting the Board in discharging its fiduciary duties.

As part of the portfolio monitoring process, StanCERA will perform investment manager due diligence visits. The guidelines for these visits are outlined in Directive #4.

Policy Review

This Board shall review this policy at least every three years.

9. History of Policy Revisions

POLICY APPROVAL DATE:	<u> April 27, 1999</u>
Revised 4/2000.	
Revised 7/2000.	
Revised 5/2005.	
Revised 7/2006.	
Revised 2/2007.	
Revised 9/2007.	
Revised 3/2008.	
Revised 12/2008.	
Revised 07/2009.	
Revised 05/2010.	
Revised 10/2010.	
Revised 7/2011.	
Revised 11/2013.	
Revised 6/24/2014.	



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Revised 7/22/2014. Revised 1/24/2017 Revised 9/25/2018 Revised 5/28/2019

Reviewed and amended by the Board of Retirement

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Rick Santos, Executive Director Approval/Adoption Date:_5/28/2019____