

Risk Management System

Request for Proposal

March 2020

Orange County Employees Retirement System (OCERS)

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<http://www.ocers.org>

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Section 1: Introduction

The Orange County Employees Retirement System (“OCERS”) is requesting proposals from qualified firms interested in providing a total Fund risk system that will incorporate a comprehensive, multi-asset class, investment risk analysis system to assist in systematically identifying, assessing, monitoring and reporting on portfolio risk for the total Fund.

Those who wish to be considered must submit their completed proposal by **5:00 p.m., PT, April 10, 2020**. Specific instructions for proposal submissions are contained in Section 7 of this RFP. ****Please note, OCERS has a file size limit of 20 megabytes. If your submission exceeds our size limit, please send an email immediately to investmentsrfp@ocers.org and we will get back to you with instructions.***

Questions about this RFP must be submitted in writing by **5:00 p.m., PT, March 20, 2020** to the Director of Investments at investmentsrfp@ocers.org.

Section 2: Background

OCERS was established in 1945 under the provisions of the County Employees Retirement Law of 1937, and provides members with retirement, disability, death, and cost-of-living benefits. There are approximately 42,000 members served by OCERS, of which over 15,000 are retirees. OCERS is governed by a nine member Board of Retirement (“Board”) which has plenary authority and fiduciary responsibility for investment of moneys and administration of the retirement system. OCERS has over ninety employees and the Board appoints a Chief Executive Officer who is responsible for the management of the agency. For additional information about OCERS, please refer to the OCERS website at ocers.org.

As of December 31, 2019, OCERS’ portfolio had a net asset value of \$17.3 billion. OCERS’ asset allocation is as follows:

OCERS’ Current Asset Allocation

Asset Class	Current Allocation	Target Allocation
Global Equity	39.3%	35.0%
Private Equity ¹	10.0%	10.0%
Core Fixed Income	16.2%	17.0%
Credit	10.1%	11.0%
Real Assets ²	13.0%	17.0%
Risk Mitigation	9.9%	10.0%
Cash Overlay	1.5%	0.0%

¹ The private equity asset class includes legacy private equity fund-of-funds and private debt. ² The real assets asset class includes energy, infrastructure, timber, agriculture, and real estate.

Section 3: Scope of Services and Requirements

The detailed scope of services for this engagement is outlined in the attached Exhibit "A" ("Scope of Services"). The primary objectives are to provide OCERS with a risk management system services for the management of the defined benefit public employee retirement plan.

The firm selected for this engagement will be expected to meet requirements that include, but are not limited to, the following:

1. The firm must have all necessary permits and licenses to perform the requested services, and must be bonded where applicable.
2. Minimum insurance coverage must include the following items, and proof of such insurance must be provided to OCERS prior to the commencement of work, on an annual basis, and upon request:
 - Commercial General Liability: \$2M per occurrence, \$2M aggregate
 - Automobile Liability: \$1M per occurrence, \$2M aggregate
 - Workers Compensation: \$1M per occurrence, \$1M aggregate
 - Umbrella Liability: \$8M per occurrence, \$8M aggregate
 - Professional Liability: \$2M per occurrence, \$3M aggregate

OCERS must be listed as an additional insured on the above policies.

3. The firm shall provide all personnel, equipment, tools, materials, vehicles, supervision, and other items and services necessary to perform all services, tasks, and functions as requested in this RFP.
4. The initial term of the contract awarded pursuant to this RFP will be for a three (3) year period, with OCERS retaining the option to renew the contract, on an annual basis, for up to an additional three (3) years.
5. All work under the contract awarded shall be performed and all equipment furnished or installed in accordance with applicable safety codes, ordinances, and other regulations, including the regulations of the State of California, Division of Industrial Safety and the provisions of the California Labor Code, the Occupational Safety and Health Act of 1970, the California Occupational Health and Safety Act.
6. Minimum Qualifications
All respondents are required to sign and return the "Minimum Qualifications Certification," attached as Exhibit "B".

Section 4: General Conditions

All terms, conditions, requirements, and procedures included in this RFP must be met for a proposal to be qualified. A proposal that fails to meet any material term, condition, requirement, or procedure of this RFP may be disqualified. OCERS reserves the right to waive or permit cure of non-material errors or omissions. OCERS reserves the right to modify, amend, or cancel the terms of this RFP at any time.

OCERS may modify this RFP prior to the date fixed for submission of a proposal by posting, mailing, emailing or faxing an addendum to the respondents known to be interested in submitting a proposal. Failure of a respondent to receive or acknowledge receipt of any addendum shall not relieve the respondent of the responsibility for complying with the terms thereof.

A respondent’s proposal shall constitute an irrevocable offer for the 120 days following the deadline for submission of proposals. Reference to a certain number of days in this RFP shall mean business days unless otherwise specified.

All proposals submitted in response to this RFP will become the exclusive property of OCERS. Proposals will not be returned to respondents.

By submitting a proposal, the respondent acknowledges that it has read this RFP, understands it, and agrees to be bound by its requirements unless clearly and specifically noted in the proposal submitted.

Section 5: Point of Contact

A quiet period will be in effect from the date of issuance of this RFP until announcement of the selection of a firm or firms under this RFP. During the quiet period, respondents are not permitted to communicate with any OCERS Investment team member or Board Member regarding this RFP except through the Point of Contact named herein. Respondents violating this quiet period may be disqualified at OCERS’ discretion. Respondents having current business with OCERS must limit their communications to the subject of such business.

OCERS’ normal business hours of operations are from 8:00 a.m. to 5:00 PT Monday through Friday, except for federal and state holidays.

The Point of Contact for all matters relating to this RFP is:

Name:	Shanta Chary
Title:	Director of Investments
Address:	OCERS 2223 E Wellington Ave., Suite 100 Santa Ana, CA 92701
Telephone:	(714) 558-6200
Email:	Investmentsrfp@ocers.org
OCERS Website:	www.OCERS.org
Status:	See the OCERS website for status of the RFP and announcements. These items can also be found here: https://www.ocers.org/search/site/rfp

Section 6: Response to Request for Proposal

Proposals must be submitted to the Point of Contact identified in Section 5, and delivered by the due date and time stated below in the RFP Schedule.

OCERS requires electronic submissions. Proposals may be submitted electronically in Microsoft Word or Adobe Acrobat PDF format to the email address noted in Section 5.

RFP Schedule

The following timetable constitutes a tentative schedule for this RFP process. OCERS reserves the right to modify this schedule at any time.

Deliverable	Date	Time
Release of RFP	March 6, 2020	5:00 pm PT
RFP Questions Deadline	March 20, 2020	5:00 pm PT
RFP Answers Posted*	March 25, 2020	5:00 pm PT
RFP Submission Deadline	April 10, 2020	5:00 pm PT
OCERS Review of RFP Submissions	Through May 15, 2020	
Selection of Finalists	To be determined	
Interviews of Finalists	To be determined	
Service Award	To be determined	

*Please be extremely diligent in checking your email for updates as OCERS may be posting answers to questions more frequently if we deem it necessary.

Section 7: Proposal Requirements

Proposals must include the following information:

1. The "Proposal Cover Page and Check List," attached as Exhibit "C."
2. An executive summary that provides the respondent's background, experience, and other qualifications to provide the services included in the Scope of Services.
3. A description of the respondent including:
 - a. Brief history, including year the respondent firm was formed.
 - b. Ownership structure
 - c. Office locations
 - d. Organization chart
 - e. Number of employees
 - f. Annual revenues
 - g. Areas of practice including firm specialties, strengths and limitations
4. Please provide at least three (3) public pension plan references for whom the respondent is providing risk management system services. Please include for each reference the individual point of contact, a summary of the work performed, and the length of time the respondent has provided each service.

5. Copies of any pertinent licenses required to deliver respondent's product or service (e.g., business license).
6. A list of clients where the firm is providing or has provided risk management services to public pensions.
7. Prepare an explanation of the pricing proposal for the scope of work including pricing of fees and costs, billing practices, and payment terms that would apply (Exhibit D). OCERS does not place any limits on the approach to pricing and is open to presentation of more than one pricing alternative for the scope of work, or portions of it. This section of the response should include an explanation as to how the pricing approach(es) will be managed to provide the best value to OCERS.
8. An explanation of all actual or potential conflicts of interest that the respondent may have in contracting with OCERS.
9. A description of all past, pending, or threatened litigation, including malpractice claims, administrative, state ethics, disciplinary proceedings, and other claims against respondent and/or any of the individuals proposed to provide services to OCERS.
10. Any other information that the respondent deems relevant to OCERS' selection process.

Section 8: Evaluation Criteria

Responses will be evaluated based upon the following:

1. Experience and reputation of the respondent.
2. Quality of the risk system proposed to provide services to OCERS, including staffing depth, experience, turnover, and compensation.
3. Quality of reports.
4. Pricing and value.
5. Compliance with technical standards contained in this RFP.
6. The organization, completeness, and quality of the proposal.
7. Information provided by references.
8. Other factors OCERS determines to be relevant.

The factors will be considered as a whole, without a specific weighting.

OCERS may require one or more interviews including presentations by finalists to the OCERS' Investment team.

If the information in the proposal is deemed to be insufficient for evaluation, OCERS may request additional information or reject the proposal outright at OCERS' sole discretion. False, incomplete, or unresponsive statements in connection with a proposal may result in rejection of the proposal.

Section 9: Non-Discrimination Requirement

By submitting a proposal, the respondent represents that it and its subsidiaries do not and will not discriminate against any employee or applicant for employment on the basis of race, religion, color, national origin, ethnic group identification, mental disability, physical disability, medical condition, genetic information,

marital status, ancestry, sex, gender, sexual orientation, gender identity, gender expression, age, or military and veteran status.

Section 10: Notice Regarding the California Public Records Act and the Brown Act

The information submitted in response to this RFP will be subject to public disclosure pursuant to the California Public Records Act (California Government Code Section 6250, et. seq., the "Act"). The Act provides generally that all records relating to a public agency's business are open to public inspection and copying unless specifically exempted under one of several exemptions set forth in the Act. If a respondent believes any portion of its proposal is exempt from public disclosure or discussion under the Act, the respondent must provide a full explanation and mark such portion "TRADE SECRETS," "CONFIDENTIAL," or "PROPRIETARY," and make it readily separable from the balance of the response. Proposals marked "TRADE SECRETS," "CONFIDENTIAL," or "PROPRIETARY" in their entirety will not be honored, and OCERS will not deny public disclosure of all or any portion of proposals so marked.

By submitting a proposal with material marked "TRADE SECRETS," "CONFIDENTIAL," or "PROPRIETARY," a respondent represents it has a good faith belief that the material is exempt from disclosure under the Act; however, such designations will not necessarily be conclusive, and a respondent may be required to justify in writing why such material should not be disclosed by OCERS under the Act. Fee and pricing proposals are not considered "TRADE SECRET," "CONFIDENTIAL," or "PROPRIETARY".

If OCERS receives a request pursuant to the Act for materials that a respondent has marked "TRADE SECRET," "CONFIDENTIAL," or "PROPRIETARY," and if OCERS agrees that the material requested is not subject to disclosure under the Act, OCERS will either notify the respondent so that it can seek a protective order at its own cost and expense, or OCERS will deny disclosure of those materials. OCERS will not be held liable, however, for inadvertent disclosure of such materials, data, and information or for disclosure of such materials if deemed appropriate in OCERS' sole discretion. OCERS retains the right to disclose all information provided by a respondent.

If OCERS denies public disclosure of any materials designated as "TRADE SECRETS," "CONFIDENTIAL," or "PROPRIETARY", the respondent agrees to reimburse OCERS for, and to indemnify, defend and hold harmless OCERS, its Boards, officers, fiduciaries, employees, and agents from and against:

1. Any and all claims, damages, losses, liabilities, suits, judgments, fines, penalties, costs, and expenses, including, without limitation, attorneys' fees, expenses, and court costs of any nature whatsoever (collectively, "Claims") arising from or relating to OCERS' non-disclosure of any such designated portions of a proposal; and
2. Any and all Claims arising from or relating to OCERS' public disclosure of any such designated portions of a proposal if OCERS determines disclosure is required by law, or if disclosure is ordered by a court of competent jurisdiction.

Section 11: Reservations by OCERS

In addition to the other provisions of this RFP, OCERS reserves the right to:

1. Cancel or modify this RFP, in whole or in part, at any time.
2. Make such investigation as it deems necessary to determine the respondent's ability to furnish the required services, and the respondent agrees to furnish all such information for this purpose as OCERS may request.
3. Reject the proposal of any respondent who is not currently in a position to perform the contract, or who has previously failed to perform similar contracts properly, or in a timely manner, or for any other reason in OCERS' sole discretion.
4. Waive irregularities, to negotiate in any manner necessary to best serve the public interest, and to make a whole award, multiple awards, a partial award, or no award.
5. Award a contract, if at all, to the firm which will provide the best match to the requirements of the RFP and the service needs of OCERS, which may not be the proposal offering the lowest fees.
6. Request additional documentation or information from respondents, which may vary by respondent. OCERS may ask questions of any respondent to seek clarification of a proposal or to ensure the respondent understands the scope of the work or other terms of the RFP.
7. Reject any or all proposals submitted in response to this RFP.
8. Choose to not enter into an agreement with any of the respondents to this RFP or negotiate for the services described in this RFP with a party that did not submit a proposal.
9. Determine the extent, without limitation, to which the services of a successful respondent are or are not actually utilized.
10. Defer selection of a bidder to a time of OCERS' choosing.
11. Consider information about a respondent other than, and in addition to, that submitted by the respondent.

Exhibit A
Scope of Services

The purpose of this RFP is to select a comprehensive, multi-asset class, investment risk management system to assist in systematically identifying, assessing, monitoring and reporting on portfolio risk for the total Fund. The solution should cover all the major asset classes within the total Fund and enable a comprehensive view of aggregate total risk and active risk across the portfolio and within each asset class. The risk management system should inform OCERS' analysis of the performance of existing external asset managers as well as potential new external asset managers.

Through this search, OCERS seeks to procure a risk management system that will generate risk reports and analysis for the benefit of the Investment team and potentially for the Board.

A broad framework of the RFP is listed below:

- Integration of manager holdings and benchmark information across all asset classes including: equities, fixed income, private equity, hedge funds, real assets and real estate. The ideal solution would provide the ability to integrate position details across all managers and holdings across all asset classes within a business day;
- Source and aggregate data from various vendors including custodian, investment managers, fund of funds and various service providers;
- Value at Risk (VaR): the ability to measure VaR at the manager, sub-asset class, asset class, and total Fund level;
- Stress Testing: the ability to measure potential losses given certain historical or prospective events;
- Scenario analysis: the ability to measure potential losses or gains given certain scenarios;
- Portfolio reporting: risk and exposure with the capabilities of performance reporting;
- Reporting: asset level detail reports, individual manager level reporting, portfolio level reporting and total Fund level reporting; and
- Ability to create and run reports necessary to perform ad hoc analysis.

Exhibit B

MINIMUM QUALIFICATIONS CERTIFICATION

All respondents submitting a proposal in response to this RFP are required to sign and return this attachment, along with written evidence of how the respondent meets each qualification.

The undersigned hereby certifies that it fulfills the minimum qualifications outlined below, as well as the requirements contained in the RFP.

MINIMUM QUALIFICATION CERTIFICATION

(To be signed by an authorized person and returned with the RFP response)

All respondents submitting proposals for the total Fund risk system search must meet the following criteria.

Please answer yes or no to each of the following questions.

1. Must offer a multi-asset class, factor-based risk model appropriate for analyzing the risk and performance of a broad institutional portfolio invested globally in both public and private (liquid and illiquid) markets. The application must enable users to both identify risk and measure investment performance within asset classes and across multi-asset class portfolios.
2. Must have experience providing a comprehensive multi-asset class investment risk analysis system to institutional investors such as pension funds, endowments or other large asset managers. The Proposing Firm must have at least five (5) such clients each overseeing assets in excess of \$5 billion.
3. Must identify and quantify risk to the following factors:
 - a. Index factors
 - b. Equity style factors
 - c. Interest rates
 - d. Credit spreads
 - e. Inflation factors
 - f. Foreign exchange
4. Must include tools for analyzing the following asset categories:
 - a. Public equities
 - b. Fixed income, including investment grade bonds
 - c. Credit, including high yield, emerging market debt, bank loans, and other illiquid credit strategies
 - d. Private equity
 - e. Private real estate
 - f. Hedge funds
 - g. Real assets, including private infrastructure and natural resources
5. Must offer technical support services including guidance in the configuration and use of the proposed product.

6. At least one key professional member of the firm assigned to the OCERS account must have a minimum of five years' experience in assisting clients with the implementation of risk oversight solutions.
7. Must allow for stress testing, scenario analysis, and value at risk at the sub-asset class, asset class, and total Fund level.

Respondent hereby certifies that it meets all of the following minimum qualifications:

The undersigned hereby certifies that they are an individual authorized to bind the Firm contractually, and said signature authorizes verification of this information.

Authorized Signature

Date

Name and Title (please print)

Name of Firm

Exhibit C

PROPOSAL COVER PAGE AND CHECK LIST (TO BE SUBMITTED ON FIRM'S LETTERHEAD)

Respondent Name:

Respondent Address:

By submitting this response, the undersigned hereby affirms and represents that they have reviewed the proposal requirements and have submitted a complete and accurate response to the best of their knowledge. By signing below, I hereby affirm that the respondent has reviewed the entire RFP and intends to comply with all requirements.

Respondent specifically acknowledges the following:

1. Respondent possesses the required professional expertise and has sufficient capacity to provide the services outlined in the RFP.
2. Respondent has no unresolved questions regarding the RFP and believes that there are no ambiguities in the scope of services.
3. The fee schedule submitted in response to the RFP is for the entire scope of services and no extra charges or expenses will be paid by OCERS.
4. Respondent has completely disclosed to OCERS all facts bearing upon any possible interests, direct or indirect, that Respondent believes any member of OCERS, or other officer, agent, or employee of OCERS presently has, or will have, in this contract, or in the performance thereof, or in any portion of the profits thereunder.
5. Materials contained in the proposal and all correspondence and written questions submitted during the RFP process are subject to disclosure pursuant to the California Public Records Act.
6. Respondent is not currently under investigation by any state or federal regulatory agency for any reason (if under investigation, please provide a short description).
7. Except as specifically noted in the proposal, respondent agrees to all of the terms and conditions included in OCERS Services Agreement.
8. The signatory below is authorized to bind the respondent contractually.

Exhibit D
PRICING PROPOSAL

All respondents submitting a proposal in response to this RFP are required to prepare an explanation of the pricing proposal for the scope of work including pricing of fees and costs, billing practices, and payment terms that would apply.

OCERS does not place any limits on the approach to pricing and is open to presentation of more than one pricing alternative for the scope of work, or portions of it. This section of the response should include an explanation as to how the pricing approach(es) will be managed to provide the best value to OCERS.

Questionnaire

Compliance, Conflicts, Insurance & Liability

A. STANDARDS OF CONDUCT

1. Does your firm have a written code of conduct or a set of standards for professional behavior? Please describe or attach as an Exhibit and cross-reference.
2. Within the last five (5) years, has your organization, an officer or principal, or any member of your proposed team been involved in professional discipline/censure, litigation or other legal proceedings relating to your investment or risk management system assignments? If so, please provide an explanation and indicate the current status.
3. Other than routine or periodic scheduled on-site reviews, has your firm ever been investigated or censured by any regulatory body? If so, please describe the situation and outcome.

B. CONFLICTS OF INTEREST

1. Are there any potential conflicts of interest issues your firm would have in servicing OCERS? If so, please describe them.
2. Does your firm or any affiliates provide investment management, brokerage, trust or actuarial services? If yes, how does your firm protect against conflicts of interest? Would your organization notify a client of any apparent or potential conflict of interest, regardless of whether it was required by regulations?
3. Does your firm hold or sponsor money manager or client conferences? If so, please list and describe all conferences your firm has held or sponsored in the past two years.
4. Have you or anyone in your firm provided any gifts, travel and room expenses, entertainment or meals to any member of the OCERS' Board of Retirement or OCERS' Investment team during the past 12 months? If yes, please describe the amount and purpose of the expenses.
5. Are there any circumstances under which your firm or any individual in your firm receives compensation, finder's fees or any other benefit from investment managers or third parties? If yes, please describe in detail.
6. Attest that your firm agrees that neither the firm nor any employee or owner of the firm will receive any commission or fee, directly nor indirectly, arising from securities in which OCERS invests.
7. Attest that your firm has not paid any "finder's fees" or commissions to any individuals not employed by the firm as it relates to this search.

Organization, Personnel, Clients & Resources

Organization

C. FIRM INFORMATION

1. Please list your firm's complete name, address, telephone and fax number. Include the name and title of your proposed primary consultant.
2. Please provide a brief history, going back to inception, of your firm and your parent organization if different. Within the past three (3) years, have there been any significant developments in your organization, such as changes in ownership, restructuring, or personnel changes?
3. Describe the ownership structure giving specific details with regard to your parent and/or any affiliated companies. Include an ownership organizational chart showing this structure. Show and describe, if any, the distinct lines of business of your firm, which are in addition to risk management system.
4. How long have you been delivering risk management system services?
5. Describe briefly the primary line(s) of business of your firm, your parent organization, and any affiliated companies. How many employees are involved in each line of business? Please provide a breakdown of the sources of your revenues firm-wide including businesses outside of risk management system.
6. Explain how the portfolio risk analytics/advisory/consulting business line at your firm evolved, and the business unit's organizational and staffing history.
7. Does your firm, its parent, or affiliate sell information or any other services to investment managers or consultants? If so, describe in detail.
8. Are you a registered investment advisor? What regulatory bodies routinely monitor your work?
9. Identify and explain all regulatory or legal issues, litigation or client disputes relevant to this potential engagement including any issues that a board of fiduciaries would consider relevant given your experience with public funds and their fiduciary counsel.
10. Will you assume fiduciary responsibility in this engagement?

D. PERSONNEL

1. Provide an organizational personnel chart, across all offices, of the entire risk-related team of your firm’s business and its relationship to other operations. Show the number of employees, professional and support, in each function and location.
2. Describe your organizational or team structure as it relates specifically to this engagement, and identify key personnel, including a table showing experience and credentials of the professionals who will be assigned to OCERS’ relationship. Include in this table the estimated number of hours each professional will be expected to devote to this engagement in year one and in each year thereafter if different.

Provide one-paragraph resumes of the professional personnel who will work with OCERS, confer with the Investment team regularly, and prepare any reports OCERS will receive.

3. Explain how the regularly assigned team would function, including the lead primary contact if different, back up personnel, quality control procedures and support services. Where is each team member located and what percentage of their time is devoted exclusively to risk management services similar to those required in this engagement?
4. How many client relationships will the primary contact have other than OCERS?
5. List any of your firm’s senior risk management team hires and departures over the last three (3) years. List all non-clerical personnel changes in the risk management group for this same period. For departures indicate the reason for leaving.
6. Describe your firm’s policy on changing service team personnel assigned to a project.

E. CLIENTS

1. Please complete the following table with number of clients:

	<\$5 B	\$5 - \$25 B	>\$25 B
California 1937 Act Retirement System			
Other Public Pension Plans			
Corporate Pension Plans			
Endowment, Foundation			
Family Office			
Other			
Total Firm Assets by Client Base			

2. List three plans/clients you now serve in a capacity most similar to the scope of services requested in this RFP, including at least one public pension plan if you have one. Include their approximate portfolio size and number of internal staff.

3. Please provide the names of all risk-system clients who have terminated your firm's services or any risk-system client relationships from which you have resigned in the last three (3) years. For client, specify the plan type, asset size and the reason for termination or resignation.
4. List references from three (3) pension funds for which you have provided comparable risk management system services. For each reference listed include client name, size of plan/portfolio, approximate number of underlying investment managers, approximate size of their staff, address, telephone number, and name of contact person.

F. RESOURCES

1. Are personnel available to work with clients on specific or special projects, if required? If OCERS should request additional service team time for special projects, please provide a schedule of hourly rates.
2. Describe the educational opportunities available to your clients. Provide a list of your most recent published research relevant specifically to this engagement. Web links or periodical citations, and a one-sentence synopsis are preferred.

Risk System

Overview

1. Discuss your firm's philosophy for managing and monitoring investment risk and if the system was internally developed or acquired.
2. How has the system evolved since its inception?
3. Is your risk management system fully integrated or are there separate modules? Discuss how your system is structured?
4. What are the differentiating factors of your risk management system and why do you believe it has an edge over the competition?

Maintenance

1. Discuss your commitment to ongoing system and model maintenance.
2. Provide an example of the most recent major enhancement or overhaul to the risk management system and what prompted it. Provide a timeline of initiatives or improvements that have enhanced your

system and have allowed you to remain competitive in the marketplace.

3. Describe the internal process by which model changes are initiated, developed, and implemented.
4. What is the formal approval process for model changes? Who has approval authority and is this person allowed to also override set model parameters (for example, in extreme market conditions)?
5. How are model changes and/or improvements communicated to the client?

Implementation

1. Provide a detailed implementation project plan with steps, tasks, timelines, hours, milestones, deliverables, and timing of anticipated resources.
2. Describe the level of involvement required of the OCERS' Investment team with regards to reviewing data from the custodian/investment managers or other third-parties.
3. Describe your past experience with custodians, plan accounting providers, prime brokers, and third-party administrators in setting up and maintaining data feeds.
4. Provide the server and workstation technology requirements of your risk management system.
5. Discuss the data requirements – list all security types supported in your system; what data is necessary for the system to be functional; source of data; what data providers are utilized and discuss instances where securities are not modeled by the providers; process used to handle securities/asset classes not modeled by the providers; how are holdings uploaded to the system and pricing sources.

Analytics and Reporting

1. What risk models does your risk management system rely on? Discuss the risk models and outputs for equities, fixed income, and alternative investments.
2. Does your system support risk modeling based on holdings data, and/or return data? Discuss?
3. What risk metrics are included in your reports? List all the metrics your system calculates and describe the level at which those risk metrics are calculated (e.g., total fund, asset class, investment manager, security level)
4. Discuss the system's historical data retention and reporting capabilities. What are the standard lookback periods and length of horizon for models? Is that customizable?
5. Does the system have forecasting capabilities? If so, what can it forecast?
6. List all the different models available to measure and monitor volatility and Value at Risk (VaR).

7. Describe how your system handles non-normal distributions of security returns and non-linear payoff instruments (e.g., options).
8. Are there any limitations on the types of derivatives that can be modeled? If so, what are they?
9. Describe what metrics your system uses to analyze downside risk, tail risk, value at risk, etc.
10. Does your system have scenario analysis capabilities? Can these capabilities be customized? If so, describe the inputs and process.
11. Describe whether your system can integrate risk models or calculation engines from external sources.
12. Describe your capacity to identify and measure risks in underlying portfolios of hedge funds, private equity, and other alternative/non-traditional investment strategies and structures. What methodologies and systems have you developed that are unique to your proposal?
13. How do you measure and evaluate counterparty risk across the portfolio?
14. Have you supported or signed on to the OPERA risk aggregation or other aggregators? If not, do you expect to? If no, why not? Describe your involvement in open protocols and industry-wide efforts to provide enhanced transparency in alternative investments.
15. Describe the system's performance measurement capabilities and performance attribution capabilities across asset classes. What model of attribution is employed? Does the system have attribution capabilities down to the security level?
16. Which benchmarks are utilized and supported in your system? What solutions exist for blended benchmarks? For custom benchmarks (e.g., absolute return, 'BM + bps' benchmarks, beta /vol adjusted)?
17. Describe the reporting tools available to clients and do clients have the ability to customize reports. Does the system allow for ad hoc calculations on the spot?
18. What type of reporting do you have for leverage, liquidity analysis, and/or counterparty tracking?
19. Describe the month-end process for updating manager risk exposures, including a general timeline for delivery of reports to the client.
20. Is your system capable of producing reports that show the active and total risk decomposition by asset classes within the total Fund? By managers within the asset classes? Can the system also breakdown VaR and tracking error?
21. Does your system have the ability to run compliance reports, for monitoring positions relative to portfolio guidelines?
22. Please provide sample reports for all the risk metrics and screenshots for a demo to allow OCERS Investment staff to get a strong sense of your risk management system's capabilities.

Client Service

1. Discuss in detail the level of services provided to your clients.
2. How do you address client issues; describe the process for reporting technical issues.
3. Describe the standard product training program that your firm offers.
4. Describe any periodic educational sessions, user conferences, or publications that you provide to clients.

Other Services

1. Does the firm have a trade execution management system? Include both proprietary and off-the-shelf systems for execution and processing.
2. What processes do you have in place for ensuring pre- and post-trade guideline compliance? Can the trade system also perform what-if and pre-trade portfolio analysis?
3. Does your team have any experience using Environmental, Social and Governance (ESG) Criteria? Please provide examples.
4. What data systems, ratings, and analytical tools do you offer to identify, assess, and monitor ESG factors on an issuer or security-level, manager-level or portfolio-level, and total fund-basis?
5. Describe the firm's research capacity (size of research team, geographic reach), professional background, and expertise to generate quality and reliable ESG factor analysis.

Infrastructure & Data Security

System Maintenance & Availability

1. What types of Data Centers do you use and how many?
2. Are your Data Centers redundant and resistant to disruptions of service for your customers?
3. What is your average monthly uptime/availability rate?
4. Are your systems on premise and solely managed by your company, on premise and managed by a third party, cloud based and managed by you, or cloud based and managed by a third party?

5. What Cloud services does your company employ? If cloud services are used, how is cloud governance managed within your company?
6. Does your solution require any third party software or client software to be installed?
7. What is your patch/vulnerability management strategy?
8. Are your Data Centers redundant and resistant to disruptions of service for your customers?
9. What is your average monthly uptime/availability rate?
10. In the past five years, how many service outages have you experienced and what was your longest period of downtime?
11. When was your last sustained cloud wide outage?
12. How often do you schedule maintenance? How long in advance are customers notified of scheduled maintenance windows and their estimated downtime?
13. How is your availability service level agreement (SLA) superior to your competitors?
14. Do you establish SLAs with real penalties for failure?

User Permissions and Data Security

1. Describe the overall system architecture.
2. Describe the measures your organization takes to ensure data security to protect sensitive information.
3. How do users access your system? Is the system available as a hosted solution or a local implementation? Describe the advantages of your approach.
4. How many concurrent users can be supported?
5. Does the system support users with different user profiles depending on their functions? Explain how your system supports each of these user profiles.
6. Describe the audit trail associated with user activity in the system.
7. Do you support Single Sign On (SSO) and Multi-Factor Authentication (MFA)?
8. What data encryptions and security protocols do you use to enable clients to provide their data? Please describe the process, noting your security protocols, for how data is uploaded and transferred from your clients to you, and how it is eventually stored on your system(s).
9. Where is the data stored?

10. Is client data backed up? And if so, where are the backups located in relation to the original data? How is the backup data transferred? Who has access to the data?
11. How is client data segregated from other client data?
12. How long is client data stored? What is your retention policy for client data?
13. What type of physical and logical controls on access to data do you employ?
14. What Data Security Regulation(s) do you follow and adhere to? What Security Policies do you have in place?
15. What Notification procedures do you have in place? If a suspected data breach has occurred, how soon to do notify clients?
16. Do you have a monitoring and alerting platform?
17. How often do you clients and vendors assess your data security?
18. How do you conduct and assess physical security?
19. Do you have cyber-security insurance? If so, how much?
20. How do we know that our data is not being accessed by other customers or company staff?

Information Security and Controls:

1. Do you have a Chief Information Security Officer or other dedicated Information Security staff? Do you contract third party IT Security services?
2. Do you have in-house Information Technology staff or is your IT outsourced? Who is responsible for on-going maintenance of your IT infrastructure?
3. Do you conduct background checks on employees, contractors and consultants?
4. Do you conduct annual mandatory security awareness training for all users of your network?
5. How to you access your employee's understanding of your security policies?
6. What is your IT and Security staffing turnover rate?
7. What type of security monitoring do you have in place?
8. Do you engage a vendor or service to routinely scan your networks internally and externally for known security vulnerabilities? Do you fix these vulnerabilities in a timely manner?

9. Do you hire reputable security firms to conduct security penetration tests of your network and web applications at least annually? How do you fix identified security issues in a timely manner? Do you notify clients of known security vulnerabilities?
10. When did you last conduct a security penetration test?
11. What is your annual budget for IT Security and Compliance over the past five years? What percentage of your annual budgets does this represent?
12. What is your companies' password security policy?
13. Does your infrastructure reside solely in the United States? Do you have components or services that reside outside the United States?
14. What Industry Recognized Certifications does your company hold? (i.e. SSAE16, PCI, ISO, etc.)
15. What security framework does your company use?
16. What are the top security threats facing your company?

Business Continuity

1. Do you have a Business Continuity Disaster Recovery plan for the products and services we would receive from you? How often is it reviewed? How often is it updated? How often is it tested?
2. Does your Business Continuity Disaster Recovery plan address loss of technology, loss of resources, loss of facilities, and loss of one of your vendors.
3. What strategies have you put in place in order to respond to the loss of critical resources for the products and/or services your clients receive from you? How do you communicate to your clients if there is a disruption of service?
4. What is your recovery time objective for the resources for the products and/or services your clients receive from you?
5. Do you evaluate your vendors' preparedness as part of your business continuity or risk management functions?
6. In the past 12 months, have you conducted an employee Business Continuity / Disaster Recovery training exercise of the systems needed to provide your product and/or services? If so, can you share the results?
7. Is your organization able to operate effectively when key locations are closed?
8. If your service is limited due to a disruption, how will clients be prioritized?

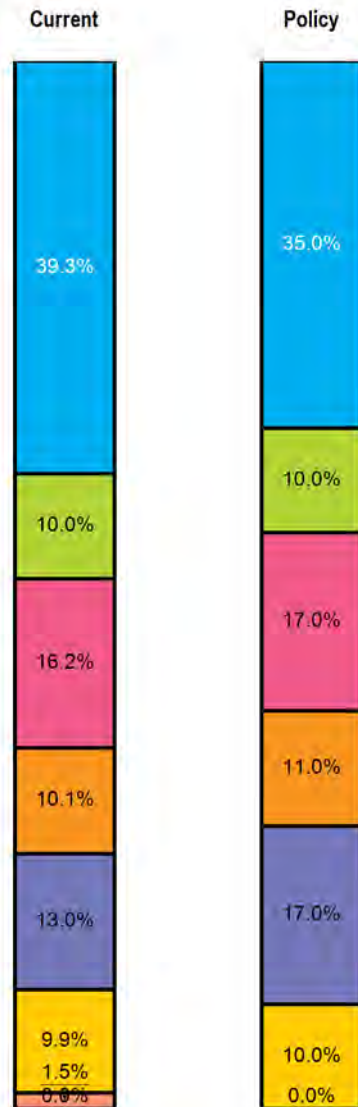
9. What is your backup policy?

Termination Provisions

1. If a client's contract with you expires or if a client terminates their contract with you, is their data destroyed or returned to the client?
2. If data is purged or destroyed, how is this done, what technologies are used, and what certifications do you provide to "prove" that a client's data has been removed and no longer resides with you and/or can be accessed by anyone?
3. What provisions exist if your business terminates, or is purchased by or merges with another company during the term of the contract?

Vendor Management and Risk Assessment

1. Do you produce SOC 2 reports for your company? If so, are they available to customers on an annual basis?
2. What is your SOC 2 reporting schedule?



Allocation vs. Targets and Policy						
	Current Balance	Current Allocation	Policy	Difference	Policy Range	
Global Public Equity	\$6,814,127,490	39.3%	35.0%	4.3%	28.0% - 42.0%	
U.S. Equity	\$3,598,900,804	20.8%	17.0%	3.8%	14.0% - 20.0%	
International Developed Equity	\$2,023,601,261	11.7%	11.0%	0.7%	9.0% - 13.0%	
Emerging Markets Equity	\$1,191,441,874	6.9%	7.0%	-0.1%	5.0% - 9.0%	
Private Equity	\$1,734,547,646	10.0%	10.0%	0.0%	6.0% - 14.0%	
Fixed Income	\$2,799,133,040	16.2%	17.0%	-0.8%	12.0% - 22.0%	
Core Fixed Income	\$1,686,729,974	9.7%	10.0%	-0.3%	7.0% - 13.0%	
Core Plus Fixed Income	\$593,307,048	3.4%	3.5%	-0.1%	0.0% - 6.5%	
TIPS	\$519,096,019	3.0%	3.5%	-0.5%	0.0% - 6.5%	
Credit	\$1,749,553,682	10.1%	11.0%	-0.9%	6.0% - 16.0%	
Corporate Credit	\$453,143,711	2.6%	5.0%	-2.4%	2.0% - 8.0%	
Private Credit	\$393,061,006	2.3%	3.0%	-0.7%	1.0% - 5.0%	
Emerging Market Debt	\$501,908,937	2.9%	3.0%	-0.1%	1.0% - 5.0%	
Opportunistic Credit	\$401,440,028	2.3%	0.0%	2.3%	0.0% - 5.0%	
Real Assets	\$2,249,201,342	13.0%	17.0%	-4.0%	12.0% - 22.0%	
Real Return	\$983,460,589	5.7%	8.0%	-2.3%	5.0% - 11.0%	
Real Estate	\$1,265,740,753	7.3%	9.0%	-1.7%	6.0% - 12.0%	
Risk Mitigation	\$1,711,478,948	9.9%	10.0%	-0.1%	5.0% - 15.0%	
Diversifying Strategies	--	--	0.0%	0.0%	0.0% - 5.0%	
Cash	\$262,174,091	1.5%	0.0%	1.5%	0.0% - 5.0%	
Absolute Return	\$1,032,420	0.0%	--	0.0%	--	
Total	\$17,321,248,659	100.0%	100.0%			

The Board adopted a new asset allocation policy effective October 1, 2018, and in January 2019 approved a move to more closely align the portfolio with the adopted target allocation and ranges. Individual asset classes and sub-assetclass exposures may be outside the policy ranges as the Portfolio migrates to the new asset allocation.

Performance Summary											
	Market Value (\$)	3 Mo (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank
Total Portfolio*	17,321,248,659	3.8	98	14.4	94	8.8	56	6.9	44	7.3	90
<i>Policy Benchmark</i>		<i>3.7</i>	<i>99</i>	<i>15.0</i>	<i>87</i>	<i>8.8</i>	<i>59</i>	<i>7.0</i>	<i>43</i>	<i>7.8</i>	<i>63</i>
Global Public Equity	6,814,127,490	9.5	34	26.8	46	12.6	41	8.7	41	9.2	52
<i>Global Public Equity Blended Benchmark</i>		<i>9.0</i>	<i>41</i>	<i>26.7</i>	<i>47</i>	<i>12.5</i>	<i>44</i>	<i>8.4</i>	<i>44</i>	<i>8.8</i>	<i>59</i>
U.S. Equity	3,598,900,804	8.9	36	30.0	37	14.1	35	11.1	28	12.9	39
<i>Russell 3000</i>		<i>9.1</i>	<i>33</i>	<i>31.0</i>	<i>32</i>	<i>14.6</i>	<i>32</i>	<i>11.2</i>	<i>26</i>	<i>13.4</i>	<i>27</i>
International Developed Equity	2,023,601,261	9.2	65	23.8	64	10.4	64	7.2	33	6.7	58
<i>MSCI EAFE</i>		<i>8.2</i>	<i>83</i>	<i>22.0</i>	<i>76</i>	<i>9.6</i>	<i>76</i>	<i>5.7</i>	<i>66</i>	<i>5.5</i>	<i>78</i>
Emerging Market Equity	1,191,441,874	11.7	39	23.0	29	12.7	31	5.7	43	4.0	63
<i>MSCI Emerging Markets</i>		<i>11.8</i>	<i>36</i>	<i>18.4</i>	<i>58</i>	<i>11.6</i>	<i>44</i>	<i>5.6</i>	<i>47</i>	<i>3.7</i>	<i>71</i>
Private Equity	1,734,547,646	1.3	51	10.9	30	14.1	42	12.5	40	12.1	57
<i>Cambridge Associates Private Equity Index</i>		<i>1.3</i>	<i>51</i>	<i>10.1</i>	<i>38</i>	<i>15.3</i>	<i>26</i>	<i>12.1</i>	<i>44</i>	<i>14.5</i>	<i>11</i>
Fixed Income	2,799,133,040	0.4	15	8.8	64	4.5	16	3.4	30	4.0	46
<i>Fixed Income Custom Index</i>		<i>0.4</i>	<i>16</i>	<i>8.8</i>	<i>67</i>	<i>3.9</i>	<i>69</i>	<i>3.0</i>	<i>70</i>	<i>3.7</i>	<i>73</i>
Core Fixed Income	1,686,729,974	0.2	46	8.8	60	4.2	46	3.2	49	3.9	60
<i>BBgBarc US Aggregate TR</i>		<i>0.2</i>	<i>44</i>	<i>8.7</i>	<i>68</i>	<i>4.0</i>	<i>56</i>	<i>3.0</i>	<i>64</i>	<i>3.7</i>	<i>71</i>
Core Plus Fixed Income	593,307,048	0.7	5	9.0	50	4.6	11	--	--	--	--
<i>BBgBarc US Universal TR</i>		<i>0.5</i>	<i>14</i>	<i>9.3</i>	<i>35</i>	<i>4.3</i>	<i>32</i>	<i>3.4</i>	<i>24</i>	<i>4.1</i>	<i>38</i>
TIPS	519,096,019	0.8	38	8.5	62	3.6	78	--	--	--	--
<i>BBgBarc US TIPS TR</i>		<i>0.8</i>	<i>39</i>	<i>8.4</i>	<i>73</i>	<i>3.3</i>	<i>85</i>	<i>2.6</i>	<i>44</i>	<i>3.4</i>	<i>72</i>
Credit	1,749,553,682	2.2	19	6.7	99	5.5	68	--	--	--	--
<i>Credit Custom Index</i>		<i>2.5</i>	<i>16</i>	<i>11.8</i>	<i>88</i>	<i>5.3</i>	<i>75</i>	<i>5.3</i>	<i>8</i>	<i>6.3</i>	<i>2</i>
Corporate Credit	453,143,711	2.0	55	7.1	51	4.2	44	4.0	33	6.7	2
<i>BBgBarc US High Yield TR</i>		<i>2.6</i>	<i>37</i>	<i>14.3</i>	<i>10</i>	<i>6.4</i>	<i>8</i>	<i>6.1</i>	<i>2</i>	<i>7.6</i>	<i>1</i>

¹ Peer rankings are from highest (1) to lowest (100) in the respective InvestorForce universes.

	Market Value (\$)	3 Mo (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank
Private Credit	393,061,006	1.7	50	5.8	99	7.7	1	7.9	1	--	--
<i>Credit Suisse Leveraged Loans</i>		<i>1.7</i>	<i>51</i>	<i>8.2</i>	<i>98</i>	<i>4.5</i>	<i>98</i>	<i>4.5</i>	<i>36</i>	<i>5.2</i>	<i>38</i>
Emerging Market Debt	501,908,937	3.2	54	10.8	90	5.5	81	2.6	84	--	--
<i>Emerging Market Debt Custom Benchmark</i>		<i>3.5</i>	<i>51</i>	<i>13.7</i>	<i>55</i>	<i>6.8</i>	<i>30</i>	<i>4.0</i>	<i>66</i>	<i>4.2</i>	<i>67</i>
Opportunistic Credit	401,440,028	1.6	51	3.3	99	5.2	76	4.4	37	--	--
<i>HFRI Relative Value (Total) Index</i>		<i>1.9</i>	<i>33</i>	<i>7.5</i>	<i>98</i>	<i>4.0</i>	<i>99</i>	<i>3.8</i>	<i>47</i>	<i>5.2</i>	<i>38</i>
Real Assets	2,249,201,342	-0.3	--	1.9	--	4.5	--	--	--	--	--
<i>Real Assets Custom Blend</i>		<i>-0.1</i>	--	<i>1.0</i>	--	<i>6.5</i>	--	<i>6.7</i>	--	<i>7.0</i>	--
Real Return	983,460,589	-3.3	--	-3.4	--	0.4	--	0.8	--	2.0	--
<i>Real Return Custom Index</i>		<i>-2.4</i>	--	<i>-6.4</i>	--	<i>4.0</i>	--	<i>5.2</i>	--	<i>6.2</i>	--
Total Real Estate	1,265,740,753	2.2	7	6.8	38	7.6	35	10.8	1	11.2	41
<i>Real Estate Custom Index</i>		<i>1.5</i>	<i>27</i>	<i>5.3</i>	<i>70</i>	<i>7.1</i>	<i>57</i>	<i>8.5</i>	<i>46</i>	<i>10.1</i>	<i>74</i>
Risk Mitigation	1,711,478,948	-1.7	99	8.8	77	5.4	71	4.4	52	--	--
<i>Risk Mitigating Strategies Custom Index</i>		<i>-2.7</i>	<i>99</i>	<i>9.3</i>	<i>76</i>	<i>3.5</i>	<i>80</i>	<i>1.8</i>	<i>80</i>	<i>1.4</i>	<i>94</i>
Cash*	262,174,091	0.6	--	2.5	--	1.9	--	1.3	--	0.9	--
<i>91 Day T-Bills</i>		<i>0.4</i>	--	<i>2.1</i>	--	<i>1.6</i>	--	<i>1.1</i>	--	<i>0.6</i>	--
Absolute Return	1,032,420	2.6	--	23.3	--	4.0	--	2.6	--	--	--
<i>Total Absolute Return Index</i>		<i>2.2</i>	--	<i>8.0</i>	--	<i>5.8</i>	--	<i>5.8</i>	--	<i>5.7</i>	--

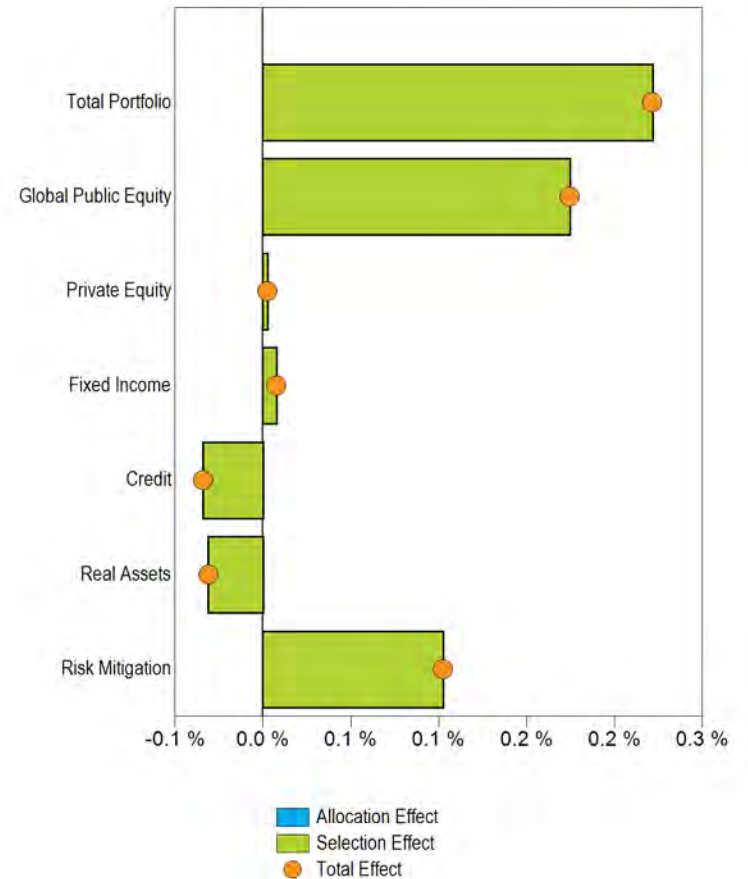
*One or more accounts have been excluded from the composite for the purposes of performance calculations and market value.

¹ Peer rankings are from highest (1) to lowest (100) in the respective InvestorForce universes.

Attribution Summary						
3 Months Ending December 31, 2019						
	Wtd. Actual Return	Wtd. Index Return	Excess Return	Selection Effect	Allocation Effect	Total Effects
Global Public Equity	9.5%	9.0%	0.5%	0.2%	0.0%	0.2%
Private Equity	1.3%	1.3%	0.0%	0.0%	0.0%	0.0%
Fixed Income	0.4%	0.4%	0.0%	0.0%	0.0%	0.0%
Credit	2.2%	2.5%	-0.3%	0.0%	0.0%	0.0%
Real Assets	-0.3%	-0.1%	-0.2%	0.0%	0.0%	0.0%
Risk Mitigation	-1.7%	-2.7%	1.0%	0.1%	0.0%	0.1%
Total	3.8%	3.6%	0.2%	0.2%	0.0%	0.2%

Attribution Effects

3 Months Ending December 31, 2019

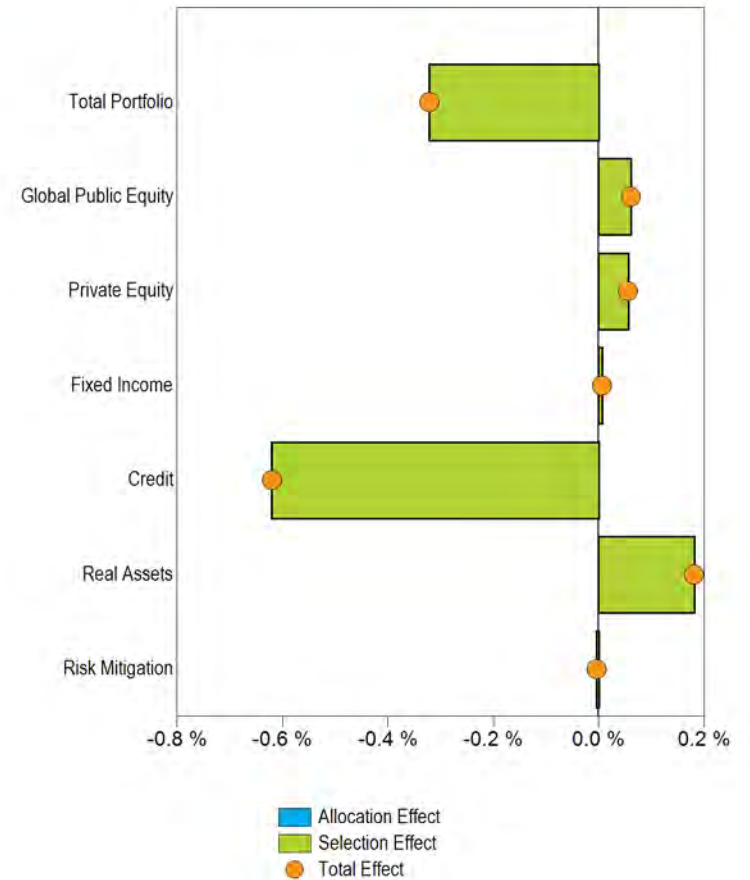


¹ Differences in attribution returns and returns in the performance summary may occur as a result of the different calculation methodologies that are applied by InvestorForce.

Attribution Summary						
1 Year Ending December 31, 2019						
	Wtd. Actual Return	Wtd. Index Return	Excess Return	Selection Effect	Allocation Effect	Total Effects
Global Public Equity	26.8%	26.7%	0.1%	0.1%	0.0%	0.1%
Private Equity	10.9%	10.1%	0.9%	0.1%	0.0%	0.1%
Fixed Income	8.8%	8.8%	0.0%	0.0%	0.0%	0.0%
Credit	6.7%	11.8%	-5.1%	-0.6%	0.0%	-0.6%
Real Assets	1.9%	1.0%	0.9%	0.2%	0.0%	0.2%
Risk Mitigation	8.8%	9.3%	-0.6%	0.0%	0.0%	0.0%
Total	14.3%	14.6%	-0.3%	-0.3%	0.0%	-0.3%

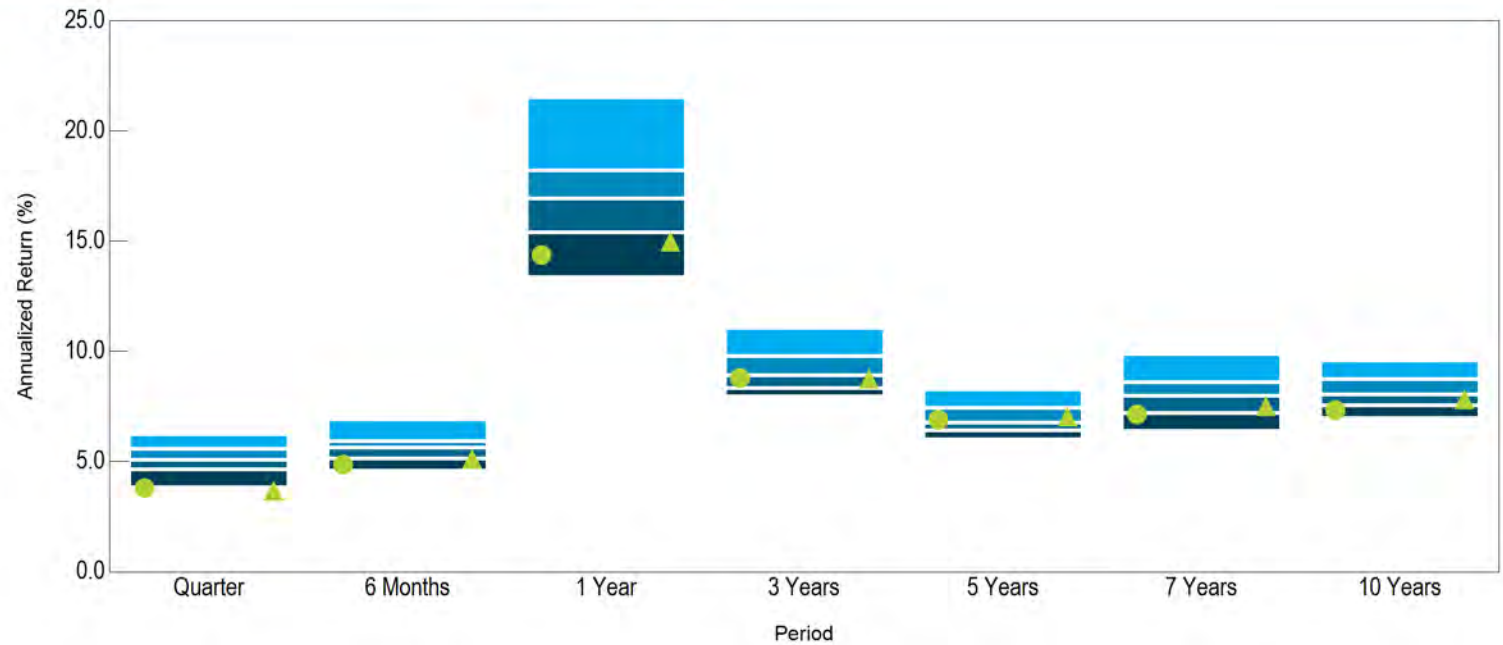
Attribution Effects

1 Year Ending December 31, 2019



¹ Differences in attribution returns and returns in the performance summary may occur as a result of the different calculation methodologies that are applied by InvestorForce.

InvMetrics Public DB > \$1B Net Return Comparison
Ending December 31, 2019



	Return (Rank)						
	Quarter	6 Months	1 Year	3 Years	5 Years	7 Years	10 Years
5th Percentile	6.2	6.9	21.5	11.1	8.3	9.9	9.6
25th Percentile	5.6	5.9	18.2	9.8	7.4	8.6	8.8
Median	5.1	5.6	17.0	8.9	6.8	8.0	8.1
75th Percentile	4.6	5.1	15.4	8.3	6.4	7.2	7.6
95th Percentile	3.9	4.6	13.4	8.0	6.0	6.4	7.0
# of Portfolios	69	69	69	69	67	66	59
● Total Portfolio	3.8 (98)	4.9 (88)	14.4 (94)	8.8 (56)	6.9 (44)	7.1 (78)	7.3 (90)
▲ Policy Benchmark	3.7 (99)	5.1 (78)	15.0 (87)	8.8 (59)	7.0 (43)	7.5 (63)	7.8 (63)

Performance Summary														
	Market Value (\$)	% of Portfolio	3 Mo (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank	Inception (%)	Inception Date
Total Portfolio*	17,321,248,659	100.0	3.8	98	14.4	94	8.8	56	6.9	44	7.3	90	4.6	Dec-88
<i>Policy Benchmark</i>			<u>3.7</u>	99	<u>15.0</u>	87	<u>8.8</u>	59	<u>7.0</u>	43	<u>7.8</u>	63	--	Dec-88
Over/Under			0.1		-0.6		0.0		-0.1		-0.5			
<i>InvMetrics Public DB > \$1B Net Median</i>			5.1		17.0		8.9		6.8		8.1		8.0	Dec-88
Global Public Equity	6,814,127,490	39.3	9.5	34	26.8	46	12.6	41	8.7	41	9.2	52	4.8	Dec-88
<i>Global Public Equity Blended Benchmark</i>			<u>9.0</u>	41	<u>26.7</u>	47	<u>12.5</u>	44	<u>8.4</u>	44	<u>8.8</u>	59	--	Dec-88
Over/Under			0.5		0.1		0.1		0.3		0.4			
<i>eV All Global Equity Net Median</i>			8.6		26.1		11.7		8.0		9.3		9.5	Dec-88
U.S. Equity	3,598,900,804	20.8	8.9	36	30.0	37	14.1	35	11.1	28	12.9	39	5.4	Dec-88
<i>Russell 3000</i>			<u>9.1</u>	33	<u>31.0</u>	32	<u>14.6</u>	32	<u>11.2</u>	26	<u>13.4</u>	27	<u>10.6</u>	Dec-88
Over/Under			-0.2		-1.0		-0.5		-0.1		-0.5		-5.2	
<i>eV All US Equity Net Median</i>			8.1		28.0		11.7		9.3		12.3		11.4	Dec-88
BlackRock Russell 1000	3,206,412,499	18.5	9.0	28	31.5	29	15.1	27	11.5	20	13.6	13	10.7	Dec-88
<i>Russell 1000</i>			<u>9.0</u>	28	<u>31.4</u>	29	<u>15.0</u>	27	<u>11.5</u>	20	<u>13.5</u>	13	<u>10.7</u>	Dec-88
Over/Under			0.0		0.1		0.1		0.0		0.1		0.0	
<i>eV US Large Cap Core Equity Net Median</i>			8.0		28.9		13.6		10.3		12.8		10.2	Dec-88
Eagle Asset Management	232,276,215	1.3	8.5	65	22.8	79	14.6	60	11.0	48	--	--	13.1	Nov-10
<i>Russell 2000 Growth</i>			<u>11.4</u>	26	<u>28.5</u>	50	<u>12.5</u>	71	<u>9.3</u>	72	<u>13.0</u>	66	<u>12.5</u>	Nov-10
Over/Under			-2.9		-5.7		2.1		1.7				0.6	
<i>eV US Small Cap Growth Equity Net Median</i>			9.4		28.4		15.4		10.8		13.8		13.3	Nov-10
Systematic Small Cap Value	157,822,049	0.9	--	--	--	--	--	--	--	--	--	--	5.5	Oct-19
<i>Russell 2000 Value</i>			<u>8.5</u>	32	<u>22.4</u>	60	<u>4.8</u>	46	<u>7.0</u>	39	<u>10.6</u>	61	<u>5.9</u>	Oct-19
Over/Under													-0.4	
<i>eV US Small Cap Value Equity Net Median</i>			7.8		23.8		4.5		6.5		11.0		5.8	Oct-19
Highfields Capital Management	2,386,797	0.0	0.5	--	9.7	--	0.9	--	2.1	--	--	--	2.8	Nov-13
<i>HFRX Global Hedge Fund Index</i>			<u>2.6</u>	--	<u>8.6</u>	--	<u>2.4</u>	--	<u>1.2</u>	--	<u>1.1</u>	--	<u>1.0</u>	Nov-13
Over/Under			-2.1		1.1		-1.5		0.9				1.8	

¹ Prior to October 1998, BlackRock Russell 1000 Index Fund returns are gross of fees.

² Fiscal year ends December 31.

	Market Value (\$)	% of Portfolio	3 Mo (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank	Inception (%)	Inception Date
International Developed Equity	2,023,601,261	11.7	9.2	65	23.8	64	10.4	64	7.2	33	6.7	58	4.4	Oct-89
<i>MSCI EAFE</i>			<u>8.2</u>	83	<u>22.0</u>	76	<u>9.6</u>	76	<u>5.7</u>	66	<u>5.5</u>	78	<u>4.8</u>	Oct-89
Over/Under			1.0		1.8		0.8		1.5		1.2		-0.4	
<i>eV ACWI ex-US All Cap Equity Net Median</i>			9.8		25.1		11.2		6.5		6.9		--	Oct-89
BlackRock MSCI EAFE Fund	1,027,613,212	5.9	8.2	61	22.5	43	10.0	34	6.1	35	5.9	65	7.5	Jul-03
<i>MSCI EAFE</i>			<u>8.2</u>	61	<u>22.0</u>	45	<u>9.6</u>	37	<u>5.7</u>	41	<u>5.5</u>	76	<u>7.1</u>	Jul-03
Over/Under			0.0		0.5		0.4		0.4		0.4		0.4	
<i>eV EAFE Large Cap Equity Net Median</i>			8.6		21.6		8.8		5.4		6.3		7.3	Jul-03
Capital Group - EAFE	346,137,674	2.0	9.8	26	29.8	6	14.0	6	8.1	8	7.1	21	8.0	Oct-89
<i>MSCI EAFE</i>			<u>8.2</u>	61	<u>22.0</u>	45	<u>9.6</u>	37	<u>5.7</u>	41	<u>5.5</u>	76	<u>4.6</u>	Oct-89
Over/Under			1.6		7.8		4.4		2.4		1.6		3.4	
<i>eV EAFE Large Cap Equity Net Median</i>			8.6		21.6		8.8		5.4		6.3		6.9	Oct-89
AQR Capital	306,616,290	1.8	9.2	34	20.8	56	7.7	69	5.5	47	6.2	52	3.2	Feb-07
<i>MSCI EAFE</i>			<u>8.2</u>	61	<u>22.0</u>	45	<u>9.6</u>	37	<u>5.7</u>	41	<u>5.5</u>	76	<u>2.7</u>	Feb-07
Over/Under			1.0		-1.2		-1.9		-0.2		0.7		0.5	
<i>eV EAFE Large Cap Equity Net Median</i>			8.6		21.6		8.8		5.4		6.3		3.4	Feb-07
Mondrian	173,770,625	1.0	11.3	63	25.1	39	12.3	24	7.8	66	--	--	7.8	Oct-10
<i>MSCI World ex USA Small Cap</i>			<u>11.4</u>	62	<u>25.4</u>	38	<u>10.4</u>	54	<u>8.2</u>	54	<u>8.0</u>	83	<u>7.6</u>	Oct-10
Over/Under			-0.1		-0.3		1.9		-0.4				0.2	
<i>eV EAFE Small Cap Equity Net Median</i>			12.1		23.8		10.6		8.4		9.3		8.8	Oct-10
Fidelity Institutional Asset Management	169,463,461	1.0	12.3	47	24.6	43	11.3	39	8.7	43	--	--	8.5	Nov-10
<i>S&P Developed ex-U.S. SmallCap NR USD</i>			<u>11.7</u>	59	<u>24.1</u>	45	<u>10.0</u>	60	<u>7.7</u>	68	<u>7.9</u>	86	<u>7.2</u>	Nov-10
Over/Under			0.6		0.5		1.3		1.0				1.3	
<i>eV EAFE Small Cap Equity Net Median</i>			12.1		23.8		10.6		8.4		9.3		8.4	Nov-10

¹ Prior to October 1998, Capital Group Int'l returns are gross of fees.

² Fiscal Year ends December 31.

	Market Value (\$)	% of Portfolio	3 Mo (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank	Inception (%)	Inception Date
Emerging Market Equity	1,191,441,874	6.9	11.7	39	23.0	29	12.7	31	5.7	43	4.0	63	5.0	Jun-06
<i>MSCI Emerging Markets</i>			<i>11.8</i>	<i>36</i>	<i>18.4</i>	<i>58</i>	<i>11.6</i>	<i>44</i>	<i>5.6</i>	<i>47</i>	<i>3.7</i>	<i>71</i>	<i>5.4</i>	<i>Jun-06</i>
Over/Under			-0.1		4.6		1.1		0.1		0.3		-0.4	
<i>eV Emg Mkts Equity Net Median</i>			<i>11.4</i>		<i>19.3</i>		<i>10.7</i>		<i>5.5</i>		<i>4.4</i>		<i>5.9</i>	<i>Jun-06</i>
William Blair	415,698,576	2.4	11.4	49	29.2	6	15.3	8	6.0	38	6.1	15	5.9	Jun-06
<i>MSCI Emerging Markets</i>			<i>11.8</i>	<i>36</i>	<i>18.4</i>	<i>58</i>	<i>11.6</i>	<i>44</i>	<i>5.6</i>	<i>47</i>	<i>3.7</i>	<i>71</i>	<i>5.4</i>	<i>Jun-06</i>
Over/Under			-0.4		10.8		3.7		0.4		2.4		0.5	
<i>eV Emg Mkts Equity Net Median</i>			<i>11.4</i>		<i>19.3</i>		<i>10.7</i>		<i>5.5</i>		<i>4.4</i>		<i>5.9</i>	<i>Jun-06</i>
City of London	306,525,579	1.8	12.1	30	22.0	35	12.4	34	6.4	33	--	--	5.3	Nov-13
<i>MSCI Emerging Markets</i>			<i>11.8</i>	<i>36</i>	<i>18.4</i>	<i>58</i>	<i>11.6</i>	<i>44</i>	<i>5.6</i>	<i>47</i>	<i>3.7</i>	<i>71</i>	<i>3.7</i>	<i>Nov-13</i>
Over/Under			0.3		3.6		0.8		0.8				1.6	
<i>eV Emg Mkts Equity Net Median</i>			<i>11.4</i>		<i>19.3</i>		<i>10.7</i>		<i>5.5</i>		<i>4.4</i>		<i>3.9</i>	<i>Nov-13</i>
Acadian Emerging Markets	279,215,963	1.6	11.9	36	17.3	67	9.5	68	4.0	80	--	--	3.0	Nov-13
<i>MSCI Emerging Markets</i>			<i>11.8</i>	<i>36</i>	<i>18.4</i>	<i>58</i>	<i>11.6</i>	<i>44</i>	<i>5.6</i>	<i>47</i>	<i>3.7</i>	<i>71</i>	<i>3.7</i>	<i>Nov-13</i>
Over/Under			0.1		-1.1		-2.1		-1.6				-0.7	
<i>eV Emg Mkts Equity Net Median</i>			<i>11.4</i>		<i>19.3</i>		<i>10.7</i>		<i>5.5</i>		<i>4.4</i>		<i>3.9</i>	<i>Nov-13</i>
Acadian Emerging Markets Small Cap	190,001,756	1.1	11.4	20	18.9	30	11.6	19	6.5	14	--	--	5.3	Jul-14
<i>MSCI Emerging Markets Small Cap</i>			<i>9.5</i>	<i>59</i>	<i>11.5</i>	<i>82</i>	<i>6.7</i>	<i>73</i>	<i>3.0</i>	<i>74</i>	<i>2.9</i>	<i>99</i>	<i>1.3</i>	<i>Jul-14</i>
Over/Under			1.9		7.4		4.9		3.5				4.0	
<i>eV Emg Mkts Small Cap Equity Net Median</i>			<i>9.8</i>		<i>15.4</i>		<i>8.5</i>		<i>4.3</i>		<i>6.2</i>		<i>2.9</i>	<i>Jul-14</i>
Global Equity	183,552	0.0												
Franklin Templeton	108,815	0.0												
J.P. Morgan Global Opportunities	74,737	0.0												

¹ Fiscal Year ends December 31.

	Market Value (\$)	% of Portfolio	3 Mo (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank	Inception (%)	Inception Date
Private Equity	1,734,547,646	10.0	1.3	51	10.9	30	14.1	42	12.5	40	12.1	57	7.6	May-91
<i>Cambridge Associates Private Equity Index</i>			<u>1.3</u>	<u>51</u>	<u>10.1</u>	<u>38</u>	<u>15.3</u>	<u>26</u>	<u>12.1</u>	<u>44</u>	<u>14.5</u>	<u>11</u>	<u>14.7</u>	<u>May-91</u>
Over/Under			0.0		0.8		-1.2		0.4		-2.4		-7.1	
<i>InvMetrics Public DB Private Eq Net Median</i>			1.4		8.4		13.4		11.4		12.5		--	<i>May-91</i>
Abbott Capital	398,015,020	2.3	1.7	46	15.8	15	18.6	13	15.3	23	11.7	59	3.3	Feb-07
<i>Cambridge Associates Private Equity Index</i>			<u>1.3</u>	<u>51</u>	<u>10.1</u>	<u>38</u>	<u>15.3</u>	<u>26</u>	<u>12.1</u>	<u>44</u>	<u>14.5</u>	<u>11</u>	<u>11.9</u>	<u>Feb-07</u>
Over/Under			0.4		5.7		3.3		3.2		-2.8		-8.6	
<i>InvMetrics Public DB Private Eq Net Median</i>			1.4		8.4		13.4		11.4		12.5		9.9	<i>Feb-07</i>
Adams Street Partners	314,146,668	1.8	-1.1	94	7.7	56	13.7	49	12.4	42	12.3	52	9.3	May-91
<i>Cambridge Associates Private Equity Index</i>			<u>1.3</u>	<u>51</u>	<u>10.1</u>	<u>38</u>	<u>15.3</u>	<u>26</u>	<u>12.1</u>	<u>44</u>	<u>14.5</u>	<u>11</u>	<u>14.7</u>	<u>May-91</u>
Over/Under			-2.4		-2.4		-1.6		0.3		-2.2		-5.4	
<i>InvMetrics Public DB Private Eq Net Median</i>			1.4		8.4		13.4		11.4		12.5		--	<i>May-91</i>
Pantheon Ventures	206,371,921	1.2	1.8	45	10.8	32	17.3	19	3.1	98	--	--	3.0	Dec-14
<i>Cambridge Associates Private Equity Index</i>			<u>1.3</u>	<u>51</u>	<u>10.1</u>	<u>38</u>	<u>15.3</u>	<u>26</u>	<u>12.1</u>	<u>44</u>	<u>14.5</u>	<u>11</u>	<u>12.2</u>	<u>Dec-14</u>
Over/Under			0.5		0.7		2.0		-9.0				-9.2	
<i>InvMetrics Public DB Private Eq Net Median</i>			1.4		8.4		13.4		11.4		12.5		11.8	<i>Dec-14</i>
Mesirow Financial Private Equity	165,097,475	1.0	2.6	31	16.0	15	17.1	20	15.1	23	14.2	12	7.6	Jan-07
<i>Cambridge Associates Private Equity Index</i>			<u>1.3</u>	<u>51</u>	<u>10.1</u>	<u>38</u>	<u>15.3</u>	<u>26</u>	<u>12.1</u>	<u>44</u>	<u>14.5</u>	<u>11</u>	<u>11.8</u>	<u>Jan-07</u>
Over/Under			1.3		5.9		1.8		3.0		-0.3		-4.2	
<i>InvMetrics Public DB Private Eq Net Median</i>			1.4		8.4		13.4		11.4		12.5		9.8	<i>Jan-07</i>
OCP Asia Orchard Landmark II	141,391,850	0.8	2.9	27	16.7	13	19.3	10	--	--	--	--	12.7	May-16
<i>JACI Non-Investment Grade Corporates</i>			<u>2.5</u>	<u>32</u>	<u>12.7</u>	<u>22</u>	<u>5.0</u>	<u>96</u>	--	--	--	--	<u>5.7</u>	<u>May-16</u>
Over/Under			0.4		4.0		14.3						7.0	
<i>InvMetrics Public DB Private Eq Net Median</i>			1.4		8.4		13.4		11.4		12.5		12.9	<i>May-16</i>
OCP Asia Orchard Landmark I	122,197,759	0.7	-1.5	94	4.3	85	10.1	82	12.0	45	--	--	12.2	Jan-14
<i>JP Morgan Asia Credit Non-Investment Grade Corporates TR USD</i>			<u>2.5</u>	<u>32</u>	<u>12.7</u>	<u>22</u>	<u>5.0</u>	<u>96</u>	<u>6.4</u>	<u>96</u>	<u>7.8</u>	<u>94</u>	<u>6.3</u>	<u>Jan-14</u>
Over/Under			-4.0		-8.4		5.1		5.6				5.9	
<i>InvMetrics Public DB Private Eq Net Median</i>			1.4		8.4		13.4		11.4		12.5		11.9	<i>Jan-14</i>

¹ Fiscal Year ends December 31.

	Market Value (\$)	% of Portfolio	3 Mo (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank	Inception (%)	Inception Date
Alcentra Clareant Direct Lending II	109,426,985	0.6	3.0	25	11.4	27	8.7	89	--	--	--	--	8.6	May-16
<i>S&P European Leveraged Loan Index</i>			<u>3.8</u>	<u>12</u>	<u>3.0</u>	<u>94</u>	<u>5.5</u>	<u>96</u>	<u>2.3</u>	<u>99</u>	--	--	<u>2.9</u>	<u>May-16</u>
Over/Under			-0.8		8.4		3.2						5.7	
<i>InvMetrics Public DB Private Eq Net Median</i>			1.4		8.4		13.4		11.4		12.5		12.9	May-16
Park Square European Direct Lending	77,340,838	0.4	2.2	35	5.7	79	5.2	96	4.9	97	--	--	5.2	Nov-14
<i>S&P European Leveraged Loan Index</i>			<u>3.8</u>	<u>12</u>	<u>3.0</u>	<u>94</u>	<u>5.5</u>	<u>96</u>	<u>2.3</u>	<u>99</u>	--	--	<u>1.6</u>	<u>Nov-14</u>
Over/Under			-1.6		2.7		-0.3		2.6				3.6	
<i>InvMetrics Public DB Private Eq Net Median</i>			1.4		8.4		13.4		11.4		12.5		11.6	Nov-14
Monroe Capital Private Credit Fund II	54,879,772	0.3	1.8	45	4.0	86	8.0	91	--	--	--	--	10.1	May-16
<i>Credit Suisse Leveraged Loans</i>			<u>1.7</u>	<u>46</u>	<u>8.2</u>	<u>53</u>	<u>4.5</u>	<u>96</u>	<u>4.5</u>	<u>97</u>	<u>5.2</u>	<u>98</u>	<u>5.4</u>	<u>May-16</u>
Over/Under			0.1		-4.2		3.5						4.7	
<i>InvMetrics Public DB Private Eq Net Median</i>			1.4		8.4		13.4		11.4		12.5		12.9	May-16
DBL Partners TIAB 2018	34,105,922	0.2	0.0	80	--	--	--	--	--	--	--	--	12.6	Feb-19
<i>Cambridge Associates Private Equity Index</i>			<u>1.3</u>	<u>51</u>	<u>10.1</u>	<u>38</u>	<u>15.3</u>	<u>26</u>	<u>12.1</u>	<u>44</u>	<u>14.5</u>	<u>11</u>	<u>10.1</u>	<u>Feb-19</u>
Over/Under			-1.3										2.5	
<i>InvMetrics Public DB Private Eq Net Median</i>			1.4		8.4		13.4		11.4		12.5		8.6	Feb-19
Park Square Capital Credit Opportunities III	32,879,445	0.2	13.2	1	4.7	82	--	--	--	--	--	--	4.2	Feb-18
<i>S&P European Leveraged Loan Index</i>			<u>3.8</u>	<u>12</u>	<u>3.0</u>	<u>94</u>	<u>5.5</u>	<u>96</u>	<u>2.3</u>	<u>99</u>	--	--	<u>-2.5</u>	<u>Feb-18</u>
Over/Under			9.4		1.7								6.7	
<i>InvMetrics Public DB Private Eq Net Median</i>			1.4		8.4		13.4		11.4		12.5		12.6	Feb-18
Thoma Bravo Fund XIII	26,713,596	0.2	-0.2	89	--	--	--	--	--	--	--	--	-1.9	Mar-19
<i>Cambridge Associates Private Equity Index</i>			<u>1.3</u>	<u>51</u>	<u>10.1</u>	<u>38</u>	<u>15.3</u>	<u>26</u>	<u>12.1</u>	<u>44</u>	<u>14.5</u>	<u>11</u>	<u>10.1</u>	<u>Mar-19</u>
Over/Under			-1.5										-12.0	
<i>InvMetrics Public DB Private Eq Net Median</i>			1.4		8.4		13.4		11.4		12.5		9.1	Mar-19
Vista Equity Partners Fund VII	17,871,101	0.1	0.0	81	--	--	--	--	--	--	--	--	-5.2	Mar-19
<i>Cambridge Associates Private Equity Index</i>			<u>1.3</u>	<u>51</u>	<u>10.1</u>	<u>38</u>	<u>15.3</u>	<u>26</u>	<u>12.1</u>	<u>44</u>	<u>14.5</u>	<u>11</u>	<u>10.1</u>	<u>Mar-19</u>
Over/Under			-1.3										-15.3	
<i>InvMetrics Public DB Private Eq Net Median</i>			1.4		8.4		13.4		11.4		12.5		9.1	Mar-19

¹ Fiscal Year ends December 31.

	Market Value (\$)	% of Portfolio	3 Mo (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank	Inception (%)	Inception Date
GGV Capital VII	9,709,568	0.1	-1.9	95	--	--	--	--	--	--	--	--	-6.7	Feb-19
<i>Cambridge Associates Private Equity Index</i>			<u>1.3</u>	<u>51</u>	<u>10.1</u>	<u>38</u>	<u>15.3</u>	<u>26</u>	<u>12.1</u>	<u>44</u>	<u>14.5</u>	<u>11</u>	<u>10.1</u>	<u>Feb-19</u>
Over/Under			-3.2										-16.8	
<i>InvMetrics Public DB Private Eq Net Median</i>			1.4		8.4		13.4		11.4		12.5		8.6	Feb-19
Harvest Fund VII	7,297,411	0.0	--	--	--	--	--	--	--	--	--	--	-0.2	Nov-19
<i>Cambridge Associates Private Equity Index</i>			<u>1.3</u>	--	<u>10.1</u>	--	<u>15.3</u>	--	<u>12.1</u>	--	<u>14.5</u>	--	<u>1.3</u>	<u>Nov-19</u>
Over/Under													-1.5	
Genstar Capital Partners IX	5,677,769	0.0	-0.3	--	--	--	--	--	--	--	--	--	--	Jul-19
<i>Cambridge Associates Private Equity Index</i>			<u>1.3</u>	--	<u>10.1</u>	--	<u>15.3</u>	--	<u>12.1</u>	--	<u>14.5</u>	--	<u>6.1</u>	<u>Jul-19</u>
Over/Under			-1.6											
H.I.G. Advantage Buyout Fund I	4,397,872	0.0	36.7	1	23.1	7	--	--	--	--	--	--	15.6	Oct-18
<i>Cambridge Associates Private Equity Index</i>			<u>1.3</u>	<u>51</u>	<u>10.1</u>	<u>38</u>	<u>15.3</u>	<u>26</u>	<u>12.1</u>	<u>44</u>	<u>14.5</u>	<u>11</u>	<u>11.3</u>	<u>Oct-18</u>
Over/Under			35.4		13.0								4.3	
<i>InvMetrics Public DB Private Eq Net Median</i>			1.4		8.4		13.4		11.4		12.5		9.3	Oct-18
Accell-KKR Growth Fund III	2,753,382	0.0	-12.4	--	--	--	--	--	--	--	--	--	--	Jul-19
<i>Cambridge Associates Private Equity Index</i>			<u>1.3</u>	--	<u>10.1</u>	--	<u>15.3</u>	--	<u>12.1</u>	--	<u>14.5</u>	--	<u>6.1</u>	<u>Jul-19</u>
Over/Under			-13.7											
Oak HC/FT III	1,588,406	0.0	--	--	--	--	--	--	--	--	--	--	0.0	Nov-19
<i>Cambridge Associates Private Equity Index</i>			<u>1.3</u>	<u>51</u>	<u>10.1</u>	<u>38</u>	<u>15.3</u>	<u>26</u>	<u>12.1</u>	<u>44</u>	<u>14.5</u>	<u>11</u>	<u>1.3</u>	<u>Nov-19</u>
Over/Under													-1.3	
<i>InvMetrics Public DB Private Eq Net Median</i>			1.4		8.4		13.4		11.4		12.5		0.9	Nov-19
Advent International GPE IX	1,150,000	0.0	0.0	78	--	--	--	--	--	--	--	--	0.0	Oct-19
<i>Cambridge Associates Private Equity Index</i>			<u>1.3</u>	<u>51</u>	<u>10.1</u>	<u>38</u>	<u>15.3</u>	<u>26</u>	<u>12.1</u>	<u>44</u>	<u>14.5</u>	<u>11</u>	<u>1.3</u>	<u>Oct-19</u>
Over/Under			-1.3										-1.3	
<i>InvMetrics Public DB Private Eq Net Median</i>			1.4		8.4		13.4		11.4		12.5		1.4	Oct-19
Healthquest Partners III	722,316	0.0	-3.7	99	--	--	--	--	--	--	--	--	-3.7	Sep-19
<i>Cambridge Associates Private Equity Index</i>			<u>1.3</u>	<u>51</u>	<u>10.1</u>	<u>38</u>	<u>15.3</u>	<u>26</u>	<u>12.1</u>	<u>44</u>	<u>14.5</u>	<u>11</u>	<u>6.1</u>	<u>Sep-19</u>
Over/Under			-5.0										-9.8	
<i>InvMetrics Public DB Private Eq Net Median</i>			1.4		8.4		13.4		11.4		12.5		3.0	Sep-19

¹ Fiscal Year ends December 31.

	Market Value (\$)	% of Portfolio	3 Mo (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank	Inception (%)	Inception Date
HarbourVest Partners	469,279	0.0	0.0	78	18.1	10	1.3	97	2.1	99	6.2	97	6.2	Jun-92
<i>Cambridge Associates Private Equity Index</i>			<u>1.3</u>	<u>51</u>	<u>10.1</u>	<u>38</u>	<u>15.3</u>	<u>26</u>	<u>12.1</u>	<u>44</u>	<u>14.5</u>	<u>11</u>	<u>14.9</u>	<u>Jun-92</u>
Over/Under			-1.3		8.0		-14.0		-10.0		-8.3		-8.7	
<i>InvMetrics Public DB Private Eq Net Median</i>			1.4		8.4		13.4		11.4		12.5		--	Jun-92
HIG Middles Market LBO III	343,291	0.0	--	--	--	--	--	--	--	--	--	--	0.0	Dec-19
<i>Cambridge Associates Private Equity Index</i>			<u>1.3</u>	<u>51</u>	<u>10.1</u>	<u>38</u>	<u>15.3</u>	<u>26</u>	<u>12.1</u>	<u>44</u>	<u>14.5</u>	<u>11</u>	<u>1.3</u>	<u>Dec-19</u>
Over/Under													-1.3	
<i>InvMetrics Public DB Private Eq Net Median</i>			1.4		8.4		13.4		11.4		12.5		0.6	Dec-19
Fixed Income	2,799,133,040	16.2	0.4	15	8.8	64	4.5	16	3.4	30	4.0	46	--	Dec-88
<i>Fixed Income Custom Index</i>			<u>0.4</u>	<u>16</u>	<u>8.8</u>	<u>67</u>	<u>3.9</u>	<u>69</u>	<u>3.0</u>	<u>70</u>	<u>3.7</u>	<u>73</u>	<u>--</u>	<u>Dec-88</u>
Over/Under			0.0		0.0		0.6		0.4		0.3			
<i>eV US Core Fixed Inc Net Median</i>			0.2		9.0		4.1		3.1		4.0		6.2	Dec-88
Core Fixed Income	1,686,729,974	9.7	0.2	46	8.8	60	4.2	46	3.2	49	3.9	60	--	Feb-00
<i>BBgBarc US Aggregate TR</i>			<u>0.2</u>	<u>44</u>	<u>8.7</u>	<u>68</u>	<u>4.0</u>	<u>56</u>	<u>3.0</u>	<u>64</u>	<u>3.7</u>	<u>71</u>	<u>5.1</u>	<u>Feb-00</u>
Over/Under			0.0		0.1		0.2		0.2		0.2			
<i>eV US Core Fixed Inc Net Median</i>			0.2		9.0		4.1		3.1		4.0		5.3	Feb-00
BlackRock US Debt Index	1,134,103,371	6.5	0.2	42	8.8	66	4.1	49	3.1	52	3.9	62	5.1	Feb-00
<i>BBgBarc US Aggregate TR</i>			<u>0.2</u>	<u>44</u>	<u>8.7</u>	<u>68</u>	<u>4.0</u>	<u>56</u>	<u>3.0</u>	<u>64</u>	<u>3.7</u>	<u>71</u>	<u>5.1</u>	<u>Feb-00</u>
Over/Under			0.0		0.1		0.1		0.1		0.2		0.0	
<i>eV US Core Fixed Inc Net Median</i>			0.2		9.0		4.1		3.1		4.0		5.3	Feb-00
Schroders Value Core	276,764,907	1.6	0.1	57	9.2	40	--	--	--	--	--	--	5.1	Jan-18
<i>BBgBarc US Aggregate TR</i>			<u>0.2</u>	<u>44</u>	<u>8.7</u>	<u>68</u>	<u>4.0</u>	<u>56</u>	<u>3.0</u>	<u>64</u>	<u>3.7</u>	<u>71</u>	<u>4.3</u>	<u>Jan-18</u>
Over/Under			-0.1		0.5								0.8	
<i>eV US Core Fixed Inc Net Median</i>			0.2		9.0		4.1		3.1		4.0		4.3	Jan-18
Longfellow Core	275,861,696	1.6	0.2	51	8.7	68	--	--	--	--	--	--	4.8	Jan-18
<i>BBgBarc US Aggregate TR</i>			<u>0.2</u>	<u>44</u>	<u>8.7</u>	<u>68</u>	<u>4.0</u>	<u>56</u>	<u>3.0</u>	<u>64</u>	<u>3.7</u>	<u>71</u>	<u>4.3</u>	<u>Jan-18</u>
Over/Under			0.0		0.0								0.5	
<i>eV US Core Fixed Inc Net Median</i>			0.2		9.0		4.1		3.1		4.0		4.3	Jan-18

¹ Prior to October 1998, Loomis Sayles & Company and PIMCO Core Plus Total Return returns are gross of fees.

² Fiscal Year ends December 31.

	Market Value (\$)	% of Portfolio	3 Mo (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank	Inception (%)	Inception Date
Core Plus Fixed Income	593,307,048	3.4	0.7	5	9.0	50	4.6	11	--	--	--	--	--	Dec-88
<i>BBgBarc US Universal TR</i>			<u>0.5</u>	14	<u>9.3</u>	35	<u>4.3</u>	32	<u>3.4</u>	24	<u>4.1</u>	38	--	<i>Dec-88</i>
Over/Under			0.2		-0.3		0.3							
<i>eV US Core Fixed Inc Net Median</i>			0.2		9.0		4.1		3.1		4.0		6.2	<i>Dec-88</i>
Dodge & Cox Core Fixed Income	297,203,462	1.7	0.9	7	9.9	44	4.8	29	--	--	--	--	3.7	Apr-15
<i>BBgBarc US Aggregate TR</i>			<u>0.2</u>	78	<u>8.7</u>	85	<u>4.0</u>	83	<u>3.0</u>	87	<u>3.7</u>	99	<u>2.9</u>	<i>Apr-15</i>
Over/Under			0.7		1.2		0.8						0.8	
<i>eV US Core Plus Fixed Inc Net Median</i>			0.4		9.8		4.5		3.6		4.7		3.4	<i>Apr-15</i>
PIMCO Total Return	295,990,040	1.7	0.6	36	8.1	91	4.4	58	3.6	50	4.3	76	7.2	Dec-88
<i>BBgBarc US Aggregate TR</i>			<u>0.2</u>	78	<u>8.7</u>	85	<u>4.0</u>	83	<u>3.0</u>	87	<u>3.7</u>	99	<u>6.2</u>	<i>Dec-88</i>
Over/Under			0.4		-0.6		0.4		0.6		0.6		1.0	
<i>eV US Core Plus Fixed Inc Net Median</i>			0.4		9.8		4.5		3.6		4.7		6.6	<i>Dec-88</i>
TIPS	519,096,019	3.0	0.8	38	8.5	62	3.6	78	--	--	--	--	3.5	Dec-16
<i>BBgBarc US TIPS TR</i>			<u>0.8</u>	39	<u>8.4</u>	73	<u>3.3</u>	85	<u>2.6</u>	44	<u>3.4</u>	72	<u>3.2</u>	<i>Dec-16</i>
Over/Under			0.0		0.1		0.3						0.3	
<i>eV Global Inflation Indexed Fixed Inc Net Median</i>			0.1		8.6		4.0		2.2		3.6		4.2	<i>Dec-16</i>
BlackRock U.S. TIPS	519,096,019	3.0	0.8	38	8.5	62	3.6	78	--	--	--	--	3.5	Nov-16
<i>BBgBarc US TIPS TR</i>			<u>0.8</u>	39	<u>8.4</u>	73	<u>3.3</u>	85	<u>2.6</u>	44	<u>3.4</u>	72	<u>3.2</u>	<i>Nov-16</i>
Over/Under			0.0		0.1		0.3						0.3	
<i>eV Global Inflation Indexed Fixed Inc Net Median</i>			0.1		8.6		4.0		2.2		3.6		4.2	<i>Nov-16</i>
Credit	1,749,553,682	10.1	2.2	19	6.7	99	5.5	68	--	--	--	--	6.9	Apr-16
<i>Credit Custom Index</i>			<u>2.5</u>	16	<u>11.8</u>	88	<u>5.3</u>	75	<u>5.3</u>	8	<u>6.3</u>	2	<u>7.2</u>	<i>Apr-16</i>
Over/Under			-0.3		-5.1		0.2						-0.3	
<i>eV Global Credit Fixed Inc Net Median</i>			1.7		12.9		5.7		3.8		4.6		4.9	<i>Apr-16</i>
Corporate Credit	453,143,711	2.6	2.0	55	7.1	51	4.2	44	4.0	33	6.7	2	--	Dec-88
<i>BBgBarc US High Yield TR</i>			<u>2.6</u>	37	<u>14.3</u>	10	<u>6.4</u>	8	<u>6.1</u>	2	<u>7.6</u>	1	<u>8.1</u>	<i>Dec-88</i>
Over/Under			-0.6		-7.2		-2.2		-2.1		-0.9			
<i>eV Global Unconstrained Fixed Inc Net Median</i>			2.2		7.3		4.0		3.1		3.3		--	<i>Dec-88</i>

¹ Fiscal Year ends December 31.

² Core Plus Fixed Income composite includes \$113.25 liquidating from Mondrian Investment Partners.

	Market Value (\$)	% of Portfolio	3 Mo (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank	Inception (%)	Inception Date
Loomis Sayles High Yield	264,826,393	1.5	1.9	1	8.8	61	4.7	6	4.9	1	7.5	1	9.8	Dec-88
<i>Loomis Sayles Custom Index</i>			<u>3.1</u>	<u>1</u>	<u>12.7</u>	<u>1</u>	<u>5.9</u>	<u>1</u>	<u>5.2</u>	<u>1</u>	<u>6.2</u>	<u>1</u>	<u>7.6</u>	<u>Dec-88</u>
Over/Under			-1.2		-3.9		-1.2		-0.3		1.3		2.2	
<i>eV US Core Fixed Inc Net Median</i>			0.2		9.0		4.1		3.1		4.0		6.2	Dec-88
PIMCO Dynamic Bond Fund	188,317,318	1.1	2.1	52	4.7	89	4.3	43	3.4	42	--	--	3.0	Oct-13
<i>LIBOR 3 month</i>			<u>0.5</u>	<u>97</u>	<u>2.3</u>	<u>94</u>	<u>2.0</u>	<u>90</u>	<u>1.4</u>	<u>82</u>	<u>0.9</u>	<u>99</u>	<u>1.2</u>	<u>Oct-13</u>
Over/Under			1.6		2.4		2.3		2.0				1.8	
<i>eV Global Unconstrained Fixed Inc Net Median</i>			2.2		7.3		4.0		3.1		3.3		3.2	Oct-13
Private Credit	393,061,006	2.3	1.7	50	5.8	99	7.7	1	7.9	1	--	--	6.9	Sep-13
<i>Credit Suisse Leveraged Loans</i>			<u>1.7</u>	<u>51</u>	<u>8.2</u>	<u>98</u>	<u>4.5</u>	<u>98</u>	<u>4.5</u>	<u>36</u>	<u>5.2</u>	<u>38</u>	<u>4.2</u>	<u>Sep-13</u>
Over/Under			0.0		-2.4		3.2		3.4				2.7	
<i>eV Global Credit Fixed Inc Net Median</i>			1.7		12.9		5.7		3.8		4.6		4.2	Sep-13
Cross Ocean ESS Fund II	111,042,773	0.6	2.0	31	6.0	99	9.0	1	--	--	--	--	9.5	May-16
<i>S&P European Leveraged Loan Index</i>			<u>3.8</u>	<u>10</u>	<u>3.0</u>	<u>99</u>	<u>5.5</u>	<u>71</u>	<u>2.3</u>	<u>90</u>	--	--	<u>2.9</u>	<u>May-16</u>
Over/Under			-1.8		3.0		3.5						6.6	
<i>eV Global Credit Fixed Inc Net Median</i>			1.7		12.9		5.7		3.8		4.6		4.5	May-16
Tennenbaum Senior Loan	53,284,526	0.3	1.4	56	4.9	99	6.3	16	7.6	1	--	--	8.7	Oct-13
<i>Credit Suisse Leveraged Loans</i>			<u>1.7</u>	<u>51</u>	<u>8.2</u>	<u>98</u>	<u>4.5</u>	<u>98</u>	<u>4.5</u>	<u>36</u>	<u>5.2</u>	<u>38</u>	<u>4.3</u>	<u>Oct-13</u>
Over/Under			-0.3		-3.3		1.8		3.1				4.4	
<i>eV Global Credit Fixed Inc Net Median</i>			1.7		12.9		5.7		3.8		4.6		4.0	Oct-13
Monroe Capital Private Credit Fund III	53,121,917	0.3	1.9	36	4.7	99	--	--	--	--	--	--	7.6	Nov-18
<i>Credit Suisse Leveraged Loans</i>			<u>1.7</u>	<u>51</u>	<u>8.2</u>	<u>98</u>	<u>4.5</u>	<u>98</u>	<u>4.5</u>	<u>36</u>	<u>5.2</u>	<u>38</u>	<u>4.1</u>	<u>Nov-18</u>
Over/Under			0.2		-3.5								3.5	
<i>eV Global Credit Fixed Inc Net Median</i>			1.7		12.9		5.7		3.8		4.6		11.3	Nov-18
Bluebay Direct Lending Fund II	41,350,773	0.2	2.3	17	10.4	96	9.6	1	--	--	--	--	8.2	Jul-15
<i>S&P European Leveraged Loan Index</i>			<u>3.8</u>	<u>10</u>	<u>3.0</u>	<u>99</u>	<u>5.5</u>	<u>71</u>	<u>2.3</u>	<u>90</u>	--	--	<u>3.4</u>	<u>Jul-15</u>
Over/Under			-1.5		7.4		4.1						4.8	
<i>eV Global Credit Fixed Inc Net Median</i>			1.7		12.9		5.7		3.8		4.6		4.8	Jul-15

¹ Fiscal Year ends December 31.

² Please note, the following Private Credit funds reflect performance on a one-month lag: Cross Ocean ESS Fund II, BlueBay Direct Lending Fund II, Crescent Direct Lending, Cross Ocean ESS Fund I. In addition, the performance for the following Private Credit funds are reported on a one-quarter lag: Tennenbaum Senior Loan, Monroe Senior Secured Loan Fund, Monroe Capital Private Credit Fund III, Owl Rock Technology Fin Corp., NXT Senior Loan, Hayfin Direct Lending, BlueBay Direct Lending Fund III, Alcentra Direct Lending Fund II.

	Market Value (\$)	% of Portfolio	3 Mo (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank	Inception (%)	Inception Date
Owl Rock Technology Fin Corp.	29,996,501	0.2	0.0	99	-3.2	99	--	--	--	--	--	--	-3.2	Jan-19
<i>Credit Suisse Leveraged Loans</i>			<u>1.7</u>	<u>51</u>	<u>8.2</u>	<u>98</u>	<u>4.5</u>	<u>98</u>	<u>4.5</u>	<u>36</u>	<u>5.2</u>	<u>38</u>	<u>8.2</u>	<u>Jan-19</u>
Over/Under			-1.7		-11.4								-11.4	
<i>eV Global Credit Fixed Inc Net Median</i>			1.7		12.9		5.7		3.8		4.6		12.9	<u>Jan-19</u>
Alcentra Direct Lending Fund III	27,722,254	0.2	2.6	16	--	--	--	--	--	--	--	--	7.7	May-19
<i>S&P European Leveraged Loan Index</i>			<u>3.8</u>	<u>10</u>	<u>3.0</u>	<u>99</u>	<u>5.5</u>	<u>71</u>	<u>2.3</u>	<u>90</u>	--	--	<u>2.9</u>	<u>May-19</u>
Over/Under			-1.2										4.8	
<i>eV Global Credit Fixed Inc Net Median</i>			1.7		12.9		5.7		3.8		4.6		6.3	<u>May-19</u>
Monroe Senior Secured Loan Fund	24,623,101	0.1	0.8	97	4.4	99	8.7	1	8.9	1	--	--	8.2	Oct-13
<i>Credit Suisse Leveraged Loans</i>			<u>1.7</u>	<u>51</u>	<u>8.2</u>	<u>98</u>	<u>4.5</u>	<u>98</u>	<u>4.5</u>	<u>36</u>	<u>5.2</u>	<u>38</u>	<u>4.3</u>	<u>Oct-13</u>
Over/Under			-0.9		-3.8		4.2		4.4				3.9	
<i>eV Global Credit Fixed Inc Net Median</i>			1.7		12.9		5.7		3.8		4.6		4.0	<u>Oct-13</u>
BlueBay Direct Lending Fund III	19,057,911	0.1	2.2	20	--	--	--	--	--	--	--	--	3.6	May-19
<i>S&P European Leveraged Loan Index</i>			<u>3.8</u>	<u>10</u>	<u>3.0</u>	<u>99</u>	<u>5.5</u>	<u>71</u>	<u>2.3</u>	<u>90</u>	--	--	<u>2.9</u>	<u>May-19</u>
Over/Under			-1.6										0.7	
<i>eV Global Credit Fixed Inc Net Median</i>			1.7		12.9		5.7		3.8		4.6		6.3	<u>May-19</u>
Crescent Direct Lending	14,666,943	0.1	1.9	34	8.8	97	7.2	4	7.0	1	--	--	5.5	Oct-13
<i>Credit Suisse Leveraged Loans</i>			<u>1.7</u>	<u>51</u>	<u>8.2</u>	<u>98</u>	<u>4.5</u>	<u>98</u>	<u>4.5</u>	<u>36</u>	<u>5.2</u>	<u>38</u>	<u>4.3</u>	<u>Oct-13</u>
Over/Under			0.2		0.6		2.7		2.5				1.2	
<i>eV Global Credit Fixed Inc Net Median</i>			1.7		12.9		5.7		3.8		4.6		4.0	<u>Oct-13</u>
NXT Senior Loan	10,699,243	0.1	0.4	99	-0.1	99	4.0	99	6.2	2	--	--	4.8	Sep-13
<i>Credit Suisse Leveraged Loans</i>			<u>1.7</u>	<u>51</u>	<u>8.2</u>	<u>98</u>	<u>4.5</u>	<u>98</u>	<u>4.5</u>	<u>36</u>	<u>5.2</u>	<u>38</u>	<u>4.2</u>	<u>Sep-13</u>
Over/Under			-1.3		-8.3		-0.5		1.7				0.6	
<i>eV Global Credit Fixed Inc Net Median</i>			1.7		12.9		5.7		3.8		4.6		4.2	<u>Sep-13</u>
Cross Ocean ESS Fund I	3,918,501	0.0	1.3	57	-7.5	99	3.9	99	4.5	36	--	--	4.4	Jan-14
<i>S&P European Leveraged Loan Index</i>			<u>3.8</u>	<u>10</u>	<u>3.0</u>	<u>99</u>	<u>5.5</u>	<u>71</u>	<u>2.3</u>	<u>90</u>	--	--	<u>0.4</u>	<u>Jan-14</u>
Over/Under			-2.5		-10.5		-1.6		2.2				4.0	
<i>eV Global Credit Fixed Inc Net Median</i>			1.7		12.9		5.7		3.8		4.6		4.0	<u>Jan-14</u>
Hayfin Direct Lending	3,576,564	0.0	4.5	7	26.2	1	15.0	1	10.9	1	--	--	8.9	Jan-14
<i>S&P European Leveraged Loan Index</i>			<u>3.8</u>	<u>10</u>	<u>3.0</u>	<u>99</u>	<u>5.5</u>	<u>71</u>	<u>2.3</u>	<u>90</u>	--	--	<u>0.4</u>	<u>Jan-14</u>
Over/Under			0.7		23.2		9.5		8.6				8.5	
<i>eV Global Credit Fixed Inc Net Median</i>			1.7		12.9		5.7		3.8		4.6		4.0	<u>Jan-14</u>

¹ Fiscal Year ends December 31.

	Market Value (\$)	% of Portfolio	3 Mo (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank	Inception (%)	Inception Date
Emerging Market Debt	501,908,937	2.9	3.2	54	10.8	90	5.5	81	2.6	84	--	--	0.8	Feb-13
<i>Emerging Market Debt Custom Benchmark</i>			<u>3.5</u>	<u>51</u>	<u>13.7</u>	<u>55</u>	<u>6.8</u>	<u>30</u>	<u>4.0</u>	<u>66</u>	<u>4.2</u>	<u>67</u>	<u>1.5</u>	<u>Feb-13</u>
Over/Under			-0.3		-2.9		-1.3		-1.4				-0.7	
<i>eV All Emg Mkts Fixed Inc Net Median</i>			3.5		14.0		6.4		5.3		5.6		3.1	<i>Feb-13</i>
Wellington Blended Opportunities EM Debt	214,994,866	1.2	4.3	31	--	--	--	--	--	--	--	--	10.3	Mar-19
<i>50% JPM GBI EM Diversified/50% JPM EMBI Global Diversified</i>			<u>3.5</u>	<u>51</u>	<u>14.3</u>	<u>39</u>	<u>6.9</u>	<u>29</u>	<u>4.6</u>	<u>60</u>	<u>4.9</u>	<u>65</u>	<u>8.9</u>	<u>Mar-19</u>
Over/Under			0.8										1.4	
<i>eV All Emg Mkts Fixed Inc Net Median</i>			3.5		14.0		6.4		5.3		5.6		7.7	<i>Mar-19</i>
Ashmore EM Blended Debt	204,265,230	1.2	3.2	54	--	--	--	--	--	--	--	--	4.8	Apr-19
<i>50% JPM GBI EM Diversified/50% JPM EMBI Global Diversified</i>			<u>3.5</u>	<u>51</u>	<u>14.3</u>	<u>39</u>	<u>6.9</u>	<u>29</u>	<u>4.6</u>	<u>60</u>	<u>4.9</u>	<u>65</u>	<u>8.9</u>	<u>Apr-19</u>
Over/Under			-0.3										-4.1	
<i>eV All Emg Mkts Fixed Inc Net Median</i>			3.5		14.0		6.4		5.3		5.6		7.7	<i>Apr-19</i>
Pharo Management (UK)	82,648,841	0.5	0.5	--	5.1	--	8.3	--	6.2	--	--	--	7.8	May-13
<i>HFRX Macro Index</i>			<u>-0.2</u>	--	<u>4.8</u>	--	<u>1.3</u>	--	<u>-0.2</u>	--	<u>-0.5</u>	--	<u>0.3</u>	<u>May-13</u>
Over/Under			0.7		0.3		7.0		6.4				7.5	
Opportunistic Credit	401,440,028	2.3	1.6	51	3.3	99	5.2	76	4.4	37	--	--	--	May-12
<i>HFRI Relative Value (Total) Index</i>			<u>1.9</u>	<u>33</u>	<u>7.5</u>	<u>98</u>	<u>4.0</u>	<u>99</u>	<u>3.8</u>	<u>47</u>	<u>5.2</u>	<u>38</u>	<u>4.7</u>	<u>May-12</u>
Over/Under			-0.3		-4.2		1.2		0.6					
<i>eV Global Credit Fixed Inc Net Median</i>			1.7		12.9		5.7		3.8		4.6		4.0	<i>May-12</i>
Beach Point Opportunistic Credit	167,905,857	1.0	3.4	12	11.0	91	6.4	12	--	--	--	--	6.8	Sep-15
<i>Beach Point Custom Blend</i>			<u>2.2</u>	<u>20</u>	<u>11.2</u>	<u>91</u>	<u>5.4</u>	<u>71</u>	--	--	--	--	<u>5.9</u>	<u>Sep-15</u>
Over/Under			1.2		-0.2		1.0						0.9	
<i>eV Global Credit Fixed Inc Net Median</i>			1.7		12.9		5.7		3.8		4.6		5.1	<i>Sep-15</i>
Brigade Leveraged Capital	161,328,672	0.9	1.9	35	2.7	99	5.2	75	4.7	35	--	--	4.4	Feb-13
<i>BBqBarc US High Yield TR</i>			<u>2.6</u>	<u>15</u>	<u>14.3</u>	<u>16</u>	<u>6.4</u>	<u>14</u>	<u>6.1</u>	<u>3</u>	<u>7.6</u>	<u>1</u>	<u>5.7</u>	<u>Feb-13</u>
Over/Under			-0.7		-11.6		-1.2		-1.4				-1.3	
<i>eV Global Credit Fixed Inc Net Median</i>			1.7		12.9		5.7		3.8		4.6		3.6	<i>Feb-13</i>
PIMCO GCOF	52,289,626	0.3	-3.7	--	-13.5	--	-1.6	--	1.6	--	--	--	1.9	Mar-13
<i>HFRI RV: Fixed Income-Corporate Index</i>			<u>1.8</u>	--	<u>9.1</u>	--	<u>4.8</u>	--	<u>4.8</u>	--	<u>5.4</u>	--	<u>4.2</u>	<u>Mar-13</u>
Over/Under			-5.5		-22.6		-6.4		-3.2				-2.3	

¹ Fiscal Year ends December 31.

² Please note, the performance for Brigade Leveraged Capital and Beach Point Opportunistic Credit are reported on a one-month lag.

	Market Value (\$)	% of Portfolio	3 Mo (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank	Inception (%)	Inception Date
Caspian Capital Advisors	19,915,873	0.1	0.2	--	3.1	--	8.1	--	1.4	--	--	--	2.4	Feb-13
<i>Credit Suisse Leveraged Loans</i>			<u>1.7</u>	--	<u>8.2</u>	--	<u>4.5</u>	--	<u>4.5</u>	--	<u>5.2</u>	--	<u>4.3</u>	<i>Feb-13</i>
Over/Under			-1.5		-5.1		3.6		-3.1				-1.9	
Real Assets	2,249,201,342	13.0	-0.3	--	1.9	--	4.5	--	--	--	--	--	--	Apr-08
<i>Real Assets Custom Blend</i>			<u>-0.1</u>	--	<u>1.0</u>	--	<u>6.5</u>	--	<u>6.7</u>	--	<u>7.0</u>	--	<u>6.8</u>	<i>Apr-08</i>
Over/Under			-0.2		0.9		-2.0							
Real Return	983,460,589	5.7	-3.3	--	-3.4	--	0.4	--	0.8	--	2.0	--	--	
<i>Real Return Custom Index</i>			<u>-2.4</u>	--	<u>-6.4</u>	--	<u>4.0</u>	--	<u>5.2</u>	--	<u>6.2</u>	--	--	
Over/Under			-0.9		3.0		-3.6		-4.4		-4.2			
Energy	631,900,554	3.6	-4.8	--	-8.9	--	-1.4	--	-1.3	--	--	--	--	
Kayne Anderson Energy Fund VII	99,282,130	0.6	-10.6	--	-26.4	--	2.6	--	--	--	--	--	7.2	Jan-16
<i>Cambridge Associates PE Energy (1Qtr Lag)</i>			<u>-3.8</u>	--	<u>-10.9</u>	--	<u>4.1</u>	--	<u>-2.4</u>	--	<u>5.0</u>	--	<u>3.1</u>	<i>Jan-16</i>
Over/Under			-6.8		-15.5		-1.5						4.1	
Kayne Anderson Private Energy	77,306,531	0.4	-4.9	--	-3.5	--	23.0	--	--	--	--	--	17.7	Apr-16
<i>Cambridge Associates PE Energy (1Qtr Lag)</i>			<u>-3.8</u>	--	<u>-10.9</u>	--	<u>4.1</u>	--	<u>-2.4</u>	--	<u>5.0</u>	--	<u>5.7</u>	<i>Apr-16</i>
Over/Under			-1.1		7.4		18.9						12.0	
Tennenbaum Energy Opp	72,594,042	0.4	2.2	19	9.6	97	13.1	1	--	--	--	--	14.0	May-15
<i>Credit Suisse Leveraged Loans</i>			<u>1.7</u>	<u>51</u>	<u>8.2</u>	<u>98</u>	<u>4.5</u>	<u>98</u>	<u>4.5</u>	<u>36</u>	<u>5.2</u>	<u>38</u>	<u>4.2</u>	<i>May-15</i>
Over/Under			0.5		1.4		8.6						9.8	
<i>eV Global Credit Fixed Inc Net Median</i>			<u>1.7</u>		<u>12.9</u>		<u>5.7</u>		<u>3.8</u>		<u>4.6</u>		<u>4.1</u>	<i>May-15</i>
BlackRock Orange Dislo Credit	65,974,553	0.4	0.0	99	4.4	99	4.7	96	--	--	--	--	-0.4	Oct-15
<i>Cambridge Associates PE Energy (1Qtr Lag)</i>			<u>-3.8</u>	<u>99</u>	<u>-10.9</u>	<u>99</u>	<u>4.1</u>	<u>99</u>	<u>-2.4</u>	<u>99</u>	<u>5.0</u>	<u>41</u>	<u>0.7</u>	<i>Oct-15</i>
Over/Under			3.8		15.3		0.6						-1.1	
<i>eV Global Credit Fixed Inc Net Median</i>			<u>1.7</u>		<u>12.9</u>		<u>5.7</u>		<u>3.8</u>		<u>4.6</u>		<u>5.3</u>	<i>Oct-15</i>
BlackRock PEP Energy	51,139,005	0.3	-15.6	--	-27.5	--	-12.9	--	--	--	--	--	-2.9	Oct-15
<i>Cambridge Associates PE Energy (1Qtr Lag)</i>			<u>-3.8</u>	--	<u>-10.9</u>	--	<u>4.1</u>	--	<u>-2.4</u>	--	<u>5.0</u>	--	<u>0.7</u>	<i>Oct-15</i>
Over/Under			-11.8		-16.6		-17.0						-3.6	

¹ Total Real Assets composite includes \$734 liquidating from PIMCO Commodities Plus. Envest XII market value is due to received income now held in cash.

² Fiscal Year ends December 31.

	Market Value (\$)	% of Portfolio	3 Mo (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank	Inception (%)	Inception Date
Kayne Anderson Energy VIII	48,386,550	0.3	-0.6	--	-4.7	--	--	--	--	--	--	--	-5.2	Dec-18
<i>Cambridge Associates PE Energy (1Qtr Lag)</i>			<u>-3.8</u>	--	<u>-10.9</u>	--	<u>4.1</u>	--	<u>-2.4</u>	--	<u>5.0</u>	--	<u>-8.1</u>	<u>Dec-18</u>
Over/Under			3.2		6.2								2.9	
ELG Energy Fund XVI	42,918,336	0.2	2.6	--	0.6	--	13.6	--	-1.6	--	--	--	-9.2	Oct-13
<i>Cambridge Associates PE Energy (1Qtr Lag)</i>			<u>-3.8</u>	--	<u>-10.9</u>	--	<u>4.1</u>	--	<u>-2.4</u>	--	<u>5.0</u>	--	<u>0.7</u>	<u>Oct-13</u>
Over/Under			6.4		11.5		9.5		0.8				-9.9	
Brigade Energy Opportunities	38,153,597	0.2	-8.9	99	-9.2	99	-8.5	99	--	--	--	--	-2.3	Jun-15
<i>Credit Custom Index</i>			<u>2.5</u>	<u>16</u>	<u>11.8</u>	<u>88</u>	<u>5.3</u>	<u>75</u>	<u>5.3</u>	<u>8</u>	<u>6.3</u>	<u>2</u>	<u>4.9</u>	<u>Jun-15</u>
Over/Under			-11.4		-21.0		-13.8						-7.2	
<i>eV Global Credit Fixed Inc Net Median</i>			1.7		12.9		5.7		3.8		4.6		4.4	Jun-15
Enervest Fund XIV	28,378,536	0.2	-2.4	--	-18.4	--	14.3	--	--	--	--	--	3.7	Oct-15
<i>Cambridge Associates PE Energy (1Qtr Lag)</i>			<u>-3.8</u>	--	<u>-10.9</u>	--	<u>4.1</u>	--	<u>-2.4</u>	--	<u>5.0</u>	--	<u>0.7</u>	<u>Oct-15</u>
Over/Under			1.4		-7.5		10.2						3.0	
Encap Energy Capital XI	25,783,667	0.1	-4.3	--	-11.0	--	--	--	--	--	--	--	-24.1	Dec-17
<i>Cambridge Associates PE Energy (1Qtr Lag)</i>			<u>-3.8</u>	--	<u>-10.9</u>	--	<u>4.1</u>	--	<u>-2.4</u>	--	<u>5.0</u>	--	<u>0.4</u>	<u>Dec-17</u>
Over/Under			-0.5		-0.1								-24.5	
ELG Energy Fund XV	24,893,952	0.1	-7.9	--	-12.3	--	0.2	--	-3.8	--	--	--	3.0	May-11
<i>Cambridge Associates PE Energy (1Qtr Lag)</i>			<u>-3.8</u>	--	<u>-10.9</u>	--	<u>4.1</u>	--	<u>-2.4</u>	--	<u>5.0</u>	--	<u>3.0</u>	<u>May-11</u>
Over/Under			-4.1		-1.4		-3.9		-1.4				0.0	
Encap Flatrock Midstream IV	18,705,434	0.1	8.0	--	22.1	--	--	--	--	--	--	--	0.7	Feb-18
<i>Cambridge Associates PE Energy (1Qtr Lag)</i>			<u>-3.8</u>	--	<u>-10.9</u>	--	<u>4.1</u>	--	<u>-2.4</u>	--	<u>5.0</u>	--	<u>-0.5</u>	<u>Feb-18</u>
Over/Under			11.8		33.0								1.2	
Kayne Anderson Energy Fund VI	16,782,030	0.1	-7.0	--	-14.9	--	-4.0	--	2.7	--	--	--	1.1	Dec-12
<i>Cambridge Associates PE Energy (1Qtr Lag)</i>			<u>-3.8</u>	--	<u>-10.9</u>	--	<u>4.1</u>	--	<u>-2.4</u>	--	<u>5.0</u>	--	<u>1.8</u>	<u>Dec-12</u>
Over/Under			-3.2		-4.0		-8.1		5.1				-0.7	
Kayne Anderson Private Energy Income II	16,037,226	0.1	3.4	--	11.2	--	--	--	--	--	--	--	10.3	Dec-18
<i>Credit Suisse Leveraged Loans</i>			<u>1.7</u>	--	<u>8.2</u>	--	<u>4.5</u>	--	<u>4.5</u>	--	<u>5.2</u>	--	<u>5.2</u>	<u>Dec-18</u>
Over/Under			1.7		3.0								5.1	

¹ Fiscal Year ends December 31.

	Market Value (\$)	% of Portfolio	3 Mo (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank	Inception (%)	Inception Date
Warwick Partners IV	5,387,748	0.0	-18.5	--	--	--	--	--	--	--	--	--	--	Aug-19
<i>Credit Suisse Leveraged Loans</i>			<u>1.7</u>	--	<u>8.2</u>	--	<u>4.5</u>	--	<u>4.5</u>	--	<u>5.2</u>	--	<u>1.8</u>	Aug-19
Over/Under			-20.2											
Enervest XII	177,215	0.0												
Public Markets Strategies	41,160	0.0	0.0	--	6.0	--	0.9	--	1.6	--	--	--	--	
Kayne Midstream Infrastu Fund	41,160	0.0												
Infrastructure	138,294,662	0.8	-2.0	--	-2.7	--	--	--	--	--	--	--	--	
Argo Capital Platform2017	74,790,427	0.4	-1.5	99	3.1	99	--	--	--	--	--	--	-69.0	May-17
<i>Cambridge Infrastructure (1 Quarter Lagged)</i>			<u>1.2</u>	99	<u>9.3</u>	99	<u>11.3</u>	64	<u>10.6</u>	5	<u>9.1</u>	75	<u>13.0</u>	May-17
Over/Under			-2.7		-6.2								-82.0	
<i>eV Infrastructure Net Median</i>			4.2		26.4		12.7		7.0		9.7		8.6	May-17
BlackRock Renewable Power Fund II	44,522,965	0.3	2.1	99	-3.2	99	--	--	--	--	--	--	-2.8	May-17
<i>Cambridge Infrastructure (1 Quarter Lagged)</i>			<u>1.2</u>	99	<u>9.3</u>	99	<u>11.3</u>	64	<u>10.6</u>	5	<u>9.1</u>	75	<u>13.0</u>	May-17
Over/Under			0.9		-12.5								-15.8	
<i>eV Infrastructure Net Median</i>			4.2		26.4		12.7		7.0		9.7		8.6	May-17
Blackstone Infrastructure Partners	17,536,825	0.1	-5.7	--	--	--	--	--	--	--	--	--	-5.7	Sep-19
<i>Cambridge Infrastructure (1 Quarter Lagged)</i>			<u>1.2</u>	--	<u>9.3</u>	--	<u>11.3</u>	--	<u>10.6</u>	--	<u>9.1</u>	--	<u>3.8</u>	Sep-19
Over/Under			-6.9										-9.5	
Global Infrastructure Partners IV	1,444,444	0.0												
<i>Cambridge Infrastructure (1 Quarter Lagged)</i>			<u>1.2</u>	--	<u>9.3</u>	--	<u>11.3</u>	--	<u>10.6</u>	--	<u>9.1</u>	--	<u>1.2</u>	Oct-19
Over/Under														
Timberland	77,385,880	0.4	-1.3	--	3.8	--	4.3	--	4.2	--	3.2	--	--	
Hancock Timber Resources Group	61,311,339	0.4	-1.8	--	3.5	--	4.4	--	4.5	--	4.1	--	1.7	Apr-08
<i>NCREIF Timberland</i>			<u>0.0</u>	--	<u>1.3</u>	--	<u>2.7</u>	--	<u>3.2</u>	--	<u>4.5</u>	--	<u>3.8</u>	Apr-08
Over/Under			-1.8		2.2		1.7		1.3		-0.4		-2.1	
BTG Pactual Timberland	16,074,541	0.1	0.6	--	4.9	--	13.4	--	9.2	--	4.6	--	5.1	Jun-08
<i>NCREIF Timberland</i>			<u>0.0</u>	--	<u>1.3</u>	--	<u>2.7</u>	--	<u>3.2</u>	--	<u>4.5</u>	--	<u>3.8</u>	Jun-08
Over/Under			0.6		3.6		10.7		6.0		0.1		1.3	

¹ Fiscal Year ends December 31.

	Market Value (\$)	% of Portfolio	3 Mo (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank	Inception (%)	Inception Date
Agriculture	135,837,600	0.8	2.3	--	3.6	--	4.1	--	4.4	--	--	--	--	--
Hancock Agricultural Investment Group	72,876,827	0.4	3.1	--	4.4	--	3.7	--	4.1	--	--	--	3.8	Jun-11
<i>NCREIF Farmland</i>			<u>2.3</u>	--	<u>4.8</u>	--	<u>5.9</u>	--	<u>7.0</u>	--	<u>11.0</u>	--	<u>11.5</u>	<i>Jun-11</i>
Over/Under			0.8		-0.4		-2.2		-2.9				-7.7	
UBS Agrivest Farmland	62,960,774	0.4	1.5	--	2.7	--	4.5	--	4.9	--	--	--	6.5	Oct-12
<i>NCREIF Farmland</i>			<u>2.3</u>	--	<u>4.8</u>	--	<u>5.9</u>	--	<u>7.0</u>	--	<u>11.0</u>	--	<u>10.7</u>	<i>Oct-12</i>
Over/Under			-0.8		-2.1		-1.4		-2.1				-4.2	
Total Real Estate	1,265,740,753	7.3	2.2	6	6.8	39	7.6	34	10.8	1	11.2	44	6.1	Dec-88
<i>Real Estate Custom Index</i>			<u>1.5</u>	34	<u>5.3</u>	67	<u>7.1</u>	56	<u>8.5</u>	43	<u>10.1</u>	73	<u>7.9</u>	<i>Dec-88</i>
Over/Under			0.7		1.5		0.5		2.3		1.1		-1.8	
<i>InvMetrics Public DB Real Estate Pub+Priv Net Median</i>			1.3		5.9		7.2		8.2		11.1		--	<i>Dec-88</i>
Core/Core Plus Real Estate	937,167,731	5.4	1.8	--	5.2	--	6.7	--	10.0	--	--	--	--	--
Morgan Stanley Prime Properties	323,363,550	1.9	3.0	--	6.2	--	7.7	--	10.3	--	12.0	--	5.9	Aug-08
<i>NCREIF ODCE</i>			<u>1.5</u>	--	<u>5.3</u>	--	<u>7.1</u>	--	<u>9.0</u>	--	<u>11.4</u>	--	<u>5.5</u>	<i>Aug-08</i>
Over/Under			1.5		0.9		0.6		1.3		0.6		0.4	
AEW Core Property Trust	265,538,104	1.5	1.2	--	5.8	--	7.5	--	8.9	--	9.9	--	9.7	Nov-09
<i>NCREIF ODCE</i>			<u>1.5</u>	--	<u>5.3</u>	--	<u>7.1</u>	--	<u>9.0</u>	--	<u>11.4</u>	--	<u>10.8</u>	<i>Nov-09</i>
Over/Under			-0.3		0.5		0.4		-0.1		-1.5		-1.1	
J.P. Morgan Strategic Property Fund	153,584,502	0.9	2.1	--	3.5	--	5.6	--	7.6	--	--	--	7.9	Jul-14
<i>NCREIF ODCE</i>			<u>1.5</u>	--	<u>5.3</u>	--	<u>7.1</u>	--	<u>9.0</u>	--	<u>11.4</u>	--	<u>9.4</u>	<i>Jul-14</i>
Over/Under			0.6		-1.8		-1.5		-1.4				-1.5	
Clarion Lion Industrial Trust	75,000,000	0.4	0.0	--	--	--	--	--	--	--	--	--	0.0	Sep-19
<i>NCREIF ODCE</i>			<u>1.5</u>	--	<u>5.3</u>	--	<u>7.1</u>	--	<u>9.0</u>	--	<u>11.4</u>	--	<u>1.5</u>	<i>Sep-19</i>
Over/Under			-1.5										-1.5	
Jamestown	68,239,138	0.4	0.6	--	2.3	--	8.4	--	--	--	--	--	7.6	Aug-15
<i>NCREIF ODCE</i>			<u>1.5</u>	--	<u>5.3</u>	--	<u>7.1</u>	--	<u>9.0</u>	--	<u>11.4</u>	--	<u>8.5</u>	<i>Aug-15</i>
Over/Under			-0.9		-3.0		1.3						-0.9	

¹ Fiscal Year ends December 31.

	Market Value (\$)	% of Portfolio	3 Mo (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank	Inception (%)	Inception Date
Kayne Anderson Core Real Estate	36,238,178	0.2	0.9	--	--	--	--	--	--	--	--	--	3.7	Feb-19
<i>NCREIF ODCE</i>			<u>1.5</u>	--	<u>5.3</u>	--	<u>7.1</u>	--	<u>9.0</u>	--	<u>11.4</u>	--	<u>5.3</u>	<i>Feb-19</i>
Over/Under			-0.6										-1.6	
D.A. Management	8,306,287	0.0	0.0	--	-0.1	--	-1.6	--	5.9	--	8.9	--	--	Dec-88
<i>NCREIF ODCE</i>			<u>1.5</u>	--	<u>5.3</u>	--	<u>7.1</u>	--	<u>9.0</u>	--	<u>11.4</u>	--	<u>7.4</u>	<i>Dec-88</i>
Over/Under			-1.5		-5.4		-8.7		-3.1		-2.5			
AG Core Plus Realty Fund III	6,897,972	0.0	-1.1	--	-11.2	--	-2.7	--	12.7	--	--	--	12.5	Jun-11
<i>NCREIF ODCE</i>			<u>1.5</u>	--	<u>5.3</u>	--	<u>7.1</u>	--	<u>9.0</u>	--	<u>11.4</u>	--	<u>10.9</u>	<i>Jun-11</i>
Over/Under			-2.6		-16.5		-9.8		3.7				1.6	
Value-Added/Oppportunistic	328,573,022	1.9	3.4	--	10.6	--	10.1	--	14.3	--	14.7	--	--	
True North	74,467,762	0.4	2.6	--	11.9	--	11.9	--	10.6	--	--	--	8.2	Aug-14
<i>NCREIF ODCE</i>			<u>1.5</u>	--	<u>5.3</u>	--	<u>7.1</u>	--	<u>9.0</u>	--	<u>11.4</u>	--	<u>9.5</u>	<i>Aug-14</i>
Over/Under			1.1		6.6		4.8		1.6				-1.3	
Kayne Anderson Real Estate Debt Fund II	71,905,883	0.4	3.3	--	9.3	--	8.6	--	--	--	--	--	--	Dec-16
<i>NCREIF ODCE</i>			<u>1.5</u>	--	<u>5.3</u>	--	<u>7.1</u>	--	<u>9.0</u>	--	<u>11.4</u>	--	<u>7.6</u>	<i>Dec-16</i>
Over/Under			1.8		4.0		1.5							
Waterton Res XII	63,871,835	0.4	2.3	--	10.1	--	11.8	--	--	--	--	--	14.0	Oct-15
<i>NCREIF ODCE</i>			<u>1.5</u>	--	<u>5.3</u>	--	<u>7.1</u>	--	<u>9.0</u>	--	<u>11.4</u>	--	<u>7.9</u>	<i>Oct-15</i>
Over/Under			0.8		4.8		4.7						6.1	
Waterton Res XIII	57,714,422	0.3	4.7	--	7.4	--	--	--	--	--	--	--	-3.1	Dec-17
<i>NCREIF ODCE</i>			<u>1.5</u>	--	<u>5.3</u>	--	<u>7.1</u>	--	<u>9.0</u>	--	<u>11.4</u>	--	<u>7.6</u>	<i>Dec-17</i>
Over/Under			3.2		2.1								-10.7	
Westbrook Real Estate Fund X	47,401,954	0.3	4.8	--	14.6	--	12.5	--	--	--	--	--	8.9	Jul-16
<i>NCREIF ODCE</i>			<u>1.5</u>	--	<u>5.3</u>	--	<u>7.1</u>	--	<u>9.0</u>	--	<u>11.4</u>	--	<u>7.5</u>	<i>Jul-16</i>
Over/Under			3.3		9.3		5.4						1.4	
Oak Tree	6,839,743	0.0	9.7	--	17.0	--	14.8	--	17.2	--	--	--	15.8	Apr-14
<i>NCREIF ODCE</i>			<u>1.5</u>	--	<u>5.3</u>	--	<u>7.1</u>	--	<u>9.0</u>	--	<u>11.4</u>	--	<u>9.5</u>	<i>Apr-14</i>
Over/Under			8.2		11.7		7.7		8.2				6.3	

	Market Value (\$)	% of Portfolio	3 Mo (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank	Inception (%)	Inception Date
Almanac Realty SEC VIII	6,282,496	0.0	-4.9	--	-46.0	--	--	--	--	--	--	--	-46.0	Jan-19
<i>NCREIF ODCE</i>			<u>1.5</u>	--	<u>5.3</u>	--	<u>7.1</u>	--	<u>9.0</u>	--	<u>11.4</u>	--	<u>5.3</u>	Jan-19
Over/Under			-6.4		-51.3								-51.3	
CBRE Strategic Partners US 6	88,926	0.0												
Risk Mitigation	1,711,478,948	9.9	-1.7	99	8.8	77	5.4	71	4.4	52	--	--	--	May-05
<i>Risk Mitigating Strategies Custom Index</i>			<u>-2.7</u>	<u>99</u>	<u>9.3</u>	<u>76</u>	<u>3.5</u>	<u>80</u>	<u>1.8</u>	<u>80</u>	<u>1.4</u>	<u>94</u>	<u>1.3</u>	May-05
Over/Under			1.0		-0.5		1.9		2.6					
<i>eV Global TAA Net Median</i>			4.4		15.7		6.7		4.6		5.9		6.2	May-05
BlackRock US Long Treasury Bonds	423,218,207	2.4	-4.2	--	15.2	--	--	--	--	--	--	--	6.7	Nov-17
<i>BBgBarc US Treasury 20+ TR</i>			<u>-4.2</u>	--	<u>15.1</u>	--	<u>7.1</u>	--	<u>4.2</u>	--	<u>7.4</u>	--	<u>7.0</u>	Nov-17
Over/Under			0.0		0.1								-0.3	
Bridgewater Associates	334,788,675	1.9	2.8	70	-0.1	99	4.5	77	4.2	53	5.6	59	5.4	May-05
<i>T-BL +5%- 6/10; T-BL +8% prior</i>			<u>1.7</u>	<u>86</u>	<u>7.4</u>	<u>80</u>	<u>6.8</u>	<u>49</u>	<u>6.1</u>	<u>25</u>	<u>5.7</u>	<u>56</u>	<u>7.1</u>	May-05
Over/Under			1.1		-7.5		-2.3		-1.9		-0.1		-1.7	
<i>eV Global TAA Net Median</i>			4.4		15.7		6.7		4.6		5.9		6.2	May-05
AlphaSimplex Adaptive Trend Fund, L.P.	172,527,613	1.0	-7.9	--	--	--	--	--	--	--	--	--	15.0	Mar-19
<i>SG Trend Index</i>			<u>-3.9</u>	--	<u>9.2</u>	--	<u>0.9</u>	--	<u>-0.7</u>	--	<u>1.8</u>	--	<u>12.0</u>	Mar-19
Over/Under			-4.0										3.0	
BH-DG Systematic Trading Fund	164,067,528	0.9	-4.6	--	--	--	--	--	--	--	--	--	9.4	Mar-19
<i>SG Trend Index</i>			<u>-3.9</u>	--	<u>9.2</u>	--	<u>0.9</u>	--	<u>-0.7</u>	--	<u>1.8</u>	--	<u>12.0</u>	Mar-19
Over/Under			-0.7										-2.6	
Graham Quant Macro	110,161,380	0.6	0.2	--	--	--	--	--	--	--	--	--	--	Jul-19
<i>SG Multi Alternative Risk Premia</i>			<u>-0.9</u>	--	<u>3.8</u>	--	<u>1.6</u>	--	--	--	--	--	<u>1.1</u>	Jul-19
Over/Under			1.1											
Two Sigma Risk Premia Cayman	105,482,631	0.6	0.5	--	--	--	--	--	--	--	--	--	--	Sep-19
<i>SG Multi Alternative Risk Premia</i>			<u>-0.9</u>	--	<u>3.8</u>	--	<u>1.6</u>	--	--	--	--	--	<u>-0.3</u>	Sep-19
Over/Under			1.4											

	Market Value (\$)	% of Portfolio	3 Mo (%)	Rank	1 Yr (%)	Rank	3 Yrs (%)	Rank	5 Yrs (%)	Rank	10 Yrs (%)	Rank	Inception (%)	Inception Date
Pimco MAARS Rover Fund	104,738,830	0.6	--	--	--	--	--	--	--	--	--	--	-0.2	Nov-19
<i>SG Multi Alternative Risk Premia</i>			<u>-0.9</u>	--	<u>3.8</u>	--	<u>1.6</u>	--	--	--	--	--	<u>0.3</u>	<i>Nov-19</i>
Over/Under													-0.5	
Systematica Alternative Markets	104,685,500	0.6	4.2	--	--	--	--	--	--	--	--	--	--	Jul-19
<i>SG Trend Index</i>			<u>-3.9</u>	--	<u>9.2</u>	--	<u>0.9</u>	--	<u>-0.7</u>	--	<u>1.8</u>	--	<u>1.7</u>	<i>Jul-19</i>
Over/Under			8.1											
AQR Style Premia Fund	103,910,194	0.6	-1.0	--	--	--	--	--	--	--	--	--	--	Sep-19
<i>SG Multi Alternative Risk Premia</i>			<u>-0.9</u>	--	<u>3.8</u>	--	<u>1.6</u>	--	--	--	--	--	<u>-0.3</u>	<i>Sep-19</i>
Over/Under			-0.1											
D.E. Shaw Group	87,898,390	0.5	0.1	--	1.9	--	3.9	--	4.4	--	--	--	4.8	Jul-13
<i>HFRX Global Hedge Fund Index</i>			<u>2.6</u>	--	<u>8.6</u>	--	<u>2.4</u>	--	<u>1.2</u>	--	<u>1.1</u>	--	<u>1.3</u>	<i>Jul-13</i>
Over/Under			-2.5		-6.7		1.5		3.2				3.5	
Cash*	262,174,091	1.5	0.6	--	2.5	--	1.9	--	1.3	--	0.9	--	--	Dec-88
<i>91 Day T-Bills</i>			<u>0.4</u>	--	<u>2.1</u>	--	<u>1.6</u>	--	<u>1.1</u>	--	<u>0.6</u>	--	<u>2.9</u>	<i>Dec-88</i>
Over/Under			0.2		0.4		0.3		0.2		0.3			
Absolute Return	1,032,420	0.0	2.6	--	23.3	--	4.0	--	2.6	--	--	--	3.3	Jan-13
Perry Partners	1,031,815	0.0	2.6	--	23.4	--	-1.4	--	-3.2	--	--	--	0.0	Jan-13

*One or more accounts have been excluded from the composite for the purposes of performance calculations and market value.

¹ Total Absolute Return composite includes \$605 liquidating from Fore Research & Management.

Benchmark History
As of December 31, 2019

Total Portfolio		
9/1/2018	Present	Weighted Average of MSCI ACWI IMI Net USD / Cambridge Associates Private Equity Index / Fixed Income Custom Index / Credit Custom Index / Real Assets Custom Blend / Risk Mitigating Strategies Custom Index
1/1/2018	8/31/2018	Weighted Average of MSCI ACWI / Cambridge Associates Private Equity Index / Fixed Income Custom Index / Credit Custom Index / Real Assets Custom Blend / Risk Mitigating Strategies Custom Index
7/1/2016	12/31/2017	13% Russell 1000 / 2% Russell 2000 / 7% MSCI EAFE / 2% MSCI EAFE Small Cap / 6% MSCI Emerging Markets / 5% MSCI World / 10% BBgBarc US Universal TR / 3% Emerging Market Debt Custom Benchmark / 14% Credit Custom Index / 10% Real Estate Custom Index / 8% Real Return Custom Index / 7% GTAA Custom Index / 7% HFRI Macro Total Index / 6% Absolute Return Policy Index
Global Public Equity		
9/1/2019	Present	MSCI ACWI IMI Net USD
12/1/1988	8/31/2019	MSCI ACWI
Fixed Income		
1/1/2018	Present	60% BBgBarc US Aggregate TR / 20% BBgBarc US Universal TR / 20% BBgBarc US TIPS TR
12/1/1988	12/31/2017	BBgBarc US Universal TR
Credit		
10/1/2018	Present	46% BBgBarc US High Yield TR / 27% Credit Suisse Leveraged Loans / 27% Emerging Market Debt Custom Benchmark
1/1/2018	9/30/2018	40% BBgBarc US High Yield TR / 40% Credit Suisse Leveraged Loans / 20% Emerging Market Debt Custom Benchmark
4/1/2016	12/31/2017	50% ICE BofAML BB-B US High Yield Constrained TR / 50% Credit Suisse Leveraged Loans
Emerging Market Debt		
4/1/2019	Present	50% JP Morgan GBI EM Global Diversified TR USD / 50% JP Morgan EMBI Global Diversified
2/1/2013	3/31/2019	65% JP Morgan GBI EM Global Diversified TR USD / 35% JP Morgan EMBI Global Diversified

Real Assets

10/1/2018	Present	53% NCREIF-ODCE / 29% Cambridge Associates PE Energy (1Qtr Lag) / 18% Cambridge Infrastructure (1 Quarter Lagged)
1/1/2018	9/30/2018	45% NCREIF-ODCE / 36% Cambridge Associates PE Energy (1Qtr Lag) / 13% Cambridge Infrastructure (1 Quarter Lagged) / 6% NCREIF Farmland
4/1/2017	12/31/2017	54.5% Real Return Custom Index / 45.5% NCREIF-ODCE
7/1/2016	3/31/2017	50% Cambridge Associates Private Equity Index / 25% S&P GSCI TR USD / 15% NCREIF Timberland / 10% NCREIF Farmland
7/1/2014	6/30/2016	CPI + 3%
7/1/2012	6/30/2014	CPI+5%
3/1/2010	6/30/2012	40% CPI+5% / 60% BBgBarc US TIPS TR

Real Return

10/1/2018	Present	62.5% Cambridge Associates PE Energy (1Qtr Lag) / 37.5% NCREIF Timberland
4/1/2004	9/30/2018	50% Cambridge Associates PE Energy (1Qtr Lag) / 25% S&P GSCI TR USD / 15% NCREIF Timberland / 10% NCREIF Farmland

Total Real Estate

4/1/2017	Present	NCREIF-ODCE
7/1/2014	3/31/2017	90% NCREIF-ODCE / 10% FTSE NAREIT Developed ex US
7/1/2007	6/30/2014	90% NCREIF-ODCE / 10% FTSE NAREIT All Equity REIT
12/1/1988	6/30/2007	NCREIF Property (1-quarter lagged)

Risk Mitigation

1/1/2018	Present	50% HFRI Macro: Systematic Diversified Index / 50% BBgBarc US Treasury Long TR
5/1/2005	12/31/2017	HFRI Global Hedge Fund Index