

County Employees Retirement System Board of Trustees – Special Quarterly Meeting September 15, 2021 at 2:00 PM EST Live Video Conference/Facebook Live

AGENDA

1.	Call to Order	Betty Pendergrass
2.	Opening Statement	Betty Pendergrass
3.	Roll Call	Sherry Rankin
4.	Public Comment	Sherry Rankin
5.	Approval of Minutes* a. May 19, 2021 b. June 2, 2021 c. June 24, 2021 d. July 14, 2021 e. August 25, 2021 f. September 1, 2021	Betty Pendergrass
6.	CERS Investment Committee Report a. Public Equity Manager Search* b. Quarterly Investment Review	Dr. Merl Hackbart Steven Herbert Dave Lindberg Craig Morton
7.	CERS Finance Committee Report a. Quarterly Financial Reports b. Participation of CERS Agency*	William O'Mara

c. Hazardous Duty Requests*d. Other Financial Updates

County Employees Retirement System Board of Trustees – Special Quarterly Meeting September 15, 2021 at 2:00 PM EST Live Video Conference/Facebook Live

AGENDA (continued)

8.	Joint Health Care Committee a. Establish 2022 plan components and rates for non-Medicare members b. Establish 2022 plan components and rates for Medicare members c. RFP timeline for Medicare eligible and COBRA	Jerry Powell
9.	IT Cybersecurity Overview	Rebecca Adkins Chris Johnson
10.	Adjourn	Betty Pendergrass

*Board May Take Action

MINUTES OF MEETING BOARD OF TRUSTEES COUNTY EMPLOYEES RETIREMENT SYSTEM SPECIAL CALLED MEETING MAY 19, 2021 AT 2:00 P.M. VIA LIVE VIDEO TELECONFERENCE DUE TO SB 150, SIGNED INTO LAW BY THE GOVERNOR ON MARCH 30, 2020, AND EXECUTIVE ORDER 2020-215 DECLARING A STATE OF EMERGENCY EFFECTIVE MARCH 6, 2020 DUE TO COVID-19

At the meeting of the County Employees Retirement System Board of Trustees held on May 19, 2021 the following members were present: Betty Pendergrass (Chair), Joe Brothers, Dr. Patricia Carver, George Cheatham, Michael Foster, JT Fulkerson, Dr. Merl Hackbart, William O'Mara, and Jerry Powell. Staff members present were David Eager, Rebecca Adkins, Erin Surratt, D'Juan Surratt, Steve Willer, Kathy Rupinen, Connie Davis, Connie Pettyjohn, and Vicki Hale. Others in attendance were Tracey Garrison, Janie Shaw, Danny White and Larry Loew.

Ms. Pendergrass called the meeting to order and read the Special Called Meeting COVID-19 statement due to SB 150.

Ms. Alane Foley took Roll Call. No public comment was submitted.

Ms. Pendergrass introduced agenda item *Approval of Minutes from April 19, 2021 and May 10, 2021*. Mr. Fulkerson made a motion and Mr. Brothers seconded to approve the minutes of April 19, 2021 and May 10, 2021. The motion passed unanimously.

Ms. Pendergrass introduced agenda item *Finance Committee Report*. Mr. O'Mara reported that the Finance Committee recently had their inaugural meeting. Mr. O'Mara introduced Mr. D'Juan Surrat who presented 18 positions for Hazardous Position Classifications Recommendations. The CERS Finance Committee reviewed these positions and recommends CERS Board approve these positions for hazardous duty coverage. Mr. O'Mara made a motion and Mr. Brothers seconded the motion to approve these positions for hazardous duty coverage. The motion passed unanimously.

Mr. O'Mara introduced Ms. Rebecca Adkins who presented the Fiduciary Net Position and Change in Net Position Reports for both the Pension Funds and Insurance Funds, the Budget to Actual Expenditures Report, and the Contribution Reports for both the Pension Fund and Insurance Fund.

Ms. Pendergrass introduced agenda item *2021 Actuarial Valuation*. Mr. Danny White and Ms. Janie Shaw, with GRS, discussed the economic assumptions for use in the upcoming June 30, 2021 actuarial valuation. Mr. Fulkerson made a motion and Mr. Foster seconded to approve the recommended assumptions. The motion passed unanimously.

Ms. Pendergrass introduced agenda item *Joint Employee Health Care Committee Report*. Mr. Powell reported that the Retiree Health Plan Committee met on May 11, 2021. The committee reviewed a presentation from Humana regarding the following: Humana 2020 Plan Performance, Factors Expected to Impact 2022 Rates, and Humana Custom Care in the enhanced customer service model. Ms. Tracey Garrison with Humana reviewed the highlights of the information that had been presented to the Joint Retiree Health Plan Committee.

Ms. Pendergrass introduced agenda item *Investment Committee Report*. Dr. Hackbart reported that the Investment Committee met on May 12, 2021. The highlights from that meeting include the performance review that Mr. Steven Herbert presented, enhancement of real estate investment, presentation by David Lindberg regarding the Wilcher Investment Quarterly report, and draft policy statements regarding investments, procurement, contracts, to name a few. The Committee requests that the Board review the draft of the Investment Policy Statement and the Procurement Policy Statement and make recommendations or comments as these policy statements will be presented for a vote at a future meeting. Mr. Steve Willer presented an overview of the Staff Performance Review as of March 31, 2021. By next meeting, the reports will be more specific to the CERS plans. Mr. Willer then reviewed the Investment Recommendation regarding the Harrison Street Core Property Fund.

Mr. Fulkerson made a motion and Dr. Hackbart seconded to adjourn the meeting. The motion passed unanimously.

Copies of all documents presented are incorporated as part of the Minutes of the Board of Trustees held May 19, 2021 except documents provided during a closed session conducted pursuant to the open meetings act and exempt under the open records act.

CERTIFICATION

I do certify that I was present at this meeting, and I have recorded the above actions of the Trustees on the various items considered by it at this meeting. Further, I certify that all requirements of KRS 61.805-61.850 were met in conjunction with this meeting.

Recording Secretary

I, the Chair of the Board of Trustees of the County Employees Retirement System, do certify that the Minutes of Meeting held on May 19, 2021 were approved on September 15, 2021.

Chair of the Board of Trustees

I have reviewed the Minutes of the May 19, 2021 Board of Trustees Meeting for content, form, and legality.

Executive Director Office of Legal Services

MINUTES OF MEETING BOARD OF TRUSTEES COUNTY EMPLOYEES RETIREMENT SYSTEM SPECIAL CALLED MEETING JUNE 2, 2021 AT 9:00 A.M. VIA LIVE VIDEO TELECONFERENCE DUE TO SB 150, SIGNED INTO LAW BY THE GOVERNOR ON MARCH 30, 2020, AND EXECUTIVE ORDER 2020-215 DECLARING A STATE OF EMERGENCY EFFECTIVE MARCH 6, 2020 DUE TO COVID-19

At the meeting of the County Employees Retirement System Board of Trustees held on June 2, 2021 the following members were present: Betty Pendergrass (Chair), Joe Brothers, Dr. Patricia Carver, George Cheatham, Michael Foster, JT Fulkerson, Dr. Merl Hackbart, William O'Mara, and Jerry Powell. Staff members present were David Eager, Rebecca Adkins, Steven Herbert, and Vicki Hale. Presenters for the meeting included Judy Chambers and David Sancewich.

Ms. Pendergrass called the meeting to order and read the Special Called Meeting COVID-19 statement due to SB 150.

Ms. Alane Foley took Roll Call. No public comment was submitted.

Ms. Pendergrass introduced agenda item *Investment Training*. David Sancewich and Judy Chambers from Meketa Investment Group presented the Trustee Investment Education including KPPA and CERS History, Investment Approaches, Roles and Responsibilities of Staff, and Asset Class Overviews.

Mr. Fulkerson made a motion and Mr. Powell seconded to adjourn the meeting. The motion passed unanimously.

Copies of all documents presented are incorporated as part of the Minutes of the Board of Trustees held June 2, 2021 except documents provided during a closed session conducted pursuant to the open meetings act and exempt under the open records act.

CERTIFICATION

I do certify that I was present at this meeting, and I have recorded the above actions of the Trustees on the various items considered by it at this meeting. Further, I certify that all requirements of KRS 61.805-61.850 were met in conjunction with this meeting.

Recording Secretary

I, the Chair of the Board of Trustees of the County Employees Retirement System, do certify that the Minutes of Meeting held on June 2, 2021 were approved on September 15, 2021.

Chair of the Board of Trustees

I have reviewed the Minutes of the June 2, 2021 Board of Trustees Meeting for content, form, and legality.

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Executive Director Office of Legal Services

Minutes of Meeting Board of Trustees County Employees Retirement System Special Called Meeting June 24, 2021 at 1:00 p.m. VIA LIVE VIDEO TELECONFERENCE DUE TO SB 150, SIGNED INTO LAW BY THE GOVERNOR ON MARCH 30, 2020, AND EXECUTIVE ORDER 2020-215 DECLARING A STATE OF EMERGENCY EFFECTIVE MARCH 6, 2020 DUE TO COVID-19

At the meeting of the County Employees Retirement System Board of Trustees held on June 24, 2021 the following members were present: Betty Pendergrass (Chair), Joe Brothers, Dr. Patricia Carver, George Cheatham, Michael Foster, JT Fulkerson, Dr. Merl Hackbart, William O'Mara, and Jerry Powell. Staff members present were David Eager, Rebecca Adkins and Erin Surratt.

Ms. Pendergrass called the meeting to order and read the Special Called Meeting COVID-19 statement due to SB 150.

Ms. Erin Surratt took Roll Call. No public comment was submitted.

Mr. Powell introduced agenda item *Personnel (Legal) [KRS 61.810(1)(f)]*. Mr. Powell discussed the processes that are involved in the search for candidates for these positions. A RPF was submitted, along with a job description, were distributed and posted. A total of 167 resumes were received for the CEO position, which after Mr. Powell and Mr. Brothers reviewed those resumes, only 35 met the minimum requirement for the position. An email was then sent to those 35 candidates, requesting additional information. From the 11 replies received, 4 candidates were chosen for the interview process. Regarding the General Counsel position, only 1 proposal was received. Mr. Powell made a motion and Mr. Brothers seconded to go into closed session. The motion passed unanimously.

Ms. Pendergrass read the following statement: A motion having been made in open session to move into a closed session for a specific purpose, and such motion having carried by majority vote in open, public session, the Board shall now enter closed session to consider the appointment and member account information of an employee, pursuant to KRS 61.810(1)(f) and KRS 61.810(1)(k). It is necessary to enter closed session because of the sensitive nature of the material

to be considered regarding this employee, and the requirement of KRS 61.661(1) that each member's account be administered in a confidential manner.

Ms. Pendergrass introduced agenda item *CERS Legal Staff Appointment*. Dr. Carver made a motion and Mr. O'Mara seconded to approve the candidate for CERS Legal Counsel to Joe Bowman, subject to the review of the contract terms. The motion passed unanimously.

Ms. Pendergrass introduced agenda item *Personnel (CEO)* [*KRS* 61.810(1)(f)]. Dr. Hackbart made a motion and Mr. Powell seconded to go into closed session. The motion passed unanimously.

Ms. Pendergrass read the following statement: A motion having been made in open session to move into a closed session for a specific purpose, and such motion having carried by majority vote in open, public session, the Board shall now enter closed session to consider the appointment and member account information of an employee, pursuant to KRS 61.810(1)(f) and KRS 61.810(1)(k). It is necessary to enter closed session because of the sensitive nature of the material to be considered regarding this employee, and the requirement of KRS 61.661(1) that each member's account be administered in a confidential manner.

Mr. Pendergrass introduced agenda item *CERS CEO Appointment*. Mr. Cheatham made a motion and Dr. Hackbart seconded to enter into discussions with candidate Ed Owens to become the first CEO of County Employees Retirement Systems. The motion passed unanimously.

Mr. Powell made a motion and Mr. O'Mara seconded to adjourn the meeting. The motion passed unanimously.

Copies of all documents presented are incorporated as part of the Minutes of the Board of Trustees held June 24, 2021 except documents provided during a closed session conducted pursuant to the open meetings act and exempt under the open records act.

CERTIFICATION

I do certify that I was present at this meeting, and I have recorded the above actions of the Trustees on the various items considered by it at this meeting. Further, I certify that all requirements of KRS 61.805-61.850 were met in conjunction with this meeting.

Recording Secretary

I, the Chair of the Board of Trustees of the County Employees Retirement System, do certify that the Minutes of Meeting held on June 24, 2021 were approved on September 15, 2021.

Chair of the Board of Trustees

I have reviewed the Minutes of the June 24, 2021 Board of Trustees Meeting for content, form, and legality.

Executive Director Office of Legal Services

MINUTES OF MEETING BOARD OF TRUSTEES COUNTY EMPLOYEES RETIREMENT SYSTEM SPECIAL CALLED MEETING JULY 14, 2021 AT 12:30 P.M. VIA LIVE VIDEO TELECONFERENCE DUE TO SB 150, SIGNED INTO LAW BY THE GOVERNOR ON MARCH 30, 2020, AND EXECUTIVE ORDER 2020-215 DECLARING A STATE OF EMERGENCY EFFECTIVE MARCH 6, 2020 DUE TO COVID-19

At the meeting of the County Employees Retirement System Board of Trustees held on July 14, 2021 the following members were present: Betty Pendergrass (Chair), Joe Brothers, Dr. Patricia Carver, George Cheatham, Michael Foster, JT Fulkerson, Dr. Merl Hackbart, William O'Mara, and Jerry Powell. Staff members present were David Eager, Rebecca Adkins, David Eager and Erin Surratt.

Ms. Pendergrass called the meeting to order and read the Special Called Meeting COVID-19 statement due to SB 150.

Ms. Pendergrass introduced the agenda item *Trustee Swearing-In*. Ms. Crystal Smith administered the Oath of Office to the newest Board Member, Dr. Martin Milkman.

Ms. Erin Surratt took Roll Call. No public comment was submitted.

Mr. Pendergrass introduced agenda item *Clarification of June 24, 2021 Motions*. Dr. Carver amended her Motion made on June 24, 2021, to say that we are hiring the firm of Johnson, Bowman and Branco, LLP and not the individual. Mr. Cheatham seconded the motion. The motion passed unanimously. Mr. Cheatham amended his Motion made on June 24, 2021, to clarify that the motion was to hire Ed Owens, III to be CERS first CEO. Mr. O'Mara seconded the motion. The motion passed unanimously.

Ms. Pendergrass introduced the agenda item *Committee Appointments*. Ms. Pendergrass announced the following changes to Committee Appointments: Dr. Carver will be replaced by Mr. Fulkerson on the Health Care Committee, and Dr. Milkman has been assigned to the Investment Committee.

Ms. Pendergrass introduced agenda item *CERS CEO Contract Approval*. Mr. O'Mara made a motion and Dr. Hackbart seconded to approve the CEO Contract. Mr. Cheatham wanted to offer an amendment to authorize completion of proper forms with Kentucky Deferred Compensation and to authorize the use of Nationwide as the administrator for the 401a employer. Mr. O'Mara seconded the Amended Motion. The motion passed unanimously.

Ms. Pendergrass introduced agenda item *CERS General Counsel Contract Approval*. Dr. Milkman made a motion and Mr. Powell seconded to approve the General Counsel contract. The motion passed unanimously.

Ms. Pendergrass introduced agenda item *Trustee Reimbursements, Per Diem and Email.* Just a reminder that we do receive an \$80.00 per diem stipend for serving on this board. That includes prep time paid at rate of \$80.00 divided by 7.5 and travel expenses. KPPA staff will send you forms to complete to get these reimbursements.

Mr. Fulkerson made a motion and Dr. Carver seconded to adjourn the meeting. The motion passed unanimously.

Copies of all documents presented are incorporated as part of the Minutes of the Board of Trustees held July 14, 2021 except documents provided during a closed session conducted pursuant to the open meetings act and exempt under the open records act.

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CERTIFICATION

I do certify that I was present at this meeting, and I have recorded the above actions of the Trustees on the various items considered by it at this meeting. Further, I certify that all requirements of KRS 61.805-61.850 were met in conjunction with this meeting.

Recording Secretary

I, the Chair of the Board of Trustees of the County Employees Retirement System, do certify that the Minutes of Meeting held on July 14, 2021 were approved on September 15, 2021.

Chair of the Board of Trustees

I have reviewed the Minutes of the July 14, 2021 Board of Trustees Meeting for content, form, and legality.

Executive Director Office of Legal Services

MINUTES OF MEETING BOARD OF TRUSTEES COUNTY EMPLOYEES RETIREMENT SYSTEM SPECIAL CALLED MEETING AUGUST 25, 2021 at 2:00 p.m. VIA LIVE VIDEO TELECONFERENCE DUE TO SB 150, SIGNED INTO LAW BY THE GOVERNOR ON MARCH 30, 2020, AND EXECUTIVE ORDER 2020-215 DECLARING A STATE OF EMERGENCY EFFECTIVE MARCH 6, 2020 DUE TO COVID-19

At the meeting of the County Employees Retirement System Board of Trustees held on August 25, 2021 the following members were present: Betty Pendergrass (Chair), Dr. Patricia Carver, George Cheatham, Michael Foster, Dr. Merl Hackbart, Dr. Martin Milkman, William O'Mara, and Jerry Powell. Staff members present were Rebecca Adkins and Ed Owens.

Ms. Pendergrass called the meeting to order and read the Special Called Meeting COVID-19 statement due to SB 150.

Ms. Sherry Rankin took Roll Call. No public comment was submitted.

Ms. Pendergrass introduced agenda item *Closed Session – Litigation*. Mr. Foster made a motion and Mr. Powell seconded to go into closed session. The motion passed unanimously.

Ms. Pendergrass read the following statement: A motion having been made in open session to move into a closed session for a specific purpose, and such motion having carried by majority vote in open, public session, the Board shall now enter closed session to consider litigation, pursuant to KRS 61.810(1)(c), because of the necessity of protection the confidentiality of the Systems' litigation strategy and preserving any available attorney-client privilege.

There being no action taken regarding the discussion in the closed session, Mr. Milkman made a motion and Mr. Powell seconded to adjourn the meeting. The motion passed unanimously.

Copies of all documents presented are incorporated as part of the Minutes of the Board of Trustees held August 25, 2021 except documents provided during a closed session conducted pursuant to the open meetings act and exempt under the open records act.

CERTIFICATION

I do certify that I was present at this meeting, and I have recorded the above actions of the Trustees on the various items considered by it at this meeting. Further, I certify that all requirements of KRS 61.805-61.850 were met in conjunction with this meeting.

Recording Secretary

I, the Chair of the Board of Trustees of the County Employees Retirement System, do certify that the Minutes of Meeting held on August 25, 2021 were approved on September 15, 2021.

Chair of the Board of Trustees

I have reviewed the Minutes of the August 25, 2021 Board of Trustees Meeting for content, form, and legality.

Executive Director Office of Legal Services

MINUTES OF MEETING BOARD OF TRUSTEES COUNTY EMPLOYEES RETIREMENT SYSTEM SPECIAL CALLED MEETING SEPTEMBER 1, 2021 AT 10:00 A.M. VIA LIVE VIDEO TELECONFERENCE DUE TO SB 150, SIGNED INTO LAW BY THE GOVERNOR ON MARCH 30, 2020, AND EXECUTIVE ORDER 2020-215 DECLARING A STATE OF EMERGENCY EFFECTIVE MARCH 6, 2020 DUE TO COVID-19

At the meeting of the County Employees Retirement System Board of Trustees held on September 1, 2021 the following members were present: Betty Pendergrass (Chair), Dr. Patricia Carver, George Cheatham, Michael Foster, Dr. Merl Hackbart, Dr. Martin Milkman, William O'Mara, and Jerry Powell. Staff member present was Ed Owens.

Ms. Pendergrass called the meeting to order and read the Special Called Meeting COVID-19 statement due to SB 150.

Ms. Sherry Rankin took Roll Call. No public comment was submitted.

Ms. Pendergrass introduced agenda item *Closed Session – Litigation*. Dr. Milkman made a motion and Mr. Powell seconded to go into closed session. The motion passed unanimously.

Ms. Pendergrass read the following statement: A motion having been made in open session to move into a closed session for a specific purpose, and such motion having carried by majority vote in open, public session, the Board shall now enter closed session to consider litigation, pursuant to KRS 61.810(1)(c), because of the necessity of protection the confidentiality of the Systems' litigation strategy and preserving any available attorney-client privilege.

There being no action taken regarding the discussion in the closed session, Mr. Powell made a motion and Mr. Foster seconded to file a response to the pending litigation of 21-CI-00617. The motion passed unanimously.

Mr. Foster made a motion and Dr. Hackbart seconded to adjourn the meeting. The motion passed unanimously.

Copies of all documents presented are incorporated as part of the Minutes of the Board of Trustees held September 1, 2021 except documents provided during a closed session conducted pursuant to the open meetings act and exempt under the open records act.

CERTIFICATION

I do certify that I was present at this meeting, and I have recorded the above actions of the Trustees on the various items considered by it at this meeting. Further, I certify that all requirements of KRS 61.805-61.850 were met in conjunction with this meeting.

Recording Secretary

I, the Chair of the Board of Trustees of the County Employees Retirement System, do certify that the Minutes of Meeting held on September 1, 2021 were approved on September 15, 2021.

Chair of the Board of Trustees

I have reviewed the Minutes of the September 1, 2021 Board of Trustees Meeting for content, form, and legality.

Executive Director Office of Legal Services



MEMORANDUM

Date: Subject:	September 8, 2021 Summary of Investment Committee Special Meeting
	0
From:	Dr. Merl Hackbart, Chair Investment Committee
TO:	County Employees Retirement System Board of Trustees

The County Employees Retirement System held a special meeting on August 25, 2021.

- 1. The following items were approved by the Investment Committee and are being forwarded to the County Employees Retirement System Board of Trustees for ratification*
 - a. Approval of the prior Investment Committee Meeting Minutes There were no changes or corrections made to the minutes and they were passed by unanimous vote of the Committee.
 - b. Selection of a Public Equity Manager for Non-U.S. Small Cap Equity The Investment Committee selected Axiom Investors to provide Non-U.S. Small Cap services by unanimous vote pending successful investment management agreement negotiations.

RECOMMENDATION: The Investment Committee requests the County Employees Retirement System Board of Trustees ratify the actions taken by the Investment Committee.

- 2. The following items were also discussed during the Investment Committee meeting:
 - a. FY2020 Actuarial Stress Test analysis for the CERS (Hazardous and Non-Hazardous) Pension Funds results were presented by Gabriel, Roeder, Smith & Company (GRS).
 - b. FY2021 Investment Results were presented by KPPA investment staff.
 - c. Development of a Risk Management System (RMS) platform was presented by KPPA investment staff.

County Employees Retirement System 1270 Louisville Road Frankfort, KY 40601 Betty A Pendergrass, Chair Jerry Powell, Vice-Chair Ed Owens, CEO d. The status of the Investment Policy Statement (IPS) was discussed with passage of the IPS expected at the next Investment Committee meeting.

*Board of Trustees Action Required

County Employees Retirement System 1270 Louisville Road Frankfort, KY 40601 Betty A Pendergrass, Chair Jerry Powell, Vice-Chair Ed Owens, CEO



EXTERNAL MANAGER SEARCH AND SELECTION REPORT: NON-US SMALL CAP EQUITY

IN CONJUNCTION WITH WILSHIRE ASSOCIATES

Recommendation

Kentucky Public Pensions Authority (KPPA) Staff and Wilshire recommend the Investment Committee fund an actively managed Non-U.S. Small Cap Equity mandate to be managed by Axiom Investors pending successful investment management agreement negotiations.

No placement agents have been involved or will be compensated as a result of this recommendation.

Introduction

In a continued effort to create greater efficiencies within the structure of the public equity allocation, staff and consultant have worked together to study how KPPA accesses different segments of the market. The team completed this exercise with not only an eye towards efficient market access, but also to an efficient allocation of fee dollars. The focus of this process is to spend fee dollars where the chances of outperforming the market are greatest, and conserve, if not eliminate, fees in those areas where more difficult to add value. Non-U.S. developed markets are less efficient than their U.S. counterparts, and therefore warrant a greater degree of active management within the portfolio, particularly within the small cap and emerging market segments.

This report serves as a review of the competitive, open search process in accordance with the Investment Policy Statement and the Investment Procurement Policy, and serves as a recommendation to the Investment Committee to fund the strategy within the Non-U.S. public equity allocation.

Established Criteria

The initial screening was established through collaboration with our independent investment consultant, Wilshire. The criteria was designed to capture as many strategies as possible, while at the same time ensuring they meet certain minimum qualifications. The initial screening criteria was as follows:

- Benchmark: MSCI ACWI-Ex US, MSCI World-Ex US, or MSCI EAFE-Ex US
- Active Management: majority of holdings must be Non-US small cap stocks as defined by the investment manager
- Firm AUM: greater than \$1billion
- Strategy AUM: greater than \$200 million
- Minimum five year track record
- Firm/Team ranked by Wilshire's Manager Research Team fourth decile or better (qualitative)
- Separate Account Offering
- Relative Returns (1,3,&5Years): Excess of 2% or greater versus benchmark
- Tracking Error (1,3,&5Year Periods): Above 3%
- Information Ratios (1,3,&5Year Periods): Above 0.50
- Up/Down Capture Ratios (1,3,&5Year Periods): Above 1.0/Below 1.0
- Relative Correlation With Existing Mandates: 0.60 or less (closer to zero/negative preferred)

Candidate Pool

Preliminary screening from the Wilshire Investment Management database provided a candidate broad list of 83 potential strategies. Additional screening and staff input culled this list down to 11 firms. These firms were provided a Request For Information (RFI), and from those responses, a short list was created for further interview.

The short list consisted of the following five firms/strategies:

- American Century Investment Management: Non-U.S. Small
- Axiom Investors: Axiom International Small-Cap Equity Strategy
- Kayne Anderson Rudnick Investment Management: International Small Cap
- WCM Investment Management: International Small Cap Growth
- William Blair: International Small Cap Growth



General Process

Staff and consultant employed the same systematic process used in prior searches to narrow the potential candidates down to the finalist. The Wilshire Investment Management database, which consists over 12,000 strategies, is the starting point for setting the universe of potential ideas. This database is self-populated by external managers and contains a significant amount of information regarding their specific firm and its product(s). Minimum criteria are set in order to cull the potential candidate list down to a more manageable size, regarded as the short list. This criteria includes, but is not limited to qualitative assessments of the firm and portfolio management team, firm / product asset under management, available capacity, demonstrated ability to add value over varying periods, length of track record, etc. Staff may add managers to the list that may not have either made it through the initial screen or who may not participate in the database. From this point, an additional cut is made based on additional quantitative evaluation including, but not limited to, capture ratios, risk/return profiles, active share, etc. Staff then sent a Request For Information (RFI) to the remaining candidates (11) designed to generate insight into the firm's structure, staffing, product stability, investment team/philosophy/process, and other meaningful data points. Staff and consultant having read the RFI responses narrowed down the candidate list further for presentations and discussions (5) via the internet in response to the Covid-19 virus. An additional discussion was held with the perceived frontrunner prior to making the final decision to bring the finalist for presentation to the Investment Committee.

Organization Structure and Stability

Axiom Investors was established in 1998 and is headquartered in Greenwich, Connecticut. The firm is 100% employee owned and consists of approximately 50 employees, with its primary focus on global, international, and emerging market equity strategies. The firm managed approximately \$19.8 billion as of close 06/30/21. The international small cap strategy had roughly \$1.1 billion invested at the end of the quarter, with a capacity estimation of \$2.0 billion.

Investment Team

The investment team consists of two portfolio managers who also serve as senior generalist researchers, a dedicated research associate, and is supported by a team of seven global sector/industry research analysts. The portfolio managers have over 26 years of industry experience and average a 14-year tenure with the firm. The team has been very stable, with no portfolio manager turnover, and minimal research analyst turnover.

Investment Philosophy and Process

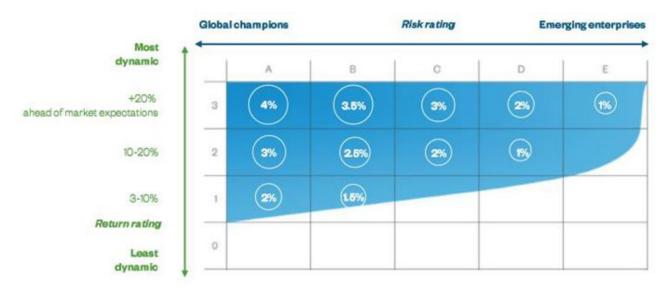
Axiom strives to invest in companies that are dynamically growing and experiencing positive change more rapidly than generally expected, and where those positive changes have not yet been reflected in the stock's expectations and valuations. The strategy seeks to outperform the MSCI ACWI Ex US Small Cap Index by 200-300 bps over a market cycle with an expected tracking error of 5-7%.

Axiom's dynamic growth philosophy can be described by the intersection of three key elements. The process is forwardlooking, and strives to find potential inflections in a business's key operational catalysts that could ultimately affect its's earnings projections. The most attractive candidate for the portfolio will have positive fundamental changes that manifest in sustainable earnings, and an attractive valuation. A critical point to the strategy's alpha generation relies on exceeding investor consensus growth expectations, and the ability to quantify that gap. In summary, those holdings with the highest conviction will have forward looking key business drivers that are changing for the better, at a rate faster than expected by the consensus, and where those changes have not yet been reflected in their valuation.

The strategy employs a repeatable process to narrow the universe down to a portfolio of 60-100 names weighted by conviction level. First, the team collects, scores, and monitors forward looking operational data related to specific companies, industries, and sectors. This information is contained in a proprietary database, which helps to identify quantifiable accelerations in a specific area. When a positive acceleration is found, the team assesses the key company, industry, secular, macro and country drivers. These assements are weighed against the market's consensus. Companies likely to exceed consensus expectations become the focus of the team.



Once a potential candidate for inclusion is identified, the team assigns the company a risk/return rating. Valuations play an important role in the investment decision; they are made relative to peers, to the company's historical valuation, and on an absolute basis versus peers both from a sector perspective and globally. This assessment helps the team confirm that the potential growth prospects have not already been factored into the share price. The perceived risk/return of company is assigned on two intersecting axis's (think X, Y). From a risk rating perspective companies are labeled as A though E. A's and B's are large, well-capitalized, profitable, less volatile global companies. C's a solid businesses that lead in a particular region or sub-sector. D's and E's are either emerging companies in developed markets or established companies in emerging markets. From a return perspective, companies are assigned a rating from 0-3 based on how the security is tracking relative to market expectations (ie: a rating of 2 means the company's business drivers are tracking 10-20% ahead of market expectations). The manager uses the intersection of the two rating scales to help determine the sizing of the positions within the portfolio.



The process is fundamental in nature and repeatable. The risk reward matrix helps to ensure the manager's level of conviction is consistently informed through defined position sizing. This helps to ensure a well diversified portfolio in terms of sources of alpha.

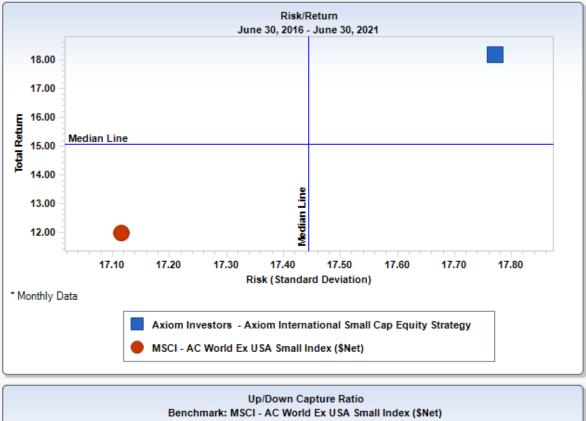
Client Stability

Axiom Investors International Small Cap strategy has steadily gained assets for the last several years. The strategy has added approximately 45 clients amounting to over \$900 million in net asset inflows.

Performance

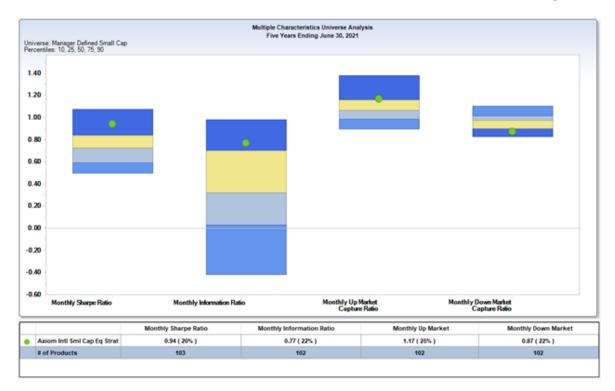
Axiom Investors										
As of: 06/30/21	1 YR	3 YRS	5 YRS	7YRS	SI					
Axiom International Small Cap - Gross	44.06	16.92	18.19	15.89	15.56					
MSCI ACWI ex US Small Cap Index Net	47.04	9.78	11.97	7.07	7.58					
Relative Performance (+/-)	-2.98	7.14	6.22	8.82	7.98					
*Inception Date: 01/01/14										











Implementation and Portfolio Sizing

As of close June 30, 2021, KPPA invested approximately \$159.2 million in dedicated Non-U.S. small cap strategies, which equates to roughly 3.2% of the Non-U.S. equity portfolio. Given the premise of Non-U.S. small cap being a moderately inefficient market segment, staff and consultant would recommend funding the Axiom investment from the international small cap investment dollars invested in other vehicles within the portfolio. Specifically, funding will come from the existing, and less active, Northern Trust (Pension) and BlackRock (Insurance) Non-U.S. small cap mandates. Staff will target initial funding at current corresponding levels, and is seeking approval of up to 5.0% to allow for future growth or rebalancing as opportunity allows.

	Approximate Plan Participation based on 06/30/21 Allocations											
KERS	16,000,000.00	KERS INS	10,300,000.00	26,300,000.00								
KERS - H	6,300,000.00	KERS - H INS	4,400,000.00	10,700,000.00								
CERS	64,100,000.00	CERS INS	21,700,000.00	85,800,000.00								
CERS - H	21,500,000.00	CERS - H INS	11,100,000.00	32,600,000.00								
SPRS	2,100,000.00	SPRS INS	1,700,000.00	3,800,000.00								
	110,000,000.00		49,200,000.00	159,200,000.00								

Management Fees

The manager has proposed an annual fee for the strategy of 68 bps based on an allocation size of \$159.2 million across both the pension and insurance funds. This would appear to be a competitive rate based on the universe data supplied by Wilshire for similar strategies of like sizes. The proposed rate ranks in the 5th percentile among the 61 managers in the universe data.

Third-Party Provider and Placement Agent Disclosure

In accordance with KRS' & CERS' gating practices, staff has requested the finalist to acknowledge transparency requirements, and to complete a conflict of interest statement and placement agent form. No placement agents have been



involved or will be compensated as a result of this recommendation. A copy of the manager's Statement of Conflict of Interest and Placement Agent questionnaire have been attached to this recommendation.

Recommendation

As previously stated, staff and consultant are working to create greater efficiencies within the public equity allocation. This requires determining the optimal method for structuring the portfolio and accessing different segments of the market. In an effort to do this while being mindful of fee dollar expense, those market segments that are less efficient provide greater opportunity for outperformance, such as in the international small cap market space.

Staff and consultant believe Axiom's International Small Cap strategy will be a positive addition to the KPPA investment program. The philosophy of investing in those companies with positive change in the context of sustainable earnings growth at attractive valuations married with a systematic portfolio construction process demonstrates a repeatable process for developing an investment portfolio. The result being a concentrated, high active share, high quality portfolio that has demonstrated its ability to add value in both up and down markets.

Because of the above viewpoint and the search process completed, KPPA Staff and Wilshire put forth the following recommendation for the Investment Committee's consideration:

Axiom Investors - International Small Cap Equity Strategy

Initial Funding of approximately \$159.2 million (3.2%) with the option to grow/add to total 5.0% of the Non-U.S. Equity allocation. Primary funding to come from the existing Northern Trust (Pension) and BlackRock (Insurance) Non-U.S. small cap mandates.

We welcome any comments or questions by the Committee.

Appendix

- Wilshire: International Small Cap Manager Search Packet (Contains Short-list Candidate Pool 5 managers)
- Wilshire Recommendation Memo
- Axiom Conflict of Interest and Placement Agent Disclosure



International Small Cap Manager Search

July 2021



Firm and Product Comparison

Firm Name	Established	Firm As	sets (\$MM)
American Century Investment Management, Inc.	1958	\$	235,127
Axiom Investors	1998	\$	19,836
Kayne Anderson Rudnick Investment Mgmt, LLC	1984	\$	61,161
WCM Investment Management	1976	\$	98,048
William Blair	1935	\$	73,962

Firm Name	Product Name	Product AUN	и (\$MM)	Mandate Size (\$100 MM) vs. Product Assets	
American Century Investment Management, Inc.	Non-U.S. Small Cap	\$	1,864	5.4%	
Axiom Investors	International Small-Cap Equity Strategy	\$	1,136	8.8%	
Kayne Anderson Rudnick Investment Mgmt, LLC	International Small Cap	\$	3,577	2.8%	
WCM Investment Management	International Small Cap Growth	\$	1,798	5.6%	
William Blair	International Small Cap Growth	\$	3,259	3.1%	

*Firm Assets and Product AUM as of 6/30/21

Qualitative Scores by Wilshire's Manager Research on Candidates

	Overall Rating	g Organization	Information	Forecasting	Portfolio Construction	Implementation	Attribution
(In Deciles)		(20%)	(20%)	(20%)	(20%)	(10%)	(10%)
American Century Investment Management, Inc Non-U.S. Small Cap	3rd	3rd	3rd	2nd	3rd	3rd	3rd
Axiom Investors - International Small-Cap Equity Strategy	1st	1st	1st	1st	3rd	1st	1st
Kayne Anderson Rudnick Investment Mgmt, LLC - International Small Cap	3rd	4th	3rd	1st	3rd	4th	4th
WCM Investment Management - International Small Cap Growth	1st	1st	1st	1st	2nd	3rd	1st
William Blair - International Small Cap Growth	2nd	1st	1st	2nd	3rd	2nd	1st

		Rating Scale									
Decile	1	2	3	4	5	6	7	8	9	10	
Corresponding Grade	,	4	В		С		D		E		

- Organization: Scores organizational structure and stability
- Information: Scores the ability to gather and process unique sources of information
- Forecasting: Scores the discipline and consistency of a forecasting process
- Portfolio Construction: Scores portfolio construction and risk management
- Implementation: Scores a manager's ability to transact in the market
- Attribution: Scores the use of attribution information and portfolio feedback
- Overall Rating = Weighted sum product of the individual criteria

Performance Analysis



Performance Comparison – Calendar Year

Absolute	2020	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010
Axiom Investors - International Small-Cap Equity Strategy	38.87	34.82	-18.59	41.39	-0.83	29.59	-1.48	-	-	-	-
Kayne Anderson Rudnick Investment Mgmt, LLC - International Small Ca	25.96	29.49	-5.32	30.30	22.81	-0.28	-1.92	32.42	24.87		
WCM Investment Management - International Small Cap Growth	58.55	45.72	-10.12	43.98	0.93	26.41	-	-	-	-	-
William Blair - International Small Cap Growth	30.95	35.87	-23.27	34.21	-3.00	10.95	-6.62	28.85	21.70	-10.44	27.61
MSCI AC World ex US Small Index	14.24	22.42	-18.20	31.64	3.91	2.60	-4.03	19.73	18.52	-18.50	25.21
Absolute	2020	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010
American Century Investment Management, Inc Non-U.S. Small Cap	32.55	30.50	-21.02	46.65	-4.68	12.24	-5.61	33.23	26.58	-13.73	24.55
MSCI ACWI ex US Small Growth IMI Index	23.69	24.62	-18.28	33.63	-0.28	6.49	-3.59	18.52	16.87	-17.86	27.30
Value Added (vs. MSCI AC World ex US Small Index)	2020	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010
Axiom Investors - International Small-Cap Equity Strategy	24.63	12.40	-0.39	9.76	-4.74	26.98	2.55	-	-	-	-
Kayne Anderson Rudnick Investment Mgmt, LLC - International Small Ca	11.72	7.07	12.88	-1.34	18.90	-2.88	2.12	12.69	6.35	-	-
WCM Investment Management - International Small Cap Growth	44.31	23.30	8.08	12.34	-2.98	23.80	-	-	-	-	-
William Blair - International Small Cap Growth	16.71	13.45	-5.07	2.57	-6.91	8.34	-2.59	9.12	3.19	8.06	2.41
Value Added (vs. MSCI ACWI ex US Small Growth IMI Index)	2020	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010
American Century Investment Management, Inc Non-U.S. Small Cap	8.86	5.89	-2.75	13.02	-4.40	5.74	-2.03	14.71	9.71	4.13	-2.76

*Axiom, KAR, WCM, and William Blair are benchmarked to the MSCI AC World ex US Small Index. American Century is benchmarked to the MSCI ACWI ex US Small Growth IMI Index.

Performance Comparison – As of June 30, 2021

Absolute	Quarter	Year-to-date	One Year	Three Years	Five Years	Seven Years	Ten Years
Axiom Investors - International Small-Cap Equity Strategy	9.92	8.26	44.05	16.92	18.15	15.87	-
Kayne Anderson Rudnick Investment Mgmt, LLC - International Small Cap	7.22	7.91	47.34	15.33	20.10	13.17	-
WCM Investment Management - International Small Cap Growth	11.92	11.95	56.04	27.54	26.85	-	-
William Blair - International Small Cap Growth	10.14	8.11	44.89	15.11	14.84	10.04	10.15
MSCI AC World ex US Small Index	6.35	12.24	47.04	9.78	11.97	7.07	7.02
Absolute	Quarter	Year-to-date	One Year	Three Years	Five Years	Seven Years	Ten Years
American Century Investment Management, Inc Non-U.S. Small Cap	5.62	6.08	37.98	12.18	16.14	10.80	11.56
MSCI ACWI ex US Small Growth IMI Index	6.75	10.32	44.91	11.91	13.29	8.59	7.89
Value Added (vs. MSCI AC World ex US Small Index)	Quarter	Year-to-date	One Year	Three Years	Five Years	Seven Years	Ten Years
Axiom Investors - International Small-Cap Equity Strategy	3.57	(3.98)	(2.99)	7.14	6.18	8.80	-
Kayne Anderson Rudnick Investment Mgmt, LLC - International Small Cap	0.87	(4.33)	0.30	5.56	8.14	6.11	-
WCM Investment Management - International Small Cap Growth	5.57	(0.29)	9.00	17.76	14.89	-	-
William Blair - International Small Cap Growth	3.79	(4.13)	(2.15)	5.34	2.88	2.98	3.13
Value Added (vs. MSCI ACWI ex US Small Growth IMI Index)	Quarter	Year-to-date	One Year	Three Years	Five Years	Seven Years	Ten Years
American Century Investment Management, Inc Non-U.S. Small Cap	(1.13)	(4.24)	(6.93)	0.27	2.84	2.20	3.66

*Axiom, KAR, WCM, and William Blair are benchmarked to the MSCI AC World ex US Small Index. American Century is benchmarked to the MSCI ACWI ex US Small Growth IMI Index.

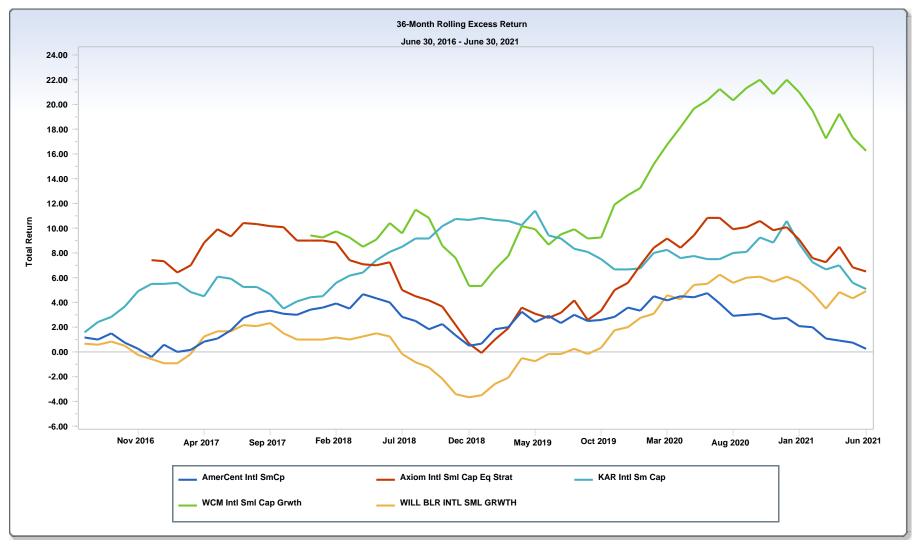
Rolling Absolute Performance



*Axiom, KAR, WCM, and William Blair are benchmarked to the MSCI AC World ex US Small Index. American Century is benchmarked to the MSCI ACWI ex US Small Growth IMI Index. All funds and indices are shown.

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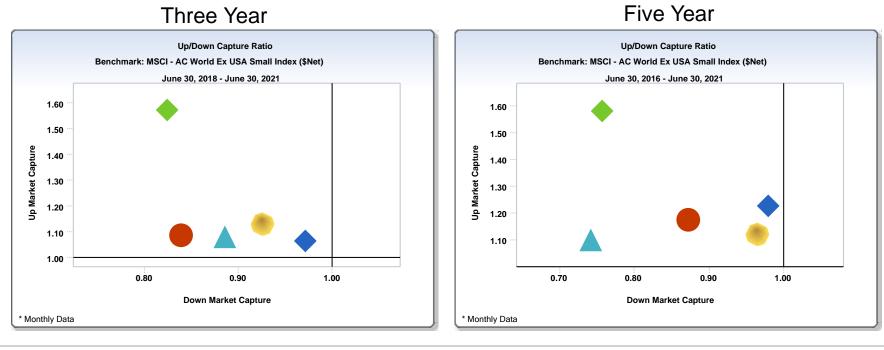
Rolling Excess Performance



* Excess performance calculated using manager defined benchmark. Axiom, KAR, WCM, and William Blair are benchmarked to the MSCI AC World ex US Small Index. American Century is benchmarked to the MSCI ACWI ex US Small Growth IMI Index.

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Up/Down Capture Ratio Analysis



٠ American Century Investment Management, Inc. - Non-U.S. Small Cap ٠

Axiom Investors - Axiom International Small Cap Equity Strategy

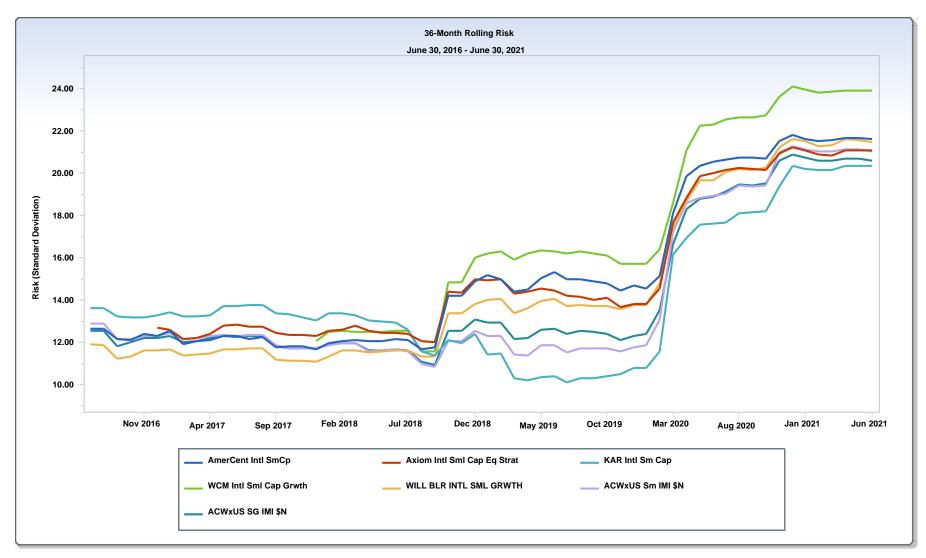
Kayne Anderson Rudnick Investment Mgmt, LLC - International Small Cap

WCM Investment Management - International Small Cap Growth

William Blair - International Small Cap Growth

* Up/Down Capture Ratio calculated using manager defined benchmark. Axiom, KAR, WCM, and William Blair are benchmarked to the MSCI AC World ex US Small Index. American Century is benchmarked to the MSCI ACWI ex US Small Growth IMI Index.

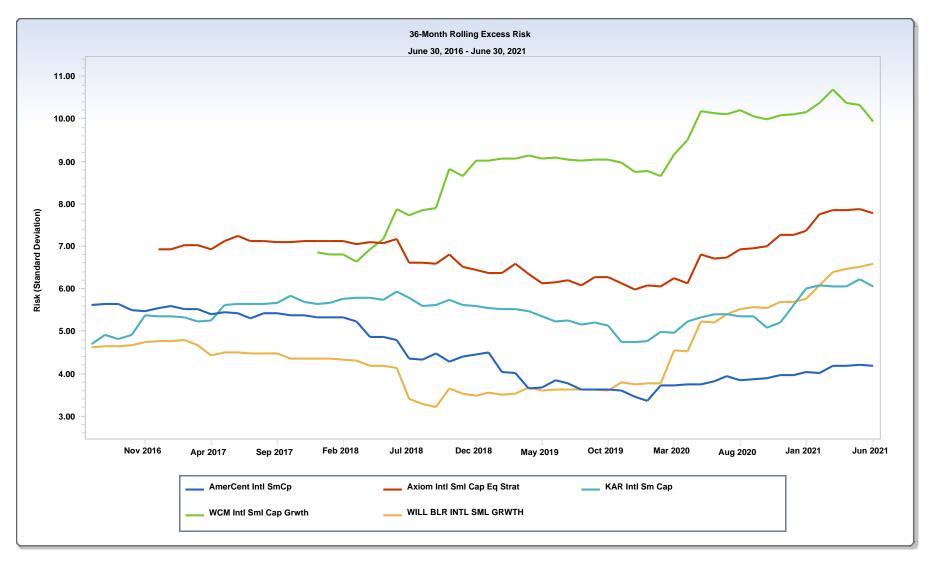
Rolling Absolute Risk



*Axiom, KAR, WCM, and William Blair are benchmarked to the MSCI AC World ex US Small Index. American Century is benchmarked to the MSCI ACWI ex US Small Growth IMI Index. All funds and indices are shown.

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Rolling Excess Risk



^{*} Excess risk calculated using manager defined benchmark. Axiom, KAR, WCM, and William Blair are benchmarked to the MSCI AC World ex US Small Index. American Century is benchmarked to the MSCI ACWI ex US Small Growth IMI Index.

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$\begin{array}{c} \mbox{International small cap manager search} \\ Rolling Information Ratio \end{array}$



* Information Ratio calculated using manager defined benchmark. Axiom, KAR, WCM, and William Blair are benchmarked to the MSCI AC World ex US Small Index. American Century is benchmarked to the MSCI ACWI ex US Small Growth IMI Index.

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Risk/Return Analysis

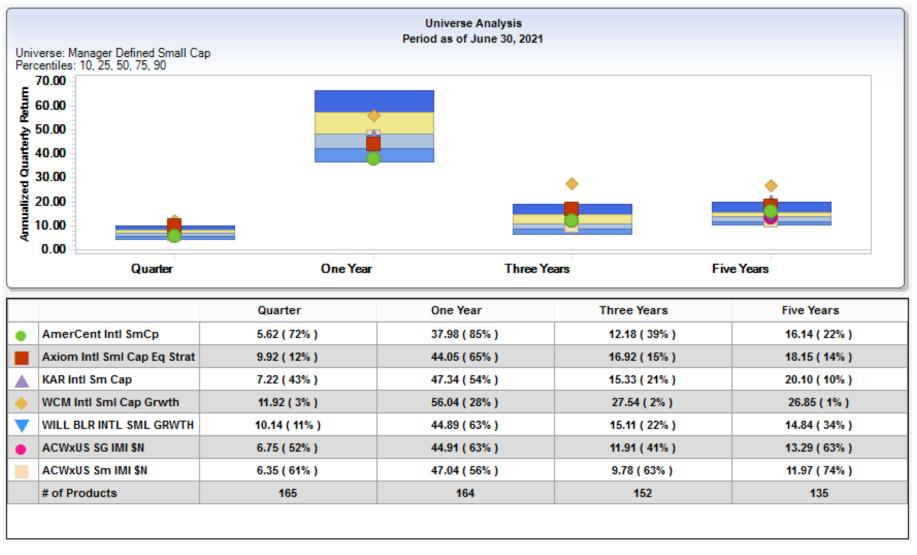


*Axiom, KAR, WCM, and William Blair are benchmarked to the MSCI AC World ex US Small Index. American Century is benchmarked to the MSCI ACWI ex US Small Growth IMI Index. All funds and indices are shown.

Universe Analysis

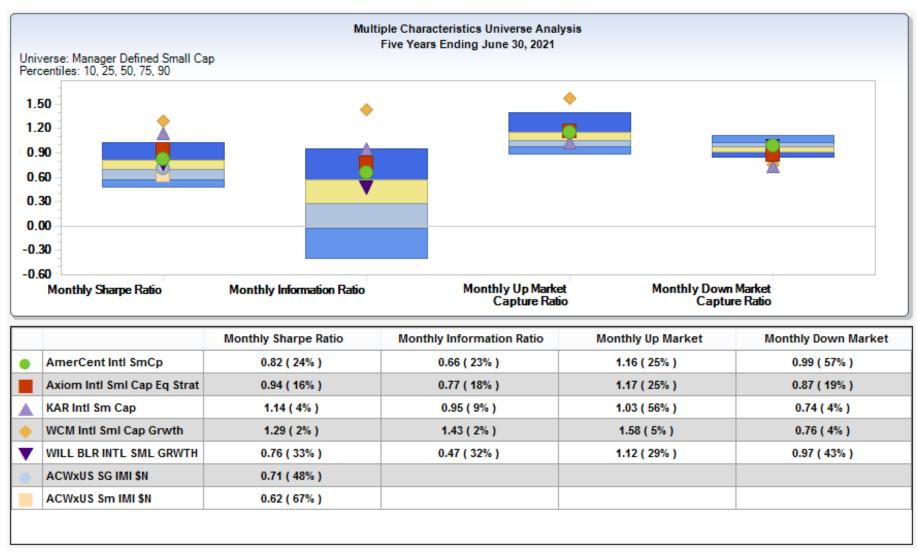


Universe Ranking - Performance



*Axiom, KAR, WCM, and William Blair are benchmarked to the MSCI AC World ex US Small Index. American Century is benchmarked to the MSCI ACWI ex US Small Growth IMI Index. All funds and indices are shown.

Universe Ranking - Statistics



*Statistics calculated using manager defined benchmark. Axiom, KAR, WCM, and William Blair are benchmarked to the MSCI AC World ex US Small Index. American Century is benchmarked to the MSCI ACWI ex US Small Growth IMI Index. © 2021 Wilshire

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Appendix



Disclosures

		ADV	Part I	ADV Part IIA					
Firm	Date of	Item 11: D Inforn		ltem 9: Di Inform	• •	Item 19 (D): Requirements for State- Registered Advisors			
	Review	Form ADV	Disclosure	Form ADV	Disclosure				
		Part I Date	(Yes/No)	Part IIA Date	(Yes/No)	Disclosure (Yes/No)			
American Century Investment Management, Inc.	10/16/2020	10/2/2020	No	3/16/2020	No	N/A			
Axiom Investors	10/16/2020	3/27/2020	No	3/27/2020	No	N/A			
Kayne Anderson Rudnick Investment Mgmt, LLC	10/16/2020	6/26/2020	No	6/26/2020	Yes	N/A			
WCM Investment Management	10/16/2020	5/29/2020	No	3/20/2020	No	N/A			
William Blair	10/16/2020	10/5/2020	Yes	3/27/2020	Yes	N/A			

Performance Review



Performance Review

	An	nualized Er	nded 6/30,	/2021				Annual	Returns					
Historical Returns	1 Year	3 Years	5 Years	10 Years	2020	2019	2018	2017	2016	2015	2014	2013	2012	2011
AmerCent Intl SmCp	37.98	12.18	16.14	11.56	32.55	30.50	-21.02	46.65	-4.68	12.24	-5.61	33.23	26.58	-13.73
ACWXUS SG IMI \$N	44.91	11.91	13.29	7.89	23.69	24.62	-18.28	33.63	-0.28	6.49	-3.59	18.52	16.87	-17.86
Risk - Standard Deviation														
AmerCent Intl SmCp	13.68	21.61	17.96	16.88	29.55	14.59	16.18	4.38	15.73	9.08	11.71	12.00	15.41	22.75
ACWXUS SG IMI \$N	14.64	20.61	16.88	16.01	30.57	12.18	13.94	3.75	15.07	12.35	9.51	11.58	16.31	19.76
Risk - Semi-Variance														
AmerCent Intl SmCp	8.67	16.20	13.62	12.95	23.40	10.69	12.92	3.21	9.91	7.33	7.42	9.36	13.48	17.37
ACWXUS SG IMI \$N	9.36	15.66	12.90	12.06	24.06	9.20	11.07	3.09	10.47	8.12	6.33	8.16	13.16	14.40
Excess Returns														
Arithmetic Excess	-6.93	0.27	2.85	3.67	8.86	5.88	-2.74	13.02	-4.40	5.75	-2.02	14.71	9.71	4.13
Geometric Excess	-4.78	0.24	2.52	3.40	7.16	4.72	-3.35	9.74	-4.41	5.40	-2.10	12.41	8.31	5.03
Excess Statistics	Ann	ualized En	ded 6/30/2	2021			Frequency of Su	ccess			Munitity	resolment Management, Inc N Periodic & Growth of a Dollar I Jone 30, 2016 - Jone 30, 2021	Res: 0.5. Securit Casp Reference	
Manager vs. Benchmark	1 Year	3 Years	5 Years	10 Years	100.00					14.00 12.00			1.1	100
Tracking Error	3.31	4,18	3.82	4.74	80.00					10.00		1.1		1.00
Information Ratio	-1.45	0.06	0.66	0.72	8 60.00 ··									140
Downside Deviation	2.25	2.86	2.77	3.56	40.00					28				- 120
Skewness	0.20	0.31	-0.06	-0.39						2 428		CHECTER 1	بيداليها	100
Kurtosis	-0.84	-0.08	-0.10	0.49	20.00					420	-	11 1		0.60
Alpha	-2.05	-0.03	2.07	3.31	× 0.00					-430		- P		0.40
Beta	0.91	1.03	1.04	1.01	* Monthly Data	ne Year Ti	hree Years	Five Years Te	n Years	-12.00				0.00
Residual Risk	3.11	4.11	3.76	4.73			Up Market 📕 🛙	Jown Market		-14.00				-6.20
R Squared	0.95	0.96	0.96	0.92]	-	op Harket	Jown market		-18.00 Dec 2016	Jue 2017 Dec 2017 Jue	2018 Dec 2018 Are 2019	Dec 2019 Jun 2020	Dec 2020 June 2021
	Investment Manageme		J.S. Small Cap		A			ent, Inc Non-U.S. Smi	ell Cap	A	merican Century Inve			і Сар
48.00	mulative Periods as of	June 30, 2021					ve Skill - June 30, 20 I - AC World Ex USA	56 - June 30, 2021 Small Growth Index (\$1	Net)			ing Skill - June 30, 20 AC World Ex USA Sm	all Growth Index (\$N	let)
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6.00					-20.00					-4.00				
Quarter * Monthly Data	One Year 1	Three Years	Five Y	ears				n 2019 Mar 2020 I tio: 0.66 T-Stat: 1.47	Dec 2020 N: 3.8	Ma * Standard Deviation		Sep 2018 Jun 2	019 Mar 2020 (Dec 2020
	Cent Intl SmCp 📕 A	CWkUS SG IMI	sN		Standard Deviation/1		nt Ind SmCp - 8	0% Confidence		clandard Deviation/1		Ind SmCp - 80%	Confidence	

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Performance Review

	Anr	nualized Er	nded 6/30,	/2021				Annual						
Historical Returns	1 Year	3 Years	5 Years	10 Years	2020	2019	2018	2017	2016	2015	2014	2013	2012	2011
Axiom Intl Sml Cap Eq Strat	44.05	16.92	18.15	N/A	38.87	34.82	-18.59	41.39	-0.83	29.59	-1.48	N/A	N/A	N/A
ACWxUS Sm IMI \$N	47.04	9.78	11.97	7.02	14.24	22.42	-18.20	31.64	3.91	2.60	-4.03	19.73	18.52	-18.50
Risk - Standard Deviation	_													
Axiom Intl Sml Cap Eq Strat	13.76	21.10	17.77	N/A	29.63	10.68	16.36	7.60	15.78	10.59	10.35	N/A	N/A	N/A
ACWxUS Sm IMI \$N	15.72	21.04	17.12	16.33	32.21	12.27	12.68	3.49	15.01	12.78	9.48	11.95	17.39	19.51
Risk - Semi-Variance	-													
Axiom Intl Sml Cap Eq Strat	8.65	16.06	13.49	N/A	23.75	8.38	13.16	5.46	10.06	8.32	6.52	N/A	N/A	N/A
ACWxUS Sm IMI \$N	9.83	16.28	13.30	12.37	25.49	9.21	9.78	2.59	10.37	7.97	6.53	8.54	13.93	14.39
Excess Returns														
Arithmetic Excess	-2.99	7.14	6.18	N/A	24.63	12.40	-0.39	9.75	-4.74	26.99	2.55	N/A	N/A	N/A
Geometric Excess	-2.03	6.50	5.52	N/A	21.56	10.13	-0.48	7.41	-4.56	26.31	2.66	N/A	N/A	N/A
Excess Statistics	Ann	ualized En	ded 6/30/2	2021			Frequency of Succe	***		14.20	Monthly 7	Autom International Small Cap Netodic & Growth of a Dollar R June 30, 2018 - June 30, 2021	Equity Stategy Interne	
Manager vs. Benchmark	1 Year	3 Years	5 Years	10 Years	100.00					12.00				220
Tracking Error	8.06	7.78	7.15	N/A	¥ 80.00	-	-			6.00				1.0
Information Ratio	-0.25	0.84	0.77	N/A	ê 60.00 -					420		- her		140
Downside Deviation	5.71	5.57	5.02	N/A	40.00					200				120
Skewness	-0.04	0.10	0.17	N/A	20.00					-200-	1 P.	- H - P		0.00
Kurtosis	-1.87	-0.02	-0.14	N/A	2000					425		- H		0.40
Alpha Beta	6.76 0.74	7.05	6.03	N/A N/A	0.00	ne Year Th	ree Years Fiv	e Years Ter	Years	-10.00				0.00
Residual Risk	7.31	0.93	0.95 7.16	N/A	* Monthly Data					-12.00-		- Contra - C		-4.20
R Squared	0.72	0.87	0.84	N/A		— (lp Market 🛛 📕 Dov	m Market		-16.00				-4.60
Axiom Investors - Axiom	International	Small Can Equ	ity Strategy			Axiom Investore	Axiom International Sr	nall Can Equity Strat		0wc3014	Axiom Investors - Ax			
	Periods as of .		ny suaregy			Cumulativ	e Skill - June 30, 2016 SCI - AC World Ex USA	- June 30, 2021			36-Month Rolling	Skill - November 30, CI - AC World Ex USA	2016 - June 30, 2021	
					33.00	Concentration of	ACT AC HOND LA VIA	County model [search		12.00		CITAC HONG LA CAR		
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					-22.00					-300				
10.00					-33.00					-6.00				
Quarter One Year	- т	hree Years	Five Y	sars	Exce	ss: 5.52 Excess R	Sep 2018 Jun 2 isk: 7.15 Info Ratio:		ec 2020 N: 2.75		ul 2017 Mar 2018	Nov 2018 Jul 201	9 Mar 2020 No	2020
* Monthly Data Axiom Intl Sml Cap Eq.	Shud = 44	World Sm IMI	***		* Standard Deviation		ap Eg Strat — 80%	Culture	_	* Standard Deviation/	Monthly Data — Axiom Ind Sml Ca	- E- Orat - Mit	CasEduca	_
Axiom ind Smil Cap Eq.	ərət 📕 Ak	www.sam.imi	914			Accoming Smill C	ap od batar — 80%	Compense	_	l l	- Assom ins smill Ca	p cq 5888 - 80%	Comidence	

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INTERNATIONAL SMALL CAP MANAGER SEARCH Performance Review

	An	nualized E	nded 6/30/	2021				Annual	Returns					
Historical Returns	1 Year	3 Years	5 Years	10 Years	2020	2019	2018	2017	2016	2015	2014	2013	2012	2011
KAR Inti Sm Cap	47.34	15.33	20.10	N/A	25.96	29.49	-5.32	30.30	22.81	-0.28	-1.92	32.42	24.87	N/A
ACWXUS SG IMI \$N	44.91	11.91	13.29	7.89	23.69	24.62	-18.28	33.63	-0.28	6.49	-3.59	18.52	16.87	-17.86
Risk - Standard Deviation														
KAR Inti Sm Cap	17.81	20.36	16.46	N/A	31.51	11.22	11.58	7.01	15.87	14.23	8.65	11.39	14.29	N/A
ACWxUS SG IMI \$N	14.64	20.61	16.88	16.01	30.57	12.18	13.94	3.75	15.07	12.35	9.51	11.58	16.31	19.76
Risk - Semi-Variance														
KAR Inti Sm Cap	11.19	15.20	12.32	N/A	24.84	8.45	8.21	4.35	11.94	9.83	5.86	7.96	12.12	N/A
ACWxUS SG IMI \$N	9.36	15.66	12.90	12.06	24.06	9.20	11.07	3.09	10.47	8.12	6.33	8.16	13.16	14.40
Excess Returns					·									
Arithmetic Excess	2.43	3.42	6.81	N/A	2.27	4.87	12.96	-3.33	23.09	-6.77	1.67	13.90	8.00	N/A
Geometric Excess	1.68	3.06	6.01	N/A	1.84	3.91	15.86	-2.49	23.15	-6.36	1.73	11.73	6.85	N/A
Excess Statistics	Ann	ualized En	ded 6/30/2	021			Frequency of Succe			140	Monthly I	th Investment Mperi, LLC - Int Pariodic & Growth of a Dollar R June 30, 2018 - June 30, 2021	emational Small Cap Informe	
Manager vs. Benchmark	1 Year	3 Years	5 Years	10 Years	100.00					U.B.				2.40
Tracking Error	7.05	6.30	6.31	N/A	1 80.00		_	-		1.20		1.1		- 2.10
Information Ratio	0.24	0.49	0.95	N/A	8 60.00 -					430		\sim		150
Downside Deviation	4.88	4.41	4.30	N/A	40.00					200	عبالبطا	بالكارب	يالتاني التر	
Skewness	0.35	0.17	0.24	N/A	40.00					-230 -430		יי וך		0.60
Kurtosis	0.92	0.52	0.31	N/A	20.00					420				0.30
Alpha	-1.79	3.63	7.07	N/A	× 0.00					-10.00				- 0.00
Beta	1.11	0.94	0.91	N/A	One * Monthly Data	Year Thr	ee Years Five	e Years Ter	1 Years	1200 1400				-0.60
Residual Risk	7.14	6.22	6.11	N/A	monory cata					-16.00				-0.90
R Souared	0.84	0.91	0.86	N/A			p Market 📕 Dow	m Market		-20.00 Dec 2016	Jun 2017 Dec 2017 Jun 2	214 Dec 204 Aur 2019	0ec2019 Jun 2020 D	
Kayne Anderson Rudnick Cumular	Investment Mgmt tive Periods as of		tional Small Ca	p		Cumulative	k Investment Mpmt, I. Skill - June 30, 2016	June 30, 2021			36-Month Rolli	ing Skill - June 30, 20		
50.00					33.00	Benchmark: MSCI -	AC World Ex USA Sm	all Growth Index (\$N	et)	12.00	Benchmark: MSCI - /	AC World Ex USA Sm	all Growth Index (\$N	(1)
40.00					22.00					9.00		\sim		
30.00					11.00	~				\$ 6.00			\sim	A
2 20.00					\$ 0.00					3.00	~~~			
20.00					3.11.00					A 0.00				
10.00					-22.00					-3.00				
					-33.00 Ma	2017 Dec 2017	Sep 2018 Jun 2	019 Mar 2020 D	ec 2020	-6.00		~		~

* Monthly Data

Quarter

One Year

KAR Intl Sm Cap

Three Years

ACW/xUS SG IMI \$N

Five Years

Mar 2017 Dec 2017 Sep 2018 Jun 2019 Mar 2020 Dec 2020

- KAR Ind Sm Cap - 80% Confidence

* Standard Deviation/Monthly Data

* Standard Deviation/Monthly Data

Excess: 6.01 Excess Risk: 6.31 Info Ratio: 0.96 T-Stat: 2.13 N: 1.81

- KAR Ind Sm Cap - 80% Confidence

Performance Review

	An	nualized E	nded 6/30	/2021	Annual Returns											
Historical Returns	1 Year	3 Years	5 Years	10 Years	2020	2019	2018	2017	2016	2015	2014	2013	2012	2011		
WCM Intl Sml Cap Grwth	56.04	27.54	26.85	N/A	58.55	45.72	-10.12	43.98	0.93	26.41	N/A	N/A	N/A	N/A		
ACWxUS Sm IMI \$N	47.04	9.78	11.97	7.02	14.24	22.42	-18.20	31.64	3.91	2.60	-4.03	19.73	18.52	-18.50		
Risk - Standard Deviation																
WCM Intl Sml Cap Grwth	16.71	23.91	19.72	N/A	32.66	12.12	21.37	7.17	14.23	12.19	N/A	N/A	N/A	N/A		
ACWxUS Sm IMI \$N	15.72	21.04	17.12	16.33	32.21	12.27	12.68	3.49	15.01	12.78	9.48	11.95	17.39	19.51		
Risk - Semi-Variance																
WCM Intl Sml Cap Grwth	10.55	17.48	14.43	N/A	24.21	8.77	17.66	5.08	9.82	10.08	N/A	N/A	N/A	N/A		
ACWxUS Sm IMI \$N	9.83	16.28	13.30	12.37	25.49	9.21	9.78	2.59	10.37	7.97	6.53	8.54	13.93	14.39		
Excess Returns																
Arithmetic Excess	9.00	17.76	14.88	N/A	44.31	23.30	8.08	12.34	-2.98	23.81	N/A	N/A	N/A	N/A		
Geometric Excess	6.12	16.18	13.29	N/A	38.79	19.03	9.88	9.37	-2.87	23.21	N/A	N/A	N/A	N/A		
	App	ualized En	ded cipor	0004	Frequency of Success					WCM Investment Managament - International Small Cap Growth						

Annualized Ended 6/30/2021									
1 Year	3 Years	5 Years	10 Years						
7.54	9.94	9.31	N/A						
0.81	1.63	1.43	N/A						
5.32	7.07	6.48	N/A						
-0.03	-0.06	0.13	N/A						
-0.94	0.68	0.47	N/A						
8.12	15.86	13.12	N/A						
0.94	1.04	1.02	N/A						
7.74	9.83	9.26	N/A						
0.79	0.83	0.78	N/A						
	1 Year 7.54 0.81 5.32 -0.03 -0.94 8.12 0.94 7.74	1 Year 3 Years 7.54 9.94 0.81 1.63 5.32 7.07 -0.03 -0.06 -0.94 0.68 8.12 15.86 0.94 1.04 7.74 9.83	1 Year 3 Years 5 Years 7.54 9.94 9.31 0.81 1.63 1.43 5.32 7.07 6.48 -0.03 -0.06 0.13 -0.94 0.68 0.47 8.12 15.86 13.12 0.94 1.04 1.02 7.74 9.83 9.26						







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Performance Review

	Ani	nualized Er	nded 6/30/	/2021				Annual	Returns					
Historical Returns	1 Year	3 Years	5 Years	10 Years	2020	2019	2018	2017	2016	2015	2014	2013	2012	2011
WILL BLR INTL SML GRWTH	44.89	15.11	14.84	10.15	30.95	35.87	-23.27	34.21	-3.00	10.95	-6.62	28.85	21.70	-10.44
ACWxUS Sm IMI \$N	47.04	9.78	11.97	7.02	14.24	22.42	-18.20	31.64	3.91	2.60	-4.03	19.73	18.52	-18.50
Risk - Standard Deviation					_									
WILL BLR INTL SML GRWTH	16.06	21.48	17.71	15.87	30.15	13.07	14.64	5.08	15.14	9.48	9.70	10.27	13.53	18.91
ACWxUS Sm IMI \$N	15.72	21.04	17.12	16.33	32.21	12.27	12.68	3.49	15.01	12.78	9.48	11.95	17.39	19.51
Risk - Semi-Variance														
WILL BLR INTL SML GRWTH	10.29	16.00	13.17	11.77	23.53	9.94	11.83	3.75	10.23	6.47	6.65	7.16	11.63	13.43
ACWxUS Sm IMI \$N	9.83	16.28	13.30	12.37	25.49	9.21	9.78	2.59	10.37	7.97	6.53	8.54	13.93	14.39
Excess Returns														
Arithmetic Excess	-2.15	5.33	2.87	3.13	16.71	13.45	-5.07	2.57	-6.91	8.35	-2.59	9.12	3.18	8.06
Geometric Excess	-1.46	4.86	2.56	2.92	14.63	10.99	-6.20	1.95	-6.65	8.14	-2.70	7.62	2.68	9.89
Excess Statistics	Ann	ualized En	ded 6/30/2	021			Frequency of Su				Munthly	Ner - International Small Cap (Periodic & Growth of a Dollar I		
Manager vs. Benchmark	1 Year	3 Years	5 Years	10 Years	100.00					14.00		Anne 30, 2016 - June 30, 2021	- L	210
Tracking Error Information Ratio Downside Deviation Skewness Kurtosis Alpha Beta Residual Risk R Souared	7.42 -0.20 5.16 0.04 -1.47 1.73 0.90 7.55 0.78	6.59 0.74 4.51 0.28 0.42 5.09 0.97 6.53 0.91	5.42 0.47 3.57 0.57 1.64 2.71 0.99 5.39 0.91	5.13 0.57 3.50 0.33 0.97 3.40 0.92 4.96 0.90	40.00 10 10 10 10 10 10 10 10 10			Tive Years T own Market	en Years	000 000 000 000 000 000 000 000 000 00	An 2017 Dec 2017 An		04.207 (14.200)	100 100 100 100 100 100 100 100 100 100
William Blair - Ini Cumulative P 40.00 30.00 30.00		20.00 poppy write 10.00	Cumulat	Biair - International S ive Skill - June 30, 20 MSCI - AC World Ex U			6.00 4.00 2.00 sequeration	36-Month Rolli	ir - International Sma ng Skill - June 30, 20 Cl - AC World Ex USA	16 - June 30, 2021	~~~~			

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Quarter

One Year

WILL BLR INTL SML GRWTH ACWkUS Sm IMI \$N

Three Years

Five Years

10.00

* Monthly Data

Mar 2017 Dec 2017 Sep 2018 Jun 2019 Mar 2020 Dec 2020

- WILL BLR INTL SML GRIVTH - 80% Confidence

Mar 2017 Dec 2017 Sep 2018 Jun 2019 Mar 2020 Dec 2020

Excess: 2.57 Excess Risk: 5.42 Info Ratio: 0.47 T-Stat: 1.06 N: 7.29

- WILL BLR INTL SML GRWTH - 80% Confidence

-4.00

Standard Deviation/Monthly Data

Standard Deviation/Monthly Data

Manager Evaluations





Wilshire Manager Research Team

January 27, 2021

Manager Research

American Century Investment Management, Inc.

Non-U.S. Small Cap

Summary

Rating Decile 3rd 100%

American Century s Non-U.S. Small Cap ex-EM strategy is based on fundamental, bottom-up investing to target quality growth companies experiencing a sustainable earnings growth. The approach focuses on identifying inflection points in a company s earnings profile rather than emphasizing its absolute level of growth for stock selection. The strategy is led by seasoned investors Trevor Gurwich, Federico Laffan, and Pratik Patel who are supported by a team of eight analysts. This process results in a diversified growth portfolio consisting of approximately 100 135 names with an intended alpha target of 3-4% amid a tracking error range of 6 8% relative to the MSCI EAFE Small Cap Index. The portfolio is expected to exhibit high turnover of between 100 150% per year as the manager is nimble in re-orienting the portfolio in favor of areas experiencing a sustainable change in earnings growth.

In early 2019, the firm rolled up the Non-US Small-Mid strategy into this strategy after a review of their product suites. The Small-Mid strategy no longer exists, but the same process and philosophy are used in managing this Non-US Small Cap strategy.

	Rating Decile	Weight
I. Organization	3rd	20%
Fim	3rd	50%
Team	3rd	50%

American Century Investment Management, Inc. ACIM was founded in 1958 in Kansas City, MO, and originally operated under the name Twentieth Century Investors. The original founder, James Stowers, Jr., unfortunately passed away in 1Q14 and his family along with the Stowers Institute of Research (focused on cancer and gene-based diseases research), maintains a 44% equity stake and 70% of the voting rights. The firm pays out more than 40% of its dividends to the Stowers Institute. The next largest owner is Nomura Holdings Inc., with 40% economic interest and 10% of the voting stock. This stake was previously owned by CIBC, a leading Canadian financial institution, which had originally purchased its stake from JPM in August 2011. However, CIBC sold its stake to Nomura in 4Q15 for \$1B after unsuccessful attempts to acquire more ownership. The transaction closed in May 2016. Employees hold the remaining percentages.

Based in the firm s New York office, the Non-U.S. Small Cap team is led by portfolio managers Trevor Gurwich, Federico Laffan, and Pratik Patel. All three individuals are experienced investors on the team and in the asset class, and are supported by eight dedicated non-U.S. small analysts who have coverage divided by region. The team is also able to leverage the insights of the roughly 20 other investors in the New York office who manage the firm s Global Growth, Non-U.S. Growth (large cap), and Emerging Markets strategies under the same process. This strategy and the others mentioned are all under the oversight of Keith Creveling, CIO of Global & Non-U.S. Equity and lead PM of Global Growth.

From 2014 until April 2018, the strategy was co-managed by lead/Senior PM Brian Brady and Mr. Patel, as PM. However, Mr. Brady who had been with the firm since 1994 was unexpectedly asked to leave the firm after it performed a review of its investment team. A previously existing Non-US SMID strategy (co-managed by Messrs. Brady and Patel) was rolled up into the Non-US Small Cap strategy and it was at this time that the strategy changed to a three PM structure, with Messrs. Gurwich and Laffan joining Mr. Patel as named PMs. The team has seen muted turnover at the analyst level in recent years, with the most recent departure occurring in March 2019 and the replacement joining at the end of the year. The turnover has hampered the team rating, but the team is well resourced and led by an experienced PM team that has added value over the long term, resulting in an above-average rating.

American Century Investment Management, Inc.

Non-U.S. Small Cap

II. Information

The team follows a fundamental, bottom-up approach to information gathering with small caps defined as the smallest 15% of companies per country. The team is looking for companies with accelerating earnings trends, revenue growth, and sufficient liquidity. With these companies, the team employs in-depth fundamental research, which incorporates financial statement analysis and meetings with management. American Century s global and non-U.S. teams, combined, conduct approximately 2,000 management visits annually. The teams will also meet with competitors, suppliers, and customers to provide comparative insights with industries. Roughly 85% of research is generated internally by the team s analysts located in New York. The remainder of the research is complemented by third-party research from bulge bracket firms and data sources such as Bloomberg. The team s information gathering effort is well resourced in the Non-U.S. Small Cap space, resulting in an above-average rating.

	Rating Decile	Weight
III. Forecasting	2nd	20%

The Non-U.S. Small Cap ex-EM strategy uses a traditional growth process intended to identify companies with sustainable acceleration in revenues and earnings. As such, the process begins with a proprietary initial screen designed to identify acceleration within companies in the bottom 15% market capitalization by country. The team builds out earnings models for stocks deemed to have sustainable growth potential, with analyst recommendations based on four attributes: inflection, sustainability (12 18 month time horizon), gap (in earnings estimates vs. market expectation), and valuation. Ultimately, the team arrives at a portfolio list of between 100 135 stocks and each analyst maintains a follow list of around 50 75 companies. Additionally, there are around 50 names that are debated continuously for inclusion, though this number fluctuates as the opportunity set changes.

The team s forecasting approach exhibits consistency and repeatability, especially in a market segment that is relatively inefficient and allows for value to be added from security selection. The portfolio typically exhibits a larger-cap bias relative to the MSCI EAFE Small Cap Index and a universe analysis shows top performance over longer time periods. Forecasting receives an above average rating.

	Rating Decile	Weight
IV. Portfolio Construction	3rd	20%

The portfolio is constructed from the bottom-up to hold approximately 100 135 securities. Weightings of individual securities in the portfolio are as a result of conviction, with maximum positions constrained to an active weight of +3% over the benchmark. Additionally, regional (excluding EM) and sector exposures are constrained to +/-10% over the benchmark weight. Tracking error is expected to range between 6 8% and out-of-benchmark names typically make up roughly 20% of the portfolio. The team employs FactSet and the BARRA GEM-2 model for risk analysis and attribution. Sell decisions are made by the portfolio managers and primarily driven by a change in investment thesis with risk considerations playing a secondary role.

Overall, the portfolio construction process is fairly subjective, with the final decision up to the portfolio managers. By way of the process, the portfolio exhibits a growth orientation and has traditionally exhibited a lower weighted average market cap than peers. Portfolio construction receives an above-average rating.

Weight

20%

Rating

Decile

3rd

American Century Investment Management, Inc.

Non-U.S. Small Cap

V. Implementation

American Century s international trading desk and four international traders are based in the firm s New York office. The trading team is led by Chris Spurlock and, relative to peers, is very experienced with each trader possessing over 20 years of experience. This team is not dedicated to the Non-U.S. Small Cap strategy, but instead is responsible for trading each of the strategies managed out of the New York office.

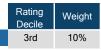
The firm has an integrated trading platform, giving it the ability to measure best execution and trading efficiency on both a trade-by-trade basis and from a holistic standpoint. The firm uses a proprietary order management system which connects it to most brokers and alternative trading platforms via a variety of financial information exchange connections. Through its alternative trading systems and ECNs, the firm has access to numerous trading options allowing them to execute the best trades available. Trading costs are monitored and analyzed using proprietary systems and compared to analysis done by Virtu, a third-party TCA consultant. Compliance, both pre- and post-trade, is monitored and ensured by the Fidessa Sentinel system, and soft-dollar arrangements are used by the firm. Annual dollar turnover is expected to average between 100 150%, and capacity for the strategy is estimated to be \$2.5 billion by the team. The firm has adequate trading systems in place to manage a product that navigates in a less liquid market segment, resulting in an above-average rating for implementation.

	Rating Decile	Weight
VI. Attribution	3rd	10%

The benchmark used for the Non-U.S. Small Cap strategy is the MSCI EAFE Small Cap Index. Relative to this benchmark, the team aims to provide 3 4% in excess returns annually over a full market cycle. The firm uses FactSet as its primary performance attribution tool, and in review of the attribution the team focuses on the contributions to performance from security, industry, and sector decisions. The team also employs the use of the BARRA GEM-2 model for risk analysis and attribution, and spends a considerable portion of time reviewing its risk budget. Attribution efforts by the team receive an above-average rating.

					Rat	ting	1 54			
Decile	1	2	3	4	5	6	7	8	9	10
Corresponding Grade	1	A		В		С)		F

54



American Century Investment Management, Inc.

Non-U.S. Small Cap

Firm Information	
American Century Investment Management, Inc. 4500 Main Street Kansas City, MO-64111	CONTACT : Marek Michejda
USA	Phone: (650) 967-9804 Email: <u>marek_michejda@americancentury.com</u>

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Axiom Investors

Axiom International Small Cap Equity Strategy

Summary

Axiom's International Small Cap Equity strategy offers an attractive growth-oriented approach to investing in ex-U.S. small cap markets. The strategy is managed by lead portfolio manager Matt Franco and co-portfolio manager Yogesh Borkar, who are supported on the strategy by the firm's 15-person equity analyst and research associate pool. Mr. Franco has been with the firm since inception in 1998 and Mr. Borkar most recently served as an associate portfolio manager on similar products at Pyramis (Fidelity) before joining Axiom in 2013. Both PMs are owners of the firm and average nearly 25 years of investment experience in the asset class.

The investment process, used on all strategies at the firm, focuses on identifying key business drivers for each company. Since these drivers can vary from stock to stock, the team collects volumes of pointed data and spends much of its time on this phase of the process. The eventual application of the data is not systematic in nature, but rather is based on bottom-up fundamentals with the goal of identifying what specifically will drive each business over the next 12-18 months. The resulting portfolio will hold between 60 and 100 stocks that are conviction-weighted based on a rating matrix used in the process. The goal of the portfolio is to add 300 bps over the MSCI ACWI ex-U.S. Small Cap Index over a full market cycle. Tracking error is not targeted in the process, and specific portfolio construction guidelines relative to the benchmark are fairly loose relative to peers. As a result, tracking error has ranged between 67% per year but the strategy has also shown notable downside protection in past. The team's focus on data monitoring and analysis enables quick movements in and out of securities that leads to an expected turnover of roughly 100% per year.

Despite the short track record of the strategy since inception in 2014, Wilshire has high conviction in the firm and investment process employed through our due diligence on this and other Axiom strategies. To this point, Wilshire has high conviction opinions of several other strategies managed by the firm. The International Small Cap Equity strategy is a logical extension of the process to capitalize on the vast opportunity set in ex-U.S. small cap markets. Assets in the strategy as of June 2017 are roughly \$270 million, making capacity constraints a non-issue for clients today.

Rating Decile 1st 100%

April 28, 2020

Wilshire Manager Research Team

	Decile	weight
I. Organization	1st	20%
Fim	1st	50%
Team	1 <i>st</i>	50%

Established in Greenwich, CT in 1998, Axiom International Investors is an independent investment advisor specializing primarily in global, international, and emerging markets equity strategies. The firm also offers several long-short investment strategies as well as a long-only US Small Cap Equity strategy. Firm ownership is held in its entirety by current employees, with the largest shareholder being founder and CIO Andrew Jacobson. The remaining ownership stake is distributed across approximately 20 of the firm's employees, with intentions to continue broadening employee equity participation. Employee compensation is a function of base salary, semi-annual bonus, profit-sharing plan, and equity ownership. All Axiom strategies are uniformly managed by the same process with \$14.6 billion in firm-wide assets as of June 2020.

The International Small Cap strategy is led by lead portfolio manager Matt Franco and co-portfolio manager Yogesh Borkar. Both PMs are owners of the firm and average nearly 25 years of experience. Mr. Franco was one of the founding members of the firm in 1998 and launched this strategy in 2014. He has also led the firm's International Micro Cap Fund (long/short) and Global Micro Cap Fund (long/short) since inceptions in 2004 and 2008, respectively, as well as co-managed the U.S. Equity Small Cap strategy since inception in 2007. Conversely, Mr. Borkar joined the firm in 2013 after most recently serving as associate PM for eight years at Pyramis (Fidelity) and devotes 100% of his time to this strategy. The two portfolio managers have ultimate decision-making authority and act as senior generalist researchers who are expected to generate roughly 50% of the new investment ideas for the strategy.

The PMs are supported by the firm's experienced team of seven global sector analysts and six junior, generalist research associates. The analysts are tasked with contributing new ideas within their sectors for all strategies firm-wide. While some analyst turnover has occurred in the past, the majority of the turnover took place in 2012-2013 when the firm purposely restructured the team to create the career-oriented global sector analyst roles in place today. Going forward, the stability of these seven global sector analysts is very important due to their contributions across all strategies. However, any potential turnover at the research associate level is less meaningful as these individuals typically do not possess prior investment experience and do not have specific sector coverage. Positively, the firm continues to attract talented investors to build the team, as recently seen with the hire of experienced health care analyst Carl Brown from Royce & Associates in 2016 to be a global sector analyst on the team.

Overall, the investment team for the International Small Cap strategy is viewed very highly. The PMs have spent the majority of their careers focused on the asset class, and they are supported by a team of veteran sector analysts. It's worth noting that the PMs represent some key-person risk, but their ownership stakes in the firm, among other reasons, should act as powerful retention tools. The organization receives a high rating.

	Rating Decile	Weight
II. Information	1st	20%

Axiom employs a growth-oriented, fundamental, bottom-up approach across its investment strategies. The application of the process is reliant on the collection and parsing of data that contributes to what Axiom calls "key business drivers." Key business drivers are defined as the company-specific, industry, macro, and political factors expected to have a substantial impact on future financial performance. External data represents a portion of the information processed by the analysts, with sell-side research playing an important role. Sell-side research can be used to generate ideas and is used to establish benchmarks against which the analysts can measure their own expectations in determining whether stocks are attractive.

Idea generation is sourced, in roughly equal parts, from meetings with company management, sell-side research, and internal data collection. New ideas developed internally often come through Axware, the firm's proprietary SQL database. Axware tracks, stores, and displays data points relevant to portfolio and universe securities, and much of this Axware data is manually added by team members. For example, a team member may add information, such as strong new product sales, that was alerted to them through brokerage research, meetings with company management, suppliers, vendors, or industry experts. Analysts, portfolio managers, and traders add 50-100 data points per week that they must also rank by relevance upon submission. As data points are added, the ranking of the relevant stock must be verified to ensure a full and proper reflection of the available information. In doing so, the database can be used to observe trends in data and its effects on the related stocks.

The goal of the information gathering effort is to use the vast amount of data available to identify companies showing positive growth that is not yet reflected in expectations or valuations. Through the use of the Axware system, the incorporation of this systematically gathered data with the fundamental insights from the analysts is viewed very positively relative to peers. For this reason, the strategy receives a high rating for information gathering.

					Rat	ting	ا بنا و الول		e - co - co	
Decile	1	2	3	4	5	6	7	8	9	10
Corresponding Grade	А		В		С		D		F	

Axiom Investors

Axiom International Small Cap Equity Strategy

III. Forecasting

The process begins with an investable universe of non-U.S. equities with market caps typically between \$100 million and \$3 billion with coverage by at least one brokerage. The strategy uses the MSCI AWCI ex-U.S. Small Cap Index for performance purposes, but roughly 50% of the investment universe lies outside of this index. The goal of the process is to identify the dozen or so key business drivers critical to each company for analysis; however, these drivers are not standardized and may be company-specific. The present condition of the drivers is then compared to consensus expectations in order to determine growth prospects.

The process targets stocks that have key drivers tracking ahead of expectations and attractive valuations relative to historical levels and peers. Quality is a significant component as well; the portfolio managers prefer companies with histories of strong corporate governance and a high level of managerial control. Inputs into the key driver analysis are comprehensive of a company's operating environment, including not only company-specific and industry factors, but also exchange rate, inflation, and other impactful information.

The key business drivers are analyzed in order to assign an alphanumeric rating to securities. The first part, a letter on a scale of A through E, assesses a firm 's industry presence from Established (A) to Emerging (E). Factors involved in this component of the ratings include profitability, country rating, balance sheet, market cap, and competitive position. The second part, a number from -3 to +3, assesses the dynamism of a firm's aggregate business drivers from most dynamic (+3) to most disappointing (-3). Dynamism captures a company's ability to outperform expectations and is determined through factors such as leading indicators, earnings revisions, valuation, and earnings growth. The ideal portfolio holding is rated A3, though these are incredibly rare. More often than not, the portfolio invests in C2 and D2 rated stocks. In recommending stocks, analysts will create a summary model demonstrating a firm's key business drivers relative to consensus expectations and a ranking worksheet that compares the stock to alternative portfolio holdings. Stocks are evaluated on a 12-18 month time horizon.

While the visible track record only dates back to 2014, the robust process is expected to be driven by stock selection over time. Forecasting rates highly relative to peers.

IV.	Portfc	olio (Construction
IV.			0011311 4011011

The International Small Cap portfolio is comprised of 60-100 conviction-weighted securities. Using the ranking grid described in the process so as to reflect conviction, positions are sized based on the alphanumeric rating assigned to each company. This results in positions that are generally less than 3%, with a maximum limit at 5%. New positions are typically initiated at less than 1% and are built methodically by adding 10-15 bps every two to three days. Sector and industry allocations are constrained to 40%, while individual countries and emerging markets (in aggregate) are constrained to 30%. The exceptions to this are Japan and the U.K., which are allowed up to 45% of the portfolio. All holdings must be covered by at least one sell-side analyst and have an average daily trading value of roughly \$2 million, both of which help to keep the historical non-benchmark exposure low at roughly 20%. Currency exposure is explicitly considered in the research process and, as such, is not hedged at the portfolio level.

As a result of the team's emphasis on constant data collection and monitoring, risk is keenly monitored in the portfolio by way of changing company fundamentals and through the use of Bloomberg Alpha. However, Bloomberg Alpha is not a driver in the portfolio construction process, but instead is used for monitoring of VaR, tracking error, performing stress testing, and the like. The strategy does not specify a tracking error target and the portfolio seeks to add 300 bps over the MSCI ACWI ex-U.S. Small Cap Index over a full market cycle.

Overall, the portfolio is constructed in a benchmark-agnostic approach to reflect the best ideas of the team from the bottom-up. This process affords the team wider portfolio construction guidelines compared to most peers. In addition, while risk is closely managed from a stock fundamentals perspective, specific tools and risk management processes are slightly lacking compared to similar peers. Portfolio construction efforts by the team still rate above-average, but our rating is mitigated for these reasons.

Rating

Decile 3rd Weight

20%

Axiom Investors

Axiom International Small Cap Equity Strategy

V. Implementation

Trading is performed by a 24-hour desk of four experienced traders at the firm. This trading team is led by head trader Melinda Luc, and individual trading responsibilities on the desk are arranged by region. Relative to peers, this team is very experienced and tenured, averaging 20 years of trading experience and 13 years of tenure at the firm. In February 2017, the firm reduced the trading staff from five to four individuals when it let go of trader Sal LoCascio. Mr. LoCascio shared responsibility for trading Asia and Japan with trader Michael DeCarlo. This reduction was due to new technology added by the firm that increased automation on the desk, making the dual-coverage of Messrs. LoCascio and DeCarlo unnecessary. As a result, the firm decided to retain Mr. DeCarlo who possesses over 25 years of experience, compared to the 10 years of experience of Mr. LoCascio.

Traders manage order flow and work trades through the Eze Castle Traders Console. Traders Console enables a fully automated trading process complete with internal pre- and post-trade compliance capabilities. Trades are typically executed with traditional brokers, in dark pools, or in crossing networks such as Liquidnet. While Axiom does not contract with any third parties to monitor trade efficiency, Ms. Luc is charged with doing so internally by examining daily trade blotters and comparing execution prices versus VWAP. Soft dollar transactions are used and typically represent a small percentage of all commissions. Relative to peers, turnover in the strategy is higher at roughly 100% per year. However, this is not a concern for Wilshire as it is a result of the team's process of continually adding/trimming names to reflect conviction. Capacity for the strategy is estimated to be around \$2 billion, which at assets of roughly \$490 million as of September 2018, is not a concern for clients today.

The implementation efforts at the firm are deep and experienced relative to international small cap peers. Wilshire views this favorably as trading, by way of the higher turnover investment approach, is integral to the process used across the firm. While some international small cap peers possess dedicated traders for their strategy, Axiom's focus on improving the trading efforts as a whole and the experience of the team makes up for this fact. Furthermore, three of the four traders are owners of the firm, which should provide stability to this team going forward. Implementation receives a high rating.

	Rating Decile	Weight
VI. Attribution	1st	10%

Attribution analysis is performed using Bloomberg and FactSet. Typically run on a monthly and quarterly basis, the analysis is primarily used to identify any key market changes the team may have missed that could lead to changes on the margin. Beyond traditional attribution analysis, formal investment meetings are held twice daily: once for the product and once for the firm-wide team. In addition, the team has a formal weekly portfolio review where they reassess portfolio positioning and analyze potential holdings. Lastly, the team examines its stock ratings by reviewing up-down revisions on a quarterly basis to assess the accuracy and quality of its analytical work.

Attribution is also used for individual performance evaluation on a bi-annual basis. While the majority of an individual's bonus is tied to firm-wide performance, roughly 25% of the sector analysts' bonuses are tied to the performance of their ideas for alignment with clients.

Attribution efforts at the firm receive a high rating. Individuals on the team on monitored regularly and rewarded for their contributions, and the attribution itself is discussed by the team to identify any shortcomings of the process or decisions made in order to avoid similar mistakes in the future.

	Rating									
Decile	1	2	3	4	5	6	7	8	9	10
Corresponding Grade	А		В		С		D		F	

Weight

33

Rating

59

Axiom Investors

Axiom International Small Cap Equity Strategy

Firm Information	
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Wilshire Manager Research Team

November 17, 2020

Manager Research

Kayne Anderson Rudnick Investment Mgmt, LLC

International Small Cap

Summary

Rating
DecileWeight3rd100%

The KAR International Small Cap strategy was incepted beginning in 2012 and takes a concentrated, benchmark-agnostic approach to investing in the space with a focus on high quality stocks with strong business models. The final portfolio typically holds between 40 - 50 stocks and tracking error has fallen between 5 - 7% historically. A team of four individuals is tasked with managing the strategy and takes a generalist approach to coverage. Prior to any valuation work, the team assesses the quality of the business from both a financial and competitive perspective, favoring companies in predictable industries that are experiencing tailwinds. The team takes a mosaic approach to valuation and uses relative and absolute metrics. Consensus is generally reached when adding a name to the portfolio, but Craig Thrasher holds decision making authority in the rare instances where the team does not reach consensus. The strategy tends to hold companies for at least three years and turnover is consistently below the peer average, with 10 - 15 new ideas being added to the portfolio on an annual basis. Overall, the strategy is viewed favorably within the international small cap space.

	Rating Decile	Weight
I. Organization	4th	20%
Fim	4th	50%
Team	4th	50%

Kayne Anderson Rudnick Investment Management (KAR) was founded in 1984 by Richard Kayne and John Anderson. The traditional investment-management business began in 1989 when Allan Rudnick joined the firm. In 2000, the name of the firm officially changed from Kayne Anderson Investment Management to KAR. Today the firm includes both investment management and wealth management businesses. The firm officially changed from Kayne Anderson Investment Management to KAR. Today the firm includes both geographies. KAR has also experienced notable asset growth with total firm AUM increasing from \$9B at the end of 2014 to ~\$56B as of 1Q21. Firm assets are broadly diversified across institutional (approximately 42%), retail/model portfolio (approximately 40%), and high net worth (approximately 18%) clients.

KAR is a wholly owned subsidiary of Virtus Investment Partners (NASDAQ: VRTS). In 2002, the firm sold a majority ownership to VRTS (aka Phoenix Investment Partners, Ltd) with the balance being sold to VRTS in 2005. VRTS completed its spin-off from The Phoenix Companies Inc. at the end of 2008, and it is currently an independent, publicly traded asset management firm. It should be noted that KAR operates under a revenue-sharing agreement with the parent company and largely functions as an autonomous investment boutique with control over its own operating expenses, opening/closing strategies, and personnel decisions.

Investment professionals are compensated with competitive base salaries and bonus potential. The overall bonus pool for the firm is determined by the profitability of KAR with bonuses for portfolio managers directly tied to 1-, 3-, and 5-year performance of managed strategies relative to both the benchmark and peer group. Additionally, 15% of the bonus for portfolio managers is paid in VRTS stock which vests over a 3-year period. However, starting in 2018, portfolio managers will have the opportunity to take VRTS stock or invest this portion of the bonus in their own investment strategies. While there have been some concerns in the past regarding KAR s autonomy and retail-oriented client base, the firm has made positive strides over the past 5 years to grow the firm s institutional business and continues to demonstrate autonomous decision-making abilities. Overall the firm is noted for its personnel stability, performance-driven investment culture, and disciplined asset growth.

A team of four individuals is responsible for the International Small Cap (ISC) strategy. The portfolio is co-managed by Craig Thrasher and Hyung Kim, who each have over 15 years of experience and have been with the firm for twelve and three years, respectively. Mr. Thrasher began running the portfolio in 2012 and was an analyst at the time. Craig Stone, a PM on KAR s US portfolios, co-ran the portfolio with Mr. Thrasher until 2017, though Mr. Thrasher was essentially the lead PM during this time. In 2017, Mr. Stone stepped down from his ISC portfolio duties to focus his attention on the firm s US portfolios. Mr. Kim was added as a Co-PM to the strategy beginning in 2019. The two PMs manage other strategies at the firm and, when called for, Mr. Thrasher remains the lead in decision-making for the ISC portfolio. It is worth noting that Mr. Kim takes the lead for the firm s EM Small Cap strategy as well. The PMs are supported by two analysts in Ekaterina Advena and David Forward, who have been with the firm for five and two years, respectively. Portfolio managers and analysts have research responsibilities and the team takes a generalist approach to dividing coverage. The team experienced one departure in 2016 and this individual was replaced by Mr. Kim in 2017. The team is relatively small but focuses on a narrow subset of the ISC universe, which limits concerns around the smaller team size. The team rates slightly above average for these reasons.

Kayne Anderson Rudnick Investment Mgmt, LLC

International Small Cap

II. Information

The team applies a fundamental, bottom-up approach to investing that is grounded in independent research on specific companies. The research philosophy is founded on the principle that high-quality companies will outperform lower quality companies over a complete market cycle. On average, each PM covers approximately 10 - 15 companies analysts cover about 20 - 25 names. Idea generation is typically generated by the analysts who will then work closely with the PMs for further vetting; however, PMs can also push ideas to the analysts for further assessment. The majority of the research is performed internally by the investment team. To gather independent information, the team will meet with company management, attend major company sponsored analyst meetings, attend quarterly research calls, and conduct on-site meetings with competitors. However, management meetings are not required prior to investing. The team also will use external research sources such as Wall Street research, company annual reports, and SEC filings to add additional insight into the company evaluation. In addition, KAR leverages Bloomberg, FactSet, and Reuters for information sources. Overall, the firm boasts a strong research culture and a systematic approach to investing. Given the concentrated, low turnover investment approach, the investment team can achieve considerable depth when researching investment candidates. Information gathering rates highly.

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			- L.C	151	

The team uses FactSet and Bloomberg in screening for quality companies in the universe, but most of the investment ideas are sourced from company meetings, conferences, and the other aspects of the team s bottom-up due diligence. The process begins with an assessment of the business model sustainability and overall quality of the company, which is driven by the management team, company culture, balance sheet strength, and tailwinds within the stock s industry. The process prefers to invest in industries that exhibit consistency, where industry leaders tend to remain the leaders. The valuation component of the process incorporates a variety of metrics on both an absolute and industry-relative basis, with a preference for superior capital allocation and free cash flow generation. The result of this is a set of target prices and a formal research report. The team updates research on holdings on a quarterly basis and will formally review a position upon a negative event. Sells may be triggered by a significant premium to intrinsic value, a decline of 20% or more, or the emergence of a better investment idea.

The strategy s performance ranks well among ISC peers. The focus on quality companies has protected from drawdowns on both a calendar-year and trailing period basis. The core approach has historically exhibited lower P/E and debt levels than the benchmark with a higher ROE and weighted average market cap. Performance is designed to outperform in most environments and may struggle in more macro-driven markets or when international inflation is high and foreign currencies are depreciating. Forecasting rates highly relative peers.

	Rating	Weight
	Decile	roigin
IV. Portfolio Construction	3rd	20%

The strategy is benchmarked against the MSCI ACWI ex-US Small Cap Index and the final portfolio may hold between 30 - 60 stocks. Tracking error has historically fallen between 5 - 7% and the strategy has outperformed the benchmark meaningfully since inception. Positions may be initiated between 1 - 5% and may appreciate up to 10%, at which point they are trimmed. Sizing is ultimately driven by a stock s upside potential and the overall quality assessment with the final decision resting with the PMs, though Mr. Thrasher holds veto power in the rare instances that consensus is not reached. The portfolio is benchmark-agnostic, but the team seeks to be diversified across geographies and sectors, and the final construction will be always be driven by bottom-up analysis. The strategy is typically a longer-term holder of companies and averages a holding period between 3 - 5 years, though some names have been held as long as nine years. The EM exposure has ranged between 15 - 30% and the holdings are limited to a market cap of \$10 billion.

The team uses MSCI Barra risk models for risk management on monitoring the portfolio s exposures overall; however, risk is primarily managed throughout the strategy s fundamental process that focuses on high quality companies with durable business models. The PMs are responsible for liquidity monitoring and regularly work with the trading to determine the appropriate method and timeframe for executing a trade.

Sector weights may deviate significantly from the benchmark due to the index-agnostic approach, and the strategy has historically favored sectors like IT, industrials, and communication services. The utility, materials, and real estate sectors have been persistent underweights. As a conviction-weighted portfolio, the portfolio tends to have a 30 - 40% concertation in the top ten names with a tail of holdings with smaller weights. Historically, the standard deviation of the portfolio has been in-line with benchmark while providing Sharpe ratios and information ratios above peer averages. Portfolio construction receives an above average rating.

Rating

Decile

1st

Weight

20%

Kayne Anderson Rudnick Investment Mgmt, LLC

International Small Cap

V. Implementation

KAR employs four generalist equity traders that are responsible for implementing all trades for each of the firm s equity portfolios. The team utilities Fiserv APL STP via FIX for individual and wrap accounts as well as proprietary wrap trading platforms for some sponsors and Longview trading system for mutual funds and institutional investors. Trades are initiated by the portfolio manager and communicated to the traders through the Access database. KAR utilizes both human and electronic channels to maximize reach while attempting to minimize impact on the market. For transaction cost analysis, the firm has established an internal "Best Execution Committee" that evaluates and documents the firm s best execution practices and monitors broker quality and performance. Global Trading Analytics is also utilized to provide an external TCA report. Annual turnover for the strategy is below average typically falling between 25 - 5% The firm utilizes soft dollars with approximately one-third of trading volume being conducted via soft dollar relationships. The strategy remains open as assets have reached \$2.2 billion and capacity is estimated to be \$2 - billion. Capacity management should be closely monitored given the overlap in holdings across the firm s global small cap and non-US SMID cap strategies.

	Rating Decile	Weight
VI. Attribution	4th	10%

KAR employs FactSet analytics software to monitor the relative performance and risk of each portfolio in relation to the benchmark. Attribution is available on a daily, weekly, monthly, and quarterly basis by sector as well as by various characteristics. During weekly research meetings, the team formally discusses and evaluates prior decisions that were unsuccessful and determines ways to avoid similar occurrences in the future.

		Rating								
Decile	1	2	3	4	5	6	7	8	9	10
Corresponding Grade	A		В		С		D		F	

Kayne Anderson Rudnick Investment Mgmt, LLC

International Small Cap

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Wilshire Manager Research Team

October 20, 2020

Manager Research

WCM Investment Management

International Small Cap Growth

Summary

WCM's International Small Cap Growth strategy uses a process consistent across the firm that ultimately builds a portfolio of companies with strong economic moats, positive work cultures, and sector tailwinds. The process starts by reducing the vast non-US small cap universe down to roughly 4500 names through a market cap and financial strength screen, eliminating companies perceived as unpredictably valued. The subsequent screen introduces rising margins and ROIC, low debt levels, and consistent, sustainable growth. With this universe of roughly 300 names, analysts are given the freedom to pick what they perceive as strong candidates and produce a DCF model, which is the primary valuation method, and a write-up that is shared with the broader team. With the team's feedback, analysts can complete the research on a given stock, where it may then be placed on either the Focus List or the Short List. The final portfolio is constructed by the Investment Strategy Group of five PMs with weighting driven by a stock 's relative value and moat trajectory. In the case of the between two attractive investment options, the company's culture is often the tiebreaker. Between 50 - 70 names are held at any given time and positions are typically initiated at 2%. Capacity for the strategy is estimated to be \$2 billion and AUM as of June 2020 was around \$600MM.

	Rating Decile	I vveidht
I. Organization	1st	20%
Fim	1st	50%
Team	1st	50%

WCM Investment Management is an equity long-only investment management firm located in Laguna Beach, CA that was founded in 1976. In 1998, the firm's leadership completed an employee-led buyout, purchasing 100% of the firm's equity from its founder. More recently, the firm decided to sell a 24.9% equity stake to French-based Natixis Investment Management in July 2018 which stands to provide the firm with distribution in overseas markets. The transaction and strategic partnership is not intended to disrupt the autonomy of the firm, rather it should provide the manager with access to a broader client opportunity set. The Natixis equity stake will hold at 24.9% with no remaining capacity for the passive owner to take on a longer stake. WCM will thus remain majority employee owned by its two key principals: Paul Black and Kurt Winrich. Other key owners of the firm's ownership with the remainder held by other employees. The firm's compensation package includes a base salary, bonuses tied to overall company success and individual performance. Overall, we view this organization in high regards due to its attractive ownership structure, personnel compensation package, the experience level of its senior investment personnel, and the firm's stability since the employee-led buyout.

The Investment Strategy Group (ISG) consists of five senior investment professionals (Pete Hunkel, Mike Trigg, Sanjay Ayer, Greg Ise, Mike Tian) and is ultimately responsible for managing the firm's strategies. The International Small Cap strategy was incepted in 2014 by Sanjay Ayer and Greg Ise, who are the lead PMs for this portfolio and require unanimity when making and buy and sell decisions. Ten additional Business Analysts (averaging over ten years of experience), a Business Culture Analyst, and a Special Projects Analyst support the PMs/Analysts in conducting in-depth fundamental research. Greg Ise and Mike Tian were added to the ISG in 1Q18. The investment team, which also supports WCM's Focused Growth International, Quality Global Growth, and Emerging Market strategies, operates in a collegial small team setting and has been very stable over time. The team rates highly given its stability, breadth, and experience.

WCM Investment Management

International Small Cap Growth

II. Information

Analysts are given freedom to pursue ideas that they find interesting. Screens are used to help narrow the universe, including such things as a market capitalization between \$400MM - \$7B, high return on invested capital, and predictable growth. The universe is screened down in increments to 4500, then 300, and the team actively follows roughly 150 of these. While there is a screening process in place, the freedom afforded to the analyst team results in ideas emerging from personal experiences, expert/proprietary networks, customers/suppliers/competitors, and thematic research.

Since the firm's philosophy is rooted in identifying tailwinds (thematic strength), strong corporate cultures, and expanding economic moats (competitive advantages), a lot of the team's research bandwidth is spent on understanding these dynamics and can include more general or macro research, such as demographic/cultural/behavioral trends or industry shift analysis. They then strive to understand how a company benefits from such trends and can furthermore insulate itself through things such as economies of scale, intellectual property advantages, and cost competitiveness. The team emphasizes internally generated research and the approach is fundamentally driven.

Wilshire believes the research process to be superlative in nature, as it extends beyond performing extensive research on company fundamentals. Rather, the team rigorously endeavors for early identification of shifts in industry/cultural/behavioral dynamics that may not be fully understood by the market. The strategy's universe is relatively focused which enables the team to successfully pry into these areas of research and analysis. Overall, WCM's focus on the cultural and governance structures of companies is particularly unique, resulting in a strong information gathering score.

	Rating Decile	Weight
III. Forecasting	1st	20%

The primary valuation method for the strategy is a DCF model, though in practice the team uses several absolute and relative valuation methods to build a holistic understanding of a stock's market value. The process emphasizes economic moats, culture, and tailwinds as important qualities for a company to have in order to make it into the portfolio. Analysts are given the freedom to find new ideas and once an analyst has developed an investment thesis on a name, the write-up is sent to the members of the broader team who are given one week to respond with questions and areas where additional research is necessary. When an idea is fully vetted, it is placed on either the Short List or Focus List. The reasons for a name being added to the shortlist are due to valuation or a lack of space in the portfolio. The reasons for a name being added to the Focus List are more geared toward the underlying investment thesis, whether it's the firm's culture, it's pricing dynamics, or some other qualitative aspect. In the event of a "tie" between two equally attractive names, the company culture is often the tiebreaker, especially if the tailwinds and economic moat are strong.

The strategy's performance in the International Small Cap Growth universe is top quartile across 1-, 3-, and 5-year trailing periods. The strategy should benefit from quality and growth-driven markets and may struggle during cyclical rallies. WCM as a firm is materially focused on a given company's culture and it can be argued that culture plays a more prominent role in the small cap space relative to the large cap space. Given WCM's firm-wide focus on culture, the portfolio's performance, and the repeatable process employed, forecasting rates very highly relative to Non-US Small Cap peers.

The portfolio is benchmarked to the MSCI ACWI ex-US Small Cap Index and targets a long-term CAGR of 3% or more above the benchmark and 2/3 of downside capture. The portfolio holds between 50 - 70 names and the top 10 holdings generally comprise 20% of the portfolio. The following requirements/constraints are imposed: at least 15 global industries must be represented, max industry weight of 25%, max sector weight of 35%, max position weight around 5%, max emerging markets weight of 50%. It should be noted that historical EM exposure has ranged between 15 - 30%. Positions are typically initiated at 2%, but sizing is ultimately determined by a two-factor model, which includes moat trajectory and relative valuation. Ultimately, the largest weighted names should have the best combination of the two, with the goal of diversifying the portfolio 's factor exposures. Risk is primarily identified as permanent capital loss, or downside capture. As such, the team seeks to mitigate this risk through portfolio construction and buying high quality stocks. The team monitors standard industry risk measures and uses FactSet and Axioma for analytics. Occasionally, the team uses Bloomberg's analytics platform, which is mostly used for scenario analysis. The team uses a systematic and differentiated approach to building the final portfolio, and the downside capture since inception is around 60%. Portfolio construction receives a high rating for these reasons.

IV. Portfolio Construction

Rating

Decile

2nd

Weight

20%

WCM Investment Management

International Small Cap Growth

V. Implementation

WCM employs one head trader, Ryan Bracci (19 years of experience), who is supported by Ming Tran (over 25 years of experience) and AK Lengsfield (over 8 years of experience). Trading is not segmented by strategy, so this structure is consistent across WCM's platform. The firm uses INDATA's portfolio management system, which has accounting, trading, and transaction cost analysis capabilities. Trades are executed based on instruction from the ISG and trader use NYFIX, Omgeo, all major ECNs, as well as crossing networks. The firm has a Best Execution Committee to monitor the quality and execution of trades. Assets as of September 2020 were around \$850MM and capacity is estimated to be \$2 billion. WCM maintains soft dollar arrangements, though the overwhelming majority of research is produced internally. Trading is not perceived to be a major competitive advantage of WCM, and relative to their other strategies, the ISCG portfolio is slightly higher in both the number of holdings and turnover. Implementation receives an above-average rating relative to peers.

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VI. /	אננדוט	uuuu	

The team employs FactSet for attribution purposes and reviews the reports generated by the system at its weekly ISG meetings. The attribution analysis is mainly used to gauge the success and failures of their historical theses associated with a particular securities purchase/sale. The FactSet reports, but more importantly the discussion involving these reports, helps continually test the strength of the decision-making process. We find the team's attribution efforts to be notably strong, as they endeavor repeatedly to maintain a sound decision-making process, especially in light of the portfolio's concentrated nature.

					Rat	ting	ين ور الم		a second	
Decile	1	2	3	4	5	6	7	8	9	10
Corresponding Grade	F	4	E	3	(C	1	D		F

67



Rating Decile	Weight
1st	10%

WCM Investment Management

International Small Cap Growth

Firm Information	
WCM Investment Management 281 Brooks Street Laguna Beach, CA-92651 USA	CONTACT : Drew French Portfolio Associate Phone: 949-715-5714 Email: <u>drew@wcminvest.com</u>

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William Blair

International Small Cap Growth

Summary

William Blair's International Small Cap Growth strategy can be summarized as a quality GARP approach to the international small cap equity space. It is managed by Simon Fennell and Andy Flynn who are supported by a team of 17 equity analysts. The investment team starts with a list of stocks that analysts prioritize based off their knowledge of the company and stocks that rank well in terms of valuation. From this list, the investment team develops the research agenda of 50 75 stocks on which the analysts will focus their research. If the analysts determines the stock should be considered for the portfolio, they will present their research to the investment team during a weekly meeting where the stock is fully vetted, and more due diligence may be required. The team is looking to invest in what they consider to be quality growth companies and look at valuation as a risk factor, seeking to avoid paying too large a premium for a consistent growth profile. The portfolio generally holds between 110 5 stocks and tracking error tends to be between 4 AUM as of 9/30/2019 was \$2.6 billion and the strategy has been closed to new investors since 2011.

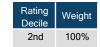
	Rating Decile	Weight
I. Organization	1st	20%
Fim	1st	50%
Team	1st	50%

William Blair & Company, LLC was founded in 1935 as a Chicago-based full service financial firm offering asset management, investment banking, and equity research amongst other functions. Asset management accounts for the majority of revenues, and the firm offers a competitive compensation plan with 100% of its equity being broadly distributed amongst over 180 active principals with a profit sharing program available to all employees. The firm is registered with the SEC as both an investment manager and broker dealer, and its broker dealer activities are regulated by FINRA. Assets under management have growth steadily over the years, primarily on the success of the firm's offerings in the international and emerging markets equity space. William Blair does offer alternatives and fixed income products, but equity products dominate the firm's overall product mix.

All professionals at William Blair have the opportunity to become a partner and there are partner-level career paths for portfolio managers and research analysts. The investment professionals who are partners of the firm have compensation consisting of a base salary, a share of the firm's profits, and a discretionary bonus. Each partner's ownership stake and bonus (if any) can vary over time, and is determined by the individual's sustained contribution to the firm's revenue, profitability, and long-term investment performance. We maintain a high opinion of the firm and its partnership culture.

In early 2016, the firm received a Wells Notice from the SEC after opening a non-public investigation with respect to the administrative fees paid by a subset of the William Blair Mutual Funds. In early 2017, the firm paid a \$4.5 million settlement to the SEC for minor payment errors (that were reimbursed to the Funds with interest) and administrative fees disclosure issues associated with the non-public investigation.

Simon Fennell and Andy Flynn are the PMs for the International Small Cap Growth (ISCG) portfolio. Mr. Fennell joined William Blair in 2011 as an analyst covering the tech, media, and telecommunications sectors. He was previously a managing director for Goldman Sachs, overseeing institutional equity research for European and international stocks. In addition to the ISCG strategy, Mr. Fennell is a Co-PM on the International Growth and International Leaders strategies. Mr. Flynn joined the firm in 2005 and covered multiple sectors globally and was previously an analyst at Northern Trust covering mid- and small-cap growth companies. Mr. Flynn is also a co-PM on the Global Leaders SRI strategies. Messrs. Fennell and Flynn are partners of the firm and are both invested in the ISCG strategy. They are supported by 17 global equity analysts and four quantitative analysts. Research analysts average 13 years at William Blair and turnover. The team rates highly for these reasons.



Wilshire Manager Research Team

December 20, 2019

William Blair

International Small Cap Growth

II. Information

The strategy's philosophy is based on the belief that markets inefficiently distinguish between average quality companies and high quality companies, with quality growth companies being able to achieve a higher growth rate for a longer period of time than the market expects. The investable universe consists of roughly 9000 stocks and these are filtered using various metrics such as ROE, growth of earnings and revenue, consistency of growth, and financial strength. The stocks that pass this initial screen are incorporated into the "eligibility list", which also includes stocks that analysts and PMs believe warrant inclusion based on their respective company contacts and meetings. Research is prioritized by (1) how well a stock scores quantitatively in terms of fundamentals versus valuation, (2) how attractive an analyst finds a company, and (3) how attractive a PM finds a company, which produces a list of 50 75 names on average. These names are put on the weekly "to do list" where the appropriate analyst carries out their due diligence and if the analysts fives it a "buy", they conclude research with in a formal presentation to the team.

During a weekly meeting, the team reviews the research agenda and analysts provide updates on their due diligence and priorities. During these meetings, PMs may submit names for analysts to include in their research. The firm maintains a dashboard called "Summit" that communicates trading activity, analyst views, and external data, allowing for seamless dissemination of information. Analysts seek to meet with a company prior to purchasing and spend 30 40% of their time traveling for company meetings. Third party economic research is used to inform sector and country analysis, but analysts and PMs rely on internal research for decision making. Information gathering rates highly.

	Rating Decile	Weight
III. Forecasting	2nd	20%

The team starts with the eligibility list and selects stocks exhibiting strong fundamentals and attractive valuation to construct the research agenda (or to do list). The research agenda is refreshed on a weekly basis and typically includes 50 75 names in a given week. Analysts and PMs are free to add names to the agenda based on their intimate knowledge of company if it is not on the research agenda. With this to do list, analysts carry out further research as they see fit and this research ultimately decides whether or not a stock is purchased. A name can screen well quantitatively, but an analyst must be comfortable with the company's management and strategy to keep it on the research agenda. Moreover, the analyst must be comfortable with the company's ability to produce a short research summary on the potential addition, which is formally vetted by the broader team. While the team is primarily interested in buying quality growth companies, this growth is evaluated against the current valuation and the team uses this approach to exclude companies from the research agenda.

The strategy can be expected to outperform in normal market environments where fundamentals drive valuations and growth-led markets provide notable tailwinds. Performance may struggle in value-led markets or when market leadership is concentrated in a few names. Performance is largely in line with what should be expected and the strategy has outperformed in most trailing periods and calendar years, resulting in a high rating.

	Rating Decile	Weight
IV. Portfolio Construction	3rd	20%

The portfolio is benchmarked against the MSCI ACWI ex-US Small Cap Index and tracking error is historically between 4 6%. The team has established weight ranges across sectors and regions and limits mid cap companies to 5% weights and small caps to 2.5%; however, these weights will be a residual of bottom-up stock selection. While the research process is heavily driven by the analyst team, Messrs. Fennell and Flynn determine individual weightings at the end of the day given the extensive team discussion. The team considers valuation when exiting a position, but the sell discipline is ultimately driven by the team's conviction in the stock's place in the portfolio, its investment thesis, and the opportunity set.

Risk is managed within the investment process by investing in high quality companies. The team also uses quant models to evaluate company fundamentals and high valuations and uses factors from these models as an input to a custom risk model. The custom risk model combines internal inputs with factors and covariances from third-party vendors. Country and company risks are mitigated through the aforementioned bands and currency risk is incorporated in the fundamentals during the research process. The PM team is primarily responsible for risk management, but there is also a Risk Oversight Committee that assists the PMs in this effort. A systematic research team helps develop and maintain the team's qualitative models, which help the PMs better understand the portfolio's risk profile. The portfolio construction process is controlled and risk-aware, but there is room for size drift as the portfolio exhibits a larger weight to mid-caps, resulting in an above average rating.

William Blair

International Small Cap Growth

V. Implementation

William Blair has a 24-hour trading platform, with trading desks in Chicago and London. The Trading and Implementation team, led by Terry O'Bryan, has grown over the past several years. There are currently three traders assigned to Europe and three traders assigned to Asia. In addition, the team has two individuals assigned to data analytics and two to portfolio administration. William Blair utilizes the Longview Order Management System and the process involves identifying natural liquidity where available to mitigate any market impact from transactions. The traders make use of "third market" and electronic trading systems such as Instinet and LiquidNet where applicable. The firm's trading data is reviewed by the Best Execution Committee to ensure that every effort is being made to obtain best execution. The firm uses ITG, Able Noser, and Bloomberg as third-party TCA providers. In addition, the Linedata Compliance system is used for monitoring client and regulatory restrictions. Annual turnover typically falls around 75% and soft dollars represent only a small portion of the firm's total commissions. It is important to note that the trading team plays a notable role in the daily investment team meetings and continues to make notable enhancements in terms of trading efficiencies and use of data analytics. Implementation receives a high rating.

	Rating Decile	Weight
VI. Attribution	1st	10%

After utilizing third-party systems, such as FactSet and Barra, William Blair now employs its own proprietary attribution system that is integrated into the firm's Summit platform. Performance and risk attribution can now be run in real-time and analyzed across multiple vectors. In addition to analyzing risk and performance attribution, the firm has also hired a third-party vendor, Inalytics, to analyze historical trading behavior and decision making for its investment strategies. There is a clear feedback loop from this analysis to positive enhancements to the investment process over time. We appreciate the improvements the firm has made in this category over the past few years.

	Rating									
Decile	1	2	3	4	5	6	7	8	9	10
Corresponding Grade	А		В		С		D		F	

71

Rating Decile	Weight
2nd	10%

William Blair

International Small Cap Growth

Firm Information	
William Blair 150 North Riverside Plaza Chicago, IL-60606 USA	CONTACT : Wally Fikri Partner Phone: 312-364-8089 Email: <u>wfikri@williamblair.com</u>

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INTERNATIONAL SMALL CAP MANAGER SEARCH

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CONTACT

HEADQUARTERS

contactus@wilshire.com

1299 Ocean Avenue, Suite 700 Santa Monica, CA 90401

Wilshire

Wilshire

MEMORANDUM

То:	CERS Investment Committee, KRS Investment Committee
From:	Wilshire
Subject:	Axiom Investors International Small Cap Equity
Date:	August 5, 2021

Summary:

The purpose of this memorandum is to support the recommendation made by staff to invest in the Axiom Investors ("Axiom") International Small Cap Equity Strategy ("The Strategy" or "Strategy"). Wilshire's review confirms that an investment in the Strategy is consistent with the guidelines and purpose of the Non-U.S. segment of the Growth basket of the portfolio, as outlined by the KRS Statement of Investment Policy. The Strategy is highly rated by Wilshire, receiving a 1st decile score as of the most recent review June 10, 2021. An allocation to the Strategy is also consistent with philosophy of utilizing active management in less efficient markets.

Axiom Investors International Small Cap Equity:

Axiom is a well-established investment advisor specializing primarily in global, international, and emerging markets equity strategies.

Organization

Established in Greenwich, CT in 1998, Axiom is an independent investment advisor owned entirety by current employees, with the largest shareholder being founder and CIO Andrew Jacobson. All Axiom strategies are uniformly managed by the same process with over \$19 billion in firm-wide assets as of June 2021.

Team

The Strategy is led by lead portfolio manager Matt Franco and co-portfolio manager Yogesh Borkar. Both PMs are owners of the firm and average nearly 25 years of experience. Mr. Franco was one of the founding members of the firm in 1998 and launched this strategy in 2014. Mr. Borkar joined the firm in 2013 after most recently serving as associate PM for eight years at Pyramis (Fidelity). The two portfolio managers have ultimate decision-making authority and act as senior generalist researchers who are expected to generate roughly 50% of the new investment ideas for the strategy.

Investment Philosophy & Process

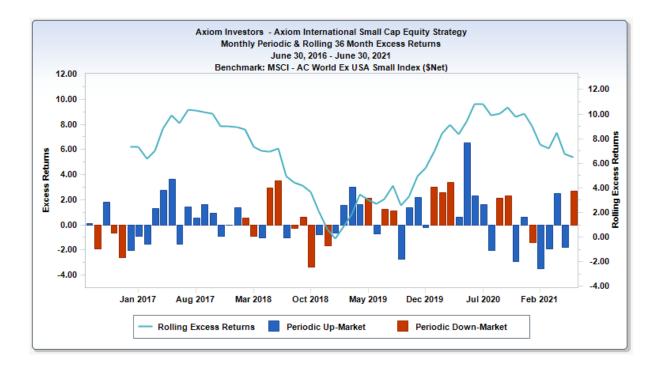
Axiom employs a growth-oriented, fundamental, bottom-up approach across its investment strategies. The application of the process is reliant on the collection and parsing of data that contributes to what Axiom calls "key business drivers." Key business drivers are defined as the company-specific, industry, macro, and political factors expected to have a substantial impact on future financial performance. The goal of the information gathering effort is to use the vast amount of data available to identify companies with growth potential that is not yet reflected in expectations or valuations. The Axware system enables systematically gathered data to be incorporated with the fundamental insights from the analysts.

Wilshire

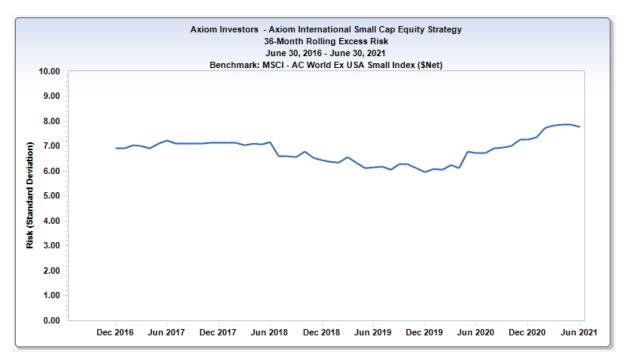
The key business drivers are analyzed in order to assign an alphanumeric rating to securities. The first part, a letter on a scale of A through E, assesses a firm's industry presence from Established (A) to Emerging (E). Factors involved in this component of the ratings include profitability, country rating, balance sheet, market cap, and competitive position. The second part, a number from -3 to +3, assesses the dynamism of a firm's aggregate business drivers from most dynamic (+3) to most disappointing (-3). Dynamism captures a company's ability to outperform expectations and is determined through factors such as leading indicators, earnings revisions, valuation, and earnings growth. The ideal portfolio holding is rated A3, though these are incredibly rare. More often than not, the portfolio invests in C2 and D2 rated stocks. In recommending stocks, analysts will create a summary model demonstrating a firm's key business drivers relative to consensus expectations and a ranking worksheet that compares the stock to alternative portfolio holdings. Stocks are evaluated on a 12-18 month time horizon.

Performance

The Strategy has provided strong performance in a variety of market conditions, exhibiting an ability to add value in up and down markets, which has resulted in consistent excess returns on a rolling three-year basis. The Strategy has exhibited a consistent level of tracking error and strong information ratio, averaging 6.83% and 0.99 respectively, again on a rolling three-year basis.



Wilshire



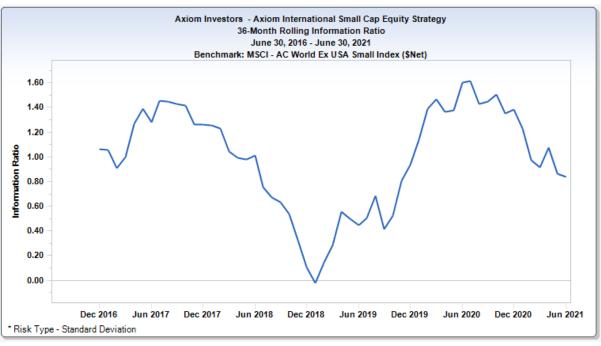


EXHIBIT B - Conflict of Interest Statement

KENTUCKY RETIREMENT SYSTEMS

CONFLICT OF INTEREST STATEMENT

In consideration of the investment by Kentucky Retirement Systems and Kentucky Retirement Systems Insurance Trust Fund (collectively, "KRS") in a vehicle or account ("Account") managed by [Axiom Investors] (the "Manager"), the Manager acknowledges the need to maintain the public's confidence and trust in the integrity of KRS and the Commonwealth of Kentucky. In light of the forgoing, the Manager agrees to:

- Diligently identify, disclose, avoid and manage conflicts of interest that may arise through its relationship with KRS.
- Conduct activities with KRS so as not to advance or protect its own interests or the private interests of others with whom it has a relationship in a way that is detrimental to the interests of KRS.
- Conduct its activities in a manner to best promote the interests of KRS, but subject to the Manager's duty which requires it not to put the interests of one investor ahead of those of another investor.
- Upon discovery of an actual or potential conflict of interest involving KRS, disclose such conflict of interest to KRS and work with KRS in good faith to resolve or mitigate such conflict.
- Not engage directly or indirectly in any financial or other transactions with a trustee or employee of KRS that would violate the standards of the Executive Branch Ethics provisions as set forth in KRS Chapter 11A.

Agreed this the 29th day of June, 2021

MANAGER

For itself and on behalf of the Account

Edward Azimi Bv:

Name: Edward Azimi Title: Chief Operations Officer

(Rev. Feb 2018)



Kentucky Retirement Systems Statement of Disclosure and Placement Agents – Manager Questionnaire

 Did your firm use a placement agent as defined in the KRS "Statement of Disclosure and Placement Agents" policy in an effort to solicit an Investment from KRS Please indicate fund vehicle title if relevant? If yes, please continue to question 2; if no, please proceed to question 10.

No - Axiom did not use a placement agent in an effort to solicit an Investment from KRS.

- Please disclose the name of the placement agency used, the names of the individuals contracted by the placement agency (either as employees or as sub-agents) in order to solicit an investment from KRS, and the fees paid or payable to the placement agent in connection with a prospective KRS investment.
- Please represent that any fees paid to placement agents are the sole obligation of the investment manager and not that of KRS or the limited partnership.
- Please disclose the names of any current or former Kentucky elected or appointed government
 officials (federal, state, and local government), KRS Board of Trustees members, employees, or
 consultants of KRS, or any other person, if any, who suggested the retention of the placement agent.
- Please provide evidence of the regulatory agencies, if any, in any Federal, state or foreign jurisdiction the placement agent or any of its affiliates are registered with, such as the Securities and Exchange Commission ("SEC"), FINRA, or any similar regulatory agency.
- Please provide a resume for each officer, partner or principal of the Placement Agent detailing the person's education, professional designations, regulatory licenses and investment and work experience.
- 7. Please describe the services to be performed by the Placement Agent.
- Please disclose whether the Placement Agent, or any of its affiliates, is registered as a lobbyist with any and all Kentucky state and local (county) governments.

- Please disclose any political contributions made by the Placement Agent to any Kentucky official within the prior 2 years.
- 10. Please disclose the names of any current or former Kentucky elected or appointed government officials (federal, state, and local government) KRS Board of Trustees members, employees, or consultants of KRS that are receiving any fees or compensation from the External Manager and/or placement agent. Please disclose any additional known relationships or conflicts with same.

N/A

 Please disclose any political contributions made by External Manager or principals of the External Manager in the prior 2 years.

N/A

 Please disclose whether any principals of the firm have been involved in any regulatory proceedings, and if so, details concerning the same.

N/A

13. Please provide a statement representing and warranting the accuracy of the information provided to KRS regarding the Statement of Disclosure, and acknowledge that similar language will be included in any final written agreement with a continuing obligation to update any such information within 10 business days of any change in the information.

This statement shall serve as a testament to the accuracy of the information provided to KRS regarding the Statement of Disclosure. Axiom acknowledges that similar language will be included in any final written agreement with a continuing obligation to update any such information within 10 business days of any change in the information.

DocuStoned by Edward Animi SOF AFO38D485

External Manager Signature

6/29/2021 Date



WILSHIRE

Wilshire Consulting



County Employees Retirement System (CERS)

Quarterly Board Summary

June 30, 2021

Wilshire Consulting ASSET CLASS PERFORMANCE

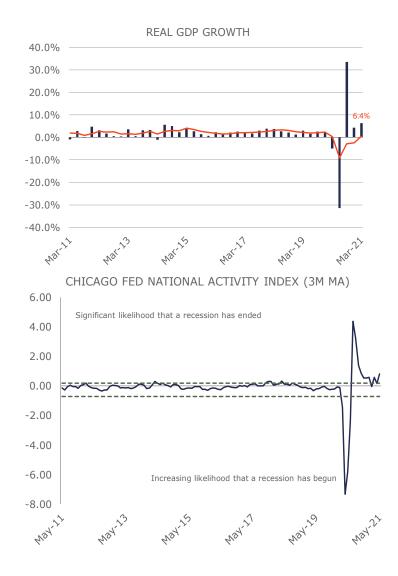
	ASSET CLASS RETURNS - BEST TO WORST										
2016	2017	2018	2019	2020	2021 YTD	5-YEAR AS OF 6/2					
MLPs	Emrg Mrkts	T-Bills	U.S. Equity	U.S. Equity	Midstream	U.S. Equit					
18.3%	37.7%	1.9%	31.0%	20.8%	40.7%	18.0%					
High Yield	Developed	Core Bond	REITs	Emrg Mrkts	REITs	Emrg Mrkt					
17.1%	25.6%	0.0%	25.8%	18.7%	22.8%	13.4%					
U.S. Equity	U.S. Equity	U.S. TIPS	Developed	U.S. TIPS	Commodities	Develope					
13.4%	21.0%	-1.3%	22.7%	11.0%	21.1%	10.8%					
Commodities	High Yield	High Yield	Emrg Mrkts	Developed	U.S. Equity	High Yield					
11.8%	7.5%	-2.1%	18.9%	8.3%	15.5%	7.5%					
Emrg Mrkts	REITs	REITs	High Yield	Core Bond	Developed	REITs					
11.6%	4.2%	-4.8%	14.3%	7.5%	9.2%	6.4%					
REITs	Core Bond	U.S. Equity	Core Bond	High Yield	Emrg Mrkts	Midstream					
7.2%	3.6%	-5.3%	8.7%	7.1%	7.6%	4.3%					
U.S. TIPS	U.S. TIPS	Commodities	U.S. TIPS	T-Bills	High Yield	U.S. TIPS					
4.7%	3.0%	-11.2%	8.4%	0.7%	3.6%	4.2%					
Core Bond	Commodities	MLPs	Commodities	Commodities	U.S. TIPS	Core Bon					
2.6%	1.7%	-12.4%	7.7%	-3.1%	1.7%	3.0%					
Developed	T-Bills	Developed	MLPs	REITs	T-Bills	Commoditi					
1.5%	0.8%	-13.4%	6.6%	-7.9%	0.0%	2.4%					
T-Bills	MLPs	Emrg Mrkts	T-Bills	Midstream	Core Bond	T-Bills					
0.3%	-6.5%	-14.2%	2.3%	-23.4%	-1.6%	1.2%					

Data sources: Bloomberg

Note: Developed asset class is developed equity markets ex-U.S., ex-Canada

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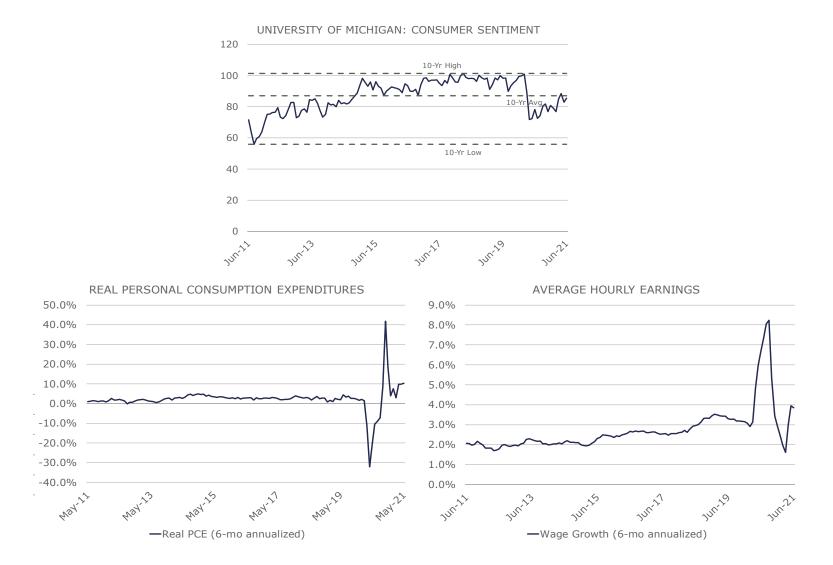
Wilshire Consulting ECONOMIC GROWTH



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4

Wilshire Consulting CONSUMER ACTIVITY



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Data source: Bloomberg

5

Wilshire Consulting BUSINESS ACTIVITY

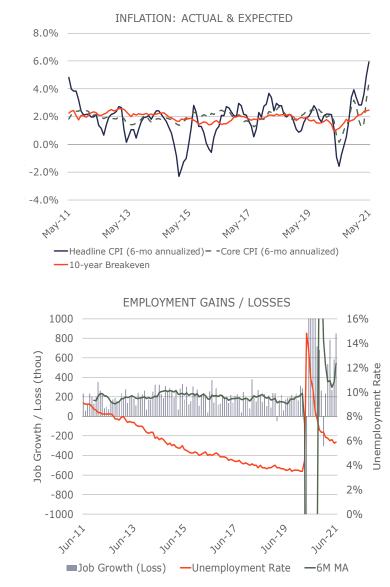


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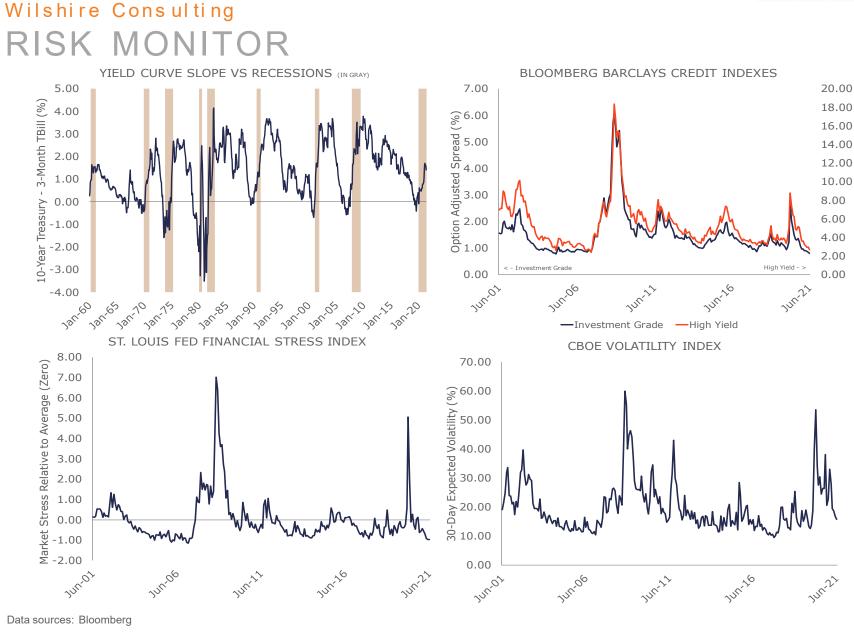
Data source: Bloomberg

6

Wilshire Consulting INFLATION AND EMPLOYMENT



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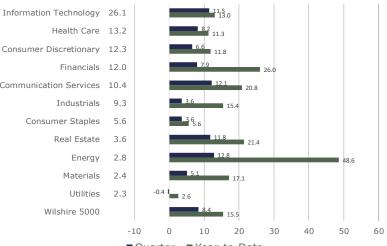
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Wilshire Consulting U.S. EQUITY MARKET

LARGE CAP VS SMALL CAP

AS OF 6/30/2021	QTR	YTD	1 YR	3 YR	5 YR	10 YR	С
Wilshire 5000 Index	8.4	15.5	44.2	18.9	18.0	14.8	ļ
Wilshire U.S. Large Cap	8.8	15.1	42.7	19.5	18.2	15.0	Co
Wilshire U.S. Small Cap	4.8	18.9	62.0	13.6	15.8	12.7	
Wilshire U.S. Large Growth	11.9	14.1	46.3	23.9	23.3	17.3	
Wilshire U.S. Large Value	5.1	15.4	37.7	14.5	13.0	12.5	
Wilshire U.S. Small Growth	3.2	12.4	56.2	16.5	19.1	13.5	
Wilshire U.S. Small Value	6.2	25.6	67.7	10.8	12.4	11.7	
Wilshire REIT Index	12.8	22.8	37.5	10.1	6.4	9.4	
MSCI USA Min. Vol. Index	6.8	9.3	23.6	13.9	12.1	13.4	
FTSE RAFI U.S. 1000 Index	6.4	21.7	51.2	15.4	14.9	13.3	

JUN-19



U.S. SECTOR WEIGHT AND RETURN (%)







Data sources: Bloomberg, WilshireAtlas

JUN-13

Quarterly Excess

Jun-15

Jun-17

-Rolling 3-Year Excess

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JUNIT

20.0%

15.0%

10.0% 5.0%

0.0%

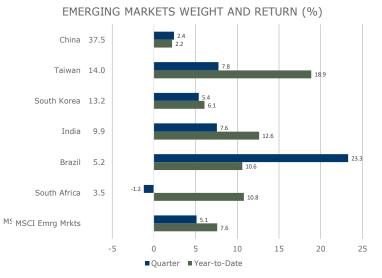
-5.0%

-15.0%

Wilshire Consulting NON-U.S. EQUITY MARKET

AS OF 6/30/2021	QTR	YTD	1 YR	3 YR	5 YR	10 YR
MSCI ACWI ex-US (\$G)	5.6	9.4	36.3	9.9	11.6	5.9
MSCI EAFE (\$G)	5.4	9.2	32.9	8.8	10.8	6.4
MSCI Emerging Markets (\$G)	5.1	7.6	41.4	11.7	13.4	4.7
MSCI Frontier Markets (\$G)	7.3	0.8	23.7	2.1	3.5	2.6
MSCI ACWI ex-US Growth (\$G)	6.7	6.7	34.1	13.6	13.8	7.6
MSCI ACWI ex-US Value (\$G)	4.7	12.4	39.8	6.1	9.4	4.4
MSCI ACWI ex-US Small (\$G)	6.5	12.5	47.6	10.2	12.4	7.4
MSCI ACWI Minimum Volatility	5.4	7.4	20.0	10.2	9.1	9.9
MSCI EAFE Minimum Volatility	5.2	4.7	17.0	5.4	6.5	7.0
FTSE RAFI Developed ex-US	4.8	13.8	42.3	7.0	10.4	5.0
MSCI EAFE LC (G)	5.0	13.1	27.6	8.0	10.5	8.6
MSCI Emerging Markets LC (G)	3.9	8.1	36.5	12.4	14.0	8.0





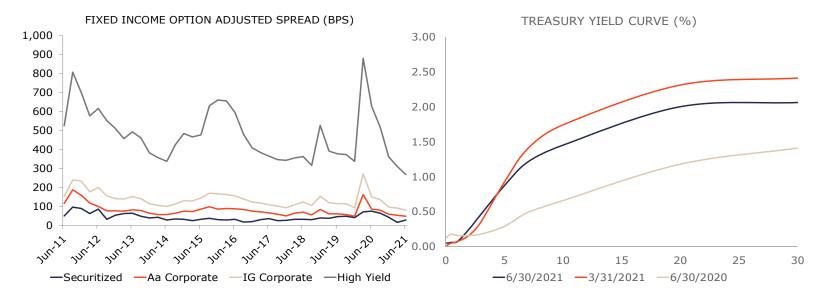
Data sources: Bloomberg

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Wilshire Consulting U.S. FIXED INCOME

AS OF 6/30/2021	YTW	DUR.	QTR	YTD	1 YR	3 YR	5 YR	10 YR
Bloomberg Barclays Aggregate	1.5	6.6	1.8	-1.6	-0.3	5.3	3.0	3.4
Bloomberg Barclays Treasury	0.9	7.0	1.7	-2.6	-3.2	4.7	2.2	2.8
Bloomberg Barclays Gov't-Rel.	1.4	6.2	1.7	-1.2	0.8	5.1	3.0	3.2
Bloomberg Barclays Securitized	1.7	4.2	0.4	-0.7	-0.2	3.9	2.4	2.7
Bloomberg Barclays Corporate	2.0	8.7	3.5	-1.3	3.3	7.8	4.9	5.2
Bloomberg Barclays LT Govt/Credit	2.7	16.6	6.4	-4.6	-1.9	9.9	5.4	7.3
Bloomberg Barclays LT Treasury	2.0	18.8	6.5	-7.9	-10.6	8.0	3.1	6.7
Bloomberg Barclays LT Gov't-Rel.	3.1	13.8	5.0	-2.8	2.1	8.3	5.0	6.7
Bloomberg Barclays LT Corporate	3.1	15.4	6.6	-2.4	4.5	11.1	6.9	7.7
Bloomberg Barclays U.S. TIPS *	1.4	8.1	3.2	1.7	6.5	6.5	4.2	3.4
Bloomberg Barclays High Yield	3.7	3.8	2.7	3.6	15.4	7.4	7.5	6.7
Treasury Bills	0.0	0.3	0.0	0.0	0.1	1.4	1.2	0.7

* Yield and Duration statistics are for a proxy index based on similar maturity, the Bloomberg Barclays U.S. Treasury 7-10 Year Index

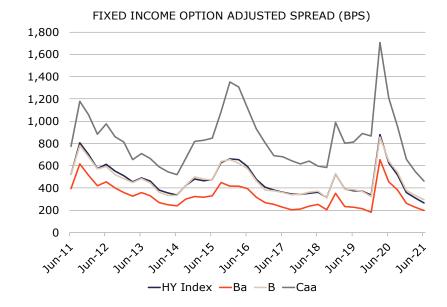


Data sources: Bloomberg

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Wilshire Consulting HIGH YIELD BOND MARKET

AS OF 6/30/2021		YTW	QTR	YTD	1 YR	3 YR	5 YR	10 YR
Bloomberg Barclays High Yield		3.7	2.7	3.6	15.4	7.4	7.5	6.7
S&P LSTA Leveraged Loan		3.7	1.1	2.2	9.4	4.3	4.7	4.1
HIGH YIELD QUALITY DISTRIBUTION	WEIGHT							
Ba U.S. High Yield	54.3%	3.0	2.9	2.7	12.9	9.1	7.5	7.0
B U.S. High Yield	33.0%	4.1	2.2	3.3	14.3	6.7	7.1	6.2
Caa U.S. High Yield	12.4%	5.6	3.5	7.2	26.5	3.8	7.6	6.5
Ca to D U.S. High Yield	0.4%	16.0	12.5	28.9	84.4	2.3	14.2	-2.0
Non-Rated U.S. High Yield	0.0%	0.0	0.0	0.0	0.0	-0.3	1.8	2.8

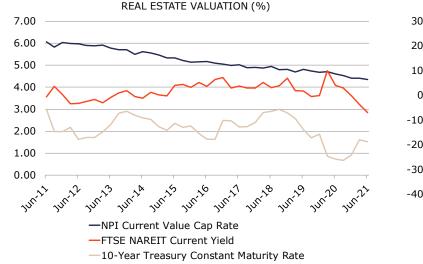


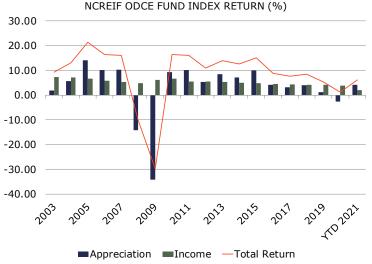
Data sources: Bloomberg

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Wilshire Consulting REAL ASSET

AS OF 6/30/2021	QTR	YTD	1 YR	3 YR	5 YR	10 YR
Bloomberg Barclays U.S. TIPS	3.2	1.7	6.5	6.5	4.2	3.4
Bloomberg Commodity Index	13.3	21.1	45.6	3.9	2.4	-4.4
Bloomberg Gold Index	3.2	-7.0	-3.9	10.6	4.8	0.8
Wilshire Global RESI Index	10.7	18.1	35.6	8.1	6.1	8.0
NCREIF ODCE Fund Index	3.9	6.1	8.0	5.5	6.6	9.6
NCREIF Timberland Index	1.7	2.5	3.1	2.1	2.7	4.7
Alerian Midstream Energy	16.4	40.7	53.2	4.9	4.3	n.a.





Data Sources: Bloomberg, National Council of Real Estate Investment Fiduciaries

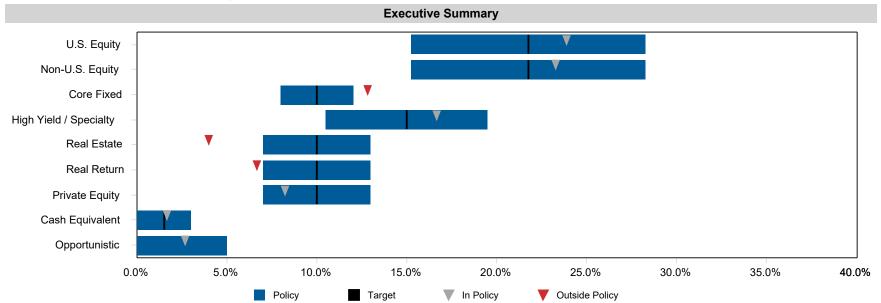
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Wilshire Consulting JUNE 2021 ASSET CLASS ASSUMPTIONS

			Eq	uity					Fixed	Income			Real Assets					
_	U.S. STOCK	DEV EX-U.S. STOCK	EMG. MRKT. STOCK	GLOBAL EX-U.S. STOCK	GLOBAL STOCK	PRIVATE EQUITY	CASH	CORE BOND	LT CORE BOND	U.S. TIPS	HIGH YIELD	NON-U.S. BOND (HDG)	U.S. REAL ESTATE SECS	GLOBAL REAL ESTATE SECS	PRIVATE REAL ESTATE	CMDTY	REAL ASSETS	U.S. CPI
Compound Return (%)	4.75	5.75	5.75	6.00	5.40	7.80	1.40	1.85	2.25	1.45	3.50	0.70	4.70	4.85	6.20	3.85	5.75	2.45
Arithmetic Return (%)	6.10	7.25	8.75	7.65	6.75	11.15	1.40	1.95	2.65	1.65	4.00	0.80	6.05	6.00	7.10	4.90	6.25	2.45
Expected Risk (%)	17.00	18.00	26.00	19.15	17.15	28.00	0.75	4.30	8.85	6.00	10.00	4.30	17.00	15.85	14.00	15.00	10.15	1.75
Cash Yield (%)	1.50	2.25	1.75	2.10	1.75	0.00	1.40	3.05	3.50	2.35	7.50	1.85	2.85	2.85	2.20	1.40	1.95	0.00
Growth Expoure	8.00	8.00	8.00	8.00	8.00	13.50	0.00	-0.80	-2.10	-3.00	4.00	-1.00	6.00	6.00	3.50	0.00	1.80	0.00
Inflation Expoure	-3.00	0.00	5.00	1.55	-1.10	-3.80	0.00	-2.45	-6.55	2.50	-1.00	-3.00	1.00	1.95	1.00	12.00	4.90	1.00
Correlations																		
US Stock	1.00																	
Dev ex-US Stock (USD)	0.81	1.00																
Emerging Mkt Stock	0.74	0.74	1.00															
Global ex-US Stock	0.83	0.96	0.87	1.00														
Global Stock	0.95	0.92	0.83	0.94	1.00													
Private Equity	0.74	0.64	0.62	0.67	0.74	1.00												
Cash Equivalents	-0.05	-0.09	-0.05	-0.08	-0.07	0.00	1.00											
Core Bond	0.28	0.13	0.00	0.09	0.20	0.31	0.19	1.00										
LT Core Bond	0.31	0.16	0.01	0.12	0.23	0.32	0.11	0.92	1.00									
TIPS	-0.05	0.00	0.15	0.05	0.00	-0.03	0.20	0.59	0.47	1.00								
High Yield Bond	0.54	0.39	0.49	0.45	0.51	0.34	-0.10	0.25	0.32	0.05	1.00							
Dev ex-US Bond (Hdg)	0.16	0.25	-0.01	0.17	0.18	0.26	0.10	0.66	0.65	0.39	0.26	1.00						
US RE Securities	0.58	0.47	0.44	0.49	0.56	0.50	-0.05	0.17	0.23	0.10	0.56	0.05	1.00					
Global RE Securities	0.64	0.58	0.56	0.61	0.65	0.58	-0.05	0.17	0.22	0.11	0.61	0.03	0.96	1.00				
Private Real Estate	0.54	0.44	0.44	0.47	0.52	0.51	-0.05	0.19	0.25	0.09	0.57	0.05	0.77	0.75	1.00			
Commodities	0.25	0.34	0.39	0.38	0.32	0.27	0.00	-0.02	-0.02	0.25	0.29	-0.10	0.25	0.28	0.25	1.00		
Real Assets	0.48	0.51	0.58	0.57	0.54	0.47	-0.02	0.23	0.25	0.39	0.56	0.05	0.70	0.75	0.70	0.65	1.00	
Inflation (CPI)	-0.10	-0.15	-0.13	-0.15	-0.13	-0.10	0.10	-0.12	-0.12	0.15	-0.08	-0.08	0.05	0.03	0.05	0.44	0.26	1.00

CERS Pension Plan

Periods Ended As of June 30, 2021

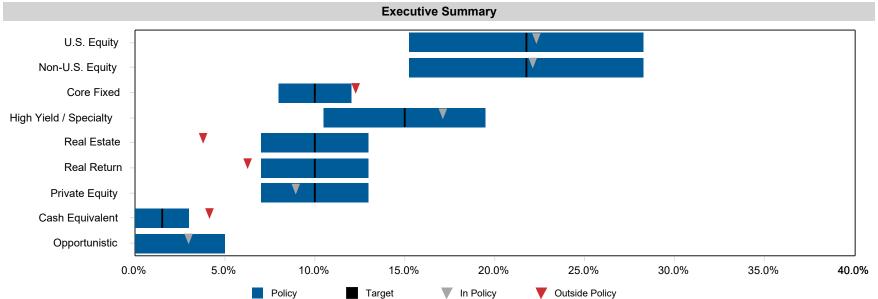


	Asset Allocation \$	Asset Allocation (%)	Minimum Allocation (%)	Maximum Allocation (%)	Target Allocation (%)	Target Rebalance \$
U.S. Equity	2,057,852,718	23.91	15.23	28.28	21.75	-185,577,828
Non-U.S. Equity	2,005,293,877	23.30	15.23	28.28	21.75	-133,018,987
Core Fixed	1,105,607,616	12.84	8.00	12.00	10.00	-244,791,575
High Yield / Specialty	1,434,847,765	16.67	10.50	19.50	15.00	-143,623,703
Real Estate	344,815,873	4.01	7.00	13.00	10.00	516,000,169
Real Return	572,909,392	6.66	7.00	13.00	10.00	287,906,649
Private Equity	710,613,889	8.26	7.00	13.00	10.00	150,202,152
Cash Equivalent	145,293,138	1.69	0.00	3.00	1.50	-16,170,732
Opportunistic	230,926,146	2.68	0.00	5.00	0.00	-230,926,146
Total Fund	8,608,160,413	100.00			100.00	

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CERS Insurance Plan

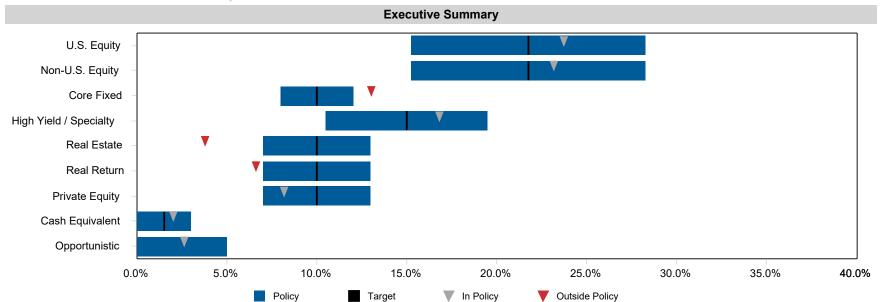
Periods Ended As of June 30, 2021



	Asset Allocation \$	Asset Allocation (%)	Minimum Allocation (%)	Maximum Allocation (%)	Target Allocation (%)	Target Rebalance \$
U.S. Equity	697,897,405	22.32	15.23	28.28	21.75	-17,933,546
Non-U.S. Equity	691,607,640	22.12	15.23	28.28	21.75	-11,643,781
Core Fixed	383,876,942	12.28	8.00	12.00	10.00	-71,249,880
High Yield / Specialty	535,844,151	17.14	10.50	19.50	15.00	-66,903,558
Real Estate	118,421,580	3.79	7.00	13.00	10.00	194,205,482
Real Return	195,866,683	6.27	7.00	13.00	10.00	116,760,379
Private Equity	280,215,578	8.96	7.00	13.00	10.00	32,411,484
Cash Equivalent	129,297,581	4.14	0.00	3.00	1.50	-82,403,522
Opportunistic	93,243,057	2.98	0.00	5.00	0.00	-93,243,057
Total Fund	3,126,270,616	100.00			100.00	

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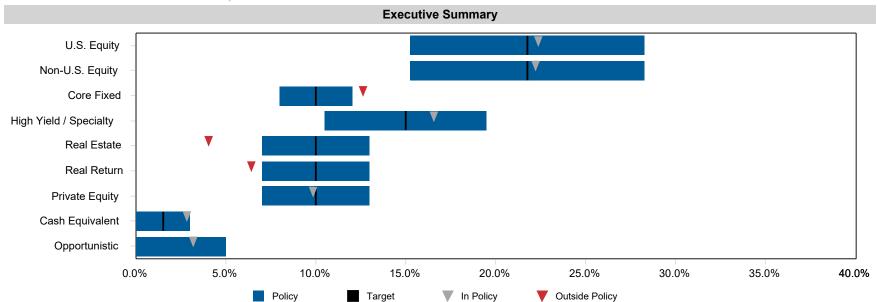
CERS (H) Pension Plan Periods Ended As of June 30, 2021



	Asset Allocation \$	Asset Allocation (%)	Minimum Allocation (%)	Maximum Allocation (%)	Target Allocation (%)	Target Rebalance \$
U.S. Equity	692,546,840	23.74	15.23	28.28	21.75	-57,947,102
Non-U.S. Equity	676,326,739	23.18	15.23	28.28	21.75	-41,727,001
Core Fixed	380,612,569	13.04	8.00	12.00	10.00	-88,842,575
High Yield / Specialty	490,597,371	16.81	10.50	19.50	15.00	-52,942,379
Real Estate	110,311,199	3.78	7.00	13.00	10.00	181,458,795
Real Return	193,323,106	6.63	7.00	13.00	10.00	98,446,889
Private Equity	238,593,792	8.18	7.00	13.00	10.00	53,176,203
Cash Equivalent	59,047,725	2.02	0.00	3.00	1.50	-15,282,226
Opportunistic	76,340,606	2.62	0.00	5.00	0.00	-76,340,606
Total Fund	2,917,699,945	100.00			100.00	

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CERS (H) Insurance Plan Periods Ended As of June 30, 2021

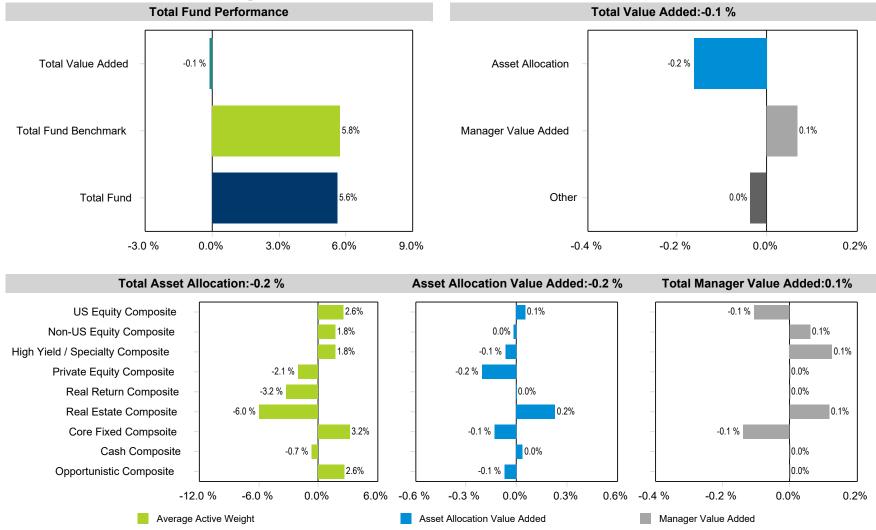


	Asset Allocation \$	Asset Allocation (%)	Minimum Allocation (%)	Maximum Allocation (%)	Target Allocation (%)	Target Rebalance \$
U.S. Equity	358,362,502	22.35	15.23	28.28	21.75	-9,677,499
Non-U.S. Equity	356,288,644	22.22	15.23	28.28	21.75	-7,603,641
Core Fixed	202,101,418	12.61	8.00	12.00	10.00	-41,786,474
High Yield / Specialty	265,196,731	16.54	10.50	19.50	15.00	-24,724,315
Real Estate	64,919,612	4.05	7.00	13.00	10.00	95,395,331
Real Return	102,825,643	6.41	7.00	13.00	10.00	57,489,301
Private Equity	157,650,068	9.83	7.00	13.00	10.00	2,664,876
Cash Equivalent	45,007,096	2.81	0.00	3.00	1.50	-20,959,855
Opportunistic	50,797,724	3.17	0.00	5.00	0.00	-50,797,724
Total Fund	1,603,149,439	100.00			100.00	

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CERS Pension Plan

Periods Ended 1 Quarter Ending June 30, 2021



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CERS Insurance Plan Periods Ended 1 Quarter Ending June 30, 2021

-12.0 %

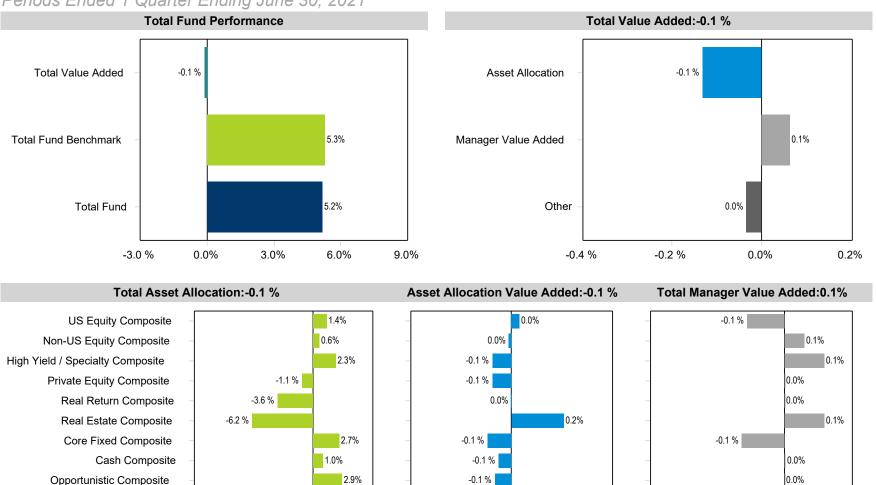
Average Active Weight

-6.0 %

0.0%

6.0%

-0.4 %



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W Wilshire

-0.2 %

Asset Allocation Value Added

0.0%

0.2%

0.4% -0.4 %

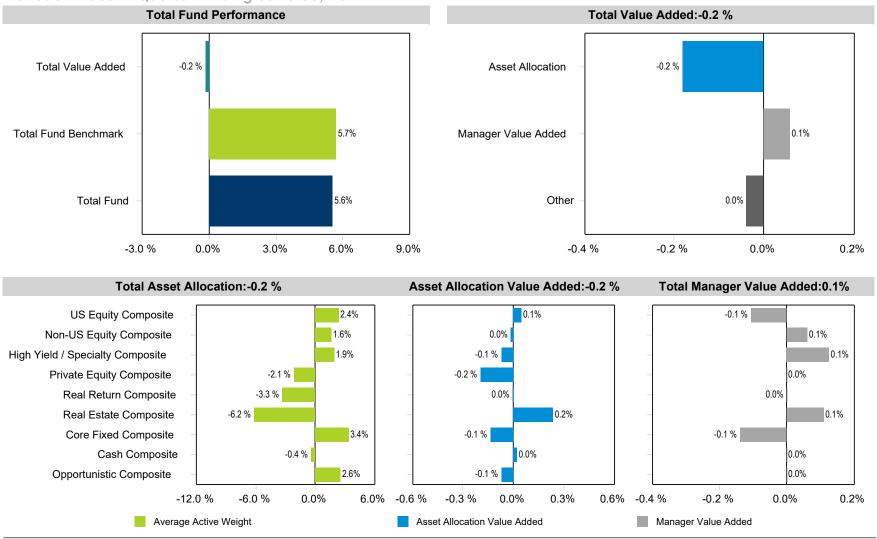
-0.2 %

Manager Value Added

0.0%

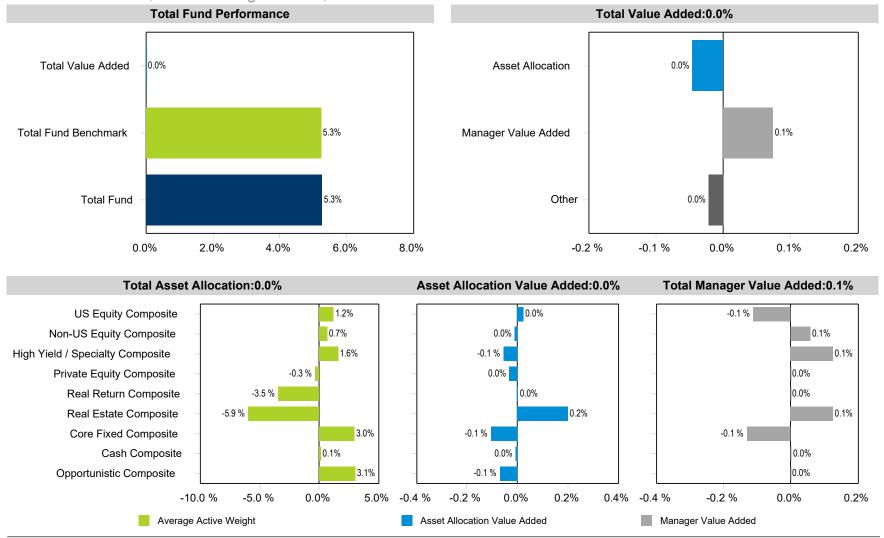
0.2%

CERS (H) Pension Plan Periods Ended 1 Quarter Ending June 30, 2021



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CERS (H) Insurance Plan Periods Ended 1 Quarter Ending June 30, 2021



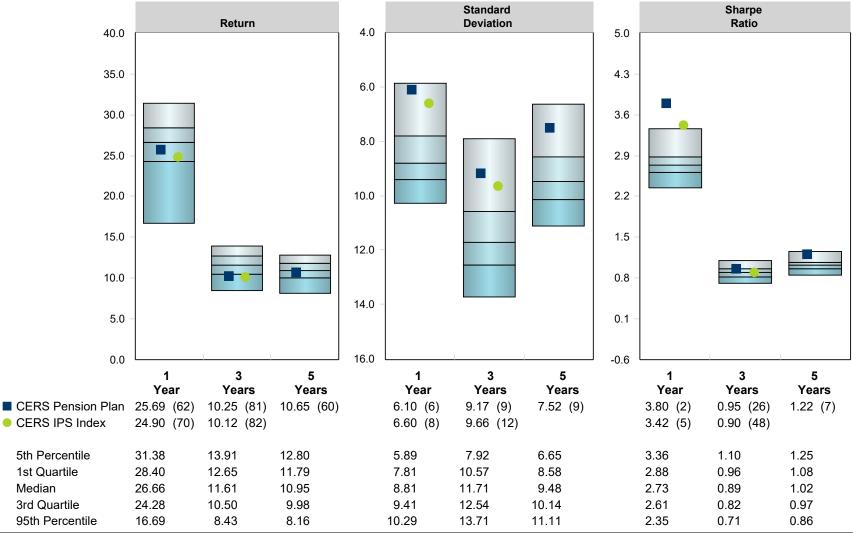
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W Wilshire

Plan Sponsor Peer Group Analysis - Multi Statistics

CERS Pension Plan vs All Public Plans-Total Fund

Periods Ended June 30, 2021



Parentheses contain percentile rankings.

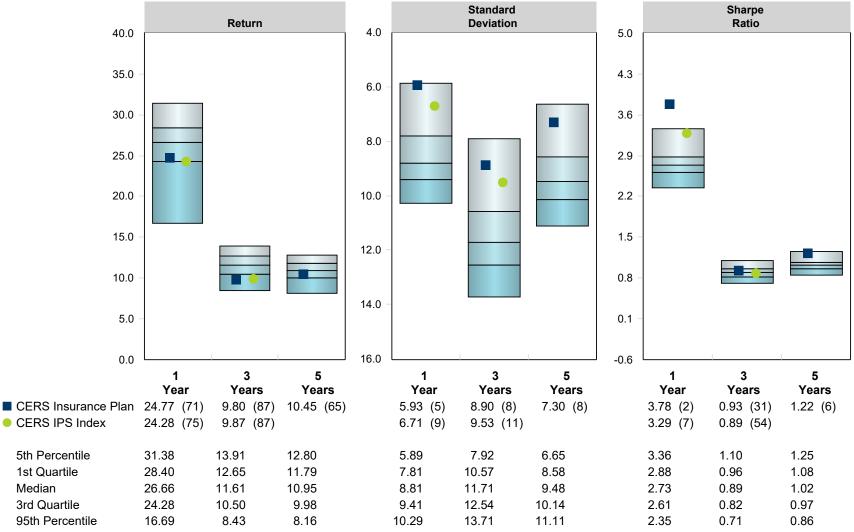
Calculation based on monthly periodicity.

W Wilshire

Plan Sponsor Peer Group Analysis - Multi Statistics

CERS Insurance Plan vs All Public Plans-Total Fund

Periods Ended June 30, 2021



Parentheses contain percentile rankings.

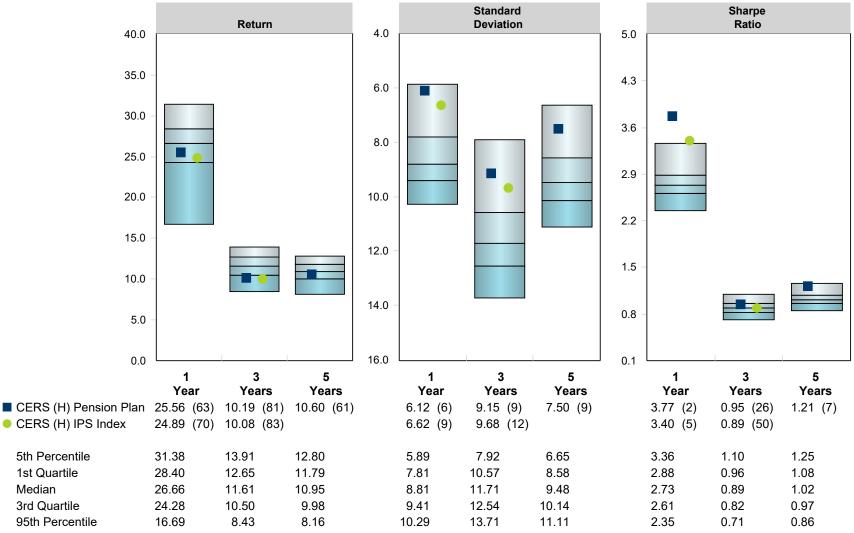
Calculation based on monthly periodicity.

W Wilshire

Plan Sponsor Peer Group Analysis - Multi Statistics

CERS (H) Pension Plan vs All Public Plans-Total Fund

Periods Ended June 30, 2021

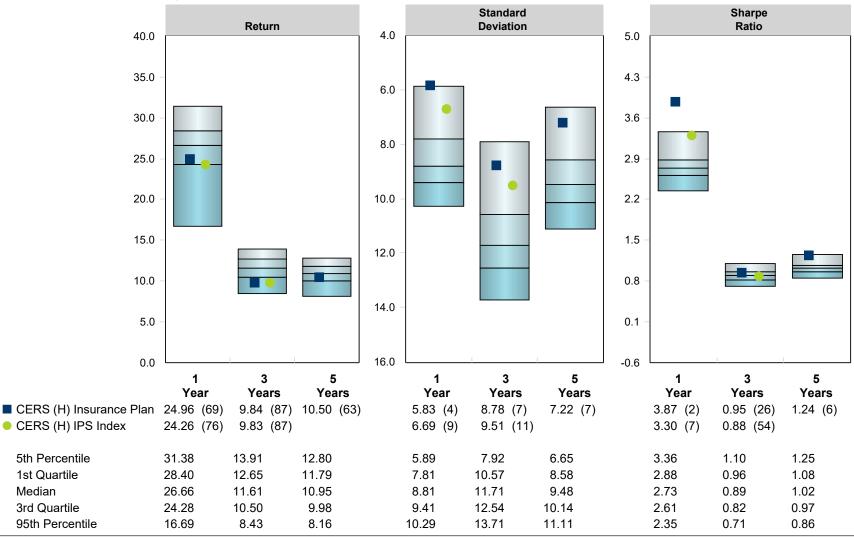


Parentheses contain percentile rankings

Calculation based on monthly periodicity.

Plan Sponsor Peer Group Analysis - Multi Statistics

CERS (H) Insurance Plan vs All Public Plans-Total Fund Periods Ended June 30, 2021

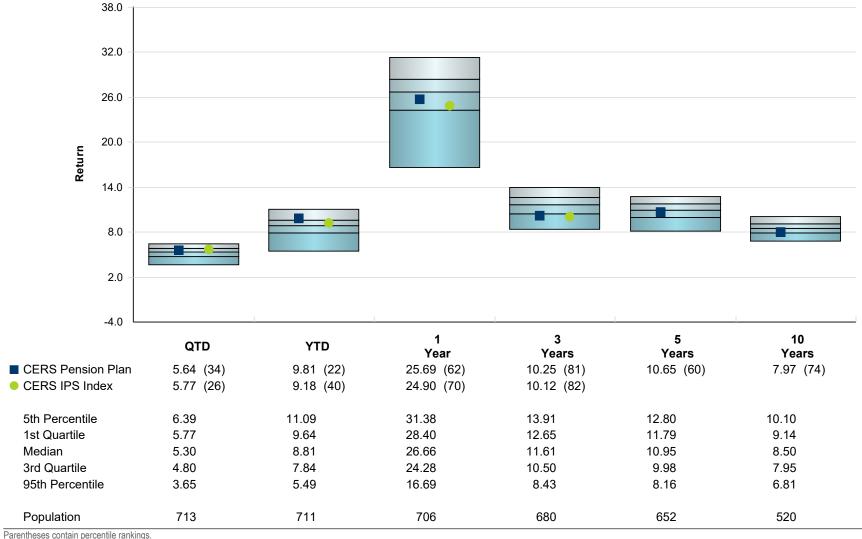


Parentheses contain percentile rankings

Calculation based on monthly periodicity.

Wilshire Consulting Plan Sponsor Peer Group Analysis

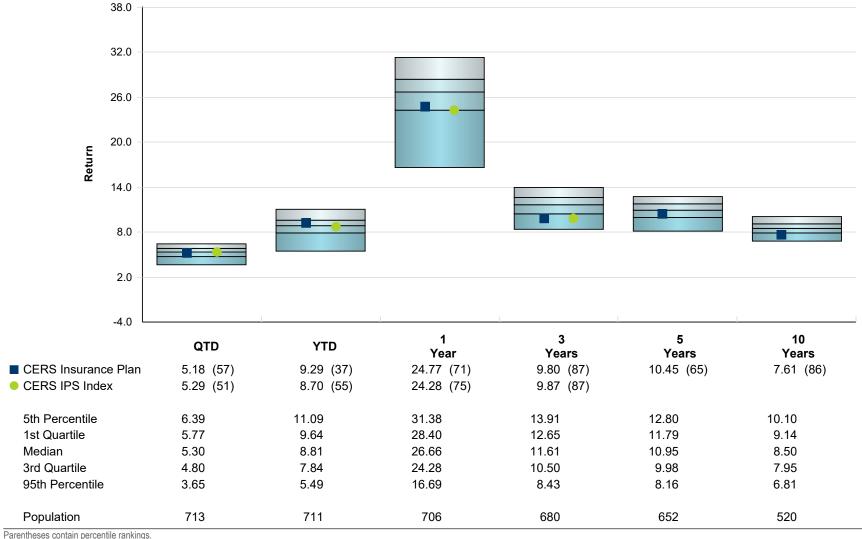
CERS Pension Plan vs All Public Plans-Total Fund Periods Ended June 30, 2021



Calculation based on monthly periodicity.

Wilshire Consulting Plan Sponsor Peer Group Analysis

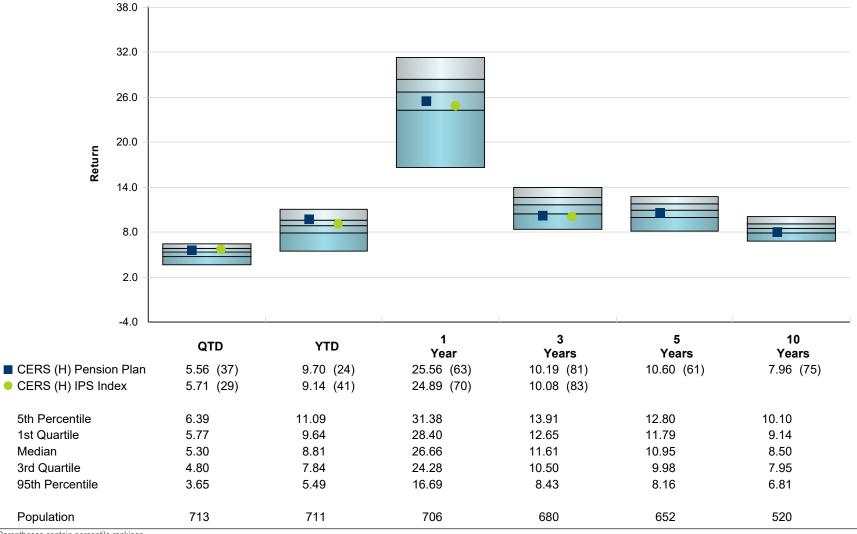
CERS Insurance Plan vs All Public Plans-Total Fund Periods Ended June 30, 2021



Calculation based on monthly periodicity.

Plan Sponsor Peer Group Analysis

CERS (H) Pension Plan vs All Public Plans-Total Fund *Periods Ended June 30, 2021*

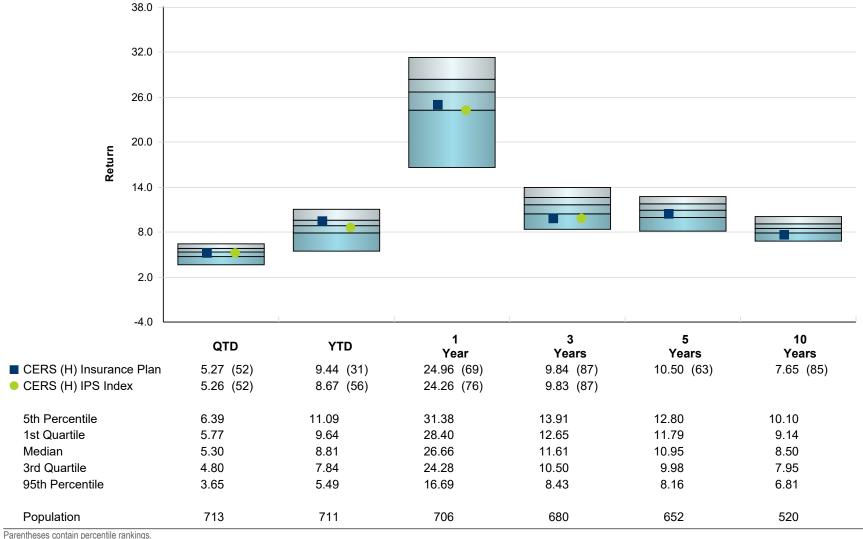


Parentheses contain percentile rankings.

Calculation based on monthly periodicity.

Plan Sponsor Peer Group Analysis

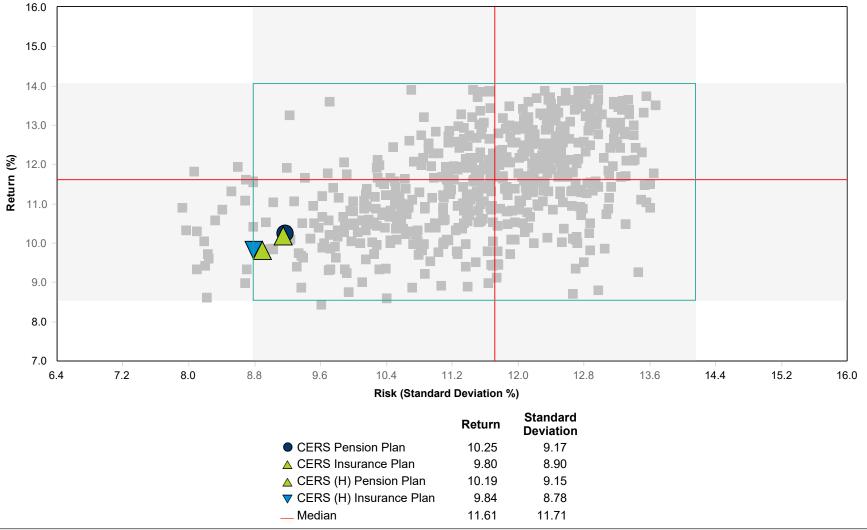
CERS (H) Insurance Plan vs All Public Plans-Total Fund Periods Ended June 30, 2021



Calculation based on monthly periodicity.

Plan Sponsor Scattergram

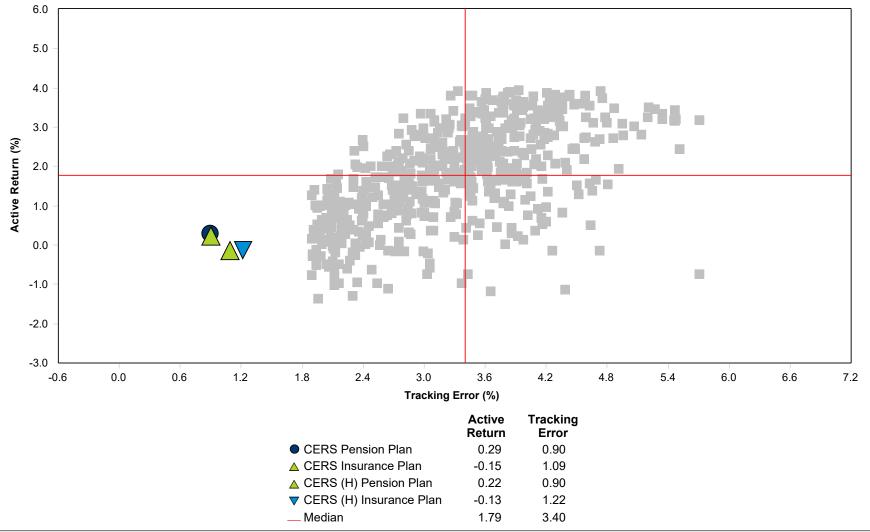
CERS Pension Plan vs All Public Plans-Total Fund Periods Ended 3 Years Ending June 30, 2021



Calculation based on monthly periodicity.

Plan Sponsor Scattergram

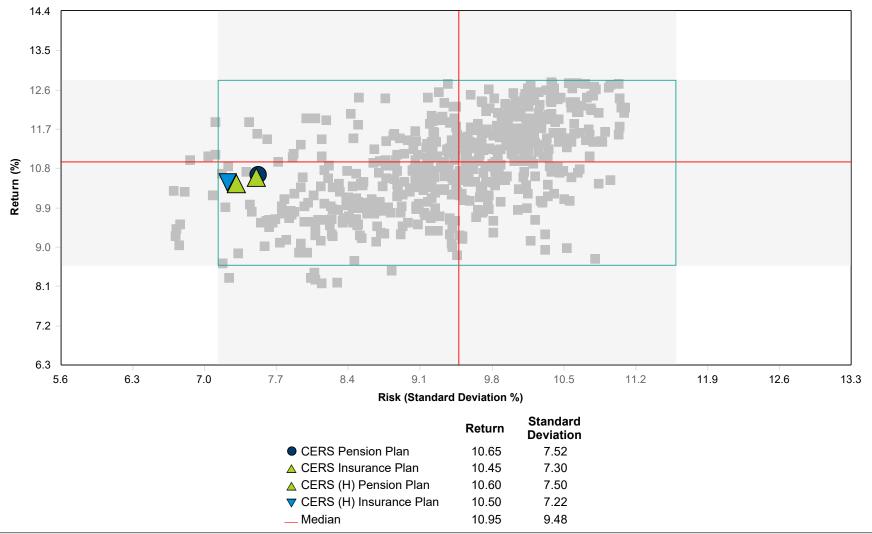
CERS Pension Plan vs All Public Plans-Total Fund Periods Ended 3 Years Ending June 30, 2021



Calculation based on monthly periodicity.

Plan Sponsor Scattergram

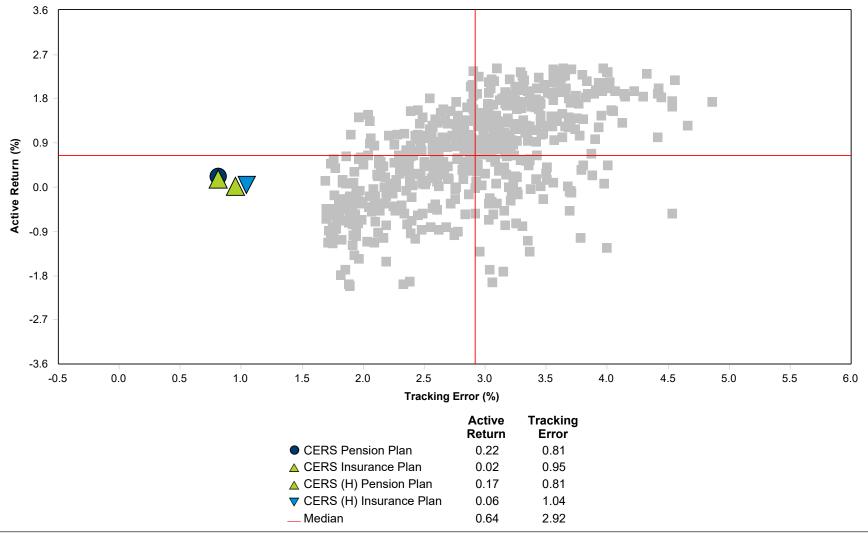
CERS Pension Plan vs All Public Plans-Total Fund Periods Ended 5 Years Ending June 30, 2021



Calculation based on monthly periodicity.

Plan Sponsor Scattergram

CERS Pension Plan vs All Public Plans-Total Fund Periods Ended 5 Years Ending June 30, 2021



Calculation based on monthly periodicity.

Total Fund *Periods Ended June 30, 2021*

	Market Value		Performance (%) net of fees							
	\$	1 Month	QTD	YTD	FYTD	1 Year	3 Years	5 Years	Since Inception	Inception Date
CERS Pension Plan	8,608,160,413	1.56		9.81	25.69		10.25	10.65	9.24	4/1/1984
CERS IPS Index		2.02	5.77	9.18	24.90	24.90	10.12			
Value Added Assumed Rate 6.25%		-0.46 0.51	-0.13 1.53	0.63 3.08	0.79 6.25	0.79	0.13			
Value Added		1.05	4.11	6.73	19.44	19.44	4.00			
		1.05	4.11	0.75	13.44	13.44	4.00			
CERS Insurance Plan	3,126,270,616	1.37	5.18	9.29	24.77	24.77	9.80	10.45	7.68	4/1/1987
CERS IPS Index	0,120,210,010	1.71	5.29	8.70	24.28		9.87			
Value Added		-0.34	-0.11	0.59	0.49	0.49	-0.07			
Assumed Rate 6.25%		0.51	1.53	3.08	6.25	6.25	6.25			
Value Added		0.86	3.65	6.21	18.52	18.52	3.55			
CERS (H) Pension Plan	2,917,699,945	1.51	5.56	9.70	25.56	25.56	10.19	10.60	9.24	4/1/1984
CERS (H) IPS Index		1.98	5.71	9.14	24.89	24.89	10.08			
Value Added		-0.47	-0.15	0.56	0.67	0.67	0.11			
Assumed Rate 6.25%		0.51	1.53	3.08	6.25	6.25	6.25			
Value Added		1.00	4.03	6.62	19.31	19.31	3.94			
CERS (H) Insurance Plan	1,603,149,439	1.45	5.27	9.44	24.96	24.96	9.84	10.50	7.69	4/1/1987
CERS (H) IPS Index	1,000,140,400	1.70	5.26	8.67	24.26		9.83	10.00	1.00	
Value Added		-0.25	0.01	0.77	0.70	0.70	0.01			
Assumed Rate 6.25%		0.51	1.53	3.08	6.25	6.25	6.25			
Value Added		0.94	3.74	6.36	18.71	18.71	3.59			

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Wilshire Consulting Asset Allocation & Performance

Insurance Plan Accounts Periods Ended June 30, 2021

				Perfor	mance (%) no re	eturns		
	1 Month	QTD	YTD	FYTD	1 Year	3 Years	5 Years	Since Inception	Inception Date
GROWTH									
US Equity Composite	2.05	7.75	15.73	44.68	44.68	17.76	17.15	10.55	7/1/1992
Russell 3000 Index	2.47	8.24	15.11	44.16	44.16	18.73	17.89	10.77	
Value Added	-0.42	-0.49	0.62	0.52	0.52	-0.97	-0.74	-0.22	
S&P 500 Index	2.25	8.45	15.13	40.53	40.53	18.98	17.93	9.07	7/1/2001
S&P 500 Index	2.33	8.55	15.25	40.79	40.79	18.67	17.65	8.61	
Value Added	-0.08	-0.10	-0.12	-0.26	-0.26	0.31	0.28	0.46	
Scientific Beta	0.68	7.10	14.80	38.45	38.45	14.34	13.69	13.69	7/1/2016
S&P 500 Index	2.33	8.55	15.25	40.79	40.79	18.67	17.65	17.65	
Value Added	-1.65	-1.45	-0.45	-2.34	-2.34	-4.33	-3.96	-3.96	
River Road FAV	-0.21	5.11	12.95	41.88	41.88	13.28	14.92	14.92	7/1/2016
Russell 3000 Value Index	-1.11	5.16	17.67	45.40	45.40	12.23	11.99	11.99	
Value Added	0.90	-0.05	-4.72	-3.52	-3.52	1.05	2.93	2.93	
Westfield Capital	4.64	10.79	14.01	42.44	42.44	25.56	23.89	16.73	7/1/2011
Russell 3000 Growth Index	6.17	11.38	12.71	42.99	42.99	24.47	23.31	17.54	
Value Added	-1.53	-0.59	1.30	-0.55	-0.55	1.09	0.58	-0.81	
Internal US Mid Cap	-1.12	3.52	17.50	52.95	52.95	13.72	14.85	12.49	8/1/2014
S&P MidCap 400 Index	-1.02	3.64	17.59	53.24	53.24	13.17	14.29	12.05	
Value Added	-0.10	-0.12	-0.09	-0.29	-0.29	0.55	0.56	0.44	
NTGI Structured	1.07	4.39	19.69	60.74	60.74	13.53	16.08	12.92	7/1/2011
Russell 2000 Index	1.94	4.29	17.54	62.03	62.03	13.52	16.47	12.34	
Value Added	-0.87	0.10	2.15	-1.29	-1.29	0.01	-0.39	0.58	
Next Century Growth	8.22	11.28	27.62	115.85	115.85			82.92	11/1/2019
Russell Microcap Growth Index	6.36	3.18	20.57	65.78	65.78			48.89	
Value Added	1.86	8.10	7.05	50.07	50.07			34.03	

Insurance Plan Accounts Periods Ended June 30, 2021

				Perfor	mance (%) no re	eturns		
	1 Month	QTD	YTD	FYTD	1 Year	3 Years	5 Years	Since Inception	Inception Date
Non-US Equity Composite	-1.09	5.86	9.57	37.79	37.79	10.86	12.66	3.58	4/1/2000
Policy Index	-0.64	5.60	9.58	37.18	37.18	9.42	11.32	3.61	4/1/2000
Value Added	-0.45	0.26	-0.01	0.61	0.61	1.44	1.34	-0.03	
BlackRock World Ex US	-1.37	5.70	9.99	33.86	33.86	8.40	10.50	8.29	6/1/2012
Policy Index	-1.02	5.65	9.92	33.60	33.60	8.34	10.45	8.21	
Value Added	-0.35	0.05	0.07	0.26	0.26	0.06	0.05	0.08	
American Century	-0.27	7.39	7.91	41.86	41.86	17.35	18.15	10.51	7/1/2014
Policy Index	-0.64	5.60	9.58	37.18	37.18	9.42	11.30	5.62	
Value Added	0.37	1.79	-1.67	4.68	4.68	7.93	6.85	4.89	
Franklin Templeton	0.75	7.87	5.67	32.00	32.00	12.67	16.71	10.27	7/1/2014
Policy Index	-0.64	5.60	9.58	37.18	37.18	9.42	11.30	5.62	
Value Added	1.39	2.27	-3.91	-5.18	-5.18	3.25	5.41	4.65	
Lazard Asset Mgmt	-2.52	4.28	8.64	36.19	36.19	9.64	10.75	6.33	7/1/2014
Policy Index	-0.64	5.60	9.58	37.18	37.18	9.42	11.30	5.62	
Value Added	-1.88	-1.32	-0.94	-0.99	-0.99	0.22	-0.55	0.71	
LSV Asset Mgmt	-2.16	5.48	14.73	35.93	35.93	7.19	10.19	4.30	7/1/2014
Policy Index	-0.64	5.60	9.58	37.18	37.18	9.42	11.30	5.62	
Value Added	-1.52	-0.12	5.15	-1.25	-1.25	-2.23	-1.11	-1.32	
Blackrock ACWI Ex-US Small Cap	-0.36	6.37	12.17	46.82	46.82	9.87	12.02	9.63	7/1/2013
MSCI AC World ex USA Small Cap (Net)	-0.62	6.35	12.24	47.04	47.04	9.78	11.97	9.28	
Value Added	0.26	0.02	-0.07	-0.22	-0.22	0.09	0.05	0.35	
JP Morgan Emerging Markets	1.91	9.39	7.78	52.10	52.10			29.57	11/1/2019
MSCI Emerging Markets IMI	0.46	5.81	8.89	43.68	43.68			21.65	
Value Added	1.45	3.58	-1.11	8.42	8.42			7.92	

Insurance Plan Accounts Periods Ended June 30, 2021

	Performance (%) no returns									
	1 Month	QTD	YTD	FYTD	1 Year	3 Years	5 Years	Since Inception	Inception Date	
Pzena Emerging Markets	-2.16	0.69	11.42	50.37	50.37			16.68	11/1/2019	
MSCI Emerging Markets (Net)	0.17	5.05	7.45	40.90	40.90			20.48		
Value Added	-2.33	-4.36	3.97	9.47	9.47			-3.80		
High Yield / Specialty Credit Composite	1.41	2.85	5.80	15.02	15.02			6.55	10/1/2018	
Policy Index	0.86	2.11	3.45	13.52	13.52			5.67		
Value Added	0.56	0.74	2.35	1.50	1.50			0.88		
Adams St SPC II A	6.18	6.18	10.80	14.95	14.95			13.72	6/1/2020	
Adams St SPC II B	7.00	7.00	12.35	17.19	17.19			15.77	6/1/2020	
Blue Torch	1.51	1.51	2.23					3.53	8/1/2020	
BSP Coinvestment	2.60	2.60	4.40	6.97	6.97			6.65	10/1/2019	
S&P/LSTA Leverage Loan Index	0.37	1.47	3.28	11.65	11.65			4.69		
Value Added	2.23	1.13	1.12	-4.68	-4.68			1.96		
BSP Private Credit	3.56	3.56	9.22	18.55	18.55	5.83		5.01	2/1/2018	
S&P/LSTA Leverage Loan Index	0.37	1.47	3.28	11.65	11.65	4.39		4.21		
Value Added	3.19	2.09	5.94	6.90	6.90	1.44		0.80		
Capital Springs	1.77	1.77	5.65	21.42	21.42			10.93	2/1/2020	
S&P/LSTA Leverage Loan Index	0.37	1.47	3.28	11.65	11.65			4.14		
Value Added	1.40	0.30	2.37	9.77	9.77			6.79		
Cerberus Capital Mgmt	0.88	3.80	7.50	13.52	13.52	10.04	9.13	8.89	9/1/2014	
S&P/LSTA Leverage Loan Index	0.37	1.47	3.28	11.65	11.65	4.39	4.99	4.02		
Value Added	0.51	2.33	4.22	1.87	1.87	5.65	4.14	4.87		
Columbia	1.48	2.70	3.05	13.48	13.48	7.47	6.72	6.90	11/1/2011	
Blmbg. U.S. Corp: High Yield	1.34	2.74	3.62	15.37	15.37	7.45	7.48	6.94		
Value Added	0.14	-0.04	-0.57	-1.89	-1.89	0.02	-0.76	-0.04		

Insurance Plan Accounts Periods Ended June 30, 2021

				Perfor	mance (%) no re	turns		
	1 Month	QTD	YTD	FYTD	1 Year	3 Years	5 Years	Since Inception	Inception Date
Manulife Asset Mgmt	-0.17	1.57	2.18	11.69	11.69	7.81	5.04	4.97	12/1/2011
Policy Index	0.73	1.96	-1.15	1.12	1.12	5.64	3.48	2.43	
Value Added	-0.90	-0.39	3.33	10.57	10.57	2.17	1.56	2.54	
Marathon Bluegrass	1.82	4.28	10.14	20.13	20.13	6.86	6.95	7.15	1/1/2016
Blmbg. U.S. Corp: High Yield	1.34	2.74	3.62	15.37	15.37	7.45	7.48	8.48	
Value Added	0.48	1.54	6.52	4.76	4.76	-0.59	-0.53	-1.33	
Shenkman Capital	0.19	1.37	2.62	10.65	10.65	4.50	4.71	4.13	7/1/2011
S&P/LSTA Leverage Loan Index	0.37	1.47	3.28	11.65	11.65	4.39	4.99	4.39	
Value Added	-0.18	-0.10	-0.66	-1.00	-1.00	0.11	-0.28	-0.26	
Waterfall	1.42	3.63	9.26	21.36	21.36	4.41	6.87	8.48	7/1/2011
Policy Index	0.87	1.78	2.61	10.55	10.55	5.40	5.69	4.77	
Value Added	0.55	1.85	6.65	10.81	10.81	-0.99	1.18	3.71	
White Oak Yield Spectrum	1.56	1.56	3.76	9.21	9.21	5.75		5.27	3/1/2018
S&P/LSTA Leverage Loan Index	0.37	1.47	3.28	11.65	11.65	4.39		4.25	
Value Added	1.19	0.09	0.48	-2.44	-2.44	1.36		1.02	
H/2 Credit Partner	0.06	-0.19	11.98	29.22	29.22	1.37	4.02	4.67	7/1/2011
Mesa West Core Lend	1.37	4.02	4.02	6.93	6.93	7.04	7.18	6.60	5/1/2013
Mesa West IV	2.70	2.70	3.80	6.89	6.89	7.46		6.13	3/1/2017
Private Equity Composite	8.13	11.15	18.28	34.36	34.36	11.95	13.40	10.53	7/1/2002
KRS Short-Term PE Index	8.13	11.15	18.28	34.36	34.36	11.95	13.40	10.53	
Value Added	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Russell 3000 +3% 1 Quarter Lag	3.84	7.14	23.78	67.40	67.40	20.63	20.14	12.52	
Value Added	4.29	4.01	-5.50	-33.04	-33.04	-8.68	-6.74	-1.99	

Insurance Plan Accounts Periods Ended June 30, 2021

				Perfor	mance ('	%) no re	eturns		
	1 Month	QTD	YTD	FYTD	1 Year	3 Years	5 Years	Since Inception	Inception Date
DIVERSIFYING STRATEGIES									
Real Return Composite	1.26	5.36	9.73	22.46	22.46	6.06	5.32	4.21	7/1/2011
Real Return (I)	1.26	5.36	9.73	22.46	22.46	6.02	4.35	3.62	
Value Added	0.00	0.00	0.00	0.00	0.00	0.04	0.97	0.59	
Putnam	1.38	6.28	9.88	26.12	26.12			26.12	7/1/2020
Policy Index	1.43	5.40	7.89	24.71	24.71			24.71	
Value Added	-0.05	0.88	1.99	1.41	1.41			1.41	
Tortoise Capital	5.54	20.51	42.35	52.58	52.58	-1.82	-0.72	8.04	8/1/2009
Alerian MLP Index	5.18	21.23	47.84	63.98	63.98	-0.33	-1.05	5.44	
Value Added	0.36	-0.72	-5.49	-11.40	-11.40	-1.49	0.33	2.60	
Amerra AGRI Fund II	-1.17	-1.17	1.09	1.65	1.65	6.21	3.29	4.76	12/1/2012
Amerra AGRI Holdings	-4.48	-4.48	-6.88	-4.27	-4.27	-2.32	-2.18	-1.75	8/1/2015
BTG Pactual	-4.86	-4.86	0.27	0.11	0.11	-4.25	-0.56	-7.17	12/1/2014
IFM Infrastructure	1.16	1.16	3.18	4.91	4.91			2.87	7/1/2019
Magnetar MTP EOF II	17.42	17.42	32.48	92.89	92.89	16.65	14.73	8.96	8/1/2015
Oberland Capital	0.29	0.29	6.48	8.18	8.18			14.83	8/1/2018
Taurus Mine Finance	-2.89	-2.89	-6.46	-6.98	-6.98	0.88	5.71	7.12	4/1/2015
трғ ш	-0.13	-11.32	-11.32	-11.49	-11.49	0.08	3.10	-2.75	10/1/2008
Blackstone Strat Opp	0.29	2.18	-4.69	-5.89	-5.89	-6.91		-3.70	8/1/2017
Luxor Capital	9.13	6.51	3.92	13.10	13.10	-6.45	5.35	-1.82	4/1/2014
Myriad Opportunities	0.09	2.38	13.08	34.02	34.02	2.79	5.42	5.54	5/1/2016
Pine River	2.38	2.09	3.90	8.22	8.22	11.79	7.40	4.60	5/1/2014

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Insurance Plan Accounts Periods Ended June 30, 2021

				Perfor	mance ('	%) no re	eturns		
	1 Month	QTD	YTD	FYTD	1 Year	3 Years	5 Years	Since Inception	Inception Date
PRISMA Capital	0.19	-0.80	0.04	-0.82	-0.82	0.53	2.51	2.87	9/1/2011
SRS Partners US	5.79	9.39	23.02	19.81	19.81	9.63		11.86	8/1/2017
Tricadia Select	0.00	0.00	0.00	0.00	0.00	-2.26		-6.45	9/1/2017
Real Estate Composite NCREIF ODCE NOF 1 Quarter Lag Value Added	2.96 1.89 1.07	4.94 1.89 3.05	6.63 3.00 3.63	10.21 1.47 8.74	10.21 1.47 8.74	9.19 3.96 5.23	9.48 5.26 4.22	9.07	5/1/2009
Baring	6.00	9.87	5.79	20.43	20.43	5.25	4.22	26.32	1/1/2019
Barings Euro RE II	-20.28	-17.37	-42.86					-41.56	12/1/2020
Divcowest IV	5.71	5.71	4.37	11.96	11.96	9.14	16.03	17.42	3/1/2014
Fundamental Partners III	5.70	5.70	10.96	19.19	19.19	14.48		11.56	5/1/2017
Greenfield Acq VI	-0.50	-0.50	-25.96	-31.32	-31.32	-41.96	-28.32	-12.92	12/1/2012
Greenfield Acq VII	0.28	0.28	15.44	18.26	18.26	14.32	13.89	12.86	7/1/2014
Harrison Street	0.00	1.49	1.49	4.23	4.23	6.12	7.54	7.60	5/1/2012
Lubert Adler VII	0.74	0.74	-3.47	-13.35	-13.35	-2.66	1.88	-2.45	7/1/2014
Lubert Adler VII B	3.46	3.46	6.35	10.77	10.77	11.03		7.30	7/1/2017
Patron Capital	3.85	7.64	-1.14	11.91	11.91	5.23		2.34	8/1/2016
Prologis Targeted US	0.00	4.65	10.86	12.48	12.48	14.31	16.08	14.89	10/1/2014
Rubenstein PF II	0.28	0.28	-3.02	-5.39	-5.39	1.02	4.79	8.78	7/1/2013
Stockbridge Sm/Mkts	7.34	7.34	9.78	12.31	12.31	8.07	8.11	8.73	5/1/2014
Walton St RE VI	4.76	4.76	3.95	4.64	4.64	-1.70	-0.04	-14.41	5/1/2009

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Insurance Plan Accounts Periods Ended June 30, 2021

				Perfor	mance (%) no re	eturns		
	1 Month	QTD	YTD	FYTD	1 Year	3 Years	5 Years	Since Inception	Inception Date
Walton St RE VII	2.86	2.86	3.83	-2.18	-2.18	-6.21	0.33	5.49	7/1/2013
LIQUIDITY									
Core Fixed Composite	0.19	0.86	0.56	3.33	3.33			5.36	10/1/2018
Blmbg. U.S. Aggregate	0.70	1.83	-1.61	-0.34	-0.34			5.84	
Value Added	-0.51	-0.97	2.17	3.67	3.67			-0.48	
Loomis Sayles Intmd	0.11	0.92	-0.67	0.85	0.85			5.22	2/1/2019
Blmbg. U.S. Intermediate Aggregate	0.04	0.78	-0.84	0.05	0.05			4.32	
Value Added	0.07	0.14	0.17	0.80	0.80			0.90	
Lord Abbett	0.10	0.67	1.26	4.72	4.72			3.90	10/1/2018
ICE BofAML 1-3 Year U.S. Corporate	-0.08	0.34	0.36	1.85	1.85			3.90	
Value Added	0.18	0.33	0.90	2.87	2.87			0.00	
NISA	0.81	1.90	-1.54	-0.51	-0.51	5.28	3.04	3.49	7/1/2011
Blmbg. U.S. Aggregate	0.70	1.83	-1.61	-0.34	-0.34	5.34	3.03	3.39	
Value Added	0.11	0.07	0.07	-0.17	-0.17	-0.06	0.01	0.10	
Cash Composite	0.01	0.01	0.04	0.10	0.10	1.33	1.26	2.52	7/1/1992
FTSE 3 Month T-Bill	0.00	0.01	0.03	0.08	0.08	1.31	1.14	2.38	
Value Added	0.01	0.00	0.01	0.02	0.02	0.02	0.12	0.14	
OPPORTUNISTIC									
Arrowmark	0.77	3.09	6.81	20.60	20.60	9.06		8.81	6/1/2018
S&P/LSTA Leverage Loan Index	0.37	1.47	3.28	11.65	11.65	4.39		4.31	
Value Added	0.40	1.62	3.53	8.95	8.95	4.67		4.50	



MEMORANDUM

TO: County Employees Retirement System Board of Trustees

- From: William O'Mara, Chair Finance Committee
- Date: September 8, 2021

Subject: Summary of Finance Committee Quarterly Meeting

The County Employees Retirement System held a regularly scheduled quarterly meeting on September 1, 2021.

- 1. The following items were approved by the Finance Committee and are being forwarded to the County Employees Retirement System Board of Trustees for ratification*
 - a. Approval of the prior Finance Committee Meeting Minutes There were no changes or corrections made to the May 5, 2021 minutes of the Committee and the minutes were passed by unanimous vote of the Committee.
 - b. Participation of CERS Agency The Finance Committee voted to approve the participation of Liberty Tourism and Convention Commission in the CERS system by unanimous vote. Liberty Tourism having satisfactorily completed their trial participation period.
 - c. Hazardous Duty Requests The Finance Committee considered a total of thirtyeight (38) requests for Hazardous Duty designation for positions in member organizations. After hearing the presentation from KPPA staff indicating staff had reviewed each request and determined that they meet the statutory guidelines for Hazardous coverage, the Finance Committee voted unanimously to approve each request.

RECOMMENDATION: The Finance Committee requests the **County Employees Retirement System** Board of Trustees ratify the actions taken by the Investment Committee.

County Employees Retirement System 1270 Louisville Road Frankfort, KY 40601 Betty A Pendergrass, Chair Jerry Powell, Vice-Chair Ed Owens, CEO

2. The following items were also discussed during the Finance Committee meeting:

- a. KPPA staff presented quarterly financial reports consisting of:
 - a. YTD Financial Spreadsheet
 - b. Administration Expense to Budget
 - i. There was extensive discussion concerning KPPA's monthly draw protocol from the CERS Trust.
 - c. Contribution Report
 - d. Outstanding Invoice Report
 - e. Penalty Waiver Report
- b. Other Financial Updates.

*Board of Trustees Action Required



Combining Statement of Fiduciary Net Position - Pension Funds

As of June 30, 2021 with Comparative Totals as of June 30, 2020 (\$ in Thousands)

	CEF	RS	TOTAI	L	Percentage of	
ASSETS	Non-Hazardous	Hazardous	2021	2020	Change	Notes
CASH AND SHORT-TERM INVESTMENTS						
Cash Deposits	\$274	\$70	\$344	\$290	18.36%	1
Short-term Investments	354,401	131,684	486,085	634,757	-23.42%	2
Total Cash and Short-term Investments	354,675	131,754	486,429	635,048		
RECEIVABLES						
Accounts Receivable	70,560	17,763	88,323	87,594	0.83%	
Accounts Receivable - Investments	111,066	38,148	149,213	108,049	38.10%	3
Total Receivables	181,626	55,911	237,537	195,644		
INVESTMENTS, AT FAIR VALUE						
Core Fixed Income	1,065,844	365,971	1,431,815	1,642,643	-12.83%	4
Public Equities	4,019,814	1,354,270	5,374,084	3,640,711	47.61%	5
Private Equities	710,086	238,414	948,499	799,251	18.67%	6
Specialty Credit	1,421,018	485,653	1,906,670	1,497,370	27.33%	7
Derivatives	(123)	(33)	(156)	5,719	-102.72%	8
Absolute Return	0	0	0	131,463		9
Real Return	553,862	186,784	740,646	542,744	36.46%	10
Opportunistic	230,926	76,341	307,267	239,214	28.45%	11
Real Estate	344,816	110,311	455,127	430,187	5.80%	
Total Investments, at Fair Value	8,346,242	2,817,710	11,163,953	8,929,301		
Securities Lending Collateral Invested	231,593	78,524	310,117	175,229	76.98%	12
CAPITAL/INTANGIBLE ASSETS						
Capital Assets	1,701	153	1,854	1,854	0.00%	
Intangible Assets	9,961	827	10,788	10,788	0.00%	
Accumulated Depreciation	(1,708)	(154)	(1,861)	(1,816)	2.50%	
Accumulated Amortization	(9,607)	(819)	(10,426)	(9,854)	5.80%	
Total Capital Assets	347	8	355	972		
Total Assets	9,114,483	3,083,907	12,198,390	9,936,193		
LIABILITIES						
Accounts Payable	8,677	1,119	9,796	8,375	16.96%	13
Investment Accounts Payable	203,549	69,842	273,391	246,011	11.13%	14
Securities Lending Collateral	231,593	78,524	310,117	175,229	76.98%	15
Total Liabilities	443,818	149,486	593,304	429,616		
Total Fiduciary Net Position Restricted for Pension Benefits	\$8,670,665	\$2,934,421	\$11,605,086	\$9,506,578		
NOTE - Variance Explanation						

NOTE - Variance Explanation

1) Variance is a result of continuous fluctuation of deposits and transactions that flow through the cash account.

2) Short Term Investments is primarily comprised of the cash on hand with the custodial bank along with any small amounts of cash managers and brokers may have; therefore, the variance is driven by cash flow.

3) The increase in Accounts Receivables is due to pending trades.

4) The decline in Core Fixed Income is a result of less income received and less funding for the asset class.

5) The increase in Public Equities is due to positive market conditions resulting in increased market values.

6) The increase in Private Equity is a result of positive market conditions resulting in increased market values.

7) The increase in Specialty Credit is due to additional funding and positive market conditions increasing market values.

8) Variance is a result of hedging and arbitration of risk within the portfolios.

9) The decline in Absolute Return is result of the merging of the Absolute Return asset class with the Real Return asset class.

10) The increase in Real Return is a result of the merging of the Absolute Return asset class with the Real Return asset class and positive market conditions resulting in increased market values.

11) The increase in Opportunistic is due to additional funding and positive market conditions increasing market values.

12) Variance is a result of the demands of the Securities Lending Program.

13) The increase in Accounts Payable is due to an increase in outstanding Employer Reporting credit invoices.

14) The increase in Accounts Payable is due to pending trades.



Combining Statement of Changes In Fiduciary Net Position - Pension Funds

For the fiscal year ending June 30, 2021, with Comparative Totals as of June 30, 2020 (\$ in Thousands)_____

	mousanus					
	CER	IS S	Total		Percentage	
	Non-Hazardous	Hazardous	2021	2020	of Change	Notes
ADDITIONS						
Member Contributions	\$165,698	\$62,367	\$228,065	\$232,230	-1.79%	
Employer Contributions	472,196	172,089	644,285	643,512	0.12%	
General Fund Appropriations	-	-	-	-		
Pension Spiking Contributions	32	116	149	347	-57.23%	1
Health Insurance Contributions (HB1)	(1)	2	1	6	-86.43%	2
Employer Cessation Contributions	_	_	-	-		
Total Contributions	637,925	234,574	872,499	876,096		
INVESTMENT INCOME						
From Investing Activities						
Net Appreciation (Depreciation) in FV of						
Investments	1,648,520	554,881	2,203,401	(107,552)	2148.68%	3
Interest/Dividends	218,068	73,399	291,467	218,084	33.65%	4
Total Investing Activities Income	1,866,588	628,280	2,494,868	110,532		
Less: Investment Expense	36,271	12,081	48,352	38,684	24.99%	5
Less: Performance Fees	46,853	15,731	62,584	854	7224.28%	6
Net Income from Investing Activities	1,783,464	600,467	2,383,931	70,993		
From Securities Lending Activities						
Securities Lending Income	512	176	688	4,255		
Less: Securities Lending Borrower Rebates	(391)	(134)	(525)	2,326		
Less: Securities Lending Agent Fees	135	46	182	249		
Net Income from Securities Lending	767	263	1,030	1,681	-38.69%	7
Net Investment Income	1,784,231	600,730	2,384,962	72,674		
Total Additions	2,422,156	835,304	3,257,461	948,770		
DEDUCTIONS						
Benefit Payments	826,749	289,999	1,116,749	1,071,762	4.20%	
Refunds	13,862	4,662	18,524	18,732	-1.11%	
Administrative Expenses	21,769	1,910	23,679	24,285	-2.49%	
Total Deductions	862,380	296,572	1,158,952	1,114,780		
Net Increase (Decrease) in Fiduciary Net Position Restricted for Pension Benefits	1,559,776	538,733	2,098,509	(166,010)		
Total Fiduciary Net Position Restricted for Pension Benefits						
Beginning of Period	7,110,889	2,395,688	9,506,578	9,672,588		
End of Period	\$8,670,665	\$2,934,421	\$11,605,086	\$9,506,578		
	· · ·					

NOTE - Variance Explanation

1) Pension Spiking contributions decreased due to a change in statute. Pension spiking is now the member's responsibility.

2) Health Insurance Contributions will continue to decrease in the Pension Funds, as they are now qualified in the Insurance Fund.

3) The increase in Net Appreciation in Fair Value of Investments is a result of favorable market conditions, particularly in the public equity portfolio.

4) The increase in Interest/Dividends is due to increased income from Private Equity, Real Estate, and Specialty Credit asset classes

5) The increase in Investment Expense is due to higher market values.

6) The increase in Performance fees is due to favorable market conditions resulting in higher performance fees.

7) Variance is a result of the demand of the Securities Lending Program.

Differences due to rounding.



Combining Statement of Fiduciary Net Position - Insurance Fund

As of June 30, 2021, with Comparative Totals as of June 30, 2020 (\$ In Thousands)

				ΤΟΤΑΙ				
	CEF	RS	ΤΟΤΑΙ		Percentage of			
ASSETS	Non-Hazardous	Hazardous	2021	2020	Change	Notes		
CASH AND SHORT-TERM INVESTMENTS								
Cash Deposits	\$117	\$51	\$168	\$97	72.15%	1		
Short-term Investments	190,744	76,433	267,177	219,425	21.76%	2		
Total Cash and Short-term Investments	190,861	76,483	267,345	219,522				
RECEIVABLES								
Accounts Receivable	15,690	4,690	20,381	21,371	-4.63%			
Investment Accounts Receivable	38,391	19,528	57,919	32,370	78.93%	3		
Total Receivables	54,082	24,218	78,300	53,741				
INVESTMENTS, AT FAIR VALUE								
Core Fixed Income	379,725	199,916	579,641	674,916	-14.12%	4		
Public Equities	1,375,705	707,548	2,083,252	1,418,520	46.86%	5		
Specialty Credit	529,508	262,287	791,795	603,040	31.30%	6		
Private Equities	279,970	157,517	437,487	380,232	15.06%			
Derivatives	21	3	25	1,505	-98.36%			
Absolute Return	0	0	0	50,223	-100.00%	7		
Real Return	189,953	99,768	289,720	209,316	38.41%	8		
Opportunistic	93,243	50,798	144,041	112,139	28.45%	9		
Real Estate	118,422	64,920	183,341	170,799	7.34%			
Total Investments, at Fair Value	2,966,546	1,542,756	4,509,303	3,620,690				
Securities Lending Collateral Invested	79,559	40,872	120,430	82,112	46.67%	10		
Total Assets	3,291,048	1,684,330	4,975,378	3,976,065				
LIABILITIES								
Accounts Payable	292	80	372	266	39.50%	11		
Investment Accounts Payable	69,412	35,567	104,979	90,503	15.99%	12		
Securities Lending Collateral	79,559	40,872	120,430	82,112	46.67%	13		
Total Liabilities	149,262	76,518	225,781	172,882				
Total Fiduciary Net Position Restricted for OPEB	\$3,141,786	\$1,607,811	\$4,749,597	\$3,803,183				

NOTE - Variance Explanation

1) Variance is a result of continuous fluctuation of deposits and transactions that flow through the cash account.

2) Short Term Investments is primarily comprised of the cash on hand with the custodial bank along with any small amounts of cash managers and brokers may have; therefore, the variance is driven by cash flow.

3) The increase in Investment Accounts Receivables is due to pending trades.

5) The decrease in Core Fixed Income is a result of movement of funds from core fixed income to public equity.

5) The increase in Public Equities is due to additional funding and positive market conditions resulting in increased market values.

6) The increase in Specialty Credit is due to additional funding and positive market conditions increasing market values.

7) The decline in Absolute Return is result of the merging of the Absolute Return asset class with the Real Return asset class.

8) The increase in Real Return is a result of the merging of the Absolute Return asset class with the Real Return asset class.

9) The increase in Opportunistic is due to additional funding and positive market conditions increasing market values.

10) Variance is a result of the demands of the Securities Lending Program.

11) The increase in Accounts Payable is due to an increase in outstanding Employer Reporting credit invoices.

12) The decrease in Accounts Payable is due to pending trades.

13) Variance is a result of the demands of the Securities Lending Program.

Difference due to rounding.



Combining Statement of Changes In Fiduciary Net Position - Insurance Fund For the fiscal year ending June 30, 2021, with Comparative Totals as of June 30, 2020 (\$ In Thousands)

County Employees Retirement System	(inousanus)					
	CER	RS	TOTAL	-	Percentage of	
	Non-Hazardous	Hazardous	2021	2020	Change	Notes
ADDITIONS						
Employer Contributions	\$124,697	\$58,451	\$183,149	\$181,479	0.92%	
Medicare Drug Reimbursement	3	-	3	4	-36.62%	1
Insurance Premiums	555	(149)	406	564	-28.02%	2
Humana Gain Share Payment	20,676	2,990	23,666	-	100%	3
Retired Re-employed Healthcare	5,206	1,348	6,553	5,685	15.27%	4
Health Insurance Contributions (HB1)	13,614	3,096	16,710	15,720	6.30%	
Employer Cessation Contributions	-	-	-	-		
Total Contributions	164,751	65,736	230,487	203,452		
INVESTMENT INCOME						
From Investing Activities						
Net Appreciation (Depreciation) in FV of						
Investments	578,584	302,533	881,117	(61,788)	1526.03%	5
Interest/Dividends	73,374	38,177	111,552	86,486	28.98%	6
Total Investing Activities Income	651,958	340,710	992,669	24,698		
Less: Investment Expense	13,895	7,395	21,291	13,248	60.71%	7
Less: Performance Fees	18,739	10,634	29,373	1,164	2423.41%	8
Net Income from Investing Activities	619,324	322,681	942,005	10,286		
From Securities Lending Activities						
Securities Lending Income	182	92	273	1,609		
Less: Securities Lending Borrower Rebates	(135)	(68)	(203)	905		
Less: Securities Lending Agent Fees	47	24	71	97		
Net Income from Securities Lending	269	136	405	607	-33.28%	9
Net Investment Income	619,593	322,817	942,410	10,893		
Total Additions	784,343	388,553	1,172,897	214,345		
Healthcare Premiums Subsidies	136,263	85,152	221,415	216,942	2.06%	
Administrative Expenses	884	466	1,349	1,365	-1.13%	
Self-Funded Healthcare Costs	3,462	257	3,719	4,116	-9.64%	10
Excise Tax Insurance	-	-	-	6,141		
Total Deductions	140,608	85,874	226,483	228,564		
Net Increase (Decrease) in Fiduciary Net Position Restricted for OPEB	643,735	302,679	946,414	(14,219)		
Total Fiduciary Net Position Restricted for OPEB						
Beginning of Period	2,498,051	1,305,132	3,803,183	3,811,267		
End of Period	\$3,141,786	\$1,607,811	\$4,749,597	\$3,797,048		
NOTE - Variance Explanation						

NOTE - Variance Explanation

1) Medicare drug reimbursement payments fluctuate year to year based on claims reviewed.

2) The decrease in Insurance Premiums received is due to refunds processed to hazardous retirees for premiums paid for dependents that should have been covered by KRS.

3) There was no Humana Gain Share Payment last fiscal year.

4) The increase in Retired Re-employed Health Insurance is due an an increase in retired re-employed members.

5) The increase in Net Appreciation in Fair Value of Investments is a result of favorable market conditions.

6) The increase in Interest/Dividends is due to increased income from Real Return, Private Equity and Specialty Credit asset classes

7) The management fees are up due to the increase in market values.

8) The increase in Performance fees is due to favorable market conditions resulting in higher performance fees.

9) Variance is a result of the demand of the Securities Lending Program.

10) The decrease in Self Funded Healthcare Claims is due to a decrease in claims billed from the self funded insurance plan. Difference due to rounding.

KPPA ADMINISTRATIVE BUDGET 2020-2021 FOURTH QUARTER BUDGET-TO-ACTUAL ANALYSIS FY 2021

			FY 2021				
Account Name	Budgeted	Actual Expense	Remaining	Percent Remaining	CERS NHz Actual Expense	CHAZ Actual Expense	Total CERS Actual Expense
PERSONNEL					59.50%	5.24%	
Salaries	\$15,500,000	\$14,349,829	\$1,150,171	7.42%	\$8,538,148	\$751,931	\$9,290,079
Wages (Overtime)	293,500	76,317	201,698	68.72%	45,409	3,999	49,408
Emp Paid Retirement	13,086,645	11,566,766	1,519,879	11.61%	6,882,226	606,099	7,488,324
Emp Paid Health Ins	2,550,000	2,189,835	360,165	14.12%	1,302,952	114,747	1,417,699
Emp Paid Sick Leave	75,000	13,786	61,214	81.62%	8,203	722	8,925
Workers Compensation	13,200	75,163	(61,963)	-469.42%	44,722	3,939	48,661
Unemployment	10,000	-	10,000	100.00%	-	-	-
Other Personnel	1,138,500	1,027,167	111,333	9.78%	611,164	53,824	664,988
Tuition Assistance	20,600	9,685	10,915	52.99%	5,763	507	6,270
LEGAL & AUDITING SERVICES							
Legal Hearing Officers	91,200	77,000	14,200	15.57%	45,815	4,035	49,850
Legal (Stoll, Keenon)	340,500	145,595	194,906	57.24%	86,629	7,629	94,258
Frost Brown (Tax Advisor)	114,300	226,388	(112,088)	-98.06%	134,701	11,863	146,564
Reinhart	444,000	10,460	433,540	97.64%	6,224	548	6,772
Ice Miller	187,200	304,712	(117,512)	-62.77%	181,304	15,967	197,271
Legal Expense	125,500	202	125,298	99.84%	120	11	131
Auditing	176,500	72,047	104,453	59.18%	42,868	3,775	46,643
CONSULTING SERVICES							
Medical Reviewers	273,865	316,186	(42,321)	-15.45%	188,131	16,568	204,699
Escrow for Actuary Fees	12,000	(20,000)	32,000	266.67%	(11,900)	(1,048)	(12,948)
CONTRACTUAL SERVICES							
Miscellaneous Contracts	22,750	12,077	10,673	46.91%	7,186	633	7,819
Human Resources Consulting	7,500	5,794	1,706	22.75%	3,447	304	3,751
Actuarial Services	612,000	468,490	143,510	23.45%	278,752	24,549	303,300
Facility Security Charges	80,500	70,222	10,278	12.77%	41,782	3,680	\$45,462
PERSONNEL SUBTOTAL	\$35,175,260	\$30,997,722	\$4,177,538	11.88%	\$18,443,645	\$1,624,281	\$20,067,925
OPERATIONAL							
Natural Gas	\$22,500	\$22,951	\$(451)	-2.00%	\$13,656	\$1,203	\$14,858
Electric	176,500	124,816	51,684	29.28%	74,266	6,540	80,806
Rent-NonState Building	71,600	55,443	16,157	22.57%	32,989	2,905	35,894
Building Rental - PPW	1,100,000						651,165
Equipment Rental	1,100,000	1,005,815	94,185	8.56%	598,460	52,705	051,105
Copier Rental	-	1,005,815 7,163	94,185 (7,163)	8.56% 0.00%	598,460 4,262	375	
	73,000						4,637
Rental Carpool	-	7,163	(7,163)	0.00%	4,262	375	4,637 35,944
•	- 73,000 9,100 1,350	7,163 55,520 3,881 912	(7,163) 17,480 5,219 438	0.00% 23.95% 57.35% 32.44%	4,262 33,034 2,309 543	375 2,909 203 48	4,637 35,944 2,513 590
Vehicle/Equip. Mainten.	- 73,000 9,100	7,163 55,520 3,881	(7,163) 17,480 5,219	0.00% 23.95% 57.35%	4,262 33,034 2,309	375 2,909 203	4,637 35,944 2,513 590 357,494
Vehicle/Equip. Mainten. Postage	- 73,000 9,100 1,350 455,000 46	7,163 55,520 3,881 912	(7,163) 17,480 5,219 438	0.00% 23.95% 57.35% 32.44%	4,262 33,034 2,309 543	375 2,909 203 48	4,637 35,944 2,513 590
Vehicle/Equip. Mainten. Postage Freight Printing (State)	- 73,000 9,100 1,350 455,000	7,163 55,520 3,881 912	(7,163) 17,480 5,219 438 (97,199)	0.00% 23.95% 57.35% 32.44% -21.36%	4,262 33,034 2,309 543	375 2,909 203 48	4,637 35,944 2,513 590
Vehicle/Equip. Mainten. Postage Freight Printing (State)	- 73,000 9,100 1,350 455,000 46	7,163 55,520 3,881 912 552,199 -	(7,163) 17,480 5,219 438 (97,199) 46	0.00% 23.95% 57.35% 32.44% -21.36% 100.00%	4,262 33,034 2,309 543 328,558	375 2,909 203 48 28,935 -	4,637 35,944 2,513 590 357,494 - 3,232
Vehicle/Equip. Mainten. Postage Freight Printing (State) Printing (non-state)	- 73,000 9,100 1,350 455,000 46 11,700	7,163 55,520 3,881 912 552,199 - 4,992	(7,163) 17,480 5,219 438 (97,199) 46 6,708	0.00% 23.95% 57.35% 32.44% -21.36% 100.00% 57.33%	4,262 33,034 2,309 543 328,558 - 2,970	375 2,909 203 48 28,935 - 262	4,637 35,944 2,513 590 357,494 - 3,232 66,224
Rental Carpool Vehicle/Equip. Mainten. Postage Freight Printing (State) Printing (non-state) Insurance Garbage Collection	- 73,000 9,100 1,350 455,000 46 11,700 102,700	7,163 55,520 3,881 912 552,199 - 4,992 102,293	(7,163) 17,480 5,219 438 (97,199) 46 6,708 407	0.00% 23.95% 57.35% 32.44% -21.36% 100.00% 57.33% 0.40%	4,262 33,034 2,309 543 328,558 - 2,970 60,864	375 2,909 203 48 28,935 - 262 5,360	4,637 35,944 2,513 590 357,494 - 3,232 66,224 2,461
Vehicle/Equip. Mainten. Postage Freight Printing (State) Printing (non-state) Insurance	- 73,000 9,100 1,350 455,000 46 11,700 102,700 11,650	7,163 55,520 3,881 912 552,199 - 4,992 102,293 3,802	(7,163) 17,480 5,219 438 (97,199) 46 6,708 407 7,848	0.00% 23.95% 57.35% 32.44% -21.36% 100.00% 57.33% 0.40% 67.36%	4,262 33,034 2,309 543 328,558 - 2,970 60,864 2,262	375 2,909 203 48 28,935 - 262 5,360 199	4,637 35,944 2,513 590 357,494

Account Name	Budgeted	Actual Expense	Remaining	Percent Remaining	CERS NHz Actual Expense	CHAZ Actual Expense	Total CERS Actual Expense
COVID-19 Expenses	146,800	153,032	(6,232)	-4.25%	91,054	8,019	99,073
Office Supplies	89,125	38,837	50,288	56.42%	23,108	2,035	25,143
Furniture & Office Equipment	25,075	8,215	16,860	67.24%	4,888	430	5,318
Travel (In-State)	30,800	1,473	29,327	95.22%	876	77	954
Travel (Out of State)	59,300	397	58,903	99.33%	236	21	257
Dues & Subscriptions	66,625	55,422	11,203	16.82%	32,976	2,904	35,880
Miscellaneous	3,100	788	2,312	74.58%	469	41	510
COT Charges	22,225	21,640	585	2.63%	12,876	1,134	14,010
Telephone - Wireless	5,100	4,734	366	7.18%	2,817	248	3,065
Telephone - Other	119,000	100,686	18,314	15.39%	59,908	5,276	65,184
Computer Equip./Software	3,325,500	2,360,814	964,686	29.01%	1,404,684	123,707	1,528,391
OPERATIONAL SUBTOTAL	\$6,010,346	\$4,752,984	\$1,257,362	20.92%	\$2,828,025	\$249,056	\$3,077,082
SUBTOTAL	\$41,185,606	\$35,750,706	\$5,434,900	13.20%	\$21,271,670	\$1,873,337	\$23,145,007
Major Legislative Implementation	7,702,594	-	7,702,594	100.00%	-	-	-
TOTALS	\$48,888,200	\$35,750,706	\$13,137,494	26.87%	\$21,271,670	\$1,873,337	\$23,145,007

Plan	Budgeted	Actual Expense	% of Total CERS Actual Expense
CERS	\$29,088,479	\$21,271,670	59.50%
CHAZ	\$2,561,742	\$1,873,337	5.24%
TOTAL	\$31,650,221	\$23,145,007	

Plan - Specific Expenses								
	Amount	CERS	CHAZ					
CERS Legal Adjustment	\$31,840	\$(18,945)	\$(1,669)					
CERS Legal Actual		29,261	2,579					
KERS Legal Adjustment	264,092	(157,147)	(13,845)					
KERS Legal Actual	-							
Subtotal Plan Specific		(146,831)	(12,935)					
Total Expenses		\$21,124,839	\$1,860,402					

Pension Fund Contribution Re For the period ending June 30, 2021, with Co		ne 30, 2020 (\$ in Mill	ions)					
	County Employees Retirement System							
CERS	Non-Haza	ardous	Hazar	dous				
County Employees Retirement System	FY21	FY20	FY21	FY20				
Member Contributions	\$165.7	\$169.0	\$62.4	\$63.2				
Employer Contributions	472.2	475.4	172.2	168.4				
Net Investment Income	135.7	133.9	45.8	46.4				
Total Inflows	773.6	778.3	280.4	278.0				
Benefit Payments/Refunds	840.6	810.9	294.7	279.6				
Administrative Expenses	21.8	22.3	1.9	2.0				
Total Outflows	862.4	833.2	296.6	281.6				
NET Contributions	(88.7)	(54.9)	(16.1)	(3.6)				
Realized Gain/(Loss)	316.8	341.6	107.0	113.6				
Unrealized Gain/(Loss)	1,331.7	(418.8)	447.9	(143.9)				
Change in Net Position	1,559.8	(132.1)	538.7	(33.9)				
Beginning of Period	7,110.9	7,243.0	2,395.7	2,429.6				
End of Period	\$8,670.7	\$7,110.9	\$2,934.4	\$2,395.7				

Differences due to rounding.

Insurance Fund Contribution Report

For the period ending June 30, 2021, with Comparative Totals as of June 30, 2020 (\$ in Millions)

	County Er	County Employees Retirement System						
CERS	Non-Haz			Hazardous				
County Employees Retirement System	FY21	FY20	FY21	FY20				
Employer Contributions	\$124.7	\$124.7	\$58.5	\$56.7				
Insurance Premiums	21.2	0.6	2.8	-				
Retired Reemployed Healthcare	5.2	4.5	1.3	1.2				
Health Insurance Contributions	13.6	13.0	3.1	2.8				
Net Investment Income	41.0	47.7	20.3	25.0				
Total Inflows	205.8	190.5	86.0	85.7				
Healthcare Premiums	139.7	139.0	85.4	82.1				
Administrative Expenses	0.9	0.9	0.5	0.5				
Total Outlfows	140.6	139.9	85.9	82.5				
NET Contributions	65.2	50.6	0.1	3.1				
Realized Gain/(Loss)	109.4	106.1	57.0	57.3				
Unrealized Gain/(Loss)	469.2	(145.1)	245.5	(80.0)				
Change in Net Position	643.7	11.6	302.7	(19.6)				
Beginning of Period	2,498.1	2,486.5	1,305.1	1,324.8				
End of Period	\$3,141.8	\$2,498.1	\$1,607.8	\$1,305.2				

Differences due to rounding.



FIN 8

KENTUCKY PUBLIC PENSIONS AUTHORITY Outstanding Invoices by Type and Employer

6/30/2021 3/31/2021 Change H/(L) Invoice Type Averaging Refund to Employer 90% \$(459,730) \$(241,658) Employer Free Military and Decompression Service 58,861 497,982 -88% Member Pension Spiking Refund (25,546) (26,621) -4% Monthly Reporting Invoice (74, 761)(434,776)-83% Penalty - Monthly Reporting 234,473 289,775 -19% Reinstatement 244,823 244,823 0% Total \$22,498 \$373,811 -94% Health Insurance Reimbursement \$1,198,562 \$1,744,967 -31% **Omitted Employer** 1,576,232 1,250,685 26% Employer Pension Spiking* 1,760,350 1,788,592 -2% Standard Sick Leave 10,880,050 -24% 8,253,827 Total 12,788,971 15,664,294 -18% **Grand Total** \$12,811,468 \$16,038,105 -20%

*Pension Spiking invoices on this report are Employer Pension Spiking. By statute these invoices are due 12 months from invoice date. Employer Pension Spiking is in effect only for retirements prior to July 1, 2018, therefore, unless there has been a recently created invoice for a backdated retirement, all of these iinvoices are greater than 12 months old..

6/30/2021	3/31/2021	Change H/(L)
\$7,011,463	\$10,575,453	-34%
979,925	230,955	324%
826,323	716,911	15%
371,872	367,311	1%
322,897	322,510	0%
220,287	214,893	3%
218,148	62,107	251%
212,533	212,533	0%
205,792	205,604	0%
\$178,211	\$173,867	2%
	\$7,011,463 979,925 826,323 371,872 322,897 220,287 218,148 212,533 205,792	\$7,011,463 \$10,575,453 979,925 230,955 826,323 716,911 371,872 367,311 322,897 322,510 220,287 214,893 218,148 62,107 212,533 212,533 205,792 205,604



County Employees Retirement System Penalty Waivers Report From: 4/1/2021 To: 6/30/2021 Note: Delinguent Interest amounts are included in the totals for the invoice

Invoice Amount	Invoice Remaining Balance	Delinquent Interest	Invoice Status Date	Invoice Due Date	Invoice Status	Employer Classification	Comments
\$1,000	\$-	\$-	6/17/2021	3/5/2015	CANC	Utility Boards	Agency in good standing with KPPA
1,000	-	-	6/17/2021	11/6/2015	CANC	Utility Boards	Agency in good standing with KPPA
1,000	-	-	6/17/2021	3/23/2016	CANC	Utility Boards	Agency in good standing with KPPA
1,000	-	-	6/17/2021	5/8/2016	CANC	Utility Boards	Agency in good standing with KPPA
1,000	-	-	4/29/2021	5/6/2017	CANC	Tourist Commissions	New employer reporting official
1,000	-	-	4/29/2021	5/6/2017	CANC	Tourist Commissions	New employer reporting official
1,000	-	-	4/29/2021	7/20/2017	CANC	Tourist Commissions	Agency in good standing with KPPA
1,000	-	-	6/17/2021	9/7/2017	CANC	Utility Boards	Agency in good standing with KPPA
1,000	-	-	4/8/2021	3/12/2020	CANC	Special Districts & Boards	Circumstances outside of agency control
1,000	-	-	6/9/2021	5/6/2020	CANC	Libraries	New employer reporting official
1,000	-	-	4/14/2021	9/28/2020	CANC	Cities	Circumstances outside of agency control
1,000	-	-	4/14/2021	11/15/2020	CANC	Cities	Circumstances outside of agency control
1,000	-	-	6/2/2021	11/20/2020	CANC	Special Districts & Boards	New employer reporting official
1,000	-	-	6/2/2021	11/22/2020	CANC	Special Districts & Boards	New employer reporting official
2,412	-	-	4/29/2021	12/20/2020	CANC	Boards of Education	New employer reporting official
1,000	_	-	5/21/2021	4/1/2021	CANC	Special Districts & Boards	New employer reporting official
1,000	-	-	5/5/2021	6/2/2021	CANC	Cities	Agency in good standing with KPPA
20,758	-	-	5/20/2021	6/18/2021	CANC	Urban Government Agencies	KPPA at fault
Total \$39,169							
\$1,000	\$1,000	\$-	4/8/2021	5/8/2021	CRTD	Cities	
1,000	1,000	-	4/8/2021	5/8/2021	CRTD	Cities	
1,000	1,000	-	4/9/2021	5/9/2021	CRTD	Fiscal Courts	
1,000	1,000	-	4/9/2021	5/9/2021	CRTD	Fiscal Courts	
1,000	1,000	-	4/12/2021	5/12/2021	CRTD	Cities	
1,000	1,000	-	4/12/2021	5/12/2021	CRTD	Cities	
1,000	1,000	-	4/12/2021	5/12/2021	CRTD	Cities	
1,000	1,000	-	4/14/2021	5/14/2021	CRTD	Cities	

	Invoice Amount	Invoice Remaining Balance	Delinquent Interest	Invoice Status Date	Invoice Due Date	Invoice Status	Employer Classification	Comments
	1,000	1,000	-	4/20/2021	5/20/2021	CRTD	Utility Boards	
	1,000	1,000	-	4/28/2021	5/28/2021	CRTD	Fiscal Courts	
	1,000	1,000	-	5/3/2021	6/2/2021	CRTD	Conservation Districts	
	1,000	1,000	-	5/3/2021	6/2/2021	CRTD	Conservation Districts	
	1,000	1,000	-	5/20/2021	6/19/2021	CRTD	Cities	
	1,000	1,000	-	5/21/2021	6/20/2021	CRTD	Cities	
	1,000	1,000	-	6/14/2021	7/14/2021	CRTD	County Attorneys	
	1,000	1,000	-	6/14/2021	7/14/2021	CRTD	County Attorneys	
	1,000	1,000	-	6/14/2021	7/14/2021	CRTD	County Attorneys	
	1,000	1,000	-	6/14/2021	7/14/2021	CRTD	County Attorneys	
	1,000	1,000	-	6/14/2021	7/14/2021	CRTD	County Attorneys	
	1,000	1,000	-	6/14/2021	7/14/2021	CRTD	Housing Authorities	
	1,000	1,000	-	6/22/2021	7/22/2021	CRTD	Cities	
Total	\$21,000							
	\$1,000	\$-	\$-		4/18/2013	PAID	Special Districts & Boards	
	1,000	-	-	6/23/2021	7/3/2021	PAID	Cities	
	1,000	-	-	6/23/2021	7/3/2021	PAID	Cities	
	1,000	-	-	6/23/2021	7/3/2021	PAID	Cities	
	1,000	-	-	4/19/2021	10/13/2015	PAID	Housing Authorities	
	1,000	-	-	6/23/2021	7/3/2021	PAID	Cities	
	(1,000)	-	-	4/5/2021	4/15/2021	PAID	Conservation Districts	
	1,000	-	-		7/3/2021	PAID	Cities	
	1,000	-	-	6/23/2021	7/3/2021	PAID	Cities	
	1,000	-	-	6/23/2021	7/3/2021	PAID	Cities	
	1,000	-	-	4/30/2021	5/10/2021	PAID	Tourist Commissions	
	1,000	-	-	6/23/2021	7/3/2021	PAID	Cities	
	1,000	-	-	6/9/2021	6/19/2021	PAID	Housing Authorities	
	1,000	-	-	4/19/2021	8/27/2017	PAID	Housing Authorities	
	1,000	-	-	4/30/2021	5/10/2021	PAID	Tourist Commissions	
	1,000	-	-	6/9/2021	6/19/2021	PAID	Housing Authorities	
	1,000	-	-	6/23/2021	7/3/2021	PAID	Cities	

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	Invoice Amount	Invoice Remaining Balance	Delinquent Interest	Invoice Status Date	Invoice Due Date	Invoice Status	Employer Classification	Comments
	1,000	-	-	6/23/2021	7/3/2021	PAID	Cities	
	1,000	-	-	6/23/2021	7/3/2021	PAID	Cities	
	1,000	-	-	6/23/2021	7/3/2021	PAID	Cities	
	1,000	-	-	6/23/2021	7/3/2021	PAID	Cities	
	1,000	-	-	6/23/2021	7/3/2021	PAID	Cities	
	1,000	-	-	4/5/2021	4/15/2021	PAID	Conservation Districts	
	1,000	-	-	4/5/2021	4/15/2021	PAID	Conservation Districts	
	1,000	-	-	4/5/2021	4/15/2021	PAID	Conservation Districts	
	1,000	-	-	4/9/2021	4/19/2021	PAID	Cities	
	3,262	-	-	4/30/2021	5/10/2021	PAID	Community Action Agencies	
	1,000	-	-	- 5/10/2021	10/1/2020	PAID	Riverport Authorities	
	2,290	-	-	4/30/2021	5/10/2021	PAID	Community Action Agencies	
	1,000	-	-	4/14/2021	4/11/2021	PAID	Community Action Agencies	
	1,000	-	-	5/3/2021	5/13/2021	PAID	Cities	
	1,000	-	-	5/10/2021	5/16/2021	PAID	Cities	
	1,000	-	-	5/4/2021	5/19/2021	PAID	Ambulance Services	
	1,000	-	-	3/10/2021	3/24/2021	PAID	Housing Authorities	
Total	\$35,553							

Notes:

Invoice Status: CANC - Cancelled CRTD - Created

PAID - Paid



KENTUCKY PUBLIC PENSIONS AUTHORITY

David L. Eager, Executive Director 1260 Louisville Road · Frankfort, Kentucky 40601 kyret.ky.gov · Phone: 502-696-8800 · Fax: 502-696-8822



Kentucky Public Pensions Authority

TO: CERS Finance Committee

FROM: D'Juan Surratt

DATE: 09/01/2021

SUBJECT: Participation of Additional Agencies

PARTICIPATION—NONHAZARDOUS

There is one (1) new agency electing to participate with the County Employees Retirement System under non-hazardous coverage. Copies of minutes, resolution to participate and agency budget will be available at the meeting for review. The Contract for Health Insurance has been received for the agency electing to participate in CERS and our legal staff has reviewed and approved their eligibility for participation.

RECOMMENDATION: We recommend that the Board approve the participation of Liberty Tourism and Convention Commission, having satisfactorily completed their trial participation period.



KENTUCKY PUBLIC PENSIONS AUTHORITY

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To:	CERS Finance Committee
From:	D'Juan Surratt Director of Employer Reporting, Compliance and Education

Date: 09/01/2021

Subject: Hazardous Position Classification

AGENCIES ARE REQUESTING HAZARDOUS DUTY COVERAGE FOR THE FOLLOWING POSITIONS:

Agency	Position	Effective Date
Burlington Fire Protection District	Sergeant	11/1/2016
City of Berea	Police Assistant Chief	10/1/2021
City of Berea	Fire/ Rescue Captain	10/1/2021
City of Berea	Firefighter 1	10/1/2021
City of Berea	Fire Training Officer	10/1/2021
City of Berea	Firefighter II	10/1/2021
City of Berea	Police Captain	10/1/2021
City of Berea	Police Chief	10/1/2021
City of Berea	Police Corporal	10/1/2021
City of Berea	Police Lieutenant	10/1/2021
City of Berea	Police Major	10/1/2021
City of Berea	Police Officer	10/1/2021
City of Berea	Police Sergeant	10/1/2021
City of Berea	School Resource Officer	10/1/2021
City of Berea	Fire Assistant Chief	10/1/2021
City of Berea	Fire Battalion Chief	10/1/2021
City of Berea	Fire Chief	10/1/2021
City of Berea	Fire Lieutenant	10/1/2021
City of Bloomfield	Chief of Police	04/1/2021
City of Brandenburg	Police Chief	10/1/2021
City of Brandenburg	Police Sergeant	10/1/2021
City of Brandenburg	Police Officer	10/1/2021
City of Grayson	Chief of Police	07/1/2021
City of Grayson	Assistant Chief of Police	07/1/2021
City of Grayson	Police Sergeant	07/1/2021
City of Grayson	Police Officer	07/1/2021
City of Grayson	Detective	07/1/2021
City of Radcliff	Captain/Firefighter	06/1/2020
Fire Department of Bellevue-Dayton	Fire Lieutenant	10/1/2018
Fire Department of Bellevue-Dayton	Firefighter/EMT	05/1/2021

Fire Department of Bellevue-Dayton	Fire Chief	10/1/2021
Fire Department of Bellevue-Dayton	Fire Captain	10/1/2021
Hardin County Fiscal Court	Quality Assurance Coordinator	07/1/2021
Shelby County Fiscal Court	Captain	09/1/2020
Walton Fire District/EMS	Fire Lieutenant	06/1/2021
Walton Fire District/EMS	Fire Captain	10/1/2021
Walton Fire District/EMS	Fire Chief	10/1/2021
Walton Fire District/EMS	Assistant Chief	10/1/2021

Kentucky Public Pensions Authority has reviewed the above requests and determined that they meet the statutory guidelines for Hazardous coverage. Position Questionnaires and Job Descriptions are attached. Burlington Fire Protection District, City of Bloomfield, Fire Department of Bellevue-Dayton and Shelby County Fiscal Court are requesting older retro dates due to the Employer Reporting division auditing their accounts due to member pension spiking cases received. In these specific cases it was found that these positions did not go through the formal process in getting approved for hazardous duty coverage by the Board of Trustees.

61.592 Retirement of persons working in hazardous positions. (Effective April 1, 2021)

(1) (a) "Hazardous position" for employees participating in the Kentucky Employees Retirement

System, and for employees who begin participating in the County Employees Retirement System before September 1, 2008, means:

1. Any position whose principal duties involve active law enforcement, including the positions of probation and parole officer and Commonwealth detective, active fire suppression or prevention, or other positions, including but not limited to pilots of the Transportation Cabinet and paramedics and emergency medical technicians, with duties that require frequent exposure to a high degree of danger or peril and also require a high degree of physical conditioning;

2. Positions in the Department of Corrections in state correctional institutions and the Kentucky Correctional Psychiatric Center with duties that regularly and routinely require face-to-face contact with inmates; and

3. Positions of employees who elect coverage under KRS 196.167(3)(b)2. and who continue to provide educational services and support to inmates as a Department of Corrections employee.

(b) "Hazardous position" for employees who begin participating in the County Employees Retirement System on or after September 1, 2008, means police officers and firefighters as defined in KRS 61.315(1), paramedics, correctional officers with duties that routinely and regularly require face-to-face contact with inmates, and emergency medical technicians if:

1. The employee's duties require frequent exposure to a high degree of danger or peril and a high degree of physical conditioning; and

2. The employee's duties are not primarily clerical or administrative.

(c) The effective date of participation under hazardous duty coverage for positions in the Department of Alcoholic Beverage Control shall be April 1, 1998. The employer and employee contributions shall be paid by the employer and forwarded to the retirement system for the period not previously reported.

(2) (a) Each employer may request of the board hazardous duty coverage for those positions

as defined in subsection (1) of this section. Upon request, each employer shall certify to the system, in the manner prescribed by the board, the names of all employees working in a hazardous position as defined in subsection (1) of this section for which coverage is requested. The certification of the employer shall bear the approval of the agent or agency responsible for the budget of the department or county indicating that the required employer contributions have been provided for in the budget of the employing department or county. The system shall determine whether the employees whose names have been certified by the employer are working in positions meeting the definition of a hazardous position as provided by subsection (1) of this section. This process shall not be required for employees who elect coverage under KRS 196.167(3)(b)2.

- 61.315 Benefits payable on death of certain peace officers, firefighters, correctional officers, jailers, school resource officers, members of a state National Guard or Reserve component, and emergency medical services personnel -- Administrative regulations -- Estates to be exempted from probate fees -- Funds allotted to a self-insuring account -- Presumption that firefighter's death from cancer resulted from act in the line of duty under certain conditions.
- (1) As used in this section:
 - (a) "Police officer" means every paid police officer, sheriff, or deputy sheriff, corrections employee with the power of a peace officer pursuant to KRS 196.037, any metropolitan or urban-county correctional officer with the power of a peace officer pursuant to KRS 446.010, any jailer or deputy jailer, any auxiliary police officer appointed pursuant to KRS 95.445, any police officer of a public institution of postsecondary education appointed pursuant to KRS 164.950, any school resource officer as defined in KRS 158.441, or any citation or safety officer appointed pursuant to KRS 83A.087 and 83A.088, elected to office, or employed by any county, airport board created pursuant to KRS Chapter 183, city, local board of education, or by the state;
 - (b) "Firefighter" means every paid firefighter or volunteer firefighter who is employed by or volunteers his or her services to the state, airport board created pursuant to KRS Chapter 183, any county, city, fire district, or any other organized fire department recognized, pursuant to KRS 95A.262, as a fire department operated and maintained on a nonprofit basis in the interest of the health and safety of the inhabitants of the Commonwealth and shall include qualified civilian firefighters employed at Kentucky-based military installations; and
 - (c) "Emergency medical services personnel" means any paid or volunteer emergency medical services personnel who is certified or licensed pursuant to KRS Chapter 311A and who is employed directly by, or volunteering directly for, any:
 - 1. County;
 - 2. City;
 - 3. Fire protection district created under KRS 75.010 to 75.260; or
 - 4. Emergency ambulance service district created under KRS 108.080 to 108.180;

to provide emergency medical services.

(2) The spouse of any police officer, sheriff, deputy sheriff, corrections employee with the power of a peace officer pursuant to KRS 196.037, any metropolitan or urbancounty correctional officer with the power of a peace officer pursuant to KRS 446.010, any jailer or deputy jailer, any auxiliary police officer appointed pursuant to KRS 95.445, any police officer of a public institution of postsecondary education appointed pursuant to KRS 164.950, any school resource officer as defined in KRS 158.441, or any citation or safety officer appointed pursuant to KRS 83A.087 and 83A.088, firefighter, or member of the Kentucky National Guard on state active



KENTUCKY PUBLIC PENSIONS AUTHORITY

David L. Eager, Executive Director 1260 Louisville Road - Frankfort, Kentucky 40601 kyret.ky.gov - Phone: 502-696-8800 - Fax: 502-696-8822



- **TO:** Members of the CERS Board of Trustees
- FROM: Joint CERS & KRS Retiree Health Plan Committee
- **DATE:** September 15, 2021
- SUBJECT: Joint CERS & KRS Retiree Health Plan Committee Report

The Joint CERS & KRS Retiree Health Plan Committee met on Thursday, September 02, 2021 to discuss and make recommendations regarding the non-Medicare and Medicare eligible health plans for KPPA retirees for the 2022 plan year. The recommendations of the Committee are documented below in the bolded red font.

Non Medicare-Eligible Retirees (KEHP Plan)

NOTE: See Kentucky Public Pensions Authority KEHP 2022 Presentation in Retire Health BoardBooks, this contains the information for Board Decision Points:

- 1. Recommendation as to what the monthly maximum contribution amount for the Non-Medicare Eligible plan. Including the contribution for the hazardous Duty Spouse/Dependents
 - Tobacco Use fee
 - Access to the Consumer Directed Health Plans with embedded HRA
 - Proposed LivingWell Promise discount
 - 2022 KEHP plan premiums will increase approximately 3% for all plans and levels.
 - Retiree Health Plan Committee recommends that the Board select the KEHP LivingWell PPO plan option as the contribution plan and set the contribution rate (at the single level) as the 100% contribution the Trusts will pay for a retiree with a service credit of 240 months of service or greater and a participation date prior to July 1, 2003.
 - Because the Committee recommends the selection of the LivingWell PPO as the contribution plan, the hazardous rates would be tied to the rates for the LivingWell PPO Couple, Parent Plus and Family plans.

- The Committee recommends the Tobacco Use Fee (\$40 single level; \$80 couple, family, parent plus) remains unchanged for 2022 Retirees (including spouses and dependents) who are tobacco users will be responsible for paying the Tobacco Use Fee as it is in 2022.
- The Committee recommends Retirees or Planholders that failed to complete the LivingWell promise for plan year 2021 will not be entitled to the discount (\$40) for 2022. The fee/discount remains unchanged for 2022.
- The Committee recommends allowing access to the Consumer Directed Health Plans with embedded HRA.
- 2. Recommendation as to whether KPPA should default retirees/beneficiaries and their dependents into a plan for 2022.

Each year there are retirees who, due to unforeseen circumstances, failed to submit an application during open enrollment. KPPA is without the statutory authority to permit those persons to enroll without a qualifying event. As a result, the Board promulgated an administrative regulation, 105 KAR 1:410, which was effective 2/6/2015, to allow KPPA to default retirees and their dependents into a health plan so that these individuals will not be without coverage for the year simply because they forgot to enroll during open enrollment or as a new retiree. Each year several decisions must be made by the Board to facilitate the administration of the default process:

- a. Recommendation as to which plan should be the default plan.
- b. Recommendation as to the circumstances under which retirees and their dependents should be defaulted into a plan for 2022.
 - i. KPPA Management recommends new retirees be defaulted into a single level of coverage.
 - ii. KPPA Management recommends retirees and beneficiaries not currently enrolled in a plan will not be defaulted into a plan.
- iii. KPPA Management recommends that retirees and beneficiaries currently enrolled in a plan for 2021 be rolled over/defaulted into the same plan at the same level of coverage for the 2022 plan year if they fail to submit a health insurance application during open enrollment.
- Retiree Health Plan Committee recommends that the Board default retirees that fail to complete a health insurance application during a mandatory open enrollment be rolled over to the same plan they were enrolled in for 2021 at the same level of coverage.
- A new retiree shall be defaulted into the LivingWell Limited High Deductible plan as described above in 2b (i), (ii), and (iii).

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- 3. Cross Reference Retirees with Active Employee Spouse: KRS 78.5536 (4)(a)3 provides the employer's contribution for the working member or spouse to be applied toward the premium, and the KPPA insurance trust fund shall pay the balance not to exceed the monthly contribution. The Cross Reference plan is a Family plan. Unless, amended by the Board, the Cross Reference contribution will equal the monthly maximum contribution determined above.
 - Retiree Health Plan Committee recommends that the Board allows retirees described in 3 above the option to select the Cross Reference plans.

Medicare-Eligible Retirees

NOTE: See PowerPoint Presentation in Retiree Health BoardBooks, with information from Humana and Gabriel, Roeder, Smith Consulting (GRS).

- 1. Recommendation as to what the contribution rate should be for the Medicare-Eligible plan for 2022.
 - Retiree Health Plan Committee recommends the contribution rate for the KPPA Premium Plan remain at the 2021 rate of \$252.51 as the 100% contribution the Trust will pay for a retiree with a service credit of 240 months of service or greater (the premium paid to Humana will be \$227.03).
 - The Committee recommends setting the contribution rate for the KPPA Premium Plan as the 100% contribution the Trust will pay for a hazardous duty spouse and/or an eligible dependent.
 - The Committee recommends the premiums for the KPPA Essential Plan at \$75.56 (the amount paid to Humana will be \$49.25).
 - The Committee recommends the Medical Only Plan premium at \$186.87, the Medicare Advantage Mirror Premium Plan at \$327.97, and the Medicare Advantage Mirror Essential Plan at \$228.12.
- 2. Recommendation as to whether KPPA should continue to pay for the additional administrative fees for retirees who are required to enroll in one of the Mirror plans and who fall under certain exceptions. Recommendation that individuals without Medicare Part B be allowed to enroll in the Mirror Plans and the individual would be responsible for the additional cost above the contribution amount. When the individual obtains Part

B, KPPA will transition them to the Medicare Advantage Plan they choose on the Insurance Application.

On September 15, 2016, the Board approved payment for administrative fees (estimated \$75.46 per month for 2022) for individuals who need to be enrolled in one of the Mirror Plans for several enumerated reasons (administrative exceptions):

- Individual is scheduled for a transplant or surgery at a hospital that Humana confirms will not accept Humana Medicare Advantage for said procedure for said individual.
- Individual is undergoing treatment by a specialist that Humana confirms will not accept Humana Medicare Advantage for said treatment for said individual.
- Individual resides outside Humana's Filed and Approved MA-PPO network service area where Humana affirms there are provider access issues (e.g., non-acceptance of Humana Medicare Advantage

Note: KPPA has 1 retiree that meets this criteria.

- Retiree Health Plan Committee recommends that KPPA continue to pay the administrative fee for administrative exceptions in 2022, under the circumstances set forth in the three bullet points above.
- The Committee recommends that an individual without Medicare Part B be allowed to enroll in the Medicare Advantage Mirror Plans and they will be responsible for paying the additional cost above the contribution amount.
- 3. Recommendation as to whether KPPA should default retirees and their dependents into a plan for 2022.
 - a. If the Committee recommends that KPPA default retirees and their dependents into a plan, recommendation as to which plan should be the default plan.

Due to federal law/regulations, the Medical Only or Mirror Plan without Prescription Drug coverage would be the only option available as a default plan for the Medicareeligible population.

- b. If the Committee recommends that KPPA default retirees and their dependents into a plan, recommendation as to the circumstances under which retirees and their dependents should be defaulted into a plan for 2022.
 - i. KPPA Management would recommend that current enrollees and new retirees be defaulted into a plan. Retirees and beneficiaries not currently enrolled would not be defaulted into a plan.
 - ii. Current enrollee would be defaulted at the same level of coverage as the previous/current plan year (single).

- iii. New retirees would be defaulted into a single level of coverage.
- Retiree Health Plan Committee recommends that Medicare eligible retirees (and their dependents) who fail to enroll in a plan during a mandatory open enrollment, as a new retiree, or becoming Medicare eligible be defaulted into the KPPA Medical Only Plan as set forth in 3b (i), (ii), and (iii) above.
- The Committee recommends that the spouse and dependents that are not Medicare eligible be defaulted into the same Kentucky Employees Health Plan at the same Level/Option as the previous/current plan year (Single, Parent Plus, Couple, and Family).

Informational:

• The KPPA Medicare Advantage Request for Proposal Time line was reviewed with the Committee.

RECOMMENDATION: The Retiree Health Plan Committee recommends approval of the above decisions by the CERS Board.















KPPA SECURITY STANCE

- Through various channels of research KPPA has deployed next generation types of technologies to enhance the perimeters defense
- We practice the methodology of Defense in Layers to enhance the possibilities of blocking malicious attempts
- Annual risk assessments are performed to ensure that new threats are identified
- IT policies are reviewed and updated annually and changed accordingly

SUMMARIZATION

Through the use of the latest technologies, practice industry proven security update methodologies and continue the practice of quarterly reoccurring security training for the latest threats KPPA will continue to move forward ready for the next Cybersecurity challenges