

**County Employees Retirement System  
Special Called Investment Committee Meeting  
July 14, 2021, 1:00 p.m. ET (12:00 p.m. CT)  
1270 Louisville Road, Frankfort, KY/Live Video Conference/Facebook Live**

**AGENDA**

- 1. Call to Order**
- 2. Roll Call**
- 3. Public Comment**
- 4. Approval of Minutes\* - May 12, 2021** Dr. Merl Hackbart
- 5. Investment Policy Statement\*** Dr. Merl Hackbart
  - a. Real Estate Investment Policy Steven Herbert
  - b. Asset Allocation David Lindberg
    - i. Equities – International vs U.S.
    - ii. Asset Allocation & Objectives Lisle Cheatham
    - iii. Market Risk
    - iv. Risk Tolerance
  - c. Other provisions
- 6. Investment Procurement Policy\*** Dr. Merl Hackbart
- 7. Investment Administrative Policies** Dr. Merl Hackbart
  - a. Trading Policy
  - b. Securities Lending
  - c. Proxy Voting
  - d. Manager and Placement Agents
  - e. Brokerage Policy
- 8. Adjourn**

*\*Committee Action Required*

**MINUTES OF MEETING  
COUNTY EMPLOYEES RETIREMENT SYSTEM  
INVESTMENT COMMITTEE SPECIAL CALLED  
MAY 12, 2021, 2:00 P.M., E.T.  
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 May 12, 2021 Special Called County Employees Retirement System Investment Committee Meeting, the following Committee members were present: Dr. Merl Hackbart (Chair), George Cheatham, II, Jerry Powell, J.T. Fulkerson and William O'Mara. Trustee Betty Pendergrass was also present. Staff members present were David Eager, Steven Herbert, Victoria Hale, Rebecca Adkins, Erin Surratt, Steve Willer, Anthony Chiu, Joseph Gilbert, Jared Crawford, Alane Foley and Carol Johnson. Also in attendance were David Lindberg, Chris Tessman, Craig Morton and Marc Friedberg from Wilshire.

Dr. Merl Hackbart called the meeting to order and Ms. Alane Foley called roll.

Dr. Merl Hackbart introduced agenda item *Public Comment*. Ms. Alane Foley stated that no public comments were submitted.

Dr. Merl Hackbart introduced agenda item *Investment Compliance Report*. Mr. Jared Crawford stated that that Investment Policy Statement was voted on and approved by the Board in 2020, which would change the findings in this report. This Investment Compliance Report complies

with the February 2020 Statement of Investment Policy currently posted on the Kentucky Public Pensions Authority's website. Mr. Jared Crawford stated that this report is broken down to only include CERS and CERS Hazardous so that we can see the target allocations for those plans. Mr. Jared Crawford further stated that once the Board has signed the new Investment Policy Statement that includes the December 2020 changes then the Investment Compliance Report will change. Mr. Jared Crawford reviewed the report with the Investment Committee members. Mr. Jared Crawford did point out that we no longer have an absolute return bucket and that the all of those assets have been liquidated for both CERS and CERS Hazardous. Mr. Jared Crawford stated that the figures include a percentage of the total fund as of March 31, 2021. Mr. Jared Crawford stated that this report will look vastly different next quarter and will separate out all of the plans and that this report just gives you a general idea of where the CERS and CERS Hazardous plans stand now. Mr. David Eager suggested that a draft of the revised investment compliance report be sent to the Investment Committee members for their review and comments prior to implementation. Mr. Jared Crawford stated that he would be glad to provide a draft of the revised investment compliance report to the Investment Committee members once it has been completed. Mr. George Cheatham, II asked what the reasoning was for the not in compliance note that was contained on page 11 of the report. Mr. Jared Crawford explained the different reasons that would cause this issue with the Investment Committee members. Mr. George Cheatham, II asked that future reports contain an explanation of the reason for any non-compliance issues. This was provided for informational purposes only.

Dr. Merl Hackbart introduced agenda item *Investment Performance Review*. Mr. Steven Herbert reviewed the County Employees Retirement System Pension and Insurance Funds net returns

and plan net returns charts that were included in Board Books with the Investment Committee members. Mr. Steven Herbert stated that the format of these charts are currently being revised to highlight the plans much better and to reflect the April 1, 2021 changes going forward. Mr. Steven Herbert further stated that he would provide draft copies of the Performance Review to the Investment Committee members for their review and comments prior to implementation. Mr. Steven Herbert then outlined the standard reports that were included in Board Books. This was provided for informational purposes only.

Dr. Merl Hackbart introduced agenda item *Real Estate Fund Investments Increased Allocation*. Mr. Steven Herbert reviewed the two memorandums contained in Board Books to increase the allocations to two existing real estate funds in the portfolio. Mr. Steven Herbert stated that both were reviewed and approved in terms of the increase and this will serve as the report to the Investment Committee per the Investment Policy Statement. Mr. Steven Herbert first reviewed the memorandum regarding Harrison Street Core Property Fund with the Investment Committee members. Mr. Steven Herbert stated that Harrison Street Core Property Fund is an open-end fund that was originally allocated assets in 2011 and had a commitment of roughly 90 basis points in the plan. Mr. Steven Herbert stated that an additional 200 million has been committed to Harrison Street Core Property Fund and will be added over this year as capital gets called. This is an increase of approximately another 90 basis points in the plan. Mr. William O'Mara asked Mr. Steven Herbert to explain how he went through evaluation and review to come up with this recommendation to the Investment Committee. Mr. Steven Herbert stated that this was a current fund so we performed a real time due diligence to ensure that it was still applicable to the plan, in other words, would we keep it, and would we want to buy it if it were outside of the

plan. Mr. Herbert stated that the answer was yes to both of those questions. Mr. Steven Herbert stated that the process involved several interviews with the investment manager, we reviewed due diligence information from our investment consultant and there were several internal discussions. Mr. Steven Herbert further stated that the real estate allocation is now just a little over 5% for the County plans with the target goal being 10%. Mr. William O'Mara asked if there was a search for alternatives to this additional investment. Mr. Steven Herbert stated that we looked at all of our current real estate managers; however, would not call it a search. Mr. Steven Herbert stated that we are looking at alternatives, but to date we have not started a search. Mr. Jerry Powell asked how this investment would be affected by the decrease in office space since so many companies are moving toward working from home. Mr. Steven Herbert stated that neither of these two real estate investments invest in office space.

Mr. Steven Herbert stated that the second fund we added to was Prologis Targeted US Logistics Fund and he reviewed the memorandum regarding Prologis with the Investment Committee members. Mr. Herbert stated that it was an open-end fund that was originally allocated assets in 2012 and that we had a commitment of roughly 100 basis points in the plan. Mr. Herbert further stated that an additional 100 million in assets have been committed and will be added over this year as that capital gets called. This is an increase of approximately 50 basis points in the plan. This was provided for informational purposes only.

Dr. Merl Hackbart introduced agenda item *Wilshire Investment Performance Review*. Mr. David Lindberg stated that Mr. Craig Morton would begin by reviewing the Quarterly Performance reports. Mr. Craig Morton reviewed the Quarterly Performance reports with the

Investment Committee members. Mr. David Lindberg then reviewed the Asset Liability Study with the Investment Committee members. Mr. David Lindberg then introduced Mr. Chris Tessman and he reviewed the future projections that are included in the Asset Liability Study with the Investment Committee members. This was provided for informational purposes only.

Dr. Merl Hackbart introduced agenda item *Investment Policies Drafts*. Dr. Merl Hackbart stated that the Investment Procurement and the Investment Policy Statement were included in draft form for the Investment Committee members to review and they are not action items. Dr. Merl Hackbart asked the Investment Committee members to review the documents and to provide any additional comments or changes that they would recommend directly to him so that we may work toward a finalized version. Dr. Merl Hackbart stated that the investment policies that are currently being used are those which were in existence when the CERS Board was not a separate group. Ms. Victoria Hale stated that an additional step is required for the Investment Procurement Policy prior to its implementation. Ms. Victoria Hale stated that a final version of the Investment Procurement policy needs to be sent to the Finance Cabinet for review and comments at least thirty days prior to being voted on by the Board. Ms. Victoria Hale stated that after the Finance Cabinet completes its review of the Investment Procurement Policy it will be sent back to the Investment Committee to review and make any necessary changes. Once the Investment Committee decides whether or not to accept the Finance Cabinet's recommendations then it will then be returned to the Finance Cabinet. Ms. Victoria Hale stated that the Finance Cabinet will then hopefully send a letter for best practices. This was provided for informational purposes only.

Dr. Merl Hackbart introduced agenda item *Personnel Update*. Mr. Steven Herbert welcomed Mr. Jared Crawford to the KPPA Investment Team. Mr. Steven Herbert stated that Jared joined last month and that he came from Internal Audit and has a deep understanding of financials and statistical analysis. Mr. Steven Herbert further stated that Mr. Jared Crawford will be our research analyst of investments and our compliance officer and will be overseeing external managers and staff and ensure we are in compliance with all investment policies. This was provided for informational purposes only.

There being no further business, Mr. George Cheatham, II moved and was seconded by Mr. William O'Mara to adjourn the meeting at 4:02 p.m. The next meeting of the County Employees Retirement System Investment Committee is scheduled for 2:00 p.m. on August 25, 2021. Copies of all documents presented are incorporated as part of the minutes of the Special Called County Employees Retirement System Investment Committee meeting held May 12, 2021.

### **CERTIFICATION**

I do certify that I was present at this meeting and I have recorded above the action of the Committee 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 connection with this meeting.

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Recording Secretary

I, as Chair of the County Employees Retirement System Investment Committee of the Board of Trustees of the County Employees Retirement System, attest that the matters contained in these minutes are what was discussed during the meeting held on May 12, 2021.

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Committee Chair

I have reviewed the Minutes of the Special Called County Employees Retirement System Investment Committee Meeting on May 12, 2021 for form, content, and legality.

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Office of Legal Services





**County Employees' Retirement Systems**  
Investment Policy Statement  
Adopted xxxxx, 2021

This Investment Policy Statement ("IPS") is issued by the CERS Board of Trustees ("CERS Board" or "CERS Trustees") of the County Employees' Retirement CERS ("CERS") in connection with investing the pension and insurance trust funds ("Funds") of the County Employees' Retirement Systems ("CERS").

## I. Introduction

### A. Purpose

The purpose of this IPS is to define the framework for investing the assets of CERS. This IPS is intended to provide general principles for establishing the goals of CERS, the allocation of assets, employment of outside asset management, and monitoring the results of the respective Funds.

The pension plans administered by KRS are "Qualified Pension Plans" under Section 401(a) of the Internal Revenue Code. Additionally, Kentucky Revised Statutes 61.701 establishes health insurance benefits to recipients of CERS. Kentucky Revised Statutes 61.702 provides that all amounts necessary to provide for insurance benefits shall be paid to the insurance fund. The CERS Board shall administer the insurance fund in the same manner as the pension funds.

### B. Philosophy

The CERS Trustees recognize their fiduciary duty not only to invest CERS' funds in formal compliance with the Prudent Person Rule but also to manage those assets in continued recognition of the basic long-term nature of CERS. The CERS Trustees interpret this to mean, in addition to the specific guidelines and restrictions set forth in the law and this document, that the assets of CERS shall be proactively managed -- that is, investment decisions regarding the particular asset classes, strategies, and securities to be purchased or sold shall be the result of the conscious exercise of discretion.

The CERS Trustees recognize that asset allocation is the primary driver of long-term investment performance, and will therefore review asset allocation and asset-liability studies on a regular basis as outlined in Section III of this document. The Asset Allocation Guidelines represents a strategic decision, with the primary aim that CERS meet their performance objectives in the long-term, but understanding that this may not necessarily occur every year.

The CERS Trustees recognize that there is generally an inverse relationship between market efficiency, and the ability for active management to produce alpha. Therefore, investments in efficient markets will be made using index or index-like investments with the goal of replicating

index returns with low management fees. Active management will be pursued in less efficient markets accepting higher tracking error and paying higher management fees with the expectation of producing excess returns over the long term. This allows the KPPA Office of Investments' ("KPPA Investment Staff") and consultant(s) to focus their efforts on identifying, selecting, and monitoring managers, as well as the overall management fees paid, in the areas of the market most likely to produce excess returns.

The CERS Trustees recognize that, commensurate with their overall objective of maximizing long-term return given the appropriate level of risk, it is necessary that proper diversification of assets be maintained both across and within the classes of securities held to minimize/mitigate overall portfolio risk. Consistent with carrying out their Fiduciary Responsibilities and the concept of Modern Portfolio Theory, the CERS Trustees will not systematically exclude any investments in companies, industries, countries, or geographic areas unless required to do so by statute. Within this context of proactive management and the necessity for adherence to proper diversification, the Trustees rely upon appropriate professional advice from staff and service providers.

## II. Responsibilities

The CERS Trustees and other fiduciaries shall discharge their duties with respect to CERS: (1) solely in the interest of the participants and beneficiaries; (2) for the exclusive purpose of providing benefits to participants and beneficiaries; (3) with the care, skill and caution under the circumstances then prevailing which a prudent person acting in a like capacity and familiar with those matters would use in the conduct of an activity of like character and purpose; (4) impartially; (5) incurring and paying appropriate and reasonable expenses of administration which may not necessarily be the lowest and (6) in accordance with a good faith interpretation of the laws, regulations and other instruments governing CERS.

Additionally, the Trustees and other fiduciaries shall not engage in any transaction which results in a substantial diversion of CERS income or assets. Every fiduciary shall provide adequate security and a reasonable rate of return to a disqualified person or in any other prohibited transaction described in Internal Revenue Code Section 503(b).

### A. CERS Board of Trustees

The CERS Investment Committee is created by Kentucky Revised Statutes 78.790(1)(b) and the CERS Board as set forth in the CERS Board's Statement of Bylaws and Committee Organization (Section 2.2(e)). The Chair authorizes and directs the appointment of a CERS Investment Committee with full power to act for the CERS Board in the acquisition, sale and management of the securities and funds of CERS in accordance with the provisions of any applicable statutes, and policies of the CERS Board. The CERS Investment Committee has the power to act on behalf of the CERS Board on all investment related matters, including the acquisition, sale, safeguarding, monitoring and management of the assets, securities and funds of CERS. The CERS Board shall require a vote of six (6) Trustees to ratify the actions of the CERS Investment Committee at the CERS Board meeting following the CERS Investment Committee meeting where such action was taken.

### B. CERS Investment Committee

The CERS Investment Committee consists of five (5) members of the CERS Board. The members of the CERS Investment Committee shall include the three (3) Trustees appointed by

the Governor to the CERS Board pursuant to Kentucky Revised Statutes 78.782(2)(b)(4-6) (investment experience), plus two additional Trustees appointed by the CERS Board Chair to include one (1) Trustee elected by the membership (KRS 78.782(4) and one (1) Trustee appointed by the Governor pursuant to KRS 78.782(2)(b)(1-3) (retirement administration). The CERS Investment Committee acts on behalf of the CERS Board on investment related matters.

The CERS Investment Committee has the following oversight responsibilities:

- A. Assure compliance with this IPS and all applicable laws and regulations.
- B. Approve the selection and termination of service providers. If the need arises to terminate a manager between CERS Board meetings, the KPPA Executive Director, Office of Investments, ("CIO") will have discretion to do so after receiving approval from either the CERS Board Chair or the CERS Investment Committee Chair. The CERS Investment Committee and the CERS Board must be notified of the manager termination at the next scheduled CERS Investment Committee and CERS Board meetings.
- C. Meet no less than quarterly to evaluate whether this IPS, the investment activities and management controls and processes continue to be consistent in meeting CERS' goals. Mandate actions necessary to maintain the overall effectiveness of the investment program.
- D. Review assessment of investment program management processes and procedures, and this IPS relative to meeting stated goals.

#### C. KPPA Investment Staff

The Chief Investment Officer, Office of Investments, is responsible for the administration of investment assets of CERS consistent with the policies, guidelines and limits established by the federal and state laws, the CERS Board of Trustees, and the CERS Investment Committee.

The Chief Investment Officer receives direction from and reports to the KPPA Executive Director. The CIO shall provide information to the CERS Investment Committee on all investment matters, including but not limited to the following:

- i. Maintaining the diversification and risk exposure of the Funds consistent with policies and guidelines.
- ii. Assess and report on the performance and risk exposure of the overall investment program relative to goals, objectives, policies and guidelines.
- iii. Monitoring and assessing service providers to assure that they meet expectations and conform to policies and guidelines.
- iv. Recommend changes to service providers, statutes, policies or guidelines as needed to maintain a productive relationship between the investment program and its goals; act as liaison on all investment related matters.
- v. Identify issues for consideration by the CERS Investment Committee and prepare recommendations or reports regarding such matters.
- vi. Preparing for each proposed investment a memo to the CERS Investment Committee covering the pertinent details of the investment, including but not limited to: Amount of the investment, type of investment, purpose, opportunity/goal, risks, volatility assumptions, liquidity, structure, fees, background of investment firm with reasons for selection, list of other firms considered, which of CERS will invest, and the reasons why a specific CERS plan may be excluded from the investment.

The Chief Investment Officer, Office of Investments, or designee is authorized to execute trades

on fixed income and equity securities (including exchange-traded funds or “ETF’s”) and to execute proxies for the CERS Board consistent with this IPS.

To carry out this IPS and any investment related decisions of the CERS Board, the CERS Chief Executive Officer (“CEO”), and the Chief Investment Officer, Office of Investments, or designee are authorized to execute agreements and other necessary or proper documents pertaining to investment managers, consultants, investment related transactions or other investment functions.

#### D. Investment Managers

In instances where the CERS Investment Committee has determined it is desirable to employ the services of an external Investment Manager, the following shall be applicable:

- i. Investment Managers shall be qualified and agree to serve as a fiduciary to CERS and should be of institutional quality as deemed by KPPA Investment Staff in conjuncture with the investment consultant(s).
- ii. Investment Managers shall manage assets in accordance with this IPS and any additional guidelines established by contract, as may be modified in writing from time to time.
- iii. Total assets assigned to the selected manager shall not exceed 25% of that firm’s total assets under management and shall not exceed 25% of a firm’s total assets under management in a commingled product. Separate accounts or funds of one are not included in this 25% limitation for commingled products.
- iv. The assets managed by any one active or passive investment manager shall not exceed 15% of the overall assets in the pension and insurance funds.
- v. All investment management services will be contracted according to the CERS Investment Procurement Policy established by the CERS Board.

#### E. Custody Bank

The KPPA shall hire custodians and other agents who will be fiduciaries to CERS and who will assume responsibility for the safekeeping and accounting of all assets held on behalf of CERS and other duties as agreed to by contract.

#### F. Investment Consultants

Qualified independent investment consultants may be retained by CERS for asset allocation studies, asset allocation recommendations, performance reviews, manager searches and other investment related consulting functions and duties as set forth by contract.

#### G. Selection

Qualified investment managers, investment consultants and other investment related service providers shall be selected by the CERS Investment Committee in accordance with the IPS. The selection shall be based upon the demonstrated ability of the professional(s) to provide the required expertise or assistance described in the RFP/RFI (if utilized). In order to create an efficient and effective process, the CERS Investment Committee or Chief Investment Officer, Office of Investments, may, in their sole discretion, utilize a Request For Information (“RFI”), a Request For Proposals (“RFP”), third party proprietary software or database, review of existing service provider capabilities, or any combination of these or other methods to select a service

provider.

**III. Asset Allocation Guidelines**

In establishing asset allocation guidelines the CERS Board recognizes that each CERS plan has its own capacity to tolerate investment volatility, or risk. Therefore, each CERS plan has been studied and asset allocation guidelines have been established on a CERS plan by CERS plan basis. The CERS Board will cause the asset allocation guidelines of each System to be reviewed annually. The CERS Board will provide the CERS Investment Committee with the results of any asset liability study and guidance for determining the needs of CERS.

Based on an asset liability valuation study, which analyzed the expected returns, risk and correlations of various asset classes, projected liabilities, liquidity, and the risks associated with alternative asset mix strategies, the CERS Board has established the following Asset Allocation Guidelines, effective xxxxxx, 2021. The asset classes are “correlated” or grouped together into macro-asset class allocations (i.e. growth, liquidity and diversifying) based on their expected correlations to one another in order to create a better understanding of risk and diversification, and based on asset class exposures to the economic factors of growth and inflation.

<b>CERS Hazardous and Non-Hazardous Pension and Insurance Plans</b>				
Asset Class	Target	Relative Range (+/-)*	Minimum	Maximum
<b>Growth</b>	<b>68.50%</b>	<b>15%</b>	<b>58.23%</b>	<b>78.78%</b>
US Equity	21.75%	30%	15.23%	28.28%
Non US Equity	21.75%	30%	15.23%	28.28%
Private Equity	10.00%	30%	7.00%	13.00%
High Yield / Specialty Credit	15.00%	30%	10.50%	19.50%
<b>Liquidity</b>	<b>11.50%</b>	<b>20%</b>	<b>9.20%</b>	<b>13.80%</b>
Core Fixed Income	10.00%	20%	8.00%	12.00%
Cash	1.50%	100%	0.00%	3.00%
<b>Diversifying</b>	<b>20.00%</b>	<b>15%</b>	<b>17.00%</b>	<b>23.00%</b>
Real Estate	10.00%	30%	7.00%	13.00%
Real Return	10.00%	30%	7.00%	13.00%
<b>Opportunistic</b>	<b>0.00%</b>	<b>n/a</b>	<b>0.00%</b>	<b>5.00%</b>



The intent of the CERS Board in allocating funds to the investment managers is for the investment managers to fully invest the funds. However, the Board is aware that from time to time the investment manager will require a portion of the allocated funds to be held in cash provided the cash holdings do not exceed five percent (5%) of the manager's allocation for any given quarter, unless such cash holdings are an integral part of a fixed income manager's investment strategy.

The individual plan level asset allocations of CERS will be reviewed monthly by KPPA Investment Staff relative to its target asset class allocation, taking into account any tactical asset allocation shift directed by the CERS Investment Committee.

Regarding individual investment manager initial allocations, KPPA Investment Staff will get approval at the CERS Investment Committee meeting for a specific dollar amount intended to be committed to a closed-end fund such as private equity or real estate funds and will get approval for a percent of the appropriate asset class target for open-end investments such as public equity, public fixed income, and Diversifying Strategies managers. For those open-end funds where assets can be added or subtracted, the KPPA Executive Director, Office of Investments, will have discretion to reduce or increase an investment manager's allocation between 50% and 150% of the approved target. The target will not be raised prior to the one-year anniversary of the amount approved by the CERS Investment Committee, and must be reported to the CERS Investment Committee at the next scheduled meeting. If the need arises to terminate a manager between CERS Board meetings, the Chief Investment Officer, Office of Investments, will have discretion to do so after receiving approval from either the CERS Board Chair or the CERS Investment Committee Chair. The CERS Investment Committee and the CERS Board must be notified of the manager termination at the next scheduled CERS Investment Committee and Board meetings.

Short-term market shifts may cause the asset mix to drift from the allocation targets. Should the target percentage fall out of the indicated range for a particular asset class, KPPA Investment Staff shall direct rebalancing transactions to reallocate assets from the over-allocated asset class to the under- allocated asset class. Within the allowable ranges, KPPA Investment Staff should use regular cash flows to rebalance toward targets to avoid incurring additional trading costs to correct minor deviations from asset allocation targets. Except when there is a perceived extraordinary downside risk in a particular asset class, movement outside the normal ranges should be avoided.

Investments in private assets are generally less liquid than investments in public markets securities and are typically implemented via periodic commitments to funds with limited partnership structures. As a result, actual allocations to these asset classes may deviate from their strategic targets for extended periods. Actual vs. target deviations for these asset classes shall not be considered in violation of the Asset Allocation Guidelines. Under/overweights to these asset classes shall be invested in public markets securities with the most similar risk/return characteristics as a short-term proxy for the private asset classes.

In keeping with its responsibility as a CERS Board and wherever consistent with its fiduciary responsibility, the CERS Board encourages the investment of the fund's assets in investments, funds, and securities of corporations which provide a positive contribution to the economy of the Commonwealth of Kentucky. However, where any security is not a prohibited investment under the governing laws and policies, discretion will be granted to the appointed investment managers in the selection of such securities and timing of transactions consistent with the following guidelines and restrictions.

#### A. Growth

##### US Equity

Investment may be made in common stock, securities convertible into common stock, preferred stock of publicly traded companies on stock markets, asset class relevant ETF's or any other type of security contained in a manager's benchmark. Each individual domestic equity account shall have a comprehensive set of investment guidelines prepared by the Chief Investment Officer, Office of Investments, which contains a listing of permissible investments, portfolio restrictions and standards of performance for the account.

The internally managed equity index funds are intended, consistent with the governing Plan documents, to gain exposure to a broad asset sector to replicate the characteristics of the asset class, to minimize administrative expenses and to help achieve overall portfolio objectives. These objectives can be achieved through several management techniques, including but not limited to, portfolio optimization, non-reinvestment of index dividends and other management techniques intended to help achieve the objectives of the entire Pension Fund.

##### Non-US Equity

Investments may be made in common stock, securities convertible into common stock, preferred stock of publicly traded companies on stock markets, asset class relevant ETF's or any other type of security contained in a manager's benchmark. Each individual Non-US equity account shall have a comprehensive set of investment guidelines which shall contain a listing of permissible investments, portfolio restrictions and standards of performance for the account.

##### High Yield/Specialty Credit

High yield/specialty credit investments will be similar in type to those securities found in CERS' high yield benchmarks and the characteristics of the portfolio will be similar to CERS' high yield fixed income benchmarks. The high yield fixed income accounts may include, but are not limited to the following fixed income securities: non-investment grade U.S. corporate credit including both bonds and bank loans, non-investment grade non-U.S. corporate credit including bonds and bank loans, municipal bonds, non-U.S. sovereign debt, mortgages including residential mortgage backed securities, commercial mortgage backed securities, and whole loans, asset-backed securities, and emerging market debt ("EMD") including both sovereign EMD and corporate EMD and asset class relevant ETF's.

Each individual high yield/specialty credit account shall have a comprehensive set of investment guidelines which contains a listing of permissible investments, portfolio restrictions, risk parameters, and standards of performance for the account.

## **Private Equity Investments**

Subject to specific approval of the CERS Investment Committee, investments may be made for the purpose of creating a diversified portfolio of alternative investments. Private equity investments are expected to achieve attractive risk-adjusted returns and, by definition, possess a higher degree of risk with a higher return potential than traditional investments. Accordingly, total rates of return from private equity investments are expected to be greater than those that might be obtained from conventional public equity or debt investments. Examples of such investments include, but are not limited to, private investments into venture capital, leveraged buyouts, special situations, distressed debt, private debt, timberland, oil and gas partnerships, infrastructure, commodities and private placements. While it is expected that the majority of these assets will be invested within the United States, a portion has been allocated to non-US investments. These non-U.S. investments are not restricted by geography.

## **Guidelines for Private Equity**

The private equity market is highly sophisticated and specialized with respect to variety and types of investment structures. There exists major competition for deal flow on the part of both investor and general partners. To a great extent, market forces drive the bargaining of economic terms. Most investment vehicles are structured as commingled vehicles and often blind pool investment partnerships. The most common offering forms are equity private placements where the governing laws of the partnership impose a passive role of the limited partner investor. These contractual arrangements are long-term in nature and provide the general partner or sponsors a reasonable time horizon to wisely invest capital, add value through intensive operational management, then realize the proceeds of such an investment. Moreover, terms of the partnership are proposed by the general partner and are critical to the economic incentives and ultimate net performance of the partnership.

## **Investment Strategy and Plan Guidelines**

To strengthen the diversification of the investments, several guidelines will be utilized in KPPA Investment Staff's formulation and recommended annual investment strategy and plan. These guidelines encompass annual commitment levels to the asset class, types of investment vehicles that can be utilized, controlling financing stage risks, industry, manager and geography concentration/diversification limits, acceptable contract negotiations, appropriate sizes for investments, and the preferred alignment of interests.

*Investment Vehicles:* CERS will gain exposure to private equity investments by hiring external investment managers either directly or through participation in secondary private equity markets. Typically, CERS will subscribe as a Limited Partner ("LP") to limited partnership vehicles sponsored by such specialty external investment managers. CERS will also at times structure separately managed accounts with specific investment objectives to be implemented by external investment managers. CERS may also gain exposure by utilizing the following vehicles: limited liability companies and co-investments alongside CERS' existing or potential limited partnerships.

*Investment Timing Risks:* KPPA Investment Staff should limit the potential for any one investment to negatively impact the long-term results of the portfolio by investing across business cycles. Moreover, the portfolio must gain exposure to the array of financing stages by opportunistically exploiting the best investments at different stages of the business cycle. KPPA Investment Staff may also consider purchasing secondary partnership interests to shorten the



effective life of the partnership interest and therefore positively impacting the current and long-term net return of the portfolio. In addition, mindful of vintage year diversification, CERS should seek to identify attractive commitments annually, further ensuring the portfolio invests across business cycles.

*General Partner Diversification:* KPPA Investment Staff will seek to work with a variety of general partners due to their specialized expertise in particular segments of the private equity market and source of their deal flow. No more than fifteen (15) percent of CERS' Pension or Insurance total allocation to private equity investments may be committed to any one partnership, without the approval of the CERS Investment Committee.

## B. Fixed Income/Liquidity

### Core Fixed Income

Core Fixed Income investments will be similar in type to those securities found in CERS' core fixed income benchmark(s) and the characteristics of CERS' core fixed income portfolio will be similar to the System' core fixed income benchmarks. The core fixed income accounts may include, but are not limited to the following fixed income securities: U.S. Government and Agency bonds, investment grade U.S. corporate credit, investment grade non-U.S. corporate credit, municipal bonds, non-U.S. sovereign debt, mortgages including residential mortgage backed securities, commercial mortgage backed securities, and whole loans, asset-backed securities, and asset class relevant ETF's.

Each individual core fixed income account shall have a comprehensive set of investment guidelines which contains a listing of permissible investments, portfolio restrictions, risk parameters, and standards of performance for the account.

### Cash Equivalent Securities

Selection of particular short-term instruments, whether viewed as liquidity reserves or as investment vehicles, should be determined primarily by the safety and liquidity of the investment and only secondarily by the available yield. The following short-term investment vehicles are considered acceptable: Publicly traded investment grade corporate bonds, variable rate demand notes, government and agency bonds, mortgages, municipal bonds, and collective short-term investment funds ("STIFs"), money market funds or instruments (including, but not limited to, certificates of deposit, bank notes, deposit notes, bankers' acceptances and commercial paper) and repurchase agreements relating to the above instruments. Instruments may be selected from among those having an investment grade rating at the time of purchase by at least one recognized bond rating service. In cases where the instrument has a split rating, the lower of the two ratings shall prevail. All instruments shall have a maturity at the time of purchase that does not exceed 397 days. Repurchase agreements shall be deemed to have a maturity equal to the period remaining until the date on which the repurchase of the underlying securities is scheduled to occur. Variable rate securities shall be deemed to have a maturity equal to the time left until the next interest rate reset occurs, but in no case will any security have a stated final maturity of more than three years.

CERS' fixed income managers that utilize cash equivalent securities as an integral part of their investment strategy are exempt from the permissible investments contained in the preceding paragraph. Permissible short-term investments for fixed income managers shall be included in

the investment manager's investment guidelines.

### C. Diversifying Strategies

#### Real Estate

Subject to specific approval of the CERS Investment Committee, investments may be made in equity and debt real estate for the purpose of achieving the highest total rate of return possible consistent with a prudent level of risk. Allowable real estate investments include open-end and closed-end commingled real estate funds, joint venture investments, public and private real estate investment trusts ("REITs"), public real estate operating companies, and real estate related debt. CERS has determined that the primary role of the real estate asset class is to provide for the following:

- Attractive risk adjusted returns through active management and ability to access managers with the expertise and capabilities to exploit market inefficiencies in the asset class. The illiquid nature of real estate investments combined with the complexity of investments makes it difficult for casual investors to effectively access the asset class effectively. It is our belief that through active management and by investing in top tier managers with interests aligned through co-investment and incentive based compensation, CERS can maximize their risk adjusted returns. This active management approach will be pursued.
- Diversification benefits through low correlations with other asset classes, primarily the U.S. equity markets.
- Provide a hedge against unanticipated inflation, which real estate has historically provided due to lease structures and the increases in material and labor costs during inflationary periods.
- Permit CERS to invest in unique opportunities that arise due to dislocations in markets that occur from time to time.

#### Real Return

The purpose of the Real Return Portfolio is to identify strategies that provide both favorable stand-alone risk-adjusted returns as well as the benefit of hedging inflation for the broader plans. Real Return strategies are not necessarily a separate asset class but may include real assets, such as infrastructure, real estate, commodities, and natural resources among others, as well as financial assets that have a positive correlation to inflation. This can include "real" bonds such as Treasury Inflation-Protected Securities ("TIPs") (and other inflation linkers) or "real" stocks such as REITs, Master Limited Partnerships ("MLPs"), and oil & gas stocks. Additionally, Real Return managers may attempt to add value by tactically allocating to various asset classes according to how each asset class performs across an economic cycle and the manager's perception of where we are in the cycle. The goal is to invest in inflation sensitive assets during inflationary periods, and avoid those assets in deflationary periods, thus providing a positive real return across the cycle.

The real return opportunity set may include numerous vehicles to access a wide variety of

investment styles and strategies. These investment vehicles may include mutual funds, ETFs, separately managed accounts as well as hedge funds (open-end limited partnerships) and private equity (close-end limited partnerships). The list of strategies that CERS' Real Return Portfolio may use includes, but is not limited to, the following:

- Global Tactical Asset Allocation ("GTAA")/Global Macro: GTAA or macro strategies are those that make directional bets on major markets or asset classes instead of individual securities. GTAA and macro strategies typically invest in all major asset classes including equity markets, credit and debt instruments, currencies/interest rates, and commodities. These strategies tend to focus on economic factors that would suggest an opportune time to invest in a given asset class, and will change their allocations actively over time. These strategies may use inflation as the economic factor to gain exposure to and will target a real rate of return over time.
- Inflation Linked Securities are securities that directly tie coupon payments or principal increases to an inflation index, such as Consumer Price Index ("CPI"). These strategies could include not only US TIPS, but also global sovereign inflation linked bonds, corporate or infrastructure inflation linked bonds, and possibly short duration floating rate bonds.
- Inflation Sensitive Equities include publicly traded equity and equity related securities in companies which have a high sensitivity to inflation in their profit margins via the nature of their operating assets, such as energy companies, basic materials and miners, natural resource stocks, and listed infrastructure. This category can also include, but are not limited to, REITs, MLPs as well as ETFs and index products on REITs, MLPs, and natural resource stocks.
- Commodities: Commodities are the raw materials that are physical inputs into the production process. Managers that invest in liquid commodity strategies using exchange traded futures can span from simple indexing (matching a long-only commodities index), to enhanced indexing or active long (selecting positions that vary from the index but within fairly tight ranges), as well as unconstrained long-short managers.
- Private Property: For the purposes of this IPS, private property refers to the ownership of an idiosyncratic, physical asset that is predominately fixed and/or permanent or at least substantially long-lived. This includes real estate, such as land and any improvements to or on the land, as well as timberland and farmland. Timberland investing involves the institutional ownership of forest for the purpose of growing and harvesting the timber. The timber may be used for furniture, housing lumber, flooring, pulp for paper, woodchips, and charcoal, among other things. Farmland investing entails ownership of land used primarily, if not exclusively, for agricultural production both for crops, including row crops and permanent crops, as well as livestock. Private property can also include infrastructure investing, which refers to financing the manufacture or development of the underlying fundamental assets and basic core infrastructure that are necessary for an economy whereby such assets are largely fixed and long-lived. These tend to be high cost, capital-intensive investments that are vital to a society's prosperity and facilitate the transfer, distribution, or production of basic goods and services.
- Natural Resources: Natural resources can include investing in the financing, development, extraction, and production of minerals, basic materials, petroleum

products, and water as well as renewable resources such as agricultural commodities and solar energy. As opposed to property, the returns generated in these investment strategies come more from the actual production of the resource itself. Further, these are depleting and/or consumable assets that are also portable and fungible and which in the aggregate comprise a majority of the inputs into most measurements of inflation.

- **Private Assets:** Private assets can include tangible or intangible assets that are not easily sold in the regular course of a business' operations for cash, and which are held for their role in contributing directly to the business' ability to generate profit. As the useful life of the asset tends to extend across many years and the assets tend to be capital intensive as well, they have some similarity to private infrastructure. Further, given that the assets contribute directly to the production process as well as often retaining intrinsic value, there is a fundamental link to inflation somewhat similar to natural resources.
- **Other (Opportunistic Inflation Hedge):** Other/opportunistic strategies include those that have a propensity to provide a positive real return or positive correlation with inflation over time. Liquid strategies such as inflation swaps, diversified inflation hedging mutual funds, or nominal bonds backed by inflation sensitive assets may be included in this allocation, while other illiquid strategies that may provide the same real profile can include private equity in inflation sensitive companies, hard asset-backed private credit, and structured inflation-linked products among others.

### **Portfolio Guidelines**

No more than 50% of the total net assets of the Real Return portfolio may be invested in any one registered investment vehicle, mutual fund, or separately managed account.

No more than 20% of the total net assets of the Real Return portfolio may be invested in any single closed-end or open-end limited partnership or other unregistered investment vehicle.

The relative allocations to the liquid and illiquid portfolios will be determined according to each individual System's liquidity needs, funding status, and allocation targets on an investment by investment basis.

#### **Opportunistic**

Opportunistic investments are intended to capitalize on opportunities outside of the asset classes targeted in the Asset Allocation Guidelines. These allocation are intended to take advantage of market dislocations and unique opportunities and can be short-to-medium-term in nature. Opportunistic investments may be implemented through targeted portfolios or multi-asset approaches. Initial allocations are to be made following the same policies and procedures as all other investments as outlined previously in this IPS.

#### **D. Co-Investment Policy**

The CIO has discretion to make direct co-investments in companies alongside of current general partners. Any co-investment opportunity must also be part of the main account or fund into which CERS has already invested before it can be considered. For purposes of this IPS, a direct co-investment is defined as a direct investment in a portfolio company alongside an

existing CERS' partnership deemed in good standing.

The maximum investment in any co-investment vehicle shall not exceed 50 percent of the total capital committed by all partners at the time of the final closing. The maximum investment in any single direct co-investment shall not exceed 20 percent of the original partnership commitment. Total investment in direct co-investments shall not exceed 20 percent of the asset class portfolio on a cost basis at the time of investment.

#### IV. Monitoring

##### Performance Measurement

CERS overall fund performance is measured relative to CERS' Pension or Insurance Total Fund Benchmark. The benchmark is calculated by means of a weighted average methodology. This method is consistent with the CFA Institute Global Investment Performance Standards (GIPS®), a set of standardized, industry-wide ethical principles that guide investment managers and asset owners on how to fairly calculate and present their investment results, with the goal of promoting performance transparency and comparability. It is the product of the various component weights (i.e., asset classes' percentages) by their respective performance (returns). Due to market fluctuations and acceptable divergence, the asset classes' weights (percentages) are often not equivalent to the benchmark's weights. Therefore, the performance may indicate that the Funds have outperformed (underperformed) relative to their respective benchmarks, even when the preponderance of lesser weighted categories have underperformed (outperformed) their indices.

CERS measures its asset classes, sub-asset classes, sectors, strategies, portfolios, and instruments (investment) performance with indexes that are recognized and published (e.g., S&P 500 & Barclays Aggregate Bond Index). These indices are determined to be appropriate measures of investments and composites of investments with identical or similar investments profiles, characteristics, and strategies. The benchmarks and indexes are intended to be objective, investable, replicable, representative and measurable of the investment mandate and, developed from publicly available information that is acceptable to CERS and the investment manager/advisor as the neutral position consistent with the underlying investor status. CERS' investment consultant and KPPA Investment staff recommend the benchmarks and indexes. These measures shall be subject to the review and approval of the CERS Investment Committee with ratification by the CERS Board when asset allocation studies are performed, or when a change to existing benchmarks is recommended by KPPA Investment Staff and the CERS investment consultant. The current asset class benchmarks, effective as of July 1, 2018 with the adoption of the asset allocation, are as follows:

Asset Class	Benchmark
<b>Growth</b>	
US Equity	Russell 3000
Non US Equity	MSCI ACWI ex US IMI
Private Equity	Russell 3000 + 300 bps (lagged)
High Yield / Specialty Credit	50% Bloomberg Barclays US High Yield 50% S&P LSTA Leveraged Loan
<b>Liquidity</b>	
Core Fixed Income	Bloomberg Barclays US Aggregate
Cash	Citi Grp 3-mos Treasury Bill

<b>Diversifying</b>	
Real Estate	NCREIF ODCE
Real Return	US CPI + 3%
<b>Opportunistic</b>	
To Be Determined	Highest Assumed Discount Rate of Participating Plans

The following descriptions represent general standards of measurement that will be used as guidelines for the various classes of investments and managers of CERS. They are to be computed and expressed on a time-weighted total return basis:

*Total Public Asset Class Allocations*

Short-term

- For periods less than five years or a full market cycle, the Asset Class Allocation should exceed the returns of the appropriate Index.

Intermediate & Long-term

- For periods greater than five years or a full market cycle, the Asset Class Allocation should exceed the appropriate Index, compare favorably on a risk-adjusted basis, and generate returns that rank above the median return of a relevant peer group. Volatility, as measured by the standard deviation of monthly returns, should be comparable to the Index.

*Individual Public Security Portfolios:* Individual portfolios shall be assigned a market goal or benchmark that is representative of the style or market capitalization of the assignment. Individual accounts should be monitored using the following Standards:

Short-term

- For periods less than five years or a full market cycle, individual portfolios should exceed the returns of their market goal or benchmark.

Intermediate & Long-term

- For periods greater than five years or a full market cycle, individual portfolios should exceed the return of their market goal or benchmark, compare favorably on a risk-adjusted basis, and generate returns that rank above the median return of a relevant peer group. Volatility, as measured by the standard deviation of monthly returns, should be comparable to the benchmark.

Alternative Assets:

Private Equity

The Private Equity portfolio should also seek to achieve the following:

Short-term

- Alternative investments should earn a Net Internal Rate of Return (“IRR”) that place the investment above the median Net IRR of other similar funds, of the same vintage year, as reported by industry benchmarks.

Intermediate & Long-term

- The private equity portfolio should earn a return that meets or exceeds CERS Private Equity Index. Individual private equity investments should earn a Net IRR above the median Net IRR of other similar funds, of the same vintage year, as reported by industry benchmarks.

## Real Estate

Private Real Estate investments are unique and can be illiquid and long term in nature. Given that this may lead to large short-term performance discrepancies versus public benchmarks, CERS more appropriately measures its real estate investments based on both relative return and absolute return methodologies:

**Relative Return:** The Real Estate portfolio is expected to generate returns, net of all fees and expenses, in excess of the National Council of Real Estate Investment Fiduciaries Open End Diversified Core Equity Index (“NCREIF ODCE”) lagged 1 calendar quarter.

**Absolute Return:** The long term real return objective (returns adjusted for inflation) for CERS’ Real Estate portfolio is five percent (5%) over the Barclays Capital U.S. 7-10 Year Treasury Bond Index, net of investment management fees. This return shall be calculated on a time-weighted basis using industry standard reporting methodologies.

## Real Return

The total Real Return allocation shall seek to:

- (1) Short-term benchmark: For periods less than five (5) years or a full market cycle, the allocation should achieve an annual rate of return that exceeds the appropriate benchmark (the weighted average return of the underlying investment benchmarks) annually over a complete market cycle, net of all investment management fees.
- (2) Strategic objective: For periods greater than five (5) years or a full market cycle, the allocation should not only outperform the short-term benchmark, but also achieve a rate of return that exceeds (CPI + 300 basis points) as well.
- (3) Achieve a positive risk/reward trade-off when compared to similar style Real Return Investment Managers.

## Opportunistic

The total Opportunistic allocation shall seek to:

- (1) Short-term benchmark: For periods less than five (5) years or a full market cycle, the allocation should achieve an annual rate of return that exceeds the highest assumed rate of return of the participating plans.
- (2) Strategic benchmark: For periods greater than five (5) years or a full market cycle, the allocation should achieve an annual rate of return that exceeds the highest assumed rate of return of the participating plans.

## Performance Review

On a timely basis, but not less than quarterly, the CERS Investment Committee will review the performance of the portfolio for determination of compliance with this IPS. On an annual basis, a comprehensive review of each asset class and underlying portfolios shall be conducted by the KPPA Investment staff and presented to the CERS Investment Committee. The review shall consist of an organizational, performance and compliance assessment.

The Compliance Officer shall perform tests at least monthly to assure compliance with the restrictions imposed by this IPS. These tests shall be performed at the asset class and total fund level. Quarterly, the Compliance Officer shall prepare a report to the CERS Investment

Committee detailing the restrictions tested, exceptions, the cause of the exception and the subsequent resolution. The CERS Investment Committee shall report the findings to the CERS Board at the next regularly scheduled meeting.

The following restrictions shall be tested at least monthly:

- ▶ The amount of stock in the domestic or international equity allocation in any single corporation shall not exceed 5% of the aggregate market value of CERS' assets.
- ▶ The amount of stock held in the domestic or international equity allocation shall not exceed 3% of the outstanding shares of any single corporation.
- ▶ Investment in "frontier" markets (those countries not included in the MSCI EM Index) shall not exceed 5% of CERS' international equity assets.
- ▶ The duration of the core fixed income portfolios combined shall not vary from that of CERS' Fixed Income Index by more than +/- 25% duration as measured by effective duration, modified duration, or dollar duration except when the CERS Investment Committee has determined a target duration to be used for an interim basis.
- ▶ The amount invested in the debt of a single issuer shall not exceed 5% of the total market value of CERS' fixed income assets, with the exception of U.S. Government issued, guaranteed or agency obligations (or securities collateralized by same), and derivative securities used for exposure, cost efficiency, or risk management purposes in compliance with Section VII of this policy.
- ▶ 50% of the core fixed income assets must have stated liquidity that is trade date plus three days or better.

The Chief Investment Officer shall develop a comprehensive set of investment guidelines for each externally managed account. These guidelines should ensure, at the total fund and asset class level, that the restrictions set forth above are preserved.

## V Additional Items

### **Derivatives Permitted Use:**

CERS permits external managers and KPPA Investment Staff to invest in derivative securities, or strategies which make use of derivative investments, for exposure, cost efficiency and risk management purposes, if such investments do not cause the portfolio to be leveraged beyond a 100% invested position. Any derivative security shall be sufficiently liquid that it can be expected to be sold at, or near, its most recently quoted market price. Typical uses of derivatives in the portfolio are broadly defined below:

### **Exposure:**

Derivatives are an effective way for a portfolio manager to gain exposure to a security that the manager does not want to purchase in the cash market. Reasons for gaining exposure to a security through the use of derivatives may include cheaper transactions costs, liquidity/lack of supply in the underlying market, and the flexibility to implement investment



views with minimum portfolio disruption. An example is a cash equitization program.

**Cost Efficiency:**

Derivatives are often used due to the cost efficiency associated with the contract properties. Given the fact that derivatives can be used as a form of insurance, upfront trading costs must be sufficiently low for investors to purchase the contract and insure their portfolios efficiently. Furthermore, due to properties associated with derivatives and cash outlay characteristics (minimal cash outlay at inception of the contract) derivatives are generally a vehicle of gaining cost efficient exposure. An example is the cost (zero) to purchase a futures contract.

**Risk Management:**

Derivatives can be used for mitigating risk in the portfolio. When used as a risk management tool, derivatives can significantly reduce an identified financial risk or involuntary risk from investment areas by providing changes in fair values or cash flows that substantially offset the changes in fair values or cash flows of the associated item being hedged. An example is the use of currency forwards to offset periods of dollar strength when international equity markets increase in value, thereby protecting foreign asset gains in the portfolio.

**Derivatives Restricted Use:**

**Settlement:**

Investments in futures contracts are to be cash settled unless physically settled and stored by external managers. At no time shall CERS agree to take physical delivery on a futures contract.

**Position Limits:**

Futures and options positions entered into by CERS, or on its behalf, will comply with all position and aggregate limits established by the local governing authorities within each jurisdiction.

**Over-the-Counter (OTC):**

Investments in securities not traded on public exchanges that are deemed over-the-counter (OTC) in nature are allowed provided that a counterparty risk monitoring component is delineated in the manager's guideline section of the manager's contract. All counterparties must have a short-term credit rating of at least BBB (Standard and Poor's or Fitch) or Baa2 (Moody's).

All OTC derivative transactions, including those managed through Agency Agreements, must be subject to established International Swaps and Derivatives Association, Inc. (ISDA) Master Agreements and have full documentation of all legal obligations of CERS under the transactions. All ISDA Master Agreements entered into by or on behalf of CERS by the KPPA Investment Staff and external manager pursuant to an Agency Agreement shall provide that Netting applies. (Netting allows the parties to an ISDA Master Agreement to aggregate the amounts owed by each of them under all of the transactions outstanding under that ISDA Master Agreement and replace them with a single net amount payable by

one party to the other.) The KPPA Investment Staff and external managers may also use collateral arrangements to mitigate counterparty credit or performance risk. If an external manager utilizes a collateral arrangement to mitigate counterparty credit or performance risk the arrangement shall be delineated in the manager's guideline section of the manager's contract.

**Derivatives Applications Not Permitted:**

**Speculation:**

Except for investments in Alternative, Opportunistic Diversifying Strategies investments, and Real Return investments, derivatives may not be used for any activity for which the primary purpose is speculation or to profit while materially increasing risk to CERS. Derivatives are considered speculative if their uses have no material relation to objectives and strategies specified by the CERS IPS or applicable to the CERS portfolio. Derivatives may not be used for circumventing any limitations or restrictions imposed by the CERS IPS or applicable regulatory requirements.

**Leverage:**

Leverage is inherent in derivative contracts since only a small cash deposit is required to establish a much larger economic impact position. Thus, relative to the cash markets, where in most cases the cash outlay is equal to the asset acquired, derivative investments offer the possibility of establishing substantially larger market risk exposures with the same amount of cash as a traditional cash market portfolio. Therefore, risk management and control processes must focus on the total risk, i.e. the net notional value, assumed in a derivative investment.

*The above is not intended to limit CERS from borrowing to cover short-term cash flow needs nor prohibit CERS from loaning securities in accordance with a securities lending agreement.*

The CERS Board recognizes that the voting of proxies is an important responsibility in assuring the overall performance over a long time horizon. The CERS Board has delegated the responsibility of voting all proxies to an outside Proxy Voting service provider or contracted external investment manager. The CERS Board expects that the proxy voting service will execute all proxies in a timely fashion, and in accordance with the voting policy which has been formally adopted.

The CERS Board has adopted the ISS U.S. Proxy Voting Guidelines as CERS' approved Proxy Voting Policy for all internally voted items. This policy is updated at least annually by ISS and hereby incorporated by this reference. The policy can be found publically using the following link:

<http://www.issgovernance.com/files/2012USSummaryGuidelines1312012.pdf>

**Additional CERS Investment Administrative Policies**

- A. Investment Procurement Policy as amended and the Investment Manager Onboarding Checklist as amended are hereby incorporated by reference.
- B. Investment Brokerage Policy as amended is hereby incorporated by reference.

- C. Transactions Procedures Policy as amended is hereby incorporated by reference.
- D. Securities Litigation Policy and Procedures as amended is hereby incorporated by reference.
- E. Investment Securities Lending Guidelines as amended is hereby incorporated by reference.
- F. Securities Trading Policy for Trustees and Employees as amended is hereby incorporated by reference.
- G. Manager and Placement Agent Statement of Disclosure Policy as amended is hereby incorporated by reference.

Signatories

As Adopted by the CERS Investment Committee

As Adopted by the CERS Board of Trustees

Date: \_\_\_\_\_

Date: \_\_\_\_\_

Signature: \_\_\_\_\_

Signature: \_\_\_\_\_

Dr. Merl Hackbart

Ms. Betty Pendergrass

Chair, CERS Investment Committee

Chair, CERS Board of Trustees



This Investment Policy Statement ("IPS") is issued by the CERS Board of Trustees ("CERS Board" or "CERS Trustees") of the Kentucky County Employees Retirement Systems CERS System ("CEKRS") ~~in connection with investing the pension and insurance trust funds ("Funds") of the Kentucky Employees Retirement Systems ("KERS"), the County Employees Retirement Systems ("CERS") and the State Police Retirement System ("SPRS"), jointly referred to as "Systems".~~ This document supersedes all prior documents entitled Statement of Investment Policy or Investment Policy Statement.

**Commented [HS(1)]:** Not needed since this is referencing the wording changes to KRS policy

I. Introduction

A. Purpose

The purpose of this IPS is to define the framework for investing the assets ("Portfolio") of ~~the Systems~~ CERS. This IPS is intended to provide general principles for establishing the goals of ~~the Systems~~ CERS, the allocation of assets, employment of outside asset management, and monitoring the results ~~of the Plan~~.

The pension plans administered by KRS-CERS are "Qualified Pension Plans" under Section 401(a) of the Internal Revenue Code. Additionally, Kentucky Revised Statutes 61.701 establishes health insurance benefits to recipients of KERS, CERS ~~and~~ SPRS. Kentucky Revised Statutes 61.702 provides that all amounts necessary to provide for insurance benefits shall be paid to the insurance fund. The CERS Board shall administer the insurance ~~trust fund~~ in the same manner as the pension ~~trust funds~~ plans.

**Commented [HS(2)]:** I see that some of the statutes are changed in here...I would just recommend these double checked by Legal prior to finalization.

B. Philosophy

The CERS Trustees ~~of KRS~~ recognize their fiduciary duty not only to invest ~~the Systems~~ CERS' ~~funds~~ assets in formal compliance with the Prudent Person Rule but also to manage those ~~funds~~ assets in continued recognition of the basic long-term nature of ~~the Systems~~ CERS. The CERS Trustees interpret this to mean, in addition to the specific guidelines and restrictions set forth in the law and this document, that the assets of ~~the Systems~~ CERS shall be proactively managed -- that is, investment decisions regarding the particular asset classes, strategies, and securities to be purchased or sold shall be the result of the conscious exercise of discretion.

The CERS Trustees recognize that asset allocation is the primary driver of long-term investment performance, and will therefore review asset allocation and asset-liability studies on a regular basis as outlined in Section III of this document. The Asset Allocation Guidelines represents a strategic decision, with the primary aim that ~~the portfolios~~CERS meet ~~their-its~~ performance objectives in the long- term, but understanding that ~~they-this~~ may not necessarily occur every year.

The CERS Trustees recognize that there is generally an inverse relationship between market efficiency, and the ability for active management to produce alpha. Therefore, investments in efficient markets, ~~such as U.S. Large Cap Equity and Core Fixed Income,~~ will be made using index or index-like investments with the goal of replicating index returns with low management fees. Active management will be pursued in less efficient markets, ~~such as U.S. Small Cap Equity and High Yield/Specialty Credit mandates,~~ accepting higher tracking error and paying higher management fees with the expectation of producing excess returns over the long term. This ~~allows focuses~~the KPPA Office of Investments' ("KPPA Investment Staff") and consultant(s) to focus their efforts on identifying, selecting, and monitoring managers, as well as the overall management fees paid, in the areas of the market most likely to produce excess returns.

The CERS Trustees recognize that, commensurate with their overall objective of maximizing long-range term return while maintaining a high standard of portfolio quality and consistency of return, it is necessary that proper diversification of assets be maintained both across and within the classes of securities held to minimize/mitigate overall portfolio risk. Consistent with carrying out their Fiduciary Responsibilities and the concept of Modern Portfolio Theory, the CERS Trustees will not systematically exclude any investments in companies, industries, countries, or geographic areas unless required to do so by statute. Within this context of proactive management and the necessity for adherence to proper diversification, the Trustees rely upon appropriate professional advice from multiple staff and service providers.

**Commented [HS(3):** I would re-word. "Quality" implies a certain type of equity characteristic, not a return characteristic...maybe write "...maximizing long-term return given the appropriate level of risk..." (the risk return tradeoff bar chart we always review)

**II. Responsibilities**

The CERS Trustees and other fiduciaries shall discharge their duties with respect to ~~the~~ SystemsCERS: (1) solely in the interest of the participants and beneficiaries; (2) for the exclusive purpose of providing benefits to participants and beneficiaries; (3) with the care, skill and caution under the circumstances then prevailing which a prudent person acting in a like capacity and familiar with those matters would use in the conduct of an activity of like character and purpose; (4) impartially; (5) incurring and paying appropriate and reasonable expenses of administration which may not necessarily be the lowest and (6) in accordance with a good faith interpretation of the laws, regulations and other instruments governing ~~KRS and the Systems~~CERS.

Additionally, the Trustees and other fiduciaries shall not engage in any transaction which results in a substantial diversion of ~~the Systems~~CERS income or assets without adequate security and reasonable rate of return to a disqualified person or in any other prohibited transaction described in Internal Revenue Code Section 503(b).

A. CERS Board of Trustees

The CERS Investment Committee is created by Kentucky Revised Statutes ~~64-650~~78.790(1)(b) and the CERS Board as set forth in the CERS Board's Statement of Bylaws and Committee Organization (Section 2.2(e)). The Chair authorizes and directs the appointment of an CERS Investment Committee with full power to act for the CERS Board in the acquisition, sale and management of the securities and funds of ~~the Systems~~CERS in accordance with the provisions

of any applicable statutes, and policies of the CERS Board. The CERS Investment Committee has the power to act on behalf of the CERS Board on all investment related matters, including the acquisition, sale, safeguarding, monitoring and management of the assets, securities and funds of ~~the Systems~~CERS. The CERS Board shall review and ratify the actions of the CERS Investment Committee at the CERS Board meeting following the CERS Investment Committee meeting where such action was taken.

B. CERS Investment Committee

The CERS Investment Committee consists of ~~nine-five (5)~~ members of the CERS Board. The members of the CERS Investment Committee shall include the ~~six-three (36)~~ Trustees appointed by the Governor to the CERS Board pursuant to Kentucky Revised Statutes ~~61.64578.782(2)(b)(4-6)(1)(e)(5)~~ (investment experience), plus two additional Trustees appointed by the CERS Board Chair to include one (1) Trustee elected by the membership (KRS 78.782(4) and three (3)one (1) Trustees chosen by the Board Chair appointed by the Governor pursuant to KRS 78.782(2)(b)(1-3) (retirement administration). The CERS Investment Committee acts on behalf of the CERS Board on investment related matters.

The CERS Investment Committee has the following oversight responsibilities:

- A. Assure compliance with this IPS and all applicable laws and regulations.
- B. Approve the selection and termination of service providers. If the need arises to terminate a manager between CERS Board meetings, the ~~Chief Investment Officer~~KPPA Executive Director, Office of Investments, ("CIO") will have discretion to do so after receiving approval from either the CERS Board Chair or the CERS Investment Committee Chair. The CERS Investment Committee and the CERS Board must be notified of the manager termination at the next scheduled CERS Investment Committee and CERS Board meetings.
- C. Meet no less than quarterly to evaluate whether this IPS, the investment activities and management controls and processes continue to be consistent in meeting ~~the Systems~~CERS' goals. Mandate actions necessary to maintain the overall effectiveness of the investment program.
- D. Review assessment of investment program management processes and procedures, and this IPS relative to meeting stated goals.

C. KPPA Investment Staff

The ~~Chief Investment Officer~~KPPA Executive Director, Office of Investments, is responsible for the administration of investment assets of ~~the Systems~~CERS consistent with the policies, guidelines and limits established by the federal and state laws, the CERS Board of Trustees, and the CERS Investment Committee.

**Commented [HS(4):** Maybe just use CIO here for consistency from above and below.

The ~~Chief Investment Officer~~KPPA Executive Director, Office of Investments, receives direction from and reports to the KPPA Executive Director. ~~†~~The CIO shall provide information to the CERS Investment Committee on all investment matters, including but not limited to the following:

**Commented [HS(5):** I'm not sure this belongs here since it is a personnel issue now. I'd take out the first sentence if this is the case. I would still receive direction from the IC if we follow other parts of the IPS.

- i. Maintaining the diversification and risk exposure of the Funds consistent with policies and guidelines.
- ii. Assess and report on the performance and risk exposure of the overall investment program relative to goals, objectives, policies and guidelines.
- iii. Monitoring and assessing service providers to assure that they meet expectations and

- conform to policies and guidelines.
- iv. Recommend changes to service providers, statutes, policies or guidelines as needed to maintain a productive relationship between the investment program and its goals; act as liaison on all investment related matters.
  - v. Identify issues for consideration by the CERS Investment Committee and prepare recommendations or reports regarding such matters.
  - vi. Preparing for each proposed investment a memo to the CERS Investment Committee covering the pertinent details of the investment, including but not limited to: Amount of the investment, type of investment, purpose, opportunity/goal, risks, volatility assumptions, liquidity, structure, fees, background of investment firm with reasons for selection, list of other firms considered, which of ~~the Systems~~CERS will invest, and the reasons why a specific ~~System~~CERS plan may be excluded from the investment.

The ~~Chief Investment Officer~~KPPA Executive Director, Office of InvestmentsCIO, or designee is authorized to execute trades on fixed income and equity securities (including exchange-traded funds or "ETF's") and to execute proxies for the CERS Board consistent with this IPS.  
CERS.

To carry out this IPS and any investment related decisions of the CERS Board, the CERS Executive Director, ~~Chief Investment Officer~~KPPA Executive Director, Office of InvestmentsCIO, or designee is authorized to execute agreements and other necessary or proper documents pertaining to investment managers, consultants, investment related transactions or other investment functions.

Commented [HS(6): CEO?

#### D. Investment Managers

In instances where the CERS Investment Committee has determined it is desirable to employ the services of an external Investment Manager, the following shall be applicable:

- i. Investment Managers shall be qualified and agree to serve as a fiduciary to ~~the Systems~~CERS and should be of institutional quality as deemed by KPPA Investment Staff in conjuncture with the investment consultant(s).
- ii. Investment Managers shall manage assets in accordance with this IPS and any additional guidelines established by contract, as may be modified in writing from time to time.
- iii. Total assets assigned to the selected manager shall not exceed 25% of that firm's total assets under management and shall not exceed 25% of a firm's total assets under management in a commingled product. Separate accounts or funds of one are not included in this 25% limitation for commingled products.
- iv. The assets managed by any one active or passive investment manager shall not exceed 15% of the overall assets ~~in the pension and insurance funds~~in CERS.
- v. All investment management services will be contracted according to the CERS Investment Procurement Policy established by the CERS Board.

#### E. Custody Bank

~~The KPPA Board shall hire custodians and other agents who will be fiduciaries to the Systems~~CERS and who will assume responsibility for the safekeeping and accounting of all assets held on behalf of the ~~Systems~~CERS and other duties as agreed to by contract.

Commented [HS(7): I believe this is done at the KPPA level.

#### F. Investment Consultants

Qualified independent investment consultants may be retained by ~~the Systems~~CERS for asset allocation studies, asset allocation recommendations, performance reviews, manager searches and other investment related consulting functions and duties as set forth by contract.

G. Selection

Qualified investment managers, custody banks, investment consultants and other investment related service providers shall be selected by the CERS Investment Committee in accordance with the IPS. The selection shall be based upon the demonstrated ability of the professional(s) to provide the required expertise or assistance described in the RFP/RFI (if utilized). In order to create an efficient and effective process, the CERS Investment Committee or ~~Chief Investment Officer/KPPA Executive Director, Office of Investments~~CIO, may, in their sole discretion, utilize a Request For Information ("RFI"), a Request For Proposals ("RFP"), third party proprietary software or database, review of existing service provider capabilities, or any combination of these or other methods to select a service provider.

III. Asset Allocation Guidelines

In establishing asset allocation guidelines the CERS Board recognizes that each ~~System~~CERS plan has its own capacity to tolerate investment volatility, or risk. Therefore, each ~~System~~CERS plan has been studied and asset allocation guidelines have been established on a ~~System~~CERS plan by ~~System~~CERS plan basis. The CERS Board will cause the asset allocation guidelines ~~of each System~~ to be reviewed annually. The CERS Board will provide the CERS Investment Committee with the results of any asset liability study and guidance for determining the needs of ~~the Systems~~CERS.

Based on an asset liability valuation study, which analyzed the expected returns, risk and correlations of various asset classes, projected liabilities, liquidity, and the risks associated with alternative asset mix strategies, the CERS Board has established the following Asset Allocation Guidelines, effective ~~January 4, xxxxxx~~, 2021. The asset classes are ~~"bucketed" or~~ grouped together into macro-asset class ~~bucket allocations~~ (i.e. growth, liquidity and diversifying) ~~for equity, fixed income, and diversifying?~~ based on their expected correlations to one another in order to create a better understanding of risk and diversification, and based on asset class exposures to the economic factors of growth and inflation.

~~KERS Hazardous Pension Plan; CERS Hazardous and Non-Hazardous Pension and Insurance Plans and the KRS Insurance Fund (excluding KERS Non-Hazardous Pension Plan and SPRS Pension Plan) - 6.25% Assumed Rate of Return~~

Asset Class	Target	Relative Range (+/-)*	Minimum	Maximum
<b>Growth</b>	<b>68.50%</b>	<b>15%</b>	<b>58.23%</b>	<b>78.78%</b>
US Equity	21.75%	30%	15.23%	28.28%
Non US Equity	21.75%	30%	15.23%	28.28%
Private Equity	10.00%	30%	7.00%	13.00%
High Yield / Specialty Credit	15.00%	30%	10.50%	19.50%
<b>Liquidity</b>	<b>11.50%</b>	<b>20%</b>	<b>9.20%</b>	<b>13.80%</b>
Core Fixed Income	10.00%	20%	8.00%	12.00%
Cash	1.50%	100%	0.00%	3.00%
<b>Diversifying</b>	<b>20.00%</b>	<b>15%</b>	<b>17.00%</b>	<b>23.00%</b>

**Commented [HS(8):** This is the section that is also covered in the Procurement Policy...I would suggest taking it out of here and referencing the Procurement Policy as an Exhibit/Appendix

**Commented [KRS9]:** Do annual reviews give managers time to accomplish goals set in the Asset Allocation strategy?

**Commented [HS(10R9):** The managers would remain the same even in asset allocation shifts (unless an asset class is eliminated). It is a good question on frequency. I also question why you would designate the Board to do this and not the IC...seems backwards

**Commented [KRS11]:** Should we include guidelines for the frequency of asset liability studies?

**Commented [HS(12R11):** I would say every market cycle which is 3-5 years.

**Commented [KRS13]:** These "buckets" mask the allocations to alternative investments. We actually have 43.50% in equities, but it seems like there's 68.5%.

**Commented [HS(14):** Firstly, I am not a fan of the term "buckets", so I would call it what it is, an "allocation". Secondly, you are right there is some making in here. Your equity allocation is 53.5% if you count the private equities.

**Commented [HS(15):** No real need for this, it is not industry standard to include the discount rate here.

**Commented [HS(16):** I'm not sure you need this column...just a min\_max would do it, but would make them either add properly or take out the larger Min\_Max

**Commented [HS(17):** You would either want these to total properly or just take out the total. S/B 8%, which would take you out of the 20% min, which makes sense give you have cash at 100%.



Real Estate	10.00%	30%	7.00%	13.00%
Real Return	10.00%	30%	7.00%	13.00%
<b>Opportunistic</b>	<b>0.00%</b>	<b>n/a</b>	<b>0.00%</b>	<b>5.00%</b>

<b>KERS Non-Hazardous Pension Plan and SPRS Pension Plan – 5.25% Assumed Rate of Return</b>				
Asset Class	Target	Relative Range (+/-)*	Minimum	Maximum
<b>Growth</b>	<b>64.60%</b>	<b>15%</b>	<b>46.33%</b>	<b>62.68%</b>
US Equity	16.25%	30%	11.38%	21.13%
Non-US Equity	16.25%	30%	11.38%	21.13%
Private Equity	7.00%	30%	4.90%	9.10%
High Yield / Specialty Credit	15.00%	30%	10.50%	19.50%
<b>Liquidity</b>	<b>26.60%</b>	<b>20%</b>	<b>20.40%</b>	<b>30.60%</b>
Core Fixed Income	20.50%	20%	16.40%	24.60%
Cash	5.00%	100%	0.00%	10.00%
<b>Diversifying</b>	<b>20.00%</b>	<b>15%</b>	<b>17.00%</b>	<b>23.00%</b>
Real Estate	10.00%	30%	7.00%	13.00%
Real Return	10.00%	30%	7.00%	13.00%
<b>Opportunistic</b>	<b>0.00%</b>	<b>n/a</b>	<b>0.00%</b>	<b>5.00%</b>

\* The relative range is the percentage of target that the allocation is allowed to deviate above or below target, as detailed in the Minimum and Maximum columns of the table.

Commented [HS(18)]: Take out per comments above

The intent of the CERS Board in allocating funds to the investment managers is for the investment managers to fully invest those funds. However, the Board is aware that from time to time the investment manager will require a portion of the allocated funds to be held in cash provided the cash holdings do not exceed five percent (5%) of the manager's allocation for any given quarter, unless such cash holdings are an integral part of a fixed income manager's investment strategy.

The individual plan level asset allocations of each Pension and Insurance Fund constituent CERS will be reviewed monthly by KPPA Investment Staff relative to its target asset class allocation, taking into account any tactical asset allocation shift directed by the CERS Investment Committee.

Commented [HS(19)]: I would only recommend strategic asset allocations with adjustments made after a market cycle with a study, or if a sudden need to change the risk profile.

Regarding individual investment manager initial allocations, KPPA Investment Staff will get approval at the CERS Investment Committee meeting for a specific dollar amount intended to be committed to a closed-end fund such as private equity or real estate funds and will get approval for a percent of the appropriate asset class target for open-end investments such as public equity, public fixed income, and Diversifying Strategies managers. For those open-end funds where assets can be added or subtracted, the Chief Investment Officer KPPA Executive Director, Office of Investments CIO, will have discretion to reduce or increase an investment manager's allocation to an investment strategy between 50% and 150% of the approved target. The target will not be raised prior to the one-year anniversary of the amount approved by the CERS Investment Committee, and must be reported to the CERS Investment Committee at the next scheduled meeting. If the need arises to terminate a manager between CERS Board meetings, the Chief Investment Officer KPPA Executive Director, Office of Investments CIO, will have discretion to do so after receiving approval from either the CERS Board Chair or the CERS Investment Committee Chair. The CERS Investment Committee and the CERS Board must be

Commented [HS(20)]: Can we clarify here? Not sure why the distinction between dollar and %...could we just say we get approval of the manager, strategy, vehicle, and amount?

Commented [HS(21)]: Can we not specify since you can't increase or decrease closed-end fund anyway?

notified of the manager termination at the next scheduled [CERS](#) Investment Committee and Board meetings.

Short-term market shifts may cause the asset mix to drift from the allocation targets. Should the target percentage fall out of the indicated range for a particular asset class, [KPPA Investment Staff](#) shall direct rebalancing transactions to reallocate assets from the over-allocated asset class to the under- allocated asset class. Within the allowable ranges, [KPPA Investment Staff](#) should use regular cash flows to rebalance toward targets to avoid incurring additional trading costs to correct minor deviations from asset allocation targets. Except when there is a perceived extraordinary downside risk in a particular asset class, movement outside the normal ranges should be avoided.

Investments in private assets are generally less liquid than investments in public markets securities and are typically implemented via periodic commitments to funds with limited partnership structures. As a result, actual allocations to these asset classes may deviate from their strategic targets for extended periods. Actual vs. target deviations for these asset classes shall not be considered in violation of the Asset Allocation Guidelines. Under/overweights to these asset classes shall be invested in public markets securities with the most similar risk/return characteristics as a short-term proxy for the private asset classes.

In keeping with its responsibility as a [CERS](#) Board and wherever consistent with its fiduciary responsibility, the [CERS](#) Board encourages the investment of the fund's assets in investments, funds, and securities of corporations which provide a positive contribution to the economy of the Commonwealth of Kentucky. However, where any security is not a prohibited investment under the governing laws and policies, discretion will be granted to the appointed investment managers in the selection of such securities and timing of transactions consistent with the following guidelines and restrictions.

A. Growth

US Equity

Investment may be made in common stock, securities convertible into common stock, preferred stock of publicly traded companies on stock markets, asset class relevant ETF's or any other type of security contained in a manager's benchmark. Each individual domestic equity account shall have a comprehensive set of investment guidelines prepared, which contains a listing of permissible investments, portfolio restrictions and standards of performance for the account.

The internally managed equity index funds are intended, ~~consistent with the governing Plan documents,~~ to gain exposure to a broad asset sector to replicate the characteristics of the asset class, to minimize administrative expenses and to help achieve overall [portfolio-risk and return](#) objectives. These objectives can be achieved through several management techniques, including but not limited to, portfolio optimization, non-reinvestment of index dividends and other management techniques ~~intended to help achieve the objectives of the entire Pension Fund.~~

Non-US Equity

Investments may be made in common stock, securities convertible into common stock, preferred stock of publicly traded companies on stock markets, asset class relevant ETF's or any other type of security contained in a manager's benchmark. Each individual Non-US equity account shall have a comprehensive set of investment guidelines, which shall contain a listing of permissible

investments, portfolio restrictions, and standards of performance for the account.

High Yield/Specialty Credit

High yield/specialty credit investments will be similar in type to those securities found in ~~the SystemsCERS'~~ high yield benchmarks and the characteristics of the portfolio will be similar to ~~the SystemsCERS'~~ high yield fixed income benchmarks. The high yield fixed income accounts may include, but are not limited to the following fixed income securities: non-investment grade U.S. corporate credit including both bonds and bank loans, non-investment grade non-U.S. corporate credit including bonds and bank loans, municipal bonds, non-U.S. sovereign debt, mortgages including residential mortgage backed securities, commercial mortgage backed securities, and whole loans, asset-backed securities, and emerging market debt ("EMD") including both sovereign EMD and corporate EMD and asset class relevant ETF's.

Each individual high yield/specialty credit account shall have a comprehensive set of investment guidelines which contains a listing of permissible investments, portfolio restrictions, risk parameters, and standards of performance for the account.

Private Equity Investments

~~Subject to specific approval of the CERS Investment Committee, investments may be made for the purpose of creating a diversified portfolio of alternative investments. Private equity~~ investments are expected to achieve attractive risk-adjusted returns and, by definition, possess a higher degree of risk with a higher return potential than traditional investments. Accordingly, total rates of return from private equity investments are expected to be greater than those that might be obtained from conventional public equity or debt investments. Examples of such investments include, but are not limited to, private investments into venture capital, leveraged buyouts, special situations, distressed debt, private debt, timberland, oil and gas partnerships, infrastructure, commodities and private placements. While it is expected that the majority of these assets will be invested within the United States, a portion has been allocated to non-US investments. These non-U.S. investments are not restricted by geography.

Commented [HS(22)]: This was covered above in that all investments need specific approval.

Guidelines for Private Equity

Commented [HS(23)]: These are not guidelines but a definition.

The private equity market is highly sophisticated and specialized with respect to variety and types of investment structures. There exists major competition for deal flow on the part of both investor and general partners. To a great extent, market forces drive the bargaining of economic terms. Most investment vehicles are structured as commingled vehicles and often blind pool investment partnerships. The most common offering forms are equity private placements where the governing laws of the partnership impose a passive role of the limited partner investor. These contractual arrangements are long-term in nature and provide the general partner or sponsors a reasonable time horizon to wisely invest capital, add value through intensive operational management, then realize the proceeds of such an investment. Moreover, terms of the partnership are proposed by the general partner and are critical to the economic incentives and ultimate net performance of the partnership.

**Investment Strategy and Plan Guidelines**

To strengthen the diversification of the investments, several guidelines will be utilized in KPPA Investment Staff's formulation and recommended annual investment strategy and plan. These guidelines encompass annual commitment levels to the asset class, types of investment vehicles

that can be utilized, controlling financing stage risks, industry, manager and geography concentration/diversification limits, acceptable contract negotiations, appropriate sizes for investments, and the preferred alignment of interests.

**Investment Vehicles:** ~~The Systems~~CERS will gain exposure to private equity investments by hiring external investment managers either directly or through participation in secondary private equity markets. Typically, ~~K~~CERS will subscribe as a Limited Partner (“LP”) to limited partnership vehicles sponsored by such specialty external investment managers. ~~K~~CERS will also at times structure separately managed accounts with specific investment objectives to be implemented by external investment managers. ~~The Systems~~CERS may also gain exposure by utilizing the following vehicles: limited liability companies and co-investments alongside ~~K~~CERS’ existing or potential limited partnerships.

**Investment Timing Risks:** ~~KPPA Investment~~ Staff should limit the potential for any one investment to negatively impact the long-term results of the portfolio by investing across business cycles. Moreover, the portfolio must gain exposure to the array of financing stages by opportunistically exploiting the best investments at different stages of the business cycle. ~~KPPA Investment~~ Staff may also consider purchasing secondary partnership interests to shorten the effective life of the partnership interest and therefore positively impacting the current and long-term net return of the portfolio. In addition, mindful of vintage year diversification, ~~the Systems~~CERS should seek to identify attractive commitments annually, further ensuring the portfolio invests across business cycles.

**General Partner Diversification:** ~~KPPA Investment~~ Staff will seek to work with a variety of general partners due to their specialized expertise in particular segments of the private equity market and source of their deal flow. No more than fifteen (15) percent of ~~the Systems~~CERS’ Pension or Insurance total allocation to private equity investments may be committed to any one partnership, without the approval of the ~~CERS~~ Board.

**Commented [HS(24):** This is bigger than the allocation target and therefore does not really diversify

B. Fixed Income/Liquidity

Core Fixed Income

Core Fixed Income investments will be similar in type to those securities found in ~~the Systems~~CERS’ core fixed income benchmark(s) and the characteristics of ~~the Systems~~CERS’ core fixed income portfolio will be similar to the System’ core fixed income benchmarks. The core fixed income accounts may include, but are not limited to the following fixed income securities: U.S. Government and Agency bonds, investment grade U.S. corporate credit, investment grade non-U.S. corporate credit, municipal bonds, non-U.S. sovereign debt, mortgages including residential mortgage backed securities, commercial mortgage backed securities, and whole loans, asset-backed securities, and asset class relevant ETF’s.

Each individual core fixed income account shall have a comprehensive set of investment guidelines which contains a listing of permissible investments, portfolio restrictions, risk parameters, and standards of performance for the account.

Cash Equivalent Securities

Selection of particular short-term instruments, whether viewed as liquidity reserves or as investment vehicles, should be determined primarily by the safety and liquidity of the investment

and only secondarily by the available yield. The following short-term investment vehicles are considered acceptable: Publicly traded investment grade corporate bonds, variable rate demand notes, government and agency bonds, mortgages, municipal bonds, and collective short-term investment funds ("STIFs"), money market funds or instruments (including, but not limited to, certificates of deposit, bank notes, deposit notes, bankers' acceptances and commercial paper) and repurchase agreements relating to the above instruments. Instruments may be selected from among those having an investment grade rating at the time of purchase by at least one recognized bond rating service. In cases where the instrument has a split rating, the lower of the two ratings shall prevail. All instruments shall have a maturity at the time of purchase that does not exceed 397 days. Repurchase agreements shall be deemed to have a maturity equal to the period remaining until the date on which the repurchase of the underlying securities is scheduled to occur. Variable rate securities shall be deemed to have a maturity equal to the time left until the next interest rate reset occurs, but in no case will any security have a stated final maturity of more than three years.

~~The Systems~~CERS' fixed income managers that utilize cash equivalent securities as an integral part of their investment strategy are exempt from the permissible investments contained in the preceding paragraph. Permissible short-term investments for fixed income managers shall be included in the investment manager's investment guidelines.

### C. Diversifying Strategies

#### Real Estate

~~Subject to specific approval of the CERS Investment Committee,~~ investments may be made in equity and debt real estate for the purpose of achieving the highest total rate of return possible consistent with a prudent level of risk. Allowable real estate investments include open-end and closed-end commingled real estate funds, joint venture investments, public and private real estate investment trusts ("REITs"), public real estate operating companies, and real estate related debt. ~~The Systems~~CERS has determined that the primary role of the real estate asset class is to provide for the following:

Commented [HS(25)]: Repetitive since all investments need approval

- Attractive risk adjusted returns through active management and ability to access managers with the expertise and capabilities to exploit market inefficiencies in the asset class. The illiquid nature of real estate investments combined with the complexity of investments makes it difficult for casual investors to effectively access the asset class effectively. It is our belief that through active management and by investing in top tier managers with interests aligned through co-investment and incentive based compensation, ~~the Systems~~CERS can maximize their risk adjusted returns. This active management approach will be pursued.
- Diversification benefits through low correlations with other asset classes, primarily the U.S. equity markets.
- Provide a hedge against unanticipated inflation, which real estate has historically provided due to lease structures and the increases in material and labor costs during inflationary periods.
- Permit ~~the Systems~~CERS to invest in unique opportunities that arise due to dislocations

in markets that occur from time to time.

#### Real Return

The purpose of the Real Return Portfolio is to identify strategies that provide both favorable stand-alone risk-adjusted returns as well as the benefit of hedging inflation for the broader plans. Real Return strategies are not necessarily a separate asset class but may include real assets, such as infrastructure, real estate, commodities, and natural resources among others, as well as financial assets that have a positive correlation to inflation. This can include “real” bonds such as Treasury Inflation-Protected Securities (“TIPs”) (and other inflation linkers) or “real” stocks such as REITs, Master Limited Partnerships (“MLPs”), and oil & gas stocks. Additionally, Real Return managers may attempt to add value by tactically allocating to various asset classes according to how each asset class performs across an economic cycle and the manager’s perception of where we are in the cycle. The goal is to invest in inflation sensitive assets during inflationary periods, and avoid those assets in deflationary periods, thus providing a positive real return across the cycle.

The real return opportunity set may include numerous vehicles to access a wide variety of investment styles and strategies. These investment vehicles may include mutual funds, ETFs, separately managed accounts as well as hedge funds (open-end limited partnerships) and private equity (close-end limited partnerships). The list of strategies that ~~the Systems~~CERS’ Real Return Portfolio may ~~use~~ include, but is not limited to, the following:

- Global Tactical Asset Allocation (“GTAA”)/Global Macro: GTAA or macro strategies are those that make directional bets on major markets or asset classes instead of individual securities. GTAA and macro strategies typically invest in all major assets classes including equity markets, credit and debt instruments, currencies/interest rates, and commodities. These strategies tend to focus on economic factors that would suggest an opportune time to invest in a given asset class, and will change their allocations actively over time. ~~Within a Real Return portfolio, t~~These strategies may use inflation as the economic factor to gain exposure to and will target a real rate of return over time.
- Inflation Linked Securities are securities that directly tie coupon payments or principal increases to an inflation index, such as Consumer Price Index (“CPI”). These strategies could include not only US ~~TIPs~~, but also global sovereign inflation linked bonds, corporate or infrastructure inflation linked bonds, and possibly short duration floating rate bonds.
- Inflation Sensitive Equities include publicly traded equity and equity related securities in companies which have a high sensitivity to inflation in their profit margins via the nature of their operating assets, such as energy companies, basic materials and miners, natural resource stocks, and listed infrastructure. This category can also include REITs, MLPs as well as ETFs and index products on REITS, MLPs, natural resource stocks, ~~etc.~~
- Commodities: Commodities are the raw materials that are physical inputs into the production process. Managers that invest in liquid commodity strategies using exchange traded futures can span from simple indexing (matching a long-only commodities index), to enhanced indexing or active long (selecting positions that vary from the index but within fairly tight ranges), as well as unconstrained long-short managers.
- Private Property: For the purposes of this IPS, private property refers to the ownership of

**Commented [HS(26):** The “S” is capitalized....Treasury Inflation Protected Securities (TIPS)

**Commented [HS(27):** Too open ended...should be definitive.

an idiosyncratic, physical asset that is predominately fixed and/or permanent or at least substantially long-lived. This includes real estate, such as land and any improvements to or on the land, as well as timberland and farmland. Timberland investing involves the institutional ownership of forest for the purpose of growing and harvesting the timber. The timber may be used for furniture, housing lumber, flooring, pulp for paper, woodchips, and charcoal, among other things. Farmland investing entails ownership of land used primarily, if not exclusively, for agricultural production both for crops, including row crops and permanent crops, as well as livestock. Private property can also include infrastructure investing, which refers to financing the manufacture or development of the underlying fundamental assets and basic ~~systems~~ CERS that are necessary for an economy whereby such assets are largely fixed and long-lived. These tend to be high cost, capital-intensive investments that are vital to a society's prosperity and facilitate the transfer, distribution, or production of basic goods and services.

Commented [HS(28)]: Systems is a descriptor and not the plan

- **Natural Resources:** Natural resources can include investing in the financing, development, extraction, and production of minerals, basic materials, petroleum products, and water as well as renewable resources such as agricultural commodities and solar energy. As opposed to property, the returns generated in these investment strategies come more from the actual production of the resource itself. Further, these are depleting and/or consumable assets that are also portable and fungible and which in the aggregate comprise a majority of the inputs into most measurements of inflation.
- **Private Assets:** Private assets can include tangible or intangible assets that are not easily sold in the regular course of a business' operations for cash, and which are held for their role in contributing directly to the business' ability to generate profit. As the useful life of the asset tends to extend across many years and the assets tend to be capital intensive as well, they have some similarity to private infrastructure. Further, given that the assets contribute directly to the production process as well as often retaining intrinsic value, there is a fundamental link to inflation somewhat similar to natural resources.
- **Other (Opportunistic Inflation Hedge):** Other/opportunistic strategies include those that have a propensity to provide a positive real return or positive correlation with inflation over time. Liquid strategies such as inflation swaps, diversified inflation hedging mutual funds, or nominal bonds backed by inflation sensitive assets may be included in this allocation, while other illiquid strategies that may provide the same real profile can include private equity in inflation sensitive companies, hard asset-backed private credit, and structured inflation-linked products among others.

**Portfolio Guidelines**

No more than 50% of the total net assets of the Real Return portfolio may be invested in any one registered investment vehicle, mutual fund, or separately managed account.

No more than 20% of the total net assets of the Real Return portfolio may be invested in any single closed-end or open-end limited partnership or other unregistered investment vehicle.

The relative allocations to the liquid and illiquid portfolios will be determined according to each individual System's liquidity needs, funding status, and allocation targets on an investment by investment basis.

Opportunistic

Opportunistic investments are intended to capitalize on opportunities outside of the asset classes targeted in the Asset Allocation Guidelines. These allocation are intended to take advantage of market dislocations and unique opportunities and can be short-to-medium-term in nature. Opportunistic investments may be implemented through targeted portfolios or multi-asset approaches. ~~Initial allocations are to be made following the same policies and procedures as all other investments as outlined previously in this IPS.~~

Commented [HS(29)]: Repetitive...covered in the allocation section

#### D. Co-Investment Policy

The CIO has discretion to make direct co-investments in companies alongside of current general partners. Any co-investment opportunity must also be part of the main account or fund into which ~~the SystemsCERS~~ CERS has already invested before it can be considered. For purposes of this IPS, a direct co-investment is defined as a direct investment in a portfolio company alongside an existing ~~SystemsCERS'~~ CERS' partnership deemed in good standing.

The maximum investment in any co-investment vehicle shall not exceed 50 percent of the total capital committed by all partners at the time of the final closing. The maximum investment in any single direct co-investment shall not exceed 20 percent of the original partnership commitment. Total investment in direct co-investments shall not exceed 20 percent of the asset class portfolio on a cost basis at the time of investment.

### IV. Monitoring

#### Performance Measurement

~~The SystemsCERS~~ overall fund performance is measured relative to ~~the SystemsCERS'~~ CERS' Pension or Insurance Total Fund Benchmark. The benchmark is calculated by means of a weighted average methodology. This method is consistent with the CFA Institute Global Investment Performance Standards (GIPS®), a set of standardized, industry-wide ethical principles that guide investment managers and asset owners on how to fairly calculate and present their investment results, with the goal of promoting performance transparency and comparability. It is the product of the various component weights (i.e., asset classes' percentages) by their respective performance (returns). Due to market fluctuations and acceptable divergence, the asset classes' weights (percentages) are often not equivalent to the benchmark's weights. Therefore, the performance may ~~indicate that the Funds have~~ outperform~~anceed~~ (underperform~~anceed~~) relative to their respective benchmarks, even when the preponderance of ~~lesser weighted~~ lesser-weighted categories have underperformed (outperformed) their indices.

~~The SystemsCERS~~ measures its asset classes, sub-asset classes, sectors, strategies, portfolios, and instruments (investment) performance with indexes that are recognized and published (~~e.g., S&P-500 & Barclays Aggregate Bond Index~~). These ~~indices-indexes~~ are determined to be appropriate measures of investments and composites of investments with identical or similar investments profiles, characteristics, and strategies. The benchmarks and indexes are intended to be objective, investable, replicable, representative and measurable of the investment mandate and, developed from publicly available information that is acceptable to ~~the SystemsCERS~~ CERS and the investment manager/advisor as the neutral position consistent with the underlying investor status. ~~The SystemsCERS'~~ CERS' investment consultant and ~~KPPA Investment~~ staff recommend the benchmarks and indexes. These measures shall be subject to the review and approval of the ~~CERS~~ CERS Investment Committee with ratification by the ~~CERS~~ CERS Board when asset allocation studies



are performed, or when a change to existing benchmarks is recommended by [KPPA Investment Staff](#) and the [CERS](#) investment consultant. The current asset class benchmarks, effective as of July 1, 2018 with the adoption of the asset allocation, are as follows:

**Commented [KRS30]:** Steven Herbert has suggested that these indices are outdated and need revision.

Asset Class	Benchmark
<b>Growth</b>	
US Equity	Russell 3000
Non US Equity	MSCI ACWI ex US IMI
Private Equity	Russell 3000 + 300 bps (lagged)
High Yield / Specialty Credit	50% Bloomberg Barclays US High Yield 50% S&P LSTA Leveraged Loan
<b>Liquidity</b>	
Core Fixed Income	Bloomberg Barclays US Aggregate
Cash	Citi Grp 3-mos Treasury Bill
<b>Diversifying</b>	
Real Estate	NCREIF ODCE
Real Return	US CPI + 3%
<b>Opportunistic</b>	
To Be Determined	Highest Assumed Discount Rate of Participating Plans

The following descriptions represent general standards of measurement that will be used as guidelines for the various classes of investments and managers of ~~the Systems~~[CERS](#). They are to be computed and expressed on a time-weighted total return basis:

*Total Public Asset Class Allocations*

Short-term

- For periods less than five years or a full market cycle, the Asset Class Allocation should exceed the returns of the appropriate Index.

Intermediate & Long-term

- For periods greater than five years or a full market cycle, the Asset Class Allocation should exceed the appropriate Index, compare favorably on a risk-adjusted basis, and generate returns that rank above the median return of a relevant peer group. Volatility, as measured by the standard deviation of monthly returns, should be comparable to the Index.

*Individual Public Security Portfolios:* Individual portfolios shall be assigned a market goal or benchmark that is representative of the style or market capitalization of the assignment. Individual accounts should be monitored using the following Standards:

Short-term

- For periods less than five years or a full market cycle, individual portfolios should exceed the returns of their market goal or benchmark.

Intermediate & Long-term

- For periods greater than five years or a full market cycle, individual portfolios should exceed the return of their market goal or benchmark, compare favorably on a risk-adjusted basis, and generate returns that rank above the median return of a relevant peer group. Volatility, as measured by the standard deviation of monthly returns, should be comparable to the benchmark.

Alternative Assets:

## Private Equity

The Private Equity portfolio should also seek to achieve the following:

### Short-term

- Alternative investments should earn a Net Internal Rate of Return ("IRR") that place the investment above the median Net IRR of other similar funds, of the same vintage year, as reported by Venture Economics.

### Intermediate & Long-term

- The private equity portfolio should earn a return that meets or exceeds ~~the Systems~~ CERS Private Equity Index. Individual private equity investments should earn a Net IRR above the median Net IRR of other similar funds, of the same vintage year, as reported by Venture Economics.

**Commented [HS(31)]:** This company no longer exists...I recommend replacing with relevant benchmark.

**Commented [HS(32)]:** This company no longer exists...I recommend replacing with relevant benchmark.

## Real Estate

Private Real Estate investments are unique and can be illiquid and long term in nature. Given that this may lead to large short-term performance discrepancies versus public benchmarks, ~~the Systems~~ CERS more appropriately measures its real estate investments based on both relative return and absolute return methodologies:

**Relative Return:** The Real Estate portfolio is expected to generate returns, net of all fees and expenses, in excess of the National Council of Real Estate Investment Fiduciaries Open End Diversified Core Equity Index ("NCREIF ODCE") lagged 1 calendar quarter.

**Absolute Return:** The long term real return objective (returns adjusted for inflation) for ~~the Systems~~ CERS' Real Estate portfolio is five percent (5%) over the Barclays Capital U.S. 7-10 Year Treasury Bond Index, net of investment management fees. This return shall be calculated on a time-weighted basis using industry standard reporting methodologies.

## Real Return

The total Real Return allocation shall seek to:

- (1) Short-term benchmark: For periods less than five (5) years or a full market cycle, the allocation should achieve an annual rate of return that exceeds the appropriate benchmark (the weighted average return of the underlying investment benchmarks) annually over a complete market cycle, net of all investment management fees.
- (2) Strategic objective: For periods greater than five (5) years or a full market cycle, the allocation should not only outperform the short-term benchmark, but also achieve a rate of return that exceeds (CPI + 300 basis points) as well.
- (3) Achieve a positive risk/reward trade-off when compared to similar style Real Return Investment Managers.

## Opportunistic

The total Opportunistic allocation shall seek to:

- (1) Short-term benchmark: For periods less than five (5) years or a full market cycle, the allocation should achieve an annual rate of return that exceeds the highest assumed rate of return of the participating plans.
- (2) Strategic benchmark: For periods greater than five (5) years or a full market

**Commented [HS(33)]:** The short term and strategic are the same. I would just combine them into one measure.

cycle, the allocation should achieve an annual rate of return that exceeds the highest assumed rate of return of the participating plans.

Performance Review

On a timely basis, but not less than quarterly, the CERS Investment Committee will review the performance of the portfolio for determination of compliance with this IPS. On an annual basis, a comprehensive review of each asset class and underlying portfolios shall be conducted by the KPPA Investment staff and presented to the CERS Investment Committee. The review shall consist of an organizational, performance and compliance assessment.

The KPPA Investment Compliance Officer shall perform tests at least monthly to assure compliance with the restrictions imposed by this IPS. These tests shall be performed at the asset class and total fund level. Quarterly, the Compliance Officer shall prepare a report to the CERS Investment Committee detailing the restrictions tested, exceptions, the cause of the exception and the subsequent resolution. The CERS Investment Committee shall report the findings to the CERS Board at the next regularly scheduled meeting.

The following restrictions shall be tested at least monthly:

- ▶ The amount of stock in the domestic or international equity allocation in any single corporation shall not exceed 5% of the aggregate market value of ~~the Systems~~CERS' assets.
- ▶ The amount of stock held in the domestic or international equity allocation shall not exceed 3% of the outstanding shares of any single corporation.
- ▶ Investment in "frontier" markets (those countries not included in the MSCI EM Index) shall not exceed 5% of ~~the Systems~~CERS' international equity assets.
- ▶ The duration of the core fixed income portfolios combined shall not vary from that of ~~the Systems~~CERS' Fixed Income Index by more than +/- 25% duration as measured by effective duration, modified duration, or dollar duration except when the CERS Investment Committee has determined a target duration to be used for an interim basis.
- ▶ The amount invested in the debt of a single issuer shall not exceed 5% of the total market value of ~~the Systems~~CERS' fixed income assets, with the exception of U.S. Government issued, guaranteed or agency obligations (or securities collateralized by same), and derivative securities used for exposure, cost efficiency, or risk management purposes in compliance with Section VII of this policy.
- ▶ 50% of the core fixed income assets must have stated liquidity that is trade date plus three days or better.

The KPPA CIO shall develop a comprehensive set of investment guidelines for each externally managed account. These guidelines should ensure, at the total fund and asset class level, that the restrictions set forth above are preserved.

V Additional Items

**Derivatives Permitted Use:**

**Commented [HS(34)]:** Not sure about this section. It is somewhat repetitive since there are other sections above for Monitoring. This is more of a Compliance section. In reality, we must be in compliance with the entire IPS so not sure the reasoning behind the choice of bullet points that "shall be tested". In other words, these bullets are not any more important than the restrictions above in the US Equity section (both will be on the compliance report), and they could just be in their sections (equity, fixed income, etc.).

**Commented [KRS35]:** The KRS Board moved the Compliance Officer to Internal Audit a few years ago and now KPPA staff have moved the position back to Investments where the CIO who manages the assets is also responsible for supervising the Compliance Officer. Not sure this reflects our emphasis on transparency and accountability.

**Commented [HS(36R35)]:** The Office of Investments is required to have a Compliance Officer on its staff to monitor the asset managers, staff, and trustees compliance with policies. This is standard best practice...and required under the current IPS.

**Commented [KRS37]:** This might be a place to outline guidelines for the S&P test that is nearly always out of compliance.

**Commented [HS(38R37)]:** When the investment compliance report is built, each of the investment mandate guidelines will be compared to what the manager is doing, this would include the S&P test. This IPS leaves the investment mandate guidelines open to be agreed later with managers so those "tests" would not be in the IPS specifically, but would be in the compliance report.

~~The Systems~~CERS permits external managers and KPPA Investment Staff to invest in derivative securities, or strategies which make use of derivative investments, for exposure, cost efficiency and risk management purposes, if such investments do not cause the portfolio to be leveraged beyond a 100% invested position. Any derivative security shall be sufficiently liquid that it can be expected to be sold at, or near, its most recently quoted market price. Typical uses of derivatives in the portfolio are broadly defined below:

**Exposure:**

Derivatives are an effective way for a portfolio manager to gain exposure to a security that the manager does not want to purchase in the cash market. Reasons for gaining exposure to a security through the use of derivatives may include cheaper transactions costs, liquidity/lack of supply in the underlying market, and the flexibility to implement investment views with minimum portfolio disruption. An example is a cash equitization program.

**Cost Efficiency:**

Derivatives are often used due to the cost efficiency associated with the contract properties. Given the fact that derivatives can be used as a form of insurance, upfront trading costs must be sufficiently low for investors to purchase the contract and insure their portfolios efficiently. Furthermore, due to properties associated with derivatives and cash outlay characteristics (minimal cash outlay at inception of the contract) derivatives are generally a vehicle of gaining cost efficient exposure. An example is the cost (zero) to purchase a futures contract.

**Risk Management:**

Derivatives can be used for mitigating risk in the portfolio. When used as a risk management tool, derivatives can significantly reduce an identified financial risk or involuntary risk from investment areas by providing changes in fair values or cash flows that substantially offset the changes in fair values or cash flows of the associated item being hedged. An example is the use of currency forwards to offset periods of dollar strength when international equity markets increase in value, thereby protecting foreign asset gains in the portfolio.

**Derivatives Restricted Use:**

**Settlement:**

Investments in futures contracts are to be cash settled unless physically settled and stored by external managers. At no time shall ~~the Systems~~CERS agree to take physical delivery on a futures contract.

**Position Limits:**

Futures and options positions entered into by ~~the Systems~~CERS, or on its behalf, will comply with all position and aggregate limits established by the local governing authorities within each jurisdiction.

**Over-the-Counter (OTC):**

Investments in securities not traded on public exchanges that are deemed over-the-counter

(OTC) in nature are allowed provided that a counterparty risk monitoring component is delineated in the manager's guideline section of the manager's contract. All counterparties must have a short-term credit rating of at least BBB (Standard and Poor's or Fitch) or Baa2 (Moody's).

All OTC derivative transactions, including those managed through Agency Agreements, must be subject to established International Swaps and Derivatives Association, Inc. (ISDA) Master Agreements and have full documentation of all legal obligations of ~~the Systems~~CERS under the transactions. All ISDA Master Agreements entered into by or on behalf of ~~the Systems~~CERS by the KPPA Investment Staff and external manager pursuant to an Agency Agreement shall provide that Netting applies. (Netting allows the parties to an ISDA Master Agreement to aggregate the amounts owed by each of them under all of the transactions outstanding under that ISDA Master Agreement and replace them with a single net amount payable by one party to the other.) The KPPA Investment Staff and external managers may also use collateral arrangements to mitigate counterparty credit or performance risk. If an external manager utilizes a collateral arrangement to mitigate counterparty credit or performance risk the arrangement shall be delineated in the manager's guideline section of the manager's contract.

#### **Derivatives Applications Not Permitted:**

##### **Speculation:**

Except for investments in alternative, Opportunistic Diversifying Strategies investments, and Real Return investments, derivatives may not be used for any activity for which the primary purpose is speculation or to profit while materially increasing risk to ~~the Systems~~CERS. Derivatives are considered speculative if their uses have no material relation to objectives and strategies specified by the CERS IPS or applicable to the CERS portfolio. Derivatives may not be used for circumventing any limitations or restrictions imposed by the CERS IPS or applicable regulatory requirements.

##### **Leverage:**

Leverage is inherent in derivative contracts since only a small cash deposit is required to establish a much larger economic impact position. Thus, relative to the cash markets, where in most cases the cash outlay is equal to the asset acquired, derivative investments offer the possibility of establishing substantially larger market risk exposures with the same amount of cash as a traditional cash market portfolio. Therefore, risk management and control processes must focus on the total risk, i.e. the net notional value, assumed in a derivative investment.

*The above is not intended to limit ~~the Systems~~CERS from borrowing to cover short-term cash flow needs nor prohibit ~~the Systems~~CERS from loaning securities in accordance with a securities lending agreement.*

The CERS Board recognizes that the voting of proxies is an important responsibility in assuring the overall performance ~~of the Fund~~ over a long time horizon. The CERS Board has delegated the responsibility of voting all proxies to an outside Proxy Voting service provider or contracted external investment manager. The CERS Board expects that the proxy voting service will execute all proxies in a timely fashion, and in accordance with the voting policy which has been formally adopted.

The CERS Board has adopted the ISS U.S. Proxy Voting Guidelines as ~~the Systems~~CERS' approved Proxy Voting Policy for all internally voted items. This policy is updated at least annually by ISS and hereby incorporated by this reference. The policy can be found publically using the following link:

<http://www.issgovernance.com/files/2012USSummaryGuidelines1312012.pdf>

**Additional CERS Investment Administrative Policies**

- A. Investment Procurement Policy as amended and the Investment Manager Onboarding Checklist as amended are hereby incorporated by reference.
- B. Investment Brokerage Policy as amended is hereby incorporated by reference.
- C. Transactions Procedures Policy as amended is hereby incorporated by reference.
- D. Securities Litigation Policy and Procedures as amended is hereby incorporated by reference.
- E. Investment Securities Lending Guidelines as amended is hereby incorporated by reference.
- F. Securities Trading Policy for Trustees and Employees as amended is hereby incorporated by reference.
- G. Manager and Placement Agent Statement of Disclosure Policy as amended is hereby incorporated by reference.

Signatories

As Adopted by the CERS Investment Committee

Date: \_\_\_\_\_

Signature: \_\_\_\_\_

~~Mr. C. Prewitt Lane~~Dr. Merl Hackbart

Chair, CERS Investment Committee

As Adopted by the CERS Board of Trustees

Date: \_\_\_\_\_

Signature: \_\_\_\_\_

~~Mr. David L. Harris~~Ms. Betty Pendergrass

Chair, CERS Board of Trustees



Kentucky Retirement Systems  
Real Estate Policy  
Approved June 27, 2018



**County Employees' Retirement Systems**  
Investment Policy Statement  
Adopted xxxxx, 2021

#### A. Role of Real Estate

**KRSCERS** has determined that the primary role of the Real Estate asset class is to provide for the following:

- Invest in top tier, attractive risk adjusted returns through active management.
- Utilize access to managers with the expertise and capabilities to exploit market inefficiencies in the asset class.
- Manage interests through co-investment and incentive based compensation and maximize risk adjusted returns.
- Diversify benefits through low correlations with other asset classes, primarily the U.S. equity markets.
- Provide a hedge against unanticipated inflation, which real estate has historically provided due to lease structures and increases in material and labor costs during inflationary periods.
- Permit **KRSCERS** to invest in unique opportunities that arise due to dislocations in markets that occur from time to time.

#### B. Allocation to Real Estate Asset Class

**KRSCERS** has approved a target Real Estate allocation of ~~five-ten~~ percent (~~105%~~) of the total fund for real estate investments. **KRSCERS** will endeavor to achieve the target allocation over a three to five-year period by averaging into the market and avoiding any concentrated vintage year risks.

**Commented [KRS1]:** The allocation to real estate was increased from 5% to 10% in the November 2020 Investment Policy Statement Asset Allocation—Do you want to keep it that high?

#### C. Investment Policies

For purposes of this **CERS Real Estate** Investment Policy, the real estate investment universe is divided into the following sectors, with descriptive attributes to follow:

1. Core Properties
  - Operating, substantially leased office, retail, industrial or apartment properties. Several alternative property types may be included in Core such as self-storage,

medical office, ground leases, senior housing and triple net leased properties to the extent they exhibit similar risk and return attributes to the traditional Core property types.

- Generally, have institutional qualities for size, physical attributes, and location.
- Target total returns of 7%-9% per year (net of fees and promoted interest), with a high proportion of the total return to be generated from current income and a small proportion of the total return generated from appreciation.
- Leverage for core properties is moderate with an upper limit of 50% loan to value.

#### 2. Value Added Properties

- Office, retail, industrial or apartment properties that have moderate risk associated with their investment. Several alternative property types may be included in Value-Added such as self-storage, medical office, senior housing and triple net leased properties to the extent they exhibit similar risk and return attributes for Value-Added investments.
- Value-Added investments are targeted to capitalize on defects with specific properties that can be identifiable and correctable through leasing, re-development, management, and/or recapitalization.
- Target returns for value added investments are 9% to 12% per year (net of fees and promoted interest).
- Leverage for value added investments is generally limited to approximately 65% loan to value.

#### 3. Opportunistic Investments

- Opportunistic investments can be comprised of any property sector. Opportunistic investments can include office, retail, industrial, and apartments with high-risk attributes. In addition, hotels, operating companies, development, land and distressed properties are all examples of opportunistic investments
- Leverage for opportunistic investments can be 75% loan to value or higher in certain cases.
- Opportunistic investments will generate returns in excess of 12% (net of fees and promoted interest) in order to compensate for the additional risk commensurate with the increased risk compared to core property investments.

#### 4. Public Securities

- Real estate public securities ("Public Securities") do not allow control over the assets or management.
- Public Securities generally have higher risk and return characteristics than Core properties due to higher leverage and operating company risks. In addition, the daily pricing of securities result in additional reported volatility of returns.
- Daily pricing and public market trading provide liquidity. However, due to small float and limited market capitalization of Public Securities, improved liquidity may come at a price.
- The emergence of the international Public Securities market has broadened the universe to include Asia, European, Australian and North American property companies.



- Expected returns are approximately 9%-11% (net of fees) over a 10-year period and 11-13% (net of fees) for non-U.S. Public Securities.

**KRSCERS** will seek to limit investments by sector diversification using the following limits:

	Target	Range
Core:	70%	50% to 90% of the total allocation
Value Added:	20%	10% to 30% of the total allocation
Opportunistic:	10%	0% to 20% of the total allocation
Public Securities:	0%	0% to 100% of the total allocation

**KRSCERS** seeks to maintain the flexibility to overweight or underweight any sector in order to capitalize on market opportunities.

#### D. Investment Vehicles

Due to the size of **KRSCERS**'s portfolio, the preferred investment structure is commingled funds. Exceptions may be for public equity accounts which may be efficiently invested through a separate account or single property investments. Single property investments shall be limited to no more than 5% of the total real estate allocation.

**KRSCERS** may also consider co-investment opportunities in cases where discounted fees and appropriate diversification can be achieved for a particular investment opportunity.

#### E. Property Type Diversification

**KRSCERS** will seek to control risk in its real estate investment program by diversifying its investments by investment manager, property type and location diversification. **KRSCERS** will limit the amount committed to one investment manager to the larger of thirty percent (30%) of the total allocation for real estate investments or 1% of the total funds value at the time of commitment.

**KRSCERS** will seek to limit investments by property type diversification using the following limits:

Office:	0% to 40% of the total allocation
Retail:	0% to 40% of the total allocation
Apartment:	0% to 40% of the total allocation
Industrial:	0% to 40% of the total allocation
Other:	0% to 40% of the total allocation

(other includes hotels, self-storage, parking, etc.)

F. Total Leverage

~~KRS~~CERS recognizes that leverage is an inherent component of real estate investments and use of leverage can be an effective means to increase overall returns from time to time on a risk-adjusted basis. There will be a limit of 65% of the total portfolio placed on the use of leverage.

All portfolio leverage will be secured through the individual fund investments. There will be no recourse debt permitted.

Signatories

As Adopted by: ~~the~~  
Investment Committee

~~As Adopted by the~~CERS Board of Trustees

Date: \_\_\_\_\_

Date: \_\_\_\_\_

Signature: \_\_\_\_\_  
~~Mr. Neil P. Ramsey~~Dr. Merl Hackbart  
Chair, CERS Investment Committee

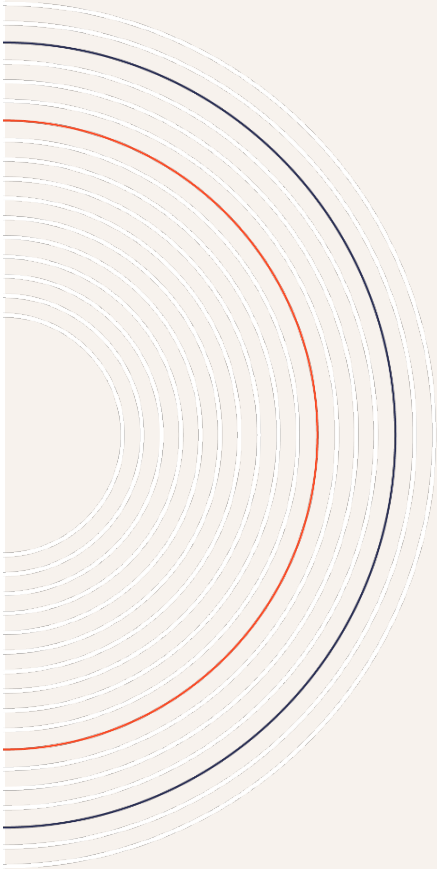
Signature: \_\_\_\_\_  
~~Mr. David L. Harris~~Ms. Betty A. Pendergrass  
Chair, CERS Board of Trustees

# County Employees Retirement System Investment Committee Meeting

July 14, 2021

Wilshire

# Agenda



- Policy Expected Return Distributions
- Public Equity Allocation Considerations
- May Performance Update

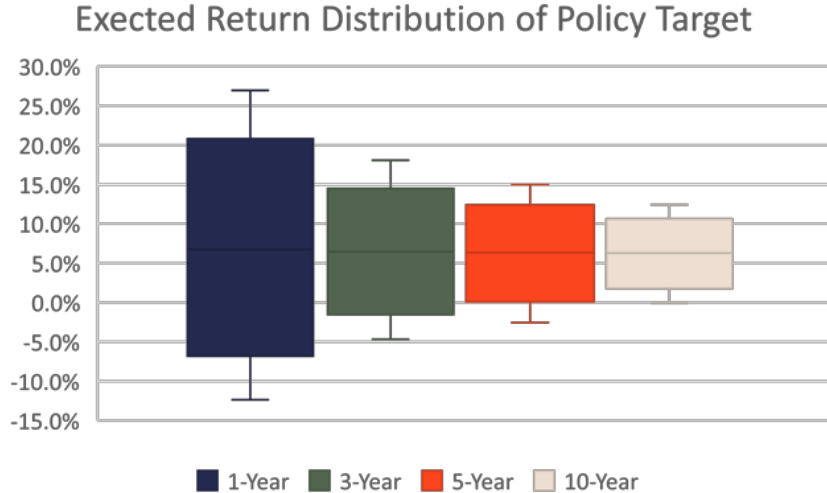
# Policy Expected Return Distributions

Wilshire

WILSHIRE

# Policy Expected Return Distributions

- **The following table and chart show the expected returns of the current target asset allocation**
  - This simulation was modelled during the asset liability study last year, using Wilshire’s 6/30/2020 asset class assumptions



Percentile	1-Year	3-Year	5-Year	10-Year
95th	-12.4%	-4.7%	-2.6%	-0.1%
75th	-1.2%	1.6%	2.7%	3.6%
50th	6.7%	6.4%	6.3%	6.3%
25th	14.6%	10.9%	9.8%	8.8%
5th	27.0%	18.1%	15.0%	12.4%

# Public Equity Allocation Considerations

Wilshire

WILSHIRE

# Wilshire's Global Approach

**Wilshire believes in targeting allocations to a broad and global opportunity sets within asset classes**

- **Historically the U.S. market has accounted for about half of the global equity market cap, today that weight is nearly 60%**
  - Avoid having a home country bias, given the historic cyclicalities of U.S. vs. Non-U.S. market outperformance
  - CERS plans are allocated evenly to U.S. and Non-U.S. markets in current policy
  - CERS could consider moving toward market weights, or review during next asset allocation review
- **Asset allocation modelling uses broad market assumptions for U.S., Developed Non-U.S., and Emerging Markets**
  - The asset allocation decision uses capital market assumptions that reflect broad market representation
  - Sector and industry allocations, decisions regarding active and passive management, and market capitalization and style weightings all become part of an asset class structural decision making process



WILSHIRE

# Public Equity Allocation

**Even as corporations, and the economy as a whole, become more global, there are reasons for building U.S. and Non-U.S. allocations separately**

- **Market Efficiency**

- U.S. markets are generally more efficient than their foreign counterparts, resulting in higher potential active management value add in Non-U.S. markets and therefore different portfolio structure between the U.S. and Non-U.S. segments

- **Characteristics and Return Profile**

- Returns are often highly correlated with domicile, and expected returns can vary considerably between U.S. and Non-U.S. markets

- **Manager Opportunity Set**

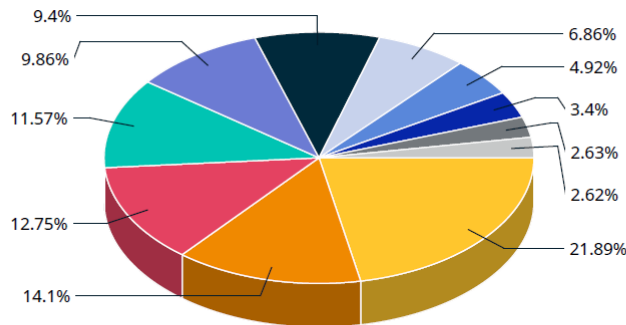
- There is a broader selection of quality managers for U.S. and Non-U.S. specific mandates than for broad global strategies

WILSHIRE

# Sector and Country Exposures as of 6/30/2021

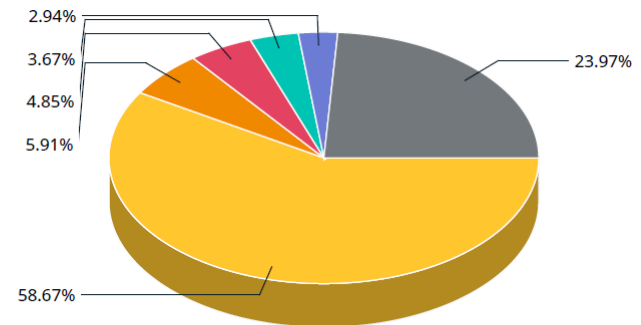
MSCI ACWI

Sector Weights



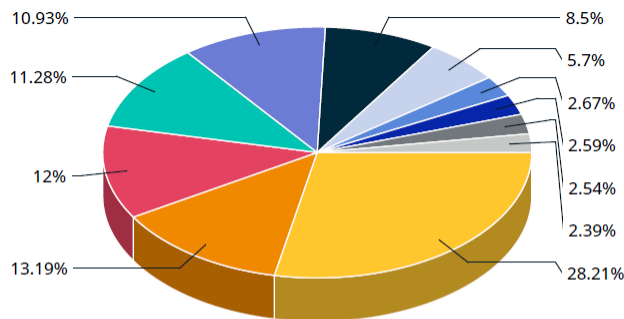
- Information Technology 21.89%
- Financials 14.1%
- Consumer Discretionary 12.75%
- Health Care 11.57%
- Industrials 9.86%
- Communication Services 9.4%
- Consumer Staples 6.86%
- Materials 4.92%
- Energy 3.4%
- Utilities 2.63%
- Real Estate 2.62%

Country Weights



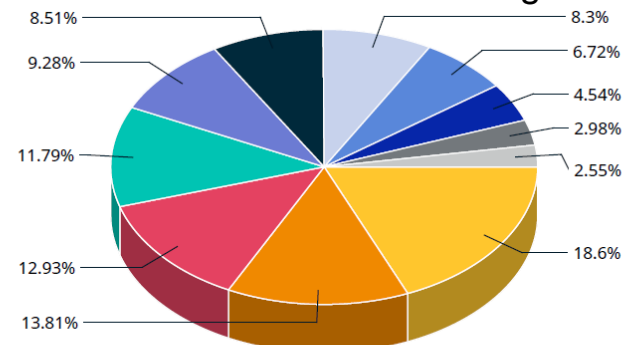
- United States 58.67%
- Japan 5.91%
- China 4.85%
- United Kingdom 3.67%
- France 2.94%
- Other 23.97%

MSCI US Sector Weights



- Information Technology 28.21%
- Health Care 13.19%
- Consumer Discretionary 12%
- Communication Services 11.28%
- Financials 10.93%
- Industrials 8.5%
- Consumer Staples 5.7%
- Real Estate 2.67%
- Energy 2.59%
- Materials 2.54%
- Utilities 2.39%

MSCI ACWI ex US Sector Weights



- Financials 18.6%
- Consumer Discretionary 13.81%
- Information Technology 12.93%
- Industrials 11.79%
- Health Care 9.28%
- Consumer Staples 8.51%
- Materials 8.3%
- Communication Services 6.72%
- Energy 4.54%
- Utilities 2.98%
- Real Estate 2.55%

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# Factor Exposure

As developed economies mature, there have been meaningful shifts in the composition of equity markets. Markets are now meaningfully skewed toward the growth factor, most especially in the US.

The Composition of the Market Changes Over Time

## US Equities



## European Equities



## Japanese Equities

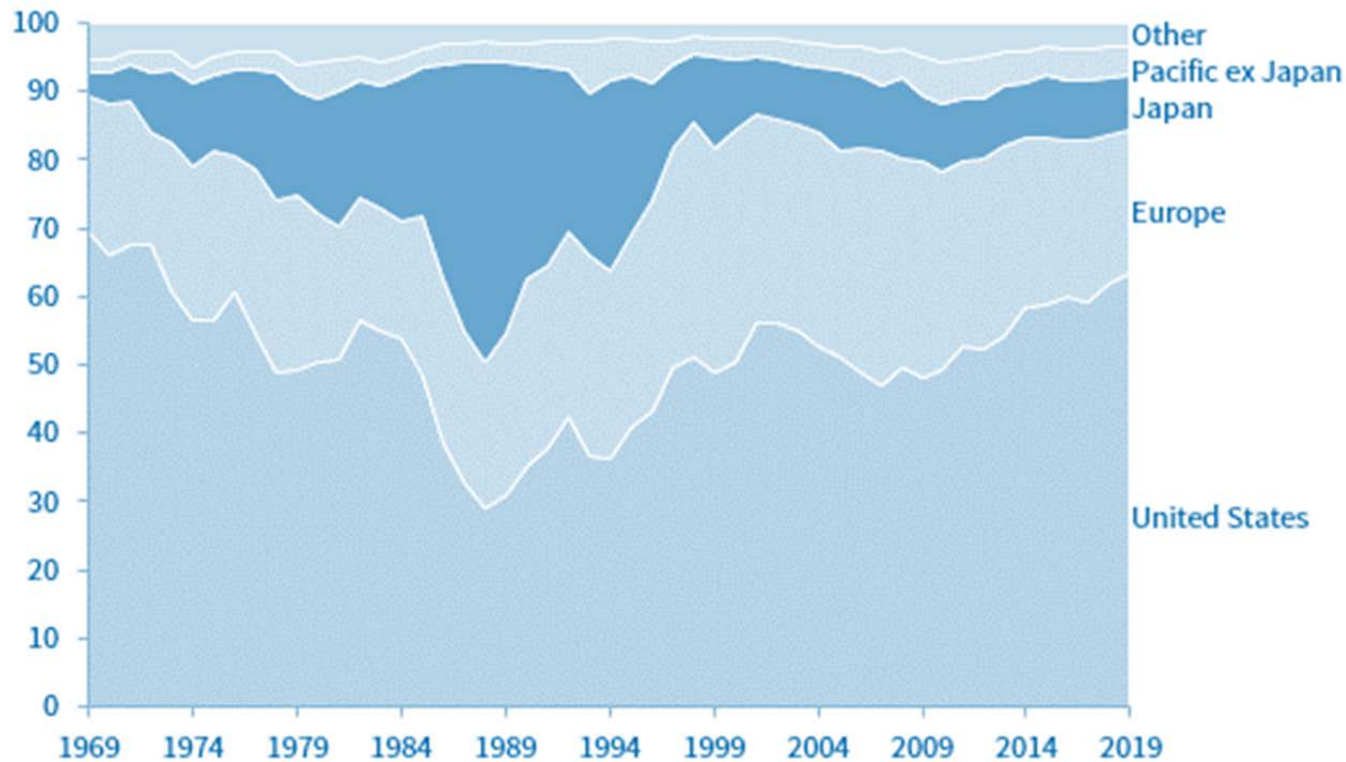


Source: Cornerstone Macro. Last data point for all three charts is 3/31/2020. US equities are represented by the S&P 500 Index, European equities by the MSCI Europe Index and Japanese equities by the MSCI Japan Index.

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# Index Weight

**The US is 59% of the MSCI ACWI, approaching a weight last observed in 1970 and surpassing the peak of the tech boom of the late 1990s.**



Sources: FactSet Research Systems, MSCI Inc., and Thomson Reuters Datastream. MSCI data provided "as is" without any express or implied warranties. Notes: "Other" category includes Canada, Israel, Mexico, and South African Gold Mines. Malaysia is included in Pacific ex Japan from 1993 to 1997. Data are annual and as of calendar year-end.

# May Flash Performance Update

Wilshire

WILSHIRE

# Market Commentary as of 5/31/2021

## U.S. Economy and Markets

- Domestic equity markets were positive in May, as the Wilshire 5000 Total Market Index<sup>SM</sup> and the S&P 500 Index returned 0.46% and 0.70%, respectively.
- The CBOE Volatility Index (VIX) ended May at 16.76, a decrease from its April close of 18.61, but slightly elevated from the pre-COVID average levels.
- Performance across GICS sectors was mixed for the month, with the Energy and Materials sectors leading the group, gaining 6.72% and 5.28%, respectively. The Consumer Discretionary and Utilities sectors lagged, falling -3.55% and -2.34%, respectively.
- Small cap stocks outperformed their large cap counterparts in May, with the Wilshire U.S. Small Cap Index<sup>SM</sup> and the Wilshire U.S. Large Cap Index<sup>SM</sup> returning 0.64% and 0.44%, respectively.
- Value-oriented equities outperformed their growth-oriented counterparts in both the large and small capitalization segments, with value stocks in positive territory and growth stocks down for the month.

## International Economy and Markets

- Developed international equity markets, as measured by the MSCI EAFE Index, returned 3.26% this month.
- The MSCI Emerging Markets Index gained 2.32% in May.

## Fixed Income & Real Assets

- The 10-year U.S. Treasury yield ended the month at 1.58%, a decrease from its April close of 1.65%.
- The Bloomberg Barclays U.S. Aggregate Index posted a gain of 0.33% in May.
- Inflation-linked bonds were the best performing segment within U.S. fixed income, with the Bloomberg Barclays U.S. TIPS Index returning 1.21%. Below investment-grade bonds were positive but underperformed other segments, with the Bloomberg Barclays U.S. High Yield Index returning 0.30%.
- Listed U.S. real estate posted positive returns in May, with the Wilshire U.S. Real Estate Securities Index<sup>SM</sup> returning 1.32%. Listed global infrastructure was up as well, with the S&P Global Infrastructure Index gaining 0.56%.
- Commodities, as measured by the Bloomberg Commodity Index, advanced 2.73% in May.

WILSHIRE

# Index Returns as of 5/31/2021

	Performance (%)					
	1 Month	QTD	YTD	1 Year	3 Years	5 Years
<b>U.S. Equity</b>						
Wilshire 5000 Total Market TR Index	0.46	5.77	12.63	44.01	18.16	17.45
S&P 500	0.70	6.07	12.62	40.32	18.00	17.16
Wilshire 4500 Completion Index	-0.40	4.04	13.08	64.96	18.09	18.41
MSCI USA Minimum Volatility Index	0.83	4.92	7.35	20.13	13.80	12.73
<b>U.S. Equity by Size/Style</b>						
Wilshire U.S. Large-Cap Index	0.44	5.99	12.13	42.23	18.59	17.85
Wilshire U.S. Large-Cap Growth Index	-1.28	6.19	8.27	43.63	21.71	20.99
Wilshire U.S. Large-Cap Value Index	2.58	5.75	16.12	39.86	14.86	13.83
Wilshire U.S. Small-Cap Index	0.64	3.62	17.64	65.15	13.56	15.53
Wilshire U.S. Small-Cap Growth Index	-1.54	1.22	10.32	58.10	14.86	17.84
Wilshire U.S. Small-Cap Value Index	2.68	5.90	25.18	72.03	11.07	12.69
Wilshire U.S. Micro-Cap Index	1.66	2.31	30.15	86.26	13.20	16.32
<b>Non-U.S. Equity (USD)</b>						
MSCI AC World ex USA (Net)	3.13	6.16	9.87	42.78	8.93	10.88
MSCI ACWI ex USA Minimum Volatility Index (Net)	3.42	5.05	5.65	20.44	5.58	6.89
MSCI EAFE Index (Net)	3.26	6.37	10.07	38.41	8.23	9.77
MSCI Emerging Markets (Net)	2.32	4.87	7.26	51.00	9.65	13.88
MSCI AC World ex USA Small Cap (Net)	2.32	7.02	12.94	52.78	9.00	11.44
<b>U.S. Fixed Income</b>						
Blmbg. Barc. U.S. Aggregate	0.33	1.12	-2.29	-0.41	5.05	3.25
Blmbg. Barc. U.S. Treasury: Long	0.45	2.79	-11.10	-13.56	6.79	3.64
Blmbg. Barc. U.S. Long Corporate Index	1.09	2.84	-5.91	3.35	9.22	6.96
Blmbg. Barc. U.S. TIPS	1.21	2.63	1.12	7.05	6.46	4.48
Blmbg. Barc. U.S. Credit Index	0.72	1.79	-2.74	3.32	6.72	4.79
Blmbg. Barc. U.S. Corp: High Yield	0.30	1.39	2.25	14.96	7.11	7.39
S&P LSTA Leverage Loan Index	0.55	1.06	2.84	12.44	4.29	4.90

WILSHIRE

# Asset Allocation and Performance

CERS Pension and Insurance Plans  
 Periods Ended May 31, 2021

	Allocation	Performance (%) net of fees								
	Market Value \$	1 Month	QTD	YTD	FYTD	1 Year	3 Years	5 Years	Since Inception	Inception Date
<b>CERS Pension Plan</b>	<b>8,490,653,750</b>	<b>1.23</b>	<b>4.02</b>	<b>8.13</b>	<b>23.76</b>	<b>24.82</b>	<b>9.67</b>	<b>10.28</b>	<b>9.22</b>	<b>4/1/1984</b>
CERS IPS Index		1.09	3.67	7.01	22.35	23.06	9.53			
Value Added		0.14	0.35	1.12	1.41	1.76	0.14			
Assumed Rate 6.25%		0.51	1.02	2.56	5.71	6.25	6.25			
Value Added		0.72	3.00	5.57	18.05	18.57	3.42			
<b>CERS (H) Pension Plan</b>	<b>2,878,851,877</b>	<b>1.22</b>	<b>3.98</b>	<b>8.07</b>	<b>23.69</b>	<b>24.70</b>	<b>9.63</b>	<b>10.24</b>	<b>9.21</b>	<b>4/1/1984</b>
CERS (H) IPS Index		1.09	3.66	7.02	22.39	23.07	9.52			
Value Added		0.13	0.32	1.05	1.30	1.63	0.11			
Assumed Rate 6.25%		0.51	1.02	2.56	5.71	6.25	6.25			
Value Added		0.71	2.96	5.51	17.98	18.45	3.38			
<b>CERS Insurance Plan</b>	<b>3,079,899,292</b>	<b>1.20</b>	<b>3.76</b>	<b>7.81</b>	<b>23.08</b>	<b>23.79</b>	<b>9.38</b>	<b>10.13</b>	<b>7.66</b>	<b>4/1/1987</b>
CERS IPS Index		1.10	3.52	6.88	22.20	22.79	9.44			
Value Added		0.10	0.24	0.93	0.88	1.00	-0.06			
Assumed Rate 6.25%		0.51	1.02	2.56	5.71	6.25	6.25			
Value Added		0.69	2.74	5.25	17.37	17.54	3.13			
<b>CERS (H) Insurance Plan</b>	<b>1,582,241,673</b>	<b>1.21</b>	<b>3.77</b>	<b>7.88</b>	<b>23.18</b>	<b>23.68</b>	<b>9.40</b>	<b>10.17</b>	<b>7.67</b>	<b>4/1/1987</b>
CERS (H) IPS Index		1.09	3.50	6.85	22.18	22.71	9.41			
Value Added		0.12	0.27	1.03	1.00	0.97	-0.01			
Assumed Rate 6.25%		0.51	1.02	2.56	5.71	6.25	6.25			
Value Added		0.70	2.75	5.32	17.47	17.43	3.15			



WILSHIRE

# Asset Allocation and Performance

CERS Pension Plan  
Periods Ended May 31, 2021

	Allocation		Performance (%) net of fees								
	Market Value \$	%	1 Month	QTD	YTD	FYTD	1 Year	3 Years	5 Years	Since Inception	Inception Date
<b>CERS Pension Plan</b>	<b>8,490,653,750</b>	<b>100.00</b>	<b>1.23</b>	<b>4.02</b>	<b>8.13</b>	<b>23.76</b>	<b>24.82</b>	<b>9.67</b>	<b>10.28</b>	<b>9.22</b>	<b>4/1/1984</b>
CERS IPS Index			1.09	3.67	7.01	22.35	23.06	9.53			
Value Added			0.14	0.35	1.12	1.41	1.76	0.14			
Assumed Rate 6.25%			0.51	1.02	2.56	5.71	6.25	6.25			
Value Added			0.72	3.00	5.57	18.05	18.57	3.42			
<b>GROWTH</b>											
<b>US Equity Composite</b>	<b>2,071,888,495</b>	<b>24.40</b>	<b>0.52</b>	<b>5.58</b>	<b>13.45</b>	<b>41.83</b>	<b>44.90</b>	<b>17.32</b>	<b>16.72</b>	<b>14.34</b>	<b>7/1/2013</b>
Russell 3000 Index			0.46	5.63	12.34	40.69	43.91	18.03	17.36	15.12	
Value Added			0.06	-0.05	1.11	1.14	0.99	-0.71	-0.64	-0.78	
<b>Non-US Equity Composite</b>	<b>2,030,926,333</b>	<b>23.92</b>	<b>3.22</b>	<b>7.05</b>	<b>10.77</b>	<b>39.32</b>	<b>46.33</b>	<b>10.60</b>	<b>12.39</b>	<b>8.90</b>	<b>7/1/2013</b>
Policy Index			3.02	6.28	10.29	38.07	44.08	8.92	11.08	7.76	
Value Added			0.20	0.77	0.48	1.25	2.25	1.68	1.31	1.14	
<b>High Yield / Specialty Credit Composite</b>	<b>1,423,779,694</b>	<b>16.77</b>	<b>0.65</b>	<b>1.41</b>	<b>4.35</b>	<b>13.54</b>	<b>13.93</b>			<b>6.10</b>	<b>1/1/2020</b>
Policy Index			0.44	1.24	2.57	12.56	13.75			5.46	
Value Added			0.21	0.17	1.78	0.98	0.18			0.64	
<b>Private Equity Composite</b>	<b>658,160,217</b>	<b>7.75</b>	<b>0.81</b>	<b>3.81</b>	<b>10.29</b>	<b>26.30</b>	<b>16.74</b>	<b>12.83</b>	<b>13.74</b>	<b>13.36</b>	<b>7/1/2013</b>
CERS Short-Term PE Index			0.81	3.81	10.29	26.30	16.74	12.83	13.74	13.36	
Value Added			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Russell 3000 +3% 1 Quarter Lag			3.38	3.17	19.20	61.21	39.39	18.42	20.93	17.63	
Value Added			-2.57	0.64	-8.91	-34.91	-22.65	-5.59	-7.19	-4.27	

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# Asset Allocation and Performance

CERS Pension Plan  
Periods Ended May 31, 2021

	Allocation		Performance (%) net of fees								
	Market Value \$	%	1 Month	QTD	YTD	FYTD	1 Year	3 Years	5 Years	Since Inception	Inception Date
<b>DIVERSIFYING STRATEGIES</b>											
<b>Real Return Composite</b>	<b>570,396,218</b>	<b>6.72</b>	<b>1.56</b>	<b>4.03</b>	<b>8.65</b>	<b>20.81</b>	<b>18.89</b>	<b>4.70</b>	<b>5.46</b>	<b>3.76</b>	<b>7/1/2013</b>
CERS Real Return Index			1.56	4.03	8.65	20.81	18.89	5.00	4.23	2.94	
Value Added			0.00	0.00	0.00	0.00	0.00	-0.30	1.23	0.82	
<b>Real Estate Composite</b>	<b>339,082,392</b>	<b>3.99</b>	<b>0.19</b>	<b>1.99</b>	<b>3.64</b>	<b>6.86</b>	<b>5.27</b>	<b>7.86</b>	<b>8.89</b>	<b>8.65</b>	<b>7/1/2013</b>
NCREIF ODCE NOF 1 Quarter Lag			0.00	0.00	1.10	-0.41	0.34	3.99	5.27	7.78	
Value Added			0.19	1.99	2.54	7.27	4.93	3.87	3.62	0.87	
<b>LIQUIDITY</b>											
<b>Core Fixed Composite</b>	<b>1,106,245,098</b>	<b>13.03</b>	<b>0.26</b>	<b>0.66</b>	<b>0.45</b>	<b>3.24</b>	<b>4.43</b>			<b>4.61</b>	<b>1/1/2020</b>
Blmbg. Barc. U.S. Aggregate			0.33	1.12	-2.29	-1.03	-0.41			3.53	
Value Added			-0.07	-0.46	2.74	4.27	4.84			1.08	
<b>Cash Composite</b>	<b>65,385,686</b>	<b>0.77</b>	<b>0.00</b>	<b>0.01</b>	<b>0.05</b>	<b>0.12</b>	<b>0.14</b>	<b>1.51</b>	<b>1.46</b>	<b>1.05</b>	<b>7/1/2013</b>
FTSE 3 Month T-Bill			0.00	0.01	0.02	0.08	0.09	1.36	1.14	0.74	
Value Added			0.00	0.00	0.03	0.04	0.05	0.15	0.32	0.31	
<b>OPPORTUNISTIC</b>											
<b>Opportunistic Composite</b>	<b>224,789,617</b>	<b>2.65</b>	<b>1.12</b>	<b>2.30</b>	<b>6.00</b>					<b>6.00</b>	<b>1/1/2021</b>

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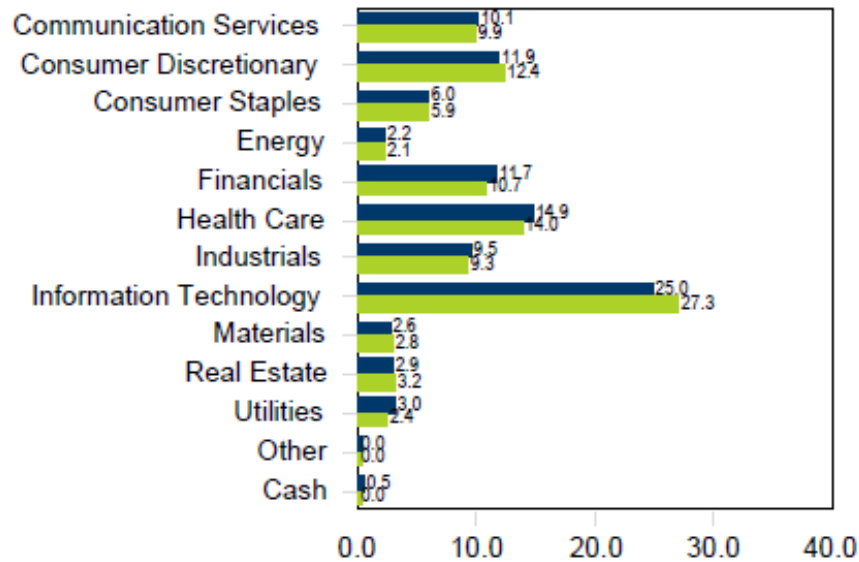
# 1Q 2021 Sector Allocations

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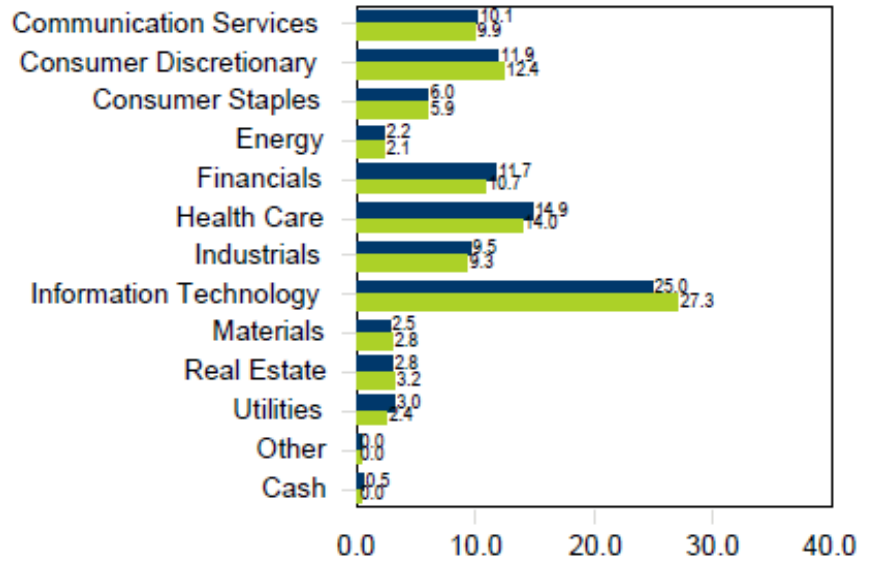
# US Equity Sector Allocations as of 3/31/2021

Pension



■ US Equity Composite ■ Russell 3000 Index

Insurance

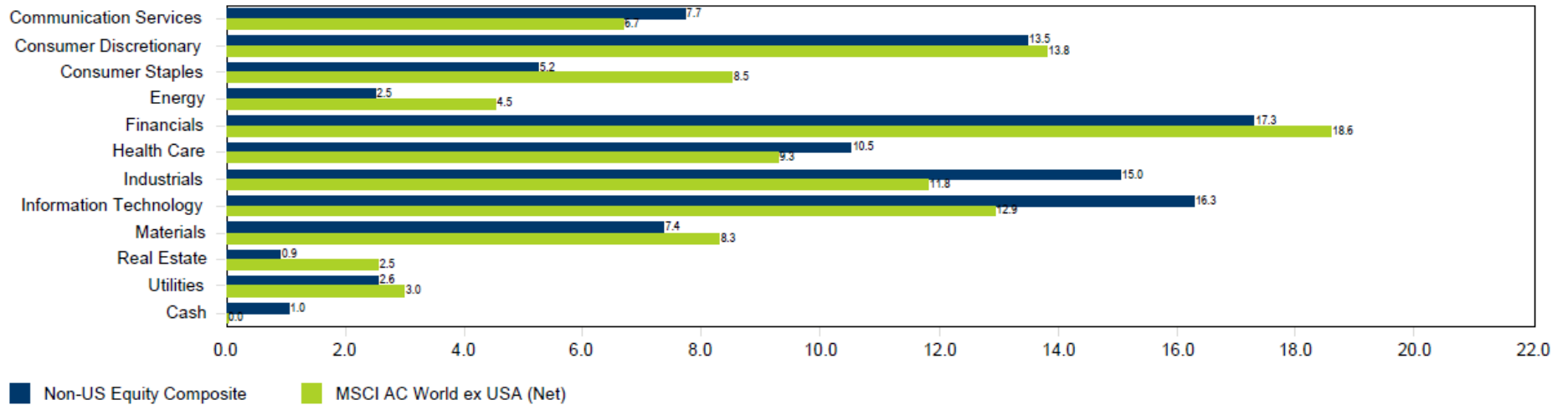


■ US Equity Composite ■ Russell 3000 Index

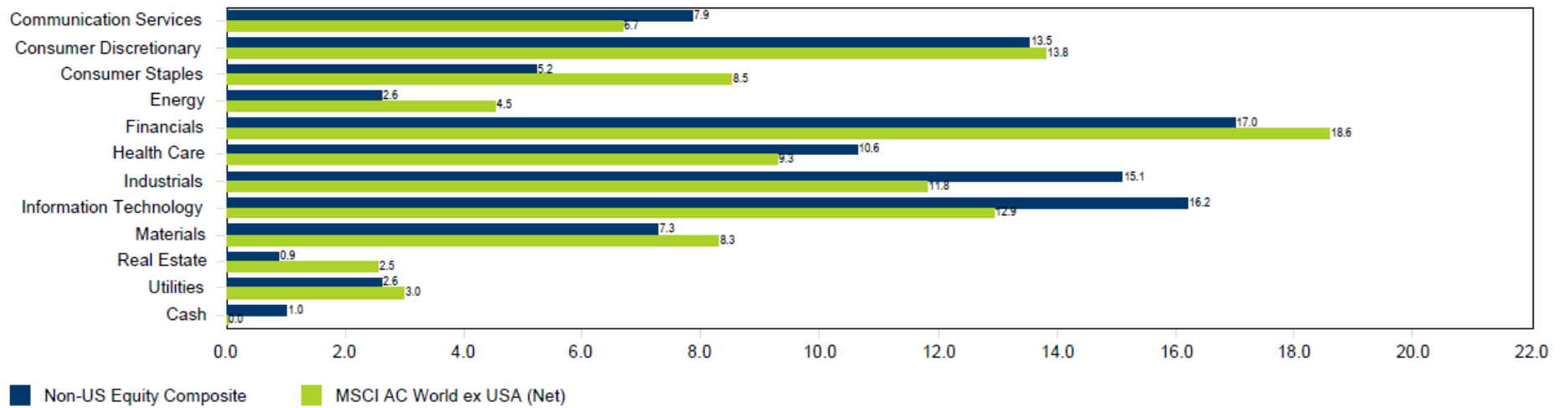
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# Non-US Equity Sector Allocations as of 3/31/2021

## Pension



## Insurance



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# Private Market Sector Allocations as of 3/31/2021

	Total Pension	Total Insurance
Financials	36.38%	27.17%
Healthcare	15.35%	15.19%
Information Technology	12.55%	13.57%
Industrials	12.02%	15.63%
Consumer Discretionary	9.86%	12.08%
Telecommunication Services	3.53%	3.82%
Materials	3.42%	4.20%
Energy	2.78%	3.81%
Consumer Staples	2.30%	2.56%
Utilities	0.81%	0.98%
Real Estate	0.62%	0.46%
Other/Miscellaneous	0.37%	0.53%

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**From:** [George Cheatham](#)  
**Sent:** Monday, July 12, 2021 10:31 AM  
**To:** [Pendergrass, Betty \(KPPA\)](#)  
**Cc:** [M.hackbart@uky.edu](mailto:M.hackbart@uky.edu)  
**Subject:** [External] Updated Material for CERS Investment Committee Meeting  
**Importance:** High

This message has originated from an **External Source**. Please use proper judgment and caution when opening attachments, clicking links, or responding to this email.

I updated the material for the CERS Investment Committee meeting based on the material provided by Wilshire. Since it is a public meeting I figured I had better attach all my legal disclaimers as well. The only material I intend to go through is the one labeled presentation. The other two documents are there to provide reference to the process and the full disclaimers as well.

I will also be making clear my purpose is strictly to provide context to the downside risks associated with our allocations and not any commentary about the investments themselves. As a fiduciary to the system, I think we have to weigh both sides of the risk vs reward proposition.

Links contained in this email have been replaced by ZixProtect Link Protection. If you click on a link in the email above, the link will be analyzed for known threats. If a known threat is found, you will not be able to proceed to the destination. If suspicious content is detected, you will see a warning.

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**AMERICAN FINANCIAL**  
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**AMERICAN FINANCIAL**  
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**Riskalyze Analysis  
Of  
Current and Target CERS  
Allocation**

**By George “Lisle” Cheatham, II  
Certified Financial Fiduciary®**



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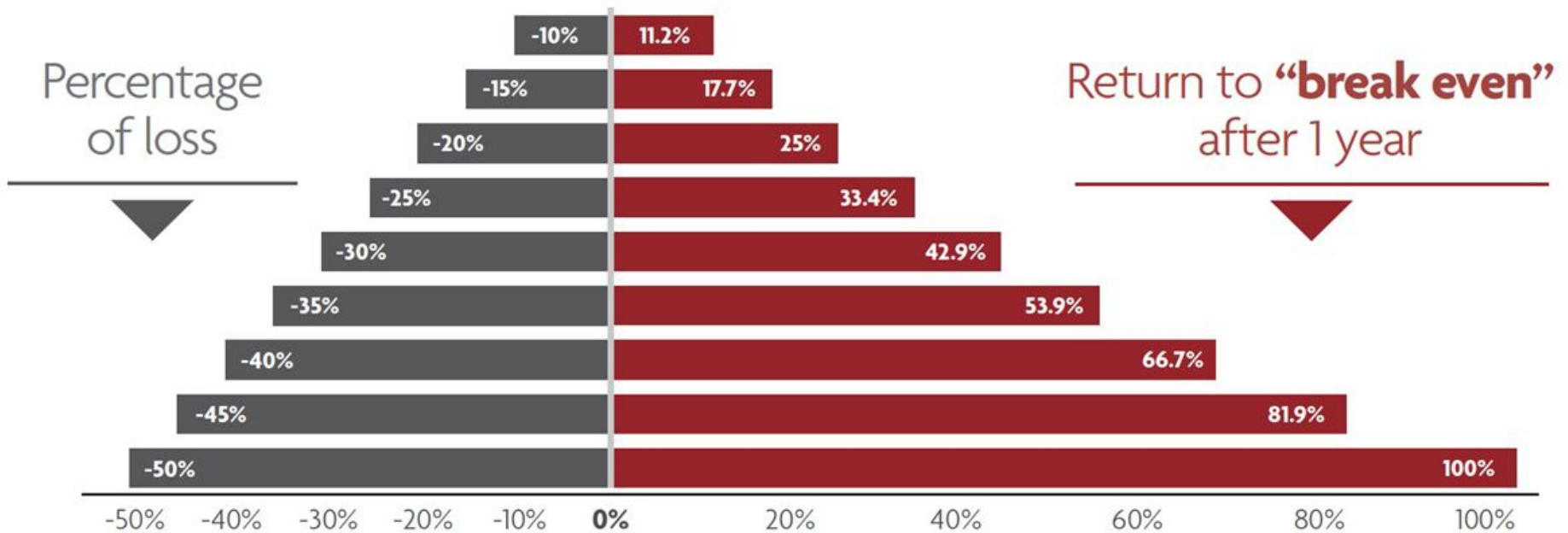
The Risk Number of 67 and the 95% Historical Range of -14.31% to +19.78% was calculated using a long-term average of 00.00% for the S&P 500, 0bps change in the Ten Year US Treasury Rate, and correlation and volatility data from 2008 to present. Riskalyze uses actual historical data to calculate the statistical probabilities shown. For securities calculated using Average Annual Return, the Average Return will be calculated using actual price history from June 2004-present or inception. We calculate the annualized return number as  $(\text{final price} / \text{initial price})^{(1 / \text{number of years})} - 1$ . Riskalyze does not provide investment analysis on investments with less than 6 months of historical performance. In instances where an investment's inception is more recent than January 1, 2008 and greater than 6 months, Riskalyze will use correlation statistics from the investment's actual trading history to extrapolate missing volatility data. In most cases the extrapolation calculation increases the risk presented in the investment analysis as a means of protecting the investor. Investments with an inception more recent than January 1, 2008 are highlighted with an information icon. The Six Month 95% Historical Range is calculated from the standard deviation of the portfolio (via covariance matrix), and represents a hypothetical statistical probability, but there is no guarantee any investments would perform within the range. There is a 5% probability of greater losses. Riskalyze does not use any Monte Carlo or any other type of simulations. The underlying data is updated as of the previous day's market close price, and the results may vary with each use and over time. The investments considered were determined by the financial representative. IMPORTANT: The projections or other information generated by Riskalyze regarding the likelihood of various investment outcomes are hypothetical in nature, do not reflect actual investment results and are not guarantees of future results. These figures may exclude commissions, sales charges or fees which, if included, would have had a negative effect on the annual returns. Asset class representations for this portfolio exclude individual security allocations that result in net leveraged or shorted positions for a particular asset class.

The distribution rate is derived by summing the trailing 12-months' distributions (dividends, distributions from borrowing, return of capital, etc.) and dividing the sum by the last month's ending NAV. It does not include capital gains distributed over the same period.

The Expense Ratio is the percentage of fund assets used to pay for operating expenses and management fees, including 12b-1 fees, administrative fees, and all other asset-based costs incurred annually by the underlying funds, except brokerage costs.



# What Does It Take To Recover From A Market Loss???





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### Set Risk Target

Capital Preservation	RISK 1	—	RISK 35
Conservative	RISK 20	—	RISK 45
Growth and Income	RISK 35	—	RISK 70
Growth	RISK 50	—	RISK 90
Aggressive	RISK 75	—	RISK 99
Set Manually	RISK 1	—	RISK 99

**RISK 56**

-\$112.3 M (-11.23%)    +\$175.3 M (+17.53%)

More Conservative    More Aggressive

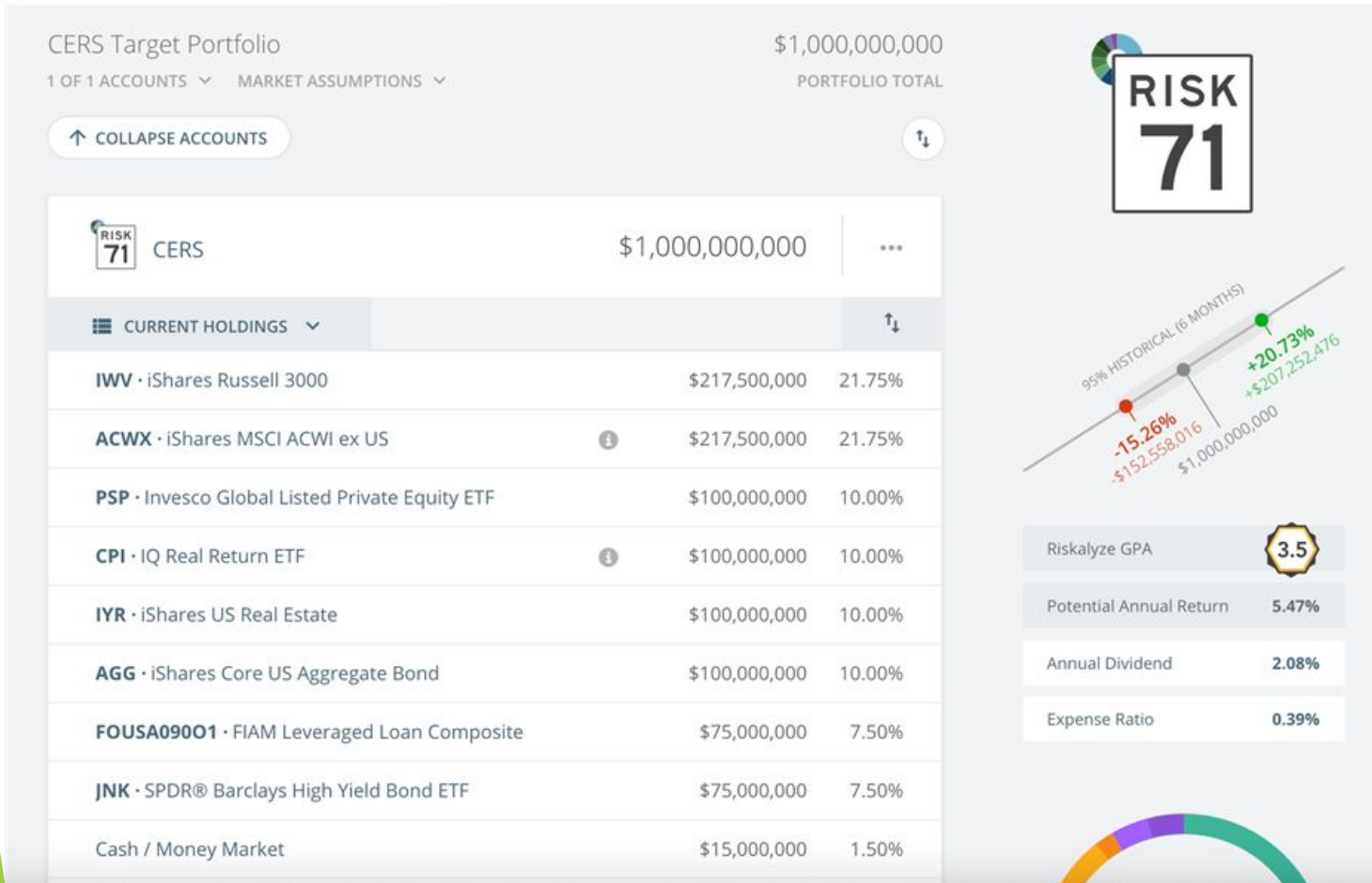
INVESTMENT AMOUNT: \$1,000,000,000

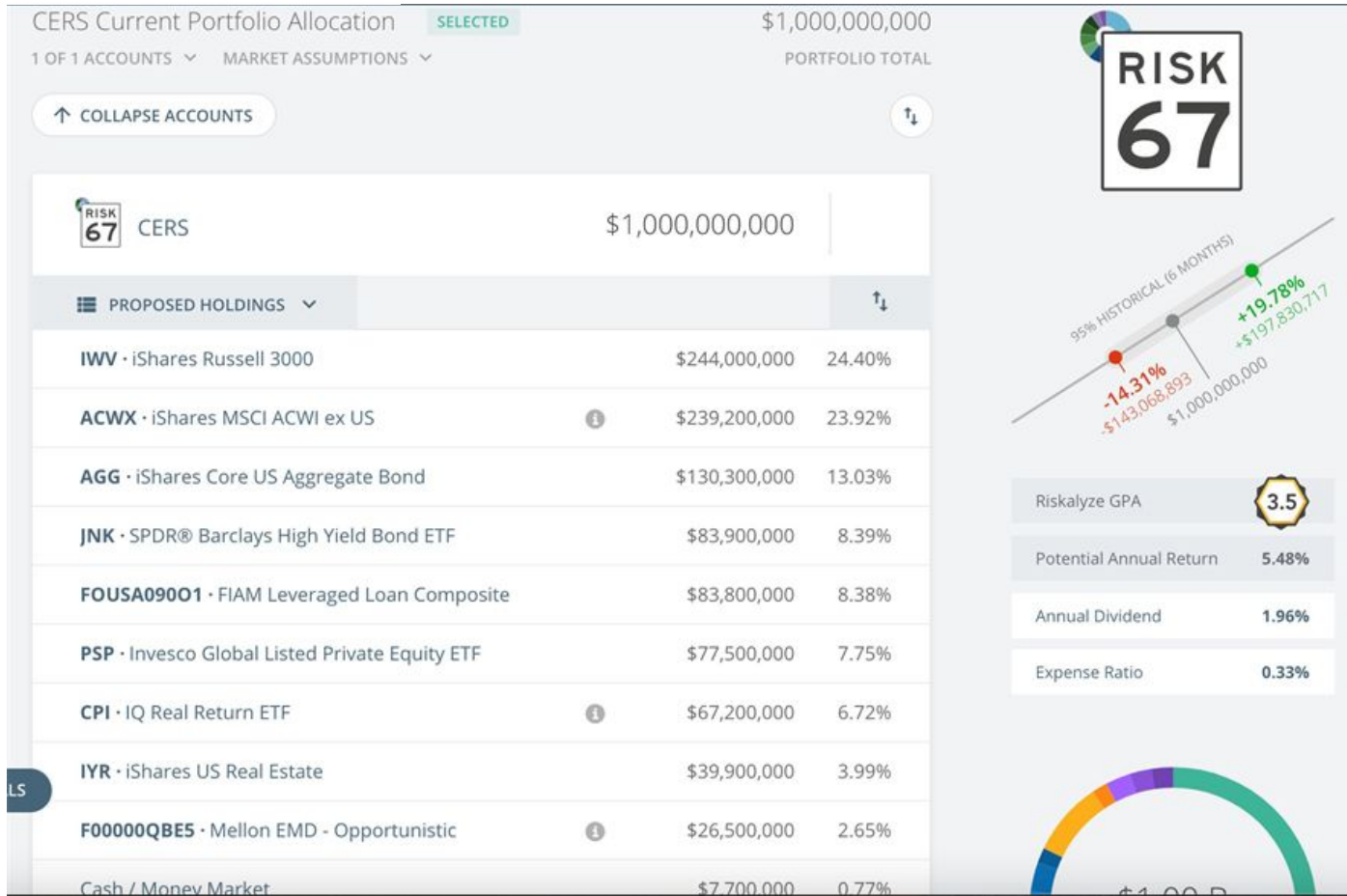
TARGETED ANNUAL RETURN: 6.30% | \$63,000,000

ADD NOTES: Risk Target: Growth and Income

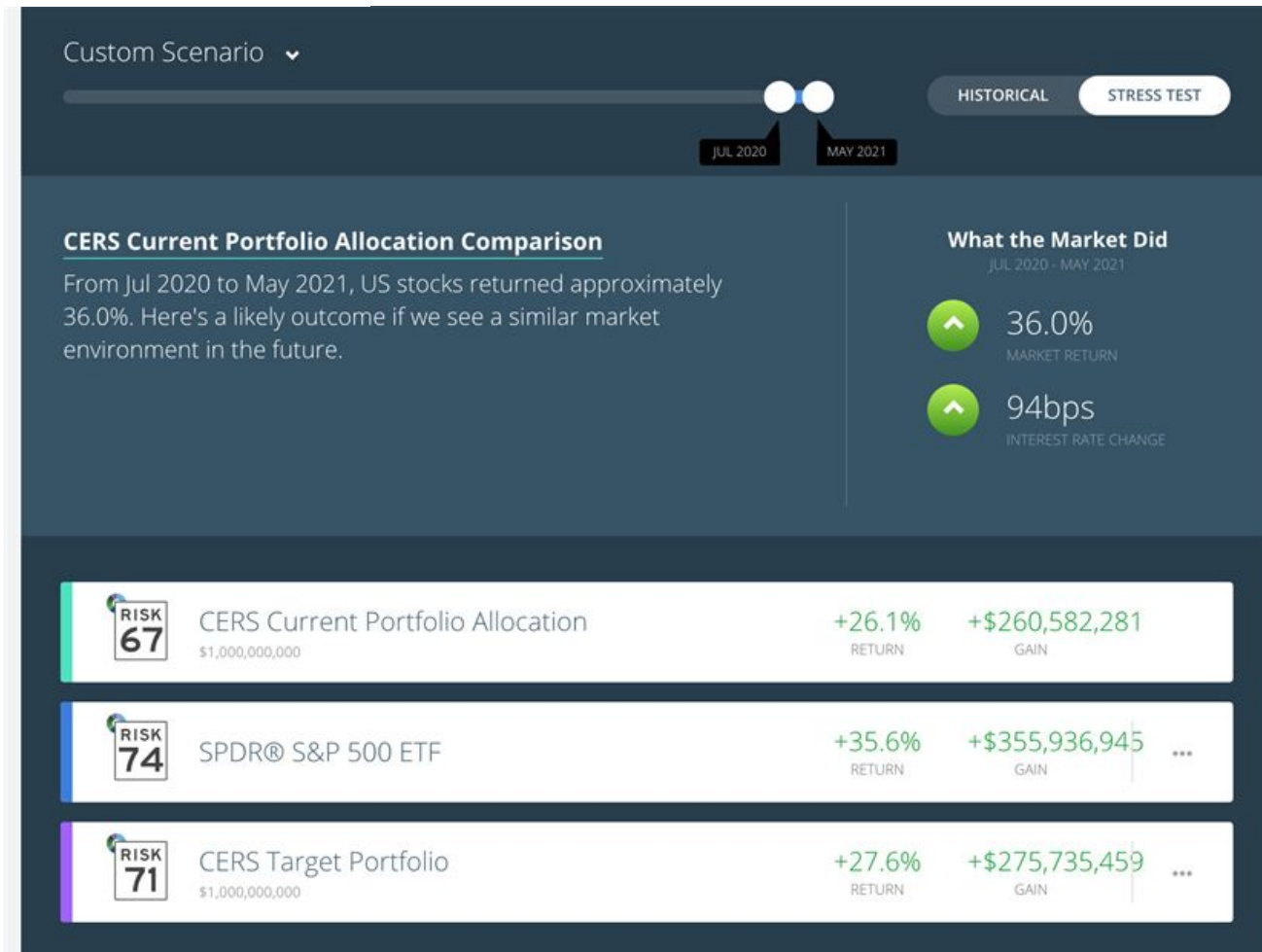
SET RISK TARGET

Help











### CERS Current Portfolio Allocation Comparison

Here's what happened from July 1, 2020 to May 1, 2021.



<b>RISK 67</b>	CERS Current Portfolio Allocation \$1,000,000,000	+23.4% RETURN	+\$233,896,903 GAIN	
<b>RISK 74</b>	SPDR® S&P 500 ETF	+36.0% RETURN	+\$359,538,845 GAIN	...
<b>RISK 71</b>	CERS Target Portfolio \$1,000,000,000	+24.2% RETURN	+\$242,030,134 GAIN	...



RISK  
71

## CERS · CERS Target Portfolio Stats

\$1,000,000,000 · 1 OF 1 ACCOUNTS ▾

### CERS Target Portfolio Summary RISKALYZE GPA 3.5

Potential Annual Return <b>5.47%</b>	Annual Dividend <b>2.08%</b>	Expense Ratio <b>0.39%</b>	Portfolio Max Drawdown <span style="font-size: 10px;">?</span> <b>-26.70%</b>
---	---------------------------------	-------------------------------	--

#### 6-MONTH 95% HISTORICAL

-15.26%
20.73%

#### TRAILING RETURN

4.12%	8.82%	26.86%	10.64%	10.45%
3 M	6 M	1 Y	3 Y	5 Y



**RISK**  
67

## CERS · CERS Current Portfolio Allocation Stats

\$1,000,000,000 · 1 OF 1 ACCOUNTS ▾

### CERS Current Portfolio Allocation Summary

**RISKALYZE GPA** 3.5

Potential Annual Return <span style="font-size: 18pt; font-weight: bold;">5.48%</span>	Annual Dividend <span style="font-size: 18pt; font-weight: bold;">1.96%</span>	Expense Ratio <span style="font-size: 18pt; font-weight: bold;">0.33%</span>	Proposal Max Drawdown <span style="font-size: 12pt;">?</span> <span style="font-size: 18pt; font-weight: bold;">-24.76%</span>
---	---	---	---

6-MONTH 95% HISTORICAL

-14.31%
19.78%

TRAILING RETURN

<span style="color: green; font-weight: bold;">3.64%</span>	<span style="color: green; font-weight: bold;">7.30%</span>	<span style="color: green; font-weight: bold;">25.49%</span>	<span style="color: green; font-weight: bold;">10.62%</span>	<span style="color: green; font-weight: bold;">10.53%</span>
3 M	6 M	1 Y	3 Y	5 Y



Questions?

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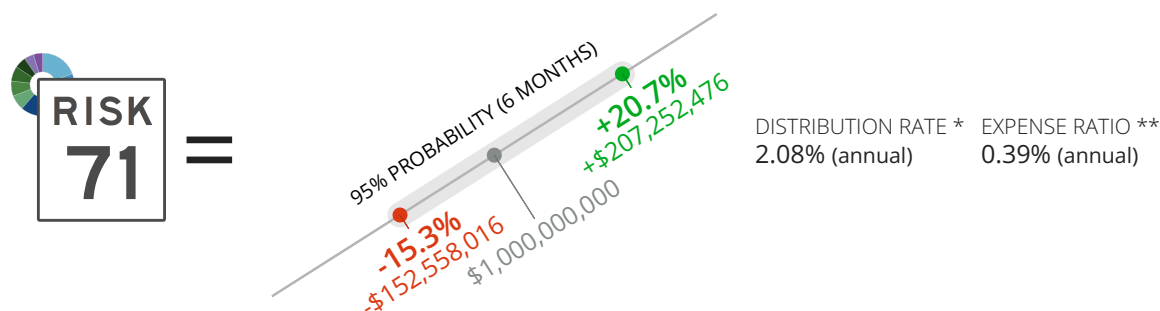
## CERS

### Introduction

The Current Portfolio Report frames foundational components of the Current Portfolio's Risk Number, 95% Historical Range, and other analytics, to ensure current investment strategy alignment between the financial professional and the client.

### CERS Target Portfolio

This is your asset allocation, as captured on July 11, 2021.



RISK 71	CERS	Asset Allocation	
■	<b>ACWX</b> • iShares MSCI ACWI ex US	\$217,500,000	21.75 %
■	<b>IWV</b> • iShares Russell 3000	\$217,500,000	21.75 %
■	<b>PSP</b> • Invesco Global Listed Private Equity ETF	\$100,000,000	10 %
■	<b>CPI</b> • IQ Real Return ETF	\$100,000,000	10 %
■	<b>IYR</b> • iShares US Real Estate	\$100,000,000	10 %
■	<b>AGG</b> • iShares Core US Aggregate Bond	\$100,000,000	10 %

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■ <b>FOUSA09001</b> • FIAM Leveraged Loan Composite	\$75,000,000	7.5 %
■ <b>JNK</b> • SPDR® Barclays High Yield Bond ETF	\$75,000,000	7.5 %
■ Cash / Money Market	\$15,000,000	1.5 %
<b>Total</b>	<b>\$1,000,000,000</b>	<b>100%</b>

The Risk Score of 71 and the 95% Historical Range of -15% to +21% was calculated using a long-term average for the S&P 500, average change in the Ten Year US Treasury Rate, and correlation and volatility data from 2008 to present. Riskalyze uses actual historical data to calculate the statistical probabilities shown. For securities calculated using Average Annual Return, the Average Return will be calculated using actual price history from June 2004-present or inception. We calculate the annualized return number as  $(\text{final price} / \text{initial price})^{(1 / \text{number of years})} - 1$ . Riskalyze does not provide investment analysis on investments with less than 6 months of historical performance. In instances where an investment's inception is more recent than January 1, 2008 and greater than 6 months Riskalyze will use correlation statistics from the investments actual trading history to extrapolate missing volatility data. In most cases the extrapolation calculation increases the risk presented in the investment analysis as a means of protecting the investor. Investments with an inception more recent than January 1, 2008 are highlighted with an information icon ⓘ. The Six Month 95% Historical Range is calculated from the standard deviation of the portfolio (via covariance matrix), and represents a hypothetical statistical probability, but there is no guarantee any investments would perform within the range. There is a 5% probability of greater losses. Riskalyze does not use any Monte Carlo or any other type of simulations. The underlying data is updated as of the previous day's market close price, and the results may vary with each use and over time. The investments considered were determined by the financial representative. IMPORTANT: The projections or other information generated by Riskalyze regarding the likelihood of various investment outcomes are hypothetical in nature, do not reflect actual investment results and are not guarantees of future results. These figures may exclude commissions, sales charges or advisory fees which, if included, would have had a negative effect on the annual returns. In instances where a security is unrecognized by the Riskalyze system or a security does not yet contain more than six (6) months of historical return data, Riskalyze may assign a benchmark/proxy to more accurately display risk and return analytics. In these instances Riskalyze will use the historical data associated with the benchmark/proxy indicated. Please see additional disclosures (included towards the end of this report) for any exchange traded funds and/or mutual funds referenced herein.

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\*\* The percentage of fund assets used to pay for operating expenses and management fees, including 12b-1 fees, administrative fees, and all other asset-based costs incurred annually by the underlying funds, except brokerage costs.

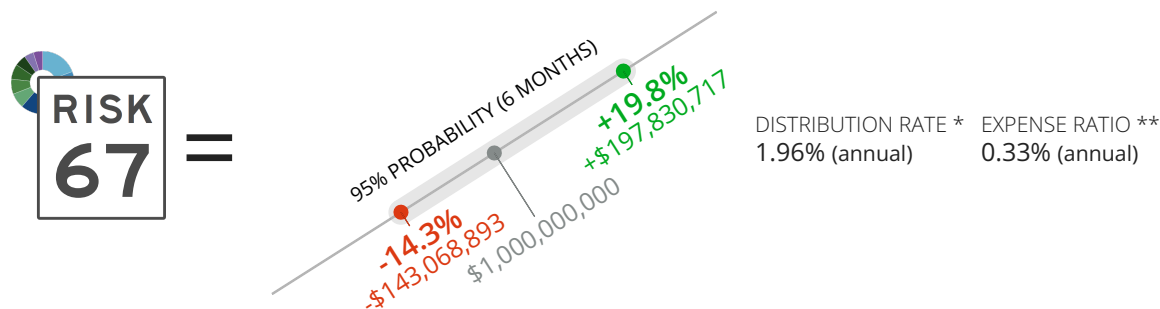
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## CERS Current Portfolio Allocation

This is your asset allocation, as captured on July 11, 2021.



<b>RISK 67</b> CERS	Asset Allocation	
<b>IWV</b> • iShares Russell 3000	\$244,000,000	24.4 %
<b>ACWX</b> • iShares MSCI ACWI ex US	\$239,200,000	23.92 %
<b>AGG</b> • iShares Core US Aggregate Bond	\$130,300,000	13.03 %
<b>JNK</b> • SPDR® Barclays High Yield Bond ETF	\$83,900,000	8.39 %
<b>FOUSA09001</b> • FIAM Leveraged Loan Composite	\$83,800,000	8.38 %
<b>PSP</b> • Invesco Global Listed Private Equity ETF	\$77,500,000	7.75 %
<b>CPI</b> • IQ Real Return ETF	\$67,200,000	6.72 %
<b>IYR</b> • iShares US Real Estate	\$39,900,000	3.99 %
<b>F00000QBE5</b> • Mellon EMD - Opportunistic	\$26,500,000	2.65 %
Cash / Money Market	\$7,700,000	0.77 %
<b>Total</b>	<b>\$1,000,000,000</b>	<b>100%</b>

The Risk Score of 67 and the 95% Historical Range of -14% to +20% was calculated using a long-term average for the S&P 500, average change in the Ten Year US Treasury Rate, and correlation and volatility data from 2008 to present. Riskalyze uses actual historical data to calculate the statistical probabilities shown. For securities calculated using Average Annual Return, the Average Return will be calculated using actual price history from June 2004-present or inception. We calculate the annualized return number as  $(\text{final price} / \text{initial price})^{(1 / \text{number of years})} - 1$ . Riskalyze does not provide investment analysis on investments with less than 6 months of historical performance. In instances where an investment's inception is more recent than January 1, 2008 and greater than 6 months Riskalyze will use correlation statistics from the

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## CERS Target Portfolio

### Risk / Reward Heatmap

○ DIVERSIFIED RISK ○ RISK ● REWARD

The Asset Allocation Heatmap expresses the weighted potential upside and downside that each allocation contributes to the overall portfolio, along with the portion of each allocation's potential downside that has been diversified away due to correlation.

The percentages shown represent a given allocation's potential performance, contextualized to its weight within the overall portfolio. The green percentage represents an allocation's portfolio-weighted potential upside, while the red percentage represents its total portfolio-weighted potential downside. The gold percentage represents the portion of that total portfolio-weighted potential downside that has been diversified away due to correlation.

#### CERS

ACWX		0.3%   5.1%   5.8%	\$217,500,000	21.8%
IWV		0.2%   3.7%   6.0%	\$217,500,000	21.8%
PSP		0.2%   3.4%   3.7%	\$100,000,000	10%
CPI		0.1%   0.4%   0.5%	\$100,000,000	10%
IYR		0.3%   2.8%   3.6%	\$100,000,000	10%
AGG		0.1%   0.2%   0.7%	\$100,000,000	10%
FOUSA09001		0.1%   0.5%   0.9%	\$75,000,000	7.5%
JNK		0.1%   0.9%   1.3%	\$75,000,000	7.5%
Cash / Money Ma..		0.0%   0.0%   0.0%	\$15,000,000	1.5%
<b>Total</b>			<b>\$1,000,000,000</b>	

The Risk/Reward Heatmap visually expresses the probable risk (red bar), probable return (green bar) and the amount of risk that is likely (probable) to be diversified out by inverse correlations (gold bar) given the data model selected. The green bar visually expresses the amount of probable return each investment contributes to the portfolio; dollar amount weighted. The red bar visually expresses the amount of probable downside risk each investment contributes to the portfolio; dollar amount weighted. The gold bar visually expresses the amount of probable downside risk which is likely offset by diversification effects generated by other investments in the portfolio. The Risk Reward Heatmap is a visual representation of the investment analysis which includes historical return, volatility and correlation statistics calculated using a long-term average of +0% for the S&P 500, 0bps change in the Ten Year US Treasury Rate, and correlation and volatility data from 2008 to present. The Six Month 95% Historical Range is calculated from the standard deviation of the portfolio (via covariance matrix), and represents a hypothetical statistical probability, but there is no guarantee any investments would perform within the range. There is a 5% probability of greater losses. The underlying data is updated as of the previous day's market close price, and the results may vary with each use and over time. The investments considered were determined by the financial representative.

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## CERS Target Portfolio

### Annual Distribution Rate

#### CERS

■ <b>ACWX</b>	1.93%		\$217,500,000	21.75%
■ <b>IWV</b>	1.09%		\$217,500,000	21.75%
■ <b>PSP</b>	5.98%		\$100,000,000	10%
■ <b>CPI</b>	0.98%		\$100,000,000	10%
■ <b>IYR</b>	1.94%		\$100,000,000	10%
■ <b>AGG</b>	1.88%		\$100,000,000	10%
■ <b>FOUSA09001</b>			\$75,000,000	7.5%
■ <b>JNK</b>	4.55%		\$75,000,000	7.5%
■ <b>Cash / Money Market</b>			\$15,000,000	1.5%
<b>Total</b>			<b>\$1,000,000,000</b>	<b>100%</b>

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## CERS Target Portfolio

### Expense Ratio

#### CERS

■ ACWX	0.32%	\$217,500,000	21.8%
■ IWV	0.20%	\$217,500,000	21.8%
■ PSP	1.58%	\$100,000,000	10%
■ CPI	0.42%	\$100,000,000	10%
■ IYR	0.42%	\$100,000,000	10%
■ AGG	0.04%	\$100,000,000	10%
■ FOUA09001		\$75,000,000	7.5%
■ JNK	0.40%	\$75,000,000	7.5%
■ Cash / Money Market		\$15,000,000	1.5%
Total		\$1,000,000,000	100%

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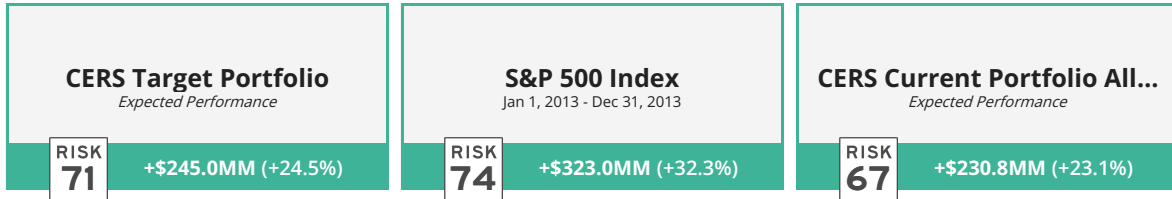
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## Portfolio Stress Tests

If a 2013-like Bull Market were to happen again...



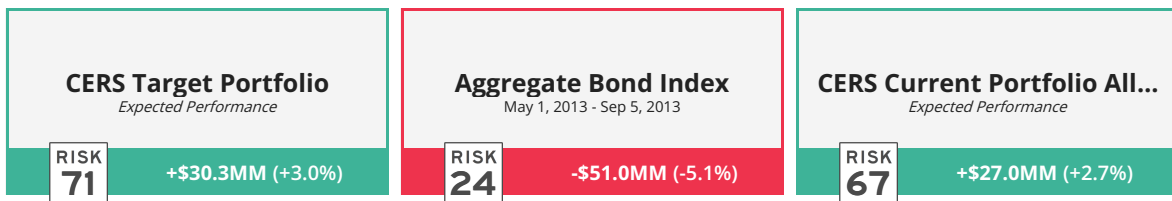
If a 2008-like Bear Market were to happen again...



If the Financial Crisis were to happen again...



If a 134bps Interest Rate Spike were to happen again...



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## Portfolio Stress Tests (cont'd)

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These calculations are designed to be informational and educational only and do not constitute investment advice. Investors should review their investment strategy periodically as financial circumstances change. The stress tests provided are a rough approximation of future financial performance should markets experience conditions similar to those shown. It is highly unlikely that such historical events will repeat themselves. The results presented by this stress test are hypothetical and may not reflect the actual growth of actual investments. Riskalyze and its affiliates are not responsible for the consequences of any decisions or actions taken in reliance upon or as a result of the information provided.

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**NOTE:** These calculations do not report what happened to this portfolio during the noted market environment. The "this portfolio's estimated performance" uses actual volatility and correlation statistics from Jan 1 2008 through present in conjunction with the noted rate of return (or loss) for the index shown to present an estimated performance should another environment like those presented occur again. For example, the "2013-Like Bull Market" scenario uses the portfolio's actual volatility (as measured by standard deviation) and correlation statistics (using a correlation matrix) from January 1st 2008 through present while assuming the same return realized by the S & P 500 index in 2013 of 32%.

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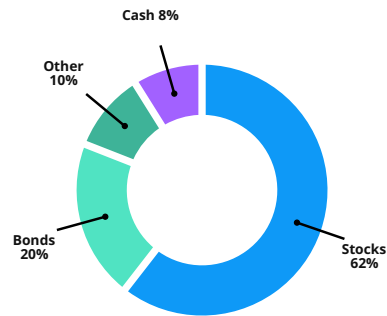
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## Asset Allocation

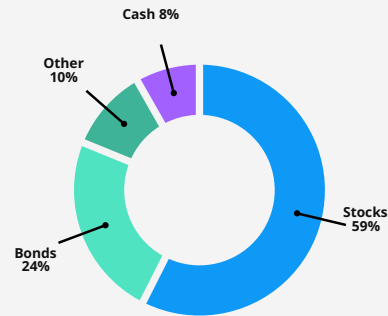
Asset classification is depicted below for the portfolio(s) in this report. The ratios depicted for Stocks, Bonds, Cash, and Other, are reflective of current value for the portfolio(s) shown, and are subject to change along with changes to the portfolio value.

Portfolio asset allocations are defined as follows:

- Stocks: Individual equities, along with equity portions of mutual funds and ETFs.
- Bonds: Individual bonds, along with fixed income portions of mutual funds and ETFs.
- Cash: Cash, Money Market funds, along with portions of mutual funds and ETFs allocated to cash.
- Other: Non-Traded REITs/DPPs, Variable Annuities and any other custom allocation or any security unrecognized by Riskalyze.



CURRENT



PROPOSAL

● Stocks	61.68%	58.51%
● Bonds	20.29%	23.69%
● Cash	8.38%	7.68%
● Other	9.66%	10.12%

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- Performance quoted represents past performance and past performance does not guarantee future results. Performance shown is not indicative of future performance.
- The investment return and principal value of an investment will fluctuate; that an investor's shares, when redeemed, may be worth more or less than their original cost; and that current performance may be lower or higher than the performance data quoted.
- ETF Performance is based on the market price defined as the last closing price for each time of the one-, five-, ten-year periods or life of the ETF if the ETF has not existed for at least 10 years.
- Investment Type definitions - CEF: Closed-End Fund; ETF: Exchange Traded Fund; Fund: Mutual Fund; ETN: Exchange Traded Note; UIT: Unit Investment Trust; CIT: Collective Investment Trust

### AVERAGE ANNUAL TOTAL RETURN AS OF June 30, 2021\*\*

FUND	TYPE	MAX SALES LOAD	GROSS EXPENSE RATIO %	VALUE	1-YEAR %	5-YEAR %	10-YEAR %	RETURN SINCE INCEPTION %
ACWX - ISHARES MSCI ACWI EX US (INCEPTION DATE: 2008-03-26)	ETF	-	0.34	TOTAL RETURN	35.57	10.87	5.31	3.61
AGG - ISHARES CORE US AGGREGATE BOND (INCEPTION DATE: 2003-09-22)	ETF	-	0.05	TOTAL RETURN	-0.37	2.97	3.33	4.02
CPI - IQ REAL RETURN ETF (INCEPTION DATE: 2009-10-27)	ETF	-	0.70	TOTAL RETURN	1.86	1.49	1.40	1.29
IWV - ISHARES RUSSELL 3000 (INCEPTION DATE: 2000-05-22)	ETF	-	0.20	TOTAL RETURN	43.89	17.68	14.50	7.72
IYR - ISHARES US REAL ESTATE (INCEPTION DATE: 2000-06-12)	ETF	-	0.42	TOTAL RETURN	32.23	7.85	9.24	9.90
JNK - SPDR® BARCLAYS HIGH YIELD BOND ETF (INCEPTION DATE: 2007-11-28)	ETF	-	0.40	TOTAL RETURN	14.02	6.42	5.27	5.61
PSP - INVESCO GLOBAL LISTED PRIVATE EQUITY ETF (INCEPTION DATE: 2006-10-24)	ETF	-	1.59	TOTAL RETURN	57.61	16.60	10.60	2.93
ACWX - ISHARES MSCI ACWI EX US (INCEPTION DATE: 2008-03-26)	ETF	-	0.34	TOTAL RETURN	35.57	10.87	5.31	3.61
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<b>FUND</b>	<b>TYPE</b>	<b>MAX SALES LOAD</b>	<b>GROSS EXPENSE RATIO %</b>	<b>VALUE</b>	<b>1-YEAR %</b>	<b>5-YEAR %</b>	<b>10-YEAR %</b>	<b>RETURN SINCE INCEPTION %</b>
PSP - INVESCO GLOBAL LISTED PRIVATE EQUITY ETF (INCEPTION DATE: 2006-10-24)	ETF	-	1.59	TOTAL RETURN	57.61	16.60	10.60	2.93

The average annualized performance information presented is current to the most recent month ended seven business days prior to the date of use.

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## ETFs and Mutual Funds Referenced in this Report (cont'd)

AVERAGE ANNUAL TOTAL RETURN AS OF MOST RECENT CALENDAR QUARTER END June 30, 2021 \*\*

FUND	TYPE	MAX SALES LOAD	GROSS EXPENSE RATIO %	VALUE	1-YEAR %	5-YEAR %	10-YEAR %	RETURN SINCE INCEPTION %
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The average annualized performance information presented is current to the most recent calendar quarter shown.

\*\*Average Annual Total Return is calculated by finding the average annual compounded rates of return over the 1-, 5-, and 10-year periods that would equate the initial amount invested to the ending redeemable value, according to the following formula:  $P(1 + T)^n = ERV$  Where: P = a hypothetical initial payment of \$1,000. T = average annual total return. n = number of years. ERV = ending redeemable value of a hypothetical \$1,000 payment made at the beginning of the 1-, 5-, or 10-year periods at the end of the 1-, 5-, or 10-year periods.

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**The performance data quoted represents past performance. Past performance does not guarantee future results. Investment return and principal value will fluctuate so that an investor's shares, when redeemed, may be worth more or less than their original cost. Current performance may be lower or higher than the performance information quoted. The performance quoted reflects the reinvestment of dividends and capital gains and is net of expenses.**

**Investors should consider the investment objectives, risks, charges and expenses of the investment company carefully before investing. The prospectus and, if available, the summary prospectus contain this and other important information about the investment company. Request a prospectus from the offering institution or your financial representative. Read carefully before investing.**

Investments in this report are subject to market risk, including the possible loss of principal. It should be assumed that investments listed in this report are not FDIC insured. The value of the portfolio will fluctuate with the value of the underlying securities. Investors should consider an investment's investment objective, risks, charges, and expenses carefully before investing. In the case of mutual funds and ETFs (Exchange Traded Funds) a prospectus is available which contains this and other important information and should be read carefully before investing. Diversification does not ensure a profit and may not protect against loss in declining markets.

In addition to the normal risks associated with investing, Investments in smaller companies typically exhibit higher volatility as do investments that do not have significant volume; international investments may involve risk of capital loss from unfavorable fluctuation in currency values, from differences in generally accepted accounting principles or from economic or political instability in other nations; emerging markets involve heightened risks related to the same factors, as well as increased volatility and lower trading volume; bonds and bond funds will decrease in value as interest rates rise and are subject to credit risk, which refers to the possibility that the debt issuers may not be able to make principal and interest payments or may have their debt downgraded by ratings agencies.

Alternative securities (e.g. partnerships, limited liability companies, real estate investment trusts, hedge funds, and managed futures which are not listed on national exchanges) are generally illiquid; no formal trading market exists for these securities; and their values will be different than the purchase price or values shown on this report. Therefore, the estimated values shown herein may not necessarily be realized upon sale of the securities. Prices shown should only be used as a general guide to portfolio value.

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This portfolio may contain investments requiring the delivery of a prospectus. See fund prospectus for details.

Mutual funds may contain sales charges, expenses, management fees, and breakpoint discounts (quantity discounts); which vary from mutual fund to mutual fund. Therefore, you should discuss these issues with your financial representative and review each mutual fund's prospectus and statement of additional information to get the specific

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information regarding the charges and breakpoint discounts associated with a particular mutual fund. Please see the mutual fund prospectus and statement of additional information for details about sales charges, expenses, management fees, discount programs (rights of accumulation, letter of intent, breakpoint discounts, etc). A mutual fund's total expense ratio is shown as provided by a third party vendor and may or may not contain fee waivers or expense reimbursements that may be in effect for the fund. Please refer to the fee table in the fund's prospectus.

ETFs trade like a stock, and ETFs may trade for less than their net asset value. See prospectus for details.

For variable annuities, additional expenses will be taken into account, including M&E risk charges, fund-level expenses such as management fees and operating fees, contract-level administration fees, and charges such as surrender, contract, and sales charges.

The 6 month historical range is derived by illustrating a VaR with 1.644854 sigmas move in the underlying portfolio using the given data model. Standard Deviation is a historical measure of the variability of returns. If a portfolio has a high standard deviation, its returns have been volatile; a low standard deviation indicated returns have been less volatile. It is a mathematical probability; not a guarantee of future results. The cash balance shown may vary from actual cash available.

The cash value shown may represent certificates of deposit before early withdrawal penalties if so deemed by the financial representative. Portfolio value and position values are likely as of the day before the date listed on this report. Allocation percentages and/or dollar amounts may be rounded for presentation purposes.

Investing often generates tax consequences which are not incorporated in this report.

Prospectus Gross Expense Ratio reflects the annual percentage of a fund's assets paid out in expenses. Expenses include management, 12B-1, transfer agent and all other asset-based fees associated with the fund's daily operations and distribution, with the exception of brokerage commissions. It does not reflect expenses that have been reimbursed by the financial representative, reductions from brokerage service arrangements or other expense offset arrangements.

This report relies on mutual fund holdings reported by NASDAQ via a data feed. As a result, the above review is only as accurate as the data supplied by NASDAQ. In all cases there is a reporting delay.

This report is to be used for illustration and discussion purposes only. Please review the underlying assumptions carefully. Past performance is no guarantee of future results and principal values fluctuate with changing market conditions.

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George "Lisle" Cheatham, II  
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Fiduciary®  
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GCheatham@NextFinancial.com



# Investment Roadmap

for  
CERS

Prepared on July 11, 2021

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## Introduction

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The purpose of this Investment Roadmap is to establish a clear understanding between CERS, Client(s) and George "Lisle" Cheatham, II Certified Financial Fiduciary®/Next Financial Group, Inc. Columbia KY 203 Burkesville St as to the investment goals and policies applicable to the investor's investment portfolio.

This Investment Roadmap will:

- Establish reasonable objectives and guidelines in the investment of the investor's assets
- Set forth a target portfolio indicative of the risk levels, allocations and return targets that the client's money will typically be invested to achieve. The customized investment strategy and target portfolio allocation illustrated for you are approximate based on individual cash requirements, re-balancing tolerance, economic and market conditions.

This has been developed from an evaluation of many key factors which impact the investor's specific situation, risk tolerance and investment objectives. This is not a contract, but rather a summary of the investment philosophy that the financial representative will seek to pursue on behalf of the investor.

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## Risk Tolerance

Your advisor set a risk number for you on July 12, 2021. On a scale of 1 to 99, with higher numbers indicating higher risk tolerance, your risk number is 56.



This means that over the next six months, you are comfortable risking a loss of -11% or -\$112,328,000, in exchange for the chance of making a gain of +18% or +\$175,328,000.

This range describes the “comfort zone” for your investments. Over the next six months, it represents a hypothetical target that you would prefer to keep your investments within. There is no guarantee any investments would perform within the range.

While Next Financial Group, Inc. Columbia KY 203 Burkesville St will target the customized investment strategy and specific portfolio allocation illustrated below, the financial representative retains the flexibility to modify security selection and weighting within the respective sub asset classes and/or move to different managers and/or different securities to take advantage of and respond to risks associated with market and economic conditions as well as relative performance data.

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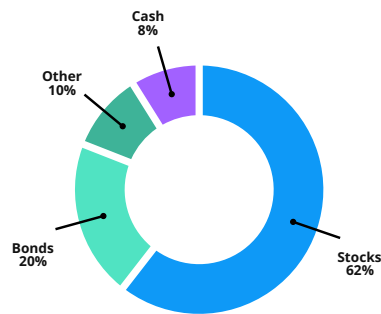
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## Asset Allocation

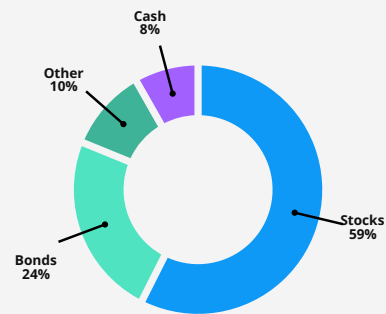
Asset classification is depicted below for the portfolio(s) in this report. The ratios depicted for Stocks, Bonds, Cash, and Other, are reflective of current value for the portfolio(s) shown, and are subject to change along with changes to the portfolio value.

Portfolio asset allocations are defined as follows:

- Stocks: Individual equities, along with equity portions of mutual funds and ETFs.
- Bonds: Individual bonds, along with fixed income portions of mutual funds and ETFs.
- Cash: Cash, Money Market funds, along with portions of mutual funds and ETFs allocated to cash.
- Other: Non-Traded REITs/DPPs, Variable Annuities and any other custom allocation or any security unrecognized by Riskalyze.



CURRENT



TARGET

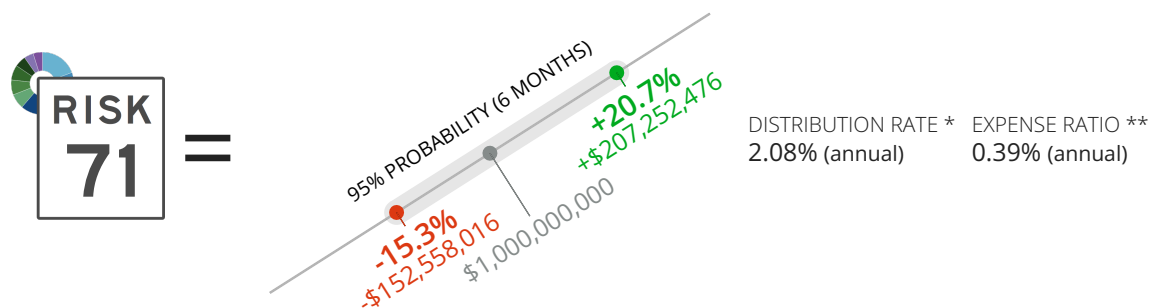
● Stocks	61.68%	58.51%
● Bonds	20.29%	23.69%
● Cash	8.38%	7.68%
● Other	9.66%	10.12%

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## Current Asset Allocation (Current Portfolio)

This is your current asset allocation (current portfolio), as captured on July 11, 2021.



RISK 71 CERS	Asset Allocation	
■ <b>ACWX</b> • iShares MSCI ACWI ex US	\$217,500,000	21.75 %
■ <b>IWV</b> • iShares Russell 3000	\$217,500,000	21.75 %
■ <b>PSP</b> • Invesco Global Listed Private Equity ETF	\$100,000,000	10 %
■ <b>CPI</b> • IQ Real Return ETF	\$100,000,000	10 %
■ <b>IYR</b> • iShares US Real Estate	\$100,000,000	10 %
■ <b>AGG</b> • iShares Core US Aggregate Bond	\$100,000,000	10 %
■ <b>FOUSA09001</b> • FIAM Leveraged Loan Composite	\$75,000,000	7.5 %
■ <b>JNK</b> • SPDR® Barclays High Yield Bond ETF	\$75,000,000	7.5 %
■ Cash / Money Market	\$15,000,000	1.5 %
<b>Total</b>	<b>\$1,000,000,000</b>	<b>100%</b>

The Risk Score of 71 and the 95% Historical Range of -15% to +21% was calculated using a long-term average for the S&P 500, average change in the Ten Year US Treasury Rate, and correlation and volatility data from 2008 to present. Riskalyze uses actual historical data to calculate the statistical probabilities shown. For securities calculated using Average Annual Return, the Average Return will be calculated using actual price history from June 2004-present or inception. We calculate the annualized return number as  $(\text{final price} / \text{initial price})^{(1 / \text{number of years})} - 1$ . Riskalyze does not provide investment analysis on investments with less than 6 months of historical performance. In instances where an investment's inception is more recent than January 1, 2008 and greater than 6 months Riskalyze will use correlation statistics from the investments actual trading history to extrapolate missing volatility data. In most cases the extrapolation calculation increases the risk presented in the investment analysis as a means of protecting the investor. Investments with an

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inception more recent than January 1, 2008 are highlighted with an information icon ⓘ. The Six Month 95% Historical Range is calculated from the standard deviation of the portfolio (via covariance matrix), and represents a hypothetical statistical probability, but there is no guarantee any investments would perform within the range. There is a 5% probability of greater losses. Riskalyze does not use any Monte Carlo or any other type of simulations. The underlying data is updated as of the previous day's market close price, and the results may vary with each use and over time. The investments considered were determined by the financial representative. IMPORTANT: The projections or other information generated by Riskalyze regarding the likelihood of various investment outcomes are hypothetical in nature, do not reflect actual investment results and are not guarantees of future results. These figures may exclude commissions, sales charges or advisory fees which, if included, would have had a negative effect on the annual returns. In instances where a security is unrecognized by the Riskalyze system or a security does not yet contain more than six (6) months of historical return data, Riskalyze may assign a benchmark/proxy to more accurately display risk and return analytics. In these instances Riskalyze will use the historical data associated with the benchmark/proxy indicated. Please see additional disclosures (included towards the end of this report) for any exchange traded funds and/or mutual funds referenced herein.

\* The distribution rate is derived by summing the trailing 12-months' distributions (dividends, distributions from borrowing, return of capital, etc) and dividing the sum by the last month's ending NAV. It does not include capital gains distributed over the same period.

\*\* The percentage of fund assets used to pay for operating expenses and management fees, including 12b-1 fees, administrative fees, and all other asset-based costs incurred annually by the underlying funds, except brokerage costs.

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## Current Asset Allocation Heatmap

### Risk / Reward Heatmap

● DIVERSIFIED RISK ● RISK ● REWARD

The Asset Allocation Heatmap expresses the weighted potential upside and downside that each allocation contributes to the overall portfolio, along with the portion of each allocation's potential downside that has been diversified away due to correlation.

The percentages shown represent a given allocation's potential performance, contextualized to its weight within the overall portfolio. The green percentage represents an allocation's portfolio-weighted potential upside, while the red percentage represents its total portfolio-weighted potential downside. The gold percentage represents the portion of that total portfolio-weighted potential downside that has been diversified away due to correlation.

#### CERS

ACWX		0.3%   5.1%   5.8%	\$217,500,000	21.8%
IWV		0.2%   3.7%   6.0%	\$217,500,000	21.8%
PSP		0.2%   3.4%   3.7%	\$100,000,000	10%
CPI		0.1%   0.4%   0.5%	\$100,000,000	10%
IYR		0.3%   2.8%   3.6%	\$100,000,000	10%
AGG		0.1%   0.2%   0.7%	\$100,000,000	10%
FOUSA09001		0.1%   0.5%   0.9%	\$75,000,000	7.5%
JNK		0.1%   0.9%   1.3%	\$75,000,000	7.5%
Cash / Money Ma..		0.0%   0.0%   0.0%	\$15,000,000	1.5%
<b>Total</b>			<b>\$1,000,000,000</b>	

The Risk/Reward Heatmap visually expresses the probable risk (red bar), probable return (green bar) and the amount of risk that is likely (probable) to be diversified out by inverse correlations (gold bar) given the data model selected. The green bar visually expresses the amount of probable return each investment contributes to the portfolio; dollar amount weighted. The red bar visually expresses the amount of probable downside risk each investment contributes to the portfolio; dollar amount weighted. The gold bar visually expresses the amount of probable downside risk which is likely offset by diversification effects generated by other investments in the portfolio. The Risk Reward Heatmap is a visual representation of the investment analysis which includes historical return, volatility and correlation statistics calculated using a long-term average of +0% for the S&P 500, Obps change in the Ten Year US Treasury Rate, and correlation and volatility data from 2008 to present. The Six Month 95% Historical Range is calculated from the standard deviation of the portfolio (via covariance matrix), and represents a hypothetical statistical probability, but there is no guarantee any investments would perform within the range. There is a 5% probability of greater losses. The underlying data is updated as of the previous day's market close price, and the results may vary with each use and over time. The investments considered were determined by the financial representative.

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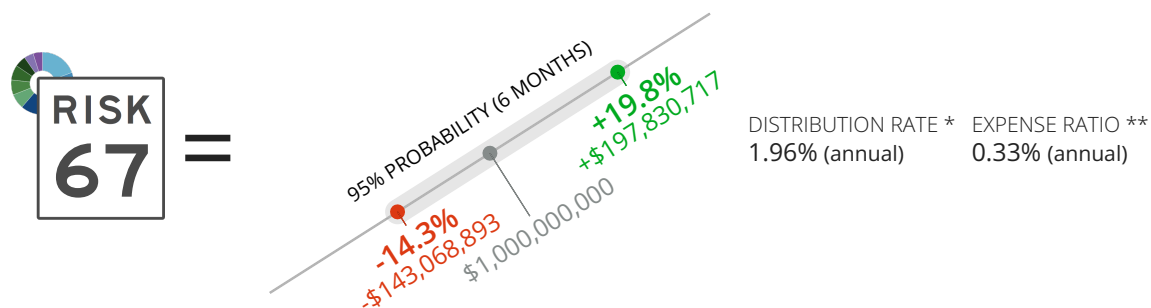
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## Target Asset Allocation (Proposed Portfolio)

This is your target asset allocation (proposed portfolio), as captured on July 11, 2021.



RISK 67 CERS	Asset Allocation	
■ <b>IWV</b> • iShares Russell 3000	\$244,000,000	24.4 %
■ <b>ACWX</b> • iShares MSCI ACWI ex US	\$239,200,000	23.92 %
■ <b>AGG</b> • iShares Core US Aggregate Bond	\$130,300,000	13.03 %
■ <b>JNK</b> • SPDR® Barclays High Yield Bond ETF	\$83,900,000	8.39 %
■ <b>FOUSA09001</b> • FIAM Leveraged Loan Composite	\$83,800,000	8.38 %
■ <b>PSP</b> • Invesco Global Listed Private Equity ETF	\$77,500,000	7.75 %
■ <b>CPI</b> • IQ Real Return ETF	\$67,200,000	6.72 %
■ <b>IYR</b> • iShares US Real Estate	\$39,900,000	3.99 %
■ <b>F00000QBE5</b> • Mellon EMD - Opportunistic	\$26,500,000	2.65 %
■ Cash / Money Market	\$7,700,000	0.77 %
<b>Total</b>	<b>\$1,000,000,000</b>	<b>100%</b>

The Risk Score of 67 and the 95% Historical Range of -14% to +20% was calculated using a long-term average for the S&P 500, average change in the Ten Year US Treasury Rate, and correlation and volatility data from 2008 to present. Riskalyze uses actual historical data to calculate the statistical probabilities shown. For securities calculated using Average Annual Return, the Average Return will be calculated using actual price history from June 2004-present or inception. We calculate the annualized return number as  $(\text{final price} / \text{initial price})^{(1 / \text{number of years})} - 1$ . Riskalyze does not provide investment analysis on investments with less than 6 months of historical performance. In instances where an investment's inception is more recent than January 1, 2008 and greater than 6 months Riskalyze will use correlation statistics from the

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## Target Asset Allocation Heatmap

### Risk / Reward Heatmap

● DIVERSIFIED RISK ● RISK ● REWARD

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#### CERS

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ACWX		0.4%   5.6%   6.4%	\$239,200,000	23.9%
AGG		0.2%   0.3%   0.9%	\$130,300,000	13%
JNK		0.1%   1.0%   1.5%	\$83,900,000	8.4%
FOUSA09001		0.1%   0.5%   1.0%	\$83,800,000	8.4%
PSP		0.2%   2.6%   2.8%	\$77,500,000	7.8%
CPI		0.1%   0.2%   0.3%	\$67,200,000	6.7%
IYR		0.1%   1.1%   1.4%	\$39,900,000	4%
F00000QBE5		0.1%   0.4%   0.4%	\$26,500,000	2.7%
Cash / Money Ma..		0.0%   0.0%   0.0%	\$7,700,000	0.8%
<b>Total</b>			<b>\$1,000,000,000</b>	

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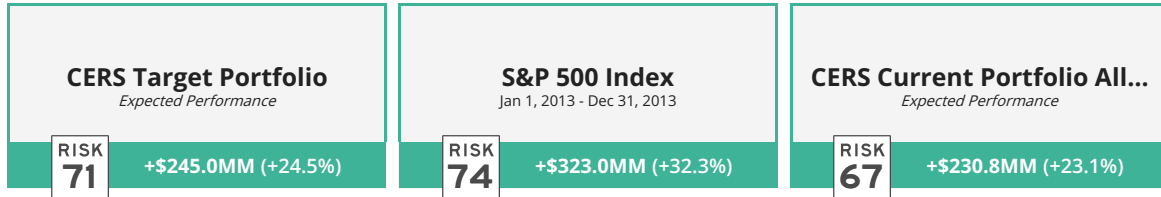
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## Portfolio Stress Tests

If a 2013-like Bull Market were to happen again...



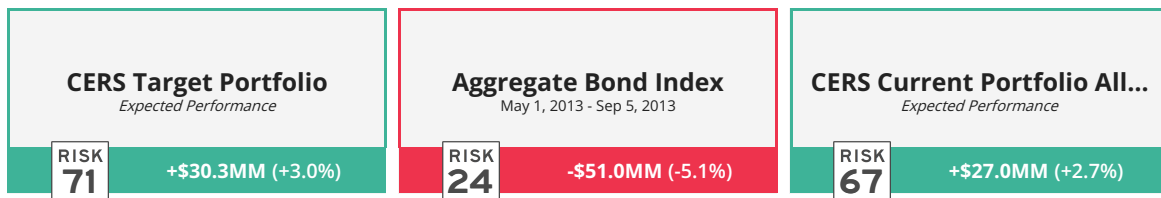
If a 2008-like Bear Market were to happen again...



If the Financial Crisis were to happen again...



If a 134bps Interest Rate Spike were to happen again...



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## Portfolio Stress Tests (cont'd)

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These calculations are designed to be informational and educational only and do not constitute investment advice. Investors should review their investment strategy periodically as financial circumstances change. The stress tests provided are a rough approximation of future financial performance should markets experience conditions similar to those shown. It is highly unlikely that such historical events will repeat themselves. The results presented by this stress test are hypothetical and may not reflect the actual growth of actual investments. Riskalyze and its affiliates are not responsible for the consequences of any decisions or actions taken in reliance upon or as a result of the information provided.

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**NOTE:** These calculations do not report what happened to this portfolio during the noted market environment. The "this portfolio's estimated performance" uses actual volatility and correlation statistics from Jan 1 2008 through present in conjunction with the noted rate of return (or loss) for the index shown to present an estimated performance should another environment like those presented occur again. For example, the "2013-Like Bull Market" scenario uses the portfolio's actual volatility (as measured by standard deviation) and correlation statistics (using a correlation matrix) from January 1st 2008 through present while assuming the same return realized by the S & P 500 index in 2013 of 32%.

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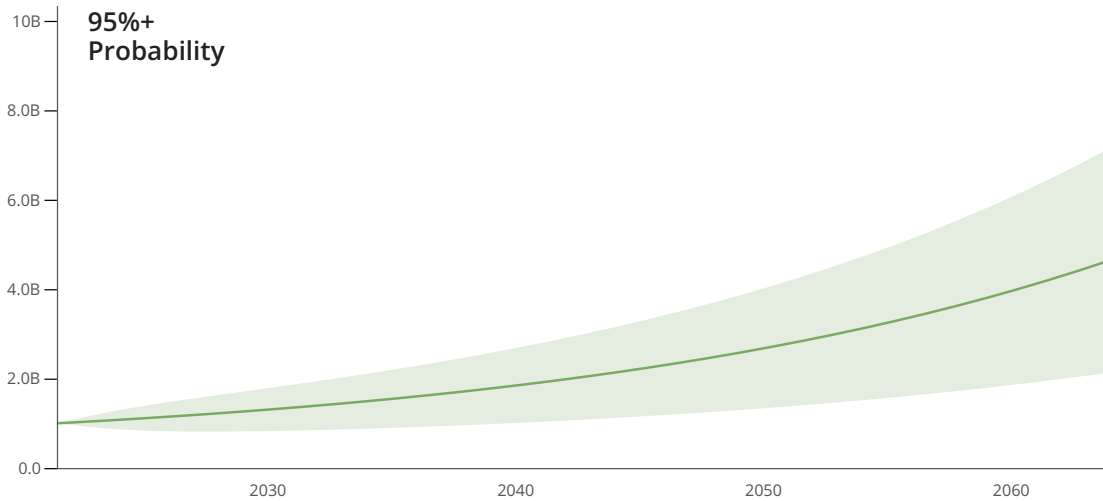
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# Retirement Map for CERS

July 11, 2021

INVESTMENT AMOUNT	MONTHLY SAVINGS	RETIREMENT YEAR	MONTHLY WITHDRAWAL	NEEDED BY RETIREMENT DATE
\$999,999,000	0	2021	\$1,136,458	\$413,519,800



**Assumptions**

Birth Year: 1956, Life Expectancy: 110, Inflation Rate: 2.3%, Annual Savings Increase: 0.0%

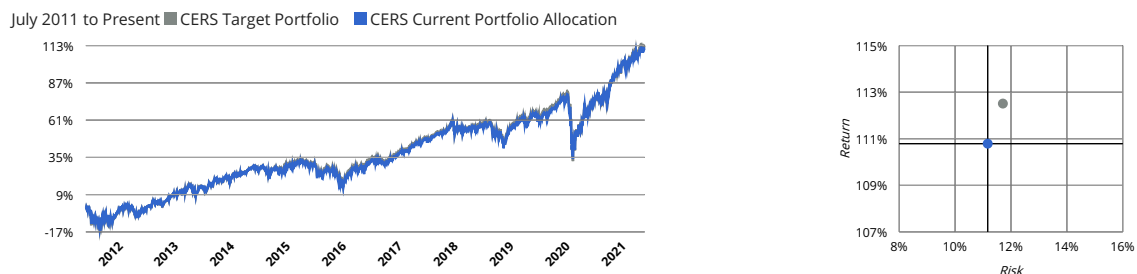
Investment Amount is the starting principal amount in today's dollars. Monthly Savings is the amount of assumed monthly savings from today until the retirement date selected. The Retirement Year (past or present) is the date at which the monthly savings stop and monthly withdrawals start. All inputs and calculations are pre-tax. Your Monthly Withdrawal should be the amount, in today's dollars, needed after retirement, less any other income sources not included in the above analysis. The results are presented in today's dollars and adjusted for inflation at the rate you select. The assumed annual return for your selected portfolio is 6.6% (which is 4.3% after inflation). This excludes any annuity base rider increase. The chart displays a range of possible investment returns based on a 95% probability analysis.

These calculations are designed to be informational and educational only and do not constitute investment advice. Investors should review their investment strategy periodically as financial circumstances change. This model is provided as a rough approximation of future financial performance. The results presented by this calculator are hypothetical and may not reflect the actual growth of your own investments. Riskalyze and its affiliates are not responsible for the consequences of any decisions or actions taken in reliance upon or as a result of the information provided.

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## Historical Performance



The underlying data is updated as of the previous day's market close price and the results may vary with each use and over time. The investments considered were determined by the financial representative. Performance quoted represents past performance and past performance does not guarantee future results. Performance shown is not indicative of future performance. These figures may exclude commissions, sales charges or advisory fees which, if included, would have had a negative effect on the annual returns.

The graphs plot the approximate market value of the security or portfolio over the investing horizon shown. This chart begins in July 2011, the most recent quarter following the inception date of F00000QBE5 - the youngest investment choice in this portfolio. It may also include the total investment assumed in the illustration and/or a benchmark. All dividends and capital gains are reinvested unless noted otherwise. Performance is depicted without adjusting for the effects of taxation. If adjusted for taxation, the performance quoted would be significantly reduced. Performance does not include initial sales charges but are adjusted to reflect ongoing fund expenses.

## Rebalancing Procedures

From time to time, market conditions will cause your portfolio's investments to vary from the original allocation that we established. To remain consistent with the overall guidelines established in this Investment Roadmap, each security in which the portfolio is invested may be reviewed at a regular interval, and rebalanced back to the normal weighting.

The financial representative will determine the review interval and the amount of variance allowed in an attempt to balance the goals of proper allocation vs. minimizing transaction costs and fees.

## Duties and Responsibilities

The financial representative is responsible to assist the investor in making an appropriate asset allocation decision based on the particular needs, objectives and risk tolerance of the investor. The financial representative will be available on a regular basis to meet with the investor and periodically review the portfolio for suitability based on information provided by the investor.

The investor is responsible to provide the financial representative with all relevant and accurate information on financial condition, net worth and risk tolerances, and must promptly notify the financial representative of any changes to this information.

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## ETFs and Mutual Funds Referenced in this Report

- We are providing certain data supplied to us by Morningstar and NASDAQ via data feeds without warranties or representations and on an "as is" basis. We hereby disclaim all representations and warranties (express or implied), including, but not limited to, warranties of merchantability and fitness for a particular purpose regarding the service. You shall bear all risk, related costs and liability and be responsible for your use of the service. We assume no responsibility for the consequences of any intentional or unintentional error, omission, inaccuracy, incompleteness or untimeliness in or with respect to the service
- Performance quoted represents past performance and past performance does not guarantee future results. Performance shown is not indicative of future performance.
- The investment return and principal value of an investment will fluctuate; that an investor's shares, when redeemed, may be worth more or less than their original cost; and that current performance may be lower or higher than the performance data quoted.
- ETF Performance is based on the market price defined as the last closing price for each time of the one-, five-, ten-year periods or life of the ETF if the ETF has not existed for at least 10 years.
- Investment Type definitions - ETF: Exchange Traded Fund; Fund: Mutual Fund

### AVERAGE ANNUAL TOTAL RETURN AS OF June 30, 2021\*\*

FUND	TYPE	MAX SALES LOAD	GROSS EXPENSE RATIO %	VALUE	1-YEAR %	5-YEAR %	10-YEAR %	RETURN SINCE INCEPTION %
ACWX - ISHARES MSCI ACWI EX US (INCEPTION DATE: 2008-03-26)	ETF	-	0.34	TOTAL RETURN	35.57	10.87	5.31	3.61
AGG - ISHARES CORE US AGGREGATE BOND (INCEPTION DATE: 2003-09-22)	ETF	-	0.05	TOTAL RETURN	-0.37	2.97	3.33	4.02
CPI - IQ REAL RETURN ETF (INCEPTION DATE: 2009-10-27)	ETF	-	0.70	TOTAL RETURN	1.86	1.49	1.40	1.29
IWV - ISHARES RUSSELL 3000 (INCEPTION DATE: 2000-05-22)	ETF	-	0.20	TOTAL RETURN	43.89	17.68	14.50	7.72
IYR - ISHARES US REAL ESTATE (INCEPTION DATE: 2000-06-12)	ETF	-	0.42	TOTAL RETURN	32.23	7.85	9.24	9.90
JNK - SPDR® BARCLAYS HIGH YIELD BOND ETF (INCEPTION DATE: 2007-11-28)	ETF	-	0.40	TOTAL RETURN	14.02	6.42	5.27	5.61
PSP - INVESCO GLOBAL LISTED PRIVATE EQUITY ETF (INCEPTION DATE: 2006-10-24)	ETF	-	1.59	TOTAL RETURN	57.61	16.60	10.60	2.93

The average annualized performance information presented is current to the most recent month ended seven business days prior to the date of use.

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## ETFs and Mutual Funds Referenced in this Report (cont'd)

### AVERAGE ANNUAL TOTAL RETURN AS OF MOST RECENT CALENDAR QUARTER END June 30, 2021 \*\*

FUND	TYPE	MAX SALES LOAD	GROSS EXPENSE RATIO %	VALUE	1-YEAR %	5-YEAR %	10-YEAR %	RETURN SINCE INCEPTION %
ACWX - ISHARES MSCI ACWI EX US (INCEPTION DATE: 2008-03-26)	ETF	-	0.34	TOTAL RETURN	35.57	10.87	5.31	3.61
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The average annualized performance information presented is current to the most recent calendar quarter shown.

\*\*Average Annual Total Return is calculated by finding the average annual compounded rates of return over the 1-, 5-, and 10-year periods that would equate the initial amount invested to the ending redeemable value, according to the following formula:  $P(1 + T)^n = ERV$  Where: P = a hypothetical initial payment of \$1,000. T = average annual total return. n = number of years. ERV = ending redeemable value of a hypothetical \$1,000 payment made at the beginning of the 1-, 5-, or 10-year periods at the end of the 1-, 5-, or 10-year periods.

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## Disclosure Statement

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**The performance data quoted represents past performance. Past performance does not guarantee future results. Investment return and principal value will fluctuate so that an investor's shares, when redeemed, may be worth more or less than their original cost. Current performance may be lower or higher than the performance information quoted. The performance quoted reflects the reinvestment of dividends and capital gains and is net of expenses.**

**Investors should consider the investment objectives, risks, charges and expenses of the investment company carefully before investing. The prospectus and, if available, the summary prospectus contain this and other important information about the investment company. Request a prospectus from the offering institution or your financial representative. Read carefully before investing.**

Investments in this report are subject to market risk, including the possible loss of principal. It should be assumed that investments listed in this report are not FDIC insured. The value of the portfolio will fluctuate with the value of the underlying securities. Investors should consider an investment's investment objective, risks, charges, and expenses carefully before investing. In the case of mutual funds and ETFs (Exchange Traded Funds) a prospectus is available which contains this and other important information and should be read carefully before investing. Diversification does not ensure a profit and may not protect against loss in declining markets.

In addition to the normal risks associated with investing, Investments in smaller companies typically exhibit higher volatility as do investments that do not have significant volume; international investments may involve risk of capital loss from unfavorable fluctuation in currency values, from differences in generally accepted accounting principles or from economic or political instability in other nations; emerging markets involve heightened risks related to the same factors, as well as increased volatility and lower trading volume; bonds and bond funds will decrease in value as interest rates rise and are subject to credit risk, which refers to the possibility that the debt issuers may not be able to make principal and interest payments or may have their debt downgraded by ratings agencies.

Alternative securities (e.g. partnerships, limited liability companies, real estate investment trusts, hedge funds, and managed futures which are not listed on national exchanges) are generally illiquid; no formal trading market exists for these securities; and their values will be different than the purchase price or values shown on this report. Therefore, the estimated values shown herein may not necessarily be realized upon sale of the securities. Prices shown should only be used as a general guide to portfolio value.

An investment in "money market" is not insured or guaranteed by the Federal Deposit Insurance Corporation or any other government agency. "Money market" funds seek to preserve the value of your investment at \$1.00 per share, but, it is possible to lose money by investing in "money market."

The investment analysis may include securities that are not publicly traded on national exchanges. Riskalyze reviews each alternative's track record, share price on the secondary market, fees, liquidity, and dividend history to assign each alternative's return and volatility statistics. In some cases secondary market prices can be sufficient to calculate volatility statistics. In most cases the return and volatility statistics must be calculated using a proprietary methodology that effectively penalizes fees and illiquidity while taking into account distributions (dividend) characteristics. Fees offset the expected return for the alternative. Return and volatility statistics are penalized for illiquidity. Alternatives with stable or increasing dividends show less volatility while alternatives with decreasing, unstable or discontinued distributions (due to failed strategy) show, relatively, higher volatility.

This portfolio may contain investments requiring the delivery of a prospectus. See fund prospectus for details.

Mutual funds may contain sales charges, expenses, management fees, and breakpoint discounts (quantity discounts); which vary from mutual fund to mutual fund. Therefore, you should discuss these issues with your financial representative and review each mutual fund's prospectus and statement of additional information to get the specific information regarding the charges and breakpoint discounts associated with a particular mutual fund. Please see the

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mutual fund prospectus and statement of additional information for details about sales charges, expenses, management fees, discount programs (rights of accumulation, letter of intent, breakpoint discounts, etc). A mutual fund's total expense ratio is shown as provided by a third party vendor and may or may not contain fee waivers or expense reimbursements that may be in effect for the fund. Please refer to the fee table in the fund's prospectus.

ETFs trade like a stock, and ETFs may trade for less than their net asset value. See prospectus for details.

For variable annuities, additional expenses will be taken into account, including M&E risk charges, fund-level expenses such as management fees and operating fees, contract-level administration fees, and charges such as surrender, contract, and sales charges.

The 6 month historical range is derived by illustrating a VaR with 1.644854 sigmas move in the underlying portfolio using the given data model. Standard Deviation is a historical measure of the variability of returns. If a portfolio has a high standard deviation, its returns have been volatile; a low standard deviation indicated returns have been less volatile. It is a mathematical probability; not a guarantee of future results. The cash balance shown may vary from actual cash available.

The cash value shown may represent certificates of deposit before early withdrawal penalties if so deemed by the financial representative. Portfolio value and position values are likely as of the day before the date listed on this report. Allocation percentages and/or dollar amounts may be rounded for presentation purposes.

Investing often generates tax consequences which are not incorporated in this report.

Prospectus Gross Expense Ratio reflects the annual percentage of a fund's assets paid out in expenses. Expenses include management, 12B-1, transfer agent and all other asset-based fees associated with the fund's daily operations and distribution, with the exception of brokerage commissions. It does not reflect expenses that have been reimbursed by the financial representative, reductions from brokerage service arrangements or other expense offset arrangements.

This report relies on mutual fund holdings reported by NASDAQ via a data feed. As a result, the above review is only as accurate as the data supplied by NASDAQ. In all cases there is a reporting delay.

This report is to be used for illustration and discussion purposes only. Please review the underlying assumptions carefully. Past performance is no guarantee of future results and principal values fluctuate with changing market conditions.

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SUMMARY RISK/REWARD HEATMAP STRESS TESTS SCENARIOS STATS

PROPOSAL ACTIONS

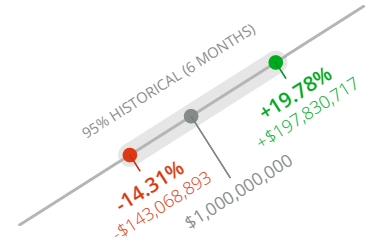
CERS Current Portfolio Allocation **SELECTED**

1 OF 1 ACCOUNTS MARKET ASSUMPTIONS



If a 2013 Bull Market were to happen again

SPDR® S&P 500 ETF JAN 1, 2013 – DEC 31, 2013	<b>74</b>	CERS Current Portfolio Allocation ESTIMATED PERFORMANCE	<b>67</b>
<b>+\$323.1 M</b> ▲ 32.3%		<b>+\$230.8 M</b> ▲ 23.1%	



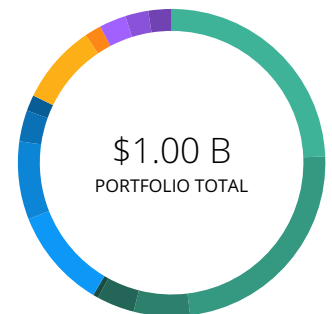
If a 2008 Bear Market were to happen again

SPDR® S&P 500 ETF JAN 1, 2008 – DEC 31, 2008	<b>74</b>	CERS Current Portfolio Allocation ESTIMATED PERFORMANCE	<b>67</b>
<b>-\$368.1 M</b> ▼ -36.8%		<b>-\$273.4 M</b> ▼ -27.3%	

Riskalyze GPA	<b>3.5</b>
Potential Annual Return	<b>5.48%</b>
Annual Dividend	<b>1.96%</b>
Expense Ratio	<b>0.33%</b>

If a Financial Crisis were to happen again

SPDR® S&P 500 ETF OCT 15, 2007 – MAR 2, 2009	<b>74</b>	CERS Current Portfolio Allocation ESTIMATED PERFORMANCE	<b>67</b>
<b>-\$531.2 M</b> ▼ -53.1%		<b>-\$398.2 M</b> ▼ -39.8%	



Stocks	<b>59%</b>
Bonds	<b>24%</b>
Cash	<b>8%</b>
Other	<b>10%</b>

If an Interest Rate Hike were to happen again

iShares Core US  
Aggregate Bond  
MAY 1, 2013 - SEP 5, 2013

**24**

**-\$51.0 M** ▼ -5.1%

CERS Current Portfolio  
Allocation  
ESTIMATED PERFORMANCE

**67**

**+\$27.0 M** ▲ 2.7%

If a 2020 COVID Market were to happen again ▶

SPDR® S&P 500 ETF  
FEB 1, 2020 - APR 1, 2020

**74**

**-\$230.2 M** ▼ -23.0%

CERS Current Portfolio  
Allocation  
ESTIMATED PERFORMANCE

**67**

**-\$174.4 M** ▼ -17.4%

If a 7 Year Historical Scenario were to happen again ▶

SPDR® S&P 500 ETF  
JAN 1, 2013 - JUL 1, 2020

**74**

**+\$1.5 B** ▲ 153.0%

CERS Current Portfolio  
Allocation  
ESTIMATED PERFORMANCE

**67**

**+\$1.2 B** ▲ 115.9%

If a 2020 Year of COVID were to happen again ▶

SPDR® S&P 500 ETF  
JAN 1, 2020 - DEC 1, 2020

**74**

**+\$153.9 M** ▲ 15.4%

CERS Current Portfolio  
Allocation  
ESTIMATED PERFORMANCE

**67**

**+\$118.5 M** ▲ 11.8%

SUMMARY RISK/REWARD HEATMAP STRESS TESTS SCENARIOS STATS

PORTFOLIO ACTIONS

CERS Target Portfolio

1 OF 1 ACCOUNTS MARKET ASSUMPTIONS



If a 2013 Bull Market were to happen again

SPDR® S&P 500 ETF  
JAN 1, 2013 - DEC 31, 2013

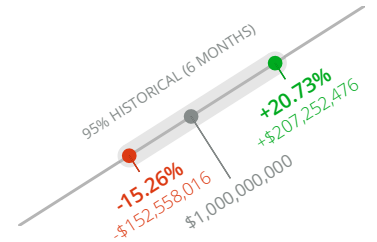
74

+\$323.1 M ▲ 32.3%

CERS Target Portfolio  
ESTIMATED PERFORMANCE

71

+\$245.0 M ▲ 24.5%



If a 2008 Bear Market were to happen again

SPDR® S&P 500 ETF  
JAN 1, 2008 - DEC 31, 2008

74

-\$368.1 M ▼ -36.8%

CERS Target Portfolio  
ESTIMATED PERFORMANCE

71

-\$292.0 M ▼ -29.2%

Riskalyze GPA	3.5
Potential Annual Return	5.47%
Annual Dividend	2.08%
Expense Ratio	0.39%

If a Financial Crisis were to happen again

SPDR® S&P 500 ETF  
OCT 15, 2007 - MAR 2, 2009

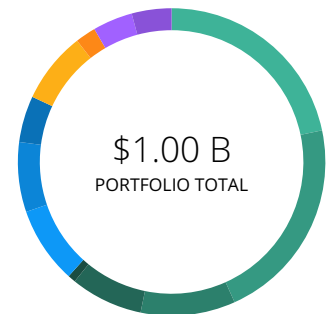
74

-\$531.2 M ▼ -53.1%

CERS Target Portfolio  
ESTIMATED PERFORMANCE

71

-\$423.4 M ▼ -42.3%



Stocks	62%
Bonds	20%
Cash	8%
Other	10%

If an Interest Rate Hike were to happen again

iShares Core US  
Aggregate Bond  
MAY 1, 2013 - SEP 5, 2013

**24**

CERS Target Portfolio  
ESTIMATED PERFORMANCE

**71**

-\$51.0 M ▼ -5.1%

+\$30.3 M ▲ 3.0%

If a 2020 COVID Market were to happen again ▶

SPDR® S&P 500 ETF  
FEB 1, 2020 - APR 1, 2020

**74**

CERS Target Portfolio  
ESTIMATED PERFORMANCE

**71**

-\$230.2 M ▼ -23.0%

-\$186.1 M ▼ -18.6%

If a 7 Year Historical Scenario were to happen again ▶

SPDR® S&P 500 ETF  
JAN 1, 2013 - JUL 1, 2020

**74**

CERS Target Portfolio  
ESTIMATED PERFORMANCE

**71**

+\$1.5 B ▲ 153.0%

+\$1.2 B ▲ 121.8%

If a 2020 Year of COVID were to happen again ▶

SPDR® S&P 500 ETF  
JAN 1, 2020 - DEC 1, 2020

**74**

CERS Target Portfolio  
ESTIMATED PERFORMANCE

**71**

+\$153.9 M ▲ 15.4%

+\$122.1 M ▲ 12.2%



**KENTUCKY COUNTY EMPLOYEES RETIREMENT SYSTEMS**

**INVESTMENT PROCUREMENT POLICY**

[Adopted: ~~September 14, 2017~~XXXXX, 2021]

**INTRODUCTION**

Kentucky law mandates that the [Kentucky County Employees Retirement Systems \(KRS\)](#) of the State of Kentucky, through the Board of Trustees, develop and adopt an investment procurement policy ([KRS ~~61-660~~78.790\(6\)](#)). The policy must be designed, in consultation with the Secretary of the Finance and Administration Cabinet, to follow best practices for investment procurement. This policy functions in concert with other statutes, administrative regulations and guidelines detailing fiduciary and ethical requirements and parameters for investing trust funds. The law shall control if any inconsistency exists between it and this policy.

The procurement procedures in this policy will be implemented consistent with the board's fiduciary duty established by law to procure the managers, goods and services needed to support the investment or management of [KRSCERS](#) assets. The [CERS b](#)Board has delegated investment authority to its Investment Committee, consistent with investment policies adopted by the [B](#)board.

The [B](#)board also has designated a portion of [KRSCERS's](#) funds to be managed externally, including by investment managers specializing in mandates such as equities, bonds, other publicly traded securities, alternative investments, real estate, timberland and/or any other asset type authorized by Kentucky law. Additionally, the [B](#)board is responsible for the procurement of investment analytical, professional, research and technical services to carry out the investment or management of [KRSCERS](#) assets.

Investment procurements will promote the highest level of competition and best value, giving due consideration to factors including, but not limited to, timing (including emergencies), execution, quality, service and price. Whenever [KRSCERS](#) is considering an investment procurement, [KPPA](#) staff - rather than members of the [KRSCERS B](#)board and Investment Committee - will communicate directly with the principals of the potential vendor to ensure transparency, accountability and compliance with laws and board policies, including those banning payment of fees or commissions to placement agents.

**1. Definitions.**

[KPPA: Kentucky Public Pensions Authority](#)

Alternative investments (alternatives): investments with general partners or managers in assets such as timberland, private equity and infrastructure that are long-term and illiquid in nature.

Best and final price: request to submit their last and most competitive pricing to secure a contract.

Co-investment opportunities: an opportunity to invest in a company or property outside of an existing limited partnership. Co-investment opportunities arise when the general partner wants to make an investment for the partnership, but the total value of that investment is larger than the

partnership can hold. Co-investments generally have much more favorable economics than the investment in the partnership, and are usually only offered to limited partners who have expressed a desire to be shown these opportunities.

Evaluation factors/screening criteria: evaluation criteria that represent the key areas of importance in making a final determination, which shall always include cost/price, as well as other considerations weighted by importance.

External investment manager: a vendor selected by an authorized competitive selection process and that is approved by the [CERS](#) Investment Committee, subject to ratification by the board, to invest [KRS](#)[CERS](#) funds in a manner specified by contract.

Final candidate pool: that subset of vendor(s) from which the final vendor is chosen to provide services to [Kentucky County Employees](#) Retirement Systems under this Investment Procurement Policy.

Highest level of competition and best value: seeking vendors that provide the best performance at the lowest cost (economic efficiency) giving due consideration to factors including, but not limited to, performance improvements (faster, more suitable), timing (including emergencies), execution, quality, trust, reputation, service and price.

Independent: not having conflicts of interest.

CERS Investment consultant: an external firm or individual retained to advise the [CERS](#) Board and the [CERS](#) Investment Committee and assist investment staff in a variety of ways, including as outlined in this policy.

Minimum qualifications: establishes the lowest threshold metric for determining whether a vendor is qualified to reasonably perform the necessary work.

Specialty investment consultant: an external firm or individual retained to advise the board and Investment Committee and assist investment staff in a variety of ways, including recommending general partners or managers for alternative investments.

Investment procurement: all contracts for the investment or management of assets of [KRS](#)[CERS](#) undertaken subject to fiduciary duty and other legal and ethical standards in accordance with KRS 61.650(6).

Performance attribution: quantifies the relationship between a portfolio's returns and the active decisions of the portfolio manager.

Placement agents: a third party or firm banned by KRS 61.645(21) and board policies from receiving fees or commissions incident to an investment by [KRS](#)[CERS](#).

Qualitative analysis: a review of a potential vendor that uses unquantifiable information, such as the impact of vendor management expertise, processes and ownership structure on an investment.

Quantitative analysis: economic, business or financial reviews that aim to understand or predict behavior or events through the use of mathematical measurements and calculations, statistical modeling and research.

Quiet Period: a specified timeframe when board members and staff are restricted in communications with potential vendors in designated procurements.

Request For Information (RFI): a document sent to vendors to request specific information or clarification on a service or product.

Request For Proposals (RFP): a document soliciting proposals for a procurement based on the terms listed in the offering document.

Request For Quotations (RFQ): an invitation to suppliers to bid on providing specific products or services.

## **2. External Manager Selection.**

External investment managers are to be chosen through a competitive selection process coordinated by [KRSKPPA](#) investment staff and based upon established criteria. The selection process, which typically involves the assistance of [KRSCERS](#)'s independent investment consultant, results in a recommendation of a manager. The recommendation will be made to the [KRSKPPA](#) Investment Committee for its review and approval, with ratification by the board no later than at its next quarterly meeting.

[KRSKPPA](#) normally will use an open search process when conducting a manager search. [KRSKPPA](#) will identify a list of suitable candidates that are appropriate for the mandate. The list of suitable candidates will be developed by [KRSKPPA](#) staff and/or the independent investment consultant using a broad-based list of potential managers that meet the screening criteria provided by [KRSCERS](#).

[KRSCERS](#) also may use a request process such as an RFP, RFI or RFQ when conducting a manager search. The request may be sent directly to known vendors, will be listed on the [KRSKPPA](#) website and may be advertised through other means such as financial media. Any advertisement will state clearly the mandate for which [KRSCERS](#) is seeking a manager. The advertisement also will state certain minimum requirements that a manager must meet.

A written report documenting the particulars of the search process will be given to the [CERS](#) Investment Committee with the recommendation of a manager. The report will include matters such as the screening criteria, the number of managers considered, the number of managers interviewed, the number of firms in the final candidate pool, the names of the firms in the final candidate pool, any prior [KRSCERS \(or Kentucky Retirement System\)](#) history with the manager, references checked and summaries of other qualitative and quantitative analyses.

### A. Determination of Screening Criteria

Screening criteria may include, but are not limited to: investment processes; investment fee schedule; investment products; dollar value and composition of assets under management; historical performance; years of experience; growth of firm; a manager's history with [KRS CERS \(or Kentucky Retirement Systems\)](#); other client relationships (including experience with large public funds); ownership; the number and depth of investment professionals; research capabilities; structure of the proposed investment (separate account, commingled account, limited partnership, etc.); compliance with standard contractual provisions; compliance with the Chartered Financial Analyst (CFA) Institute Code of Ethics; compliance with Global Investment Performance Standards as administered by the CFA Institute; and reporting consistent with the Institutional Limited Partners Association standards. Other criteria may be added for any search.

B. Preliminary Screening

- 1) [KRSKPPA](#) staff and/or the [CERS](#) investment consultant identify a preliminary list of firms that meet the initial set of screening criteria.
- 2) [KRSKPPA](#) staff and/or the [CERS](#) investment consultant contact each firm on the preliminary list to determine if they are accepting new business and to obtain the most current information and any additional information, as required. Follow-up telephone calls, interviews or on- site visits are made as necessary.
- 3) Based upon the established criteria, [KPPA](#) staff and/or the [CERS](#) investment consultant narrows the preliminary list to a candidate pool.

C. Candidate Pool

- 1) [KRSKPPA](#) staff and/or the [CERS](#) investment consultant conduct a more in-depth interview with each candidate. The interviews may be in person or telephonic which allows for the interaction with and evaluation of the person or persons who will be investing on behalf of [KRS CERS](#). Interview topics may include:
  - a) Investment process;
  - b) Any action or investigation concerning a candidate by a regulatory or civil or criminal enforcement agency;
  - c) Any SEC forms, other similar agency reports or prospectuses;
  - d) Qualifications of the firm's representatives, including the portfolio management team;
  - e) A list of institutional references;
  - f) Communication with the firm;
  - g) Employee compensation and ownership structure;
  - h) Availability of the contact person and portfolio manager to meet with [KRSKPPA](#) staff and responsiveness to board and staff concerns;
  - i) Validation of performance and the continued management by key individuals who will be responsible for fulfilling assignment;
  - j) Accommodation of [KRS CERS](#)'s priorities;
  - k) Experience with large public funds;

- l) Fee discussions;
  - m) Conflicts of interest, including the appearance of conflicts of interest. Potential or actual conflicts of interest must be evaluated during due diligence and after engagement under the board's Conflict of Interest and Confidentiality Policy and applicable statutes and regulations. The [KPPA](#) investment staff will employ reasonable efforts to identify conflicts of interest affecting [KRS CERS](#) trustees, employees and managers with respect to all investments.
  - n) Placement agents. [KPPA](#) Staff will employ reasonable due diligence to ensure that no fees or commissions are paid to a third party or firm banned, either by KRS ~~61.645(24)78.782(20)~~ or board policies, from receiving fees or commissions incident to an investment by [KRS CERS](#).
- 2) Quantitative analyses also are conducted in addition to the qualitative analyses above. This analysis will include performance attribution and risk management.
- 3) Additional due diligence factors may be necessary in selecting general partners or managers for alternatives (such as timberland, private equity and infrastructure) because of the long-term and illiquid nature of these types of investments. The additional factors include particular considerations such as risk management; diversification; and legal and business matters.
- a) [KRS CERS](#) may engage independent specialized consultants to assist in the selection of these managers.
  - b) [KRS KPPA](#) staff and/or consultants will narrow potential funds to seek best-in-class managers.
  - c) Any new fund offering by an existing manager (also known as a reup) will be evaluated consistent with the process described above (understanding that some of the materials and knowledge for conducting due diligence already may have been obtained based on the prior investment with the manager).
- 4) [KRS KPPA](#) staff and - if involved in the process - the [CERS](#) investment consultant (or, in the case of alternative investments, any [CERS](#)-engaged specialty investment consultant), will reach a consensus regarding a manager for the final written recommendation to the [CERS](#) Investment Committee. Any approval by the [CERS](#) Investment Committee is subject to the review by and ratification of the [CERS](#) ~~B~~board, the completion of due diligence and the negotiation and execution of a contract.
- a) It is critical that the terms of the contract accurately reflect the terms and conditions of the authorization. The process may involve highly specialized contract provisions, including investment guidelines, and result in protracted negotiations. [CERS](#) Staff may retain outside counsel to assist in the contract process.
  - b) The investment manager must certify that no fees or commissions are paid to a third party or firm banned, either by KRS ~~61.64578.782(20)(24)~~ or board policies, from receiving fees or commissions incident to an investment by [KRS CERS](#).
- D. An approval of a manager by the [CERS](#) Investment Committee is reported to the [CERS](#) ~~B~~board no later than at its next quarterly meeting for review and ratification.

**3. Co-Investment Opportunities.**

Co-Investment opportunities occurring from general partners, funds, or other investment managers already contained in the [KRSCERS](#) portfolio and previously approved by the [KRSCERS](#) Investment Committee and [CERS Board](#) may be authorized by [Kentucky Retirement Systems/KPPA](#) Executive Director Office of Investments in amounts up to 1% of the plan assets, considering the following:

- 1) The co-investments may be made alongside an existing [KRSCERS](#) General Partner, provided that the strategy and objective of the partnership investing in the transaction are consistent with those of the partnership in which [KRSCERS](#) has an existing commitment.
- 2) Co-investments shall be made on the same (or better) terms and conditions as provided to the partnership;

**Commented [KR51]:** 1% of the Total CERS plan assets or 1% of this partnership agreement. Does CERS need any additional notice from KPPA CIO? Approval??

**4. External Investment Consultant Selection.**

External investment consultants are to be chosen through a competitive selection process coordinated by [KRKPPA](#) investment staff and based upon established criteria. The selection process results in a recommendation of a consultant to the [KRSCERS](#) Investment Committee for its review and approval, with ratification by the board no later than at its next quarterly meeting.

[KRSCERS](#) normally will use an open search process when conducting a consultant search. A list of suitable candidates will be developed by [KRKPPA](#) staff using a broad-based list of potential consultants that meet the screening criteria provided by [KRSCERS](#).

[KRSCERS](#) also may use a request process such as a request for proposal (RFP), request for information (RFI) or request for quotation (RFQ) when conducting a consultant search. The request may be sent directly to known vendors, will be listed on the [KRKPPA](#) website and may be advertised through other means such as financial media. Any advertisement will state clearly the mandate for which [KRSCERS](#) is seeking a consultant. The advertisement also will state certain minimum requirements that a consultant must meet.

A written report documenting the particulars of the search process will be given to the [CERS](#) Investment Committee with the recommendation of a consultant. The report will include matters such as the firm name, screening criteria, the number of consultants considered, the number of consultants interviewed, the number of firms in the final candidate pool and their names, any prior [KRSCERS \(or Kentucky Retirement System\)](#) history with the consultant, references checked and summaries of other qualitative and quantitative analyses.

A. Determination of Screening Criteria.

Screening criteria for an External Investment Consultant may include, but are not limited to: depth, breadth and experience in consulting similar plans, organizational strength, firm stability, key personnel, financial condition, industry reputation, client list, soundness and compatibility of investment philosophy and approach, breadth and capability of technological resources, research platform, risk reporting, fee proposal, size of public institutional, tax-exempt client AUM; size of pension fund client assets; consultant's history with [KRSCERS](#); other client relationships (including experience with large public funds); ownership; the number and depth of investment professionals; research capabilities; compliance with standard contractual provisions; compliance with the Chartered Financial Analyst (CFA) Institute Code of Ethics; compliance with Global Investment Performance

Standards as administered by the CFA Institute; and reporting consistent with the Institutional Limited Partners Association standards. Other criteria may be added for any search.

B. Preliminary Screening.

- 1) [KRSKPPA](#) staff will identify a preliminary list of firms that meet the initial set of screening criteria.
- 2) [KRSKPPA](#) staff will contact each firm on the preliminary list to determine if they are accepting new business, would be interested in being a candidate, and to obtain the most current information and any additional information, as required. Follow-up telephone calls, interviews, or on-site visits are made as necessary.
- 3) Based upon the established criteria, [KRSKPPA](#) staff narrows the preliminary list to a candidate pool.

C. Analysis.

- 1) [KRSKPPA](#) staff will conduct a qualitative and quantitative analysis utilizing criteria developed by [KRSKPPA](#) staff identified to meet the External Investment Consultant needs of the Agency.
- 2) [KRSKPPA](#) staff will utilize, as necessary, additional diligence factors for consideration in selecting an External Investment Consultant. [KRSKPPA](#) staff may conduct interviews, in- person or telephonic, which allows for the interaction with and evaluation of the person or persons who will be providing consulting services. References will be checked.
- 3) It is critical that the terms of the contract accurately reflect the terms and conditions of the authorization. The process may involve highly specialized contract provisions, including investment guidelines, and result in protracted negotiations. Staff may retain outside counsel to assist in the contract process.
- 4) [KRSKPPA](#) staff will reach a consensus regarding an External Investment Consultant to be provided as a final written recommendation to the Investment Committee. Any approval by the Investment Committee is subject to the review and ratification of the board, the completion of due diligence and the negotiation and execution of a contract. An approval of an External Investment Consultant by the Investment Committee is reported to the [CERS Board](#) no later than at its next quarterly meeting for review and ratification.

**5. Procurement of investment analytical, professional, research and technical services.**

[KRS CERS](#) will procure investment-related goods and services through one of the methods below. Nothing in this section shall apply to the procurement of ordinary goods and services that are common to other [KRSKPPA](#) administrative functions.

- A. Procurement of goods and services costing **less than \$5,000** during a fiscal year will be determined by [KRSKPPA](#) staff based upon best value comparing known vendors. In comparing vendors, staff will promote the highest level of competition.
- B. Procurement of goods and services costing **from \$5,000 to \$24,999** during a fiscal year will be determined by any one of the Executive Director of Kentucky Retirement Systems, Executive Director Office of Operations, Executive Director Office of Investments, or any [KRS CERS](#) employee designated to act in their stead, based upon best value comparing

at least three (3) known vendors, whose price quotations may be obtained by telephone, catalog, or internet.

- C. Procurement of goods and services **equal to or greater than \$25,000** in cost during a fiscal year will be determined solely by the Executive Director of Kentucky Retirement Systems, or any [KRS/CERS](#) employee designated to act in his/her stead, based upon best value comparing at least three (3) known vendors, whose price quotations must be obtained in written form on the vendor's letterhead. The price quotations received and comments by [KRS/CERS](#) concerning the basis for placing the order shall be recorded in writing and shall be placed in a file to be maintained by [KRS/CERS](#). These records are retained by [KRS/CERS](#) for record, audit, and review.
- D. [KRS/CERS](#) may utilize a price contract established by the Commonwealth of Kentucky, the U.S. General Services Administration or U.S. Communities (a national government purchasing cooperative) so long as the vendor sells to [KRS/CERS](#) at or below the contract price and under the same terms and conditions.
- E. [KRS/CERS](#) may publish a request for proposal (RFP), request for information (RFI) and/or request for quotation (RFQ) for goods or services. The request may be sent directly to known vendors; will be listed on the [KRS-KPPA](#) website; and may be advertised through other means, such as financial media, as appropriate to promote the highest level of competition. The request will describe the goods or services required, the type of information and data required of each vendor, the relative importance of qualifications and the evaluation factors to be used. After determining the best value of proposals received, [KRS/CERS](#) may negotiate a contract for goods or services with a vendor. If contract terms cannot be agreed upon with the highest-ranking vendor, negotiations may be conducted with other vendor(s) in the order of ranking as defined by the request. The evaluation of best value will be documented by [KRS/CERS](#). The documentation will include specifics of the process used in selecting the vendor. Those specifics may include: price, the number of vendors considered, the number of vendors interviewed, any prior [KRS/CERS \(or Kentucky Retirement System\)](#) history with the vendor, references checked and summaries of other qualitative and quantitative analyses.
- F. Exceptions to using the methods of procurement above include, but are not limited to: goods and services available only from one or two uniquely qualified sources; advertisements and public notices; and copyrighted computer software. The reason for the exception will be documented by the executive secretary or a deputy executive secretary.

#### **6. Contract Renewal.**

As applicable, contract renewals, whether they be annual or longer-term agreements, use criteria such as continued need of vendor and/or asset class; level of trust; continuity of ownership, leadership and process; long-term performance; and competitiveness of fees. [KRS/KPPA](#) staff will submit a formal recommendation regarding the renewal of a contract to the Investment Committee for approval. The submission to the committee will include a description of the process used in making the recommendation to renew the contract. Any approval by the Investment Committee is subject to the review by and ratification of the board, the completion of due diligence and the negotiation and execution of a contract.

#### **7. Emergency Procurement.**

The existence of an emergency may cause an immediate need for managers, goods and/or services that cannot be procured through [KRS/CERS](#)'s normal investment procurement



procedures. The determination that an emergency exists is to be made by, and procurement actions approved by, any two of the Executive Director, the Deputy Executive Director, or the Chief Investment Officer. Thereafter, no later than at the next quarterly meetings of the board and Investment Committee, the emergency and procurement actions incident to the emergency will be reported.

**8. Quiet Period.**

To ensure a competitive and fair procurement, [KRSKPPA](#) staff, the [CERS Board](#) and [CERS Investment Committee](#) members will follow a quiet period with potential vendors during specified timeframes. A quiet period is a specified timeframe when staff, the board and committee members are restricted in communications with potential vendors in designated procurements. Staff assigned to the procurement are not covered by the quiet period and will notify the board, committee and other staff upon initiation of a quiet period and a description of the types of vendors to whom it applies. During quiet periods, covered staff, the board and committee members will not communicate with potential vendors or with an existing vendor on matters pertaining to the procurement, except during board or committee meetings.

A quiet period will cease when the approval of a vendor has been ratified by the [CERS Board](#), or if the search process or quiet period are otherwise ended.

**9. Other Laws and Policies that Comprise [KRSCERS](#) Investment Procurement Policy.**

This policy is to be implemented in conjunction and accordance with the laws and other policies that, cumulatively, establish the comprehensive [KRSCERS](#) Investment Procurement Policy under which all [KRSCERS](#) investment procurements are made. These laws and other policies are as follows, but are not limited to:

- A. Executive Branch Code of Ethics (KRS Chapter 11A);
- B. Board as fiduciary (KRS ~~61.650~~, 78.790(1)(c), 16.642);
- C. Pension Fund investment requirements (KRS ~~61.650~~78.790);
- D. [KRSCERS](#) conflict of interest prohibitions (KRS 61.655);
- E. [KRSCERS](#) confidentiality requirement (KRS ~~61.661~~78.790(4));
- F. Insurance Fund investment requirements (KRS 61.701 and 105 KAR 1:410); and
- G. [Kentucky County Employees](#) Retirement Systems Board of Trustees Election Policy and Procedure, Statement of Bylaws and Committee Organization, Trustees Education Program, Conflict of Interest and Confidentiality Policy, Policy and Procedures Regarding Open Records Request, CFA Code of Ethics and Standards of Professional Conduct, CFA Asset Manager Code of Professional Conduct, and CFA Code of Conduct for Members of a Pension Scheme Governing Body.

\* \* \* \* \*

**CERTIFICATION OF ADOPTION BY BOARD OF TRUSTEES**

This is to certify that this Kentucky Retirement Systems Investment Procurement Policy was approved and adopted by the Board of Trustees of the Kentucky Retirement Systems on the 14<sup>th</sup> day of September, 2017.

\_\_\_\_\_  
Betty A. Pendergrass, Chair  
CERS Board of Trustees

Date: \_\_\_\_\_

\_\_\_\_\_  
CERS Chief Executive Officer

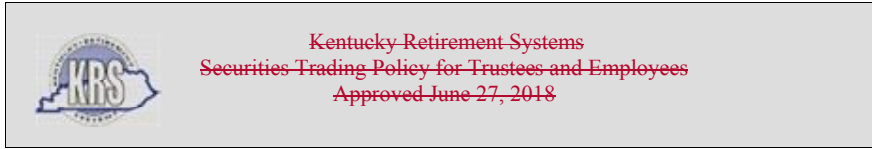
Date: \_\_\_\_\_

**CERTIFICATION OF FINANCE AND ADMINISTRATION CABINET**

This certifies that the Investment Procurement Policy of the Kentucky Retirement Systems of the Commonwealth of Kentucky, attached hereto, meets best practices for investment management procurement as specified KRS 61.650(6).

\_\_\_\_\_  
Holly M. Johnson  
Secretary of the Finance and Administration Cabinet  
Commonwealth of Kentucky

Date: \_\_\_\_\_



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The KentuckyCounty Employees' Retirement Systems (KRSCERS) is charged with the administration of pension and group health insurance funds held in trust for active, inactive and retired KRSCERS members and their beneficiaries. Accordingly, its Trustees and Employees have fiduciary duties commonly associated with pension and other trusts. The principal purpose of the Securities Trading Policy (Policy) is to prevent an intentional or inadvertent violation of Federal securities laws as well as Kentucky's fiduciary and ethics standards. Further, this policy serves to act as an ethical guideline to ensure that KRSCERS' Trustees and Employees conduct themselves in a manner that fosters public confidence. Since KRSCERS is described by statute as a state agency, KRSCERS Trustees and Employees have special responsibilities for honesty and integrity applicable to public servants. This Policy acknowledges certain standards of conduct expected of CERS Trustees and Employees in view of these responsibilities.

Commented [KRS1]: In this context, "employee" should include the CERS CEO and General Counsel. The GC will be a contractor, not an employee, so these references and the definition in Section A(3) should address that inclusion.

Although many of the provisions of this Policy are based upon legal and fiduciary concepts, this Policy should not be interpreted as an exclusive and complete statement of legal and fiduciary responsibilities. The primary source of laws governing the legal and fiduciary conduct of Trustees and Employees are set forth in Kentucky Revised Statutes Chapter 11A, et seq., and Kentucky Revised Statutes ~~61.645~~78.782 and 78.790. This Policy does not limit or expand the scope of those laws.

This Policy is intended to provide specific requirements to CERS Trustees and Employees regarding personal securities trading for KRSCERS accounts and compliance with legal and fiduciary responsibilities as governed by the Commonwealth of Kentucky and KRSCERS Board of Trustees. Personal securities trading and transactions in accordance with this policy should create a presumption of compliance with legal and fiduciary responsibilities by CERS Trustees and Employees. Willful disregard of this Policy could result in disciplinary actions which include formal reprimands, adverse performance reviews, disgorgement of profits, removal from office, or termination of employment.

**A. Definitions**

In this Policy, the following definitions apply unless the context requires otherwise:

1. "KRSCERS" means the KentuckyCounty Employees' Retirement Systems.

2. "Board" means the Board of Trustees of KRSCERS.
3. "Employee" means a person working for KRSCERS in an employer/employee relationship.
4. "Trustee" means a member of the Board of KRSCERS.
- ~~4-5~~ "KPPA" means the Kentucky Public Pensions Authority
- ~~5-6~~ "Covered Persons" are defined as KRSCERS employees and Trustees with access to material, non-public information about proposed trading, trading strategies, or holdings and the other investment funds held by KRSCERS. This includes individuals involved in recommending or making investment decisions or who have access to systems containing investment information. It also includes those working with or in close proximity to persons involved in decision making who regularly have the opportunity to see written information or hear discussions relating to investments. The following KRSCERS employees are, by virtue of their positions, conclusively presumed to be Covered Persons: KPPA Executive Director, Executive Director of Operations, KPPA Executive Director Office of Investments, KPPA Executive Director Office of Legal Services, KPPA Executive Director Office of Benefits, CERS General Counsel, KPPA Assistant General Counsel, all KPPA Investment Division staff, all KPPA Accounting Division staff, all KPPA Internal Audit Division staff, select KPPA Division Directors, and select positions within the KPPA Information Technology Division.
- ~~6-7~~ "Personal securities transactions" means a discretionary transaction involving the purchase or sale of a security in which a person, or any member of such person's immediate family, had or gained directly or indirectly a financial interest and in which the person or any member of such person's immediate family had influence or control, directly or indirectly, over the timing of the trade of the security or derivative on a security.
- ~~7-8~~ "Family" means the CERS Trustee's or CERS Employee's spouse, their children under the age of 18, adult children financially dependent upon them or living in the same household and any other person(s) living in their household. This policy also applies to any relative of a CERS Trustee or CERS Employee, even if not living in their household, over whose investments the CERS Trustee or CERS Employee has discretionary authority.
- ~~8-9~~ "Federal Securities Laws" shall mean the Securities Act of 1933, the Securities Exchange Act of 1934, the Investment Company Act of 1940, the Investment Advisers Act of 1940, Title V of the Gramm-Leach-Bliley Act, the Sarbanes-Oxley Act of 2002 Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010, Jumpstart Our Business Startups Act of 2012 along with any rules adopted by the U.S. Securities and Exchange Commission ("SEC") and any rules adopted by the U.S. Department of the Treasury including sanction programs enforced by the Office of Foreign Assets Control (OFAC).
- ~~9-10~~ "Policy" means this Securities Trading Policy.
- ~~10-11~~ "Knowingly" means to do so with knowledge or awareness of the facts or situation, and not because of mistake, accident or some other innocent reason. An individual acts "knowingly" when he or she acts with awareness of the nature of his conduct and of probable consequences.

Commented [KRS2]: Does CERS Board have the authority to include KPPA staff in this definition of "covered persons" or should there be a reference to a KPPA policy that imposes these restrictions on KPPA staff?

## B. General Ethical Standards

All KRSCERS Trustees and Employees must comply with all applicable state and federal laws and ethical principles. They should specifically be aware of the following statutes and rules: KRS 11A, et seq., KRS ~~61-645~~78.782 and 78.790, 15 U.S.C. 78j, Section 10 of the Securities Exchange

Act of 1934 (including rules 10b-5, 10b5-1, 10b5-2), ~~and~~ the Kentucky [Public Pensions Authority Retirement Systems](#) Personnel Policies, and [the CERS Investment Policies](#). The omission of any applicable statute from this list does not excuse violation of its provisions.

Federal securities laws also prohibit persons, including [KRSCERS](#) Trustees and Employees, from trading securities or commodities using any manipulative or deceptive device or scheme to defraud. This includes misstating or omitting any material fact. Moreover, trading securities or commodities on the basis of material non-public information is prohibited. This prohibition covers both “insiders” (persons who acquire material, non-public information in the context of their employment or a relationship of trust such as a fiduciary relationship) and “Tippees” (persons who misappropriate material, non-public information obtained from an insider). This Policy is designed to prevent [KRSCERS](#) Trustees and [CERS](#) Employees from misusing material, non-public information in a manner that might violate Federal securities laws or from otherwise engaging in inappropriate securities transactions such as front-running in [KRSCERS](#) accounts as well as their personal and family accounts.

Accordingly, all [KRSCERS](#) Trustees or [CERS](#) Employees are prohibited from trading on material, inside and non-public information whether obtained in the course of their [KRSCERS](#) duties or otherwise. Material, inside information is non-public information that a reasonable investor is likely to consider important in determining whether to purchase or sell a security. It is also information that, if made public, would likely affect the market price of a security. Information may be considered material even if it relates to future, speculative or contingent events and even if it is significant only when considered in combination with publically available information. Information is considered non-public unless it has been publically disclosed and adequate time has passed for securities markets to digest the information. Any instances or questions regarding possible inside information must be immediately brought to the attention of the Compliance Officer.

Federal laws also prohibit [KRSCERS](#) Trustees, [CERS](#) Employees or [CERS](#) Investment Managers from transacting securities issued in countries subject to economic sanctions by the U. S. Department of Treasury OFAC. Additionally, [KRSCERS](#) Trustees, [CERS](#) Employees and [CERS](#) Investment Managers should not conduct business or invest with individuals or entities connected with sanction targets or Specially Designated Nationals (SDNs).

### C. Personal Securities Transactions

#### Prohibited Transactions

All [KRSCERS](#) Trustees or [CERS](#) Employees are prohibited from engaging in the following personal securities transactions:

1. **Knowingly** conducting any securities transaction in any instrument [KRSCERS](#) is actively trading until three (3) trading days after the buy/sell orders have been completed or canceled.
2. Purchasing stock in any Initial Public Offering (IPO) in order to prevent quid pro quo activity or conflicts of interest. Employees may accept IPO shares derived from a stock dividend on shares previously owned, from demutualization of an insurance company in

which they are a policy holder or as the result of a Family member's employment by an IPO issuer.

3. Front-running, which is defined as buying or selling a security in advance of the time such a transaction would be blocked by the pre-clearance procedure. Trustees and Employees who have actual knowledge of transactions that are being considered for implementation in **KRSCERS** portfolios, even in securities exempted by this policy, are prohibited from acting in advance thereof even if such purchase or sale would not otherwise be barred by the pre-clearance procedure below.

**Covered Accounts, Securities and Assets**

Personal securities transactions covered by this policy include transactions in:

- Individual equity or equity-related instruments, including but not limited to stocks, convertibles, preferred stock, options and futures on individual stocks, warrants, rights, etc., for domestic and foreign securities, whether publicly traded or privately placed.
- Individual bonds, options and financial futures on individual bonds.
- Investments in real estate involving more than one individual or entity with a fiduciary duty to **KRSCERS**, or otherwise subject to the requirements of this policy, must be disclosed thirty (30) days PRIOR to transaction consummation even if it falls under an exemption listed below.

**Exempted Accounts, Securities and Assets**

The following are exempt trades: (1) trades in units of open ended mutual funds, segregated funds, or pooled trust funds; (2) purchases made under automatic dividend reinvestment or share purchase plans, but not sales from these made at the direction of those covered under this Policy; (3) trades that result from corporation actions without any voluntary action by the person holding the security; and (4) trades in index products (ETF securities, options, futures, or other derivatives that track published indices). Exempt trade examples include the following:

- Stock splits,
- Stock dividends,
- Mutual funds,
- Index funds,
- Unit Investment Trusts,
- Master trusts,
- Covered call writing or protective put purchases on securities already owned by the Trustee or Employee,
- Real estate used for personal or recreational residence,
- Agricultural or real property with a value of less than \$250,000 and bona fide rental properties with two (2) or fewer units,
- Real estate held through a real estate investment trust for which the Trustee or Employee is not making individual property selections,
- Dividend Reinvestment Plans (DRIP) or Direct Stock Plans (DSP) purchases, and
- Discretionary, fee-based accounts where the account owner is not making individual security selections.
- Annuity or insurance contracts,
- Tangible personal property and hard assets,

- Money market instruments,
- Certificates of deposit,
- Commercial paper,
- Options and futures on indices.

Pre-Clearance

Covered Persons shall not enter into a non-exempt personal securities transaction without first complying with the pre-clearance process defined herein and receiving approval or clearance from the **KRSKPPA** Compliance Officer or the Executive Director Office of Investments. The **KRSKPPA** Compliance Officer shall be responsible for implementation of this policy and for establishing procedures to track **CERS** Trustee and **CERS** Employee compliance with this Policy.

A. Open Orders/Options

If a Covered person wants to place a “good until canceled” limit, which is the equivalent of an open order that specifies certain execution limits, or writing a covered call in a security that has not been defined as exempt in this policy, they must indicate the order type on their request for approval. If the order request is approved in accordance with pre-clearance procedures in this policy, a transactional disclosure form must be completed and submitted to the Compliance Officer within ten (10) calendar days of the order being executed. **If at any time between approval by the **KPPA** Compliance Officer and trade execution the Covered Person obtains actual knowledge of **KRSCERS** or its external managers transacting in that security, then transacting in that option or open order is no longer approved.**

Employees may obtain pre-clearance for personal securities transactions by sending an e-mail to the **KRSKPPA** Compliance Officer requesting a determination as to whether trading is allowed and must wait for approval from the **KPPA** Compliance Officer **before entering into the transaction**. In the absence of the **KPPA** Compliance Officer, the **KPPA** Executive Director Office of Investments may also consider the pre-clearance request of an Employee pursuant to the same procedure. In consultation with **KRSCERS** investment managers and **CERS** staff, the **KPPA** Compliance Officer may approve or deny pre-clearance approval or denial based on reasonable discretion that the transaction does not conflict with federal or Kentucky law or **KRSCERS** policies.

Pre-clearance for **CERS** Trustees and **CERS** Employees will be documented in a personal securities transaction log, which will provide a record of all requests for approval of personal securities transactions. The **KRSKPPA** Compliance Officer will provide pre-clearance and maintain the log. Unless otherwise noted by the Compliance Officer, pre-clearance approval for personal securities transactions is effective until market close on the first trading day following communication of pre-clearance approval, unless the **CERS** Trustee or **CERS** Employee has been approved for an open order. **Under no circumstances shall a **KRSCERS** employee approve or clear their own transaction.**

A transactional disclosure form must be completed for personal securities transactions, except for those described above which are exempted from the disclosure requirement. Transactional disclosure forms must be fully completed and given to the **KRSKPPA** Compliance Officer along

with the trade confirmation from the broker (unless the transaction only involved real estate) within ten calendar days of the personal transaction trade date. A sample of the required form is attached to this policy.

The transactional disclosure form must be fully completed and contain information including:

- The name and amount of the security involved. If the asset is real estate not exempted by this policy, then the address of the property should also be included.
- The date and nature of the transaction.
- The price at which the transaction was effected.
- The name of the broker through whom the transaction was effected.

#### D. Certifications

##### 1. Annual

Each year, at the request of the KPPA Compliance Officer, all Covered and Deemed Covered Persons shall submit to the KPPA Compliance Officer a certification of their understanding of the requirements of this policy. Additionally, unless they are a CERS Trustee, all Covered and Deemed Covered persons should submit a brokerage statement disclosing the account title, their securities holdings and securities transactions for personal and family accounts where any non-exempt securities transactions may occur for the period ending the preceding December 31<sup>st</sup>.

##### 2. New Hire/Appointment

All Covered Persons or Deemed Covered persons shall also be required to file with the KPPA Compliance Officer, in such a format as the Compliance Officer may require, a certification of their understanding of the requirements of this policy. Additionally, unless they are a CERS Trustee, all Covered and Deemed Covered persons should disclose the account name and account for all personal and family accounts where non-exempt securities transactions may occur within fifteen business (15) days of becoming a Covered Person.

#### E. Violations and Remediation

KRSCERS takes violations of securities laws and this policy very seriously. As mentioned previously, willful disregard of this Policy could result in disciplinary actions which include formal reprimands, adverse performance reviews, disgorgement of profits and termination of employment or removal from office. Failure to pre-clear non-exempt personal securities transactions shall be considered a willful violation of this policy and will subject that Covered Person to appropriate sanctions.

As such, KRSCERS Trustees and CERS Employees should promptly report any suspected violation of securities laws or this policy to the KPPA Compliance Officer. If any violation of this policy is determined to have occurred, the KPPA Compliance Officer will escalate the situation to the CERS Chief Executive ~~Director~~ Officer and Chair of the CERS Board of Trustees for action. No KRSCERS Trustee or CERS Employee shall participate in a determination of whether he or she has committed a violation of this policy or in the imposition of any sanction against himself or herself.



Signatories

As Adopted by:  
~~the~~CERS Investment Committee

~~As Adopted by the~~CERS Board of ~~Directors~~ Trustees

Date: \_\_\_\_\_

Date: \_\_\_\_\_

Signature: \_\_\_\_\_

Signature: \_\_\_\_\_

~~Mr. Neil Ramsey~~ Dr. Merl Hackbart  
Chair, CERS Investment Committee

~~Mr. David L. Harris~~ Ms. Betty A. Pendergrass  
Chair, CERS Board of Trustees



**Kentucky Retirement Systems**  
**Investment Securities Lending Guidelines**  
**Approved June 1, 2018**



**County Employees' Retirement Systems**  
**Investment Securities Lending Guidelines**  
**Adopted xxxxx, 2021**

This document sets forth the investment policy for the securities lending program.

**A. Objectives**

To generate incremental income by lending securities to qualified borrowers. Borrowers provide collateral in exchange for the right to borrow securities. Collateral should follow the system's guidelines as set forth in the Securities Lending Authorization Agreement. Total return from securities lending should meet or exceed Risk Management Association's (RMA) Lending Composite on an annual basis.

**B. Responsibilities and Delegations**

The ~~KRS~~CERS Investment Committee have the following responsibilities and duties:

1. Approving the securities lending guidelines.
2. Reviewing the securities lending program performance annually with the Executive Director, Office of Investments, and ~~KRS~~KPPA investment staff.

The ~~KRS~~KPPA investment staff duties include, but are not limited to, the following:

1. Reporting to the Investment Committee annually about the performance and compliance of the securities lending program.
2. Recommending guideline changes to the Investment Committee as needed.
3. Reviewing monthly reports from the Lending Agent.
4. Reviewing and evaluating quarterly reports from the Lending Agent. Furnishing the quarterly reports to the Investment Committee.
5. Monitoring the Lending Agent's compliance with the securities lending guidelines.

The Lending Agent's duties include:

1. At least annually, or more frequently if requested by ~~KRS~~CERS, the Lending Agent must present the Executive Director of the Office of Investments, with a list of potential borrowers and the applicable credit exposure.

2. The Lending Agent must immediately notify the Executive Director of the Office of Investments and ~~KRSKPPA investment~~ staff of any violation of the securities lending guidelines.
3. The Lending Agent must provide a quarterly report showing: historical net earnings; volume on loan, loanable base, percentage of loan, gross spread, net earnings and gross basis point return by class; comparable gross basis point return by class with the RMA Lending Composite, BNY Mellon and ~~KRSCERS~~; detailed performance comparison with RMA, BNY Mellon and ~~KRSCERS~~ of percentage on loan, spread and gross basis point return by class, and; other information as reasonably requested by ~~KRSCERS~~.

### C. Lending and Collateral Guidelines

The collateral guidelines are set forth in the Securities Lending Authorization Agreement. The Lending Agent shall follow these guidelines explicitly in conjunction with these policies. If, at anytime, a violation occurs, the Lending Agent shall immediately notify the Executive Director of the Office of Investments and ~~KRSKPPA investment~~ staff by e-mail; together all parties shall determine the action or actions needed to bring the portfolio back into compliance.

#### Signatories

As Adopted by: ~~the~~  
~~CERS~~ Investment Committee

~~As Adopted by the~~CERS Board of Trustees

Date: \_\_\_\_\_

Date: \_\_\_\_\_

Signature: \_\_\_\_\_  
~~Mr. Neil P. Ramsey~~Dr. Merl Hackbart  
Chair, ~~CERS~~ Investment Committee

Signature: \_\_\_\_\_  
~~Mr. David L. Harris~~Ms. Betty A. Pendergrass  
Chair, ~~CERS~~ Board of Trustees



**Kentucky Retirement Systems**  
Investment Proxy Voting Policy  
Approved May 30, 2018



**County Employees' Retirement Systems**  
Investment Proxy Voting Policy  
Adopted xxxxx, 2021

The Kentucky County Employees' Retirement Systems (KRSCERS) Board of Trustees (Board) appoints ~~an~~ the CERS Investment Committee with full authority to act for the CERS Board in the acquisition, sale and management of the securities and funds of the County Employees' Retirement Systems. The CERS Board also authorizes the CERS Investment Committee or designee, custodian, investment manager or agent to execute stock proxies for the Board. Said delegate(s) shall maintain detailed records of its performance of its duty and provide such records to the Board as may be requested by the Board from time to time.

This position paper is hereby adopted by the CERS Investment Committee to provide a set of guidelines to be followed in order to execute proxies. The following statement reflects the general policy that shall be applied as proxy issues are considered:

To support management if management's position appears reasonable, is not detrimental to the long term equity ownership of the corporation and reflects consideration of the impact of societal values and attitudes on the long-term liability of the corporation and is in the best interest of the plan participants.

The following paragraphs shall be applied when considering the more specific proxy issues that are likely to be encountered on a more routine basis.

**A. Routine Business or Financial Matters**

Election of Directors FOR  
In a majority of instances, election of directors is a routine voting issue. Unless there is a proxy fight for seats on the Board, KRSCERS will usually vote in favor of the Management-proposed slate of directors.

Appointment of Auditors FOR  
The selection of independent accountants to audit the company's financial records is a routine business matter and in most instances is submitted to shareholders for public relations reasons. Since the accounting firm selected to do the audit has no effect on the investment value of the company's securities, KRSCERS will support Management's recommendation.

Draft 7/8/20217/8/20217/7/20215/27/2021

Increase Authorized Common Stock

FOR \*

KRSCERS will support an increase in authorized common stock needed to implement a stock split when coupled with intent to immediately effect the split, or aid in a restructuring or acquisition or provide a sufficient number of shares for employee savings plans, stock option or executive compensation plans. A satisfactory explanation for a company's plans for the stock must be disclosed in the proxy statement.

- \* KRSCERS will oppose increases in authorized common stock if we suspect that the shares are to be used to implement a poison pill or another form of anti-takeover device, or if the issuance of new shares could excessively dilute the value of the outstanding shares upon issuance.

Changes in Board Structure

FOR \*

Companies may propose various provisions related to the structure of the Board of Directors. These provisions may include changing the way Board vacancies are filled, directors are nominated or the number of directors. These provisions may include Majority Vote Director Elections and the Separation of the CEO and Chairman of Board. These proposals may be proposed amendments to the Charter or by-laws and need to be reviewed by the shareholders prior to voting. In most instances these proposals are not controversial nor an anti-takeover device. Therefore, KRSCERS generally votes in favor of the proposal.

- \* However, KRSCERS is opposed to cumulative voting for members of the Board and attempts to limit term of Board of Directors based on tenure or age.

## B. Non-Routine Business or Financial Matters

Considering Non-Financial Effects of a Merger Proposal

AGAINST

KRSCERS will oppose proposals that require the Board of Directors to consider what impact a merger would have on certain groups other than a company's shareholders, such as employees, consumers, business partners, and the communities in which the company is located. We expect that a company's Board of Directors will act in the best interest of its shareholders at all times.

Director Liability and Indemnification

FOR \*

The CERS Investment Committee believes that proposals concerning Liability and Indemnification, which limit the personal liability of directors for breaches of fiduciary duty of care and provisions for payment of expenses incurred by officials, directors and other representatives who become defendants in lawsuits, should be evaluated on a case by case basis with reasonable measures supported and extreme measures opposed.

Executive Compensation

FOR \*

Executive compensation can take various forms but should provide adequate compensation and incentives to management consistent with the long term interests of the shareholders of the company.

- \* Management should have some assurance that they will not, in the event of a takeover, be terminated without motive and compensation. However, KRSCERS is concerned that some compensation agreements provide excessive compensation in the event of a takeover. KRSCERS does not oppose agreements which provide executives with a reasonable period of compensation after termination; however, they will oppose compensation plans which are excessive.

Draft 7/8/20217/8/20217/7/20215/27/2021

Stock Splits

FOR

**KRSCERS** will vote in favor of a proposal to split the company's stock if there is an immediate intent to effect the split.

Employment Relations

FOR \*

The Board of Directors and Corporate Management have the responsibility for harmonious labor relations. This responsibility also includes conducting labor negotiations within the appropriate laws of the jurisdiction.

\* Where efficient operation of the corporation requires plant closings or relocations, the corporation should give as much notice as possible and assist its employees in relocating or in seeking other employment. Resolutions of shareholders which seek to impose requirements on management in this regard will not be supported automatically. Support will be contingent upon whether or not managers can demonstrate that efforts have been made to retain good employment relations subject to the constraints encountered in the particular circumstances.

C. Anti-Takeover Issues

Blank Check Preferred Stock

AGAINST

A Blank Check Preferred Stock proposal is one that authorizes the issuance of certain preferred stock at some future point in time and allows the Board of Directors to establish voting, dividend, conversion, and other rights at the time of issuance. While Blank Check Preferred Stock can provide a corporation with the flexibility needed to meet changing financial conditions, it also may be used as the vehicle for implementing a poison pill defense, or it may be placed in friendly hands to help block a takeover bid. **KRSCERS'** concern is that once this stock has been authorized, shareholders have no further power to determine how or when it will be allocated.

Classified Boards

AGAINST

A Classified Board is typically divided into three separate classes, each class to hold office for a term of two or three years. Only a portion of the Board of Directors can be elected or replaced each year. Since this type of proposal has fundamental anti-takeover implications, **KRSCERS** opposes the adoption of Classified Boards.

Fair Price Provisions

AGAINST

A Fair Price provision in the company's charter or by-laws is designed to assure that, if the Corporation is acquired under a plan not agreed to by the Board of Directors, each shareholder's securities will be purchased at the same price. In most instances the provision requires that any tender offer made by a third party be made to all shareholders at the same price.

Fair pricing provisions attempt to limit the "two-tiered" pricing systems in which the interested party or would-be acquirer of the company initially offers a premium for a sufficient number of shares of the company to garner control. Thereafter, an offer at a much lower price is made to the remaining shareholders who have no choice at all but to accept the offer. The "two-tiered" approach is coercive in that it makes it easier for an outsider to gain control of a company because it provides an incentive to the shareholder to sell his shares immediately in order to receive the benefits of a higher price per share and

avoid falling into the second tier, if the offer is successful. The coercive pressures associated with these offers have caused many states to adopt controlled share acquisition statutes which restrict this practice by law.

In theory this type of provision is acceptable standing alone, however, given the fact that the practice is in most aspects prohibited by law, and the fact that Fair Price Provisions are invariably linked with other anti-takeover measures, such as supermajority voting requirements to approve certain transactions, ~~KRSCERS~~ will vote against most Fair Price Provisions.

#### Limiting Shareholders' Right to Call Special Meetings

AGAINST

Companies contend that such limitations are necessary to prevent minority shareholders from taking control of the company's agenda. However, such limits also have anti-takeover implications such as preventing a shareholder who has acquired a significant stake in the company from forcing management to address the potential sale of the company. Additionally, a limitation on shareholder action makes it difficult for a large shareholder or group of shareholders to use this facility to force management to address issues that may be of urgent or utmost importance. Since, in most instances, state law prohibits shareholders from abusing or using this facility in certain manners, ~~KRSCERS~~ sees no justifiable reason for management to eliminate this facility. ~~KRSCERS~~ will oppose the elimination of this fundamental shareholder right.

#### Limiting Shareholders' Right to Act by Written Consent

AGAINST

Action by written consent enables a large shareholder or group of shareholders of a company to initiate and vote on corporate matters without having to wait until the date of the next annual meeting. ~~KRSCERS~~ believes this is a fundamental shareholder right that is inherent in the concept of stock ownership and will oppose any proposals which may limit.

#### Supermajority Vote Requirements

AGAINST

A Supermajority Vote Requirement is a charter or by-law requirement that, when implemented, raises the percentage of shareholder votes needed to approve certain proposals such as mergers, changes of control, or proposals to amend or repeal a portion of the Articles of Incorporation.

#### Re-incorporation

AGAINST

For various reasons, a corporation may choose to reincorporate under the laws of a different state. Their reasoning may include taxation, the state's General Business Law and the level of corporate experience the state's court may have. However, in a majority of instances a re-incorporation proposal has its foundation in the corporations's desire to incorporate in another state in order to take advantage of that state's laws governing corporations and corporate control and the state courts' views in interpreting laws that make it more difficult for unsolicited takeovers to occur. In such cases, ~~KRSCERS~~ will oppose proposals for reincorporation.

#### Issuance of Stock with Unequal Voting Rights

AGAINST

Proposals of this nature are generally anti-takeover schemes which result in unequal voting rights among different classes of shareholders. The most frequent proposal of this type is a dual class capitalization plan which establishes two classes of stock. As an incentive to encourage shareholders to approve plans designed to concentrate voting power in the hands of insiders, some plans give higher dividends to shareholders willing to exchange shares with superior voting rights for shares with inferior voting rights.

Unequal voting rights plans are designed to reduce the voting power of existing shareholders and concentrate a significant amount of voting power in the hands of management. In the majority of instances, they serve as an effective safeguard against hostile takeovers. For these reasons, **KRSCERS** deems these plans unacceptable and in most instances will vote against these proposals.

#### Elimination of Preemptive Rights

AGAINST

Preemptive Rights allow the shareholders of the company to buy newly issued shares before they are offered to the public in order to retain their then current percentage of ownership as well as to avoid ownership dilution by the issuance of additional stock. **KRSCERS** believes this is fundamental right of a shareholder and barring a compelling reason should not be eliminated by management. **KRSCERS** will oppose management proposals requesting eliminating these rights and will support shareholder proposals which request the restoration of Preemptive Rights.

### D. Corporate Governance Shareholder Proposals

#### Submit Company's Shareholder Rights Plan Shareholder Vote

FOR \*

Most Shareholder Rights Plans (sometimes called poison pills) permit the shareholders of a target company involved in a hostile takeover to acquire shares of that company, the acquiring company, or both, at a substantial discount once a triggering event occurs. A triggering event is usually a hostile tender offer or the acquisition by an outside party of a certain percentage of the company's stock. Since most plans exclude the hostile bidder from the purchase, the effect in most instances, is to dilute the equity interest and the voting rights of the potential acquirer once the plan is triggered. Shareholder Rights Plans are designed to be so disadvantageous to potential acquirers that merely their existence could deter possible acquirers from making a hostile bid.

\* **KRSCERS** will support shareholder proposals asking that the company submit their Shareholder Rights Plan to a shareholder vote. **KRSCERS** will vote case-by- case on proposals to completely redeem Rights Plans.

#### Anti-Greenmail Proposal

FOR

Greenmail payments generally result when a potential hostile acquirer has accumulated a significant percentage of the company's stock and the company acquires the raider's stock at an aggregate price usually above the then current market value usually in exchange for an agreement that the raider would not attempt to acquire control within a certain number of years. The proposal that has been proposed most often to prevent greenmail is the adoption of charter amendments severely limiting the board's ability to acquire blocks of the company's stock in these situations and at above market prices. **KRSCERS** will vote in favor of an anti-greenmail proposal standing alone provided the proposal has no other management initiated anti-takeover attributes.

### E. Social and Policy Issues

We believe that most decisions of a policy nature, having either a direct or an indirect effect on the conduct of business and on corporate profitability should remain management responsibilities. As such, they should



be subject only to their Board of Director's approval; therefore, we would support the position taken by management.

Signatories

As Adopted by: ~~the~~  
CERS Investment Committee  
Date: \_\_\_\_\_

Signature: \_\_\_\_\_  
~~Mr. Neil P. Ramsey~~ Dr. Merl Hackbart  
Chair, CERS Investment Committee

~~As Adopted by the~~ CERS Board of Trustees  
Date: \_\_\_\_\_

Signature: \_\_\_\_\_  
~~Mr. David L. Harris~~ Ms. Betty A. Pendergrass  
Chair, CERS Board of Trustees



**\*\*\*\*\*NOTE: THIS POLICY NEEDS RESEARCH BY CERS GENERAL COUNSEL TO ENSURE IT COMPLIES WITH CURRENT KENTUCKY STATUTES FOR PLACEMENT AGENTS\*\*\*\*\***

**A. Purpose**

This Manager Statement of Disclosure (Policy) sets forth the disclosure requirements which must be satisfied prior to any Kentucky-County Employees' Retirement Systems (KCERS) investment. This policy requires disclosure of conflicts of interest and/or political contributions with any new KRSCERS investment. KRSCERS shall require the disclosure of detailed information regarding any manager used, their services, and payments and fees in connection with all KRSCERS investments. This Policy is intended to apply broadly to all of the types of investment advisors with whom KRSCERS conducts or potentially conducts business with including general partners, managers, investment managers and sponsors of hedge funds, private equity funds, real estate funds, as well as investment managers retained pursuant to a contract.

The goal of this Policy is to bring transparency to our investment management relationships in connection with KRSCERS' investments and to help ensure that KRSCERS' investment decisions are made based solely on the merits of the investment opportunity and in a manner consistent with the responsibilities of the Board of Trustees and individuals who owe a fiduciary duty to KRSCERS.

**B. Objectives**

The objectives of KRSCERS' policy are:

1. To ensure that KRSCERS' investment decisions are consistent with KRSCERS' overall Investment Policy Statements;
2. To supplement the due diligence and information available to KRSCERS Board members, CERS or KPPA staff, and consultants when evaluating an investment opportunity;
3. To prevent impropriety and/or the appearance of improprieties and to disclose conflicts of interest and/or the appearances of conflicts of interest;
4. Provide transparency and confidence in KRSCERS investment decision-making and process; and

5. Establish procedures to comply with state and federal law.

### C. Application

This Policy applies to all agreements with managers that are entered into after the date this Policy is adopted. This Policy also applies to existing agreements with managers if, after the date this Policy is adopted, the term of the agreement is extended; there is any increased commitment of funds by ~~KRS~~CERS pursuant to the existing agreement; or there is a material amendment to the substantive terms of an existing agreement, including the fees or compensation payable to the manager.

#### D. Definitions

1. “KRSCERS vehicle” means a partnership, limited liability company, account or other investment vehicle in which KRSCERS is the investor.
2. “Consultant” refers to individuals or firms, and includes Key Personnel of Consultant Firms, who are contractually retained or have been contracted by KRSCERS to provide investment advice to KRSCERS but who do not exercise investment discretion.
3. “Manager” means an asset management firm that is seeking to be, or has been, retained by KRSCERS or by a KRSCERS vehicle to manage a portfolio of assets (including securities and/or contracts, etc...) for a fee. The manager usually has full discretion to manage KRSCERS assets, consistent with investment management guidelines provided by KRSCERS and fiduciary responsibility.
4. “Executive Agency Lobbyist (EAL)” means any person engaged to influence executive agency decisions or to conduct executive agency lobbying activity as one of his main purposes on a substantial basis. An EAL does not include an elected or appointed officer or employee of a federal or state agency, state college, state university, or political subdivision who attempts to influence or affect executive agency decisions in his fiduciary capacity as a representative of his agency, college, university, or political subdivision.
5. “Executive Agency Lobbying Activity” includes any contact made to promote, oppose, or otherwise influence the outcome of an executive agency decision by direct communication with an elected executive official, the secretary of any cabinet listed in Kentucky Revised Statutes 12.250, any executive agency official, or a member of the staff of any one of the officials listed in this paragraph.
6. “Real Party-In-Interest (RPI)” is a person or organization on whose behalf the executive agency lobbyist is acting, if that person is not the employer. For example, if the ABC Corporation engages XYZ Consulting Company which, in turn, hires John Smith to influence decisions or conducts executive agency lobbying on behalf of ABC Corporation: (a) John Smith is the EAL; (b) XYZ Consulting Company is the employer; and (c) ABC Corporation is the "real party in interest".

#### E. Responsibilities

##### Manager’s Responsibilities

Prior to KRSCERS investing with any Manager, KRSKPPA Staff shall obtain a signed Manager Disclosure Questionnaire from the Investment Manager. This form includes a statement as to whether or not the Investment Manager has used a placement agent in connection with the proposed KRSCERS investment opportunity. It also includes conflict of interest disclosures and political contribution disclosures among other required information including but not limited to:

- The name of the placement agent;
- The fee paid or payable to the placement agent;
- Representation that the fee is the sole obligation of the investment Manager and not that of KRSCERS or the limited partnership;

- Current or former Kentucky officials (federal, state, and local government), [KRSCERS](#) Board of Trustees members, [KRSCERS](#) or [KPPA](#) employees or consultants to [KRSCERS](#) that are receiving any fees or compensation from the [m](#)Manager and/or placement agent;
- The names of any current or former Kentucky elected or appointed government officials (federal, state, and local government) [KRSCERS](#) Board of Trustees members, [CERS](#) or [KPPA](#) employees, or consultants of [KRSCERS](#), or any other person, if any, who suggested the retention of the placement agent;
- 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), Financial Regulatory Agency (FINRA), or any similar regulatory agency;
- A résumé for each officer, partner or principal of the placement agent detailing the person's education, professional designations, regulatory licenses and investment and work experience;
- A description of the services to be performed by the placement agent;
- A statement whether the placement agent, or any of its affiliates, is registered as a lobbyist with any and all Kentucky state and local (county) governments; and
- A statement by the [m](#)Manager and/or placement agent representing and warranting the accuracy of the information provided to [KRSCERS](#) regarding the Statement of Disclosure in any final written agreement with a continuing obligation to update any such information within 10 business days of any change in the information.

The [m](#)Manager shall notify the placement agent of his or her obligations under Kentucky Revised Statutes Chapter 11A.

Compliance with the following procedures is the responsibility of the [m](#)Manager, the EAL and the placement agent. [KRKPPA](#) staff is not responsible for ensuring compliance with the following procedures as staff is not a party to the process.

The following is a description of the process external persons must follow to comply with Kentucky's EAL registration procedures:

1. Prior to contact with [KRKPPA](#) personnel the placement agent, employer, and, if applicable, the RPI, is required to file jointly, the Initial Registration Statement Form\* with the Kentucky Executive Branch Ethics Commission (EBEC) and furnish a copy to [KRSCERS](#).

Questions as to the process or applicability should be addressed to:

Executive Branch Ethics Commission (502) 564-7954.

2. After Initial Registration, the placement agent, employer, and, if applicable, the RPI, is required to abide by the EBEC *Requirements After Registration* by filing an Updated Registration Statement\*\* annually (Due by July 31) with the EBEC and furnish a copy to [KRSCERS](#).
3. If the placement agent, employer, and, if applicable, the RPI, wishes to terminate their lobbying effort they must notify the EBEC within 30 days after the termination of engagement by filling out the Termination Notification Form \*\*\* attaching it to the EAL's final Updated Registration Statement form\*\* and furnishing a copy to [KRSCERS](#).

\* Initial Registration Statement Form is available at:  
<http://ethics.ky.gov/lobbying/Pages/Registration.aspx>

\*\* Updated Registration Statement Forms are available at:  
<http://ethics.ky.gov/lobbying/Pages/RequirementsAfterRegistration.aspx>

\*\*\* Termination Notification Form is Available at:  
<http://ethics.ky.gov/lobbying/Pages/howToTerminate.aspx>

In the event a placement agent is expected to receive remuneration for a ~~KRSCERS~~ investment, ~~KRSCERS~~ staff will notify the Investment Committee in the memorandum discussing the recommended/approved investment. If a manager breaches this policy, staff will notify the Investment Committee as soon as practicable.

~~KRS~~KPPA Staff Responsibilities

~~KRS~~KPPA staff are responsible for:

- Providing the public with disclosure by posting a copy of this policy on ~~KRS~~KPPA' website;
- Implementing this policy on behalf of ~~KRSCERS~~ with each KPPA Investment ~~Director~~-staff responsible for their specific asset class; and
- Providing regular disclosure updates to the ~~KRSCERS~~ Investment Committee and the CERS Board of Trustees.

All parties responsible for implementing, monitoring and complying with this Policy shall consider the spirit as well as the literal expression of the Policy.

F. Conflict of Interest

All persons and entities contracting with ~~KRS~~CERS shall certify that:

- they are legally capable of entering into a binding contract and authorized to do so;
- that they are not, nor shall be, in violation of any Kentucky law, statute or regulation pertaining to a conflict of interest including, but not limited to, Kentucky Revised Statutes 121.056; and
- that they are not, nor shall be, in violation of any provision of Kentucky Revised Statutes Chapter 11A or any regulation promulgated there under, or any law or regulation pertaining to the Kentucky Registry of Election Finance and the reporting requirements thereof.

All persons and entities seeking to or actually contracting with ~~KRS~~CERS shall disclose all relationships and potential conflicts of interest with any ~~KRS~~KPPA staff, committee or Board Member. Any disclosed conflicts of interest will be discussed at the CERS Investment Committee as to the severity of the conflict and the appropriate resolution. Options the CERS Investment Committee might recommend include but are not limited to: no action required; conflicted party abstention; and refusal to invest. Subsequent discovery of any undisclosed conflict may be considered a breach of contract and may result in immediate termination of any agreements without penalty or fee to ~~KRS~~CERS.

Signatories

As Adopted By:  
~~The~~CERS Investment Committee

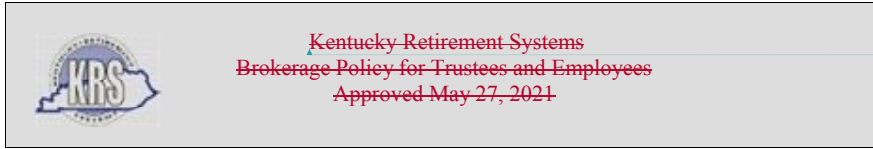
~~As Adopted By The~~  
CERS Board of Trustees

Date: \_\_\_\_\_

Date: \_\_\_\_\_

Signature: \_\_\_\_\_  
~~Mr. Neil Ramsey~~Dr. Merl Hackbart  
Chair, CERS Investment Committee

Signature: \_\_\_\_\_  
~~Mr. David L. Harris~~Ms. Betty A. Pendergrass  
Chair CERS Board of Trustees



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**Statement of Intent**

This policy documents the intent of the CERS Investment Committee of the KentuckyCounty Employees' Retirement Systems (~~K~~CERS) related to brokerage direction.

**A. Objectives**

Brokerage direction shall result from a competitive process, with the objective of achieving the best execution by minimizing commission and market impact costs while maximizing value to ~~K~~CERS. The competitive bids/offers received should be documented on buy/sell orders.

Brokerage shall never be awarded on the basis of repayment for personal advice, favors or political patronage. Any attempts to solicit or direct business based upon these considerations shall be reported to the CERS Investment Committee immediately.

**B. Criteria for Selecting Brokers**

KPPA Investment ~~Directors-staff~~ shall be responsible for selecting brokers to execute their transactions. KPPA Investment ~~Directors-staff~~ are also responsible for assuring the financial soundness in order to protect the CERS Systems from failed trades or other liabilities.

Prior to executing the first trade, all of the appropriate documents must be executed and on file with the broker and the investment manager.

It is the desire of the CERS Investment Committee that, whenever it is in the best interest of the Funds, brokerage will be directed within the Commonwealth of Kentucky, or full or partial credit will be assigned to a Kentucky-based broker.

**C. Monitoring**

Draft 7/8/20217/8/20217/7/20215/27/2021



KPPA Investment Staff shall monitor the brokerage and report findings periodically to the CERS Investment Committee. KPPA Investment ~~Directors staff~~ shall report brokerage information to staff in a format acceptable to KCERS.

The CERS Investment Committee shall periodically monitor market impact and commission cost for stock trades versus the trading Universe maintained by a third party vendor.

Signatories

As Adopted by:

~~the~~ CERS Investment Committee

~~As Adopted by the~~ Board of ~~Directors~~ Trustees

Date: \_\_\_\_\_

Date: \_\_\_\_\_

Signature: \_\_\_\_\_

Signature: \_\_\_\_\_

~~Mr. Neil Ramsey~~ Dr. Merl Hackbart  
Chair, CERS Investment Committee

~~Mr. David L. Harris~~ Ms. Betty A. Pendergrass  
Chair, CERS Board of Trustees

Draft 7/8/20217/8/20217/7/20215/27/2021