

City of Milwaukee Employes' Retirement System

> Bernard J. Allen Executive Director

David M. Silber, CFA, CAIA Chief Investment Officer

> Melody Johnson Deputy Director

Mr. Jim Owczarski City Clerk Room 205, City Hall

Dear Mr. Owczarski:

Please be advised that an Investment Committee Meeting of the Annuity and Pension Board has been scheduled for **Thursday**, **December 9**, **2021 at 9:00 a.m.** This meeting will be conducted via teleconference.

December 3, 2021

Special Notice: Instructions for the public on how to observe the meeting will be available on the ERS's website (<u>www.cmers.com</u>) prior to the meeting.

The agenda is as follows:

- I. Chief Investment Officer Report.
- II. Approval of Statement of Investment Policy Update.
- III. Approval of BlackRock Institutional Trust Company, N.A. Contract Amendment.
- IV. 2022 Tentative Due Diligence Schedule.

Please be advised that the Investment Committee may vote to convene in closed session on the following item (V.) as provided in Section 19.85(1)(e), Wisconsin State Statutes, to deliberate or negotiate the purchasing of public properties, the investing of public funds, or conducting other specified public business, whenever competitive or bargaining reasons require a closed session. The Investment Committee may then vote to reconvene in open session following the closed session.

- V. UBS Hedge Fund Solutions Presentation.
- VI. Informational.
 - a. Callan 3rd Quarter 2021 Performance Report.

Sincerely,

Alla

Bernard J. Allen Executive Director

BJA:jmw



Performance Update

Estimated ERS Total Fund Market Value is \$6.02 billion as of December 2, 2021

Period	ERS Fund*	Benchmark
YTD Through 10/31/2021	15.8%	11.4%
November 2021 (Estimate)	-1.4%	-1.2%
December MTD (Estimate)	0.3%	0.2%
YTD Through December 2, 2021 (Estimate)	14.6%	10.3%

*Returns Net of Fees

Performance Update \$6,10 Estimated ERS Total Fund Market Value is \$6.02 billion as of December 2, 2021

Period	ERS Fund*	Benchmark
YTD Through 10/31/2021	15.8%	11.4%
November 2021 (Estimate)	-1.3% -1.4%	-1.2%
December MTD (Estimate)	1. 5% 0.3%	1.3% 0.2%
YTD Through December 2, 2021 (Estimate)	14.6%	10.3%
	16.0%	11.5%

1

*Returns Net of Fees

STATEMENT OF INVESTMENT POLICY Updated SeptDecember 2021

THE EMPLOYES' RETIREMENT SYSTEM OF THE CITY OF MILWAUKEE 789 N. Water Street, 3rd Floor Milwaukee, WI 53202 (414) 286-3557

Individual manager guidelines are updated upon Annuity and Pension Board Approval

TARGET ALLOCATIONS

The Board has determined that the following asset allocation policy is appropriate for the Fund. This allocation policy will be reviewed periodically and may be modified, if appropriate, in light of changes in the structure or goals of the Fund. The following asset allocation policy reflects—an interim <u>Maximum and Minimum ranges</u> implementation structure for the Fixed Income and Absolute Return allocations, respectively, that wereas approved by the Board at its <u>April, 2020 and</u> September 2021 meetings. For Real Assets, the target weights below reflect what Callan used in its 2020 ALM Study.

Public Equity	Target	<u>Minimum</u>	<u>Maximum</u>	
Domestic Equity				
Passive Large Cap	8.0%			
Active Large Cap	5.2%			
Active Mid/Small Cap	6.8%			
Total Domestic Equity	20.0%	16.0%	24.0%	
Total International Equity	16.0%	13.0%	19.0%	
Total Global Equity	8.0%	12.0%		
Total Public Equity	44% 39			
Fixed Income				
Cash	1%	0%	2.0%	
Passive Fixed Income	7.9<u>5.5</u>%			
Core Opportunistic Fixed Income	<u>14.116.5</u> %			
Total Fixed Income	23%	20%	30%	
Real Assets				
Private Real Estate	9.1%	5.0%	10.0%	
Public Diversified Real Assets	3.9%	1.9%	5.9%	
Total Real Assets	13%	10%	16%	
<u>Private Equity</u>	10%	7%	15%	
Absolute Return	10%	6%	15%	
<u>Total</u>	<u>100%</u>			

Manager:BlackRockRole:Passive Fixed Income

Objectives and Guidelines

Investment Objectives

Time Horizon	Performance Standard				
Less than one market cycle (rolling 3-year periods).	<u>Universe</u> Not Applicable	<u>Index</u>			
One market cycle (rolling 5-year periods).	Not Applicable	Track Seek to track the performance of the Bloomberg Barclays U.S. Government Aggregate Bond Index-within 10 basis points of ex-ante tracking error.			

- The <u>portfolio Fund</u> will be invested and reinvested primarily in a portfolio of <u>fixed incomedebt</u> securities <u>issued or guaranteed by the U.S. government and shares of investment companies</u> (including exchange-traded funds), with the objective of <u>fairly</u> approximating as closely as practicable the total rate of return of the <u>Bloombergmarket for debt securities as defined by the</u> Barclays U.S. <u>GovernmentAggregate</u> Bond Index.
- The Fund is an "index fund" that seeks investment results that correspond generally to the price and yield performance, before fees and expenses, of the Bloomberg U.S. Government Bond Index (its "Underlying Index"). The Underlying Index is sponsored by an organization (the "Index Provider") that determines the composition and relative weightings of the securities in the Underlying Index and publishes information regarding the market value of the Underlying Index.
- Eligible investments for the portfolio shall be limited to units of the BlackRock U.S. Debt Index Fund.
- Cash will be held to a minimum. There will always be a bit of cash, but generally less than 50 bps.
- Futures and other derivatives may be used to invest all or any portion of the Fund in one or more futures contracts, forward contracts or other similar assets for the purpose of acting as a temporary substitute for investment in securities.
- The Fund is permitted to engage in securities lending to enhance returns.

Investment Policy

runu.	EB NCML Glot	oal Real Return Fund			
—Ma					
	York Mellon)				
Role:	Absolute Return	n Strategy			
	Obj	ectives and Guidelines			
Invest	nent Objectives				
Time Horiz	011	Performance Standard			
Time Horiz	011	Performance Standard Index			
Time Horiz	on Less than one market cycle (rolling	Performance Standard <u>Index</u> Achieve a positive absolute			
Time Horiz	on Less than one market cycle (rolling 3-year periods).	Performance Standard <u>Index</u> Achieve a positive absolute return after fees.			

Investment Guidelines

ERS will invest in the EB NCML Global Real Return strategy that will be accessed through a collective trust and, therefore, is subject to the terms and provisions of the governing documents for the trust, including its objectives and guidelines as outlined therein. The Manager has informed ERS that as of the date of ERS' initial investment, the investment objectives and guidelines set forth below are consistent with the operative investment objectives and guidelines of the collective trust. The Manager has further informed ERS that the investment guidelines and objectives of the Fund may be subject to change, and the ERS will be notified of any change that requires a modification of the objectives and guidelines stated below. The Global Real Return Fund, may as necessary, sweep cash into the EB Temporary Investment Fund solely on an overnight basis to enable reinvestment.

• Permissible Investments include the following:

- Common Stock
- ADRs
- GDRs
- Preferred Stock
- Exchange-traded Funds ("ETFs")
- Participation Notes
- Fixed Income Securities
- Futures
- Options
- Real Estate (tradable securities)
- Commodities (tradable securities)
- EB Temporary Investment Fund

• Currency exposures may be hedged through currency spot, forward, and swap contracts.

- No more than 5% of the Fund's assets will be invested in a single issuer (U.S. Governments securities excluded)
- No more than 20% of the Fund value will be invested in any of the GICS 24 sub-sectors a defined by MSCI.
- The Manager will adhere to the general investment guidelines stated in Section III. 4.

The representations of the Manager are made solely as of the date of ERS' initial investment in the collective trust and solely with respect to the current version of this Investment Policy. For avoidance of doubt, the Manager expressly disclaims any amendment or revision of this Investment Policy.

STATEMENT OF INVESTMENT POLICY Updated December 2021

THE EMPLOYES' RETIREMENT SYSTEM OF THE CITY OF MILWAUKEE 789 N. Water Street, 3rd Floor Milwaukee, WI 53202 (414) 286-3557

Individual manager guidelines are updated upon Annuity and Pension Board Approval

TARGET ALLOCATIONS

The Board has determined that the following asset allocation policy is appropriate for the Fund. This allocation policy will be reviewed periodically and may be modified, if appropriate, in light of changes in the structure or goals of the Fund. The following asset allocation policy reflects interim Maximum and Minimum ranges for the Fixed Income and Absolute Return allocations, respectively, that were approved by the Board at its September 2021 meeting. For Real Assets, the target weights below reflect what Callan used in its 2020 ALM Study.

Public Equity	<u>Target</u>	<u>Minimum</u>	<u>Maximum</u>			
Domestic Equity						
Passive Large Cap	8.0%					
Active Large Cap	5.2%					
Active Mid/Small Cap	6.8%					
Total Domestic Equity	20.0%	16.0%	24.0%			
Total International Equity	16.0%	13.0%	19.0%			
Total Global Equity	8.0%	12.0%				
Total Public Equity	44%	39%	49%			
Fixed Income						
Cash	1% 0%					
Passive Fixed Income	5.5%					
Core Opportunistic Fixed Income	16.5%					
Total Fixed Income	23%	20%	30%			
Real Assets						
Private Real Estate	9.1%	5.0%	10.0%			
Public Diversified Real Assets	3.9%	1.9%	5.9%			
Total Real Assets	13%	10%	16%			
<u>Private Equity</u>	10%	7%	15%			
Absolute Return	10%	6%	15%			
<u>Total</u>	<u>100%</u>					

Manager:BlackRockRole:Passive Fixed Income

Objectives and Guidelines

Investment Objectives

Time Horizon	Performance Standard			
	<u>Universe</u>	Index		
One market cycle (rolling 5-year periods).	Not Applicable	Seek to track the performance of the Bloomberg Barclays U.S. Government Bond Index		

- The Fund will be invested and reinvested primarily in a portfolio of fixed income securities issued or guaranteed by the U.S. government and shares of investment companies (including exchange-traded funds), with the objective of approximating as closely as practicable the total rate of return of the Bloomberg Barclays U.S. Government Bond Index.
- The Fund is an "index fund" that seeks investment results that correspond generally to the price and yield performance, before fees and expenses, of the Bloomberg U.S. Government Bond Index (its "Underlying Index"). The Underlying Index is sponsored by an organization (the "Index Provider") that determines the composition and relative weightings of the securities in the Underlying Index and publishes information regarding the market value of the Underlying Index.
- Futures and other derivatives may be used to invest all or any portion of the Fund in one or more futures contracts, forward contracts or other similar assets for the purpose of acting as a temporary substitute for investment in securities.
- The Fund is permitted to engage in securities lending to enhance returns.

STATEMENT OF INVESTMENT POLICY Updated December 2021

THE EMPLOYES' RETIREMENT SYSTEM OF THE CITY OF MILWAUKEE 789 N. Water Street, 3rd Floor Milwaukee, WI 53202 (414) 286-3557

Individual manager guidelines are updated upon Annuity and Pension Board Approval

Investment Policy

TABLE OF CONTENTS

		PAGE
I.	STATEMENT OF INVESTMENT POLICY Introduction Responsibilities of the Board Scope and Purpose of the Policy Duties of Fiduciaries Staff Investment Consultant Investment Managers Custodian Additional Professionals	1
II.	INVESTMENT GOALS AND OBJECTIVES Funding Levels and Liquidity Requirements Asset Allocation Considerations Target Allocations Rebalancing Procedures Transition Manager Procedures	8
III.	GUIDELINES FOR ACTIVELY MANAGED FUND ASSETS Risk Aversion Fully Invested Investment Discipline Objectives Commingled Funds Brokerage and Execution of Transactions	11
IV.	. SELECTION AND REVIEW OF INVESTMENT MANAGERS Performance Review and Evaluation	13
V.	DEFINITIONS AND CONCLUSION	15
VI.	 SPECIFIC OBJECTIVES FOR INDIVIDUALLY MANAGED PORTFOLIOS Investment Objectives and Guidelines Board Restrictions Derivatives Transition Manager Total Fund Objectives and Guidelines Individual Investment Managers Objectives and Guidelines 	17
VII	I. REQUIRED REPORTING OF ACTIVELY MANAGED INVESTMENT PORTFOLIOS	49
VII	II. PROXY VOTING GUIDELINES	
IX.	. POLICY AND GUIDELINES FOR BROKERAGE SERVICES	
X.	APPROVED SECURITIES LENDING PROGRAMS	51
XI	I. ADDENDUM	

THE EMPLOYES' RETIREMENT SYSTEM OF THE CITY OF MILWAUKEE

- SECTION I -STATEMENT OF INVESTMENT POLICY

INTRODUCTION

The Employes' Retirement System of the City of Milwaukee (the "ERS") was established to provide for the present and future retirement, disability, and death and survivor benefit payments for all city and city agency employees. All of the funds of the retirement system taken in the aggregate constitute a special trust subject to applicable local, state, and federal laws, including but not limited to sections 36-15, 36-09-1, and 36-09-6 of the Milwaukee City Charter.

The Annuity and Pension Board (the "Board") is responsible for the operation of the retirement system and making effective the provisions of the Employes' Retirement Act. The Board consists of three members appointed by the President of the Common Council, the City Comptroller ex-officio, three members elected by the present members of the Employes' Retirement System and one member elected by the retired members of the Employes' Retirement System.

RESPONSIBILITY OF THE ANNUITY AND PENSION BOARD OF THE EMPLOYES' RETIREMENT SYSTEM OF THE CITY OF MILWAUKEE

The Board is the trustee of the funds in the retirement system. The Board must use reasonable care, skill and caution in selecting investment professionals. The Board is required to contract for management services. The Board must exercise prudence in selecting Investment Managers, but the exercise of prudence does not relieve the Board of all responsibilities. The responsibilities of the Board relating to the investment management of Fund assets include:

- 1. Establishing written investment objectives and guidelines governing the investment of Fund assets.
- 2. Using reasonable care, skill and caution in selecting investment professionals.
- 3. Determining the Fund's liquidity requirements, investment horizon and risk tolerance and communicating these to the appropriate parties.
- 4. Evaluating the performance of Investment Manager(s) and other qualified investment professionals on a systematic and regularly scheduled basis.
- 5. The Board and a person under contract to the ERS who invests and manages trust assets has a duty to comply with the prudent investor rule, s. 36-09-1-d and sub-unites thereof.

SCOPE OF THIS STATEMENT OF INVESTMENT POLICY

This Statement of Investment Policy reflects the investment policy, objectives, and constraints of the Employes' Retirement System of the City of Milwaukee ("ERS").

PURPOSE OF THIS STATEMENT OF INVESTMENT POLICY

This Statement of Investment Policy is set forth by the Board of the City of Milwaukee ERS in order to:

- 1. Define and assign the responsibilities of all involved parties.
- 2. Establish specific asset allocation and rebalancing procedures.
- 3. Establish a clear understanding for all parties of the investment goals and objectives of Fund assets.
- 4. Provide specific guidelines and define limitations for all Investment Managers regarding the investment of Fund assets.
- 5. Establish a basis for evaluating investment results.
- 6. Establish a framework for further review and revision of this policy.

This policy statement is designed to allow for sufficient flexibility in the management oversight process to capture investment opportunities as they may occur, while setting forth reasonable parameters to ensure prudence and care in the execution of the investment program.

DUTIES OF FIDUCIARIES

Each member of the Board of the City of Milwaukee ERS is a fiduciary. The Investment Managers are also fiduciaries.

The Board and a person under contract to the ERS to invest and manage trust assets shall invest and manage assets as a prudent investor would by considering the purposes, terms, distribution requirements and other circumstances of the trust. In satisfying this standard, the Board and such person shall exercise reasonable care, skill and caution. Investment and management decisions respecting individual investment assets must be evaluated not in isolation, but in the context of the trust portfolio as a whole and as part of an overall investment strategy having risk and return objectives reasonably suited to the trust. A reasonable effort shall be made to verify facts relevant to the investment and management of trust assets. Assets may be invested in any kind of property or type of investment consistent with the standards set forth in the Employes' Retirement Act and the Board guidelines. A Board member or a person under contract to the ERS who invests and manages trust assets who has special skills or expertise or is named in reliance upon his or her representation that he or she has special skills or expertise has a duty to use those special skills or expertise.

To fulfill such responsibilities, the Trustees are authorized and in the case of Investment Managers, required to retain professional experts including but not limited to:

- 1. **Staff**: The Retirement Staff ("Staff"), as designated by the Board is the agent of the Board. The Board does not delegate investment management responsibility through the use of its Staff. Staff duties include:
 - A. Monitoring Investment Managers for adherence to policies and guidelines.
 - B. Evaluating and managing the relationships with the Investment Consultant to ensure they are providing all necessary assistance to Staff and the Board as agreed to in service contracts.
 - C. Monitoring the Investment Consultant's manager search process, and conducting due diligence on any Investment Manager selected for hire by the Investment Committee that was considered and recommended to ERS by its Investment Consultant.
 - D. Identifying Investment Managers to withdraw funds from, and taking actions necessary to raise cash from the identified Investment Managers to pay Fund benefits, Fund expenses, and Fund capital call commitments, as necessary. Given there are many factors that are considered when deciding how much money to withdraw from Investment Managers at a given time, Staff retains discretion in its implementation of raising funds from Investment Managers. That said, Staff will strive to minimize the subjectivity involved in raising funds by implementing a process that works within the framework of the target allocations stated within the Investment Policy, the Asset Allocation memo dated September 2, 2021, and each asset allocation's respective structure. Staff will include a report on cash activity at the regularly scheduled Board meetings.
 - E. In the rare instance when the Fund has a cash-flow positive month (i.e. contributions are greater than cash outflows), Staff may deposit funds into Investment Managers if their strategy is below the target allocation approved within each asset allocation's respective structure or the Asset Allocation memo dated September 2, 2021. Staff will include a report on cash activity at the regularly scheduled Board meetings.
 - F. Restructuring the portfolio following manager terminations with the assistance of its Investment Consultant and Investment Manager(s).
 - G. Organizing and/or participating in any special research required to manage the Fund more effectively and in response to any questions raised by the Board.
 - H. Supporting the Board in the development and approval of the Investment Policy Statement, implementing the Policy Statement and reporting at least monthly on investment activity and matters of significance.
 - I. Ensuring the Investment Managers conform to the terms of their contracts and that performance monitoring systems are sufficient to provide the Board with timely, accurate and useful information.

- J. Performing on-site (or video conference, when conditions do not allow for travel) due diligence meetings with ERS Investment Managers every two years or as required by the Board in accordance with Board Rules and Regulations section Duties of the Chief Investment Officer.
- K. With the advice of the City Attorney's Office, and outside legal counsel when the City Attorney's Office deems necessary, approve and execute ministerial Private Real Estate and Private Equity contract amendments, pursuant to MCO 36-09-1(d5), under the following conditions:
 - Use of delegated authority must be consistent with any Real Estate and Private Equity investment plan or strategy approved or adopted by the Board. For the avoidance of doubt, the prudent manner may not always be the quickest manner. Specific to Private Real Estate only, the use of delegated authority must be consistent with the philosophy that CMERS' ultimate goal is to transition its Real Estate portfolio to 4-5 commingled, open-end fund managers in a prudent manner;
 - Delegated authority may not be used to execute any contract amendments that may be reviewed and executed within the confines of the regular Board schedule;
 - Delegated authority cannot be used to execute legal documents for a new Real Estate or new Private Equity vehicle;
 - Delegated authority cannot be used to agree to terms that are more disadvantageous than what's already included in the existing agreement (with the exception of term extensions mentioned in the next bullet point);
 - Staff may not use delegated authority against the advice of CMERS' Investment Consultant or the City Attorney's Office;
 - Staff or the City Attorney's Office will report to the Board, at the next Board meeting when possible, on actions taken under this plan (including fees);
 - CMERS Executive Director may sign amendments executed under this delegation of authority on behalf of the Board;
 - Board may revoke the delegated authority at any time.

- 2. **Investment Consultant**: The Investment Consultant is an advisor to the Board retained to provide investment management advice and a fiduciary for the purposes of the duties assumed under the Consulting Services Agreement. The Investment Consultant will provide investment management advice concerning the investment management of fund assets. Specific responsibilities of the Investment Consultant include:
 - A. Assisting in the development and periodic review of investment policy.
 - B. Conducting Investment Manager searches as authorized by the Board.
 - C. Providing "due diligence" reports or research on each of the Fund's Investment Managers.
 - D. Monitoring the performance of the Investment Managers to provide the Board with the ability to determine progress toward the investment objectives.
 - E. Communicating advice on matters of policy, manager research, and manager performance to the Board.
 - F. Reviewing Fund investment history, historical capital markets' performance and the contents of this Statement of Investment Policy with all Trustees when necessary.
 - G. Providing topical research and education on investment subjects that are relevant to the Fund.
 - H. Providing asset/liability allocation review and specific recommendations as appropriate.
 - I. Communicating with all investment related professionals retained by the Fund as required or prudent.
 - J. Reviewing all contracts between the Fund and all Investment Managers and providing summary of suggested changes.

3. **Investment Managers**: The Board must contract for investment management but exercise discretion in selection of Investment Managers. When selecting Investment Managers, the Board shall only consider Investment Managers recommended to ERS by its Investment Consultant. The Board may contract with Investment Managers based on an evaluation of their investment philosophy, performance and ability to complement existing portfolio styles. The Board requires any Investment Manager recommended by its Investment Consultant to disclose to ERS whether or not they utilize a placement agent. The Board delegates fiduciary responsibility to Investment Managers through Investment Manager agreements and Board guidelines. The Investment Manager acknowledges that it is a fiduciary of ERS with respect to the investment Manager owes a duty to the trust to exercise reasonable care to comply with the terms of the delegations as set forth in Chapter 36 of the City Charter, 36-09-1-d, 1-d-1, 1-d-3, 1-d-4 and the Board guidelines. City Charter 36-09-1d through d-8, as of July 27, 2010, are attached as an addendum.

Each specific manager must manage Fund assets according to their role as stated in the guidelines of this Investment Policy and contracted with the Board. No deviation from this discipline is authorized unless first discussed with the Board and its Investment Consultant and written approval issued. If ERS assets are invested in collective investment funds maintained by an Investment Manager, the plan and/or trust document with respect to such collective investment funds shall be part of the guidelines and controlling in the event of a conflict with any other provision of the guidelines.

This Statement of Investment Policy communicates policies regarding the current asset allocation strategies for the assets and the duties and obligations of Investment Managers. Each Investment Manager has full discretion to make all investment decisions for the assets placed under its jurisdiction, while observing and operating within all policies, guidelines, constraints and philosophies as outlined in this Statement.

Each Investment Manager is required to manage assets as a prudent investor in accordance with s. 36-09-1-d of the Charter and sub-units thereof.

Specific responsibilities of the Investment Managers are specified in the Investment Management Agreement and Board guidelines and generally include:

- A. Exercise discretionary investment authority including decisions to buy, sell, or hold individual securities within the guidelines established in this Statement. An Investment Manager has a fiduciary duty under federal securities laws to allocate securities fairly among its various accounts. The ERS will be provided a copy of the Investment Manager's trade allocation policy and procedures and will be advised, in writing, of changes to the policy and the potential impacts on ERS' account.
- B. Communicate in a timely manner any significant changes regarding economic outlook, investment strategy, or any other factors which may have an impact upon the achievement of the Fund's investment objectives.

- C. Inform the Board regarding changes within the investment management organization within a timely manner (3 days): Examples include but are not limited to: changes in lead personnel assigned to manage the account and or other significant changes including ownership, ownership structure, investment philosophy.
- D. Inform ERS of any significant asset value lost within 30 days due to termination or withdrawal. Significant asset value is indicated by 15% of the institutional assets under management in the strategy or 10% of the institutional assets under management of the firm.
- E. Subject to such guidelines as the ERS' Board may from time to time establish, vote all proxies for securities held for the Fund so long as in the Manager's belief the result of the ballot would serve to increase the value of the investment or otherwise benefit the Fund. For additional details, refer to Section VIII, Proxy Voting Guidelines.
- F. Provide timely reporting of investment activities. Each Investment Manager shall provide reports to the Board as outlined in Section VII.
- G. Maintain records of security buy and sell transactions in accordance with the records retention schedules and practices of the Fund's custodian.
- H. Meet with the Board on an as needed basis.
- 4. **Custodian**: The Custodian acts in a ministerial capacity, which means that the Custodian does not assume fiduciary responsibility except as specified in the Custodial Agreement.

In addition, the Custodian will conduct the following responsibilities:

- A. Perform regular accounting of all assets owned, purchased, or sold, as well as monitor the movement of assets into and out of the Fund accounts.
- B. Provide assistance to the Fund to complete activities including, but not limited to, annual audits and transaction verifications.
- C. If directed by the Board, manage a short-term income fund for investment of any cash not invested by managers.
- D. The Custodian, if directed by the Board, will manage the securities lending program.
- 5. Additional Professionals: Additional Professionals, including but not limited to attorneys, actuaries and auditors may be retained by the Board as necessary to assist toward the prudent administration of the Fund.

- SECTION II -INVESTMENT GOALS AND OBJECTIVES

The overall investment goal is to provide participants with retirement, disability and death and survivor benefits. The purpose of the Fund establishing an investment policy is to obtain the highest return possible on Fund investments within corresponding acceptable levels of minimum investment risk and liquidity requirements in recognition of prudent person standards and compliance with applicable local, state, and federal laws governing the operation and activities of the Fund. In particular, the Fund is bound by the City of Milwaukee Charter Chapter 36.

FUNDING LEVELS AND LIQUIDITY REQUIREMENTS

The Board seeks to keep Plan benefits as well funded as possible at all times. Additionally, the Board wishes to remain as fully invested as possible at all times, while maintaining appropriate liquidity. Generally, the Fund will maintain enough liquidity to meet one month of payments and expenses.

ASSET ALLOCATION CONSIDERATIONS

The Board implements an asset allocation policy that is predicated on a number of factors, including:

- 1. A projection of actuarial assets, liabilities, and benefit payments and the cost of contributions;
- 2. Historical and expected long-term capital market risk and return behavior;
- 3. An assessment of future economic conditions, including inflation and interest rate levels; and
- 4. The current and projected funding status

The asset allocation policy provides for diversification of assets in an effort to maximize the Fund's investment return consistent with market conditions. Asset allocation modeling identifies asset classes that the Board will utilize and the percentage that each asset class represents of the total Fund. Due to fluctuations in market values, positioning within a specific range is acceptable and constitutes compliance with the policy. It is anticipated that periodic revisions to the policy may occur and implementing such changes may require an extended period of time.

The Board's asset allocation policy is summarized on the following page. The Board, Staff and Investment Consultant will monitor and assess the actual asset allocation versus the policy and will evaluate any deviation deemed significant.

The Board will implement the asset allocation policy through the use of external Investment Managers. Assets will be invested subject to guidelines incorporated into individual investment management agreements (see SECTION VI - SPECIFIC OBJECTIVES AND GUIDELINES FOR MANAGED PORTFOLIOS).

TARGET ALLOCATIONS

The Board has determined that the following asset allocation policy is appropriate for the Fund. This allocation policy will be reviewed periodically and may be modified, if appropriate, in light of changes in the structure or goals of the Fund. The following asset allocation policy reflects interim Maximum and Minimum ranges for the Fixed Income and Absolute Return allocations, respectively, that were approved by the Board at its September 2021 meeting. For Real Assets, the target weights below reflect what Callan used in its 2020 ALM Study.

Public Equity	<u>Target</u>	<u>Minimum</u>	<u>Maximum</u>			
Domestic Equity						
Passive Large Cap	8.0%					
Active Large Cap	5.2%					
Active Mid/Small Cap	6.8%					
Total Domestic Equity	20.0%	16.0%	24.0%			
Total International Equity	16.0%	13.0%	19.0%			
Total Global Equity	8.0%	12.0%				
Total Public Equity	44%	39%	49%			
Fixed Income						
Cash	1% 0%					
Passive Fixed Income	5.5%					
Core Opportunistic Fixed Income	16.5%					
Total Fixed Income	23%	20%	30%			
Real Assets						
Private Real Estate	9.1%	5.0%	10.0%			
Public Diversified Real Assets	3.9%	1.9%	5.9%			
Total Real Assets	13%	10%	16%			
<u>Private Equity</u>	10%	7%	15%			
Absolute Return	10%	6%	15%			
<u>Total</u>	<u>100%</u>					

REBALANCING PROCEDURES

The Fund routinely needs cash for payroll or other expenses, has cash flows to and from real estate investments, has cash flows to private equity investments or has other cash needs as approved by the Board, required by a court order or required by a governmental body. Cash needs and investment experience may take the Fund outside of the established asset allocation range, requiring rebalancing activity.

In order to maintain the established target asset allocation, the Fund will implement a systematic rebalancing procedure. As determined necessary given significant cash flows or market movements, the Fund will develop and execute a rebalancing plan. To limit the amount of required liquidations and associated transaction costs, the Fund will look to rebalance concurrently with liquidity requirements of the Fund. The Staff, in consultation with the Investment Consultant, will retain discretion regarding rebalancing issues.

Based on the established ranges set forth above, Staff will determine what, if any, rebalancing activity is required. If Staff deems rebalancing to be necessary, they will provide the Investment Consultant with written recommendations from which Staff and Investment Consultant will develop a mutually agreed upon rebalancing plan. Staff will be responsible for executing all rebalancing activity.

TRANSITION MANAGER PROCEDURES

The Fund at times may need to utilize the assistance of a transition manager. The Staff working with its Investment Consultant will develop a transition manager panel, with final approval from the Board. Transition managers may be used, but not limited to, the following:

- Rebalancing between asset classes to achieve the asset allocation target policy objectives
- Terminating and funding new asset managers

If Staff and the Investment Consultant deems hiring a transition manager to be necessary, they will work to develop a mutually agreed upon transition plan. Staff will retain discretion regarding transition issues and will be responsible for executing all transition manager activity. Staff will be responsible for providing an update to the Board on all transition issues.

- SECTION III -GUIDELINES FOR ACTIVELY MANAGED FUND ASSETS

Each Investment Manager within the Fund will be chosen for a specific discipline and will be required to adhere to these general investment guidelines.

- 1. **Risk Aversion**: Investment Managers are to make reasonable efforts to control risk and will be evaluated regularly to ensure that the return of the portfolio under management is commensurate with the level of risk that is assumed within any given discipline.
- 2. **Fully Invested**: The Board has adopted a long term Asset Allocation Policy and grants Investment Managers discretion over assets within the portfolios they manage. The Board has set specific guidelines concerning the allowable levels of cash that may be maintained in each actively managed portfolio (Section VI). The Board will closely monitor the use of cash by any manager. If a manager believes that a change in its specific guideline is in the interest of the Fund, the manager should bring this recommendation immediately to the attention of the Board.
- 3. **Investment Discipline Objectives**: Each separately managed portfolio will have specific guidelines and objectives established by the Board. Investment Managers are expected to adhere to the investment discipline for which they were hired. Managers will be evaluated for adherence to their stated investment discipline.

Specific investment goals and constraints for each Investment Manager shall be incorporated as part of this Statement in Section VI: SPECIFIC OBJECTIVES FOR INDIVIDUALLY MANAGED PORTFOLIOS. Each manager shall receive a written statement outlining specific goals and constraints as approved by the City of Milwaukee Retirement System.

The goal of each Investment Manager, over the investment horizon, shall be to:

- A. Exceed the market index, or blended market index, selected and agreed upon by the Board that most closely corresponds to its style of investment management.
- B. Display an overall level of risk in the portfolio that is consistent with the risk associated with the benchmark specified.

The Investment Managers are charged with the responsibility of maintaining their portfolios in compliance with the investment guidelines. The Investment Manager is expected to identify policy items that may have an adverse impact on performance and to initiate discussion with the Staff regarding possible modification of such policies. Under no circumstances shall an Investment Manager take an action that causes the portfolio to be in conflict with the guidelines without prior written consent of the Board. If there is a deviation from the guidelines because of an Investment Manager's action, the manager will be reviewed by the Board at the next meeting following notification of the deviation. If there is a deviation from the guidelines because of a change in the market value of an Investment Manager's portfolio or a particular holding, or a change in quality rating of a particular holding, the Investment Manager shall take action that is prudent and appropriate to the intended purpose of the portfolio. If for any reason a portfolio deviates from the guidelines, the Investment Manager is responsible for reporting the deviation from the guidelines to the Board and its Investment Consultant in writing within 3 business days of when the deviation occurred. The Investment Manager is required to give this notice even if they have taken immediate action to correct the deviation. The Investment Manager will explain the deviation from the guidelines and suggest appropriate action. Within 30 days after receiving notification of a deviation from the investment policy guidelines, the Board will respond to the manager's recommendation and will direct appropriate action. Depending upon the circumstances, the consequences of deviating from the investment policy guidelines could range from an Investment Manager merely explaining what caused the deviation to occur, to the manager's termination.

- 4. **Commingled Funds**: In circumstances where the Fund is invested in a commingled vehicle, the Investment Manager will be held to the investment performance standards and guidelines set forth in the goals and guidelines of the commingled vehicle. For voting of proxies, commingled fund managers will use their master trust agreement proxy voting policy standards, however, reporting of proxy voting activity will be in accordance with ERS' policy. Brokerage decisions, including commission recapture, will be made according to the master trust document of the commingled investment vehicle.
- 5. **Brokerage and Execution of Transactions**: Investment Managers with authority over fund assets must use sound professional judgment in conducting each transaction to obtain the best possible unit price and terms of execution and to work in the best interest of the Fund.

Additionally, the Fund may utilize commissions generated on securities to obtain performance evaluation and other investment related services and benefits for the Fund.

(Please see Section IX: POLICY AND GUIDELINES FOR BROKERAGE SERVICES)

- SECTION IV -SELECTION AND REVIEW OF INVESTMENT MANAGERS

The Board of Trustees must use reasonable care, skill and caution in selecting the Investment Managers, establishing the scope and terms of the obligations of fiduciary responsibility and periodically reviewing the Investment Manager's actions in order to monitor performance in conjunction with the terms of the delegation. When selecting Investment Managers, the Board shall only consider Investment Managers recommended to ERS by its Investment Consultant that have disclosed whether or not they utilize a placement agent. The Board may contract with Investment Managers based on an evaluation of their investment philosophy, performance and ability to complement existing portfolio styles. The Investment Manager has a duty to the Board to exercise reasonable care to comply with the terms of the delegations. All Investment Managers must:

- 1. Provide the Board with a written agreement to invest within the guidelines established in the Investment Policy Statement.
- 2. Provide the Board with proof of liability and fiduciary insurance coverage.
- 3. Be a registered investment advisor or a "bank" exempt from registration under the Investment Advisers Act of 1940, and be recognized as demonstrating experience over a number of years in the management of institutional, tax-exempt assets within a defined investment capacity.
- 4. Adhere to investment style, concepts and principles for which they were retained, including, but not limited to, developing portfolio strategy, conducting research, constructing buy, sell, and hold lists and purchasing and selling securities.
- 5. Offer services in exchange for fees that are competitive with industry standards for the product category.
- Execute all transactions for the benefit of the Fund with brokers and dealers qualified to execute institutional orders on an ongoing basis at the best net cost to the Fund. For additional details, refer to Section IX: POLICY AND GUIDELINES FOR BROKERAGE SERVICES.
- 7. Reconcile monthly accounting, transaction, and asset summary with custodian valuations, report separately on gains and losses on sales, and communicate and resolve any significant discrepancies. The month-end custodian valuations will be used to calculate rates of return for performance-reporting purposes and manager fee calculations.
- 8. Maintain frequent and open communication with the Board and its Staff on all significant matters, including but not limited to changes in the Investment Manager's outlook, strategy, and portfolio structure, changes in ownership, structure, any changes involving key decision makers and significant client losses.

INVESTMENT MANAGER PERFORMANCE REVIEW AND EVALUATION

Performance reports generated by its Investment Consultant and Custodian shall be compiled quarterly and communicated to the Board for review. The investment return of total portfolios, as well as asset class components, will be measured against performance benchmarks, appropriate for each portfolio, as adopted by the Board. Consideration shall be given to the extent to which the investment results are consistent with the investment objectives, goals and guidelines as set forth in this Statement. The Board reserves the right to terminate a manager at its discretion for any reason including, but not limited to, the following:

- 1. Investment performance that is significantly less than anticipated given the discipline employed and the risk parameters established, or unacceptable justification of poor results.
- 2. Failure to adhere to any aspect of this Statement of Investment Policy, including communication and reporting requirements.
- 3. Significant changes to the investment management organization, including but not limited to loss of key personnel.
- 4. Evidence of illegal or unethical behavior by the investment management firm.
- 5. Lack of willingness to cooperate with reasonable requests by the Board and/or Staff for information, meetings, or other material related to its portfolios.
- 6. Loss of confidence by the Board in the Investment Manager.
- 7. A change in the Fund's asset allocation program that necessitates a shift of assets to another sector or asset class.

Investment Managers shall be reviewed regularly regarding performance, personnel, strategy, research capabilities, organizational and business matters and other factors that may impact their ability to achieve the desired investment results.

- SECTION V -DEFINITIONS

- 1. "The Fund" shall mean the Employes' Retirement System of the City of Milwaukee Fund.
- 2. "Annuity and Pension Board" shall refer to the governing Board of Trustees established to administer the Fund as specified by applicable ordinance.
- 3. **"Fiduciary"** shall mean any entity or person who exercises any discretionary authority or discretionary control respecting management of the Fund or exercises any authority or control respecting management or disposition of the Fund's assets, or renders investment advice for a fee or other compensation, direct or indirect, with respect to monies or property of the Fund, or has any discretionary authority or responsibility in the administration of the Fund.
- 4. "Investment Consultant" shall mean any entity or person employed to provide advisory services, including advice on investment objective and/or asset allocation, manager search, and performance monitoring.
- 5. "Investment Manager" shall mean any individual, or group of individuals, employed to manage the investment of Fund assets.
- 6. "Broker-Dealer" shall mean any entity or person in the business of effecting securities transactions for its own account and/or of others and registered as such with the Securities and Exchange Commission and a member of the National Association of Securities Dealers, Inc.
- 7. **"Market Cycle"** shall be a time period that includes a significant market decline from peak to trough and a sustained market increase significantly above the previous peak. Within the stock and bond markets, a complete cycle usually has a span of 4 to 6 years but can be shorter or longer. Observing performance over a market cycle allows the Board to analyze the results without biasing the results in favor of managers that might outperform during certain sub-periods. If a market cycle should take place within a shorter time period, additional time may still be needed to assess the value added of the manager.

CONCLUSION

This Statement is a working document structured to accomplish long term and short term planning. Investment Managers and other fiduciaries are invited to contact the Fund or its Investment Consultant with any questions about the interpretation or application of any provisions. This Statement of Investment Policy will be reviewed annually. All changes will be communicated to all appropriate parties in writing.

Please address reports, correspondence and communications to:

EMPLOYES' RETIREMENT SYSTEM OF THE CITY OF MILWAUKEE David M. Silber, Chief Investment Officer 789 N. Water Street 3rd Floor Milwaukee, WI 53202 (414) 286-3557

Please address all manager fee bills to:

EMPLOYES' RETIREMENT SYSTEM OF THE CITY OF MILWAUKEE Bernard (Jerry) Allen, Executive Director 789 N. Water Street 3rd Floor Milwaukee, WI 53202 (414) 286-3557

- SECTION VI -SPECIFIC OBJECTIVES AND GUIDELINES FOR MANAGED PORTFOLIOS

INVESTMENT OBJECTIVES AND GUIDELINES

The Board expects to receive results from the Investment Managers that are consistent with the policies included herein. The following sections outline the specific objectives and guidelines established for each asset and management category. These objectives and guidelines will provide a basis for evaluating the effectiveness of each Investment Manager and the overall investment program over time.

BOARD RESTRICTIONS

- No transaction that is prohibited under the Uniform Prudent Investor Act promulgated by the National Conference of Commissioners on Uniform State Laws (1994) and the Restatement of Trusts 3d (City of Milwaukee Charter, Chapter 36-09-1-d-7).
- No unauthorized investment under the Wisconsin Statutes.
- Prohibited investments include mortgage interest only (IO), principal only (PO), inverse floaters or other CMO derivatives that have uncertain or volatile duration or price movement.
- No assets shall be invested in restricted (lettered) stock or in private placements. This restriction is not meant to preclude purchases of securities issued under SEC Rule 144a. Rule 144a allows trading among qualified institutional investors within a segment of the private placement market.

DERIVATIVES

A derivative is broadly defined as a financial instrument whose value, usefulness and marketability, is derived from or linked to the value of an underlying security, commodity, or index that represents either direct ownership of an asset or direct obligation of an issuer. Investment managers may use derivatives traded on a recognized derivatives exchange for hedging and efficient portfolio management purposes subject to compliance with the following specific guidelines at all times.

a) Futures

- Shall never be used for leverage purposes.
- The effective economic exposure to any asset class after allowing for the impact of short futures positions shall never be negative.

b) Options

- Call options may be purchased only as long as there is sufficient cash available to meet the exercise price or as part of a call spread.
- Put options may be purchased only to the extent that the corresponding physical asset is held in the portfolio or as part of a put spread.
- Writing of options is prohibited.

c) Reporting

- All derivative positions and transactions shall be separately and explicitly identified in the Investment Manager's reporting. Each time the Investment Manager undertakes a derivative transaction they shall highlight it in the first written report afterwards and explain the rationale for the transaction.
- *d)* Over-the-counter derivatives not traded on a recognized exchange can only be used with prior specific written consent of the Board.
- Forward contracts may be used at the manager's discretion to hedge currency exposure.

Note that managers employing absolute return/alternative return strategies may make extensive use of derivatives. The ability to use derivatives is specified in the individual manager guidelines.

TRANSITION MANAGER

Permission is granted to transition managers to use futures on financial contracts, forward currency contracts, and Exchange Traded Funds in the management of portfolio transitions and in the management of portfolio rebalancing activity, according to the above-referenced Derivatives Guidelines. The use of these instruments by transition managers for these purposes will typically begin and end in short periods of time.

TOTAL FUND

OBJECTIVES AND GUIDELINES

Investment Objectives

Time Horizon		Performance Standard					
	Less than one market cycle (rolling 3-year periods).	<u>Universe</u> Rank in upper 50% of a Peer Group ¹	Index				
	One market cycle (rolling 5-year periods).	Rank in upper 40% of a Peer Group. ¹	Exceed the return on a benchmark Index by 1% . ² Have volatility of +/- 2.5% tracking error to the benchmark Index. ²				

- The investment guidelines governing each asset class/manager will together constitute the Total Fund guidelines.
- The Board is responsible for the overall asset allocation of the Fund. Each manager will be responsible for adhering to the guidelines for its portion of Fund assets only.
- ¹ As measured by a universe of similarly managed funds.
- ² As measured by a composite index designed to track the target asset allocation.

	From: To:	1/1/00 - 4/30/06	5/1/06 – 6/30/08	7/1/08 – 9/30/10	10/1/10 – 12/31/12	1/1/13 - 12/31/13	1/1/14 – 12/31/14	1/1/15 – 12/31/15	1/1/16 – 6/30/16	7/1/16 – 12/31/16	1/1/17 - 3/31/18	4/1/18 – 12/31/18	1/1/19 – 12/31/19	1/1/20 – 3/31/21	4/1/21 - Present
ACWI IMI (net)		-	-	-	-	-	-	-	56%	56%	55%	50%	47%	43%	44%
BC Agg.		30%	28%	28%	28%	28%	28%	28%	25%	22%	22%	25%	25%	26%	23%
NFI-ODCE (1 Qtr Arrears	5)	-	-	-	-	-	-	7%	7%	7%	7%	7.7%	7.7%	7.7%	9.1%
90-Day T-bill + 3%		-	-	-	-	-	-	5%	5%	8%	8%	9%	9%	10%	10%
Russell 3000 + 2% (1 Qtr Arrears)	r	-	-	-	-	-	-	-	-	-	-	-	-	10%	10%
35% Barclays TIPS / 20% Global Infrastructure / 2 Global Natural Resource 10% FTSE EPRA/NAREIT Developed / 15% Bloom Commodity Total Return	5 S&P 20% es / iberg	-	-	-	-	-	-	-	-	3%	3%	3.3%	3.3%	3.3%	3.9%
Russell 3000 + 3% (1 Qtr Arrears)	r	-	-	-	-	2%	2%	2%	4%	4%	5%	5%	8%	-	-
40% ACWI / 40% Barclay TIPS / 20% Bloomberg Commodity Total Return	ys n	-	-	-	-	-	-	-	3%	-	-	-	-	-	-
Russell 3000		50%	45%	45%	33%	31%	31%	28%	-	-	-	-	-	-	-
MSCI EAFE (net)		15%	20%	20%	22%	22%	22%	20%	-	-	-	-	-	-	-
ACWI (net)		-	-	-	-	-	10%	10%	-	-	-	-	-	-	-
NCREIF (NPI 1 Qtr Arrea	rs)	-	-	7%	7%	7%	7%	-	-	-	-	-	-	-	-
MSCI World (net)		-	-	-	10%	10%	-	-	-	-	-	-	-	-	-
NCREIF (NPI)		5%	7%	-	-	-	-	-	-	-	-	-	-	-	-

Manager:Northern TrustRole:Passive Domestic Equities

Objectives and Guidelines

Investment Objectives

Fime Horizon	Performance Standard			
Less than one market cycle (rolling 3-year periods).	<u>Universe</u> g Not Applicable	Index		
One market cycle (rolling 5-year periods).	Not Applicable	Track the performance of S&P 500 Index within 10 basis points		

- The portfolio will be invested in a sufficient number of stocks, which in aggregate fairly represent the S&P 500 Index.
- Eligible investments for the portfolio shall be limited to units of the NTGI QM Collective Daily S&P 500 Equity Index Fund Lending.
- Cash will be held to a minimum.
- The portfolio will be rebalanced as necessary selling issues that are removed from the Index and purchasing new issues added to the Index.
- Derivatives may be used to equitize cash.

Manager:BlackRockRole:Passive Index Value Domestic Equities

Objectives and Guidelines

Investment Objectives

Гіme Horizon	Per	formance Standard	
Less than one market cyc 3-year periods).	le (rolling Not Applic	<u>Universe</u> cable	Index
One market cycle (rolling periods).	5-year Not Applic	cable	Track the performance of Russell 1000 Value Index within 10 basis points

- The portfolio will be invested in a portfolio of equity securities with the objective of fairly approximating as closely as practicable the capitalization weighted total rate of return of that segment of the U.S. market for publicly traded equity securities as represented by the Russell 1000 Value Index.
- Eligible investments for the portfolio shall be limited to units of the BlackRock Russell 1000 Value Fund.
- Cash will be held to a minimum. We aim to keep the equitized cash balance in the fund to less than 1%, although the percentage at any point could be higher.
- Futures and other derivatives may be used to invest all or any portion of the Fund in one or more futures contracts or other similar assets for the purpose of acting as a substitute for investment in securities. The fund will always have an equitized cash position.

Manager:CastleArk Management, LLCRole:Active Small Capitalization Growth Domestic Equities

Objectives and Guidelines

Investment Objectives

Time Horizon	Performance Standard		
Less than one market cycle (rolling 3-year periods).	<u>Universe</u> Rank in upper 50% of a Peer Group. ¹	<u>Index</u>	
One market cycle (rolling 5-year periods).	Rank in upper 40% of a Peer Group. ¹	Exceed (after fees) the Russell 2000 Growth Index.	

Investment Guidelines

- Appropriate investments consist of common and preferred stocks and cash equivalents.
- Holdings in any one company should not exceed 5% of the portfolio, measured at market value.
- Holdings in one economic sector are to be kept within +/- 10% points of the benchmark weighting.
- The manager is expected to maintain a fully invested position with no more than 10% of the portfolio in cash equivalents and Exchange Traded Funds (ETFs) combined. Cash is to be invested in the Short Term Investment Fund (STIF) provided by the ERS' custodian. If a manager believes that a change in this guideline is in the interest of the Fund, the manager should bring this recommendation immediately to the attention of the Board.
- The portfolio's average weighted market capitalization is limited to no more than 175% of the Russell 2000 Growth.
- Holdings may include up to 10% Convertible Securities, measured at market value.
- Holdings may include up to 15% securities of foreign issuers measured at market value. Foreign issuers would include American Depository Receipts (ADRs) and securities of foreign issuers traded on U.S. securities exchanges.

¹As measured by the Callan Small Capitalization Growth Equity Peer Group.

Manager:Dimensional Fund AdvisorsRole:Active Large Capitalization Value Domestic Equities

ACCOUNT SPECIFIC INVESTMENT GUIDELINES

Investment Approach

The investment objective of the Account is to achieve long-term capital appreciation. The Manager's investment approach for the Account is to capture the return and diversification benefits of securities of large U.S. companies, as determined from time to time by the Manager, that the Manager determines to be value stocks and anticipates a weighted average total market capitalization generally lower than the benchmark. The Manager does not provide any guarantee with regard to the performance of the Account or that any investment objective will be successfully achieved.

Benchmark

Russell 1000 Value Index

Authorized Investments

- The Account may invest in any of the following:
 - Common Stocks, preferred stocks, convertible securities, warrants, rights and other securities with equity characteristics, as determined by the Manager
 - Depository receipts including "ADRs", "EDRs", "NVDRs" and "GDRs" (whether the underlying company is listed or unlisted) and foreign listings
 - Futures contracts and options on futures contracts for U.S equity securities and indices. These contracts may be used to adjust market exposure based on actual or expected cash inflows to or outflows from the Account. The Account does not intend to sell futures contracts to establish short positions in individual securities or to use derivatives for purposes of speculation or leveraging investment returns.
 - Participation notes
 - Real estate investment trusts ("REITs")
 - Exchange Traded Funds ("ETFs")
 - o Securities received in connection with corporate actions from time to time
 - Cash and cash equivalents

- Appropriate investments consist of authorized investments as noted above.
- At time of purchase, investment in any one company should not exceed 5% of the Account.
- At time of purchase, investments in any one industry as defined by 6-digit GIC should not exceed 25% of the value of the Account's total assets.
- The Manager is expected to maintain an invested position with no more than 10% of the Account invested in fixed income, cash or cash equivalents, except after cash inflows or prior to expected outflows.
- Under normal circumstances, at least 80% of the Account will be invested in securities of large cap U.S. companies.
- Under normal circumstances, the weighted average total market capitalization of the Account should not exceed 150% of the weighted average total market capitalization of the Russell 1000 Value Index.

Additional Considerations

The Manager may consider a company's size, value, and/or profitability relative to other eligible companies when making investment decisions for the Account. The Manager may adjust the representation in the Account of an eligible company, or exclude a company, after considering such factors as free float, momentum, trading strategies, liquidity, profitability, and other factors that the Manager determines to be appropriate, given market conditions. Securities are considered value stocks primarily because a company's shares have a high book value in relation to their market value. In assessing profitability, the Manager may consider different ratios, such as that of earnings or profits from operations relative to book value or assets. The criteria the Manager uses for assessing value or profitability are subject to change from time to time.

Manager:Polen Capital ManagementRole:Active Large Capitalization Domestic Equities

Objectives and Guidelines

Investment Objectives

Time Horizon	Performance Standard	
Less than one market cycle (rolling 3-year periods).	<u>Universe</u> Rank in upper 50% of a Peer Group. ¹	Index
One market cycle (rolling 5-year periods).	Rank in upper 45% of a Peer Group. ¹	Exceed (after fees) the S&P 500 Index.

- Appropriate investments consist primarily of common and preferred stocks and/or convertible securities. Convertible securities may represent up to 5% of the portfolio market value.
- Holdings in any one company should not exceed the greater of 10% of the portfolio or 3% over the S&P 500 Index weighting, measured at market value
- Holdings in one economic sector, based on the GICS sector classifications, should not exceed greater than 60% of the market value of the portfolio.
- The manager is expected to maintain a fully invested position at all times with no more than 10% of the portfolio in fixed income or cash equivalents. If a manager believes that a change in this guideline is in the interest of the Fund, the manager should bring this recommendation immediately to the attention of the Board.
- Holdings may include up to 20% American Depositary Receipts (ADRs) and/or foreign securities traded on US exchanges, or in the OTC market, measured at market value.
- Permissible investments also include exchange traded funds, mutual funds, and real estate investment trusts (REITs).
- The following investment vehicles are not allowed:
 - Commodities, commodity contracts, related futures or options
 - Illiquid securities
 - Venture capital investments
 - Short sales
 - Direct investments in oil, gas or other mineral exploration or developments
 - Margin transactions
 - Direct investments in real estate or interests in real estate
 - Section 144A Securities
- ¹ As measured by the Callan Large Cap Broad Equity Peer Group.

Manager:EARNEST PartnersRole:Active Mid Capitalization Domestic Equities

Objectives and Guidelines

Investment Objectives

Time Horizon		Performance Standard	
Less than one market cycle (rolling 3-year periods).	<u>Universe</u> Rank in upper 50% of a Peer Group. ¹	<u>Index</u>	
One market cycle (rolling 5-year periods).	Rank in upper 45% of a Peer Group. ¹	Exceed (after fees) the Russell Mid Cap Index + 2%.	

- Appropriate investments consist primarily of common and preferred stocks and/or convertible securities. Convertible securities may represent up to 5% of the portfolio at market value.
- Holdings in any one company should not exceed 7% of the portfolio, measured at market value.
- Holdings in one economic sector should not exceed the greater of 30% of the portfolio or 200% of the Index weighting, measured at market value.
- The manager is expected to maintain a fully invested position at all times with no more than 10% of the portfolio in fixed income, cash equivalents or Exchange Traded Funds. If a manager believes that a change in this guideline is in the interest of the Fund, the manager should bring this recommendation immediately to the attention of the Board.
- Holdings may include up to 10% American Depository Receipts (ADRs), measured at market value.
- Holdings may include Real Estate Investment Trusts (REITs) at a level of up to 1.2 times the proportion of REITs in the Russell Mid Cap Index.
- ¹ As measured by the Callan Mid Cap Equity Peer Group.

Manager:Dimensional Fund AdvisorsRole:Active Small Capitalization Value Domestic Equities

Objectives and Guidelines

Investment Objectives

Time Horizon	Performance Standard		
Less than one market cycle (rolling 3-year periods).	<u>Universe</u> Rank in upper 50% of a Peer Group. ¹	Index	
One market cycle (rolling 5- year periods).	Rank in upper 40% of a Peer Group. ¹	Exceed (after fees) the Russell 2000 Value Index + 2%.	

- Appropriate investments consist of common and preferred stocks and cash equivalents.
- Holdings in any one company should not exceed 5% of the portfolio measured at cost; 10% measured at market value.
- Holdings in one industrial sector should not exceed the greater of 30% of the portfolio or 150% of the Index weighting, measured at market value.
- The manager is expected to maintain a fully invested position with no more than 10% of the portfolio in fixed income or cash equivalents. If a manager believes that a change in this guideline is in the interest of the Fund, the manager should bring this recommendation immediately to the attention of the Board.
- At least 80% of the portfolio will be invested in small capitalization companies.
- Holdings may include up to 10% American Depository Receipts (ADRs), measured at market value.
- ¹ As measured by the Callan Small Capitalization Value Equity Peer Group.

Manager:Brandes Investment PartnersRole:Active International Equities

Objectives and Guidelines

Investment	Ob	jectives

Time Horizon	Performance Standard		
Less than one market cycle (rolling 3-year periods).	Universe Rank in the upper 50% of a Universe. ¹	<u>Index</u>	
One market cycle (rolling 5-year periods).	Rank in the upper 40% of a Universe. ¹	Exceed (after fees) the MSCI EAFE Index + 2%.	

- Holdings in any one company should not exceed the greater of 7% of the portfolio or 5% over the Index weighting, measured at market value.
- Adequate diversification by sector, country and currency block should be maintained.
- Japan's and the United Kingdom's combined weighting is limited to their combined benchmark weighting plus 15% while Canada's is limited to 12%. Other countries' maximum is the greater of the benchmark plus 10% or 200% of the benchmark weighting.
- A maximum of 30% of the portfolio may be invested in non-EAFE markets. Canada is not counted towards this 30% limitation.
- The manager is expected to maintain a fully invested position with no more than 10% of the portfolio in fixed income or cash equivalents. If a manager believes that a change in this guideline is in the best interest of the Fund, the manager should bring this recommendation immediately to the attention of the Board.
- Foreign currency forward contracts are permitted for defensively hedging purposes only. The total exposure of all hedges is limited to 100% of the total portfolio value, at market. Shorting currency exposure in countries without any underlying security exposure is prohibited.
- Warrants are not to exceed 20% of the portfolio value.
- ¹ As measured by the Callan International Equity Peer Group.
- ² MSCI EAFE is the Morgan Stanley Capital International Europe, Australasia and the Far East

Manager:William Blair Institutional ManagementRole:Active International Equities

Objectives and Guidelines

Investment Objectives		
Time Horizon		Performance Standard
Less than one market cycle (rolling 3- year periods).	Universe Rank in the upper 50% of a Universe. ¹	Index
One market cycle (rolling 5-year periods).	Rank in the upper 40% of a Universe. ¹	Exceed (after fees) the MSCI ACWIxUS ² Index $+ 2\%$.

- Holdings in any one company should not exceed the greater of 7% of the portfolio or 5% over the Index weighting, measured at market value.
- Adequate diversification by sector, country and currency block should be maintained.
- Japan's and the United Kingdom's combined weighting is limited to their combined benchmark weighting plus 15% while Canada's is limited to 12%. Other countries' maximum is the greater of the benchmark plus 10% or 200% of the benchmark weighting.
- William Blair may invest a maximum of 35% of the portfolio or 150% of the MSCI ACWI ex-US Index weighting (whichever is less) in emerging markets companies.
- The manager is expected to maintain a fully invested position with no more than 10% of the portfolio in fixed income or cash equivalents. If a manager believes that a change in this guideline is in the best interest of the Fund, the manager should bring this recommendation immediately to the attention of the Board.
- Foreign currency forward contracts are permitted for defensive hedging purposes only. The total exposure of all hedges is limited to 100% of the total portfolio value, at market. Shorting currency exposure in countries without any underlying security exposure is prohibited.
- Warrants are not to exceed 20% of the portfolio value.

¹ As measured by the Callan International Equity Peer Group.

² MSCI ACWIXUS is the Morgan Stanley Capital International All Country World Free Index excluding the United States.

Manager:DFA International Small Capitalization Value PortfolioRole:Active International Small Capitalization Equities

Objectives and Guidelines

Investment Objectives			
Time Horizon		Performance Standard	
Less than one market cycle (rolling 3-year periods).	Universe Rank in the upper 50% of a Universe. ¹	Index	
One market cycle (rolling 5-year periods).	Rank in the upper 40% of a Universe. ¹	Exceed (after fees) the MSCI EAFE Small Cap (Net) ² Index by 2%.	

Investment Guidelines

- Holdings in any one company should not exceed the greater of 7% of the portfolio or 5% over the Index weighting, measured at market value.
- Investments are limited to small Japanese, United Kingdom, European, Canadian and Asia Pacific companies, or small companies in such other countries as the manager's Investment Committee may from time to time determine.
- At least 80% of the portfolio will be invested in small capitalization companies.
- The manager is expected to maintain a fully invested position with no more than 10% of the portfolio in fixed income or cash equivalents. If a manager believes that a change in this guideline is in the best interest of the Fund, the manager should bring this recommendation immediately to the attention of the Board.
- Foreign currency forward contracts are permitted for defensive hedging purposes only. The total exposure of all hedges is limited to 100% of the total portfolio value, at market. Shorting currency exposure in countries without any underlying security exposure is prohibited.
- Warrants are not to exceed 20% of the portfolio value.

² MSCI EAFE is the Morgan Stanley Capital International Europe, Australasia and the Far East (MSCI EAFE).

¹ As measured by the Callan International Equity Small Cap Peer Group.

Fund:AQR Emerging Equities Fund, L.P.Managing Member:AQR Capital Management, LLCRole:Active Emerging Markets EquitiesDate:8/1/2016

Objectives and Guidelines

AQR Emerging Equities Fund, L.P. (the "Fund") is not subject to the investment objectives and guidelines contained in this Investment Policy. The operative investment objective and guidelines of the Fund are set forth in the governing documents and the Confidential Private Placement Memorandum of the Fund ("PPM"). Notwithstanding, the Manager has informed ERS that as of the date of ERS' initial investment, the investment objectives and guidelines set forth below are consistent with the operative investment objectives and guidelines of the Fund. The Manager has further informed ERS that the investment guidelines and objectives of the Fund are subject to change.

Investment Objectives

Time Horizon	Performance Standard <u>Index</u>	
Less than one market cycle (rolling 3-year periods).		
One market cycle (rolling 5- year periods).	Exceed (after fees) the MSCI Emerging Markets Index by 200 basis points annually.	
Investment Guidelines		

• ERS will invest in the AQR Emerging Equities Fund, L.P., a commingled fund. Therefore, ERS' investment is subject to the terms and provisions of the governing documents for the Fund, such as the objectives and guidelines as outlined in the governing documents and PPM.

Current Investment Policy

- This Fund seeks to add value by employing a disciplined approach emphasizing both bottomup security selection decisions and top-down country/currency allocation.
- This Fund intends to utilize a set of valuation, momentum and economic factors to generate an investment portfolio based on asset allocation models and security selection procedures aimed at assisting the Fund in meeting its investment objective.
- This Fund generally will be managed by both underweighting and overweighting securities, countries and currencies relative to the Benchmark; however, the Fund has the ability to trade in securities of issuers in countries and currencies not included in the benchmark.
- This Fund will invest primarily in equity and equity-related securities and currency forwards.

EMPLOYES' RETIREMENT SYSTEM OF THE CITY OF MILWAUKEE

- The Investment Manager is not restricted as to the percentage of the Fund's assets that may be invested in any particular issuer, industry, instrument, market or strategy. The Fund does not and will not maintain any fixed limits, guidelines or requirements for diversifying its portfolio among strategies, issuers, industries, instruments, markets or sectors. However, as of the date of this document, typical maximum deviations are as follows: stock selection, +/- 2.5%; sector selection, +/- 5.5%; country selection, +/- 10%; and currency selection, +/- 15%.
- Permissible Investments include the following:
 - Equity and Equity-Related Securities
 - Currency Forwards
 - Fixed-Income Securities (Corporate and Governmental)
 - Exchange-Traded Funds ("ETFs")
 - Equity Index Futures
 - Equity Index Swaps
 - Options
 - Warrants
 - Equity Swaps
 - Futures
 - U.S. Government Securities
 - Bank Deposits
 - Money Market Instruments
- Further, AQR will implement the Fund's portfolio using whatever financial instruments are deemed appropriate. These include, but are not limited to, the instruments identified in the general description of each investment strategy employed by the Fund in the PPM. AQR may, at any time, discontinue using any of these financial instruments or may add additional financial instruments.
- The Fund will use leverage as part of the investment program. Leverage may take the form of, among other things, financial instruments including, without limitation, derivative instruments which are inherently leveraged and products with embedded leverage such as options, short sales, swaps and forwards. The Fund generally will not be economically leveraged. Economic leverage occurs when the total value of equity securities held long, plus the notional market value of equity derivatives held long, minus the notional market value of equity derivatives held long, of the total market value of the Fund.

The representations of the Manager are made solely as of the date of ERS' initial investment in the Fund and solely with respect to the current version of this Investment Policy. For avoidance of doubt, the Manager expressly disclaims any amendment or revision of this Investment Policy.

Manager:BlackRock Institutional Trust Company, N.A.Role:Enhanced Index Core Global Equities

Objectives and Guidelines

Investment Objectives			
Time Horizon		Performance Standard	
Less than one market cycle (rolling 3-year periods).	<u>Universe</u> Rank in upper 50% of a Peer Group. ¹	Index	
One market cycle (rolling 5-year periods).	Rank in upper 40% of a Peer Group. ¹	Exceed (after fees) the MSCI All Country World Index	

All active weight restrictions set forth below will be measured relative to the MSCI All Country World Index.

- Appropriate investments consist primarily of common and preferred stocks and/or convertible securities. Convertible securities may represent up to 5% of the portfolio market value.
- Holdings in any one company should not exceed the greater of 10% of the portfolio or 5% over the Index weighting, measured at market value.
- Holdings in any one sector should not exceed the greater of 25% of the portfolio or 10% over the Index weighting, measured at market value.
- Holdings in any one country should not exceed the greater of 25% of the portfolio or 10% of the Index weighting, measured at market value.
- A maximum of 25% of the portfolio may be invested in emerging markets.
- Holdings may include up to 25% American Depository Receipts (ADRs), measured at market value.
- The manager is expected to maintain a fully invested position at all times with no more than 10% of the portfolio in fixed income or cash equivalents. If a manager believes that a change in this guideline is in the interest of the Fund, the manager should bring this recommendation immediately to the attention of the Board.
- Holding Foreign currency forward contracts are permitted for defensively hedging purposes only. The total exposure of all hedges is limited to 100% of the total portfolio value, at market. Shorting currency exposure in countries without any underlying security exposure is prohibited.
- Derivatives may be used to equitize cash.
- ¹ As measured by the Callan Global Equity Peer Group.

Manager:MFS Institutional Advisors, Inc.Role:Active Growth Global Equities

Objectives and Guidelines

Investment Objectives

Time Horizon	Performance Standard	
Less than one market cycle 3-year periods).	(rolling Rank in the upper 50% of a Universe. ¹	<u>Index</u>
One market cycle (rolling 5 periods).	-year Rank in the upper 40% of a Universe. ¹	Exceed (after fees) the MSCI All Country World Index

All active weight restrictions set forth below will be measured relative to the MSCI All Country World Index.

- If the portfolio deviates from these Guidelines for any reason, manager will notify the Board and its Investment Consultant in writing within three business days of *discovery* of the variance and take further action pursuant to Section III. 3. of the Statement of Investment Policy.
- Permissible Investments include the following:
 - Common Stock
 - Preferred Stock
 - Convertible Securities, including Convertible Preferred Stock and Convertible Bonds
 - Rights, Warrants, and Participatory Notes (P-Notes)
 - Exchange-traded Funds ("ETFs")
 - Index Futures
 - ADRs, ADSs, GDRs, and GDSs (and other depository receipts and shares)
 - Real Estate Investment Trusts ("REITs")
 - Publicly-traded Partnerships ("PTPs")
 - Units
 - IPOs. The portfolio may participate in initial public offerings. For purposes of investment in U.S. IPOs, the Board represents that the portfolio is not restricted from participating in such offerings under FINRA Rule 5130 or FINRA Rule 5131.
 - Unlisted securities are allowed (including securities traded in the over the counter market, Regulation S securities, and Rule 144A securities as further described herein).
- ¹ As measured by the Callan Global Equity Peer Group (data to be provided to MFS on a quarterly basis)
- Holdings in any one company should not exceed the greater of 7% of the portfolio or 3% over the Index weighting, measured at market value.
- Adequate diversification by sector and country should be maintained, meaning that holdings in any one sector should not exceed the greater of 30% of the portfolio or 200% of the Index weighting (as defined by GICS sector scheme), measured at market value. The portfolio will be invested in at least 10 countries at all times, one of which will be the United States.

- A maximum of 25% of the portfolio, measured at market value, may be invested in emerging markets as classified by MSCI.
- The manager is expected to maintain a fully invested position with no more than 10% of the portfolio in fixed income or cash equivalents. If a manager believes that a change in this guideline is in the best interest of the Fund, the manager should bring this recommendation immediately to the attention of the Board.
- Foreign currency forward contracts are permitted for defensive hedging purposes only. The total exposure of all hedges is limited to 100% of the total portfolio value, at market. Shorting currency exposure in countries without any underlying security exposure is prohibited. (Manager is not required to execute foreign currency trades through the custodian but may trade with those foreign exchange counterparties that manager believes will provide the best service in accordance with its fiduciary duty to seek best execution.)
- Rights, warrants, and P-Notes are not to exceed 10% of the portfolio value.
- 144A securities and Regulation S securities are not to exceed 10% of the portfolio value. 144A securities that are exchange traded do not count against the 10% limit.
- Settlement Practices/Lock-Ups. It is understood that certain foreign markets may require free or partial free delivery (e.g. initial partial escrow payments) regarding settlement of trades. It is further understood that certain securities, including pre IPOs, are subject to "lock-up" provisions in certain markets.
- For purposes of the restriction in Section VI of the IPS prohibiting investment in restricted (lettered) stock or private placements (other than Rule 144A securities with registration rights which are allowed), lettered stock shall be defined as private placements other than Rule 144A with registration rights.

Other:

For the avoidance of doubt, where the limitations above are affected by items out of the manager's control (e.g., cash inflows, cash outflows, market action), they will not be considered as a breach of the guidelines and the manager will take action to resolve the temporary non-compliance as soon as practicable. The time to bring the portfolio back into compliance could take several days (e.g., 5 days) to resolve.

Trading Currency: The trading currency for the portfolio is US Dollars (USD) unless specifically instructed by the Board to the manager to the contrary. Reporting Currency:

The reporting currency of the portfolio is US Dollars.

The manager shall comply with its Operational and Compliance Standards, a copy of which shall be provided to the Board.

Manager:BlackRockRole:Passive Fixed Income

Objectives and Guidelines

Investment Objectives

Time Horizon	Performance Standard	
	<u>Universe</u>	Index
One market cycle (rolling 5-year periods).	Not Applicable	Seek to track the performance of the Bloomberg Barclays U.S. Government Bond Index

- The Fund will be invested and reinvested primarily in a portfolio of fixed income securities issued or guaranteed by the U.S. government and shares of investment companies (including exchange-traded funds), with the objective of approximating as closely as practicable the total rate of return of the Bloomberg Barclays U.S. Government Bond Index.
- The Fund is an "index fund" that seeks investment results that correspond generally to the price and yield performance, before fees and expenses, of the Bloomberg U.S. Government Bond Index (its "Underlying Index"). The Underlying Index is sponsored by an organization (the "Index Provider") that determines the composition and relative weightings of the securities in the Underlying Index and publishes information regarding the market value of the Underlying Index.
- Futures and other derivatives may be used to invest all or any portion of the Fund in one or more futures contracts, forward contracts or other similar assets for the purpose of acting as a temporary substitute for investment in securities.
- The Fund is permitted to engage in securities lending to enhance returns.

Manager:Reams Asset ManagementRole:Opportunistic Fixed Income

Objectives and Guidelines

Time Horizon	Performance Standard	
Less than one market cycle (rolling 3-year periods).	<u>Universe</u> Rank in upper 50% of a Peer Group. ¹	<u>Index</u>
One market cycle (rolling 5- year periods).	Rank in upper 40% of a Peer Group. ¹	Exceed (after fees) the Benchmark Index $+ 1.0\%$. ²

- The duration of the aggregate portfolio should be no more than 2 years below or above the Barclays Capital Aggregate Index.
- A maximum of 20% of the market value of the portfolio may be invested in corporate, non-corporate and 144(a) securities rated at or below BB+ or Ba1. An additional 5% of the market value of the portfolio may be invested in non-rated issues.
- A maximum of 10% of the market value of the portfolio may be invested in non-dollar securities.
- Corporate, non-corporate and 144(a) securities that are downgraded below B- or B3 by both Standard and Poors and Moody's Investor Services must be sold within 90 days following the downgrade. Reams must notify ERS of the downgrade in writing within 3 business days and provide a written update to ERS on the downgraded security on a weekly basis.
- Asset-backed securities that are downgraded below BBB- or Baa3 by both Standard and Poors and Moody's Investor Services must be sold within 90 days following the downgrade. Reams must notify ERS of the downgrade in writing within 3 business days and provide a written update to ERS on the downgraded security on a weekly basis.
- The average quality of the portfolio must be A-/A3 or better. Unrated U.S. Treasury and U.S. Federal Government Agency securities are permissible and will be treated as AAA rated for purposes of average quality calculations.
- No one security or aggregation of one company's securities, except securities issued or guaranteed by the U.S. Government or its agencies, will comprise more than 2% of the portfolio, as determined at the time of purchase.
- Long-only (sell protection) indexed credit default swaps may be utilized to gain exposure in the fixed income market with a notional value limit of 30% of the portfolio. The indexed credit default swaps shall not be used to create leverage or for speculative purposes and will be calculated at their notional value for guideline purposes. In addition, any portfolio liabilities resulting from the indexed credit default swaps must be fully collateralized by cash, cash equivalents, or U.S. Treasury securities.

- A maximum of 3% of the portfolio, at the time of purchase, may be invested in the Reams Unconstrained Bond Fund, a commingled fund, managed by Reams, subject to guidelines set forth in the goals and guidelines of the commingled vehicle.
- Sector limitations (as a percentage of the portfolio's market value) are limited to the following ranges:

Sector	Min	Max
US Treasuries	0%	100%
US Agencies	0%	80%*
Corporates	0%	100%
Mortgage-Backed Securities	0%	80%**
Asset-Backed Securities	0%	25%
Non-Corporates ⁽³⁾	0%	20%
Emerging Market Debt ⁽⁴⁾	0%	0%
Non-Dollar Securities	0%	10%
144(a) Securities	0	25%

*US Agencies excluding Mortgage-Backed Securities Max is 50%. **Non-Agency Mortgage-Backed Securities Max is 25%.

• Minimum credit ratings for individual holdings, specific to the sectors, are as follows:

Sector	Minimum
	Rating
Corporates & Non-Corporates	B-/B3
Asset-Backed Securities	BBB-/Baa3
144(a) Securities	B-/B3
Cash equivalents, commercial paper and repurchase agreements	A1/P1

¹ As measured by the Callan Fixed Income Core Opportunistic Peer Group

- ² As measured by the Barclays Capital Aggregate Index
- ³ Non-Corporates replaced Yankees in the Barclays Capital Aggregate Index and include dollar denominated supranational, sovereign, foreign agency, and foreign local debt.
- ⁴ Emerging markets as defined by the International Finance Corporation.

Manager:Loomis, Sayles & CompanyRole:Opportunistic Fixed Income

Objectives and Guidelines

Investment Objectives

Time Horizon	Performance Standard	
Less than one market cycle (rolling 3-year periods).	<u>Universe</u> Rank in upper 50% of a Peer Group. ¹	<u>Index</u>
One market cycle (rolling 5- year periods).	Rank in the upper 40% of a Peer Group ¹	Exceed (after fees) the Benchmark Index + 1.0%. ²

- The effective duration of the aggregate portfolio should be no less than 50% and no more than 250% of the Bloomberg Barclays US Aggregate Index.
- Up to 20% of the market value of the portfolio may be issues rated B- or B3 and an additional 5% may be invested in non-rated issues.
- Loomis must notify ERS of the downgrade of corporate, non-corporate and 144(a) securities below B- or B3 by both Standard and Poor's and Moody's Investors Service within three (3) business days. Loomis must provide quarterly credit updates so long as it retains the security(ies). Corporate, non-corporate and 144(a) securities rated below B- and B3 by both Standard and Poor's and Moody's Investors Service may not exceed 3% of the market value of the portfolio.
- Asset-backed securities that are downgraded below BBB- or Baa3 by both Standard and Poors and Moody's Investor Services must be sold within 90 days following the downgrade. Loomis must notify ERS of the downgrade in writing within 3 business days and provide a written update to ERS on the downgraded security on a weekly basis.
- The average quality of the portfolio must be BBB-/Baa3 or better. Unrated U.S. Treasury and U.S. Federal Government Agency securities are permissible and will be treated as AAA rated for purposes of average quality calculations.
- No security, except securities issued or guaranteed by the U.S. Government or its agencies or instrumentalities, will comprise more than 5% of the portfolio.
- Up to 20% of the market value of the portfolio may be invested in total equities (common and preferred) as determined at the time of purchase. Common stock shall be limited to 5% of the market value of the portfolio, as determined at the time of purchase.

• Sector limitations (as a percentage of the portfolio's market value) are limited to the following ranges:

Sector	Min	Max
US Treasuries	0%	100%
US Agencies	0%	50%
Corporates	0%	100%
Mortgage-Backed Securities	0%	50%
Asset-Backed Securities, including a 5% sub-limit in Collateralized Loan Obligations	0%	25%
Investment Grade Yankees and Non-Corporates ⁽³⁾	0%	25%
Non-Investment Grade Yankees and Non-Corporates ⁽³⁾	0%	20%
Non–US Dollar / Non-Canadian Dollar	0%	20%
144(a) Securities	0%	50%
Canadian Dollar Issues	0%	20%

• Minimum credit ratings for individual holdings, specific to the sectors, are as follows:

Sector	Minimum Rating
Corporates & Non–Corporates	B-/B3
Asset-Backed Securities	BBB-/Baa3
Collateralized Loan Obligations	BB-/Ba3
144(a) Securities	B-/B3
Cash equivalents, commercial paper and repurchase agreements	A1/P1

¹ As measured by the Callan Core Opportunistic Fixed Income Peer Group

² As measured by the Bloomberg Barclays Capital Aggregate Index

³ Canadian issued bonds do not count towards the Yankee limit.

Principa Principa Real Ass	al Diversified Real Asset CIT ("Principal DRA CIT") al Global Investors Trust sets Strategy
	Objectives and Guidelines
ectives	
	Market Cycle approximately 3-5 years
tandard	3-5% over CPI over a market cycle
	Custom Index:
	35% Barclays U.S. TIPS Index 20% S&P Global Infrastructure Index 20% S&P Global Natural Resources Index 15% Bloomberg Commodity Total Return Index 10% FTSE EPRA/NAREIT Developed Market Index
	Principa Principa Real Ass ectives

Investment Guidelines

The Principal DRA CIT is a collective investment trust for which Principal Global Investors Trust Company (f/k/a Union Bond & Trust Company) ("Trust Company"), an Oregon banking corporation acts as Trustee (the "Trustee") pursuant to the Declaration of Trust as may be amended from time to time. The Principal DRA CIT is only available to certain retirement, pension, profit sharing, stock bonus and similar plans and their individual participants. The Trust Company has retained Principal Global Investors, LLC ("PGI") to serve as the investment advisor for the Principal DRA CIT. PGI is an affiliate of the Trust Company.

Objective: The investment objective of the Principal DRA CIT is to seek a long-term total return in excess of CPI by 3-5%.

Main Strategies and Risks

The Principal DRA CIT seeks to achieve its investment objective by allocating its assets among numerous investment categories including, but not limited to the following: inflation-indexed bonds, securities of real estate companies, commodity futures, fixed-income securities, foreign currency, securities of natural resource companies, master limited partnership ("MLPs"), publicly-listed infrastructure companies, floating rate debt, securities of global agriculture companies, and securities of global timber companies. The Principal DRA CIT is allowed to utilize derivative instruments.

The Trustee, as authorized in the Declaration of Trust, has hired PGI to serve as investment advisor for the Principal DRA CIT. PGI develops recommendations for the Principal DRA CIT's strategic asset allocation, which are executed by multiple sub-advisors. The allocations will vary from time to time and the Principal DRA CIT may add additional investment

categories.

In recommending strategic allocations and sub-advisors to implement the allocations, PGI considers, among other things, quantitative measures, such as past performance, expected levels of risk and returns, expense levels, diversification of existing funds, and style consistency. In addition, qualitative factors such as organizational stability, investment experience, consistency of investment process, risk management processes, and information, trading, and compliance systems of the underlying investment option's sub-advisor are also evaluated. The Trustee considers the recommendations provided by PGI and determines whether to use cash flows or asset transfers or both to achieve the target weights established from time to time for underlying investment options.

Trustee makes this representation solely as of the date of The Employes' Retirement System of the City of Milwaukee ("ERS") initial investment in the collective investment trust and solely with respect to the current version of this Investment Policy. For avoidance of doubt, Trustee expressly disclaims any amendment or revision of this Investment Policy.

Manager:Robert W. BairdRole:Short-Term Fixed Income Manager

Objectives and Guidelines

Investment Objectives

Primary: Provide principal preservation and liquidity of assets to meet projected payouts.

Secondary: Track the Barclays 1-3 year Government/Credit Index, and provide competitive investment returns over time.

- Meet liquidity requirements that currently anticipate payouts beginning in January 2013 through at least December 2014. These liquidity needs shall be reviewed on a regular basis.
- The maximum effective duration of the short-term fixed income portfolio, including any investments in approved money market and short-term bond funds, shall be 2 years.
- The portfolio may be invested in securities having a rating of AAA or AA by Standard and Poor's or Aaa and Aa1 by Moody's Investors Service.
- Baird must notify ERS of downgrades of securities below AA or Aa1 by both Standard and Poor's and Moody's Investors Service, and make a recommendation within three (3) business days. If the security is retained, Baird must provide weekly credit updates so long as it retains the security(ies).
- No security, except securities issued or guaranteed by the U.S. Government or its agencies, will comprise more than 5% of the portfolio. No limitation with regard to money market sweep funds or short term bond funds.
- Eligible Investments:
 - 1. The following shall be eligible investments:
 - a. U.S Treasury and Agency Obligations
 - b. Approved money market and short term bond funds
 - c. Agency mortgage-backed securities including collateralized mortgage obligations
 - d. Mortgage and asset backed securities rated AAA
 - e. Corporate notes and bonds, U.S. dollar-denominated, including 144a securities
 - f. Repurchase agreements U.S. government collateral only
 - g. Short-term fixed income mutual funds whose holdings are consistent with the characteristics of the eligible investments
 - 2. Convertibles, options, futures or other derivative instruments are prohibited

Fund:
Managing Member:
Role:

CMERS Low Beta LLC UBS Alternative and Quantitative Investments LLC Hedge Fund of Funds Strategy

Investment Objectives

The Investment Manager will attempt to construct a broad based neutral portfolio with exposure to a number of hedge fund strategies

The Fund seeks to target limited beta to equity markets over an economic cycle (3-5 years), as measured relative to the MSCI World Index USD.

Time Horizon

Performance Standard

Less than one market cycle (rolling
3-year periods).

One market cycle (rolling 5-year periods).

Exceed (after fees) the 1-year London Interbank Offered Rate (LIBOR) by 400 basis points.

In<u>dex</u>

Investment Guidelines

Strategies and Anticipated Allocation Ranges Equity Hedged: (0-50%)

• The Fund will retain flexibility to invest in managers who may exhibit either long or short bias to risky assets depending on market environment provided downside risk is seen to be adequately restrained. Sub-strategies currently include: Fundamental and Equity Event.

13F Strategy: (0-5%)

• The Fund is permitted to invest in a Portfolio Fund managed by the Investment Manager which pursues the Investment Manager's "13F Strategy," an equity trading strategy that seeks to replicate the aggregate performance characteristics of a portfolio of equity securities held by a select number of Submanagers which have listed them on their respective filings under SEC Form 13F. The 13F Strategy shall be considered a subset of Equity Hedged such that the allocation range for the 13F Strategy and Equity Hedge together shall be (0-50%).

Credit / Income (0-50%)

• Credit: These strategies in aggregate are subject to a guideline of no more than 50% of the total portfolio. The Fund will retain flexibility to invest in managers who may exhibit either long or short bias to risky assets depending on market environment provided downside risk is seen to be adequately restrained.

- Sub-strategies currently include: Distressed, Corporate Long/Short, Structured Products and will not exceed 40% of the total portfolio.
- Income: The Fund will retain flexibility to invest in managers that participate in reinsurance strategies. Reinsurance strategies will not exceed 10% of the portfolio.

Relative Value: (0-60%)

• The Fund is permitted to invest in all Relative Value strategies, including: Quantitative Equity, Merger Arbitrage, Capital Structure/Volatility Arbitrage, Fixed Income Relative Value (FIRV), and Agency MBS.

Trading: (0-40%)

• The Fund is permitted to invest in all Trading strategies, including Global Macro, Commodities and Systematic CTAs. Sub-strategies currently include: Systematic, Global Macro, Commodities.

Other: (0-10%)

• This category contains investment approaches that are outside of the mainstream hedge fund strategies (Equity Hedged, Credit, Relative Value, and Trading). The category includes other alternative strategies, such as tactical asset allocation/risk parity, private equity, and real estate dealings, as well as new niche investment approaches that do not fit into any of the other mainstream strategies.

Multi-Strategy:

- The Fund is permitted to invest in Multi-Strategy managers, which include allocations to a combination of strategies. These offerings are often the result of commonalties in the research and trading talent required for successful execution of the strategies. These funds allocate capital opportunistically among strategies believed to offer a suitable risk-adjusted return profile going forward.
- Applicable guidelines for multi-strategy managers will be monitored on a look-through basis to the underlying Strategies and will count toward the specified limits above.

Investments in Portfolio Funds Managed by Affiliates of the Investment Manager

Investments in Portfolio Funds managed by affiliates of the Investment Manager will be capped at 20% and would be limited to Customized Baskets ("CBs"), Managed Accounts ("MAs") or other Special Purpose Vehicles ("SPVs") where the Investment Manager may seek to attain certain exposures pursuant to the investment objectives of the Fund and where such exposure may otherwise not be accessible to the Fund. In the event such investments are implemented, the Investment Manager will not charge the Fund additional management fees or performance fees within the CBs, MAs or SPVs. Aside from such investments in CBs, MAs or SPVs, no investments will be made to UBS affiliates (e.g. O'Connor).

Diversification

The Investment Manager will determine the appropriate number of Portfolio Funds in its sole discretion. However, the number will typically range between 15-39 Portfolio Funds, excluding co-investments, unless otherwise agreed by the Fund.

Liquidity Considerations

The Investment Manager will seek to invest in Portfolio Funds with a mix of different liquidity profiles. However, the Investment Manager will seek to maintain:

- At least 70% of the net asset value of the Fund to be allocated to Portfolio Funds with stated liquidity terms (with penalties) that allow for redemption within 1 year.
- Up to 30% of the net asset value of the Fund may be allocated to Portfolio Funds with stated liquidity terms that allow for redemption greater than a 1 year hard lock up. Up to 1/3 of these Portfolio Funds (approximately 10% of the Fund) may have a hard lock up of greater than 2 years, but no more than 3 years unless they fall into the category of Portfolio Funds with no predefined redemption period. The latter shall also fall inside the 10% limitation.
- An investor gate can cause a position to fall into multiple liquidity buckets. For example, a 1/8th quarterly liquidity fund would have 50% of its position in the "within 1 year " bucket and the remainder in the "greater than 1 year bucket", none of which would fall into the greater than 2 year bucket.

The above terms do not include audit withholds imposed by Portfolio Funds. The Fund acknowledges and understands that disbursements of any withheld amounts could take between 12 and 18 months to receive and will not be counted toward the above liquidity considerations.

From time to time, a manager may segregate certain securities from its Portfolio Fund and establish a "side pocket" structure and/or share class, which may have less liquid characteristics. The Investment Manager will attempt to limit the Fund's exposure to side pocket holdings. However, the ultimate side pocket exposure will be at the discretion of the each underlying manager.

Leverage

The Investment Manager does not expect to employ leverage above and beyond what may be undertaken by the underlying Portfolio Funds. The Fund indicated it is able to provide additional cash with sufficient notice for operating purposes such as funding short term subscriptions or coverage for FX currency hedging.

Investment Manager Bespoke Structures/Co-Investments

The Fund is eligible to participate in A&Q bespoke structures and co-investments with full discretion of the Investment Manager.

Investment Eligibility

The Fund may invest in both US tax transparent funds and/or offshore vehicles.

Tail/Overlay Hedging

Callan Investment Consulting

The Fund is eligible to participate in A&Q Tail/Overlay Program (TAU).

New Issues

The Fund is eligible to participate in new issues, and as such the Fund may invest in the new issues eligible share classes, if deemed appropriate.

PRIVATE EQUITY

A separate Private Equity Statement of Investment Policy has been adopted by the Board. This policy is an extension of the Statement of Investment policy and will be reviewed annually.

REAL ESTATE

A separate Real Estate Investment Policy Statement has been adopted by the Board. This policy is an extension of the Statement of Investment policy and will be reviewed annually.

- SECTION VII -

REQUIRED REPORTING OF ACTIVELY MANAGED INVESTMENT PORTFOLIOS

The Board has determined that each Investment Manager given discretionary authority over a portion of the Fund's assets shall provide the following required reports to the Fund at the time periods indicated.

15 copies of these reports shall be compiled and distributed to Staff.

ON A MONTHLY BASIS:

- 1. TRANSACTION STATEMENT: A complete list of all transactions.
- 2. ASSET LISTING: A complete list of all portfolio holdings, including securities' names, amount owned, cost and market valuations and percentage of total portfolio.
- 3. A STATEMENT OF INVESTMENT PERFORMANCE: Expressed in percentage increase/decrease for the following periods: Month, Year To Date, One Year, Three Year, Five Year and Since Inception. Comparative statistics for the specific Benchmarks should also be included.

ON A QUARTERLY BASIS:

In addition to the above reports, the following will be completed:

- 1. A LETTER OF TRANSMITTAL: Addressed to the Chief Investment Officer of the Fund with copies to trustees that includes a narrative about the account performance and all related factors for the quarter.
- 2. A STATEMENT OF EXPECTATIONS: Regarding both near and long-term expectations for the account.
- 3. RECONCILIATION: At market value, between the managers' records and those provided by the Fund's Custodian. Differences in cash due to unsettled trades should be so noted as well as any differences in carrying value of securities. The Custodian's final pricing will be used to calculate returns and to calculate manager fees.

ON AN ANNUAL BASIS:

1. Complete an Annual Compliance Certificate that the ERS or the Investment Consultant provides

In addition, the Manager will meet with the representatives of the Board as often as deemed necessary by the Board. In the interim, the Manager will keep Staff, the Board, and the Investment Consultant apprised of any relevant information regarding its organization, personnel and/or investment strategy. The manager will notify Staff or the President of the Board within 3 days of any change in the lead personnel assigned to manage the account.

- SECTION VIII -PROXY VOTING GUIDELINES

The Board of the ERS has delegated the responsibility for voting proxies to their Investment Managers. Each Investment Manager has the responsibility for voting proxies in the best interests of plan participants.

The Board will monitor the proxy voting of its Investment Managers. By June 30 of each year, each Investment Manager will supply to the Board and its Investment Consultant an acknowledgement that it is responsible for voting proxies in the best interests of plan participants, a copy of the Investment Manager's proxy voting procedures and guidelines and a list of how the Investment Manager voted on all proxy issues during the 12 months preceding the report.

- SECTION IX -POLICY AND GUIDELINES FOR BROKERAGE SERVICES

This policy statement is intended to serve as a guide for Investment Managers engaged on behalf of the Employes' Retirement System of the City of Milwaukee (the "System") in the course of investing the retirement funds of the System. Each Investment Manager engaged by the System is responsible to exercise its responsibility prudently and solely in the interests of the participants and beneficiaries of the System. This document outlines the policies and procedures to be considered by Investment Managers in fulfilling this obligation.

- 1. <u>General Policies and Principles:</u> The Board requires that these principles guide all transactions:
 - a) Each manager is charged with the responsibility for all aspects of the investment process with respect to assets entrusted to it and consistent with the specific terms of this engagement by the System.
 - b) Each manager is expected to act prudently with respect to decisions to buy or sell securities as well as with respect to the decision who will execute the transaction.
 - c) Each manager shall secure best execution for each transaction it enters on behalf of the System. This requires that each manager execute securities transactions for the System in such a manner that the System's total cost or proceeds in each transaction is the most favorable under the circumstances. Each manager shall consider the full range and quality of a broker's services in placing brokerage, including, but not limited to, the value of research provided as well as execution capability, commission rate, financial responsibility and responsiveness to the manager. Lowest commissions paid in connection with a trade is not determinative of whether the transaction represents the best qualitative execution of the trade.
- 2. <u>Trading Policies and Guidelines:</u> Consistent with its fiduciary and best execution responsibilities described above, each manager, excluding the collective or commingled fund managers, should use its best efforts to minimize <u>total commission dollars</u> generated by buy

and sell transactions of exchange traded or electronically traded securities in accordance with the following action and policy of the Board:

- a) The System desires to minimize total transaction costs (commission plus net price) through the use of electronic trading services.
- 3. The Board may utilize the services of a transaction cost provider to monitor the individual manager transactions.

- SECTIONX -

APPROVED SECURTIES LENDING PROGRAMS

The Board has authorized the execution of a Securities Lending Program which will be performed by the Fund's custodian or qualified third party securities lending agent(s). The program is monitored and reviewed by the Staff and was established by a written agreement authorized by the Board. The Securities Lending Program is detailed in the Securities Lending Authorization Agreement with the Fund's custodian, presently The Northern Trust Company.

- SECTION XI -STATEMENT OF INVESTMENT POLICY ADDENDUM

- d. Prudent Investor Rule. Except as otherwise specifically provided in this chapter, the board and a person under contract to the Employes' Retirement System who invests and manages trust assets owes a duty to comply with the prudent investor rule.
- d-1. Standard of Care; Portfolio Strategy; Risk and Return Objectives. The board and a person under contract to the Employes' Retirement System to invest and manage trust assets shall invest and manage assets as a prudent investor would by considering the purposes, terms, distribution requirements and other circumstances of the trust. In satisfying this standard, the board and such person shall exercise reasonable care, skill and caution. Investment and management decisions respecting individual investment assets must be evaluated not in isolation, but in the context of the trust portfolio as a whole and as part of an overall investment strategy having risk and return objectives reasonably suited to the trust. A reasonable effort shall be made to verify facts relevant to the investment and management of trust assets. Assets may be invested in any kind of property or type of investment consistent with the standards of this sub. d. A board member or a person under contract to the Employes' Retirement System who invests and manages trust assets who has special skills or expertise or is named in reliance upon his or her representation that he or she has special skills or expertise has a duty to use those special skills or expertise.
- d-2. Diversification. The board and person under contract to the Employes' Retirement System to invest and manage trust assets shall diversify the investment of the trust unless the board reasonably determines that because of the special circumstances, the purposes of the trust are better served without diversifying.
- d-3. Loyalty. The board and a person under contract with the Employes' Retirement System to invest and manage trust assets shall invest and manage the trust assets solely in the interests of the beneficiaries.
- d-4. Investment Costs. In investing and managing trust assets, the board and a person under contract to the Employes' Retirement System to invest and manage trust assets may only incur costs that are appropriate and reasonable in relation to the assets for the purposes of the trust and the skills of the trustee.

- d-5. Delegation. The board has a duty to personally perform the responsibilities of trusteeship except as those responsibilities are by this section delegated to others or except as a prudent person might delegate those responsibilities to others. In deciding whether and to whom and in what manner to delegate fiduciary authority in the administration of the trust and thereafter supervising agents, the board is under a duty to the beneficiaries to exercise fiduciary discretion and to act as a prudent person would in similar circumstances. In performing a delegated function, a person under contract to the Employes' Retirement System to invest or manage funds owes a duty to the trust to exercise reasonable care to comply with the terms of the delegation. The board shall not be liable to the beneficiaries or to the trust for the decisions or actions of a person to whom a function was delegated provided that the board shall have used reasonable care, skill and caution in selecting the person; establishing the scope and terms of the delegation consistent with the purposes and terms of the trust; and periodically reviewing the person's actions in order to monitor performance in compliance with the terms of delegation.
- d-6. Reviewing Compliance. Compliance with the prudent investor rule is determined in light of the facts and circumstances existing at the time of the decision or action and not by hindsight.
- d-7. The text and comments to the Uniform Prudent Investor Act promulgated by the National Conference of Commissioners on Uniform State Laws (1994) and the Restatement of Trusts 3d: Prudent Investor Rule (1992) are interpretive of the provisions of this par.
- d-8. Nothing in this par. prevents the board and the Employes' Retirement System from requiring indemnification or insurance from a contractor, nor does anything in this par. preclude the board and the Employes' Retirement System from obtaining indemnification or insurance for their activities.

Ninth Amendment to the Investment Management and Custody Agreement Between The Employes' Retirement System of the City of Milwaukee and BlackRock Institutional Trust Company, N.A.

This Ninth Amendment to the Investment Management and Custody Agreement (the "Ninth Amendment") is made as of ______, 2021, by and between The Employes' Retirement System of the City of Milwaukee ("ERS") and BlackRock Institutional Trust Company, N.A. (the "Manager").

WHEREAS, ERS and the Manager are party to an Investment Management and Custody Agreement dated as of May 28, 2002, as amended (the "Agreement"); and

WHEREAS, ERS and the Manager desire to amend certain terms and conditions of the Agreement, to revise the investment management fees and to reaffirm the Agreement between themselves;

NOW, THEREFORE, in consideration of the mutual covenants hereinafter stated, the parties do hereby agree to amend the Agreement, as follows:

1. Section XI(B) to the Agreement is hereby deleted in its entirety and replaced and superseded with the below:

B. The Manager agrees that it shall notify ERS in the event that, subsequent to the effective date of this Agreement, it enters into a similarly structured and more favorable fee arrangement with a similar institutional client receiving substantially similar services and who utilizes substantially similar investment objectives and strategies with assets of an equal or lesser size under management. To the extent the Manager enters into such an arrangement, the Manager shall notify and offer to ERS in writing the opportunity to elect to receive such fees established by such arrangement, provided that ERS also agrees to any and all obligations or conditions applicable to such more favorable fee arrangement.

- EXHIBIT B-1 Investment Guidelines to the Agreement is hereby deleted in its entirety and replaced with Exhibit B-1 attached to this Ninth Amendment and made a part of the Agreement. For the avoidance of doubt, the attached Exhibit B-1 shall replace and supersede any previous Exhibit B-1.
- 3. EXHIBIT D Manager Compensation to the Agreement is hereby deleted in its entirety and replaced with Exhibit D attached to this Ninth Amendment and made a part of the Agreement. For the avoidance of doubt, the attached Exhibit D shall replace and supersede any previous Exhibit D.

- 4. If any provision of this Ninth Amendment is held to be invalid or unenforceable, such invalidity or unenforceability shall not affect any other provision, and the Ninth Amendment shall be construed and enforced as if such provision had not been included.
- 5. The parties hereby affirm the provisions of the original Agreement, as subsequently amended, including paragraph 7 of the Fourth Amendment, and agree that the phrase "including all Amendments thereto and this Fourth Amendment" shall hereafter include all amendments to the Agreement, including but not limited to this Ninth Amendment and all future amendments.
- 6. Except as expressly set forth above, all other terms and provisions of the Agreement, as amended from time to time, shall remain in full force and effect.
- 7. This Ninth Amendment may be executed in counterparts, each of which shall constitute a separate original and all of which together shall constitute one and the same instrument. Facsimile or pdf copies shall be acceptable and enforceable in lieu of originals.
- 8. Effective Date. This Ninth Amendment is effective on _____. The parties' rights and obligations pursuant to the Agreement, as amended, shall remain in effect at all times.

[remainder of page left intentionally blank]

IN WITNESS WHEREOF, ERS and the Manager have hereunto set their hands this ____ day of ____, 2021.

IN THE PRESENCE OF:

EMPLOYES' RETIREMENT SYSTEM OF THE CITY OF MILWAUKEE

RUDOLPH KONRAD, President, ERS Date: _____

BERNARD J. ALLEN, Secretary and Executive Director, ERS Date:_____

COUNTERSIGNED:

AYCHA SAWA, Comptroller, City of Milwaukee

Date:

IN THE PRESENCE OF:

BlackRock Institutional Trust Company, N.A.

Date:_____

Examined and approved as to form and execution this _____, 2021.

James M. Carroll, Assistant City Attorney

EXHIBIT B-1 Investment Guidelines

A. To expand on Section II – Appointment, Section B, the ERS Account shall be invested in the following Funds, in accordance with the below:

Fund(s)	Is the Fund permitted to engage in securities lending?
Global Alpha Tilts Fund A	Yes
Russell 1000® Value Fund	Yes
Government Bond Index Fund C	Yes

If any of the Funds noted above engages in securities lending, such Fund will pay to the Manager a separate securities lending fee as described in Exhibit D.

B. With respect to the Funds listed below, each such Fund may, directly or indirectly, invest in open-end managed investment companies registered under the Investment Company Act of 1940 to which the Manager or an affiliate provides investment management or other services ("Affiliated Funds"). Each Such Fund will only invest in Affiliated Funds when the Manager believes that an investment in Affiliated Funds would be consistent with or is necessary to fully implement the investment strategy of such Fund. The purchase, sale and holding of Affiliated Funds will be effected in accordance with Department of Labor Prohibited Transaction Exemptions 2012-09 or 77-4 (or other available exemption). In addition, if the Manager invests a portion of any such Fund, directly or indirectly, in an Affiliated Fund, then an offsetting credit of the Affiliated Fund's management fees (if any) shall be reflected in such Collective Fund's unit value. As a result, the Plan shall not bear any such management fees paid to an Affiliated Fund.

Each Affiliated Fund in which the below listed Funds may invest, as of the date of this Exhibit B-1 is listed below:

Fund(s)	Affiliated Fund(s)
Global Alpha Tilts Fund A	iShares MSCI India ETF
Government Bond Index Fund C	 iShares 1-3 Year Treasury Bond ETF iShares 10-20 Year Treasury Bond ETF iShares 20+ Year Treasury Bond ETF iShares 3-7 Year Treasury Bond ETF iShares 7-10 Year Treasury Bond ETF

• iShares Short Treasury Bond ETF

Information about the Affiliated Funds is contained in the prospectus, statement of additional information and other disclosure documents ("**AF Disclosure Documents**"), which can be found at the following link: www.ishares.com/us/library/financial-legal-tax. The AF Disclosure Documents for each Affiliated Fund contain additional information about fees and compensation paid by the Affiliated Fund. An Affiliated Fund may engage in securities lending and the Manager and/or its affiliates may earn additional compensation as a result of the securities lending as described in the AF Disclosure Documents.

By signing this Exhibit B-1, ERS (i) acknowledges receipt of Managing ERISA Assets and the AF Disclosure Documents for each of the Affiliated Funds in which the ERS Account may invest; (ii) consents to the electronic delivery of the AF Disclosure Documents for each such Affiliated Fund and acknowledges that it has had the opportunity to review the current AF Disclosure Documents for each such Affiliated Fund, including the management fee charged by each such Affiliated Fund; (iii) acknowledges that an Affiliated Fund may invest a portion of its assets in other funds from which the Manager or its affiliates may receive fees for providing management, administrative and/or other services; (iv) represents that ERS is independent and unrelated to the Manager and its affiliates; and (v) approves the management and other fees, including securities lending fees, paid by the Affiliated Funds in relation to the fees payable pursuant to Exhibit D.

- C. The investment guidelines for the above referenced Funds can be found in the Plan of BlackRock Institutional Trust Company, N.A. Investment Funds for Employee Benefit Trusts and the Schedule A thereto, a current copy of which may be accessed via the following website link: <u>www.blackrockdocuments.com</u>. ERS has received an email containing a login ID and password to access the above website. The Manager shall notify ERS of material changes to the investment guidelines for any Fund in which the ERS Account is invested.
- D. Short-Term Investment Funds

The ERS Account or the above referenced above referenced collective investment funds may invest in Short-Term Investment Fund, a short term investment fund established under the Plan (a "STIF"), used as a cash "sweep" vehicle to manage uninvested cash. If a Fund engages in securities lending, it may be invested in one or more STIFs to reinvest and manage cash collateral associated with securities loans. Additional information relating to the investment objectives, guidelines and risk management for the STIFs can be found in "Short-Term Investment Funds Overview and Guidelines" (the "STIF Guidelines"). A copy of the STIF Guidelines, which may be updated from time to time, may be accessed via <u>www.blackrockdocuments.com</u>.

E. Cross-Trading Authorization

ERS acknowledges that it has received and reviewed the description of the Manager's cross trading program in *Managing ERISA Assets*. ERS hereby authorizes participation in the Manager's cross-trading program in accordance with PTE 2002-12 and the performance by the Manager of any act necessary or proper to enable it to purchase or sell securities to another account or fund managed by the Manager or its affiliates at prevailing market levels in accordance with applicable law, including PTE 2002-12, and the Manager's cross-trading policies and procedures.

[remainder of page left intentionally blank]

EXHIBIT D Manager Compensation

A. INVESTMENT MANAGEMENT FEES

To expand on Section XI – Compensation of Manager, for investment management services rendered, ERS shall pay the Manager investment management fees as follows:

1. Base Fee (annual):	5 basis points
	The base fees paid each quarter based on the average market value
	of the portfolio during the quarter (defined as the average of the
	beginning and ending market values during the most recent
	quarter), multiplied by the base fee amount divided by 4, and
	prorated for periods of less than a full calendar quarter.
2. Market Return:	MSCI ACWI Index, as reported by ERS' Custodian using index
	provider data, to two decimal places (e.g. x.xx%)
3. Required Excess Return:	135 basis points per year, above the market return, net of Base Fee.
4. Normal Fee:	42 basis points on the first \$100 million
	36 basis points on the balance
5. Portfolio Return:	Time weighted total return before investment management fees, as
	calculated by ERS' Custodian, to two decimal places (e.g. x.xx%).
6. Performance Fee:	((Normal Fee – Base Fee) ÷ Required Excess Return) x (Portfolio
	Return – Market Return – Base Fee)
	(With the exception of the first four (4) quarters after the effective
	dates - see "Phase-in Provisions"). Performance Fees are
	calculated using rolling 3-year annualized returns and billed
	quarterly in arrears by calculating the applicable Average Market
	Value (see below) and applying twenty-five percent (25%) of the
	Performance Fee schedule above.
	The Performance Fee is paid only when the Portfolio Return has
	exceeded the market return plus the Base Fee.
7. Average Market Value	An average of the market values at the beginning of the
(applies to Base Fee and	measurement period and at the end of each quarter included in the
Performance Fee):	measurement period. The market values will be provided by ERS'
	Custodian and will include any accruals calculated, and shall be
	based on their assessment of ERS' assets under management with
	the Manager with respect to the Global Alpha Tilts Fund A.
8. Total Fee:	(Performance Fee x Average Market Value) + Base Fee
	This fee is paid quarterly.

1. Global Alpha Tilts Fund A
9. Minimum Fee:	The minimum fee for the Global Alpha Tilts Fund A is the Base
	Fee.
10. Maximum Fee:	The maximum fee equals the Total Fee earned when the Portfolio
	Return minus the Market Return minus the Base Fee is greater than
	or equal to 3.25%.
11. Phase-in Provision:	At the end of the first three (3) quarters after the original effective
	date, the Manager will receive a fee equal to the Base Fee. The
	original effective date is on or about February 1, 2016, the date of
	the initial investment in the Global Alpha Tilts Fund A. At the end
	of the fourth (4 th) quarter after the effective date, performance for
	the four (4) quarters will be used to compute the Performance Fee
	due for the entire four (4) quarter period. The Performance Fee and
	the Maximum Fee will be computed using the Average Market
	Value for the four (4) quarters. For the fifth (5^{th}) through the
	twelfth (12th) quarters the Performance Fee calculation shall be
	based upon cumulative annualized returns from inception date.
	Thereafter, the calculation will be made on an annualized rolling
	twelve (12) quarter basis. For the fifth (5^{th}) quarter and beyond, the
	Performance Fee will be applied quarterly against the Average
	Market Value for the measurement period. This Performance Fee,
	if applicable, will be paid in addition to the Base Fee for the
	quarter.
12. Calculation (applies to Base	The fee shall be calculated by the Manager using market values
Fee and Performance Fee):	provided by ERS' Custodian, the portfolio returns calculated by
	ERS' Custodian and the market return reported by ERS' Custodian
	using index provider data. The Manager's fee calculation shall be
	submitted to ERS for verification. Discrepancies in the elements of
	the calculation will be reconciled between the Manager and ERS,
	as required. ERS' Custodian rate of return information will be the
	authoritative resource if any discrepancies arise.
13. Termination:	In the event of a termination of the investment management
	agreement, the Performance Fee shall be calculated from the most
	current Performance Fee through the trade date of the final sell
	transaction and shall be based on: ((Normal Fee – Base Fee) \div
	Required Excess Return) x (Portfolio Return – Market Return –
	Base Fee).
14. Payment of Fees:	Payment of the Base Fee shall be made quarterly by ERS within
	thirty (30) days of the statement date, subject to the prior review
	and approval of EKS. Payment of the Performance Fee shall be
	made quarterly by EKS within thirty (30) days of the statement
	date, subject to the prior review and approval of ERS.

2. <u>Russell 1000® Value Fund</u>

Annual investment management fee rate:

Balance 1 basis points

3. Government Bond Index Fund C

Annual investment management fee rate:				
First	\$100,000,000	2.25 basis points		
Next	\$400,000,000	1.50 basis points		
Balance	-	0.75 basis point		

B. FEE CALCULATION METHODOLOGY

The fee calculation methodology for the Government Bond Index Fund C and Russell 1000[®] Value Fund are as follows:

Investment management fees are calculated quarterly in arrears by averaging an account's three month-end market values invested in the applicable collective investment fund. The market values used to calculate the management fees will be provided by ERS' Custodian and shall be based on their assessment of ERS' assets under management with the Manager with respect to each applicable collective investment fund. Such calculation shall apply the annual fee rate listed above and shall be based on the actual number of days of such calendar quarter (e.g. 91/365, or 366 for leap years). When assets are held for a partial quarter(s) as a result of an initial contribution to or a final withdrawal from a collective investment fund, the management fee will be prorated for the period, based on the actual number of days in the invoice period divided by the actual number of calendar days (e.g. actual days in invoice period/365 or 366 for leap years). Other than the initial contribution and/or final withdrawal, there will be no other proration for asset flows into or out of a collective investment fund for the purposes of calculating the management fee.

Payment of investment management fees is due to the Manager within thirty (30) days after the invoice date. Investment management fees will be calculated and billed in U.S. Dollars.

C. <u>SECURITIES LENDING FEES</u>

The lending Fund and the Manager will each receive fifty percent (50%) of the net income earned from securities lending transactions. If a loan is collateralized with cash, net income is determined by calculating the return received by a lending Fund's investment of cash collateral posted for securities loans in the applicable STIF used to manage cash collateral, net of borrower rebate fees. If a loan is collateralized with assets other than cash, net income equals the loan fee negotiated with the borrower. The net income from securities lending divided between the lending Fund and the Manager is also net of cash collateral management fees paid to the Manager as described below and the other expenses of the STIFs used to manage cash collateral. The Manager bears all operational costs directly related to securities lending transactions from its share of net income. The ERS' portion of lending revenue is retained by the lending Fund and invested in accordance with the relevant Fund guidelines.

STIFs used to manage cash collateral associated with securities loans are subject to a management fee, payable to the Manager, accrued daily on the net assets of such STIF. The primary STIF used to manage cash collateral for the lending Funds is subject to an annual management fee rate of 0.056%.

D. ADMINISTRATIVE EXPENSES.

Each of the Funds is subject to administrative expenses, including, but not limited to accounting, custody and audit fees. The administrative expenses are accrued daily against the Fund, which results in an adjustment in the Fund's unit value to reflect such expenses accrued.

One such administrative expense accrued daily against each Fund is a fee associated with unitholder account servicing, including the recording of client transactions and acting as the unitholder registry ("**Transfer Agent Service Fee**"). Each und is subject to a Transfer Agent Service Fee of \$3,300 per year, payable to the Manager or an affiliate of the Manager. If a Fund invests in other Funds, the Transfer Agent Service Fee will be charged to each Fund.

E. <u>**PRV CALCULATION FEE**</u>. With respect to any purchase or redemption of units of an "index" or "modeldriven" Fund, as such terms are defined under applicable law, an investor in such a Fund may experience transaction costs associated with such purchase or redemption. Such costs include all or a portion, as applicable, of a flat fee of \$150 payable to the Manager for calculating a "purchase net asset value" or a "redemption net asset value", if the transaction costs in the aggregate for the Fund exceed \$1,000. If there are multiple transacting parties contributing to or withdrawing from the Fund on a given day, any calculation fee will be applied to the transacting parties on a pro rata basis.

[remainder of page left intentionally blank]

EXHIBIT B-1 Investment Guidelines

A. To expand on Section II – Appointment, Section B, the ERS Account shall be invested in the following Funds, in accordance with the below:

1. Global Alpha Tilts Fund A

Fund(s)	Is the Fund permitted to
	engage in securities lending?
<u>Global Alpha Tilts Fund A</u>	Yes
Russell 1000® Value Fund	Yes
Government Bond Index Fund C	Yes

The Global Alpha Tilts Fund A may engage in securities lending and will pay to the Manager a separate securities lending fee as described below.

If any of the Funds noted above engages in securities lending, such Fund will pay to the Manager a separate securities lending fee as described in Exhibit D.

B. With respect to the Funds listed below, each such Fund The Global Alpha Tilts Fund A-may, directly or indirectly, invest in open-end managed investment companies registered under the Investment Company Act of 1940 to which the Manager or an affiliate provides investment management or other services ("Affiliated Funds"). The Global Alpha Tilts FundEach Such Fund-A will only invest in Affiliated Funds when the Manager believes that an investment in Affiliated Funds would be consistent with or is necessary to fully implement the investment strategy of the Global Alpha Tilts Fund Asuch Fund. The purchase, sale and holding of Affiliated Funds will be effected in accordance with Department of Labor Prohibited Transaction Exemptions 2012-09 or 77-4 (or other available exemption). In addition, iH the Manager invests a portion of the Global Alpha Tilts Fund Aany such Fund, directly or indirectly, in an Affiliated Fund's unit value. As a result, the Plan shall not bear any such management fees paid to an Affiliated Funda) ERS' pro-rata-share of the investment advisory fees paid to any Affiliated Fund in which the Global Alpha Tilts Fund A or (b) the Manager will purchase such Affiliated Funds in accordance with Department of Labor Prohibited Transaction Exemption 2012-09.

Each Affiliated Fund in which the Global Alpha Tilts Fund Abelow listed Funds may invest, as of the date of this Exhibit B-1_, including a link where the current prospectus of such Affiliated Fund may be accessed, is listed below:

Name of Affiliated Fund	Link to Affiliated Fund Prospectus
iShares MSCI India ETF	http://www.ishares.com/us/library/financial-legal-tax

Fund(s)	Affiliated Fund(s)
Global Alpha Tilts Fund A	• iShares MSCI India ETF
Government Bond Index Fund C	• iShares 1-3 Year Treasury Bond ETF
	• iShares 10-20 Year Treasury Bond ETF
	• iShares 20+ Year Treasury Bond ETF
	• iShares 3-7 Year Treasury Bond ETF
	• iShares 7-10 Year Treasury Bond ETF
	• iShares Short Treasury Bond ETF

Management fees charged as of the date of this Exhibit B-1 by each Affiliated Fund in which the Global Alpha Tilts Fund A may invest are described in the current prospectus for each such Affiliated Fund, which also contains additional information about fees and compensation paid by the Affiliated Funds. In addition, such management fees are also described in Managing ERISA Assets. ERS (i) acknowledges receipt of Managing ERISA Assets and the prospectus for the Affiliated Fund in which the Global Alpha Tilts Fund A may currently invest; (ii) acknowledges that is has had the opportunity to review the current prospectus for the Affiliated Fund; and (iii) represents that ERS is independent and unrelated to the Manager and its affiliates.

Information about the Affiliated Funds is contained in the prospectus, statement of additional information and other disclosure documents ("AF Disclosure Documents"), which can be found at the following link: www.ishares.com/us/library/financial-legal-tax. The AF Disclosure Documents for each Affiliated Fund contain additional information about fees and compensation paid by the Affiliated Fund. An Affiliated Fund may engage in securities lending and the Manager and/or its affiliates may earn additional compensation as a result of the securities lending as described in the AF Disclosure Documents.

By signing this Exhibit B-1, ERS (i) acknowledges receipt of Managing ERISA Assets and the AF Disclosure Documents for each of the Affiliated Funds in which the ERS Account may invest; (ii) consents to the electronic delivery of the AF Disclosure Documents for each such Affiliated Fund and acknowledges that it has had the opportunity to review the current AF Disclosure Documents for each such Affiliated Fund, including the management fee charged by each such Affiliated Fund; (iii) acknowledges that an Affiliated Fund may invest a portion of its assets in other funds from which the Manager or its affiliates may receive fees for providing management, administrative and/or other services; (iv) represents that ERS is independent and unrelated to the Manager and its affiliates; and (v) approves the management and other fees, including securities lending fees, paid by the Affiliated Funds in relation to the fees payable pursuant to Exhibit D.

Reasons Why Use of BlackRock Registered Investment Companies May Be Appropriate for the ERS-Account

The ERS Account may invest the Global Alpha Tilts Fund A in a BlackRock registered investment companywhen such investment is appropriate to achieve the investment objectives of the ERS Account. Affiliated Fundsmay be used, for instance as an efficient tool to gain diversified exposure to subsets of the broader capitalmarkets where the Manager has a compelling investment thesis. In order to determine whether an investment in a particular BlackRock registered investment company, forwhich the Manager or an affiliate acts as the investment advisor may be appropriate for the ERS Account whencompared with such alternatives as securities or collective investment funds, the Manager may consider the factors listed below, along with such other factors that it believes are relevant:

- Efficient implementation of investment strategy;
- The reinvestment and cash management risk;
- Availability of other alternatives within the necessary time frame;
- The costs involved, including transaction and management costs; or
- The liquidity of the respective product.

2. U.S. Debt Index Fund

The U.S. Debt Index Fund may engage in securities lending and will pay to the Manager a separate securities lending fee as described below.

3. Russell 1000® Value Fund

The Russell 1000[®] Value Fund may engage in securities lending and will pay to the Manager a separate securities lending fee as described below.

- C. The investment guidelines for the above referenced Funds can be found in the Plan of BlackRock Institutional Trust Company, N.A. Investment Funds for Employee Benefit Trusts and the Schedule A thereto, a current copy of which may be accessed via the following website link: <u>www.blackrockdocuments.com</u>. ERS has received an email containing a login ID and password to access the above website. The Manager shall notify ERS of material changes to the investment guidelines for any Fund in which the ERS Account is invested.
- D. Short-Term Investment Funds

The ERS Account or the above referenced above referenced collective investment funds may invest_ through one or more short term investment funds, including but not limited to thein Short-Term Investment Fund, a short term investment fund established under the Plan (each, a "STIF Fund"), used for as a cash "sweep" vehicle to manage uninvested cash. If or, if a Fund engages in securities lending, it may be invested in one or more STIFs to reinvest and manage cash collateral associated with securities loans. Additional information relating to the investment objectives, guidelines and risk management for the STIFs – Funds – can be found in "Short-Term Investment Funds Overview and Guidelines" (the "STIF Guidelines"). A copy of the STIF Guidelines, which may be updated from time to time, may be accessed via <u>www.blackrockdocuments.com</u>.

E. Cross-Trading Authorization

ERS acknowledges that it has received and reviewed the description of the Manager's cross trading program in *Managing ERISA Assets*. ERS hereby authorizes participation in the Manager's cross-trading program in accordance with PTE 2002-12 and the performance by the Manager of any act necessary or proper to enable it to purchase or sell securities to another account or fund managed by the Manager or its affiliates at prevailing market levels in accordance with applicable law, including PTE 2002-12, and the Manager's cross-trading policies and procedures.

[remainder of page left intentionally blank]

EXHIBIT D Manager Compensation

A. INVESTMENT MANAGEMENT FEES

To expand on Section XI – Compensation of Manager, for investment management services rendered, ERS shall pay the Manager investment management fees as follows:

1.	Global	Alpha	Tilts	Fund	A

1. Base Fee (annual):	5 basis points
	The base fees paid each quarter based on the average market value
	of the portfolio during the quarter (defined as the average of the
	beginning and ending market values during the most recent
	quarter), multiplied by the base fee amount divided by 4, and
	prorated for periods of less than a full calendar quarter.
2. Market Return:	MSCI ACWI Index, as reported by ERS' Custodian using index
	provider data, to two decimal places (e.g. x.xx%)
3. Required Excess Return:	135 basis points per year, above the market return, net of Base Fee.
4. Normal Fee:	42 basis points on the first- \$100 million
	36 basis points on the balance
5. Portfolio Return:	Time weighted total return before investment management fees, as
	calculated by ERS' Custodian, to two decimal places (e.g. x.xx%).
6. Performance Fee:	((Normal Fee – Base Fee) ÷ Required Excess Return) x (Portfolio
	Return – Market Return – Base Fee)
	(With the exception of the first four (4) quarters after the effective
	dates – see "Phase-in Provisions"). Performance Fees are
	calculated using rolling 3-year annualized returns and billed
	quarterly in arrears by calculating the applicable Average Market
	Value (see below) and applying twenty-five percent (25%) of the
	Performance Fee schedule above.
	The Performance Fee is paid only when the Portfolio Return has
	exceeded the market return plus the Base Fee.
7. Average Market Value	An average of the market values at the beginning of the
(applies to Base Fee and	measurement period and at the end of each quarter included in the
Performance Fee):	measurement period. The market values will be provided by ERS'
	Custodian and will include any accruals calculated, and shall be
	based on their assessment of ERS' assets under management with
	the Manager with respect to the Global Alpha Tilts Fund A.
8. Total Fee:	(Performance Fee x Average Market Value) + Base Fee
	This tee is paid quarterly.
9. Minimum Fee:	The minimum fee for the Global Alpha Tilts Fund A is the Base

	P
	Fee.
10. Maximum Fee:	The maximum fee equals the Total Fee earned when the Portfolio
	Return minus the Market Return minus the Base Fee is greater than
	or equal to 3.25%.
11. Phase-in Provision:	At the end of the first three (3) quarters after the original effective
	date, the Manager will receive a fee equal to the Base Fee. The
	original effective date is on or about February 1, 2016, the date of
	the initial investment in the Global Alpha Tilts Fund A At the end
	of the fourth (1^{th}) quarter after the effective data performance for
	of the fourth (4) quarter after the effective date, performance for
	the four (4) quarters will be used to compute the Performance Fee
	due for the entire four (4) quarter period. The Performance Fee and
	the Maximum Fee will be computed using the Average Market
	Value for the four (4) quarters. For the fifth (5^{th}) through the
	twelfth (12 th) quarters the Performance Fee calculation shall be
	based upon cumulative annualized returns from inception date.
	Thereafter, the calculation will be made on an annualized rolling
	twelve (12) quarter basis. For the fifth (5^{th}) quarter and beyond, the
	Performance Fee will be applied quarterly against the Average
	Market Value for the measurement period. This Performance Fee,
	if applicable will be paid in addition to the Base Fee for the
	duarter
12 Calculation (applies to Base	The fee shall be calculated by the Manager using market values
Face and Parformance Face):	provided by EBS' Custodian market values, the portfolio returns
ree and renormance ree).	provided by ERS' Custodian and the mericat return reported by
	EBS: C (1) is in the market feture reported by
	ERS Custodian using index provider data. The Manager's fee
	calculation shall be submitted to ERS for verification.
	Discrepancies in the elements of the calculation will be reconciled
	between the Manager and ERS, as required. ERS' Custodian rate
	of return information will be the authoritative resource if any
	discrepancies arise.
13. Termination:	In the event of a termination of the investment management
	agreement, the Performance Fee shall be calculated from the most
	current Performance Fee through the trade date of the final sell
	transaction and shall be based on: ((Normal Fee – Base Fee) ÷
	Required Excess Return) x (Portfolio Return – Market Return –
	Base Fee).
14 Payment of Fees	Payment of the Base Fee shall be made quarterly by FRS within
The regiment of rees.	thirty (30) days of the statement date subject to the prior raview
	and approval of EDS Daymont of the Devicemence Ecc. shall be
	and approval of EKS. rayment of the Performance ree shall be
	I made quarterly by EKS within thirty (30) days of the statement
	indue quarterity by Eres wrann unity (50) days of the statement

2. U.S. Debt Index Fund

Annual investment management fee rate:

Balance 1.75 basis points

3.2. Russell 1000® Value Fund

Annual investment management fee rate:

Balance 1 basis points

3. Government Bond Index Fund C

Annual investment management fee rate:First\$100,000,0002.25 basis pointsNext\$400,000,0001.50 basis pointsBalance-0.754 basis point

B. FEE CALCULATION METHODOLOGY

The fee calculation methodology for the U.S. Debt Index Fund and the Government Bond Index Fund C and Russell 1000® Value Fund are as follows:

Investment management fees are calculated quarterly in arrears by averaging an account's three month-end market values invested in the applicable collective investment fund_{.5} The market values used to calculate the management fees will be provided by -as determined by ERS' Custodian and shall be based on their assessment of ERS' assets under management with the Manager with respect to each applicable collective investment fund. Such calculation shall apply the annual fee rate listed above and shall be based on the actual number of days of such calendar quarter (e.g. 91/365, or 366 for leap years). When assets are held for a partial quarter(s) as a result of an initial contribution to or a final withdrawal from a collective investment fund, the management fee will be prorated for the period, based on the actual number of days in the invoice period divided by the actual number of calendar days (e.g. actual days in invoice period/365 or 366 for leap years). Other than the initial contribution and/or final withdrawal, there will be no other proration for asset flows into or out of a collective investment fund for the purposes of calculating the management fee.

Payment of investment management fees is due to the Manager within thirty (30) days after the invoice date. Investment management fees will be calculated and billed in U.S. Dollars.

C. <u>SECURITIES LENDING FEES</u>

The lending Fund and the Manager will each receive fifty percent (50%) of the net income earned from securities lending transactions. If a loan is collateralized with cash, net income is determined by calculating the return received by a lending Fund's investment of cash collateral posted for securities loans in the applicable STIF Fund-used to manage cash collateral, net of borrower rebate fees. If a loan is collateralized with assets other than cash, net income equals the loan fee negotiated with the borrower. The net income from securities lending divided between the lending Fund and the Manager is also net of cash collateral management fees paid to the Manager as described below and the other expenses of the STIF<u>s</u> Funds-used to manage cash collateral. The Manager bears all operational costs directly related to securities lending transactions from its share of net income. The ERS' portion of lending

revenue is retained by the lending Fund and invested in accordance with the relevant Fund guidelines.

STIFs Funds used to manage cash collateral associated with securities loans are subject to a management fee, payable to the Manager, accrued daily on the net assets of such <u>STIF</u>. The primary <u>STIF</u> used to manage cash collateral for the lending Funds is subject to fund at either (a) an annual management fee rate of 0.050%, or (b) an annual rate of $0.056\%_{25}$ if such fund may engage in "synthetic" transactions. "Synthetic" transactions are further described in the STIF Guidelines.

D. ADMINISTRATIVE EXPENSES.

Each of the Collective Funds is subject to administrative expenses, including, but not limited to accounting, custody and audit fees. The administrative expenses are accrued daily against the Collective Fund, which results in an adjustment in the Collective Fund's unit value to reflect such expenses accrued.

One such administrative expense accrued daily against each Collective-Fund is a fee associated with unitholder account servicing, including the recording of client transactions and acting as the unitholder registry ("Transfer Agent Service Fee"). Each Collective Fund is subject to a Transfer Agent Service Fee of \$3,300 per year, payable to the Manager or an affiliate of the Manager. If a Collective-Fund invests in other Collective-Funds, the Transfer Agent Service Fee will be charged to each Collective-Fund.

E. <u>**PRV CALCULATION FEE**</u>. With respect to any purchase or redemption of units of an "index" or "modeldriven" Collective-Fund, as such terms are defined under applicable law, an investor in such a Collective-Fund may experience transaction costs associated with such purchase or redemption. Such costs include all or a portion, as applicable, of a flat fee of \$150 payable to the Manager for calculating a "purchase net asset value" or a "redemption net asset value", if the transaction costs in the aggregate for the Collective-Fund exceed \$1,000. If there are multiple transacting parties contributing to or withdrawing from the Collective-Fund on a given day, any calculation fee will be applied to the transacting parties on a pro rata basis.

[remainder of page left intentionally blank]

Memorandum

To: CMERS Investment Committee
From: Erich Sauer, CFA, CAIA
Date: December 9, 2021
Re: 2022 Tentative Due Diligence schedule

As part of ERS policy, investment staff conducts a due diligence meeting with each of its existing investment managers every other year. Please find the due diligence meetings that are scheduled to take place in 2022 in the table below. While our hope is to be able to conduct these meetings in person, some meetings may be conducted virtually depending on pandemic conditions. Board members are encouraged to join ERS staff on these due diligence meetings, as they provide a valuable opportunity to learn more about the Fund's investment managers. Please let me know if you are interested in joining staff on any of the upcoming due diligence meetings.

Investment Manager(s)	Strategy or Strategies	Location	Likely Staff Lead	Target Date
New Hedge Fund of	Hedge Funds	TBD	Erich & Tony	Q1
Funds Manager				
CastleArk	Active U.S. Public Equity	Chicago, IL	Tom, Tony, Erich	Q1
DFA & Brandes	Active U.S. & Non-U.S. Public	Los Angeles &	David & Tom	Q1 or Q2
	Equity	San Diego, CA		
AQR & UBS, with	Active Emerging Markets Public	Greenwich, CT	Erich & Tony	Q2 or Q3
additional meeting with	Equity, Hedge Funds, Real	& New York, NY		
Morgan Stanley	Estate			
Loomis Sayles & MFS,	Active Fixed Income, Global	Boston, MA	Tom & Tony	Q2 or Q3
with additional meeting	Equity, Real Estate			
with Prologis				
William Blair & additional	Active Non-U.S. Public Equity,	Chicago, IL	Tom, Tony, Erich	Q3
meeting with JP Morgan	Real Estate	_		
Mesirow	Private Equity	Chicago, IL	Tom, Tony, Erich	Q3 or Q4
Polen & Earnest	Active U.S. Public Equity	Boca Raton, FL	Erich & Tom	Q4
		& Atlanta, GA		

Tentative Schedule:

Callan

September 30, 2021 City of Milwaukee Employes' Retirement System

Investment Measurement Service Quarterly Review

Information contained herein includes confidential, trade secret and proprietary information. Neither this Report nor any specific information contained herein is to be used other than by the intended recipient for its intended purpose or disseminated to any other person without Callan's permission. Certain information herein has been compiled by Callan and is based on information provided by a variety of sources believed to be reliable for which Callan has not necessarily verified the accuracy or completeness of or updated. This content may consist of statements of opinion, which are made as of the date they are expressed and are not statements of fact. This content is for informational purposes only and should not be construed as legal or tax advice on any matter. Any decision you make on the basis of this content is your sole responsibility. You should consult with legal and tax advisers before applying any of this information to your particular situation. Past performance is no guarantee of future results. For further information, please see the Appendix section in your investment measurement service quarterly review report for Important Information and Disclosures.

Table of ContentsSeptember 30, 2021

Capital Markets Review	1
Total Fund	
Investment Manager Asset Allocation	7
Actual vs. Target Asset Allocation	8
Total Fund vs. Total Public Fund Database	10
Quarterly Total Fund Attribution	13
Cumulative Total Fund Attribution	14
Investment Manager Returns - Gross of Fee	15
Investment Manager Returns - Net of Fee	19
Asset Class Rankings	21
Active Share Structure Analysis	23
Total Equity Style Analysis	24
Manager Comparison Style Analysis	26
Callan Research/Education	27
Disclosures	30

Capital Markets Review

U.S. EQUITY

Returns compress over mounting concerns

- S&P 500 rose 0.6% in 3Q21, and smaller cap growth indices posted their first negative quarter since the March 2020 low.
- Slowing economic growth, supply chain disruptions, and inflationary pressure, as well as uncertainty around monetary policy, decreased investors' risk appetite.
- In general, high quality topped lower quality in large cap.
- Economically sensitive sectors such as Industrials (-4.2%) lagged; Financials (+2.7%) benefited.
- Growth outperformed value in large cap, and value outperformed growth in small cap.
- YTD, small value outperformed small growth by a whopping 2,000 bps (Russell 2000 Value: 22.9% vs. Russell 2000 Growth: 2.8%), a stark reversal from the prior year.

Diversification and rebalancing are best defense

- Few if any pockets of opportunity remain in the equity markets as valuations have hit or exceeded long-term averages given the recent market run.
- Investors are grappling with exposures to risk assets: What to do? Where to go?
- The whipsaw effect over the last two years illustrates the need to remain committed to a long-term plan that emphasizes diversification and disciplined rebalancing.

Inflation and equity: not so bad, up to a point

- Investors typically fare OK with expected inflation levels but are impaired when inflation is unexpectedly higher.
- Pre-GFC, stocks and interest rate movements (proxy for inflation) were highly correlated until 10-year U.S. Treasury yields reached 4.5%.
- Post-GFC, stocks and interest rate movements were highly correlated until 10-year yields reached 3.5%.
- The current 10-Year Treasury yield is 1.5%.

U.S. Equity: Quarterly Returns



U.S. Equity: One-Year Returns



Sources: FTSE Russell, S&P Dow Jones Indices



S&P Sector Returns, Quarter Ended September 30, 2021



GLOBAL EQUITY

Fears of stagflation stoke market volatility

- Delta variant flare-ups and slowdown in China weighed on global recovery.
- COVID-driven supply chain disruption continues to push inflation higher.
- Small cap outpaced large as global recovery concerns disproportionately punished large cap companies.
- Emerging markets struggled relative to developed markets as growth prospects were under pressure for China and Brazil.

Market pivots to cyclicals

- Energy crunch fueled the sector to the highest return in the quarter as demand outstripped supply.
- Financials outperformed; Real Estate and Utilities generally underperformed with higher interest rate expectations.
- Sentiment and momentum signals added value in developed markets but not in emerging markets.

U.S. dollar vs. other currencies

 The U.S. dollar rose against other major currencies as the Fed signaled tapering is imminent, which notably detracted from global ex-U.S. results.

Growth vs. value

 Value outpaced growth in emerging markets due to the Energy rally, while both were relatively flat in developed markets.

Global Equity: Quarterly Returns



Global Equity: One-Year Returns



Source: MSCI

U.S. FIXED INCOME

Treasury yields largely unchanged from 2Q21

- Yields ended a volatile quarter only slightly higher after the Fed signaled it may soon begin tapering its bond buying program.
- 2-year and 10-year Treasury yields rose 3 and 7 bps, respectively.
- TIPS outperformed nominal Treasuries, and 10-year breakeven spreads widened 5 bps to 2.37%.

Bloomberg Aggregate flat as spreads widened

- Minor gains in Treasuries and agency MBS were offset by declines in government-related, CMBS, and corporates.
- IG corporate trailed Treasuries by 15 bps (duration-adjusted) as spreads widened within long bonds.

High yield and leveraged loans continue rally

- Leverage loans (+1.1%) outperformed high yield, driven by favorable supply/demand dynamics.
- High yield issuers' default rate declined to 0.9% in September, the lowest since March 2014.

Munis underperform Treasuries

- Supply was modest and demand was fueled by expectations for higher tax rates and strong credit fundamentals.
- Lower-quality bonds continued their trend of outperformance as investors sought yield.

Fed reiterates that current price pressures are transitory

- Inflation is being temporarily influenced by pandemic-related supply bottlenecks (e.g., used cars and housing).
- Used autos spiked (+32% YOY), but rents (with a greater weight in the index) have started to apply price pressure.
- Fed's flexible average inflation targeting (FAIT) allows inflation to overshoot the 2% neutral rate; PCE (Fed's preferred inflation measure) rose 4.3% in August.

Policy adjustments may be on the horizon

- Fed signaled it would move up its taper announcement.
- Sep '21 Fed Funds rate forecast illustrated a potential rate hike in 2022, with a 25 bps increase; the previous dot plot had no hikes until 2023.

U.S. Fixed Income: Quarterly Returns



U.S. Fixed Income: One-Year Returns



U.S. Treasury Yield Curves



Sources: Bloomberg, Credit Suisse

GLOBAL FIXED INCOME

Global fixed income flat on a hedged basis

- Returns were muted and U.S. dollar strength eroded returns for unhedged U.S. investors.
- The dollar gained roughly 2% vs. a basket of developed market currencies.

Emerging market debt falls

- The U.S. dollar-denominated index (EMBI Global Diversified) declined as the Delta variant in some countries raised concerns, and the local Index (JPM GBI-EM Global Diversified) lost further ground due to currency depreciation.
- Most emerging currencies depreciated versus the dollar.
 Notables include Brazil real (-7.9%) and South Africa rand (-5.1%).
- EM corporates fared better amid improving corporate fundamentals and the global economic recovery.

Inflation overseas

- Yields have increased as non-U.S. developed market countries also deal with supply bottlenecks and pressure from energy prices.
- Euro zone inflation has been elevated, but not at same level as the U.S.
- Central bank policy is mixed.
- The U.K.'s Bank of England has signaled a potential tightening of its monetary policy by the end of 2021.
- The European Central Bank remains on hold.

Global Fixed Income: Quarterly Returns



Global Fixed Income: One-Year Returns



Change in 10-Year Global Government Bond Yields



Sources: Bloomberg, JP Morgan

Total Fund

Investment Manager Asset Allocation

The table below contrasts the distribution of assets across the Fund's investment managers as of September 30, 2021, with the distribution as of June 30, 2021.

Asset Distribution Across Investment Managers

	September 30, 2021		June 30, 2021		
	Market Value	Weight	Market Value	Weight	
Total Domestic Equity	\$1.227.007.328	20.36%	\$1,290,440,734	21.46%	
BlackRock Russell 1000 Value	157,204,438	2.61%	163,384,143	2.72%	
DFA Large Cap Value	155,476,187	2.58%	165,745,750	2.76%	
Northern Trust Global	329,818,153	5.47%	350,258,090	5.83%	
Polen Capital Management	161,511,450	2.68%	173,991,541	2.89%	
Earnest Partners LLC	122,106,245	2.03%	123,277,433	2.05%	
DFA Small Cap Value	204,467,879	3.39%	212,778,395	3.54%	
CastleArk Management	96,422,976	1.60%	101,005,382	1.68%	
Total Global Equity	\$485,210,271	8.05%	\$511,870,060	8.51%	
BlackRock Global Alpha Tilts	294,733,721	4.89%	307,980,636	5.12%	
MFS Investment Management	190,476,550	3.16%	203,889,424	3.39%	
Total International Equity	\$962.901.640	15.98%	\$1.007.497.340	16.76%	
AQR Emerging Markets	95.786.113	1.59%	108,782,836	1.81%	
Brandes Investment Partners	385.472.498	6.40%	401,173,859	6.67%	
William Blair & Company	287 385 597	4 77%	297 528 351	4 95%	
DFA International Small Cap	194,257,432	3.22%	200,012,294	3.33%	
Total Fixed Income	\$1,383 740 549	22.96%	\$1 286 250 809	21.39%	
BlackBock US Debt Idy Ed	405 308 367	8 22%	478 136 004	7 95%	
Reams Asset Management	111 888 631	7 38%	207 021 256	6 6 2 %	
Loomis, Sayles & Company, L.P.	443,453,551	7.36%	410,190,449	6.82%	
Total Private Equity	\$738 881 640	12 26%	\$674 193 440	11 21%	
Abbott Capital Management 2010	30 906 489	0.51%	20 308 208	0.49%	
Abbott Capital Management 2010	61 603 106	1 0 2%	58 800 810	0.43%	
Abbott Capital Management 2017	52 / 9/ 116	0.87%	48 633 389	0.30%	
Abbott Capital Management 2012	/0 03/ 070	0.83%	40,000,000	0.01%	
Abbott Capital Management 2013	49,934,970	0.03%	50 860 623	0.75%	
Abbott Capital Management 2015	37 535 606	0.52 %	33 680 016	0.05%	
Abbott Capital Management 2015	25,000	0.02 /8	22 269 454	0.00%	
Abbott Capital Management 2019	14 262 040	0.43%	11 204 299	0.39%	
Abbott Capital Management 2010	0,072,014	0.24%	0 077 525	0.19%	
Abbott Capital Management 2020	9,973,914	0.17%	5,077,533 5,007,060	0.15%	
Abbott Capital Management 2021	0,099,000	0.11%	3,907,900	0.10%	
Abboli Capital Management 2021	2,701,391	0.05%	2,097,324	0.04%	
Mesirow V	70,007,092	1.17%	00,000,019	1.10%	
	95,765,464	1.39%	09,042,007	1.49%	
	102,769,594	1.7 1 %	00,079,000	1.44%	
Nesirow VIII	23,044,301	0.38%	18,791,648	0.31%	
NB Secondary Opp Fund III	9,565,790	0.16%	10,078,775	0.17%	
NB Secondary Opp Fund IV	19,897,800	0.33%	18,582,900	0.31%	
Private Advisors VI	26,203,341	0.43%	25,603,256	0.43%	
Private Advisors VII	16,208,483	0.27%	14,236,384	0.24%	
Private Advisors VIII Private Advisors IX	12,569,382 14 788 679	0.21%	11,776,636 12,029,057	0.20%	
	1,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	0.2070	12,020,001	0.2070	
Absolute Return	\$423,977,407	7.04%	\$487,085,315 06 /32 196	8.10%	
	-	7 04%	30,432,100	6.50%	
063 A & Q	423,977,407	7.04%	390,033,129	0.50%	
Real Assets	\$246,493,503	4.09%	\$242,836,329	4.04%	
Principal UKA	246,493,503	4.09%	242,836,329	4.04%	
Total Real Estate	\$500,028,779	8.30%	\$449,004,887	7.47%	
Real Estate	500,028,779	8.30%	449,004,887	7.47%	
Total Cash	\$58,048,665	0.96%	\$63,787,862	1.06%	
Cash	58,048,665	0.96%	63,787,862	1.06%	

Actual vs Target Asset Allocation As of September 30, 2021

The top left chart shows the Fund's asset allocation as of September 30, 2021. The top right chart shows the Fund's target asset allocation as outlined in the investment policy statement. The bottom chart ranks the fund's asset allocation and the target allocation versus the Callan Public Fund Sponsor Database.



Asset Class	\$000s Actual	Weight Actual	Target	Percent Difference	\$000s Difference
Total Equity	2,675,119	44.4%	44.0%	0.4%	23,552
Fixed Income	1,383,741	23.0%	23.0%	(0.0%)	(2,306)
Private Equity	738,882	12.3%	10.0%	2.3%	136,253
Absolute Return	423,977	7.0%	10.0%	(3.0%)	(178,652)
Real Estate	500,029	8.3%	9.1%	(0.8%)	(48,364)
Real Assets	246,494	4.1%	3.9%	0.2%	11,468
Cash	58,049	1.0%	0.0%	1.0%	58,049
Total	6,026,290	100.0%	100.0%		

Asset Class Weights vs Callan Public Fund Sponsor Database



* Current Quarter Target = 44.0% MSCI ACWI IMI, 23.0% Blmbg Aggregate, 10.0% Russell 3000 Index lagged 3 months+2.0%, 10.0% 3-month Treasury Bill+3.0%, 9.1% NCREIF NFI-ODCE Eq Wt Net lagged 3 months and 3.9% Principal Blended Benchmark.

Actual vs Target Historical Asset Allocation

The Historical asset allocation for a fund is by far the largest factor explaining its performance. The charts below show the fund's historical actual asset allocation, the fund's historical target asset allocation, and the historical asset allocation of the average fund in the Callan Public Fund Sponsor Database.



Actual Historical Asset Allocation

Target Historical Asset Allocation



Average Callan Public Fund Sponsor Database Historical Asset Allocation



* Current Quarter Target = 44.0% MSCI ACWI IMI, 23.0% Blmbg Aggregate, 10.0% Russell 3000 Index lagged 3 months+2.0%, 10.0% 3-month Treasury Bill+3.0%, 9.1% NCREIF NFI-ODCE Eq Wt Net lagged 3 months and 3.9% Principal Blended Benchmark.



Total Fund Period Ended September 30, 2021

Investment Philosophy

The Public Fund Sponsor Database consists of public employee pension total funds including both Callan Associates client and surveyed non-client funds. Current Quarter Target = 44.0% MSCI ACWI IMI, 23.0% Blmbg Aggregate, 10.0% Russell 3000 Index lagged 3 months+2.0%, 10.0% 3-month Treasury Bill+3.0%, 9.1% NCREIF NFI-ODCE Eq Wt Net lagged 3 months and 3.9% Principal Blended Benchmark.

Quarterly Summary and Highlights

- Total Fund's portfolio posted a 1.97% return for the quarter placing it in the 4 percentile of the Callan Public Fund Sponsor Database group for the quarter and in the 5 percentile for the last year.
- Total Fund's portfolio outperformed the Total Fund Reference Index by 1.08% for the quarter and outperformed the Total Fund Reference Index for the year by 7.98%.

Quarterly Asset Growth

Beginning Market Value	\$6,012,966,775
Net New Investment	\$-104,005,035
Investment Gains/(Losses)	\$117,328,042
Ending Market Value	\$6,026,289,783





Senter Senter

Relative Return vs Total Fund Reference Index

Callan Public Fund Sponsor Database (Gross) Annualized Ten Year Risk vs Return



Callan

Total Fund Return Analysis Summary

Return Analysis

The graphs below analyze the manager's return on both a risk-adjusted and unadjusted basis. The first chart illustrates the manager's ranking over different periods versus the appropriate style group. The second chart shows the historical quarterly and cumulative manager returns versus the appropriate market benchmark. The last chart illustrates the manager's ranking relative to their style using various risk-adjusted return measures.



Performance vs Callan Public Fund Sponsor Database (Gross)

Cumulative and Quarterly Relative Return vs Total Fund Reference Index



Risk Adjusted Return Measures vs Total Fund Reference Index Rankings Against Callan Public Fund Sponsor Database (Gross) Ten Years Ended September 30, 2021





Total Fund Total Fund vs Target Risk Analysis

Risk Analysis

The graphs below analyze the performance and risk of the fund relative to the appropriate target mix. This relative performance is compared to a peer group of funds wherein each member fund is measured against its own target mix. The first scatter chart illustrates the relationship, called Excess Return Ratio, between excess return and tracking error relative to the target. The second scatter chart displays the relationship, sometimes called Information Ratio, between alpha (market-risk or "beta" adjusted return) and residual risk (non-market or "unsystematic" risk). The third chart shows tracking error patterns over time compared to the range of tracking error patterns for the peer group. The last two charts show the ranking of the fund's risk statistics versus the peer group.

Risk Analysis vs Callan Public Fund Sponsor Database Ten Years Ended September 30, 2021







Risk Statistics Rankings vs Targets Rankings Against Callan Public Fund Sponsor Database Ten Years Ended September 30, 2021





Quarterly Total Fund Relative Attribution - September 30, 2021

The following analysis approaches Total Fund Attribution from the perspective of relative return. Relative return attribution separates and quantifies the sources of total fund excess return relative to its target. This excess return is separated into two relative attribution effects: Asset Allocation Effect and Manager Selection Effect. The Asset Allocation Effect represents the excess return due to the actual total fund asset allocation differing from the target asset allocation. Manager Selection Effect represents the total fund impact of the individual managers excess returns relative to their benchmarks.



Asset Class Under or Overweighting

Actual vs Target Returns



Relative Attribution Effects for Quarter ended September 30, 2021

Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relative Return
Total Equity	46%	44%	(0.79%)	(1.11%)	0.15%	(0.05%)	0.10%
Fixed Income	22%	23%	0.08%	0.05%	0.01%	0.02%	0.02%
Private Equity	11%	10%	13.50%	8.64%	0.55%	0.08%	0.62%
Absolute Return	8%	10%	3.02%	0.76%	0.18%	(0.01%)	0.17%
Real Estate	8%	9%	6.56%	4.17%	0.18%	(0.04%)	0.15%
Real Assets	4%	4%	1.67%	1.20%	0.02%	0.00%	0.02%
Cash	1%	0%	0.12%	0.12%	0.00%	(0.01%)	(0.01%)
Total			1.97% =	0.89% ·	+ 1.09% +	(0.01%)	1.08%

* Current Quarter Target = 44.0% MSCI ACWI IMI, 23.0% Blmbg Aggregate, 10.0% Russell 3000 Index lagged 3 months+2.0%, 10.0% 3-month Treasury Bill+3.0%, 9.1% NCREIF NFI-ODCE Eq Wt Net lagged 3 months and 3.9% Principal Blended Benchmark.

Relative Attribution by Asset Class

Cumulative Total Fund Relative Attribution - September 30, 2021

The charts below accumulate the Total Fund Attribution Analysis (shown earlier) over multiple periods to examine the cumulative sources of excess total fund performance relative to target. These cumulative results quantify the longer-term sources of total fund excess return relative to target by asset class. These relative attribution effects separate the cumulative sources of total fund excess return into Asset Allocation Effect and Manager Selection Effect.





Cumulative Relative Attribution Effects



One Year Relative Attribution Effects

Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relative Return
Total Equity	47%	43%	35.23%	28.92%	2.69%	0.33%	3.02%
Fixed Income	22%	24%	1.94%	(0.90%)	0.75%	0.51%	1.26%
Private Equity	10%	10%	72.13%	46.39%	2.05%	0.04%	2.08%
Absolute Return	9%	10%	11.81%	3.07%	0.86%	0.13%	0.99%
Real Estate	8%	8%	14.74%	7.97%	0.55%	0.01%	0.57%
Real Assets	4%	4%	24.89%	23.39%	0.06%	0.02%	0.07%
Cash	1%	0%	1.00%	1.00%	0.00%	(0.17%)	(0.17%)
Total			26.00% =	= 18.03% -	+ 7.11% +	0.87%	7.97%

* Current Quarter Target = 44.0% MSCI ACWI IMI, 23.0% Blmbg Aggregate, 10.0% Russell 3000 Index lagged 3 months+2.0%, 10.0% 3-month Treasury Bill+3.0%, 9.1% NCREIF NFI-ODCE Eq Wt Net lagged 3 months and 3.9% Principal Blended Benchmark.

The table below details the rates of return and peer group rankings for the Fund's investment managers over various time periods ended September 30, 2021. Negative returns are shown in red, positive returns in black. Returns for one year or greater are annualized. The first set of returns for each asset class represents the composite returns for all the fund's accounts for that asset class.

					Last		Last			
	Last		Last		3		5		Since	
	Quarter		Year		Years		Years		Inception	n
Total Domestic Equity Russell 3000 Index Pub PIn- Dom Equity	(0.29%) (0.10%) (0.25%)	56 38	40.70% 31.88% 33.50%	3 80	14.76% 16.00% 14.96%	58 18	16.47% 16.85% 16.18%	41 28	8.50% 8.20%	(7/98) (7/98)
BlackRock Russell 1000 Value Russell 1000 Value Index Callan Large Cap Value	(0.79%) (0.78%) (0.48%)	61 61	35.09% 35.01% 40.20%	70 71	10.33% 10.07% 10.21%	46 55	- 10.94% 12.06%	77	10.05% 9.40% -	(3/17) (3/17)
DFA Large Cap Value Russell 1000 Value Index Callan Large Cap Value	(1.50%) (0.78%) (0.48%)	82 61	42.16% 35.01% 40.20%	32 71	8.15% 10.07% 10.21%	84 55	- 10.94% 12.06%	77	8.87% 9.93% -	(11/17) (11/17)
Northern Trust Global S&P 500 Index Callan Large Cap Core	0.58% 0.58% 0.16%	31 31	30.00% 30.00% 31.32%	65 65	16.03% 15.99% 15.82%	46 47	16.93% 16.90% 16.68%	43 43	11.11% 11.06% -	(8/88) (8/88)
Polen Capital Management S&P 500 Index Callan Large Cap Growth	2.89% 0.58% 0.81%	7 59	30.97% 30.00% 27.28%	10 19	24.84% 15.99% 21.35%	10 97	25.24% 16.90% 22.19%	12 98	20.27% 15.54% -	(7/12) (7/12)
Earnest Partners LLC Russell MidCap Index Callan Mid Capitalization	(0.95%) (0.93%) (0.05%)	65 65	33.85% 38.11% 39.36%	65 52	16.55% 14.22% 13.32%	35 44	17.89% 14.39% 14.98%	33 51	12.19% 10.87% -	(5/05) (5/05)
DFA Small Cap Value Russell 2000 Value Index Callan Small Cap Value	(0.67%) (2.98%) (1.66%)	29 87	76.32% 63.92% 63.80%	14 50	9.15% 8.58% 8.91%	43 53	11.45% 11.03% 11.41%	49 60	12.04% 9.80% -	(11/96) (11/96)
CastleArk Management Russell 2000 Growth Index Callan Small Cap Growth	(4.54%) (5.65%) (1.75%)	89 95	41.89% 33.27% 38.32%	31 72	15.78% 11.70% 17.18%	62 91	19.92% 15.34% 19.82%	50 95	15.19% 12.78% -	(9/13) (9/13)
Total Global Equity MSCI World Callan Global Equity	(1.43%) (0.01%) (0.51%)	70 35	25.59% 28.82% 28.34%	75 44	14.29% 13.14% 13.33%	41 52	15.56% 13.74% 13.84%	34 51	10.57% 10.45% -	(4/10) (4/10)
BlackRock Global Alpha Tilts MSCI ACWI Gross Callan Global Equity	(1.50%) (0.95%) (0.51%)	71 60	26.12% 27.98% 28.34%	72 54	11.94% 13.14% 13.33%	61 52	13.92% 13.77% 13.84%	49 51	15.06% 15.03% -	(3/16) (3/16)
MFS Investment Management MSCI ACWI Gross Callan Global Equity	(1.34%) (0.95%) (0.51%)	69 60	24.80% 27.98% 28.34%	77 54	17.87% 13.14% 13.33%	21 52	17.95% 13.77% 13.84%	21 51	14.59% 11.66% -	(12/12) (12/12)
Total International Equity MSCI EAFE Pub PIn- Intl Equity	(1.11%) (0.45%) (2.42%)	18 9	33.39% 25.73% 25.89%	3 51	9.10% 7.62% 9.75%	66 88	9.81% 8.81% 10.22%	61 86	7.51% 5.03%	(5/96) (5/96)
AQR Emerging Markets MSCI EM Gross Callan Emerging Broad	(9.12%) (7.97%) (7.69%)	77 59	21.85% 18.58% 20.27%	41 61	8.82% 8.97% 9.65%	61 60	9.57% 9.62% 10.18%	59 59	10.10% 10.11% -	(8/16) (8/16)
Brandes Investment Partners MSCI EAFE Callan NonUS Eq	(1.42%) (0.45%) (1.19%)	56 33	39.29% 25.73% 26.46%	6 53	4.97% 7.62% 9.18%	91 66	7.22% 8.81% 10.11%	87 65	7.92% 5.13% -	(2/98) (2/98)
William Blair & Company MSCI ACWIxUS Gross Callan NonUS Eq	0.97% (2.88%) (1.19%)	9 82	28.24% 24.45% 26.46%	37 61	17.08% 8.52% 9.18%	4 55	14.88% 9.45% 10.11%	7 57	9.43% 7.38% -	(12/03) (12/03)
DFA International Small Cap Blended Benchmark Callan Intl Small Cap	0.72% 0.90% 0.02%	31 30	36.91% 29.02% 30.76%	12 60	4.94% 9.05% 8.98%	91 47	7.05% 10.38% 10.23%	91 47	5.29% 4.96%	(5/06) (5/06)

Returns and Rankings for Periods Ended September 30, 2021

The table below details the rates of return and peer group rankings for the Fund's investment managers over various time periods ended September 30, 2021. Negative returns are shown in red, positive returns in black. Returns for one year or greater are annualized. The first set of returns for each asset class represents the composite returns for all the fund's accounts for that asset class.

	Last Quarter		Last Year		Last 3 Years		Last 5 Years		Since	,
Total Fixed Income Blmbg Aggregate	0.08% 0.05%		1.94% (0.90%)		3.01% 5.36%		2.37% 2.94%		7.07% 6.10%	(12/87) (12/87)
BlackRock US Debt Idx Fd Bimbg Aggregate Callan Core Bond Fl	0.07% 0.05% 0.13%	72 79	(0.82%) (0.90%) 0.11%	93 94	5.46% 5.36% 6.00%	92 93	3.04% 2.94% 3.57%	94 96	3.05% 3.19% -	(6/16) (6/16)
Reams Asset Management Blmbg Aggregate Callan Core Plus Fl	0.05% 0.05% 0.25%	86 86	(0.07%) (0.90%) 1.69%	97 99	8.80% 5.36% 6.40%	1 92	5.22% 2.94% 4.13%	4 99	5.84% 4.57% -	(1/01) (1/01)
Loomis, Sayles & Company, L.P. Blmbg Aggregate Callan Core Plus Fl	0.11% 0.05% 0.25%	82 86	7.24% (<mark>0.90%)</mark> 1.69%	1 99	7.04% 5.36% 6.40%	18 92	5.80% 2.94% 4.13%	1 99	8.83% 6.10%	(12/87) (12/87)
Total Private Equity Russell 3000 (1 Qtr in Arrears) + 3% Abbott Capital Management 2010 Abbott Capital Management 2011 Abbott Capital Management 2012 Abbott Capital Management 2013 Abbott Capital Management 2015 Abbott Capital Management 2016 Abbott Capital Management 2018 Abbott Capital Management 2018 Abbott Capital Management 2019 Abbott Capital Management 2020 Abbott Capital Management 2020 Abbott Capital Management 2020 Mesirow VI Mesirow VII Mesirow VIII NB Secondary Opp Fund III NB Secondary Opp Fund IV Private Advisors VII Private Advisors VIII Private Advisors VIII Private Advisors VIII Private Advisors IX	$\begin{array}{c} \textbf{13.50\%}\\ 8.83\%\\ 10.74\%\\ 11.75\%\\ 11.61\%\\ 11.54\%\\ 12.93\%\\ 17.28\%\\ 15.46\%\\ 12.45\%\\ 12.35\%\\ 12.35\%\\ 12.35\%\\ 11.70\%\\ 2.62\%\\ 18.94\%\\ 17.32\%\\ 2.95\%\\ 6.81\%\\ 16.65\%\\ 27.30\%\\ 16.68\%\\ 9.66\%\\ 9.61\%\end{array}$		72.13% 47.18% 70.05% 84.87% 80.43% 79.45% 78.66% 72.67% 69.37% 43.77% 58.46% 		31.15% 22.13% 30.09% 35.80% 34.56% 35.10% 34.33% 30.50% 28.41% 19.21% - - - - - - - - - - - - - - - - - - -		25.98% 21.13% 26.87% 29.64% 28.33% 28.95% 26.57% 20.95% 16.54% - - - 28.92% 31.22% - 17.53% - 23.88% - - - - - - - - - - - - -		14.54% 2.21% 6.62% 14.65% 15.86% 14.94% 16.65% 14.93% 31.16% 64.98% 3.86% 19.15% 17.89% 1.90% (5.51%) 13.661% 26.74% 14.01% 13.65% 18.21% 30.66%	(6/10) (6/10) (6/11) (7/12) (5/13) (4/14) (4/15) (1/20) (1/21) (2/21) (6/10) (7/13) (6/17) (9/20) (12/13) (6/17) (9/20) (12/13) (4/17) (4/15) (1/17) (8/18) (2/20)
Absolute Return	3.02%		11.81%		(0.02%)		2.18%		3.25%	(6/14)
UBS A & Q 1-month LIBOR + 4% Callan Abs Rtn Hedge FoF	2.94% 1.01% 2.09%	9 80	9.95% 4.12% 14.63%	77 90	8.46% 5.14% 5.05%	10 48	7.05% 5.23% 4.86%	3 46	5.87% 4.98% -	(12/14) (12/14)
Real Assets	1.67%		24.89%		7.67%		6.60%		7.13%	(1/16)
Principal DRA Principal Blended Benchmark (1) Callan Alterntive Inv DB	1.67% 1.20% 0.66%	34 38	24.89% 23.39% 14.83%	37 38	7.67% 6.83% 5.11%	25 39	6.60% 5.86% 4.59%	25 30	7.13% 6.39% -	(1/16) (1/16)
Total Real Estate	6.56%		14.74%		7.37%		8.25%		6.75%	(7/86)
Real Estate Blended Benchmark (2) Callan Tot Real Est DB	6.56% 4.17% 3.27%	5 22	14.74% 7.97% 11.20%	22 92	7.37% 5.19% 6.43%	31 84	8.25% 6.09% 7.29%	25 80	6.75% - -	(7/86)
Total Fund Total Fund Reference Index*	1.97% 0.89%		26.00% 18.03%		10.19% 10.26%		10.60% 9.90%		9.67%	(1/79)

Returns and Rankings for Periods Ended September 30, 2021

* Current Quarter Target = 44.0% MSCI ACWI IMI, 23.0% BImbg Aggregate, 10.0% Russell 3000 Index lagged 3 months+2.0%, 10.0% 3-month Treasury Bill+3.0%, 9.1% NCREIF NFI-ODCE Eq Wt Net lagged 3 months and 3.9% Principal Blended Benchmark.

(1) Current Principal Blended Benchmark = 35% Bloomberg US Treasury US TIPS Idx, 15% Bloomberg Commodity Idx, 20% S&P Global Natural Resources Idx and 10% FTSE EPRA/NAREIT Developed Market Idx. (2) Blended Benchmark = NCREIF (NPI) through 6/30/06, NCREIF (NPI 1 Qtr Arrears) through 12/31/13 and NFI-ODCE (1 Qtr Arrears) thereafter.

Callan

The table below details the rates of return and peer group rankings for the Fund's investment managers over various time periods. Negative returns are shown in red, positive returns in black. Returns for one year or greater are annualized. The first set of returns for each asset class represents the composite returns for all the fund's accounts for that asset class.

	12/2020- 9/2021		2020		2019		2018		2017	
Total Domostic Equity	10 /10/	6	16 25%	75	20.249/	75	(5 90%)	40	20.01%	41
Russell 3000 Index	14 99%	55	20.89%	25	31 02%	30	(5.24%)	34	20.51%	30
Pub Pln- Dom Equity	15.24%	00	18.62%	20	30.26%	00	(5.83%)	04	20.51%	00
BlackRock Russell 1000 Value	16.12%	76	3.28%	46	26.79%	46	(8.12%)	43	-	
Russell 1000 Value Index	16.14%	76	2.80%	52	26.54%	50	(8.27%)	45	13.66%	91
Callan Large Cap Value	18.97%		3.04%		26.52%		(8.70%)		17.12%	
DFA Large Cap Value	19.27%	45	(1.56%)	90	26.71%	47	(12.40%)	84	-	
Russell 1000 Value Index	16.14%	76	2.80%	52	26.54%	50	`(8.27%)	45	13.66%	91
Callan Large Cap Value	18.97%		3.04%		26.52%		(8.70%)		17.12%	
Northern Trust Global	15.92%	61	18.42%	53	31.54%	39	(4.34%)	33	21.87%	48
S&P 500 Index	15.92%	61	18.40%	53	31.49%	39	(4.38%)	33	21.83%	49
Callan Large Cap Core	16.68%		19.19%		30.50%		(5.33%)		21.72%	
Polen Capital Management	18.58%	7	35.13%	55	38.85%	11	9.14%	4	27.67%	65
S&P 500 Index	15.92%	22	18.40%	98	31.49%	76	(4.38%)	91	21.83%	98
Callan Large Cap Growth	14.07%		35.55%		34.55%		0.51%		28.84%	
Earnest Partners LLC	13.02%	60	21.61%	41	38.38%	12	(9.80%)	45	26.16%	23
Russell MidCap Index	15.17%	51	17.10%	48	30.54%	52	(9.06%)	41	18.52%	55
Callan Mid Capitalization	15.45%		16.17%		31.00%		(10.60%)		19.58%	
DFA Small Cap Value	31.80%	13	3.85%	44	18.79%	90	(14.84%)	53	7.68%	64
Russell 2000 Value Index	22.92%	58	4.63%	36	22.39%	64	(12.86%)	23	7.84%	63
Callan Small Cap Value	24.20%		2.65%		24.34%		(14.79%)		9.18%	
CastleArk Management	7.01%	67	45.10%	46	23.28%	86	3.29%	15	23.93%	61
Russell 2000 Growth Index	2.82%	84	34.63%	73	28.48%	54	(9.31%)	84	22.17%	72
Callan Small Cap Growth	9.89%		44.48%		30.25%		(2.91%)		26.16%	
Total Global Equity	10.58%	69	18.78%	42	31.05%	27	(8.18%)	40	31.31%	16
MSCI World	13.04%	40	15.90%	55	27.67%	49	(8.71%)	44	22.40%	75
Callan Global Equity	12.26%		17.02%		27.49%		(9.52%)		25.31%	
BlackRock Global Alpha Tilts	10.84%	66	16.53%	52	26.86%	53	(11.20%)	67	30.12%	22
MSCI ACWI Gross	11.49%	57	16.82%	51	27.30%	51	(8.93%)	46	24.62%	57
Callan Global Equity	12.26%		17.02%		27.49%		(9.52%)		25.31%	
MFS Investment Management	10.21%	73	22.42%	32	37.31%	4	(3.75%)	11	33.16%	12
MSCI ACIVI Gross	11.49%	57	10.82%	51	27.30%	51	(8.93%)	40	24.62%	57
Callan Global Equity	12.20%		17.02%		27.49%		(9.52%)		20.01%	
Total International Equity	11.74%	4	10.84%	73	21.68%	75	(15.19%)	68	25.03%	94
MSCIEAFE	8.35%	32	7.82%	90	22.01%	64	(13.79%)	42	25.03%	94
Pub Pin- Intl Equity	6.87%		13.20%		22.93%		(14.04%)		29.11%	
AQR Emerging Markets	2.27%	35	18.26%	49	20.54%	63	(18.31%)	86	35.53%	73
MSCI EM Gross	(0.99%)	58	18.69%	44	18.90%	71	(14.24%)	28	37.75%	58
Callan Emerging Broad	(0.05%)		18.17%		22.12%		(15.34%)		39.31%	
Brandes Investment Partners	14.16%	4	(1.30%)	96	15.31%	98	(8.79%)	6	16.53%	99
MSCIEAFE	8.35%	53	7.82%	66	22.01%	66	(13.79%)	36	25.03%	74
Callan NonUS Eq	8.55%		11.48%		23.78%		(15.13%)		28.08%	
William Blair & Company	10.36%	30	31.44%	6	31.58%	9	(16.86%)	73	31.45%	22
MSCI ACWIXUS Gross	6.29%	74	11.13%	51	22.13%	64	(13.77%)	35	27.77%	55
Callan NonUS Eq	8.55%		11.48%		23.78%		(15.13%)		28.08%	
DFA International Small Cap	14.09%	22	1.47%	89	21.62%	81	(23.31%)	91	27.98%	92
Blended Benchmark	10.02%	76	12.34%	45	24.96%	50	(17.89%)	30	33.01%	74
oalian inu Small Gap	12.35%		11.08%		24.90%		(19.0/%)		JJ.∠Z%	

The table below details the rates of return and peer group rankings for the Fund's investment managers over various time periods. Negative returns are shown in red, positive returns in black. Returns for one year or greater are annualized. The first set of returns for each asset class represents the composite returns for all the fund's accounts for that asset class.

	12/2020-		2020		2040		204.9		2047	
	9/2021		2020		2019		2018		2017	
Total Fixed Income Blmbg Aggregate	(0.38%) (1.55%)		<mark>(1.82%)</mark> 7.51%		11.82% 8.72%		<mark>(0.33%)</mark> 0.01%		5.28% 3.54%	
BlackRock US Debt Idx Fd Blmbg Aggregate	(1.51%) (1.55%)	88 90	7.70% 7.51%	90 94	8.79% 8.72%	80 82	0.06% 0.01%	57 62	3.68% 3.54%	76 87
Callan Core Bond FI	(1.02%)		8.67%	0.	9.17%	02	0.11%	02	3.96%	0.
Reams Asset Management	(1.63%)	97 06	17.28%	2	8.82%	92	1.91%	1	3.62%	95
Callan Core Plus Fl	(0.31%)	90	9.25%	91	10.03%	93	(0.24%)	30	4.90%	95
Loomis, Sayles & Company, L.P.	2.21%	5	7.14%	92	14.42%	1	(2.11%)	98	8.50%	1
Bimbg Aggregate Callan Core Plus Fl	(1.55%) (0.31%)	96	7.51% 9.25%	91	8.72% 10.03%	93	0.01% (0.24%)	30	3.54% 4.90%	95
Total Private Equity	51.33%		22.14%		16.63%		21.48%		17.27%	
Russell 3000 (1 Qtr in Arrears) + 3%	34.07%		18.77%		6.19%		20.60%		21.71%	
Abbott Capital Management 2010	43.35%		24.43%		16.52%		26.90%		19.98%	
Abbott Capital Management 2011	53.04%		29.13%		19.64%		25.70%		19.24%	
Abbott Capital Management 2012	50.95%		29.04%		17.91%		24.39%		17.97%	
Abbott Capital Management 2013	49.70%		28.65%		21.13%		25.17%		18.71%	
Abbott Capital Management 2014	51.60%		20.51%		19.74%		22.58%		13.50%	
Abboll Capital Management 2015	50.15%		10.02%		15.14%		13.37 %		0.07 %	
Abboll Capital Management 2018	00.00% 21.05%		20.02%		9.00%		9.43%		(1.13%)	
Abbott Capital Management 2010	46.00%		22.73%		1.20%		-		-	
Mesirow V	70.00%		21 39%		16 29%		- 18.01%		21 00%	
Mesirow VI	70.00%		20.10%		22 73%		24.87%		12 50%	
Mesirow VII	43 36%		16.43%		3 33%		(7.82%)		12.50 %	
NB Secondary Opp Fund III	27 35%		4 23%		12 18%		16.65%		20.63%	
NB Secondary Opp Fund IV	38 14%		14 80%		14 76%		68 26%		-	
Private Advisors VI	59 33%		16 54%		17 98%		15 19%		13 15%	
Private Advisors VII	38.04%		3.97%		11 23%		19.02%		(3.33%)	
Private Advisors VIII	34 51%		15 78%		(4.08%)		-		(0.0070)	
Private Advisors IX	26.36%		-		-		-		-	
Absolute Return	6.18%		(14.04%)		12.79%		1.61%		5.96%	
UBS A & Q	5.41%	65	12.18%	11	9.53%	4	2.65%	12	4.16%	67
1-month LIBOR + 4% Callan Abs Rtn Hedge FoF	3.06% 7.14%	87	4.49% 4.03%	45	6.26% 4.71%	28	6.07% 0.51%	2	5.11% 4.97%	47
Real Assets	12.80%		4.69%		15.39%		(7.47%)		10.15%	
Principal DRA	12.80%	40	4.69%	25	15.39%	15	(7.47%)	51	10.15%	16
Principal Blended Benchmark (1)	11.43%	45	2.08%	34	14.86%	17	(7.27%)	50	10.38%	15
Callan Alterntive Inv DB	9.16%		(0.39%)		7.84%		(7.40%)		4.75%	
Total Real Estate	13.25%		0.76%		6.21%		9.18%		9.20%	
Real Estate	13.25%	15	0.76%	52	6.21%	65	9.18%	39	9.20%	40
Biended Benchmark (2)	1.51%	69	0.89%	51	5.26%	13	7.89%	50	6.93% 7.97%	59
Callan TOL Real ESLUB	9.33%		1.01%		1.11%		1.90%		1.81%	
Total Fund Total Fund Reference Index*	13.55% 8.94%		6.84% 12.29%		18.66% 16.52%		(2.74%) (3.29%)		16.68% 15.80%	

* Current Quarter Target = 44.0% MSCI ACWI IMI, 23.0% Blmbg Aggregate, 10.0% Russell 3000 Index lagged 3 months+2.0%, 10.0% 3-month Treasury Bill+3.0%, 9.1% NCREIF NFI-ODCE Eq Wt Net lagged 3 months and 3.9% Principal Blended Benchmark.

(1) Current Principal Blended Benchmark = 35% Bloomberg US Treasury US TIPS Idx, 15% Bloomberg Commodity Idx, 20% S&P Global Infrastructure Idx, 20% S&P Global Natural Resources Idx and 10% FTSE EPRA/NAREIT Developed Market Idx. (2) Blended Benchmark = NCREIF (NPI) through 6/30/06, NCREIF (NPI 1 Qtr Arrears) through 12/31/13 and

NFI-ODCE (1 Qtr Arrears) thereafter.

Callan

Investment Manager Returns

The table below details the rates of return for the Fund's investment managers over various time periods ended September 30, 2021. Negative returns are shown in red, positive returns in black. Returns for one year or greater are annualized. The first set of returns for each asset class represents the composite returns for all the fund's accounts for that asset class.

Returns for Periods Ended September 30, 2021

	Last	Loct	Last	Last	Last
	Quarter	Year	years	5 Years	Years
Net of Fee Returns	Quartor		Touro	Touro	
Total Domestic Equity Net	(0.34%)	40.41%	14.49%	16.16% 16.85%	15.84% 16.60%
BlackRock Russell 1000 Value	(0.79%)	35.08%	10.32%	-	-
Russell 1000 Value Index	(0.78%)	35.01%	10.07%	10.94%	13.51%
DFA Large Cap Value Russell 1000 Value Index	(1.50%)	41.95% 35.01%	7.93%	-	- 13 51%
Northern Trust Global	0.58%	29.99%	16.02%	16.90%	16.66%
S&P 500 Index	0.58%	30.00%	15.99%	16.90%	16.63%
S&P 500 Index	2.79%	30.45%	24.33% 15.99%	24.68%	- 16.63%
Earnest Partners LLC	(1.08%)	33.14%	15.93%	17.26%	16.67%
Russell MidCap Index	(0.93%)	38.11%	14.22%	14.39%	15.52%
Russell 2000 Value Index	(2.98%)	63.92%	8.58%	11.03%	13.22%
CastleArk Management	(4.69%)	40.95%	15.00%	19.12%	-
Russell 2000 Growth Index	(5.65%)	33.27%	11.70%	15.34%	15.74%
Total Global Equity Net	(1.48%)	25.34%	13.96%	15.19%	12.99%
MSCI World BlackRock Global Alpha Tilts	(0.01%)	28.82%	13.14%	13.74% 13.79%	12.68%
MFS Investment Management	(1.44%)	24.27%	17.36%	17.46%	-
MSCI ACWI Gross	(0.95%)	27.98%	13.14%	13.77%	12.50%
Total International Equity Net	(1.22%)	32.77%	8.57%	9.28%	9.18%
MSCI EAFE Index	(0.45%) (9.29%)	25.73% 20.95%	7.62%	8.81% 8.76%	8.10%
MSCI EM Gross	(7.97%)	18.58%	8.97%	9.62%	6.46%
Brandes Investment Partners	(1.52%)	38.78%	4.56%	6.79%	7.35%
WISCI EAFE Index William Blair & Company	0.45%)	25.73% 27.68%	16.56%	8.81% 14.39%	8.10% 11.88%
MSCI ACWI ex-US Index	(2.88%)	24.45%	8.52%	9.45%	7.97%
DFA International Small Cap Blended Benchmark	0.60% 0.90%	36.18% 29.02%	4.41% 9.05%	6.72% 10.38%	9.07% 10.73%
Total Fixed Income Net	0.06%	1 84%	2 90%	2 24%	3 13%
Blmbg Aggregate	0.05%	(0.90%)	5.36%	2.94%	3.01%
BlackRock US Debt Idx Fd	0.07%	(0.84%)	5.44%	3.02%	-
Loomis. Savles & Company. L.P.	0.02%	7.08%	6.89%	5.65%	4.52%
Blmbg Aggregate	0.05%	(0.90%)	5.36%	2.94%	3.01%
Total Private Equity	13.50%	72.13%	31.15%	25.98%	16.71%
Russell 3000 (1 Qtr in Arrears) + 3% Abbott Capital Management 2010	8.83% 10.74%	47.18% 70.05%	22.13%	21.13%	- 16 13%
Abbott Capital Management 2011	11.75%	84.87%	35.80%	29.64%	13.98%
Abbott Capital Management 2012	11.61%	80.43%	34.56%	28.33%	-
Abbott Capital Management 2013 Abbott Capital Management 2014	11.54% 12.93%	79.45% 78.66%	35.10% 34.33%	28.95% 26.57%	-
Abbott Capital Management 2015	17.28%	72.67%	30.50%	20.95%	-
Abbott Capital Management 2016	15.46%	69.37%	28.41%	16.54%	-
Abbott Capital Management 2019	12.45%	43.77% 58.46%	19.21%	-	-
Abbott Capital Management 2020	11.70%	-	-	-	-
Abbott Capital Management 2021	2.62%	- 80.24%	-	- 28 0.2%	- 20 60%
Mesirow IV	17.32%	96.88%	42.21%	31.22%	-
Mesirow VII	9.22%	56.68%	18.59%	-	-
Mesirow VIII NB Secondary Opp Fund III	2.95%	(5.95%) 49.54%	- 15 19%	- 17 53%	-
NB Secondary Opp Fund IV	16.65%	51.96%	26.04%	-	-
Private Advisors VI	27.30%	74.12%	31.79%	23.88%	-
Private Advisors VII	9.56%	45.53%	19.31%	-	-
Private Advisors IX	9.61%	30.00%	-	-	-
Absolute Return	3.00%	11.66%	(0.20%)	2.07%	-
1-month LIBOR + 4%	2.94% 1.01%	9.95% 4.12%	8.46% 5.14%	7.05% 5.23%	- 4.73%
Real Assets	1,51%	24,10%	7,10%	6,26%	-
Principal DRA Principal Blanded Banchmark (1)	1.51%	24.10%	7.10%	6.26%	-
	1.20 /0	20.00 /0	0.05 /0 7.050/	7.0404	-
i otal Real Estate Real Estate	ხ.48% 6.48%	14.35% 14.35%	7.05% 7.05%	7.94% 7.94%	9.74% 9.74%
Blended Benchmark (2)	4.17%	7.97%	5.19%	6.09%	8.83%
Total Fund Net	1.92%	25.72%	9.92%	10.32%	10.27%
Fotal Fund Reference Index	0.89%	18.03%	10.26%	9.90%	10.04%

*Net returns are simulated with the use of fee schedules through March 31, 2019. Actual fees paid are used thereafter.

Investment Manager Returns

The table below details the rates of return for the Fund's investment managers over various time periods. Negative returns are shown in red, positive returns in black. Returns for one year or greater are annualized. The first set of returns for each asset class represents the composite returns for all the fund's accounts for that asset class.

	12/2020-	0000	0010	00/0	00/7
t of Foo Dotumo	9/2021	2020	2019	2018	2017
t of ree Returns Total Domestic Equity Net	18.24%	16.09%	28.94%	(6,10%)	20 53%
Russell 3000 Index	14.99%	20.89%	31.02%	(5.24%)	21.13%
BlackRock Russell 1000 Value	16.12%	3.27%	26.77%	(8.13%)	-
Russell 1000 Value Index	16.14%	2.80%	26.54%	(8.27%)	13.66%
DFA Large Cap Value Russell 1000 Value Index	19.10%	(1.78%)	26.42%	(12.60%)	- 13.66%
Northern Trust Global	15.91%	18.41%	31.53%	(4.37%)	21.83%
S&P 500 Index	15.92%	18.40%	31.49%	(4.38%)	21.83%
Polen Capital Management	18.23%	34.59%	38.27%	8.60%	27.05%
S&P 500 Index	15.92%	18.40%	31.49%	(4.38%)	21.83%
Earnest Partners LLC Russell MidCap Index	12.57%	20.96%	37.65%	(10.29%)	25.50%
DFA Small Cap Value	31 69%	3 74%	18 58%	(15.30%)	7 10%
Russell 2000 Value Index	22.92%	4.63%	22.39%	(12.86%)	7.84%
CastleArk Management	6.48%	44.12%	22.47%	2.60%	23.12%
Russell 2000 Growth Index	2.82%	34.63%	28.48%	(9.31%)	22.17%
Total Global Equity Net	10.41%	18.48%	30.55%	(8.51%)	30.85%
MSCI World	13.04%	15.90%	27.67%	(8.71%)	22.40%
BlackRock Global Alpha Tilts	10.80%	16.39%	26.48%	(11.24%)	30.06%
MSCLACW/ Gross	9.00%	21.00%	30.74% 27 30%	(4.10%) (8.93%)	32.02% 24.62%
	11.4070	10.02 /0	21.0070	(0.0070)	24.02 /0
Total International Equity Net	11.36%	10.28%	21.08%	(15.60%)	24.44%
MSCI EAFE INDEX	8.35% 1.70%	7.82% 17.38%	22.01%	(13.79%) (18.03%)	25.03%
MSCI FM Gross	(0.99%)	18 69%	18.90%	(14 24%)	37 75%
Brandes Investment Partners	13.85%	(1.69%)	14.86%	(9.17%)	16.06%
MSCI EAFE Index	8.35%	7.82%	22.01%	(13.79%)	25.03%
William Blair & Company	10.00%	30.84%	31.01%	(17.20%)	30.94%
MSCI ACWI ex-US Index	6.29%	11.13%	22.13%	(13.77%)	27.77%
Blended Benchmark	13.67%	0.81% 12.34%	21.00% 24.96%	(23.31%) (17.89%)	27.98% 33.01%
Total Fixed Income Nat	(0.469/)	(1.019/)	11 690/	(0.479())	E 00%
Blmba Aggregate	(0.40%)	7.51%	8 72%	0.01%	3 54%
BlackRock US Debt Idx Fd	(1.52%)	7.68%	8.77%	0.04%	3.66%
Reams Asset Management	(1.73%)	17.11%	8.65%	1.76%	3.46%
Loomis, Sayles & Company, L.P.	2.10%	6.99%	14.25%	(2.24%)	8.36%
Blmbg Aggregate	(1.55%)	7.51%	8.72%	0.01%	3.54%
Total Private Equity	51.33%	22.14%	16.63%	21.48%	17.27%
Russell 3000 (1 Qtr in Arrears) + 3%	34.07%	18.77%	6.19%	20.60%	21.71%
Abbott Capital Management 2010	43.35%	24.43%	16.52%	26.90%	19.98%
Abbott Capital Management 2011	53.04%	29.13%	19.64%	25.70%	19.24%
Abbott Capital Management 2012	49 70%	29.04%	21 13%	24.39%	18 71%
Abbott Capital Management 2014	51.60%	26.51%	19.74%	22.58%	13.50%
Abbott Capital Management 2015	58.15%	16.62%	15.14%	13.57%	6.87%
Abbott Capital Management 2016	53.86%	20.02%	9.08%	9.43%	(1.13%)
Abbott Capital Management 2018	31.85%	22.73%	7.26%	-	-
Abbott Capital Management 2019	46.09%	10.04%	-	-	-
Mesirow IV	70.00%	21.39%	10.29%	10.01% 24.87%	21.00%
Mesirow VII	43.36%	16 43%	3 33%	(7.82%)	-
Mesirow VIII	7.84%	-	-	-	-
NB Secondary Opp Fund III	27.35%	4.23%	12.18%	16.65%	20.63%
NB Secondary Opp Fund IV	38.14%	14.80%	14.76%	68.26%	-
Private Advisors VI	59.33%	16.54%	17.98%	15.19%	13.15%
Private Advisors VII Private Advisors VIII	38.04% 34.51%	3.97% 15.78%	(1 08%)	19.02%	(3.33%)
Private Advisors IX	26.36%	-	(4.00 %)	-	-
Absolute Return	6.08%	(14 21%)	12 52%	1 61%	5 96%
UBS A & Q	5,41%	12.18%	9,53%	2.65%	4.16%
1-month LIBOR + 4%	3.06%	4.49%	6.26%	6.07%	5.11%
Real Assets	12.27%	4.02%	14.84%	(7.47%)	10.15%
Principal DRA Principal Blended Benchmark (1)	12.27% 11 43%	4.02%	14.84% 14.86%	(7.47%) (7.27%)	10.15% 10.38%
	10.000	2.0070	F.0070	(1.21/0)	0.0070
l otal Real Estate Real Estate	12.97% 12.97%	0.39%	5.95% 5.95%	8.94%	8.89% 8.80%
Blended Benchmark (2)	7.57%	0.89%	5.26%	7.89%	6.93%
	40.000/	0.50%	40.040	(0.049())	40.000/
Total Fund Net	13.36%	6.59%	18.34%	(3.01%)	16.36%

*Net returns are simulated with the use of fee schedules through March 31, 2019. Actual fees paid are used thereafter.

Asset Class Rankings

The charts below show the rankings of each asset class component of the Total Fund relative to appropriate comparative databases. In the upper right corner of each graph is the weighted average of the rankings across the different asset classes. The weights of the fund's actual asset allocation are used to make this calculation. The weighted average ranking can be viewed as a measure of the fund's overall success in picking managers and structuring asset classes.







* Current Quarter Target = 44.0% MSCI ACWI IMI, 23.0% Blmbg Aggregate, 10.0% Russell 3000 Index lagged 3 months+2.0%, 10.0% 3-month Treasury Bill+3.0%, 9.1% NCREIF NFI-ODCE Eq Wt Net lagged 3 months and 3.9% Principal Blended Benchmark.



Asset Class Rankings

The charts below show the rankings of each asset class component of the Total Fund relative to appropriate comparative databases. In the upper right corner of each graph is the weighted average of the rankings across the different asset classes. The weights of the fund's actual asset allocation are used to make this calculation. The weighted average ranking can be viewed as a measure of the fund's overall success in picking managers and structuring asset classes.





* Current Quarter Target = 44.0% MSCI ACWI IMI, 23.0% Blmbg Aggregate, 10.0% Russell 3000 Index lagged 3 months+2.0%, 10.0% 3-month Treasury Bill+3.0%, 9.1% NCREIF NFI-ODCE Eq Wt Net lagged 3 months and 3.9% Principal Blended Benchmark.
Active Share Structure Analysis For One Quarter Ended September 30, 2021

This analysis compares multiple portfolios and composites in an active share context, illustrating the varying degrees of active risk taken by individual portfolios, and how they combine into active risk profiles for composites and the equity structure. Two sources of active share (active risk) are shown: 1) Total Holdings-Based Active Share based on individual position comparisons to the index (and the subcomponent from holding non-index securities), and 2) Sector Exposure Active Share that quantifies the more macro-level sector differences from the index.

Active Share Analysis Ended September 30, 2021



		Total	Non-Idx	Sector	Number	Security
	Index	Act Share	Act Share	Act Share	Securities	Diverse
Domestic Equity Composite	Russell 3000	38.35%	0.99%	10.95%	1918	113.63
BlackRock Russell 1000 Value	Russell 1000 Value	0.00%	0.00%	0.00%	848	63.64
DFA Large Cap Value	Russell 1000 Value	48.96%	0.89%	14.22%	318	43.69
Northern Trust Global	S&P 500	2.48%	0.12%	2.00%	505	41.37
Polen Capital Management	S&P 500	75.03%	1.56%	33.77%	25	8.05
Earnest Partners LLC	Russell MidCap	92.57%	9.76%	13.77%	58	22.02
DFA Small Cap Value	Russell 2000 Value	61.23%	15.01%	22.26%	981	115.60
CastleArk Management	Russell 2000 Growth	84.23%	15.08%	16.75%	100	32.76
Global Equity	MSCI World	57.72%	8.11%	5.11%	785	59.51
BlackRock Global Alpha Tilts	MSCI ACWI Gross	56.74%	4.23%	4.77%	747	60.21
MFS Investment Management	MSCI ACWI Gross	82.87%	3.98%	14.69%	75	22.87
International Equity	MSCI EAFE	80.79%	28.09%	13.02%	2404	63.10
AQR Emerging Markets	MSCI EM Gross	61.94%	2.71%	11.03%	273	38.13
Brandes Investment Partners	MSCI EAFE	90.99%	14.27%	25.83%	62	20.74
William Blair & Company	MSCI ACWIxUS Gross	91.10%	24.12%	25.04%	296	49.11
DFA Int'l Small Cap MS	SCI World ex US Sm Cap	75.64%	9.65%	22.87%	1939	166.68



Current Holdings Based Style Analysis Total Equity Composite As of September 30, 2021

This page analyzes the current investment style of a portfolio utilizing a detailed holdings-based style analysis to determine actual exposures to various regional and style segments of the international/global equity market. The market is segmented quarterly by region and style. The style segments are determined using the "Combined Z Score", based on the eight fundamental factors used in the MSCI stock style scoring system. The upper-left style map illustrates the current market capitalization and style score of the portfolio relative to indices and/or peers. The upper-right style exposure matrix displays the current portfolio and index weights and stock counts (in parentheses) in each region/style segment of the market. The middle chart illustrates the total exposures and stock counts in the three style segments, with a legend showing the total growth, value, and "combined Z" (growth - value) scores. The bottom chart exhibits the sector weights as well as the style weights within each sector.

Style Exposure Matrix



Style Map vs Callan Public Fund Spr DB Holdings as of September 30, 2021

Combined Z-Score Style Distribution Holdings as of September 30, 2021



Sector Weights Distribution Holdings as of September 30, 2021



Current Holdings Based Style Analysis Total Equity Composite As of September 30, 2021

This page analyzes the current investment style of a portfolio utilizing a detailed holdings-based style analysis to determine actual exposures to various regional and style segments of the international/global equity market. The market is segmented quarterly by region and style. The style segments are determined using the "Combined Z Score", based on the eight fundamental factors used in the MSCI stock style scoring system. The upper-left style map illustrates the current market capitalization and style score of the portfolio relative to indices and/or peers. The upper-right style exposure matrix displays the current portfolio and index weights and stock counts (in parentheses) in each capitalization/style segment of the market. The middle chart illustrates the total exposures and stock counts in the three style segments, with a legend showing the total growth, value, and "combined Z" (growth - value) scores. The bottom chart exhibits the sector weights as well as the style weights within each sector.

Style Exposure Matrix



Style Map vs Callan Public Fund Spr DB Holdings as of September 30, 2021

Combined Z-Score Style Distribution Holdings as of September 30, 2021



Sector Weights Distribution Holdings as of September 30, 2021



Callan

Global Holdings Based Style Analysis For One Quarter Ended September 30, 2021

This page analyzes and compares the investment styles of multiple portfolios using a detailed holdings-based style analysis methodology. The size component of style is measured by the weighted median market capitialization of the holdings. The value/core/growth style dimension is captured by the "Combined Z-Score" of the portfolio. This score is based on eight fundamental factors used in the MSCI stock style scoring system. The table below gives a more detailed breakdown of several relevant style metrics on the portfolios.

Style Map

Holdings for One Quarter Ended September 30, 2021



	Weight %	Wtd Median Mkt Cap	Combined Z-Score	Growth Z-Score	Value Z-Score	Number of Securities	Security Diversification
BlackRock Russell 1000 Value	5.88%	75.16	(0.86)	(0.36)	0.50	848	63.64
DFA Large Cap Value	5.81%	50.89	(1.15)	(0.33)	0.81	318	43.69
Northern Trust Global	12.33%	191.39	(0.04)	(0.03)	0.01	505	41.37
Polen Capital Management	6.04%	289.34	1.05	0.38	(0.67)	25	8.05
Earnest Partners LLC	4.56%	21.46	(0.31)	(0.16)	0.15	58	22.02
DFA Small Cap Value	7.64%	2.74	(0.99)	(0.22)	0.77	981	115.60
CastleArk Management	3.60%	4.46	0.67	0.13	(0.54)	100	32.76
MFS Investment Management	7.12%	80.98	0.36	(0.03)	(0.39)	75	22.87
BlackRock Global Alpha Tilts	11.02%	80.57	(0.02)	0.00	0.02	747	60.21
AQR Emerging Markets	3.58%	18.04	(0.65)	(0.12)	0.53	273	38.13
Brandes Investment Partners	14.41%	22.02	(1.18)	(0.33)	0.84	62	20.74
William Blair & Company	10.74%	28.69	1.13	0.38	(0.75)	296	49.11
DFA International Small Cap	7.26%	1.93	(0.92)	(0.22)	0.70	1939	166.68

Callan Research/Education



Education

3rd Quarter 2021

Quarterly Highlights

The Callan Institute provides research to update clients on the latest industry trends and carefully structured educational programs to enhance the knowledge of industry professionals. Visit www.callan.com/research-library to see all of our publications, and www.callan.com/blog to view our blog. For more information contact Barb Gerraty at 415-274-3093 / institute@callan.com.

New Research from Callan's Experts

Comparing Actuarial vs. Consultant Rates of Return | In this paper, Callan's Brady O'Connell and John Pirone review the differences between actuarial discount rates and consultant return forecasts. They remind fiduciaries of the importance of these two assumptions, why the numbers vary in practice and use, and why setting asset-allocation strategy is not simply an act of making the consultant return expectation match the actuarial discount rate.

The Role of Real Estate and Infrastructure Debt in a Portfolio

As capital markets assumptions have declined, institutional investors are increasingly interested in real estate and infrastructure debt as they pursue return-seeking assets. In this article, Jan Mende and Munir Iman discuss key aspects of these options.

Now What? The Role of Target Date Funds in Retirement | Much of the attention on the rise of TDFs focused on their role during the "accumulation" phase, as participants build up assets during their career. Now that sponsors have successfully incorporated TDFs into their DC plans to help participants build up assets, the time is right to focus on the potential role of TDFs during retirement by examining the makeup and income-generating possibilities of the post-retirement glidepath.

Blog Highlights

<u>GPs Take 'Credit' for Higher IRRs</u> | Subscription credit facilities are used to finance activities that would otherwise be funded by capital calls from the limited partners in a private markets fund. These "sub lines" give the general partner the flexibility to call capital less frequently by combining multiple cash flows into a single capital call, and they also can delay initial capital calls until a large capital outlay is required. But investors should note that this increases the internal rate of return (IRR) as it shortens the effective investment period. Seeking Yield in All the Right Places | One potential solution to help insurance investors meet their return goals without disproportionately adding risk is investment-grade private placements. This strategy presents opportunities to increase portfolio yields with higher spreads compared to other types of fixed income for similar levels of required capital.

PCE and CPI: What's the Difference? | The CPI is released by the Bureau of Labor Statistics and the PCE by the Bureau of Economic Analysis. While both measure inflation based on a basket of goods, they have subtle differences, including the sources of data, what they cover, and the formulas they use.

Quarterly Periodicals

Private Equity Trends, 2Q21 | A high-level summary of private equity activity in the quarter through all the investment stages

Active vs. Passive Charts, 2Q21 | A comparison of active managers alongside relevant benchmarks over the long term

<u>Market Pulse Flipbook, 2Q21</u> | A quarterly market reference guide covering trends in the U.S. economy, developments for institutional investors, and the latest data on the capital markets

Capital Markets Review, 2Q21 | Analysis and a broad overview of the economy and public and private market activity each quarter across a wide range of asset classes

Hedge Fund Quarterly, 2Q21 | Commentary on developments for hedge funds and multi-asset class (MAC) strategies

Real Assets Reporter, 2Q21 | A summary of market activity for real assets and private real estate during the quarter

Events

A complete list of all upcoming events can be found on our website: callan.com/events-education.

Please mark your calendar and look forward to upcoming invitations:

Research Café: DOL Cybersecurity Tips November 10, 2021 – 9:30 am (PST)

National Conference April 25-27, 2022, in San Francisco

For more information about events, please contact Barb Gerraty: 415-274-3093 / gerraty@callan.com

Education: By the Numbers

50+	Unique pieces of research the Institute generates each year
525	Attendees (on average) of the Institute's annual National Conference

3,700 Total attendees of the "Callan College" since 1994

Education

Founded in 1994, the "Callan College" offers educational sessions for industry professionals involved in the investment decision-making process.

Introduction to Investments December 1-2, 2021 - Chicago

This program familiarizes institutional investor trustees and staff and asset management advisers with basic investment theory, terminology, and practices. Our virtual session is held over three days with virtual modules of 2.5-3 hours, while the in-person session lasts one-and-a-half days. This course is designed for individuals with less than two years of experience with asset-management oversight and/or support responsibilities. Virtual tuition is \$950 per person and includes instruction and digital materials. In-person tuition is \$2,350 per person and includes instruction, all materials, breakfast and lunch on each day, and dinner on the first evening with the instructors.

Additional information including registration can be found at: callan.com/events-education

Introductory Workshop for DC Plan Fiduciaries March 23, 2022 - San Francisco

This one-day workshop centers on the fundamentals of administering a defined contribution (DC) plan. Designed primarily for ERISA fiduciaries and supporting staff members, attendees will gain a better understanding of the key responsibilities of an ERISA fiduciary and best practices for executing those responsibilities. Additionally, we will cover the basics of capital markets theory and DC investment menu design principles; investment manager evaluation, selection, and monitoring; best practices for evaluating fees; the regulatory and legal landscape; and industry trends. This workshop is complimentary and open to institutional investor clients.

Additional information including dates and registration can be found at: callan.com/events/mar-dc-college/



"Research is the foundation of all we do at Callan, and sharing our best thinking with the investment community is our way of helping to foster dialogue to raise the bar across the industry."

Greg Allen, CEO and Chief Research Officer

Disclosures

Callan

List of Callan's Investment Manager Clients

Confidential - For Callan Client Use Only

Callan takes its fiduciary and disclosure responsibilities to clients very seriously. We recognize that there are numerous potential conflicts of interest encountered in the investment consulting industry, and that it is our responsibility to manage those conflicts effectively and in the best interest of our clients. At Callan, we employ a robust process to identify, manage, monitor, and disclose potential conflicts on an ongoing basis.

The list below is an important component of our conflicts management and disclosure process. It identifies those investment managers that pay Callan fees for educational, consulting, software, database, or reporting products and services. We update the list quarterly because we believe that our fund sponsor clients should know the investment managers that do business with Callan, particularly those investment manager clients that the fund sponsor clients may be using or considering using. Please note that if an investment manager receives a product or service on a complimentary basis (e.g., attending an educational event), they are not included in the list below. Callan is committed to ensuring that we do not consider an investment manager's business relationship with Callan, or lack thereof, in performing evaluations for or making suggestions or recommendations to its other clients. Please refer to Callan's ADV Part 2A for a more detailed description of the services and products that Callan makes available to investment manager clients through our Institutional Consulting Group, Independent Adviser Group, and Fund Sponsor Consulting Group. Due to the complex corporate and organizational ownership structures of many investment management firms, parent and affiliate firm relationships are not indicated on our list.

Fund sponsor clients may request a copy of the most currently available list at any time. Fund sponsor clients may also request specific information regarding the fees paid to Callan by particular fund manager clients. Per company policy, information requests regarding fees are handled exclusively by Callan's Compliance department.

Manager Name	Manager Name
abrdn (Aberdeen Standard Investments)	Barrow, Hanley, Mewhinney & Strauss, LLC
Acadian Asset Management LLC	BlackRock
Adams Street Partners, LLC	BMO Global Asset Management
AEGON USA Investment Management Inc.	BNP Paribas Asset Management
AllianceBernstein	BNY Mellon Asset Management
Allianz	Boston Partners
American Century Investments	Brandes Investment Partners, L.P.
AQR Capital Management	Brandywine Global Investment Management, LLC
Ares Management LLC	Brown Brothers Harriman & Company
Ariel Investments, LLC	Cambiar Investors, LLC
Aristotle Capital Management, LLC	Capital Group
Atlanta Capital Management Co., LLC	Carillon Tower Advisers
Aviva Investors	CastleArk Management, LLC
AXA Investment Managers	Causeway Capital Management LLC
Baillie Gifford International, LLC	Chartwell Investment Partners
Baird Advisors	ClearBridge Investments, LLC
Barings LLC	Cohen & Steers Capital Management, Inc.
Baron Capital Management, Inc.	Columbia Threadneedle Investments North America

Manager Name Manager Name Credit Suisse Asset Management KeyCorp Crescent Capital Group LP Lazard Asset Management Crosscreek Capital Group LGIM America (formerly Legal & General Inv Mgmt America) D.E. Shaw Investment Management, LLC Lincoln National Corporation DePrince, Race & Zollo, Inc. Longview Partners Dimensional Fund Advisors LP Loomis, Sayles & Company, L.P. Doubleline Lord Abbett & Company Duff & Phelps Investment Management Co. LSV Asset Management DWS MacKay Shields LLC EARNEST Partners, LLC Macquarie Investment Management (MIM) Eaton Vance Management Manning & Napier Advisors, LLC Epoch Investment Partners, Inc. Manulife Investment Management McKinley Capital Management, LLC Fayez Sarofim & Company Federated Hermes, Inc. Mellon Fidelity Institutional Asset Management MetLife Investment Management Fiera Capital Corporation MFS Investment Management First Hawaiian Bank Wealth Management Division MidFirst Bank First Sentier Investors (formerly First State Investments) Mondrian Investment Partners Limited **Fisher Investments** Montag & Caldwell, LLC Franklin Templeton Morgan Stanley Investment Management GAM (USA) Inc. MUFG Union Bank, N.A. GCM Grosvenor Natixis Investment Managers GlobeFlex Capital, L.P. Neuberger Berman GoldenTree Asset Management, LP Newton Investment Management **Goldman Sachs** Ninety One North America, Inc. (formerly Investec Asset Mgmt.) **Guggenheim Investments** Northern Trust Asset Management **GW&K** Investment Management Nuveen Pacific Investment Management Company Harbor Capital Group Trust Heitman LLC Parametric Portfolio Associates LLC Hotchkis & Wiley Capital Management, LLC Partners Group (USA) Inc. Income Research + Management, Inc. Pathway Capital Management Insight Investment P/E Investments Intech Investment Management, LLC Peregrine Capital Management, LLC Intercontinental Real Estate Corporation PFM Asset Management LLC Invesco PGIM Fixed Income J.P. Morgan PineBridge Investments Janus Polen Capital Management, LLC Jennison Associates LLC Principal Global Investors Jobs Peak Advisors Putnam Investments, LLC J O Hambro Capital Management Limited QMA LLC

Callan

Manager Name

RBC Global Asset Management

Regions Financial Corporation

Richard Bernstein Advisors LLC

Robeco Institutional Asset Management, US Inc.

Rothschild & Co. Asset Management US

S&P Dow Jones Indices

Schroder Investment Management North America Inc.

SLC Management

Smith Graham & Co. Investment Advisors, L.P.

State Street Global Advisors

Stone Harbor Investment Partners L.P.

Strategic Global Advisors, LLC

T. Rowe Price Associates, Inc.

The TCW Group, Inc.

Thompson, Siegel & Walmsley LLC

Manager Name

Tri-Star Trust Bank

Thornburg Investment Management, Inc.

VanEck

Versus Capital Group

Victory Capital Management Inc.

Virtus Investment Partners, Inc.

Vontobel Asset Management

Voya

WCM Investment Management

WEDGE Capital Management

Wellington Management Company LLP

Wells Fargo Asset Management

Western Asset Management Company LLC

Westfield Capital Management Company, LP

William Blair & Company LLC