REGULAR MEETING OF THE ANNUITY AND PENSION BOARD EMPLOYES' RETIREMENT SYSTEM OF THE CITY OF MILWAUKEE 789 N. WATER ST. (Employes' Retirement System) TUESDAY, MAY 23, 2023 – 9:00 A.M.

Special Notice: Due to the COVID-19 pandemic, the meeting will be held remotely via video conference. Instructions on how to observe the meeting will be available on ERS's website (www.cmers.com) prior to the meeting.

Please note and observe the following remote attendance etiquette to ensure a smooth and productive meeting:

- In order to cut down on background noise, participants in the meeting should put their phones on mute when they are not participating.
- At the start of the meeting, the Chairman will announce the names of the members of the Board present on the call, as well as anyone else who will be participating.
- Please request to be recognized by the Chairman if you would like to speak.
- Those participating on the call should identify themselves whenever they speak, and should ensure that the other participants on the call can hear them clearly.

REGULAR MEETING

- I. Approval of Minutes.
 - A. Regular Meeting Held April 25, 2023.
- II. Chief Investment Officer Report.
- III. Investment Committee Report.
 - A. Approval of UBS Hedge Fund Solutions Guideline Change.
- IV. New Business.
 - A. Approval of Policy Decision of Joint and Survivor Actuarial Factors for Optional Forms of Benefits.
 - B. Retirements, Death Claims, and Refunds (April).
 - C. Conference Requests May 2023 Board Meeting.
- V. Medical Reports.
 - A. All Duty & Ordinary Disability Applications & Re-examinations (May).
 - B. Disability Findings Benjean Lara.
- VI. Unfinished Business.
 - A. Pending Legal Opinions and Service Requests Report.
 - B. Pending Legislation Report.

Please be advised that the Annuity and Pension Board may vote to convene in closed session on the following item (C.), as provided in Section 19.85(1)(g), Wisconsin State Statutes, to confer with legal counsel concerning strategy to be adopted by the body with respect to litigation in which it is or is likely to become involved. The Board may then vote to reconvene in open session following the closed session.

C. Executive Director's Report – Inventory of ERS Projects.

VII. Informational.

Please be advised that the Annuity and Pension Board may vote to convene in closed session on the following item (A.), as provided in Section 19.85(1)(g), Wisconsin State Statutes, to confer with legal counsel concerning strategy to be adopted by the body with respect to litigation in which it is or is likely to become involved. The Board may then vote to reconvene in open session following the closed session.

- A. Pending Litigation Report.
- B. Conferences.
- C. Class Action Income 2023 YTD.
- D. Adjusted Quarterly Cost Basis of Equity.
- E. Minutes of the Administration & Operations Committee Meeting Held April 18, 2023.
- F. Minutes of the Investment Committee Meeting Held April 20, 2023.
- G. Minutes of the Investment Committee Meeting Held May 4, 2023.
- H. Report on Bills.
- I. Deployment of Assets.
- J. Securities Lending Revenue and Budget Report.
- K. Preliminary Performance Report and Asset Allocation.

MEETING REMINDERS

INVESTMENT COMMITTEE MEETING

THURSDAY, JUNE 8, 2023 – 9:00 A.M. 789 N. WATER ST.

ADMINISTRATION & OPERATIONS COMMITTEE MEETING

WEDNESDAY, JUNE 21, 2023 – 9:00 A.M. 789 N. WATER ST.

REGULAR MEETING OF THE ANNUITY AND PENSION BOARD

TUESDAY, JUNE 27, 2023 – 9:00 A.M.

789 N. WATER ST.

APPROVAL OF MINUTES

A. Regular Meeting Held April 25, 2023.

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

Minutes of the Regular Meeting held April 25, 2023 via teleconference during COVID-19

The meeting was called to order at 9:02 a.m.

Board Members Present: Matthew Bell, Chair

Deborah Ford
Timothy Heling
Molly King
Tom Klusman
Rudolph Konrad
Aycha Sawa

Board Members Not Present: Nik Kovac (arrived at 9:24 a.m.)

Retirement System Staff Present: Jerry Allen, Executive Director

Melody Johnson, Deputy Director

Daniel Gopalan, Chief Financial Officer David Silber, Chief Investment Officer

Erich Sauer, Deputy Chief Investment Officer Mary Turk, Business Operations Analyst

Jan Wills, Board Stenographer

Others Present: Larry Langer, Cavanaugh Macdonald, LLC; Patrick McClain, City Attorney's Office; Terry Siddiqui, DS Consulting, Inc., four members of the public called in to the meeting.

Regular Meeting.

Approval of Minutes.

Regular Meeting Held March 28, 2023. It was moved by Ms. Sawa, seconded by Ms. King, and unanimously carried, to approve the minutes of the Regular Meeting Held March 28, 2023.

Chief Investment Officer Report. As a matter of information, Board members received the April 25, 2023 Performance Update. Mr. Sauer noted the Fund as of March 31, 2023, had a value of \$5.64 billion. He said the Fund had a return of up 1.0% in March, net of fees, which underperformed by approximately 1.0%. Mr. Sauer commented the primary relative performance drivers were Public Equity Style Bias which detracted 64 basis points, and was primarily Value and Small Cap exposure; for Manager Selection, Private Equity detracted 97 basis points which is compared to a benchmark up over 7% since the Private Equity reports have not come in yet, Real Estate added 42 basis points, and Overweight to Private Equity added 15 basis points. He added the Fund has outperformed the benchmark in the one-, five, 10-, 15- and 20-year periods. Mr. Sauer remarked as of April 24, 2023, the Fund was up 0.4% month-to-date in April, which brought

the year-to-date return to up 3.8%, and the Fund value to \$5.67 billion. He noted 11 out of the Fund's 16 active mandates are outperforming, year-to-date. Mr. Sauer stated the Fixed Income asset class is outperforming its benchmark year-to-date. He said year-to-date the Fund has seen a gain in the value of investments of \$211.9 million, paid benefits and expenses of \$123.3 million, and received contributions of \$111.9 million. Mr. Sauer noted that for cash flows this month, there is more going on as Staff is redeeming \$57.5 million from the Fund's Public Equity Managers, and the Fund will receive \$75 million from UBS as part of the redemption plan approved by the Board in 2022. He said, in addition to paying the monthly benefits, Staff will deposit \$50 million of the excess into the U.S. Government Bond Index and another \$45 to \$50 million into Reams. one of the Fixed Income managers. Mr. Sauer stated they ended March 1% overweight to Public Equity. He noted they are getting money out of Public Equity to avoid a worst-case scenario where Fixed Income is drawn down and down. He said it is an opportunity to replenish the Fixed Income allocation to get it towards its target and save up some liquidity for future market volatility. Discussion ensued. Mr. Sauer reminded Board members of the Investment Committee Meeting on May 4 which will consist of the continuation of the asset liability study with Callan, looking at some mixes, presentation of routine due diligence reports, and a routine guideline request from UBS.

Investment Committee Report. Mr. Klusman noted that at its April 20th meeting, the Investment Committee unanimously elected Timothy Heling as its Vice-Chair. He said then the Investment Committee interviewed two investment managers as part of the Real Estate Manager search. The investment managers interviewed were Harrison Street and Kayne Anderson. Mr. Klusman said the Committee selected one finalist in closed session, and directed ERS Staff to conduct due diligence and coordinate legal negotiations with the selected finalist. He commented that the selection is contingent on successful due diligence and contract negotiations. Mr. Klusman said Staff also presented a preliminary 1st quarter performance update, noting that the Fund's 1st quarter return would not be finalized for about another week. He said the Fund's estimated first quarter return is 3.3%, net of fees and The Fund's estimated 10-year return is an annualized 7.9%, net of fees. Mr. Klusman stated that Staff noted that Callan will be presenting the next phase of the ALM study at the upcoming May 4 meeting. He said Staff had emphasized the importance of this meeting by highlighting how inflation and higher interest rates will allow the Committee to consider approving an asset mix with a Fixed Income allocation as high as 29%. Mr. Klusman noted the Fund last had a target allocation to Fixed Income above 28% in 2006. He said Staff also mentioned that setting the strategic asset allocation mix, and the resulting return, volatility, and liquidity characteristics associated with it, is the most important investment decision the Committee makes.

Please be advised that the Annuity and Pension Board may vote to convene in closed session on the following item 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 Board may then vote to reconvene in open session following the closed session.

Mr. Bell said the Board did not go into closed session as noticed on the agenda.

Selection of Real Estate Manager. Mr. Bell noted they selected the Real Estate Manager in closed session at the April 20, 2023 Investment Committee Meeting. Mr. Allen confirmed that another motion and second was not necessary. He said the contract would come back to the full Board.

Administration & Operations Committee Report. Ms. Sawa said the Committee met on April 18. She said they had one agenda item which was the Approval of the Draft ERS 2024 Budget. Mr. Gopalan stated the requested 2024 budget was over \$24 million dollars, an increase of over \$271,000 from 2023. He noted the two main drivers of the increase were salaries and fringe benefits. He commented the ERS has been working with DER to do market studies and reclasses. He stated the Professional Services budget is \$241,000 higher, which is due to an increase in Investment Manager fees. Mr. Gopalan said they reduced the request for the IT budget by \$1.3 million dollars, based on the hardware replacement cycle.

Approval of Draft ERS 2024 Budget. It was moved by Ms. Ford, seconded by Ms. King, and unanimously carried, to approve the Approval of Draft ERS 2024 Budget.

New Business.

Chairman Bell took the meeting out of order to V.B. New Business - Retirements, Death Claims, and Refunds (March).

Retirements, Death Claims, and Refunds (March). Mr. Allen presented the following activity for the months of March 2023.

Active Death Benefits reported	\$0.00
Deferred Death	\$41,666.06
Deferred Death-Member Only Refund	\$0.00
Ordinary Death Benefits reported	\$36,777.91
Retired Death Benefits reported	\$15,413.71
Survivor Death – Termination Benefits reported	\$5408.53
Refund of Member Contributions paid	\$293,642.15

It was moved by Ms. King, seconded by Mr. Heling, and unanimously carried, to approve the Retirements, Death Claims, and Refunds (March 2023).

Conference Requests – April 2023 Board Meeting. Staff presented the Conference Requests this month.

Thomas Courtright 2023 Madison Investment Conference

Sponsor: CFA Society
Location: Madison, WI
Date: May 31, 2023
Estimated Cost: \$300.00

Erich Sauer, Abbott Due Diligence; Neuberger Berman Due Diligence

David Walters and Annual LP Meeting

Sponsor: Abbott and Neuberger Berman

Location: New York, NY
Date(s): June 20-22, 2023
Estimated Cost: \$1,750 per person

Mr. Bell, Mr. Allen, and Ms. Ford requested to attend the NCPERS Public Pension Funding Forum in Chicago, IL on August 20-22, 2023.

It was moved by Mr. Konrad, seconded by Mr. Klusman, and unanimously carried, to approve the Conference Requests – April 2023 Board Meeting for the six persons requesting to attend conferences.

Mr. Kovac arrived at 9:24 a.m.

Medical Reports.

All Duty & Ordinary Disability Applications & Re-examinations (April). Staff presented certifications (April 2023) of the Fire and Police Medical Panel Physicians and the Medical Council relative to Duty & Ordinary Disability Retirement benefits as follows:

Police – Re-examinations – Di	ity b	Recommendation

Willie Huerta Approval Kurt Lacina Approval

<u>Fire – Re-examinations – Duty</u> <u>Recommendation</u>

Pieter Gallagher Approval
Christopher Underwood Approval
James Youngblood Approval

<u>Police – Re-examinations – Ordinary</u> <u>Recommendation</u>

Audra Finnegan Approval

GC – Applications – Duty Recommendation

James Tyler Approval

GC – Applications –Ordinary Recommendation

Brandon Purdy Approval

<u>GC – Re-examinations – Ordinary</u> <u>Recommendation</u>

Ywanda Bryant Approval Leann Wolfe Approval

It was moved by Mr. Kovac, seconded by Mr. Heling, and unanimously carried, to approve the Duty & Ordinary Disability Applications & Re-examinations (April).

Unfinished Business.

Pending Legal Opinions and Service Requests Report. Mr. McClain stated he had no comments for this short report, but would answer any questions from the Board members.

Pending Legislation Report. Mr. McClain noted the Pension Contribution Offset, given the results of the litigation, would be addressed later in the meeting. He noted there would be a resolution by the next meeting.

Please be advised that the Annuity and Pension Board may vote to convene in closed session on the following item as provided in Section 19.85(1)(g), Wisconsin State Statutes, to confer with legal counsel concerning strategy to be adopted by the body with respect to litigation in which it is or is likely to become involved. The Board may then vote to reconvene in open session following the closed session.

Mr. Bell said the Board did not go into closed session as noticed on the agenda.

Executive Director's Report – Inventory of ERS Projects. As a matter of information, Staff presented a report on the ERS projects and updated the Board on ERS activities, a copy of which is on file with the ERS. Discussion ensued.

Informational.

- 1) Pending Litigation Report.
- 2) Conferences.
- 3) Class Action Income 2023 YTD.
- 4) Minutes of the Administration & Operations Committee Meeting Held March 23, 2023.

The following is a list of activities since the last Board meeting, copies sent with meeting notice and attached to minutes:

- 5) Report on Bills.
- 6) Deployment of Assets.
- 7) Securities Lending Revenue and Budget Report.
- 8) Preliminary Performance Report and Asset Allocation.

Mr. McClain discussed the Pending Litigation Report. As a matter of information, Board members received the memo from Mr. McClain dated April 25, 2023 regarding the Wisconsin Supreme Court decision in the case of Milwaukee Police Supervisors Organization, et al. v. City of Milwaukee, et al. and the Wisconsin Supreme Court opinion summarizing the history and results of litigation. Mr. McClain stated the Wisconsin Supreme Court reversed the favorable Board of Appeals opinion in relation to the 5.8% pension offset payment and ordered that payment be included in duty disability retirement benefits. He said the basis of the Wisconsin Supreme Court's opinion was unique to the prior court's and ruled that the textural structure of the agreement, specifically the salary grids were determinative of the outcome of the case. Mr. McClain noted that the salary grids contained in the collective bargaining agreement included the 5.8% increase at issue, the Court ruled that that amount must serve as the current annual salary for purposes of calculating duty disability retirement. He said the Court rejected the argument that the Court of Appeals had previously accepted that additional language within the contract effectively precluded its inclusion from duty disability. He stated the so-called language contained within Article 10 that specified that the 5.8% increase was contingent upon a member making a corresponding 7% member contribution. Mr. McClain mentioned two notes in regard to implications: the first is that the opinion is fairly limited and the Court did not address some of the broader contractual rights arguments raised by the plaintiffs which would have been a more damaging opinion and limited its decision to specifically interpreting the unique language of the collective bargaining agreement so the Court's opinion is relatively limited in terms of legal significance. He said secondly the primary implication of the Court's decision is financial and there is a breakdown of the retroactive payments that are necessary as a result of the opinion, essentially including the 5.8% salary increase in duty disability retirement benefits for MPA and Local 215 members from the time they came due under the contract and the ERS must begin including the 5.8% increase moving forward. Mr. McClain said there is a pre- and post-judgment interest that is applied to the Local 215 amounts by operation of statute and there is a corresponding implication for conversion and GPS benefits because those benefits are calculated in a fairly similar way to duty disability retirements. He stated for affected members, their conversion benefits, when they reach retirement age, as well as their GPS payments, will also be subject to the increase. Mr. McClain noted the final thing noted in the memorandum is that the MPSO, after the Court of Appeals opinion filed a motion for fees, claiming fees under the Common Fund Doctrine, said they have not received a decision on that motion despite a year passing since it was filed, and are confident that motion will be denied because the Common Fund Doctrine does not shift attorneys' fees to the losing party, but instead spreads the fees among the prevailing parties so there will not be an additional cost flowing from that motion. Discussion ensued.

Chairman Bell returned the meeting to order to V.A. New Business – Approval of New Actuarial Tables for Pension Benefits - Presentation by Cavanaugh Macdonald.

Approval of New Actuarial Tables for Pension Benefits - Presentation by Cavanaugh Macdonald. As a matter of information, Board members received the memo from Cavanaugh Macdonald regarding "Considerations Regarding Joint and Survivor Factors."

Mr. McClain said, looking at Chapter 36, the charter ordinance grants the Board the authority and discretion to adopt the tables and that authority and discretion is guided by the requirement that the Board's decision must comport with actuarial standards of practice so as long as the options presented each comport with the actuarial standards of practice, the election of one set of tables over another would be an act of discretion or policy for the Board. He concluded that as long as the actuary can certify the options would each meet the actuarial standards of practice, this appears to be a policy consideration and not a legal requirement.

Mr. Langer first discussed the memo and said new mortality rates were adopted and current factors are not based upon a 7.5% return so factors were updated for a 7.5% return. He said in the past there was one table of joint and survivor factors for all groups. Mr. Langer noted three variations among member groups that impact the actuarial value of the optional benefits: multiple cost-of-living adjustment (COLA) schedules during retirement, adoption of different mortality rates for Police officers and Firefighters versus General Employees, and the male-to-female ratio for active Police officers and Firefighters is different from that of active General Employees. He further discussed the COLA schedules, Healthy Annuitant Mortality, Male-to-Female Ratio, and blending factors of the first three items into a single table where General Employee factors were blended 50%/50% with Police officers and Firefighters. Mr. Langer discussed the tables in four appendices of Sample of Joint and Survivor Factors for Comparison among Police officers and Firefighters, General Tier I, General Tier 2 – Service Retirement, and General Tier 2 – Non-Service Retirement. Discussion ensued.

There being no further business to come before the meeting, it was moved by Mr. Konrad and seconded by Mr. Heling, to adjourn the meeting.

Mr. Bell adjourned the meeting at 10:35 a.m.

Bernard J. Allen Secretary and Executive Director

NOTE: All proceedings of the Annuity and Pension Board Meetings and related Committee Meetings are recorded. All recordings and material mentioned herein are on file in the office of the Employes' Retirement System, 789 N. Water Street, Suite 300.)

CHIEF INVESTMENT OFFICER REPORT

Milwaukee Employes' Retirement System - May 23, 2023

Fund as of April 30, 2023

*Fund value of \$5.64b.

*Fund return of 0.6% in April, gross of fees, underperformed by approximately 25bp

*Primary Relative Perf. Drivers: **Manager Selection**

Real Estate -10bp 7 of 11 Active Equity Mandates Underperformed -11bp

*Fund has outperformed the benchmark in 1-, 5-, 10-, 15- and 20-year periods.

May Update (as of 5/16/23)

*Fund return -0.8% MTD *Fund return 3.0% YTD *Fund value \$5.59b

*9 out of 16 active mandates outperforming YTD.

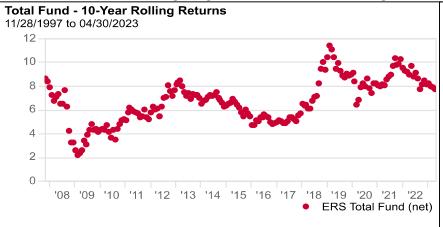
*Fixed Income asset class outperforming its benchmark YTD.

*Investment Change: \$172.8m *Benefits & Expenses: 161.6m *Contributions:

114.4m

Monthly Withdrawals:

To be discussed at meeting



Growth of \$100 - Total Fund & ERS Benchmark 11/28/1997 to 04/30/2023 600 500 400 300 200 100 '04 '06 '08 '10 '12 '14 '16 '18 '20 '22 ERS Total Fund (net) ERS Benchmark

Return Data

Source Data: Monthly Return

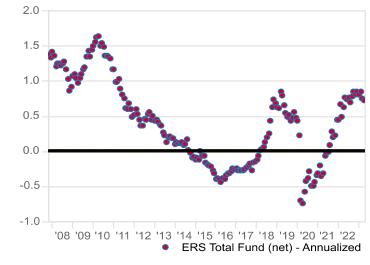
	1 Month	YTD	1 Year	5 Year	10 Year	15 Year	20 Year
Total Fund (net)	0.6	3.9	0.9	7.1	7.7	6.4	7.8
ERS Benchmark	0.8	5.1	0.1	6.0	7.0	6.1	7.3

Total Fund - 20-Year Risk & Return Data

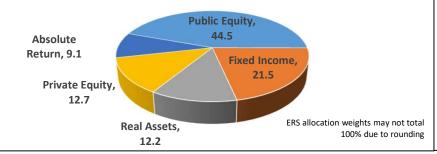
	Return	Std Dev	Tracking Error	Info Ratio (arith)	Sharpe Ratio	Alpha	Beta
Total Fund (net)	7.8	10.3	2.5	0.2	0.6	-0.1	1.1
ERS Benchmark	7.3	9.1			0.7	0.0	1.0

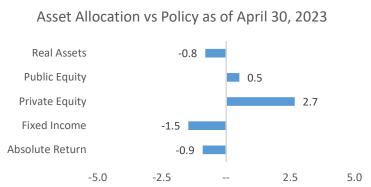
Total Fund - 10-Year Rolling Excess Returns

11/28/1997 to 04/30/2023



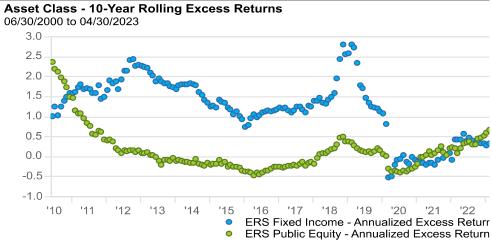
ERS Allocation as of April 30, 2023





Milwaukee Employes' Retirement System - May 23, 2023





Return Data	eturn Data					Risk Adjusted Retu	rns (6/30 _/	/14 - 04	/30/23	3)		
	1 Month	YTD	1 Year	5 Year	10 Year	15 Year	20 Year		Return	Std Dev	Sharpe Ratio	
Public Equity	1.0	7.8	3.8	7.5	9.3	7.2	9.0	Public Equity (net)	7.5	15.6	0.4	-25.3
Public Equity (net)	1.0	7.7	3.4	7.1	8.9	6.8	8.6	Fixed Income (net)	1.5	6.4	0.1	-13.6
Public Equity Benchmark	1.3	8.3	1.6	6.6	8.3	6.6	8.3	Absolute Return (net)	5.5	9.8	0.5	-27.1
MSCI ACWI IMI NR USD	1.3	8.3	1.6	6.6	7.8	5.8	8.5	Absolute Return - 5-Ye	ear Rolling	Returns		

Fixed Income - 10-Year Rolling Returns 06/28/1996 to 04/30/2023

10 8 6 4 2 9 10 11 12 13 14 15 16 17 18 19 20 21 22 • ERS Fixed Income (net) - Return

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Return Data														
	1 Month	YTD	1 Year	5 Year	10 Year	15 Year	20 Year	Return Data						
Fixed Income	0.6	4.2	0.9	1.5	1.7	3.9	4.5		1 Month	YTD	1 Year	3 Year	5 Year	7 Year
Fixed Income (net)	0.6	4.2	0.8	1.4	1.6	3.7	4.4	Absolute Return (net)	0.2	0.9	5.1	15.4	5.6	5.5
Bbg US Agg Bond TR USD	0.6	3.6	-0.4	1.2	1.3	2.8	3.2	90-Day T-Bill + 3%	0.7	2.6	6.6	4.3	4.5	4.3

INVESTMENT COMMITTEE REPORT

A. Approval of UBS Hedge Fund Solutions Guideline Change.

Memorandum

To: CMERS Investment Committee

From: Erich Sauer, CFA, CAIA

Date: May 4, 2023

Re: UBS Guideline Request

Attached you will find a request from UBS Hedge Fund Solutions to update the guidelines on the CMERS Low Beta, LLC vehicle they manage for us. They are requesting to increase the percentage of the portfolio with liquidity terms of between 2 and 3 years from its current maximum of 10% of the portfolio, to a maximum of 20% of the portfolio. A redline of the proposed guideline change is contained within the body of the memo, and a clean copy of the full guidelines incorporating the proposed change is attached.

As a reminder, in late 2022, ERS Staff worked with UBS to come up with a redemption plan that reduced the size of the UBS portfolio from over 8% of Fund assets, to a target of 4% of Fund assets, while maintaining capacity in the most difficult to access underlying hedge fund managers in the existing portfolio. This redemption plan was ultimately approved by CMERS' investment committee. Manager skill is extremely important in hedge fund investing, so UBS' recommendation was to maintain as much capacity as possible in difficult to access, highly skilled managers. ERS staff and Callan agreed with this recommendation.

The progress that UBS has made toward that redemption plan is what is driving this request. As portions of the portfolio are redeemed, the scarce-capacity managers that are left make up a larger part of the remaining UBS portfolio. Importantly, <u>UBS is not increasing the size of these positions in terms of absolute dollars</u>. The remaining UBS portfolio is just becoming smaller around them. So, from a Total Fund perspective, CMERS has the same amount invested in these less-liquid managers that it always has. This guideline change does not put the CMERS Total Fund in any worse liquidity position than it had been in previously. It is for this reason that ERS staff and Callan are comfortable with this request, and recommend approval of the guideline update.



UBS Hedge Fund Solutions LLC

600 Washington Blvd Stamford CT 06901 Tel. +1-203-719 1850

Asset Management UBS Hedge Fund Solutions

www.ubs.com

Employes' Retirement System of the City of Milwaukee 789 N Water St., Suite 300 Milwaukee, WI 53202

April 27, 2023

RE: CMERS Low Beta LLC – Request amendment to the liquidity profile

Dear Mr. Sauer,

Due to recent rebalancing, the size of CMERS Low Beta LLC (the "**Fund**") will be reduced in accordance with previous instructions and UBS Hedge Fund Solutions LLC ("**HFS**" or "**we**") would like to retain key portfolio holdings. These positions are generally in high conviction sub-strategies and/or are fund managers with limited and/or scarce capacity. Accordingly, we request an amendment to the current Investment Management Agreement ("**IMA**") guidelines that limit exposure to the greater than 2 years but less than 3 year liquidity bucket of the portfolio and look to increase this guideline from 10% to 20%, effective May 1, 2023. This amendment to the IMA will allow HFS to continue to manage the Fund with a generally more concentration approach consistent with our investment overall philosophy while we adjust to a reduced overall portfolio size.

HFS is requesting to revise the second bullet under the Liquidity Considerations in the Appendix to the IMA:

• 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 12/3 of these Portfolio Funds (approximately 1020% 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 1020% limitation. The Investment Manager may increase the 20% limitation with consent of investors on an investor-by-investor basis.

If you have any questions, please contact your UBS representative.

Yours sincerely

UBS Hedge Fund Solutions LLC

Fund: CMERS Low Beta LLC

Managing Member: UBS Hedge Fund Solutions LLC Role: 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

Index

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

One market cycle (rolling 5-year periods).

Exceed (after fees) the Secured Overnight Financing Rate (SOFR) by 400 basis points.

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.

Direct Trading (0-5%)

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.

<u>Investments in Portfolio Funds Managed by Affiliates of the Investment Manager</u>

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.

<u>Liquidity Considerations</u>

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 2/3 of these Portfolio Funds (approximately 20% 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 20% limitation. The Investment Manager may increase the 20% limitation with consent of investors on an investor-by-investor basis.
- 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

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.

IV.

NEW BUSINESS

- Approval of Policy Decision of Joint and Survivor Actuarial Factors for Optional A. Forms of Benefits.
- Retirements, Death Claims, and Refunds (April). Conference Requests May 2023 Board Meeting. B.
- C.



City of Milwaukee Employes' Retirement System

> Bernard J. Allen Executive Director

David M. Silber, CFA, CAIA Chief Investment Officer

> Melody Johnson Deputy Director

May 5, 2023

TEARMAN SPENCER, CITY ATTORNEY 200 E WELLS ST, RM 800 MILWAUKEE WI 53202

Attn: Robin Pederson, Deputy City Attorney, Patrick McClain, Assistant City Attorney

RE: Annuity & Pension Board Request for Opinion Regarding MCC-36-05-7 Optional Joint and Survivor Benefits

The Annuity & Pension Board at its April 25, 2023 meeting, received a memorandum from Cavanaugh Macdonald, independent consulting actuaries, regarding revision of actuarially equivalent joint & survivor benefit factors relating to optional forms of annuity benefits pursuant to MCC-36-05-7 (attached).

The Board requests an opinion on whether it has administrative discretion to determine whether to adopt a combined set of actuarial tables applying to both general employees and public safety employees or separate sets tables for each such employment class and further for beneficiaries eligible for cost of living adjustments (COLAS) distinct from those beneficiaries who are not so eligible.

Historically, only a single set of tables was available to the Board for all employment and beneficiary classes. The actuarial profession has now made available separate sets of tables for general and public safety classes of employment and can do so for COLA eligibility.

Also, please advise whether other provisions or principles of law and equity (e.g. collective bargaining pattern and practice) apply to determining whether combined or separate sets of tables for plan members and beneficiaries based on employment class and COLA eligibility are required.

Sincerely, Bernsof Allen

Bernard J. Allen Executive Director

<>



Board Report - April 2023 Retirements

Retirement Type	Retirement SubType	Last Name	First Name	Retirement Date	Option	Department
Regular	Deferred	OLSEN	JANET	3/13/2014	MAX	HEALTH DEPARTMENT
Regular	Deferred	ZEBRO	KEVIN	10/9/2022	MAX	MILWAUKEE POLICE DEPARTMENT
Regular	Conversion (Duty Disability to Regular)	BOYD	NORMA	2/1/2023	100	MILWAUKEE POLICE DEPARTMENT
Regular	Deferred	PHILLIPS	ANGELA	3/3/2023	52	MILWAUKEE POLICE DEPARTMENT
Regular	Service	PELLETT	BRIAN	3/3/2023	100	DCD - MGMT & SPECIAL PROJECTS
Regular	Service	MALVICK	AARON	3/4/2023	MAX	MILWAUKEE POLICE DEPARTMENT
Regular	Service	SCHUMACHER	DEAN	3/4/2023	75	FIRE - SUPPORT SERVICES
Regular	Deferred	MELBYE	DAVID	3/5/2023	MAX	MMSD
Regular	Service	RILEY	RICHARD	3/5/2023	50	MILWAUKEE POLICE DEPARTMENT
Regular	Service	RODRIGUEZ	JOEL	3/6/2023	MAX	FIRE - FIREFIGHTING
Regular	Service	LEFLORE	LAWANDA	3/11/2023	50	MILWAUKEE PUBLIC SCHOOLS
Regular	Deferred	ZERPA	VIRGINIA	3/12/2023	MAX	HEALTH DEPARTMENT
Regular	Service	HARPER	RONALD	3/14/2023	100	CITY OF MILWAUKEE
Regular	Deferred	ROBINSON	FRANK	3/15/2023	50	HEALTH DEPARTMENT
Regular	Service	TEIPNER WARGOLET	BARBARA	3/17/2023	50	EMPLOYES' RETIREMENT SYSTEM
Regular	Service	FOSTER	MONIQUE	3/18/2023	MAX	MILWAUKEE POLICE DEPARTMENT
Regular	Service	JAGERS	REGINA	3/18/2023	25	HEALTH-LABORATORIES
Regular	Service	VILA	BRIAN	3/18/2023	MAX	MILWAUKEE PUBLIC SCHOOLS
Regular	Deferred	ZACH	NANCY	3/21/2023	MAX	MMSD
Regular	Deferred	CARTER	CHRISTOPHER	3/23/2023	MAX	MILWAUKEE POLICE DEPARTMENT
Regular	Deferred	CARTER	KEITH	3/23/2023	50	MILWAUKEE PUBLIC SCHOOLS
Regular	Service	JACQUART	STEVEN	3/23/2023	100	MMSD
Regular	Deferred	WADE	WILLIE	3/24/2023	MAX	MILWAUKEE PUBLIC SCHOOLS
Regular	Deferred	COHEN	DIANE	3/26/2023	53	MILWAUKEE PUBLIC SCHOOLS
Regular	Service	SLOTTKE	DOUGLAS	3/30/2023	50	DPW-WATER-HOWARD
Regular	Service	HEBERLEIN	RONALD	3/31/2023	MAX	MILWAUKEE PUBLIC SCHOOLS
Regular	Service	MATISZIK	RICHARD	3/31/2023	75	FIRE - FIREFIGHTING
Regular	Service	COLE	ELI	4/1/2023	50	MILWAUKEE POLICE DEPARTMENT
Regular	Service	JOHNSON	CINDY	4/1/2023	MAX	CITY OF MILWAUKEE
Regular	Service	LOPEZ	DANIEL	4/1/2023	75	DPW-OPS-FLEET SERVICES
Regular	Service	MAC KENZIE	DONALD	4/1/2023	100	FIRE - FIREFIGHTING
Regular	Service	OWENS	WALLACE	4/1/2023	50	DPW-WATER-DISTRIBUTION
Regular	Service	RABATIN	REBECCA	4/1/2023	100	DOA – OFFICE OF THE DIRECTOR

Board Report - April 2023 Deaths

Type	Last Name	First Name	Death Date	Payment Date	Amount
Deferred Death	ROGERS	JANEEN	8/9/2022	4/28/2023	\$ 9,974.89
Ordinary Death	BOYLEN	JENNIFER	2/23/2023	4/28/2023	\$ 50,617.41
Retiree Death-Termination	BASTIAN	ANTHONY	3/18/2023	4/28/2023	\$ 889.24
Retiree Death-Termination	DUMKE	LOUISE	12/3/2022	4/28/2023	\$ 520.60
Retiree Death-Termination	DZIOBA	LAWRENCE	11/11/2022	4/28/2023	\$ 763.62
Retiree Death-Termination	GELLERT	WILLIAM	11/14/2022	4/28/2023	\$ 277.39
Retiree Death-Termination	HIRT	JUDITH	1/17/2023	4/28/2023	\$ 160.37
Retiree Death-Termination	KALUZNY	NEAL	1/8/2023	4/28/2023	\$ 1,179.13
Retiree Death-Termination	KUMMER	JOHN	3/13/2023	4/28/2023	\$ 391.14
Retiree Death-Termination	PAPROCKI	GEORGINE	1/21/2023	4/28/2023	\$ 704.91
Retiree Death-Termination	PREISS	ROSEMARY	2/9/2023	4/28/2023	\$ 287.49
Retiree Death-Termination	PRESTON	DONALD	3/10/2023	4/28/2023	\$ 841.80
Retiree Death-Termination	REWOLINSKI	CHARLES	3/24/2023	4/28/2023	\$ 1,405.32
Retiree Death-Termination	STAHLER	PATRICIA	2/16/2023	4/28/2023	\$ 952.84
Retiree Death-Termination	TALAKOWSKI	CAROL	2/16/2023	4/28/2023	\$ 328.38
Retiree Death-Termination	WALZ	KENNETH	3/18/2023	4/28/2023	\$ 157.26
Retiree Death-Termination	WARAKSA	MARCIANN	10/17/2022	4/28/2023	\$ 2,083.74
Surv Death-Termination	BARTLEIN	JANET	3/12/2023	4/28/2023	\$ 524.24
Surv Death-Termination	JASSO	DAVID	2/2/2023	4/28/2023	\$ 4,163.17
Surv Death-Termination	MARONN	JOYCE	2/7/2023	4/28/2023	\$ 495.02
Surv Death-Termination	STAHLER	PATRICIA	2/16/2023	4/28/2023	\$ 936.28
Surv Death-Termination	WEISMAN	JEANETTE	1/13/2023	4/28/2023	\$ 259.92
				TOTAL	\$ 77,914.16
			4/0/0000	4/4/0000	
Retiree Death-Cont Opt	AMUNDSON	GARY	4/9/2023	4/1/2023	
Retiree Death-Cont Opt	BERKSHIRE	JERRY	4/14/2023	4/1/2023	
Retiree Death-Cont Opt	BERTONI	ANGELO	3/23/2023	4/1/2023	
Retiree Death-Cont Opt	BONAR	DAVID	3/10/2023	4/1/2023	
Retiree Death-Cont Opt	BOSTON	HAL	4/11/2023	4/1/2023	
Retiree Death-Cont Opt	HEIDENREICH	EDWARD	3/25/2023	4/1/2023	
Retiree Death-Cont Opt	HOLLOWAY	DENISE	4/5/2023	4/1/2023	
Retiree Death-Cont Opt	HORNAK	DANIEL	4/14/2023	4/1/2023	
Retiree Death-Cont Opt	KRAUSE	MARK	4/3/2023	4/1/2023	

Туре	Last Name	First Name	Death Date	Payment Date	Amount
Retiree Death-Cont Opt	MENARD	EDWARD	4/17/2023	4/1/2023	
Retiree Death-Cont Opt	MOLTER	ARTHUR	4/2/2023	4/1/2023	
Retiree Death-Cont Opt	PIERCE	KAREN	3/19/2023	4/1/2023	
Retiree Death-Cont Opt	RODRIGUEZ	CLARIBEL	4/5/2023	4/1/2023	
Retiree Death-Cont Opt	SCHOLZ	LESTER	4/17/2023	4/1/2023	
Retiree Death-Cont Opt	SCHRIEFER	DONALD	4/7/2023	4/1/2023	
Retiree Death-Cont Opt	THIERBACH	DENNIS	4/8/2023	4/1/2023	
Retiree Death-Cont Opt	TODD	ROCKY	3/29/2023	4/1/2023	
Retiree Death-Cont Opt	WEBER	ROBERT	4/17/2023	4/1/2023	

			7 / 2		
Type	Last Name	First Name	Payment Date		Amount
Member Only Refund	LUPO	ESTHEFANIE	4/4/2023	•	1,514.00
Administrative Withdrawal	воотн	LATOYA	4/28/2023		101.75
Administrative Withdrawal	HERRON	NICOLE	4/28/2023	\$	572.96
Administrative Withdrawal	RAMIREZ	MARKOS	4/28/2023	\$	3,886.40
Full Refund	ANDERSON	DANIEL	4/28/2023		1,254.89
Full Refund	BROCK	KEENA	4/28/2023	\$	7,711.58
Full Refund	CONNOR	KAREN	4/28/2023	\$	10,183.63
Full Refund	FORE	RYANNA	4/28/2023	\$	3,787.80
Full Refund	JOHNSON	QUINTON	4/28/2023	\$	1,744.68
Full Refund	KIMBER	ANTONIO	4/28/2023	\$	23,612.20
Full Refund	MARTINEZ	ADALBERTO	4/28/2023	\$	20,876.18
Full Refund	TERRELL	BRIAN	4/28/2023	\$	6,792.98
Member Only Refund	BALAKRISHNAN	NANDHAKUMAR	4/28/2023	\$	2,620.96
Member Only Refund	BART	ELIZABETH	4/28/2023	\$	683.20
Member Only Refund	BROWN	QUAVEION	4/28/2023	\$	3,500.66
Member Only Refund	ELLIOTT	DARNEL	4/28/2023	\$	968.02
Member Only Refund	FENLEY	RYAN	4/28/2023	\$	4,888.85
Member Only Refund	FISCHER	LONNIE	4/28/2023	\$	6,914.02
Member Only Refund	HODGES	MARIA	4/28/2023	\$	574.61
Member Only Refund	JONES	STACEY	4/28/2023	\$	1,525.46
Member Only Refund	KOEHLER	BRENDA	4/28/2023	\$	5,179.20
Member Only Refund	MANUEL	HOPE	4/28/2023	\$	3,809.77
Member Only Refund	MANZ	SARA	4/28/2023	\$	695.50
Member Only Refund	NOONAN	JESSICA	4/28/2023	\$	182.29
Member Only Refund	OLSON	RYAN	4/28/2023	\$	1,060.22
Member Only Refund	PURIFOY	CRYSTAL	4/28/2023	\$	471.74
Member Only Refund	SLEDGE	CHAS	4/28/2023	\$	1,180.99
Member Only Refund	SMITH	SHANNON	4/28/2023		1,034.08
Member Only Refund	THOMAS	TIFFANY	4/28/2023	\$	3,513.56

Member Only Refund	YANG	PANG	4/28/2023 TOTAL	,	6,300.55 129,378.97
Member Only Refund	WEBER	MELISSA	4/28/2023	•	280.88
Member Only Refund	WARNER	DEIDRE	4/28/2023		1,955.36
Туре	Last Name	First Name	Payment Date		Amount

Conference Requests - May 2023 Board Meeting

David Silber 2023 Roundtable for Consultants & Institutional Investors

Sponsor: Institutional Investor

Location: Chicago, IL

Date(s): October 3-5, 2023

Estimated Cost: \$1,300.00

David Silber 2023 USLF Annual Meeting

Sponsor: ProLogis
Location: Phoenix, AZ

Date(s): October 25-27, 2023

Estimated Cost: \$1,300.00

MEDICAL REPORTS

- All Duty & Ordinary Disability Applications & Re-examinations (May). Disability Findings Benjean Lara. A.
- B.

ſ	MERITS	CITY OF MILWAUKEE EMPLOYES' RETIREMENT SYSTEM	Page Number:	1 OF 1
l		Medical Panel Approvals Report	DATE RAN :	05/12/2023
	Approved by Executive Director	Pension Board Meeting Date 05/23/2023	TIME RAN :	11:24

DOCTOR DECISION

<u>Case</u> Number	<u>Name</u>	<u>Title</u>	Employer	Case Type	Case Sub- Type	City	<u>Union</u>	<u>Third</u>	Disability Date	Comments
524	LOMEN, MAURYA	FIRE FIGHTER	FIRE	DD 75%	Re-Examination	Approved	Approved		02/01/2021	
581	SODERBECK, WILLIAM	FIRE CAPTAIN	FIRE	DD 75%	Re-Examination	Approved	Approved		04/01/2021	
1013	COPELAND, DWIGHT	POLICE OFFICER	POLICE	DD 75%	Re-Examination	Approved	Approved		03/15/2013	Exempt from Re-Exam

Number of Cases:

This report includes Fire duty disabilities with an application date prior to July 29, 2016; Police MPA duty disabilities with an application date prior to June 19, 2016; and Police MPSO duty disabilities with an application date prior to January 1, 2016.

MERITS

CITY OF MILWAUKEE EMPLOYES' RETIREMENT SYSTEM

Medical Council Approvals Report

Board Meeting: 05/23/2023

Page Number:

1 OF 1

DATE RAN:

05/07/2023

TIME RAN: 12:37

Name	<u>Title</u>	Employer	<u>CaseType</u>	Case Sub-Type	Disability Date	Medical Council Meeting Date	In Person Exam Waiver
COLE, KEVIN	OPERATIONS DRIVER WORKER	DPW-OPERATIONS	Ordinary Disability	Re-Examination	09/26/2016	05/05/2023	
DAIS, IBRAHIM	OPERATION DRIVER WORKER	DPW	Ordinary Disability	Application	11/11/2022	05/05/2023	
MATHEWS, GORDON	MUNI SERV ELECTRICIAN	DPW-WATER	Duty Disability 75%	Re-Examination	07/31/2020	05/05/2023	
STAINBACK, JACK	FIREFIGHTER	MILWAUKEE FIRE DEPARTMENT	Ordinary Disability	Application	05/07/2022	05/05/2023	

Number of Cases:

4

This report includes all GC disabilities; all ordinary disabilities; Fire duty disabilities with an application date on/after July 29, 2016; Police MPA duty disabilities with an application date on/after June 19, 2016; and Police MPSO duty disabilities with an application date on/after January 1, 2016.

MERITS

CITY OF MILWAUKEE EMPLOYES' RETIREMENT SYSTEM

Medical Council Denials Report

DATE RAN:

1 OF 1 05/07/2023

TIME RAN:

Page Number:

12:37

Board Meeting:	05/23/2023

Case Number	Name	Title	Employer	<u>CaseType</u>	Case Sub-Type	<u>Disability Date</u>	Medical Council Meeting Date	In Person Exam Waiver
1535	COLE, TOMEKA	PARKING ENFORCEMENT OFFIC	DPW	OD	Application	09/17/2022	05/05/2023	
1537	DAIS, IBRAHIM	OPERATION DRIVER WORKER	DPW	DD 75%	Application	11/11/2022	05/05/2023	

Number of Cases:

2

This report includes all GC disabilities; all ordinary disabilities; Fire duty disabilities with an application date on/after July 29, 2016; Police MPA duty disabilities with an application date on/after June 19, 2016; and Police MPSO duty disabilities with an application date on/after January 1, 2016.

UNFINISHED BUSINESS

- A. Pending Legal Opinions and Service Requests Report.
- B. Pending Legislation Report.

Please be advised that the Annuity and Pension Board may vote to convene in closed session on the following item (C.), as provided in Section 19.85(1)(g), Wisconsin State Statutes, to confer with legal counsel concerning strategy to be adopted by the body with respect to litigation in which it is or is likely to become involved. The Board may then vote to reconvene in open session following the closed session.

C. Executive Director's Report – Inventory of ERS Projects.



May 23, 2023 Board Meeting

PENDING LEGAL OPINIONS AND SERVICE REQUESTS REPORT

PART 1. LEGAL OPINIONS - OFFICE OF CITY ATTORNEY

05/04/23 Optional Joint and Survivor Benefits

Pension Board has requested a legal opinion on whether it has administrative discretion to determine whether to adopt a combined set of actuarial tables applying to both General City and Public Safety employees or separate sets tables for each employment class and further for beneficiaries eligible for cost of living adjustments distinct from those beneficiaries who are not so eligible.

PART 2. LEGAL OPINIONS - OUTSIDE LEGAL COUNSEL

None.

PART 3. SERVICE REQUESTS - OFFICE OF CITY ATTORNEY

12/16/21 Contract for Banking Services

ERS staff requests assistance of legal counsel in drafting and negotiating a contract for banking services with vendor.

10/12/22 ERS received proposed Second Amendment to extend current banking services agreement with Wells Fargo Bank.

10/25/22 Contract extension approved by Pension Board. City Attorney's Office continues negotiations with Wells Fargo for a new banking services agreement.

03/14/23 Third Amendment to extend current banking services agreement with Wells Fargo received from City Attorney's Office.

03/28/23 Third Amendment (extension) approved by Pension Board.

01/04/23 Internal Audit Services

City Attorney's Office asked to assist ERS staff with the drafting of a Request for Proposal for internal audit services, and to negotiate a contract for services with selected vendor.

01/31/23 Second request for legal services forwarded to the City Attorney's Office.

02/28/23 Third request to City Attorney's Office for assistance in drafting RFP as well as negotiate contract for internal audit services.

03/01/23 Received edits to RFP from City Attorney's Office.

PART 4. SERVICE REQUESTS - OUTSIDE LEGAL COUNSEL

03/27/23 Mesirow Financial Private Equity Fund

ERS investment staff requests assistance from legal counsel in negotiating contract terms and a Limited Partnership Agreement with Mesirow Financial as it relates to investment Private Equity Fund IX-A.

03/27/23 City Attorney Office approves referral of this matter to outside legal counsel – Reinhart Boerner Van Deuren SC.

04/25/23 Real Estate Investment Manager

ERS requests legal assistance in the reviewing of various legal documents and subsequent negotiations as it relates to a private real estate investment.

04/16/23 City Attorney's Office approves referral of this matter to Reinhart Boerner Van Deuren SC.



May 23, 2023 Board Meeting

PENDING LEGISLATION REPORT

PART 1. PENDING CHARTER ORDINANCES FOR COMMON COUNCIL ACTION

None.

PART 2. PENDING CHANGES TO THE RULES & REGULATIONS

None.

PART 3. PENDING LEGISLATIVE COMMITTEE REFERRALS

Pension Contribution Offset

12/13/16 ERS requested legal guidance on whether the 5.8% pension contribution offset for public safety employees pursuant to recent labor contract settlements or interest arbitration, is includable as "salary" for adjusting duty disability retirement allowance.

02/16/17 City Attorney issued a legal opinion advising that since members receiving a duty disability retirement allowance have not paid the member contributions, they are not entitled to the 5.8% pension contribution offset. 02/27/17 Opinion referred to Legislative Committee for consideration on whether the pension contribution offset received by general city and protective service members should be included in the calculation of the Conversion to Service Retirement and Extended Life retirement allowances.

07/31/17 Committee recommended this matter be held pending resolution of litigation.

VII.

INFORMATIONAL

Please be advised that the Annuity and Pension Board may vote to convene in closed session on the following item (A.), as provided in Section 19.85(1)(g), Wisconsin State Statutes, to confer with legal counsel concerning strategy to be adopted by the body with respect to litigation in which it is or is likely to become involved. The Board may then vote to reconvene in open session following the closed session.

- A. Pending Litigation Report.
- B. Conferences.
- C. Class Action Income 2023 YTD.
- D. Adjusted Quarterly Cost Basis of Equity.
- E. Minutes of the Administration & Operations Committee Meeting Held April 18, 2023.
- F. Minutes of the Investment Committee Meeting Held April 20, 2023.
- G. Minutes of the Investment Committee Meeting Held May 4, 2023.
- H. Report on Bills.
- I. Deployment of Assets.
- J. Securities Lending Revenue and Budget Report.
- K. Preliminary Performance Report and Asset Allocation.



May 23, 2023 Board Meeting

PENDING LITIGATION REPORT

Part 1. ERS Litigation through the City Attorney

MPA and Kurt Lacina v. City of Milwaukee, et al; Case Nos. 2023AP000301; and 2022CV001965

Kurt Lacina alleges his DDRA was wrongfully offset by a worker's compensation permanent partial disability award by defendants.

- **See prior Reports for case history**
- ➤ 02/17/23 Notice of Appeal filed by defendants.

Sandrah Crawford v. City of Milwaukee ERS, et al; Case No. 2022CV007800

Member requests judicial review of Pension Board's denial of duty disability retirement benefits.

- **See prior Reports for case history**
- > 01/25/23 Defendants' Notice of Retainer and Answer filed with court.

Frank Vrtochnick, et al v. City of Milwaukee, et al; Case No. 2023CV003007

Plaintiff alleges the City and the ERS breached the Milwaukee Police Association 2013-2016 collective bargaining agreement and Chapter 36 of the Milwaukee City Charter as it pertains to the inclusion of the 5.8% pension offset in the member's "base salary" for purposes of calculating the duty disability retirement allowance. The plaintiff seeks to have this current litigation classified as a *Class Action to include all other similarly-situated employees hired prior to October 3, 2011 and represented by the Milwaukee Police Association*.

- > 04/26/23 Summons and Complaint, Order Certifying a Class under Wis. Stats. §803.08, Motion, Brief and Affidavits in Support of Motion Certifying a Class filed with Circuit Court.
- > 04/28/23 ERS served with pleadings.
- > 05/01/23 Letter to City Attorney's Office requesting representation. New claim reported to fiduciary carriers.

Part 2. ERS Administrative Appeal Hearings through the City Attorney

Jason Rodriguez; Administrative Case No. 1443

> Hearing stayed pending outcome of Appellant's state workers compensation (WC) appeal hearing. First WC appeal hearing held May 10, 2022. Second WC appeal hearing expected to occur in August or September, 2023.

Albert Greene Jr; Administrative Case Nos. 1511 and 1512

> Appeal hearing requested; pending scheduling.

Benjean Lara; Administrative Case Nos. 1488, 1489 and 1490

- **See prior Reports for case history**
- > 03/14/23 Hearing Examiner decision recommending reversal of Board's decision.
- > 04/04/23 Respondent's Brief to Annuity and Pension Board received; Applicant's brief due April 25, 2023. Findings and parties' brief will be presented to the Board at its May 23, 2023 meeting.

Part 3. Notice of Claim filed with ERS

None.

Part 4. ERS Litigation through Outside Legal Counsel

None.

Client Conferences 2023

Board Meeting: May 23, 2023

DATE(S)	CONFERENCE(S) / LOCATION(S)	SPONSOR(S)
June 21 – 22, 2023	2023 Neuberger Berman Private Limited Partners Annual Meeting New York, NY	Neuberger Berman
August 23 – 24, 2023 10:30 am – 1:30 pm	"Callan College" on Alternative Investments Virtual	Callan Associates
September 26 – 28, 2023 10:30 am – 1:30 pm	"Callan College" Introduction to Investments Virtual	Callan Associates
October 25 – 26, 2023	2023 USLF Annual Meeting Phoenix, AZ	Prologis
October 26, 2023 10:00 am – 12:30 pm	2023 October Regional Workshop Chicago, IL	Callan Associates
November 1 – 2, 2023	The Alternatives Summit New York, NY	Goldman Sachs
December 5 – 6, 2023	Apogem's 2023 Annual Meeting Miami, FL	Apogem Capital
April 8 – 10, 2024	Callan's 2024 National Conference San Francisco, CA	Callan Associates

Trustee Conferences 2023-2024

Board Meeting: May 23, 2023

DATE(S)		
May 31, 2023	2023 Madison Investment Conference Madison, WI	CFA Society of Madison, SWIB, Wisconsin School of Business
June 6 – 8, 2023	Visions, Insights, & Perspectives (VIP) Infrastructure Austin, TX	Institutional Real Estate, Inc.
June 13 – 14, 2023 1:30 pm – 4:3 0pm	2023 Investment Forum Virtual	CFA Society of Madison, SWIB
July 16 – 18, 2023	ALTSCHI Chicago, IL	Markets Group
July 18 – 20, 2023	Wharton Investment Programs: Alternative Investment Strategies San Francisco, CA	International Foundation of Employee Benefit Plans
July 24 – 25, 2023	Certificate of Achievement in Public Plan Policy (CAPPP): Pensions Part I Chicago, IL	International Foundation of Employee Benefit Plans
July 24 – 26, 2023	Pension Bridge Private Equity Exclusive 2023 Chicago, IL	with.Intelligence
July 25 – 27, 2023	Institutional Investor Week Newport, RI	Institutional Investor
July 26 – 27, 2023	Certificate of Achievement in Public Plan Policy (CAPPP): Pensions Part II Chicago, IL	International Foundation of Employee Benefit Plans
August 20 – 22, 2023	Public Pension Funding Forum Chicago, IL	NCPERS
September 11 – 13, 2023	CII Fall 2023 Conference Long Beach, CA	Council of Institutional Investors
September 12, 2023	9 th Annual Great Plains Institutional Forum Minneapolis, MN	Markets Group

Trustee Conferences 2023-2024

Board Meeting: May 23, 2023

DATE(S)	CONFERENCE(S) / LOCATION(S)	SPONSOR(S)
September 19 – 20, 2023	2023 Public Funds Conference Scottsdale, AZ	Pensions & Investments
September 20 – 21, 2023	Investment Basics – Certificate Series Course Las Vegas, NV	International Foundation of Employee Benefit Plans
September 30 – October 1, 2023	Certificate of Achievement in Public Plan Policy (CAPPP): Pensions Part I Boston, MA	International Foundation of Employee Benefit Plans
October 3 – 5, 2023	2023 Roundtable for Consultants & Institutional Investors Chicago, IL	Institutional Investor
October 21 – 22, 2023	NCPERS Accredited Fiduciary (NAF) Program Las Vegas, NV	NCPERS
October 22 – 25, 2023	Financial, Actuarial, Legislative and Legal Conference (FALL) Las Vegas, NV	NCPERS
November 14, 2023	Fixed Income & Credit – Reassessing Income and Diversification Chicago, IL	Pensions & Investments
January 21 – 22, 2024	Pension Communications Summit Washington, DC	NCPERS
January 22 – 24, 2024	Legislative Conference Washington, DC	NCPERS
January 22 – 24, 2024	Visions, Insights, & Perspectives (VIP) Americas Carlsbad, CA	Institutional Real Estate, Inc.
May 18 – 19, 2024	NCPERS Accredited Fiduciary (NAF) Program and Trustee Educational Seminar (TEDS) Seattle, WA	NCPERS
May 19 – 22, 2024	Annual Conference & Exhibition (ACE) Seattle, WA	NCPERS
September 9 – 11, 2024	CII Fall 2024 Conference Brooklyn, NY	Council of Institutional Investors

Upcoming Due Diligence Meetings

Date	Manager(s)	Team
June 20-21, 2023	Neuberger and Abbott, (New York, NY)	Erich & Dave W.
August or September, 2023	Reams (Indianapolis, IN)	Erich & Dave W.
August or September, 2023	Apogem (Richmond, VA)	Erich & Tom

Class Action Income 2023 YTD

Asset Description	Date(s)	Amount
Allergan, Inc.	1/11/2023	82
USA Technologies, Inc.	2/13/2023	10,120
JP Morgan Chase Bank	3/23/2023	568
The Bank of New York Mellon	5/12/2023	428
Total Class Action Income Received in 2023 YTD		11,197

Adjusted Quarterly Cost Basis of Equity March 31, 2023

Date	Market Value of Total Fund	Equity as Percent of Portfolio on a Market Value Basis %	Cost Value of Total Fund	Equity as Percent of Portfolio on Cost Basis %
Mar-16	4,777,710,957	58.4%	4,201,741,347	55.8%
Jun-16	4,753,379,711	58.9%	4,167,278,877	56.8%
Sep-16	4,878,963,087	59.2%	4,265,248,439	52.6%
Dec-16	4,875,173,931	58.7%	4,259,899,650	51.6%
Mar-17	5,054,238,404	59.5%	4,296,075,081	54.0%
Jun-17	5,141,650,168	59.6%	4,238,775,000	54.0%
Sep-17	5,253,079,121	60.3%	4,219,738,169	54.0%
Dec-17	5,356,413,868	60.7%	4,347,067,963	54.6%
Mar-18	5,360,763,834	54.5%	4,493,669,234	48.5%
Jun-18	5,364,526,404	52.8%	4,508,052,439	47.2%
Sep-18	5,416,752,057	53.2%	4,475,388,278	47.5%
Dec-18	4,952,685,618	50.7%	4,457,976,536	48.9%
Mar-19	5,287,164,709	52.5%	4,458,818,165	48.5%
Jun-19	5,368,388,543	52.2%	4,439,503,880	48.5%
Sep-19	5,336,312,140	51.6%	4,409,684,126	48.6%
Dec-19	5,525,553,595	53.1%	4,370,713,537	48.7%
Mar-20	4,532,932,039	47.6%	4,421,955,418	47.5%
Jun-20	4,904,369,177	52.6%	4,216,408,115	50.3%
Sep-20	5,077,501,527	52.0%	4,228,679,409	49.0%
Dec-20	5,531,306,606	53.5%	4,270,905,026	47.9%
Mar-21	5,693,916,321	53.5%	4,338,199,305	46.1%
Jun-21	6,012,966,775	52.3%	4,337,113,221	45.0%
Sep-21	6,026,295,778	48.4%	4,378,190,704	42.2%
Dec-21	6,218,053,813	47.6%	4,473,429,725	41.0%
Mar-22	6,156,069,941	46.5%	4,642,000,891	41.1%
Jun-22	5,633,734,690	44.6%	4,548,655,130	43.9%
Sep-22	5,276,131,314	43.7%	4,538,899,040	44.8%
Dec-22	5,469,372,844	46.0%	4,476,020,934	44.5%
Mar-23	5,644,257,058	47.6%	4,497,668,126	44.4%

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

Minutes of the Administration and Operations Committee Meeting held April 18, 2023 via teleconference during COVID-19

The meeting was called to order at 9:00 a.m.

Committee Members Present: Molly King

Tom Klusman Aycha Sawa, Chair

ERS Staff Present: Bernard Allen, Executive Director

Dan Gopalan, Chief Financial Officer David Silber, Chief Investment Officer

Erich Sauer, Deputy Chief Investment Officer

Jeff Shober, Chief Technology Officer Mary Turk, Business Operations Analyst

Jan Wills, Board Stenographer

Others Present: Matthew Bell, Timothy Heling, Annuity and Pension Board Trustees; Terry Siddiqui, DS Consulting Partners, Inc., no members of the public called in to the meeting.

Approval of Draft ERS 2024 Budget. As a matter of information, Committee members received from Mr. Gopalan the "Summary of 2024 Draft Budget Request as compared to 2023 Adopted Budget and 2022 Actual Expenditures." Also, as a matter of information, Committee members received from Mr. Gopalan the "Analysis of 2024 Operating Expenditure and Equipment Draft Budget Request as compared to 2023 Authority and 2022 Actual Expenditures." Mr. Gopalan also provided Committee members with the "2024 Non-Trust Recommendations for City Budget."

Mr. Gopalan went over the main changes for the 2024 Budget compared to the 2023 Budget. He said the overall increase on the 2024 Budget is about \$271,000 more than the 2023 Adopted Budget. He noted there were two main drivers for the increase with the first one being salaries and fringe benefits. Mr. Gopalan said DER completed market studies and reclassifications for the ERS. Mr. Gopalan commented that the clerical and IT staff still needs to be done so he also incorporated that into the 2024 Budget. He said because the salaries went up \$900,000, that will also increase the cost attributable to the Fringe Rate. Mr. Gopalan said the Fringe Rate is the same as 2023 and the City has set it at 25% for a \$300,000 increase for General City. He added that the Professional Services went up \$241,000 due to the increase in the number of investment manager fees paid by vouchers. He said investment managers are paid via two methods, either as a deduction from the value of the Fund's investment in a respective investment vehicle, or with invoices done through the Comptroller's office with vouchers. Mr. Gopalan said for Equipment Purchases, the request is for \$713,000 compared to over \$2 million in 2023 due to replacement cycles in the IT equipment.

Discussion ensued regarding Subscriptions and Publications, Investment Manager Fees, and City Attorney Fees.

It was moved by Mr. Klusman, seconded by Ms. King, and unanimously carried, to approve the Approval of Draft ERS 2024 Budget.

There being no further business to come before the meeting, it was moved by Ms. King, seconded by Mr. Klusman, and unanimously carried, to adjourn the meeting.

Ms. Sawa adjourned the meeting at 9:26 a.m.

Bernard J. Allen Secretary and Executive Director

NOTE: All proceedings of the Annuity and Pension Board Meetings and related Committee Meetings are recorded. All recordings and material mentioned herein are on file in the office of the Employes' Retirement System, 789 N. Water Street, Suite 300.)

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

Minutes of the Investment Committee Meeting held April 20, 2023 via teleconference during COVID-19

The meeting was called to order at 9:04 a.m.

Committee Members Present: Matthew Bell

Deborah Ford Timothy Heling

Thomas Klusman, Chair

Rudy Konrad Aycha Sawa

Committee Members Not Present: Molly King (arrived at 9:41 a.m.)

Nik Kovac (arrived at 9:44 a.m.)

ERS Staff Present: Jerry Allen, Executive Director

David Silber, Chief Investment Officer

Erich Sauer, Deputy Chief Investment Officer Dave Walters, Pension Investment Analyst – Sr. Thomas Courtright, Pension Investment Analyst

Jan Wills, Board Stenographer

Others Present: Joey Lansing, Paul Marchese, Harrison Street; Mike Beley, Kyle Mayes, Al Rabil, David Selznick, Kayne Anderson; Sally Haskins, Munir Iman, John Jackson, Mike Joecken, Aaron Quach, Callan; Terry Siddiqui, DS Consulting, Inc.; three members of the public called in.

Election of Vice Chair. Mr. Klusman asked for nominations for Vice Chair of the Investment Committee. Mr. Klusman nominated Ms. Ford who declined. Mr. Klusman then nominated Mr. Heling who accepted the nomination for Vice Chair. Mr. Klusman asked three more times for nominations. There being no further nominations, nominations were closed and a unanimous vote was cast for Mr. Heling as Vice Chair of the Investment Committee.

Real Estate Manager Interviews. Mr. Iman reminded the Committee the rationale for the Real Estate Manager Search was to complement the current allocation in the CMERS Real Estate Portfolio and to additionally diversify away from manager concentration risk. He said the initial search started with 19 managers, focusing on diversified alternative sector focused funds. He noted alternative sector focused funds include self storage, medical office, life sciences, and senior and student housing. Mr. Iman said 10 Real Estate Managers were presented to Callan's Manager Search Committee and they advanced six managers. He stated that after the November meeting, Callan and Staff interviewed six semi-finalists in January 2023 when two multi-family focused funds were removed from the search to focus on the alternative sector-focused funds. Mr. Iman commented that four funds were reviewed in February and finally two core-focused funds were

advanced. He concluded that the Committee, when hearing the presentations, should focus on portfolio construction, allocations and how they differ, the valuation of the alternative sectors, and redemption queues and how long it takes for capital to be called.

Harrison Street. As a matter of information, Committee members received the "Harrison Street Core Fund Overview" presentation booklet. Mr. Marchese stated the Fund began in 2005, focusing on alternative or niche real estate sectors. He noted they deployed \$65 billion in capital since inception. He discussed the Firm Overview (First Mover in Alternative Real Assets, Platform Dedicated to Alternative Real Assets, Cycle-Tested Investment Thesis, and Resiliency in Harrison Street's Sectors of Focus). Mr. Lansing discussed the Core Fund Overview (Harrison Street Core Property Fund, Open-End Fund Dedicated to Alternative Real Estate, 10+ Year Track Record Highlights Diversification Benefits, Historical Performance with Attractive Income, and Debt Profile & Strategy). Mr. Lansing also discussed the five sectors in the Sector Overview (Medical Office Portfolio, Medical Office: Key Tenants and Health Systems, Case Study: Montrose Regional Health MOB; Senior Housing Portfolio, Senior Housing: Best-in-Class Partners, Case Study: Oakmont Senior Housing; Student Housing Portfolio, Student Housing: University Presence, Case Study: Hub Blacksburg; Life Sciences Portfolio, Life Sciences: Tenants and Other Key Relationships, Case Study: City Science Portfolio; Storage Portfolio, Storage: Operating Partners, Case Study: Project Cascade Self Storage Portfolio; Actionable Pipeline, Looking Ahead, and Harrison Street's Edge). Discussion ensued.

Ms. King arrived at 9:41 a.m.

Mr. Kovac arrived at 9:44 a.m.

Kayne Anderson. As a matter of information, Committee members received the Kayne Anderson "Kacore" presentation booklet. Messrs. Rabil, Selznick, and Mayes discussed the KACORE Leadership Team, KA Real Estate Platform Overview, A Differentiated Approach to Core Real Estate, Disciplined Deployment, Timely Investments, Kayne Anderson Core Real Estate Fund, and KACORE Portfolio Overview. They also discussed the following topics in the Sector Strategy & Review: Strong Performance in Target Sectors, High Conviction in the Future of Medical Office, Industry-Leading Medical Office Portfolio, Disciplined Deployment in Medical Office, Seniors Housing Portfolio on Upswing, Well-Positioned Seniors Housing Portfolio, Growing Opportunities in Core Student Housing, and Thoughtfully Acquiring Student Housing. They discussed the following topics in Fund Management: KACORE Debt Profile, and KACORE Capital Flows. They concluded with presenting the following topics in their Performance Outlook: KACORE Relative Valuation Metrics, Consistent KACORE Performance, and Designed for Robust Income Returns. Discussion ensued.

Chairman Klusman called for a break at 10:52 a.m.

Chairman Klusman resumed the meeting at 11:00 a.m.

Mr. Kovac left at 11:00 a.m.

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Mr. Klusman advised that the Investment Committee may vote to convene in closed session on the following item 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.

Selection of Real Estate Manager. It was moved by Ms. Sawa, and seconded by Mr. Konrad to convene in closed session. The motion carried by the following roll call vote: AYES: Mses. Ford, King, and Sawa; Messrs. Bell, Heling, Klusman, and Konrad. NOES: None.

The Committee convened in closed session at 11:01 a.m.

The Committee reconvened in open session at 11:17 a.m.

It was moved by Mr. Konrad, seconded by Mr. Bell, and unanimously carried, to direct the Investment Team to enter negotiations to select a Real Estate manager, as directed in closed session.

1st Quarter 2023 Preliminary Performance Update. As a matter of information, Committee members received, as of April 13, 2023, the 1st Quarter 2023 Preliminary Estimate of Fund Performance and Attribution booklet. Mr. Sauer commented that they are waiting on the final March report from one of the Hedge Fund of Funds Managers, as the current estimate is flat. He noted the Market Environment slide and said it was a good quarter for stocks and bonds. He said Public Equity had a benchmark return of up 6.9%, Fixed Income was up 3.0%, Private Equity was up 7.5%, which was based on Public Equity markets from the prior quarter with the Russell 3000 return from the fourth quarter of 2022, and Absolute Return was up 1.9%. Mr. Sauer said the Real Assets benchmark was down 3.5% due to the ODCE benchmark. He said for the first quarter the Fund's benchmark was 4.3%. Mr. Sauer discussed the Relative Performance Expectations of Value Equity Bias, Small Cap Equity Bias, Fixed Income Credit and Private Equity and noted for the first quarter, the CMERS Total Fund (net) was 3.3%. He said 13 out of the Fund's 16 active mandates outperformed and noted Brandes, Polen, Morgan Stanley, and DFA Small Cap Mandates added the most value to the Fund's relative performance. Mr. Sauer said the Fund is outperforming in all the longer time periods and is higher than the 7.5% discount rate over 10 years. He said the 20-year return is 8.1% and the Fund has performed well over the long term. Mr. Sauer concluded that the estimated total fund market value is \$5.67 billion as of April 19, 2023. He said the April estimate for the Fund is 0.4% versus 0.6% for the benchmark, and year-to-date through April 19, the ERS Fund is 3.7% versus the 4.9% benchmark.

Chief Investment Officer Report. Mr. Silber said the next Investment Committee Meeting is May 4 and could be one of the most consequential Investment meetings in a number of years. He commented that Callan would be back with the next phase of the ALM study and will provide five or six asset mix allocations that will support a 7.5% discount rate. He said some of the mixes will show what will happen when making significant material changes, namely with Fixed Income, to the portfolio. Mr. Silber said currently there is a 23% allocation to Fixed Income and two mixes will show a 28% allocation, and one, a 29% allocation. He noted they haven't talked about a 29%

allocation to Fixed Income since 2006. He commented that higher interest rates and higher inflation mean that a 7.5% return can be obtained over the next 30 years with less risk-taking, according to Callan. Discussion ensued.

It was moved by Mr. Konrad and seconded by Mr. Bell to adjourn the meeting.

There being no further business, Mr. Klusman adjourned the meeting at 11:40 a.m.

Bernard J. Allen Secretary and Executive Director

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

Minutes of the Investment Committee Meeting held May 04, 2023 via teleconference during COVID-19

The meeting was called to order at 9:01 a.m.

Committee Members Present: Matthew Bell

Deborah Ford Timothy Heling Molly King

Thomas Klusman, Chair

Aycha Sawa

Committee Members Not Present: Rudy Konrad (excused)

Nik Kovac (arrived 9:04 a.m.)

ERS Staff Present: Jerry Allen, Executive Director

David Silber, Chief Investment Officer

Dave Walters, Pension Investment Analyst – Sr. Thomas Courtright, Pension Investment Analyst

Jan Wills, Board Stenographer

Jason Ellement, John Jackson, Mike Joecken, Adam Lozinski, Callan; Larry Langer, Cavanaugh Macdonald; Patrick McClain, City Attorney's Office; Terry Siddiqui, DS Consulting, Inc.; four members of the public called in.

Callan 2023 Asset-Liability Study Phase 2 Presentation. As a matter of information, Committee members received the "Callan 2023 Asset-Liability Study, Phase II – Preliminary Asset-Liability Results." Mr. Joecken said in Phase I they focused on the asset side of the picture and discussed capital market assumptions and what is expected from each of the asset classes over the next 10 years. He said at the last meeting, a couple preliminary asset allocation mixes were presented and today refinements to some of those mixes would be presented. Mr. Joecken said a liability analysis will also be presented. He said they will also discuss what the projected funded status will look like for the future, given the different asset mixes. Mr. Joecken said a decision will need to be reached in June.

Mr. Ellement presented an analysis of the preliminary asset results. He noted the importance of the asset-liability study as the Board is making an important decision regarding the assets in determining how to construct the portfolio which will be the main driver of long-term return and risk for contributions and funded status over the next 30 years. Mr. Ellement discussed the six alternative asset mixes and whether, at the last meeting, the 7.5% return assumption was a solid assumption for the plan over the long term. He said, in 30 years, the Fund is expected to hit a 7.5%

return. He commented that of the six alternative asset mixes, mixes one through four reduce risk by adding Fixed Income and mixes five and six increase risk. Mr. Ellement stated that the 10-year return expectations range from 7.00% to 7.25% while the 30-year return expectations range from 7.50% to 7.75%. He said that for aggressive mixes five and six, the 30-year return expectations would be 7.60% and 7.75%, respectively. Mr. Ellement also discussed 10- and 30-Year Returns, an Actuarial Liability Model, Expected Return Projection Over 10 Years, Active Plan Membership, Simulated Financial Condition, Market Value of Assets, Actuarial Accrued Liability, Employer Rate, Projected Funded Status, 10-Year Projected Funded Status, 2023-2032 Cumulative Employer Contributions, Ultimate Net Cost, and Liquidity Analysis. Discussion ensued. Board members expressed their opinions on the various asset mixes and concluded, for the next Investment Committee Meeting, to look at asset mixes one through four since Messrs. Ellement, Joecken, and Silber noted they offer downside protection, rely less on Equities, increase the Fixed Income target, and enhance the liquidity profile of the Fund.

Approval of UBS Hedge Fund Solutions Guideline Change. As a matter of information, Committee members received a memo from Mr. Sauer regarding the "UBS Guideline Request" and the UBS document regarding the "CMERS Low Beta LLC - Request amendment to the liquidity profile." Mr. Silber noted UBS had put together a custom Hedge Fund of One portfolio for CMERS where the vehicle is not commingled with other investors. He noted UBS started with CMERS in 2014 and initially had a 2.5% target of Fund assets that subsequently got as high as 7%. Mr. Silber said that UBS presented in November 2022 and, at that time, the Committee decided to move the target down from 7% to 4% of Fund assets. He noted they have received almost half of the money and the withdrawal process is expected to be completed by early next year. Mr. Silber said UBS is trying to retain exposure with the remaining 4% to its highest conviction managers, many of whom are highly sought-after and are capacity constrained. He also noted that the mix of the Fund of One portfolio will change slightly as a result of the withdrawals. He said currently the guidelines allow up to 30% of the net asset value with UBS to be allocated to Portfolio Funds with stated liquidity terms that are greater than one year, and further allows for approximately one-third of this 30% to be allocated to Portfolio Funds with stated liquidity terms between two to three years. Mr. Silber said that in order to maintain access to the highly soughtafter managers, the guidelines need to be modified to allow for two-thirds of the 30% of the net asset value with UBS to be allocated to Portfolio Funds with stated liquidity terms in the two-to three-year bucket. He said it took UBS many years to gain access to some of these managers, and if the money was withdrawn from some of these managers, it would take years to get back into. Mr. Silber said Staff recommends approving the change.

It was moved by Ms. King, seconded by Mr. Heling, and unanimously carried, to approve the Approval of UBS Hedge Fund Solutions Guideline Change.

Due Diligence Reports.

Mesirow Financial. As a matter of information, Committee members received a memo from Mr. Sauer regarding the "Mesirow Due Diligence Meeting: November 17, 2022." Mr. Walters said he and Messrs. Sauer and Courtright visited Mesirow at their Chicago office. He stated Mesirow was one of four managers hired to invest Private Equity through diversified Fund of Fund vehicles. He noted CMERS committed \$355 million dollars across four Mesirow partnerships to date: Funds V, VI, VII, and VIII-A with \$232 million dollars in invested capital as

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of September 30, 2022. Mr. Walters noted a memo correction regarding Fund IX-A and said the Investment Committee approved a \$100 million, instead of \$120 million, to Fund IX-A, pending successful contract negotiations. Mr. Walters' said Mesirow's approach aims to create a well-diversified portfolio of Private Equity Funds, utilizing multiple managers across U.S./non-U.S. buyouts, venture capital, and special situation strategies. He said they use the commingled funds to deploy capital over time. Mr. Walters noted with Fund VIII, Mesirow added secondary and co-investments to the diversified Fund of Funds, which they have continued with Fund IX also. He said CMERS Staff has no concerns, but will monitor a few items, including succession planning, secondary funds, and separate accounts.

BlackRock. As a matter of information, Committee members received a memo from Mr. Walters regarding the "BlackRock Due Diligence Meeting – February 2, 2023 Onsite and Virtual Follow Up." Mr. Walters stated he and Mr. Silber visited BlackRock at their San Francisco office as well as follow-up virtual meetings. Mr. Walters stated BlackRock was hired in 1996, originally as Barclays Global, which was acquired by BlackRock. He noted BlackRock manages three strategies for the Fund: a passively-managed Russell 1000 Value Equity Index, a passively-managed U.S. Government Bond Index, and an actively-managed Global Equity Alpha Tilts Strategy. He said BlackRock is the largest manager by assets under management at 14.2% of the Fund. Mr. Walters said BlackRock is the largest asset manager in the world with \$9 trillion assets under management as of March 31, 2023. He noted BlackRock's Global Equity Alpha Tilts Strategy uses research, technology, and artificial intelligence in their modeling. Mr. Walters noted Staff had no concerns, but will continue to monitor BlackRock's use of technology.

Polen Capital Management. As a matter of information, Committee members received a memo from Mr. Sauer regarding the "Polen Due Diligence Meeting, December 14, 2022." Mr. Courtright discussed the memo and stated Polen has managed an Active Large Cap Growth Equity mandate for the Fund since June 2012. He said that he and Mr. Sauer visited Polen at their office in December 2022 and also met with Callan Research for Polen discussions. Mr. Courtright said Polen's Large Cap Growth Equity strategy had a -37.8% return in 2022. He noted their team does remain stable and strong and there is no change in their philosophy or process. Mr. Courtright noted Mr. Ficklin assumed the administrative role of head of the Large Cap Growth team from Mr. Davidowitz in 2022. Mr. Courtright also said the assets under management has held up despite 2022's challenging performance. He noted the assets under management had increased to \$57.2 billion at the recent visit versus \$51.8 billion a couple years ago. He said CMERS and Callan will be monitoring Polen. Mr. Courtright said at the time of the Fund's inception in 2012, Polen's assets under management were \$4 billion. Mr. Courtright noted Large Cap Growth is the flagship at Polen with \$43.8 billion. He concluded that the team remains strong and the philosophy and process are unchanged.

CMERS 1st **Quarter 2023 Performance Update.** As a matter of information, Committee members received the "1st Quarter 2023 Performance Report" of May 4, 2023. Mr. Silber noted for the three-month period, stocks were up 6.9% and bonds were up 3.0%. He commented that the Fund had a 3.3% return during the quarter. He noted that value underperformed growth, small cap did worse than large cap, and noted that CMERS' Private Equity managers do not report during the three-month period. Mr. Silber said as of May 3, the S&P 500 was up about 7% and the Fund still had managers with double-digit returns year-to-date. He said outflows from the Fund were

about \$122 million this quarter and contributions into the Fund were about \$110 million. He noted the Fund value was \$5.64 billion at the end of Q1. Mr. Silber concluded that the Fund value on May 3, 2023 was about \$5.60 billion with the Fund return at about 3.2%.

It was moved by Mr. Bell and seconded by Mr. Kovac to adjourn the meeting.

There being no further business, Mr. Klusman adjourned the meeting at 11:05 a.m.

Bernard J. Allen Secretary and Executive Director

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As of: 2023-05-31

Fiscal Year City of Milwaukee
2023 Departmental
Department Appropriation Budget Balances
Employes' Retirement System

	Budget	2023-3	2023-4	2023-5	Year to Date Expended	Life to Date Commitments	Remaining Budget
Regular Departmental Appropriations:							
Employee Salaries & Wages	3,749,620.00	-	-	-	-	-	3,749,620.00
Base Pay-Salary & Wage	-	441,026.52	280,873.43	-	1,247,622.90	-	(1,247,622.90)
Overtime Premium	-	400.47	240.25	-	842.96	-	(842.96)
Non-Worked Compensation		8,860.45	(32.00)	-	8,828.45	-	(8,828.45)
Time Paid Not Worked	-	68,583.22	54,151.46	-	262,220.40	-	(262,220.40)
Employee Salaries & Wage	es \$ 3,749,620.00	518,870.66	335,233.14	- :	\$ 1,519,514.71	\$ -	\$ 2,230,105.29
Fringe Benefits Applied	1,687,329.00	-	-	-	-	_	1,687,329.00
Fringe Benefits Applied	-	224,570,71	66,005.24	_	558,274.09	-	(558,274.09)
Applied Employee Benefits	\$ 1,687,329.00	224,570.71	66,005.24	- ;	\$ 558,274.09	\$ -	\$ 1,129,054.91
Operating Expenditures	15,910,400.00	-	-	-	-	-	15,910,400.00
Office Supplies	-	154.42	768.12	-	3,113.23	-	(3,113.23)
Magazines, Subscription	-	287.80	125.21	-	723.90	-	(723.90)
Postal and Mailing Services	-	11,753.55	11,438.90	20,917.51	55,373.02	-	(55,373.02)
Electricity	-	3,146.13	3,110.83	-	9,599.76	-	(9,599.76)
Films & Other Educational Item	-	-	-	-	998.00	-	(998.00)
Other Operating Supply	-	5,886.00	-	7,500.60	13,386.60	-	(13,386.60)
Building Rental	•	48,647.41	36,804.03	-	185,748.67	-	(185,748.67)
Printing & Dupl Machine Rental	-	3,168.96	3,026.61	-	7,650.00	-	(7,650.00)
Consulting		119,409.59	40,635.00	-	153,736.55	-	(153,736.55)
Medical,Surgical & Lab	-	13,149.23	10,893.03	7,244.48	47,690.05	-	(47,690.05)
Administrative Charges	-	131,298.14	27,911.63	21,287.50	227,061.63	-	(227,061.63)
Other Professional Services	-	75,000.00	794,903.01	348,068.61	1,122,692.89	-	(1,122,692.89)
Systems Support	-	51,999.50	27,864.00	26,144.00	157,996.00	-	(157,996.00)
IT Infrastructure	•	-	-	-	88,883.66	-	(88,883.66)
Infrastructure	-	583.30	617.30	551.67	2,356.30	-	(2,356.30)
Telephone, Communications	-	11,739.14	5,687.27	734.00	24,393.46	-	(24,393.46)
Bldgs-Machinery & Equip Repair	-	-	-	-	4,209.29	-	(4,209.29)
Travel & Subsistence	-	2,863.62	3,511.25	1,407.88	10,474.88	-	(10,474.88)
Equipment Repair (Parts & Labo	-	-	-	-	218.29	•	(218.29)
Printing Services	- '	1,879.96	1,132.01	-	3,588.19	-	(3,588.19)
Insurance-Non Health		-	-	-	13,800.00	-	(13,800.00)
Other Misc Services	-	315.30	268.47	63.67	14,262.34	-	(14,262.34)
Operating Expenditures	\$ 15,910,400.00	481,282.05	968,696.67	433,919.92	\$ 2,147,956.71	\$ -	\$ 13,762,443.29
All Equipment	2,036,000.00	-	-	-	- 0.00.70	-	2,036,000.00
Computer Server & Components		-	-	-	6,328.76	-	(6,328.76)
Total Equipment	\$ 2,036,000.00	-	-	- :	\$ 6,328.76	\$ -	\$ 2,029,671.24
Total Regular Class	\$ 23,383,349.00	1,224,723.42	1,369,935.05	433,919.92	\$ 4,232,074.27	\$ -	\$ 19,151,274.73
Other Departmental Appropriations:							
Pol Pension Lump-Sum Sup Cont	10,000.00	_	-	-	10,000.00	-	-
PABF Payroll	24,000.00	1,981.14	1,489.99	-	9,023.93	-	14,976.07
Group Life Insurance Premium	4,200,000.00	325,149.15	326,006.79	-	1,327,593.90	-	2,872,406.10
Retiree's Benefit Adjustment	25,000.00	3,441.89	1,881.12	-	5,981.31	-	19,018.69
Other Classes	\$ 4,259,000.00	330,572.18	329,377.90	-	\$ 1,352,599.14	\$ -	\$ 2,906,400.86
Total Dank Annua dallara			1 600 212 05	433,919.92	\$ 5,584,673.41	\$ -	\$ 22,057,675.59
Total Dept Appropriations	\$ 27,642,349.00	1,555,295.60	1,699,312.95	433,818.82	φ 0,004,0/3.41	Ψ -	Ψ 44,001,010.08

CITY OF MILW ALL ACCTS

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Manager Mix Report

1.202.08							
Account Name/	Cash/	Short Term/	Equity/	Fixed/	R.E. and Other	/ Pendings/	Total Market Value/
Account Number	% of acount	% of acount	% of acount	% of acount	% of acount	% of acount	% of consolidation
MILWAUKEE-CASH ACCOUNT	0.00	45,001,168.49	0.00	0.00	0.00	-344,754.35	44,656,414.14
2605491	0.00%	100.77%	0.00%	0.00%	0.00%	-0.77%	0.78%
MILWAUKEE-THE NORTHERN TRS	0.00	0.00	220,018,747.80	0.00	0.00	0.00	220,018,747.80
2605496	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	3.85%
MILWAUKEE-ERS EXPENSE FUND	0.00	227,569.49	0.00	0.00	0.00	0.00	227,569.49
2605504	0.00%	100.00%	0.00%	0.00%	0.00%	0.00%	0.00%
MILWAUKEE-PABF BENEFIT PAYMENT	0.00	2,509.99	0.00	0.00	0.00	0.00	2,509.99
2610128	0.00%	100.00%	0.00%	0.00%	0.00%	0.00%	0.00%
MILWAUKEE-DFA INTERNATIONAL	0.00	0.00	190,966,346.80	0.00	0.00	0.00	190,966,346.80
2619838	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	3.34%
MILWAUKEE-EARNEST -SL	0.00	2,448,971.51	106,485,555.70	0.00	0.00	0.00	108,934,527.20
2630942	0.00%	2.25%	97.75%	0.00%	0.00%	0.00%	1.90%
MILWAUKEE - UBS A&Q	0.00	0.00	0.00	0.00	354,897,483.00	0.00	354,897,483.00
2637239	0.00%	0.00%	0.00%	0.00%	100.00%	0.00%	6.20%
MILWAUKEE-DFA	0.00	0.00	184,241,971.10	0.00	0.00	0.00	184,241,971.10
2637848	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	3.22%
MILWAUKEE-BAIRD	0.00	23,925,321.03	0.00	58,851,733.12	0.00	-610,987.74	82,166,066.41
2674604	0.00%	29.12%	0.00%	71.63%	0.00%	-0.74%	1.44%
MILWAUKEE-CASTLEARK	0.00	1,607,503.55	83,688,606.42	0.00	0.00	-326,331.09	84,969,778.88
2697782	0.00%	1.89%	98.49%	0.00%	0.00%	-0.38%	1.49%
MILWAUKEE - BLACKROCK R1000V	0.00	0.00	212,554,648.20	0.00	0.00	0.00	212,554,648.20
4472746	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	3.72%
MILWAUKEE-LOOMIS SAYLE	3,126,446.31	0.00	4,345,657.54	335,351,092.40	0.00	-1,193,174.13	341,630,022.10
CME01	0.92%	0.00%	1.27%	98.16%	0.00%	-0.35%	5.97%
MILWAUKEE-BRANDES INT'L EQUITY	6,775,162.12	0.00	352,446,838.40	0.00	1,959,885.72	262,133.65	361,444,019.90
CME03	1.87%	0.00%	97.51%	0.00%	0.54%	0.07%	6.32%
MILWAUKEE-REAMS	154,204,970.90	0.00	0.00	599,661,452.20	8,955,583.64	-212,032,969.20	550,789,037.60
CME04	28.00%	0.00%	0.00%	108.87%	1.63%	-38.50%	9.63%
MILWAUKEE-BLAIR	5,133,698.36	0.00	249,009,205.30	0.00	952,389.86	309,889.72	255,405,183.30
CME05	2.01%	0.00%	97.50%	0.00%	0.37%	0.12%	4.46%

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Manager Mix Report

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Account Name/	Cash/	Short Term/	Equity/	Fixed/	R.E. and Other/	Pendings/	Total Market Value/
Account Number	% of acount	% of acount	% of acount	% of acount	% of acount	% of acount	% of consolidation
MILWAUKEE-MFS	2,452,958.57	0.00	224,710,196.10	0.00	516,058.51	0.00	227,679,213.20
CME12	1.08%	0.00%	98.70%	0.00%	0.23%	0.00%	3.98%
MILWAUKEE-POLEN	0.00	1,429,353.70	126,716,993.30	0.00	0.00	0.00	128,146,347.00
2644553	0.00%	1.12%	98.88%	0.00%	0.00%	0.00%	2.24%
MILWAUKEE - PRINCIPAL DRA -SL	0.00	0.00	174,065,440.10	0.00	0.00	0.00	174,065,440.10
2677436	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	3.04%
MILWAUKEE-BLACKROCK GLOBAL-SL	0.00	0.00	275,262,173.80	0.00	0.00	9,900,000.00	285,162,173.80
2683493	0.00%	0.00%	96.53%	0.00%	0.00%	3.47%	4.98%
MILWAUKEE- AQR-SL	0.00	0.00	94,980,885.00	0.00	0.00	0.00	94,980,885.00
4468331	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	1.66%
MILWAUKEE-APTITUDE / 4479682	0.00	0.00	0.00	0.00	157,305,473.40	0.00	157,305,473.40
4479682	0.00%	0.00%	0.00%	0.00%	100.00%	0.00%	2.75%
MILWAUKEE - DFA US LCV	465,357.58	0.00	155,322,843.80	0.00	0.00	8,337.41	155,796,538.70
CME15	0.30%	0.00%	99.70%	0.00%	0.00%	0.01%	2.72%
MILWAUKEE-REAL ESTATE	0.00	-295,080.13	0.00	0.00	512,868,169.99	639,420.23	513,212,510.14
MULTIPLE	0.00%	-0.06%	0.00%	0.00%	99.93%	0.12%	8.97%
MILWAUKEE-PRIVATE EQUITY	0.00	0.00	0.00	0.00	714,660,268.94	-42,493.94	714,617,775.00
MULTIPLE	0.00%	0.00%	0.00%	0.00%	100.01%	-0.01%	12.49%
MILWAUKEE - BLACKROCK US G-SL	0.00	0.00	0.00	276,871,047.30	0.00	0.00	276,871,047.30
MULTIPLE	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	4.84%

CITY OF MILW ALL ACCTS

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30-Apr-23

Manager Mix Report

Account Name/	Cash/	Short Term/	Equity/	Fixed/	R.E. and Other/	Pendings/	Total Market Value/
Account Number	% of acount	% of acount	% of acount	% of acount	% of acount	% of acount	% of consolidation
Total for consolidation	172,158,593.84	74,347,317.63	2,654,816,109.36	1,270,735,325.02	1,752,115,313.06	-203,430,929.44	5,720,741,729.55
% for consolidation	3.01%	1.30%	46.41%	22.21%	30.63%	-3.56%	100.00%

Please note that this report has been prepared using best available data. This report may also contain information provided by third parties, derived by third parties or derived from third party data and/or data that may have been categorized or otherwise reported based upon client direction - Northern Trust assumes no responsibility for the accuracy, timeliness or completeness of any such information. Northern Trust assumes no responsibility for the consequences of investment decisions made in reliance on information contained in this report. If you have questions regarding third party data or direction as it relates to this report, please contact your Northern Trust relationship team.

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Employes' Retirement System Securities Lending Income and Expenses: 2023 As of APRIL 30, 2023

Amounts Expended

Date	Income From Lending	Fees	Administrative Transfers	Balance
Balance 12-31-22				\$791,432.47
Quarter 1 Totals	\$207,243.48	\$40,423.69	\$792,000.00	\$166,252.26
04/05/23	\$567.67	\$0.00	\$0.00	\$166,819.93
04/17/23	\$74,964.17	\$14,885.09	\$0.00	\$226,899.01
Current Totals	\$282,775.32	\$55,308.78	\$792,000.00	\$226,899.01

Note: Expenses for Board Travel/Education, Computer Equipment, Publications and Consulting are now paid from the Operations/Management account

MERS PERFORMANCE ESTIMATES April 30, 2023

	1	4-4-0		VTD TI
	 	1st Quarter	4	YTD Thru
Account	2022 Return	2023	Apr 2023	4/30/23
Northern Trust S&P 500 Index	-18.10%	7.49%	1.56%	9.17%
S&P 500 Difference	<u>-18.11%</u> 0.01%	<u>7.50%</u> -0.01%	<u>1.56%</u> 0.00%	<u>9.17%</u> 0.00%
BlackRock Russell 1000 Value Index	-7.54%	1.02%	1.51%	2.55%
Russell 1000 Value	-7.54%	1.01%	1.51%	2.53%
Difference	0.00%	0.01%	0.00%	0.02%
DFA US Large Cap Value	-4.95%	1.12%	1.24%	2.38%
Russell 1000 Value	<u>-7.54%</u>	<u>1.01%</u>	<u>1.51%</u>	2.53%
Difference	2.59%	0.11%	-0.27%	-0.15%
Polen	-37.54%	14.15%	0.00%	14.15%
S&P 500	<u>-18.11%</u>	7.50%	1.56%	9.17% 4.00%
Difference	-19.43%	6.65%	-1.56%	4.98%
Earnest Bussell MidCon	-15.13% -17.32%	4.68% 4.06%	-1.30% -0.53%	3.32%
Russell MidCap Difference	2.18%	0.62%	-0.53% -0.77%	<u>3.51%</u> -0.19%
CastleArk	-27.99%	5.14%	-1.58%	3.48%
Russell 2000 Growth	-26.36%	6.07%	-1.16%	4.84%
Difference	-1.63%	-0.93%	-0.42%	-1.36%
DFA US Small Cap Value	-1.67%	0.83%	-1.78%	-0.96%
Russell 2000 Value	-14.48%	-0.66%	-2.49%	-3.13%
Difference	12.81%	1.49%	0.71%	2.17%
Brandes	-6.88%	11.24%	2.84%	14.40%
MSCI EAFE	<u>-14.45%</u>	8.47%	2.82%	11.53%
Difference	7.57%	2.77%	0.02%	2.87%
William Blair	-28.99%	8.57%	1.33%	10.02%
MSCI ACWI ex US	<u>-15.57%</u>	7.00%	<u>1.81%</u>	8.94%
Difference	-13.42%	1.57%	-0.48%	1.08%
DFA Int'l Small Cap Value	-9.75%	6.53%	2.35%	9.03%
MSCI EAFE Small Cap	<u>-21.39%</u>	4.92%	2.01%	<u>7.03%</u>
Difference AQR	11.64% -20.81%	1.61% 5.88%	0.34% -0.63%	2.00% 5.22%
MSCI EM	-20.09%	3.96%	-0.63% -1.13%	2.78%
Difference	-0.72%	1.92%	0.50%	2.44%
BlackRock Global Alpha Tilts	-16.81%	7.57%	1.38%	9.05%
MSCI ACWI	-18.36%	7.31%	1.44%	8.85%
Difference	1.55%	0.26%	-0.06%	0.20%
MFS	-18.15%	8.45%	0.91%	9.44%
MSCI ACWI	<u>-18.36%</u>	<u>7.31%</u>	<u>1.44%</u>	8.85%
Difference	0.22%	1.14%	-0.53%	0.59%
BlackRock Gov't Bond Index	-12.31%	3.19%	0.53%	3.73%
Bloomberg Gov't Bond Difference	<u>-12.32%</u>	2.98% 0.24%	0.53%	3.53% 0.20%
	0.01%	0.21%	0.00%	0.20%
Reams Bloomberg US Aggregate	-11.39%	4.03%	0.57%	4.63% 3.59%
Difference	<u>-13.01%</u> 1.62%	<u>2.96%</u> 1.07%	<u>0.61%</u> -0.04%	3.59% 1.04%
Loomis Sayles	-12.21%	3.29%	0.54%	3.85%
Bloomberg US Aggregate	-13.01%	2.96%	0.61%	3.59%
Difference	0.80%	0.33%	-0.07%	0.26%
UBS	8.91%	0.93%	0.19%	1.12%
SOFR + 4%	4.90%	2.08%	0.68%	2.78%
Difference	4.01%	-1.15%	-0.49%	-1.66%
Aptitude		0.18%	0.21%	0.39%
SOFR + 4%		2.08%	0.68%	<u>2.78%</u>
Difference Principal	E 000/	-1.90%	-0.47%	-2.39%
Principal Blended Benchmark	-5.88% -5.06%	1.28% 1.11%	1.12% 1.11%	2.41% <u>2.23%</u>
Difference	-0.82%	0.17%	0.01%	0.18%
Baird	-1.80%	1.32%	0.44%	1.77%
Bloomberg Govt/Credit 1-3 Year	-1.60% -3.69%	1.52% 1.51%	0.44%	1.77% 1.86%
Difference	1.89%	-0.19%	0.10%	-0.09%
	1			
Total MERS	-6.49%	3.33%	0.55%	3.90%

The calculation for the Fund's total rate of return is based on the Modified Dietz method. Although periodic cash flows (i.e., contributions, redemptions) are not time weighted, they are accounted for in the Fund's total rate of return. Therefore, this estimated rate of return may vary slightly from the rate of return reported by the custodian.

The returns shown are gross of fees (except Total MERS, DFA International Small Cap Value, William Blair International Growth, AQR, Principal, UBS, and Aptitude)

ACTUAL ALLOCATIONS April 30, 2023

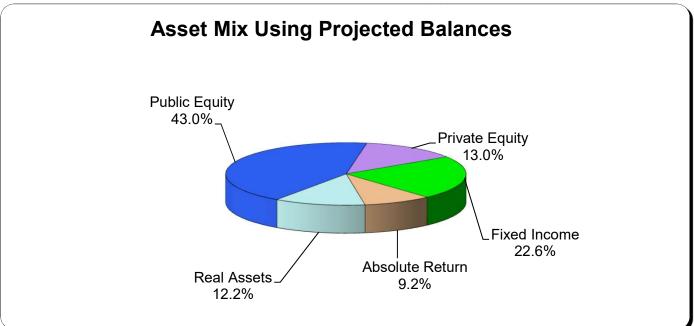
		Target		Market Value	Allocation
EQUITY					
Public Equity					
Domestic					
Passive Large Cap Equity	Northern Trust (S&P 500)	3.89%	\$	220,018,748	3.90%
	BlackRock (Russell 1000 Value)	3.89%	\$	212,554,648	3.77%
	Sub-Total Passive Large Cap Equity	7.78%	\$	432,573,396	7.67%
Active Large Cap Equity	Polen (S&P 500)	2.19%	\$	128,146,347	2.27%
	DFA (Russell 1000 Value)	2.78%	\$	155,796,539	2.76%
	Sub-Total Active Large Cap Equity	4.97%	\$	283,942,886	5.03%
Active Mid/Small Cap Equity	Earnest Partners (Russell MidCap)	2.00%	\$	108,934,527	1.93%
	CastleArk (Russell 2000 Growth)	1.61%	\$	84,969,779	1.51%
	DFA (Russell 2000 Value)	3.44%	\$	184,241,971	3.27%
	Sub-Total Active Mid/Small Cap Equity	7.05%	\$	378,146,277	6.719
Total Domestic		19.80%	\$	1,094,662,559	19.41%
International					
Active International Equity	Brandes (MSCI EAFE)	5.80%	\$	361,444,020	6.41%
	William Blair (MSCI ACWI ex US)	4.41%	\$	255,405,183	4.53%
	DFA (MSCI EAFE Small Cap)	3.20%	\$	190,966,347	3.39%
	AQR (MSCI EM)	1.99%	\$	94,980,885	1.68%
Total International		15.40%	\$	902,796,435	16.01%
Global					
Active Global Equity	BlackRock (MSCI ACWI)	4.84%	\$	285,162,174	5.06%
	MFS (MSCI ACWI)	3.96%	\$	227,679,213	4.04%
Total Global		8.80%	\$	512,841,387	9.09%
Total Public Equity		44.00%	\$	2,510,300,381	44.51%
Private Equity					
	Abbott Capital (Russell 3000 Quarter Lag + 2%)	3.50%	\$	314,498,748	5.58%
	Mesirow (Russell 3000 Quarter Lag + 2%)	3.50%	\$	272,248,541	4.83%
	Neuberger Berman (Russell 3000 Quarter Lag + 2%)	1.50%	\$	44,507,358	0.79%
	Apogem (Russell 3000 Quarter Lag + 2%)	1.50%	\$	83,363,128	1.48%
Total Private Equity		10.00%	\$	714,617,775	12.67%
TOTAL EQUITY (Public Equity + Private	e Equity)	54.00%	\$	3,224,918,156	57.18%
FIXED INCOME & ABSOLUTE RETURN					
Fixed Income					
Cash		1.00%	\$	44,886,494	0.80%
Passive Fixed Income	BlackRock (Bloomberg US Government)	5.50%	\$	276,871,047	4.91%
Active Fixed Income	Reams (Bloomberg US Aggregate)	9.90%	\$	550,789,038	9.77%
	Loomis Sayles (Bloomberg US Aggregate)	6.60%	\$	341,630,022	6.06%
	Sub-Total Active Fixed Income	16.50%	\$	892,419,060	15.82%
Total Fixed Income		23.00%	\$	1,214,176,601	21.53%
Absolute Return					
	Aptitude (SOFR + 4%)	3.00%	\$	157,638,357	2.80%
	UBS (SOFR + 4%)	7.00%	\$	355,565,038	6.30%
Total Absolute Return		10.00%	\$	513,203,395	9.10%
TOTAL FIXED INCOME & ABSOLUTE R	ETURN	33.00%	\$	1,727,379,996	30.63%
REAL ASSETS					
Private Real Estate - Core	JP Morgan (NFI-ODCE)	3.23%	œ	135 000 024	2.440
Private Real Estate - Core	,		\$	135,989,021	2.41%
	Morgan Stanley (NFI-ODCE)	3.23%	\$	156,580,219	2.78%
	LaSalle (NFI-ODCE)	1.62%	\$	116,731,196	2.07%
	Prologis (NFI-ODCE)	1.62%	\$	92,055,126	1.63%
Private Real Estate No. C	Sub-Total Private Real Estate - Core	9.70%	\$	501,355,562	8.89%
Private Real Estate - Non-Core	Non-Core Real Estate (NFI-ODCE)	0.00%	\$	11,856,948	0.21%
Public Real Assets TOTAL REAL ASSETS	Principal (Blended Benchmark)	3.30% 13.00%	\$ \$	174,065,440 687 277 950	3.09% 12.19%
I O I AL REAL AGGE 13		13.00%	Ф	687,277,950	12.197
TOTAL ERS		(00,000)	\$	5,639,576,102	100.00%
TOTAL ERS Total City Reserve Fund	R. W. Baird		\$	5,639,576,102 82,166,066	100.00%

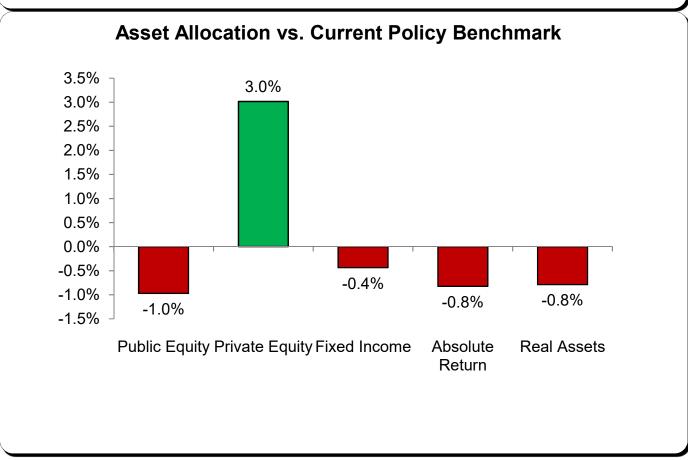
PROJECTED TARGET ALLOCATIONS

May 16, 2023

		Target		Market Value	Allocation	
EQUITY						
Public Equity						
Domestic						
Passive Large Cap Equity	Northern Trust (S&P 500)	3.89%	\$	208,524,499	3.739	
	BlackRock (Russell 1000 Value) Sub-Total Passive Large Cap Equity	<u>3.89%</u> 7.78%	<u>\$</u> \$	205,067,044 413,591,542	7.39 ⁹	
Active Large Cap Equity	Polen (S&P 500)	2.19%	\$	123,029,731	2.209	
Notive Earge Sup Equity	DFA (Russell 1000 Value)	2.78%	\$	144,513,327	2.589	
	Sub-Total Active Large Cap Equity	4.97%	\$	267,543,058	4.789	
Active Mid/Small Cap Equity	Earnest Partners (Russell MidCap)	2.00%	\$	105,929,860	1.89%	
	CastleArk (Russell 2000 Growth)	1.61%	\$	84,101,171	1.509	
	DFA (Russell 2000 Value)	3.44%	\$	176,485,844	3.169	
	Sub-Total Active Mid/Small Cap Equity	7.05%	\$	366,516,875	6.559	
Total Domestic		19.80%	\$	1,047,651,476	18.739	
International						
Active International Equity	Brandes (MSCI EAFE)	5.80%	\$	346,614,732	6.20	
	William Blair (MSCI ACWI ex US)	4.41%	\$	246,077,778	4.409	
	DFA (MSCI EAFE Small Cap)	3.20%	\$	181,140,056	3.249	
	AQR (MSCI EM)	1.99%	\$	95,282,189	1.709	
Total International		15.40%	\$	869,114,755	15.549	
Global	DL LD L (MOCLACIAN)	4.040/	•	070 000 054	4.000	
Active Global Equity	BlackRock (MSCI ACWI)	4.84%	\$	272,003,254	4.86%	
Total Global	MFS (MSCI ACWI)	3.96% 8.80%	\$ \$	218,021,034 490,024,288	3.90% 8.76%	
		44.00%				
Total Public Equity		44.00%	\$	2,406,790,518	43.039	
Private Equity	Abbott Capital (Russell 3000 Quarter Lag + 2%)	3.50%	\$	314,143,748	5.62%	
	Mesirow (Russell 3000 Quarter Lag + 2%)	3.50%	\$	272,248,541	4.87%	
	Neuberger Berman (Russell 3000 Quarter Lag + 2%)	1.50%	\$	51,919,561	0.93%	
	Apogem (Russell 3000 Quarter Lag + 2%)	1.50%	\$	89,848,298	1.61%	
Total Private Equity	7 3 (10.00%	\$	728,160,148	13.02%	
	e Equity)	54.00%	\$	3,134,950,666	56.05%	
OTAL EQUITY (Public Equity + Private						
` · ·	. •					
IXED INCOME & ABSOLUTE RETURN	. •					
`	. •	1.00%	\$	59,468,867	1.06%	
IXED INCOME & ABSOLUTE RETURN Fixed Income	. •	1.00% 5.50%	\$	59,468,867 319,373,614		
IXED INCOME & ABSOLUTE RETURN Fixed Income Cash					5.71%	
IXED INCOME & ABSOLUTE RETURN Fixed Income Cash Passive Fixed Income	BlackRock (Bloomberg US Government)	5.50%	\$	319,373,614	5.71% 9.76%	
Fixed Income & ABSOLUTE RETURN Cash Passive Fixed Income	BlackRock (Bloomberg US Government) Reams (Bloomberg US Aggregate)	5.50% 9.90%	\$	319,373,614 545,895,449	5.719 9.769 6.039	
IXED INCOME & ABSOLUTE RETURN Fixed Income Cash Passive Fixed Income	BlackRock (Bloomberg US Government) Reams (Bloomberg US Aggregate) Loomis Sayles (Bloomberg US Aggregate)	5.50% 9.90% 6.60%	\$ \$ \$	319,373,614 545,895,449 337,413,640	5.71% 9.76% 6.03% 15.79%	
Fixed Income Cash Passive Fixed Income Active Fixed Income	BlackRock (Bloomberg US Government) Reams (Bloomberg US Aggregate) Loomis Sayles (Bloomberg US Aggregate)	5.50% 9.90% 6.60% 16.50%	\$ \$ \$	319,373,614 545,895,449 337,413,640 883,309,089	5.71% 9.76% 6.03% 15.79%	
FIXED INCOME & ABSOLUTE RETURN Fixed Income Cash Passive Fixed Income Active Fixed Income Total Fixed Income	BlackRock (Bloomberg US Government) Reams (Bloomberg US Aggregate) Loomis Sayles (Bloomberg US Aggregate) Sub-Total Active Fixed Income Aptitude (SOFR + 4%)	5.50% 9.90% 6.60% 16.50% 23.00%	\$ \$ \$ \$	319,373,614 545,895,449 337,413,640 883,309,089 1,262,151,570	5.71% 9.76% 6.03% 15.79% 22.56%	
FIXED INCOME & ABSOLUTE RETURN Fixed Income Cash Passive Fixed Income Active Fixed Income Total Fixed Income Absolute Return	BlackRock (Bloomberg US Government) Reams (Bloomberg US Aggregate) Loomis Sayles (Bloomberg US Aggregate) Sub-Total Active Fixed Income	5.50% 9.90% 6.60% 16.50% 23.00% 3.00% 7.00%	\$ \$ \$ \$	319,373,614 545,895,449 337,413,640 883,309,089 1,262,151,570 157,638,357 355,565,038	5.71% 9.76% 6.03% 15.79% 22.56% 2.82% 6.36%	
Fixed Income Cash Passive Fixed Income Active Fixed Income Total Fixed Income Absolute Return	BlackRock (Bloomberg US Government) Reams (Bloomberg US Aggregate) Loomis Sayles (Bloomberg US Aggregate) Sub-Total Active Fixed Income Aptitude (SOFR + 4%) UBS (SOFR + 4%)	5.50% 9.90% 6.60% 16.50% 23.00% 3.00% 7.00% 10.00%	\$ \$ \$ \$ \$	319,373,614 545,895,449 337,413,640 883,309,089 1,262,151,570 157,638,357 355,565,038 513,203,395	5.719 9.769 6.039 15.799 22.569 2.829 6.369 9.189	
IXED INCOME & ABSOLUTE RETURN Fixed Income Cash Passive Fixed Income Active Fixed Income Total Fixed Income Absolute Return	BlackRock (Bloomberg US Government) Reams (Bloomberg US Aggregate) Loomis Sayles (Bloomberg US Aggregate) Sub-Total Active Fixed Income Aptitude (SOFR + 4%) UBS (SOFR + 4%)	5.50% 9.90% 6.60% 16.50% 23.00% 3.00% 7.00%	\$ \$ \$ \$	319,373,614 545,895,449 337,413,640 883,309,089 1,262,151,570 157,638,357 355,565,038	5.719 9.769 6.039 15.799 22.569 2.829 6.369 9.189	
Fixed Income Cash Passive Fixed Income Active Fixed Income Total Fixed Income Absolute Return Total Absolute Return	BlackRock (Bloomberg US Government) Reams (Bloomberg US Aggregate) Loomis Sayles (Bloomberg US Aggregate) Sub-Total Active Fixed Income Aptitude (SOFR + 4%) UBS (SOFR + 4%)	5.50% 9.90% 6.60% 16.50% 23.00% 3.00% 7.00% 10.00%	\$ \$ \$ \$ \$	319,373,614 545,895,449 337,413,640 883,309,089 1,262,151,570 157,638,357 355,565,038 513,203,395	5.719 9.769 6.039 15.799 22.569 2.829 6.369 9.189	
Fixed Income Cash Passive Fixed Income Active Fixed Income Total Fixed Income Absolute Return Total Absolute Return	BlackRock (Bloomberg US Government) Reams (Bloomberg US Aggregate) Loomis Sayles (Bloomberg US Aggregate) Sub-Total Active Fixed Income Aptitude (SOFR + 4%) UBS (SOFR + 4%)	5.50% 9.90% 6.60% 16.50% 23.00% 3.00% 7.00% 10.00%	\$ \$ \$ \$ \$	319,373,614 545,895,449 337,413,640 883,309,089 1,262,151,570 157,638,357 355,565,038 513,203,395	5.719 9.769 6.039 15.799 22.569 2.829 6.369 9.189	
IXED INCOME & ABSOLUTE RETURN Fixed Income Cash Passive Fixed Income Active Fixed Income Total Fixed Income Absolute Return Total Absolute Return OTAL FIXED INCOME & ABSOLUTE F	BlackRock (Bloomberg US Government) Reams (Bloomberg US Aggregate) Loomis Sayles (Bloomberg US Aggregate) Sub-Total Active Fixed Income Aptitude (SOFR + 4%) UBS (SOFR + 4%)	5.50% 9.90% 6.60% 16.50% 23.00% 3.00% 7.00% 10.00% 33.00%	\$ \$ \$ \$ \$ \$ \$ \$ \$	319,373,614 545,895,449 337,413,640 883,309,089 1,262,151,570 157,638,357 355,565,038 513,203,395 1,775,354,965	5.719 9.769 6.039 15.799 22.569 2.829 6.369 9.189 31.749	
IXED INCOME & ABSOLUTE RETURN Fixed Income Cash Passive Fixed Income Active Fixed Income Total Fixed Income Absolute Return Total Absolute Return OTAL FIXED INCOME & ABSOLUTE F	BlackRock (Bloomberg US Government) Reams (Bloomberg US Aggregate) Loomis Sayles (Bloomberg US Aggregate) Sub-Total Active Fixed Income Aptitude (SOFR + 4%) UBS (SOFR + 4%) JP Morgan (NFI-ODCE)	5.50% 9.90% 6.60% 16.50% 23.00% 3.00% 7.00% 10.00% 33.00%	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$	319,373,614 545,895,449 337,413,640 883,309,089 1,262,151,570 157,638,357 355,565,038 513,203,395 1,775,354,965	5.719 9.769 6.039 15.799 22.569 2.829 6.369 9.189 31.749 2.439 2.809	
IXED INCOME & ABSOLUTE RETURN Fixed Income Cash Passive Fixed Income Active Fixed Income Total Fixed Income Absolute Return Total Absolute Return OTAL FIXED INCOME & ABSOLUTE F	BlackRock (Bloomberg US Government) Reams (Bloomberg US Aggregate) Loomis Sayles (Bloomberg US Aggregate) Sub-Total Active Fixed Income Aptitude (SOFR + 4%) UBS (SOFR + 4%) JP Morgan (NFI-ODCE) Morgan Stanley (NFI-ODCE) LaSalle (NFI-ODCE) Prologis (NFI-ODCE)	5.50% 9.90% 6.60% 16.50% 23.00% 3.00% 7.00% 10.00% 33.00% 3.23% 3.23% 3.23% 1.62% 1.62%	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	319,373,614 545,895,449 337,413,640 883,309,089 1,262,151,570 157,638,357 355,565,038 513,203,395 1,775,354,965 135,989,021 156,580,219 116,731,030 92,055,126	5.719 9.769 6.039 15.799 22.569 2.829 6.369 9.189 31.749 2.439 2.809 1.659	
IXED INCOME & ABSOLUTE RETURN Fixed Income Cash Passive Fixed Income Active Fixed Income Total Fixed Income Absolute Return Total Absolute Return OTAL FIXED INCOME & ABSOLUTE FIXED INCOME & ABSOL	BlackRock (Bloomberg US Government) Reams (Bloomberg US Aggregate) Loomis Sayles (Bloomberg US Aggregate) Sub-Total Active Fixed Income Aptitude (SOFR + 4%) UBS (SOFR + 4%) JP Morgan (NFI-ODCE) Morgan Stanley (NFI-ODCE) LaSalle (NFI-ODCE) Prologis (NFI-ODCE) Sub-Total Private Real Estate - Core	5.50% 9.90% 6.60% 16.50% 23.00% 3.00% 7.00% 10.00% 33.300% 3.23% 3.23% 1.62% 9.70%	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	319,373,614 545,895,449 337,413,640 883,309,089 1,262,151,570 157,638,357 355,565,038 513,203,395 1,775,354,965 135,989,021 156,580,219 116,731,030 92,055,126 501,355,397	5.719 9.769 6.039 15.799 22.569 2.829 6.369 9.189 31.749 2.439 2.809 1.659 8.969	
Fixed Income Cash Passive Fixed Income Active Fixed Income Active Fixed Income Total Fixed Income Absolute Return Total Absolute Return TOTAL FIXED INCOME & ABSOLUTE FIXED INCOME & CORE Private Real Estate - Core	BlackRock (Bloomberg US Government) Reams (Bloomberg US Aggregate) Loomis Sayles (Bloomberg US Aggregate) Sub-Total Active Fixed Income Aptitude (SOFR + 4%) UBS (SOFR + 4%) JP Morgan (NFI-ODCE) Morgan Stanley (NFI-ODCE) LaSalle (NFI-ODCE) Prologis (NFI-ODCE) Sub-Total Private Real Estate - Core Non-Core Real Estate (NFI-ODCE)	5.50% 9.90% 6.60% 16.50% 23.00% 3.00% 7.00% 10.00% 3.23% 3.23% 1.62% 9.70% 0.00%	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	319,373,614 545,895,449 337,413,640 883,309,089 1,262,151,570 157,638,357 355,565,038 513,203,395 1,775,354,965 135,989,021 156,580,219 116,731,030 92,055,126 501,355,397 11,524,983	5.719 9.769 6.039 15.799 22.569 2.829 6.369 9.189 31.749 2.439 2.809 1.659 8.969 0.219	
Fixed Income Cash Passive Fixed Income Active Fixed Income Active Fixed Income Total Fixed Income Absolute Return Total Absolute Return TOTAL FIXED INCOME & ABSOLUTE FIXED INCOME & CORE Private Real Estate - Core	BlackRock (Bloomberg US Government) Reams (Bloomberg US Aggregate) Loomis Sayles (Bloomberg US Aggregate) Sub-Total Active Fixed Income Aptitude (SOFR + 4%) UBS (SOFR + 4%) JP Morgan (NFI-ODCE) Morgan Stanley (NFI-ODCE) LaSalle (NFI-ODCE) Prologis (NFI-ODCE) Sub-Total Private Real Estate - Core	5.50% 9.90% 6.60% 16.50% 23.00% 3.00% 7.00% 10.00% 33.23% 3.23% 1.62% 9.70% 0.00% 3.30%	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	319,373,614 545,895,449 337,413,640 883,309,089 1,262,151,570 157,638,357 355,565,038 513,203,395 1,775,354,965 135,989,021 156,580,219 116,731,030 92,055,126 501,355,397 11,524,983 170,225,761	5.71% 9.76% 6.03% 15.79% 22.56% 2.82% 6.36% 9.18% 31.74% 2.43% 2.80% 2.09% 1.65% 8.96% 0.21% 3.04%	
Fixed Income Cash Passive Fixed Income Active Fixed Income Active Fixed Income Total Fixed Income Absolute Return Total Absolute Return TOTAL FIXED INCOME & ABSOLUTE FIXED INCOME & CORE Private Real Estate - Core	BlackRock (Bloomberg US Government) Reams (Bloomberg US Aggregate) Loomis Sayles (Bloomberg US Aggregate) Sub-Total Active Fixed Income Aptitude (SOFR + 4%) UBS (SOFR + 4%) JP Morgan (NFI-ODCE) Morgan Stanley (NFI-ODCE) LaSalle (NFI-ODCE) Prologis (NFI-ODCE) Sub-Total Private Real Estate - Core Non-Core Real Estate (NFI-ODCE)	5.50% 9.90% 6.60% 16.50% 23.00% 3.00% 7.00% 10.00% 3.23% 3.23% 1.62% 9.70% 0.00%	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	319,373,614 545,895,449 337,413,640 883,309,089 1,262,151,570 157,638,357 355,565,038 513,203,395 1,775,354,965 135,989,021 156,580,219 116,731,030 92,055,126 501,355,397 11,524,983	5.71% 9.76% 6.03% 15.79% 22.56% 2.82% 6.36% 9.18% 31.74% 2.80% 2.09% 1.65% 8.96% 0.21% 3.04%	
Cash Passive Fixed Income Active Fixed Income Total Fixed Income Absolute Return Total Absolute Return FOTAL FIXED INCOME & ABSOLUTE FIXED INCOME & CORE Private Real Estate - Core	BlackRock (Bloomberg US Government) Reams (Bloomberg US Aggregate) Loomis Sayles (Bloomberg US Aggregate) Sub-Total Active Fixed Income Aptitude (SOFR + 4%) UBS (SOFR + 4%) JP Morgan (NFI-ODCE) Morgan Stanley (NFI-ODCE) LaSalle (NFI-ODCE) Prologis (NFI-ODCE) Sub-Total Private Real Estate - Core Non-Core Real Estate (NFI-ODCE)	5.50% 9.90% 6.60% 16.50% 23.00% 3.00% 7.00% 10.00% 33.23% 3.23% 1.62% 9.70% 0.00% 3.30%	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	319,373,614 545,895,449 337,413,640 883,309,089 1,262,151,570 157,638,357 355,565,038 513,203,395 1,775,354,965 135,989,021 156,580,219 116,731,030 92,055,126 501,355,397 11,524,983 170,225,761	1.06% 5.71% 9.76% 6.03% 15.79% 22.56% 2.82% 6.36% 9.18% 31.74% 2.43% 2.80% 2.09% 1.65% 8.96% 0.21% 3.04% 12.21%	

PROJECTED VERSUS POLICY ALLOCATIONS





YTD Market Value Change

December 31, 2022 Market Value including City Reserv	e & PABF Accounts			\$ 5	5,550,112,010
Monthly Cash Outflows thru Retiree Payroll Expense PABF Payroll Expense Expenses Paid GPS Benefit Payments Sub-Total Monthly Cash Outflows	May 16, 2023	\$ (1 \$ \$ \$	52,415,429) (17,463) (5,479,055) (3,677,431)	\$	(161,589,378)
Monthly Cash Inflows thru Contributions PABF Contribution Sub-Total Monthly Contributions	May 16, 2023	 \$ 1 _\$	14,347,968 19,456	\$	114,367,424
Capital Market Gain/(Loss)				\$	172,789,845
Value including City Reserve & PABF Accounts as of May 16, 2023					5,675,679,901
Less City Reserve Account ¹				\$	82,268,129
Less PABF Fund ²				\$	2,516
Net Projected ERS Fund Value as of	May 16, 2023			\$ 5	5,593,409,257

¹ The City Reserve Account balance equals the market value currently held in the Baird account.

² PABF Fund balance equals the market value currently held in the PABF account.

2023 ESTIMATED MONTHLY CASH FLOWS

Revised 5/17/2023 (in 000's)

Beginning Cash Account Balance	12/31/2022	1/31/2023	2/29/2023	3/31/2023	4/30/2023	5/31/2023	6/30/2023	7/31/2023	8/31/2023	9/30/2023	10/31/2023	11/30/2023	
Townsend Cash Account	5,435	_	_	_	_								
Cash Contribution Account	5,455	-		-	-								
Milwaukee Cash Account	17,447	80,926	44,668	55,372	44,788								
Total Cash Available	22,883	80,926	44,668	55,372	44,788								
Less: Estimated Cash Needs for non-Investment Outflows	39,500	39,500	39,500	39,500	39,500								
Cash Available for Other Outflows	(16,617)	41,426	5,168	15,872	5,288								
Gusti, Wallable for Guller Gullows	(10,017)	71,720	0,100	10,072	0,200								
For Monthly Cash Outflows of:	<u>Jan-2023</u>	Feb-2023	Mar-2023	Apr-2023	May-2023	Jun-2023	<u>Jul-2023</u>	Aug-2023	Sep-2023	Oct-2023	Nov-2023	Dec-2023	Total 2023
Retiree Payroll Expense	(39,141)	(39,561)	(39,102)	(38,290)	(39,243)	(39,339)	(39,434)	(39,530)	(39,626)	(39,723)	(39,819)	(39,916)	(472,723)
Normal Retirement Payroll	(38,011)	(38,140)	(38,215)	(38,049)	(38,144)	(38,240)	(38,335)	(38,431)	(38,527)	(38,624)	(38,720)	(38,817)	(460,254)
Retiree Lump Sum Payments	(1,130)	(1,421)	(886)	(241)	(1,099)	(1,099)	(1,099)	(1,099)	(1,099)	(1,099)	(1,099)	(1,099)	(12,469)
Real Estate Capital Calls	-	-	-	(43)	-	-	-	-	-	-	-	-	(43)
Private Equity Capital Calls	(826)	(1,620)	(11,248)	(3,017)	(13,537)	-	-	-	-	-	-	-	(30,247)
Expenses Paid through City	(1,949)	(1,554)	(1,410)	(566)	(2,112)	(1,949)	(1,949)	(1,949)	(1,949)	(1,949)	(1,949)	(1,949)	(21,234)
PABF Payroll	(2)	(12)	(2)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(29)
Sub-Total Monthly Cash Outflows	(41,917)	(42,747)	(51,761)	(41,917)	(54,894)	(41,289)	(41,385)	(41,481)	(41,577)	(41,673)	(41,770)	(41,866)	(524,276)
For Monthly Cash Inflows:													
Sponsoring Agency and Employee Contribution	2,514	2,483	3,470	2,779	2,786	2,793	2,800	4,211	2,814	2,821	2,828	2,835	35,135
Real Estate Distributions	2,400	42	11,651	345	251	-	-	-	-	-	-	-	14,689
Private Equity Distributions	235	3,647	9,453	2,389	1,287	-	-	-	-	-	-	-	17,011
Miscellaneous Income	164	315	277	218	213	80	80	80	80	80	80	80	1,747
Security Lending Transfer	792	-	-	-	-	-	-	-	-	-	-		792
City and Agency Required Contribution	101,853	_	_	-	_	_	_	_	-	-	-		101,853
PABF Inflow	2	2	14	1	-	1	1	1	1	1	1	1	30
Sub-Total Monthly Cash Inflows	107,961	6,489	24,865	5,733	4,536	2,875	2,882	4,292	2,896	2,903	2,910	2,917	171,257
Net Monthly Cash Inflows/(Outflows) Before Withdrawals Net Monthly Cash Surplus (Need)	66,043 49,426	(36,258) 5,168	(26,896) (21,728)	(36,184)	(50,357) (45,069)	(38,415)	(38,503)	(37,189)	(38,681)	(38,770)	(38,860)	(38,950)	(353,019)
Monthly Cash Withdrawals (Additions) AQR													
BlackRock Global Alpha Tilts				9,900									
BlackRock Russell 1000 Value Index				3,300									
BlackRock US Government Bond Index				(50,000)	(44,000)								
Brandes			12,500	12,900	14,300								
CastleArk			12,300	12,900	14,300								
Dimensional Fund Advisors US Large Cap					4,500								
Dimensional Fund Advisors International				6,800	7,500								
				0,000	7,500								
Dimensional Fund Advisors US Small Cap													
Earnest			E 400										
Loomis Sayles	(5,100										
MFS	(36,000)			8,200	8,900								
Northern Trust S&P 500 Index				6,000	8,600								
Polen			4,000	4,600	5,000								
Principal													
Reams			7,000	(47,000)									
UBS A&Q	28,000			75,000	20,000								
Goldman/Aptitude													
William Blair			9,000	9,100	10,100								
Sub-Total Monthly Cash Withdrawals	(8,000)	-	37,600	35,500	34,900	-	-	-	-	-	-	-	
Estimated Month-End Cash Balance													
Cash Available	41,426	5,168	15,872	15,188	(10,169)								
Estimated Cash Needs for non-Investment Outflows	39,500	39,500	39,500	39,500	39,500								
	80,926	44,668	55,372	54,688	29,331								