Pursuant to California Government Code section 54953(e), the Oakland Police & Fire Retirement System Board and Committee Members, as well as City staff, will participate via phone/video conference, and no physical teleconference locations are required.

Please see the agenda to participate in the meeting. For additional information, contact the Retirement Unit by calling (510) 238-7295.



Retirement Unit 150 Frank H. Ogawa Plaza Oakland, California 94612

AGENDA

RETIREMENT BOARD MEMBERS

Walter L. Johnson, Sr. President

Jaime T. Godfrey
Vice President

Robert W. Nichelini Member

> Kevin R. Traylor Member

John C. Speakman Member

R. Steven Wilkinson Member

> Erin Roseman Member

REGULAR MEETING of the BOARD OF ADMINISTRATION of the OAKLAND POLICE AND FIRE RETIREMENT SYSTEM ("PFRS")

WEDNESDAY, JANUARY 26, 2022 11:30 AM TELE-CONFERENCE BOARD MEETING VIA ZOOM WEBINAR

OBSERVE

- To observe the meeting by video conference, please click on this link: https://us02web.zoom.us/j/82880493983 at the noticed meeting time.
- To listen to the meeting by phone, please call the numbers below at the noticed meeting time: Dial (for higher quality, dial a number based on your current location):
- iPhone one-tap: US: +16699006833, 82880493983# or +13462487799, 82880493983#
- US: +1 669 900 6833 or +1 346 248 7799 or +1 253 215 8782 or +1 301 715 8592 or +1 312 626 6799 or +1 929 205 6099
- International numbers available: https://us02web.zoom.us/u/kctrX35uax
- Webinar ID: 828 8049 3983.
 If asked for a participant ID or code, press #.

PUBLIC COMMENTS

There are three ways to submit public comments.

eComment. To send your comment directly to staff BEFORE the meeting starts, please email
to mvisaya@oaklandca.gov with "PFRS Board Meeting" in the subject line for the
corresponding meeting. Please note that eComment submission closes two (2) hours
before posted meeting time.

OAKLAND POLICE AND FIRE RETIREMENT SYSTEM REGULAR BOARD MEETING JANUARY 26, 2022

- To comment by Zoom video conference, click the "Raise Your Hand" button to request to speak when Public Comment is being taken on an eligible agenda item at the beginning of the meeting. You will be permitted to speak during your turn, allowed to comment, and after the allotted time, re-muted. Instructions on how to "Raise Your Hand" is available at: https://support.zoom.us/hc/en-us/articles/205566129 Raise-Hand-In-Webinar.
- To comment by phone, please call on one of the above listed phone numbers. You will be prompted to "Raise Your Hand" by pressing "*9" to speak when Public Comment is taken. You will be permitted to speak during your turn, allowed to comment, and after the allotted time, re-muted. Please unmute yourself by pressing "*6."

If you have any questions, please email Maxine Visaya, Administrative Assistant II at mvisaya@oaklandca.gov.

ORDER OF BUSINESS

A. Subject: Police and Fire Retirement System ("PFRS") Board of

Administration Meeting Minutes

From: Staff of the PFRS Board

Recommendation: APPROVE the November 17, 2021 PFRS Board of Administration

Meeting Minutes

B. Subject: PFRS Actuary Valuation Report as of July 1, 2021

From: Cheiron, Inc., PFRS Plan Actuary

Recommendation: APPROVE the PFRS Actuary Valuation Report as of July 1, 2021

C. AUDIT & OPERATIONS COMMITTEE AGENDA – JANUARY 26, 2022

C1. Report of the Audit of PFRS Financial Statements for the Year

Subject: Ending June 30, 2021

From: Macias, Gini, & O'Connell LLP

Recommendation: ACCEPT Audit Report of PFRS Financial Statements for the year ending

June 30, 2021

C2. Subject: Administrative Expenses Report

From: Staff of the PFRS Board

Recommendation: ACCEPT informational report regarding PFRS administrative expenses

as of November 30, 2021

OAKLAND POLICE AND FIRE RETIREMENT SYSTEM REGULAR BOARD MEETING JANUARY 26, 2022

C3. Subject: Resolution No. 8036 – Authorization for Travel and Reimbursement

of Travel-Related Expenses for PFRS Trustee R. Steven Wilkinson to attend the 2022 CALAPRS General Assembly in San Diego, CA

from March 5, 2022 through March 8, 2022

From: Staff of the PFRS Board

Recommendation: APPROVE Resolution No. 8036 - Resolution approving request of

Oakland Police and Fire Retirement System Trustee R. Steven Wilkinson to attend the 2022 CALAPRS General Assembly from March 5, 2022 through March 8, 2022 in San Diego, California and for reimbursement of registration fees and travel-related expenses in an amount not to

exceed One Thousand Seven Hundred Dollars (\$1,700.00).

D. INVESTMENT & FINANCIAL MATTERS COMMITTEE AGENDA – JANUARY 26, 2022

D1. Subject: Investment Manager Performance Update – DDJ Capital

Management, LLC

From: DDJ Capital Management, LLC

Recommendation: ACCEPT informational report regarding organizational changes,

managerial assessment, diversity and inclusion policy and practices, and investment performance of DDJ Capital Management, LLC, a PFRS

Fixed Income Investment Manager

D2. Subject: Client Update and Consent Form Regarding Acquisition of DDJ

Capital Management, LLC by Polen Capital Management, LLC

From: DDJ Capital Management, LLC

Recommendation: RECEIVE an informational report regarding the acquisition of DDJ

Capital Management, LLC by Polen Capital Management LLC and **APPROVE** assignment of PFRS investment advisory agreement resulting from the change of control of DDJ Capital Management, LLC

OAKLAND POLICE AND FIRE RETIREMENT SYSTEM REGULAR BOARD MEETING JANUARY 26, 2022

D3. Subject: Investment Manager Performance Review - DDJ Capital

Management, LLC

From: Meketa Investment Group

Recommendation: RECEIVE report from Meketa Investment Group regarding

organizational changes, managerial assessment, diversity and inclusion policy and practices, investment performance, fee update, and watch status update of DDJ Capital Management, LLC, a PFRS Fixed Income Investment Manager and Meketa's recommendation to continue watch status and authorize signature of Consent Form, **DISCUSS** possible Board action in response to organizational changes, including but not limited to exercising the option to terminate the service agreement with DDJ Capital Management, LLC and transfer of PFRS assets managed by DDJ Capital Management, LLC to another investment manager or a comparable Exchange Traded Fund (ETF), **APPROVE** the Committee's recommended course of action with regard to DDJ Capital Management,

LLC

D4. Subject: Investment Market Overview as of December 31, 2021

From: Meketa Investment Group

Recommendation: ACCEPT informational report regarding the Global Investment Markets

as of December 31, 2021

D5. Subject: Preliminary Investment Fund Performance Update as of

December 31, 2021

From: Meketa Investment Group

Recommendation: ACCEPT informational report regarding the Preliminary Investment Fund

Performance Update as of December 31, 2021

D6. Subject: \$13.9 Million Drawdown for Member Retirement Allowances Fiscal

Year 2021/2022 (Quarter Ending March 2022)

From: Meketa Investment Group

Recommendation: APPROVE Meketa Investment Group recommendation of a \$13.9 million

drawdown, which includes a \$10.9 Million contribution from the City of Oakland and a \$3.0 Million contribution from the PFRS Investment Fund, to be used to pay for the January 1, 2022 through March 31, 2022

Member Retirement Allowances

OAKLAND POLICE AND FIRE RETIREMENT SYSTEM REGULAR BOARD MEETING **JANUARY 26, 2022**

D7. Asset Allocation Review and Update of the PFRS Fund Subject:

From: Meketa Investment Group

ACCEPT informational report regarding the asset allocation review of the Recommendation:

PFRS Fund and APPROVE Committee's recommended course of action

regarding PFRS Investment Portfolio Target Allocation

D8. Subject: Informational Overview Regarding **Developments** in

Environmental, Social, and Governance (ESG) Investing

Meketa Investment Group From:

overview regarding developments in ESG Recommendation: **ACCEPT** informational

investing

Resolution No. 8037 - Resolution Determining That Conducting E. Subject:

In-Person Meetings of the Police and Fire Retirement System (PFRS) Board and its Committees Would Present Imminent Risk to Health or Safety of Attendees and Electing to Continue to Conduct PFRS Board and Committee Meetings Using Teleconferencing in Accordance with California Government Code Section 54953(E) as Amended by California Assembly Bill No. 361 (September 16, 2021).

Staff of the PFRS Board From:

APPROVE Resolution No. 8037 -Recommendation: Resolution Determining That

> Conducting In-Person Meetings of the Police and Fire Retirement System (PFRS) Board and its Committees Would Present Imminent Risk to Health or Safety of Attendees and Electing to Continue to Conduct PFRS Board and Committee Meetings Using Teleconferencing in Accordance with California Government Code Section 54953(E) as Amended by California Assembly Bill No. 361 (September 16, 2021).

F. PENDING ITEMS

G. **NEW BUSINESS**

H. **OPEN FORUM**

I. **FUTURE SCHEDULING**

ADJOURNMENT J.

PFRS Board of Administration Special Meeting Minutes November 17, 2021 Page 1 of 6

A SPECIAL BOARD MEETING of the Oakland Police and Fire Retirement System ("PFRS") was held on Wednesday, November 17, 2021 via Zoom Webinar.

Board Members: • Walter L. Johnson President

Jaime T. Godfrey Vice President

Robert W. Nichelini MemberErin Roseman Member

John C. Speakman Member (Excused)

Kevin R. Traylor MemberR. Steven Wilkinson Member

Additional Attendees: • David F. Jones PFRS Secretary & Plan Administrator

Jennifer Logue
 Téir Jenkins
 Maxine Visaya
 PFRS Legal Counsel
 PFRS Staff Member
 PFRS Staff Member

Paola Nealon Meketa Investment Group
 Jason Leong Campbell Meketa Investment Group

The meeting was called to order at 11:31 a.m. PST

Burney Matthews, Officer on the ROPOA Board, introduced himself and thanked everyone on the PFRS Board for the work they have done this year.

A. PFRS Board Meeting Minutes – Member Nichelini made a motion to approve the October 27, 2021 Regular Board Meeting Minutes, second by Member Traylor. Motion passed.

[JOHNSON - ABSTAIN / GODFREY - Y / NICHELINI - Y / ROSEMAN - Y / SPEAKMAN - EXCUSED / TRAYLOR - Y / WILKINSON - Y]
(AYES: 5 / NOES: 0 / ABSTAIN: 1 / EXCUSED: 1)

B. AUDIT AND OPERATIONS COMMITTEE AGENDA - NOVEMBER 17, 2021

DUE TO TECHNICAL DIFFICULTIES, PRESIDENT JOHNSON REQUESTED VICE PRESIDENT GODFREY CHAIR THE MEETING

B1. Administrative Expenses Report – Staff Member Jenkins presented an informational report on PFRS's administrative expenditures as of September 30, 2021. PFRS has an approved annual budget of approximately \$3.5 million and have expensed approximately \$300,000 fiscal year-to-date. Membership consisted of 718 retired members, which included 437 Police Members and 281 Fire Members.

MOTION: Member Traylor made a motion to accept the administrative expenses report as of September 30, 2021, second by Member Nichelini. Motion passed.

B2. Reappointment of R. Steven Wilkinson to the PFRS Board as Insurance Representative – Plan Administrator Jones presented an informational report regarding Mayor Schaff's reappointment of R. Steven Wilkinson to the PFRS Board as Insurance Representative to serve a term commencing September 1, 2021 and ending August 31, 2026. Plan Administrator Jones expressed appreciation for his time, dedication, and hard work. Member Wilkinson expressed it has been a pleasure to serve, he has enjoyed being a part of this organization and looks forward to working with everyone for the next few years.

MOTION: Member Nichelini made a motion to approve the informational report regarding the reappointment of R. Steven Wilkinson to the PFRS Board as Insurance Representative to serve a term commencing September 1, 2021 and ending August 31, 2026, second by Member Roseman. Motion passed.

DUE TO TECHNICAL DIFFICULTIES, PRESIDENT JOHNSON WAS UNABLE TO PARTICPATE IN THE VOTE

[JOHNSON – ABSENT / GODFREY – Y / NICHELINI – Y / ROSEMAN – Y / SPEAKMAN – EXCUSED / TRAYLOR – Y / WILKINSON – Y]

(AYES: 5 / NOES: 0 / ABSENT: 1 / EXCUSED: 1)

B3. Resolution No. 8031 – R. Steven Wilkinson Travel – Resolution No. 8031 ratifying the Board President's approval of Oakland Police and Fire Retirement System Board Member R. Steven Wilkinson's request to attend the State Association Of County Retirement Systems Fall 2021 Conference from November 9, 2021 through November 12, 2021 in Hollywood, California and authorizing reimbursement of the costs for attendance in an amount not to exceed Two Thousand Dollars (\$2,000.00)

MOTION: Member Nichelini made a motion to approve Resolution No. 8031, second by Vice President Godfrey. Motion passed

DUE TO TECHNICAL DIFFICULTIES, PRESIDENT JOHNSON WAS UNABLE TO PARTICPATE IN THE VOTE

[JOHNSON – ABSENT / GODFREY – Y / NICHELINI – Y / ROSEMAN – Y / SPEAKMAN – EXCUSED / TRAYLOR – Y / WILKINSON – ABSTAIN]

(AYES: 4 / NOES: 0 / ABSENT: 1 / ABSTAIN: 1 / EXCUSED: 1)

- C. INVESTMENT & FINANCIAL MATTERS COMMITTEE AGENDA NOVEMBER 17, 2021
- C1. Investment Manager Performance Update Parametric Portfolio Associates, LLC Vice President Godfrey provided a brief summary of the presentation by Jim Roccas & Dan Ryan of Parametric Portfolio Associates, LLC (Parametric), a PFRS Covered Calls Investment Manager Vice President Godfrey highlighted the acquisition of parent company Eaton Vance by Morgan Stanley closed March 1, 2021 and Parametric is now a part of Morgan Stanley Investment Management. Parametric continues to be an autonomous stand-alone business and there have been no changes to investment side, aside from the planned retirement of Jay Strohmaier, Managing Director and Head of Investment Strategy with Alex Zweber stepping into the role. Vice President Godfrey also discussed the firm's Diversity, Equity, & Inclusion policy, practices, and future goals and noted portfolio performance has been above the benchmark since inception.

Paola Nealon had nothing further to add aside from Meketa continues to have confidence in Parametric as performance has been solid and they have no concerns from an organizational standpoint and recommend no changes be made at this time.

MOTION: Vice President Godfrey made a motion to accept the informational report regarding the Investment Manager Performance Update presented by Parametric, a PFRS Covered Calls Investment Manager, second by Member Nichelini. Motion Passed.

[JOHNSON - Y / GODFREY - Y / NICHELINI - Y / ROSEMAN - Y / SPEAKMAN - EXCUSED / TRAYLOR - Y / WILKINSON - Y]

(AYES: 6 / NOES: 0 / EXCUSED: 1)

C2. Investment Manager Performance Review – Parametric Portfolio Associates, LLC – Meketa Investment Group provided a review and evaluation regarding organizational changes, managerial assessment, diversity and inclusion policy and practices, and investment performance of Parametric, a PFRS Covered Calls Investment Manager. P. Nealon had no further comments in addition to those stated during the previous agenda item.

MOTION: Vice President Godfrey made a motion to approve the evaluation and recommendation provided by Meketa Investment Group regarding the Investment Manager Performance Review of Parametric, a PFRS Covered Calls Investment Manager, second by Member Nichelini, Motion Passed.

[JOHNSON - Y / GODFREY - Y / NICHELINI - Y / ROSEMAN - Y / SPEAKMAN - EXCUSED / TRAYLOR - Y / WILKINSON - Y]
(AYES: 6 / NOES: 0 / EXCUSED: 1)

C3. Resolution 8032 – Resolution 8032 authorizing a one-year extension of professional services agreement with Parametric Portfolio Associates, LLC for the provision of Covered Calls Asset Class Investment Manager Services, second by Member Wilkinson. Motion Passed

MOTION: Chairperson Godfrey made a motion to approve Resolution 8032 authorizing a one-year extension of professional services agreement with Parametric Portfolio Associates, LLC for the provision of covered Calls Asset Class Investment Manager Services, second by Member Nichelini. Motion Passed.

[JOHNSON - Y / GODFREY - Y / NICHELINI - Y / ROSEMAN - Y / SPEAKMAN - EXCUSED / TRAYLOR - Y / WILKINSON - Y]
(AYES: 6 / NOES: 0 / EXCUSED: 1)

C4. Investment Market Overview as of October 31, 2021 – Paola Nealon of Meketa Investment Group provided a brief report regarding the Investment Market Overview as of October 31, 2021. and highlighted the capital market outlook, valuation metrics, volatility metrics, market sentiment and current factors impacting outcomes.

MOTION: Vice President Godfrey made a motion to accept the informational report provided by Meketa Investment Group regarding the Investment Market Overview as of October 31, 2021, second by Member Traylor. Motion passed.

C5. Preliminary Investment Fund Performance Update as of October 31, 2021 – Paola Nealon of Meketa Investment Group provided a summary of the Preliminary Investment Fund Performance Update as of October 31, 2021 and highlighted the Asset Allocation vs. Targets and Policy and Asset Class Performance Summary.

MOTION: Vice President Godfrey made a motion to accept the informational report provided by Meketa Investment Group regarding the Preliminary Investment Fund Performance Update as of October 31, 2021, second by Member Nichelini. Motion Passed.

[JOHNSON -Y / GODFREY - Y / NICHELINI - Y / ROSEMAN - Y / SPEAKMAN - EXCUSED / TRAYLOR - Y / WILKINSON - Y]
(AYES: 6 / NOES: 0 / EXCUSED: 1)

C6. Investment Fund Quarterly Performance Update as of September 30, 2021 – Paola Nealon of Meketa Investment Group presented an informational report regarding PFRS Investment Fund Quarterly Performance Update as of September 30, 2021 and highlighted Market Returns and Asset Class Performance and noted despite volatility in September, the plan performance has continued to outpace the benchmark and meet PFRS's 6% return target goal over the 1, 3, and 5 year time period.

MOTION: Member Nichelini made a motion to accept and approve the informational report provided by Meketa Investment Group Investment regarding PFRS Investment Fund Quarterly Performance Update as of September 30, 2021, second by Member Traylor. Motion Passed.

[JOHNSON - Y / GODFREY - Y / NICHELINI - Y / ROSEMAN - Y / SPEAKMAN - EXCUSED / TRAYLOR - Y / WILKINSON - Y] (AYES: 6 / NOES: 0 / EXCUSED: 1)

C7. Asset Allocation Review and Update of the PFRS Fund – Vice President Godfrey reported the Investment Committee held a discussion regarding asset allocation and updates to the PFRS Fund and Committee Members requested additional information regarding the impact of gold in the portfolio be provided by Meketa Investment Group and Staff for review, consideration and further discussion and passed a motion to table this item until the next meeting.

MOTION: No action was taken on this item.

C8. Investment Manager Performance Review Follow-Up – Northern Trust Investments, Inc. – Vice President Godfrey reported Northern Trust Investments, Inc., a PFRS Domestic Equity Large-Cap Core Investment Manager, provided a memo in response to the Committee's request for additional information regarding the firm's performance evaluation net of fees and the formal Diversity, Equity and Inclusion policy at a previous meeting and such information was satisfactory at the Committee level.

MOTION: Vice President Godfrey made a motion to accept the informational report from Northern Trust Investments, Inc., second by Member Nichelini. Motion Passed

C9. Custodial Services Update Follow-Up – Northern Trust Company – Vice President Godfrey reported Northern Trust Company, PFRS custodial services provider, provided an informational report in response to the Committee's request for additional information regarding the cybersecurity and global technology and the Diversity, Equity and Inclusion policy and protocols of Northern Trust Company, PFRS custodial services provider

MOTION: Vice President Godfrey made a motion to accept the informational report regarding cybersecurity and global technology and the Diversity, Equity and Inclusion policy and protocols of Northern Trust Company, PFRS custodial services provider, second by Member Nichelini.

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[JOHNSON - Y / GODFREY - Y / NICHELINI - Y / ROSEMAN - Y / SPEAKMAN - EXCUSED / TRAYLOR - Y / WILKINSON - Y]
(AYES: 6 / NOES: 0 / EXCUSED: 1)
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D. Resolution No. 8033 – Resolution Electing to Continue to Conduct Police and Fire Retirement System Board and Committee Meetings Using Teleconferencing in Accordance with California Government Code Section 54953(E).

MOTION: Member Nichelini made a motion to approve Resolution No. 8033, second by Member Roseman. Motion passed.

[JOHNSON - Y / GODFREY - Y / NICHELINI - Y / ROSEMAN - Y / SPEAKMAN - EXCUSED / TRAYLOR - Y / WILKINSON - Y]
(AYES: 6 / NOES: 0 / EXCUSED: 1)

- E. Member Resolutions Nos. 8034 8035
- **E1. Resolution No. 8034** Resolution Fixing the Monthly Allowances of Surviving Spouse of the following Retired Member of the Police and Fire Retirement System in the amount indicated:

Deceased Member	Surviving Spouse	Monthly Allowance
Ronald Gunar	Karabeth Gunar	\$5.235.38

MOTION: Member Nichelini made a motion to approve Resolution 8034, second by Member Traylor. Motion passed.

```
[JOHNSON - Y / GODFREY - Y / NICHELINI - Y / ROSEMAN - Y / SPEAKMAN - EXCUSED / TRAYLOR - Y / WILKINSON - Y]
(AYES: 6 / NOES: 0 / EXCUSED: 1)
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- **E2. Resolution No. 8035** Resolution Approving Death Benefit Payment and Directing Warrants Thereunder in the Total Sum of \$1,000.00 Payable to the Beneficiaries of the following Deceased Members of the Police and Fire Retirement System:
 - Robert W. Allan
 - Walter Pierson

MOTION: Member Nichelini made a motion to approve Resolution 8035, second by Member Traylor. Motion passed.

PFRS Board of Administration Special Meeting Minutes November 17, 2021 Page 6 of 6

- **F. Pending Items** PFRS Staff Member Jenkins reported there is no Full Board Pending Items Report at this time.
- G. New Business No Report
- H. Open Forum No Report
- **I. Future Scheduling** Member Nichelini noted there is no urgent business to conduct and suggested the Board cancel the December meeting and move forward with the January meeting.

MOTION: Member Nichelini made a motion to cancel the December 29, 2021 meeting and tentatively schedule the next regular meeting to occur January 26, 2022, second by President Johnson. Motion passed.

[JOHNSON - Y / GODFREY - Y / NICHELINI - Y / ROSEMAN - Y / SPEAKMAN - EXCUSED / TRAYLOR - Y / WILKINSON - Y]
(AYES: 6 / NOES: 0 / EXCUSED: 1)

J. Adjournment – Vice President Godfrey made a motion to adjourn, second by Member Nichelini. Motion passed.

[JOHNSON - Y / GODFREY - Y / NICHELINI - Y / ROSEMAN - Y / SPEAKMAN - EXCUSED / TRAYLOR - Y / WILKINSON - ABSENT]
(AYES: 6 / NOES: 0 / EXCUSED: 1)

The meeting adjourned at 12:12 p.m. PST

DAVID F. JONES
PLAN ADMINISTRATOR & SECRETARY

DATE



Oakland Police and Fire Retirement System

Actuarial Valuation Report as of July 1, 2021

Produced by Cheiron

January 2022

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January 13, 2022

City of Oakland Police and Fire Retirement System Board 150 Frank H. Ogawa Plaza Oakland, CA 94612

Dear Members of the Board:

At your request, we have conducted an actuarial valuation of the Oakland Police and Fire Retirement System (PFRS, the Plan) as of July 1, 2021. This report contains information on the Plan's assets and liabilities. This report also discloses the employer contributions in accordance with the funding agreement between the City of Oakland and PFRS, based on the current financial status of the Plan. Your attention is called to the Foreword in which we refer to the general approach employed in the preparation of this report.

The purpose of this report is to present the results of the annual actuarial valuation of the Plan. This report is for the use of the Retirement Board and the auditors in preparing financial reports in accordance with applicable law and accounting requirements. Other users of this report are not intended users as defined in the Actuarial Standards of Practice, and Cheiron assumes no duty or liability to such other users.

The assumptions used in this report were adopted by the Board of Administration with our input at the February 28, 2018 Board meeting based on recommendations from our experience study covering plan experience for the period from July 1, 2014 through ending June 30, 2017. We believe these assumptions are reasonable for the purpose of the valuation.

The funding ratios in this report are for the purpose of establishing contribution rates. These measures are not appropriate for assessing the sufficiency of plan assets to cover the estimated cost of settling the plan's benefit obligations.

Cheiron utilizes ProVal actuarial valuation software leased from Winklevoss Technologies (WinTech) to calculate liabilities and project benefit payments. We have relied on WinTech as the developer of ProVal. We have a basic understanding of ProVal and have used ProVal in accordance with its original intended purpose. We have not identified any material inconsistencies in assumptions or output of ProVal that would affect this valuation.

Deterministic projections in this valuation report were developed using P-scan, a proprietary tool used to illustrate the impact of changes in assumptions, methods, plan provisions, or actual experience (particularly investment experience) on the future financial status of the Plan. P-scan uses standard roll-forward techniques. Because P-scan does not automatically capture how changes in one variable affect all other variables, some scenarios may not be consistent.

Stochastic projections in this valuation report were developed using R-scan, our proprietary tool for assessing the probability of different outcomes based on a range of potential investment

City of Oakland Police and Fire Retirement System Board January 13, 2022 Page ii

returns. We relied on Cheiron colleagues for the development of the model. The stochastic projections of investment returns assume that each future year's investment return is independent from all other years and is identically distributed according to a lognormal distribution. The standard deviation used in the stochastic projection of investment returns was provided by the Plan's investment consultant.

Future actuarial measurements may differ significantly from the current measurements due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; and, changes in plan provisions or applicable law.

This report and its contents have been prepared in accordance with generally recognized and accepted actuarial principles and practices and our understanding of the Code of Professional Conduct and applicable Actuarial Standards of Practice set out by the Actuarial Standards Board as well as applicable laws and regulations. Furthermore, as credentialed actuaries, we meet the Qualification Standards of the American Academy of Actuaries to render the opinion contained in this report. This report does not address any contractual or legal issues. We are not attorneys and our firm does not provide any legal services or advice.

Sincerely, Cheiron

Graham A. Schmidt, ASA, EA, FCA, MAAA

Consulting Actuary

Timothy S. Doyle, ASA, EA, MAAA

Associate Actuary



FOREWORD

Cheiron has performed the actuarial valuation of the Oakland Police and Fire Retirement System (PFRS, the Plan) as of July 1, 2021. The valuation is organized as follows:

- In Section I, the **Executive Summary**, we describe the purpose of an actuarial valuation, summarize the key results found in this valuation, and disclose important trends.
- The **Main Body** of the report presents details on the Plan's
 - Section II Identification and Assessment of Risks
 - Section III Assets
 - Section IV Liabilities
 - Section V Contributions
 - o Section VI Head Count and Benefit Payment Projections
- In the **Appendices**, we conclude our report with detailed information describing plan membership (Appendix A), actuarial assumptions and methods employed in the valuation (Appendix B), a summary of pertinent plan provisions (Appendix C), and a glossary of key actuarial terms (Appendix D).

The results of this report rely on future experience conforming to the underlying assumptions. To the extent that actual plan experience deviates from the underlying assumptions, the results would vary accordingly.

In preparing our report, we relied on information (some oral and some written) supplied by the Plan's staff. This information includes, but is not limited to, plan provisions, employee data, and financial information. We performed an informal examination of the obvious characteristics of the data for reasonableness and consistency in accordance with Actuarial Standard of Practice No. 23.



SECTION I – EXECUTIVE SUMMARY

The primary purpose of the actuarial valuation and this report is to measure, describe, and identify the following as of the valuation date:

- The financial condition of the Plan,
- Past and expected trends in the financial progress of the Plan,
- Calculation of the actuarially determined contributions for years beginning in Fiscal Year 2022-2023, and
- An assessment and disclosure of key risks.

In the balance of this Executive Summary, we present (A) the basis upon which this year's valuation was completed, (B) the key findings of this valuation including a summary of all key financial results, (C) an examination of the historical trends, and (D) the projected financial outlook for the Plan.

A. Valuation Basis

This valuation estimates the projected employer contributions in accordance with the funding agreement dated July 1, 2012 between the City of Oakland and the PFRS. Based on that agreement, employer contributions were suspended until fiscal year 2017-2018, at which time they resumed at a level based upon the recommendation of the actuary. Section V of this report shows the development of the employer contribution for fiscal year 2022-2023.

The Plan's funding policy is to contribute an amount equal to the sum of:

- The normal cost under the Entry Age Normal Cost Method (which is zero, as there are no active members),
- Amortization of the Unfunded Actuarial Liability, and
- The Plan's expected administrative expenses.

This valuation was prepared based on the plan provisions shown in Appendix C. There have been no changes in plan provisions since the prior valuation.

A summary of the assumptions and methods used in the current valuation is shown in Appendix B. There have been no changes to the actuarial assumptions or methods since the prior valuation.



SECTION I – EXECUTIVE SUMMARY

B. Key Findings of this Valuation

The key results of the July 1, 2021 actuarial valuation are as follows:

- The actuarially determined employer contribution amount for Fiscal Year 2022-2023 is \$32.7 million, based on projecting the Actuarial Liabilities and the Actuarial Value of Assets to the end of the 2021-2022 Fiscal Year. This represents a decrease of \$12.1 million from the estimated amount in the prior valuation for the same Fiscal Year. The contribution is assumed to be paid in equal installments throughout the year, or on average at approximately January 1, 2023.
- During the year ended June 30, 2021, the return on Plan assets was 24.14% on a market value basis net of investment expenses, as compared to the 6.00% assumption for the 2020-2021 Plan year. This resulted in a market value gain on investments of \$67.8 million. The Actuarial Value of Assets (AVA) is calculated as the expected AVA plus 20% of the difference between the market value and the expected AVA, which is restricted to be between 90% and 110% of the MVA. This smoothed value of assets returned 14.16%, for an actuarial asset gain of \$29.9 million. Without the 10% corridor, the actuarial asset gain would have been \$15.1 million.
- The Plan experienced a gain on the Actuarial Liability of \$6.6 million, the net result of changes in the population and changes in benefits. The primary factor was an excess of deaths above the number expected. Combining the liability and asset gains, the Plan experienced a total gain of \$36.5 million.
- The Plan's smoothed funded ratio, the ratio of Actuarial Value of Assets over Actuarial Liability, increased from 62.2% last year to 72.2% as of June 30, 2021.
- The Plan's funded ratio increased from 63.5% to 80.2% on a Market Value of Assets (MVA) basis.
- The Unfunded Actuarial Liability (UAL) is the excess of the Plan's Actuarial Liability over the Actuarial Value of Assets. The Plan experienced a decrease in the UAL from \$225.5 million to \$159.3 million as of July 1, 2021.
- Overall participant membership decreased compared to last year. 29 members died, 12 of whom had their benefits continue to a surviving spouse. In addition, 28 surviving beneficiaries died. There are no active members of the Plan.



SECTION I – EXECUTIVE SUMMARY

• If the contribution was determined using a projected asset value based on the current market (i.e., non-smoothed) value of assets, the contribution for FY 2022-2023 would be \$22.3 million. The contribution is smaller than that determined using the projected AVA, because the current market value reflects the full amount of prior investment gains, while under the AVA projection a portion of those gains are deferred until years after FY 2022-2023.

Below we present Table I-1 that summarizes all the key results of the valuation with respect to membership, assets and liabilities, and contributions. The results are presented and compared for both the current and prior plan year.

TABLE I-1 Summary of Principal Plan Results (\$ in thousands)									
	July 1, 2020 July 1, 2021 % Cha								
Participant Counts									
Active Participants		0		0					
Participants Receiving a Benefit		768		723	-5.9%				
Total		768		723	-5.9%				
Annual Pay of Active Members	\$	0	\$	0					
Assets and Liabilities									
Actuarial Liability (AL)	\$	597,014	\$	571,942	-4.2%				
Actuarial Value of Assets (AVA)		371,467		412,680	11.1%				
Unfunded Actuarial Liability (UAL)	\$	225,547	\$	159,262	-29.4%				
Funded Ratio (AVA)		62.2%		72.2%	9.9%				
Funded Ratio (MVA)		63.5%		80.2%	16.7%				
<u>Contributions</u>									
Employer Contribution (FY2021-22)	\$	43,820		N/A					
Employer Contribution (FY2022-23)	\$	44,828	\$	32,712	-27.0%				



SECTION I – EXECUTIVE SUMMARY

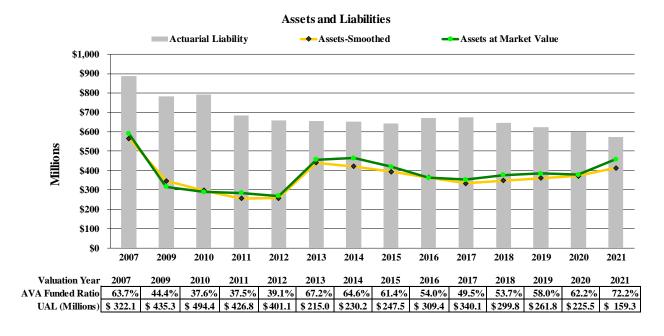
C. Historical Trends

Despite the fact that for most retirement plans the greatest attention is given to the current valuation results and in particular, the size of the current Unfunded Actuarial Liability and the employer contribution, it is important to remember that each valuation is merely a snapshot in the long-term progress of a pension fund. It is more important to judge a current year's valuation result relative to historical trends, as well as trends expected into the future.

Assets and Liabilities

The chart below compares the Market Value of Assets (MVA) and Actuarial Value of Assets (AVA) to the Actuarial Liabilities. The percentages shown in the table below the chart are the ratios of the Actuarial Value of Assets to the Actuarial Liability (the funded ratio). We note that for the GASB disclosure report, this ratio is disclosed using the MVA.

The funded ratio declined from 63.7% in 2007 to 37.5% in 2011 due to negative market returns and no contributions being made in that period (\$417 million in proceeds from a POB were deposited in 1997 that acted as prepayments for 15 years of contributions). The funded ratio increased between 2012 and 2013 due to a \$210 million contribution in July 2012. The funded ratio decreased from 67.2% to 49.5% between 2013 and 2017 due to assumption changes, liability losses, new Police MOUs, and the lack of contributions since the July 2012 payment. The funded ratio has increased from 49.5% to 72.2% over the past four years due to recommencement of contributions, the FYE 2021 asset gain, and to a lesser extent other asset and liability gains.

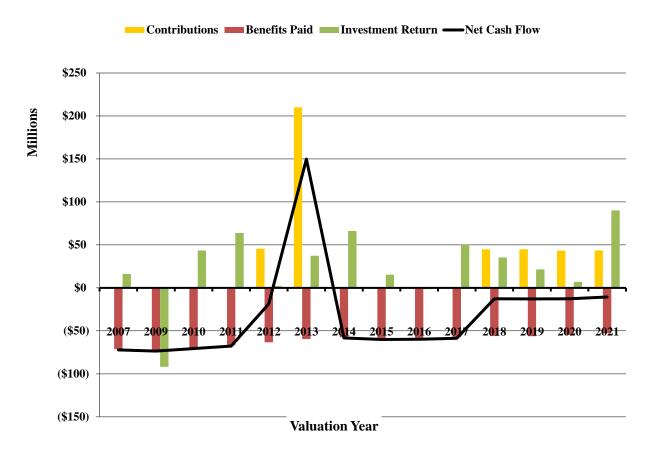




SECTION I – EXECUTIVE SUMMARY

Cash Flows

The chart below shows the Plan's cash flow, excluding investment returns (i.e., contributions less benefit payments and expenses). This is a critical measure, as it reflects the ability to have funds available to meet benefit payments without having to make difficult investment decisions, especially during volatile markets.



The contributions, benefit payments, investment returns, and Net Cash Flow (NCF) excluding investment returns and expenses are represented by the scale on the left. The Plan's net cash flow has been negative 13 of the last 14 fiscal years, primarily due to the lack of contributions except in 2013 and in the most recent four years. Even with the recommencing of contributions under the Plan's funding policy, benefit payments exceeded contributions for the prior four years, with a negative cash flow rate of around 3% of plan assets per year.

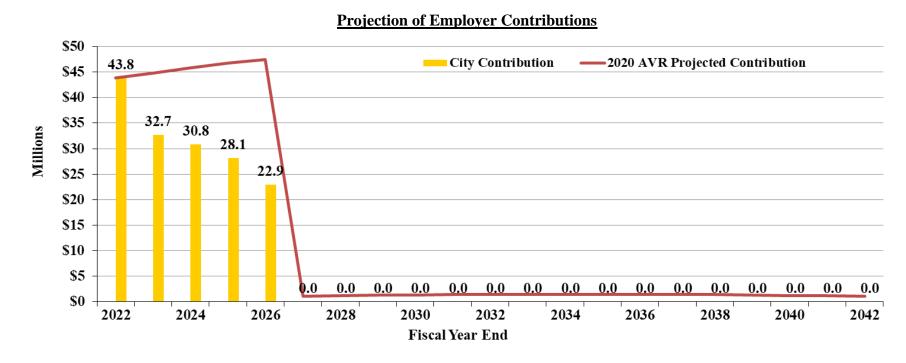
A negative cash flow magnifies the losses during a market decline, hindering the Plan in its ability to absorb market fluctuations. The implications of a plan in negative cash flow are that the impact of market fluctuations can be more severe: as assets are being depleted to pay benefits in down markets, there is less principal available to be reinvested during favorable return periods. The Plan is expected to have a growing negative cash flow position going forward, since the Plan is closed and the assets are expected to decline as the remaining benefits are paid out.



SECTION I – EXECUTIVE SUMMARY

D. Future Expected Financial Trends

The analysis of projected financial trends is perhaps the most important component of this valuation. In this section, we present our assessment of the implications of the July 1, 2021 valuation results in terms of benefit security (assets over liabilities) and contribution levels. All the projections in this section are based on the assumption that the Plan will exactly achieve the assumed rate of return each year (6.0% per year until 2027, then trending down to an annual return of 3.25% over 10 years).



The above graph shows a projection of the City's required contributions compared to the same projections from last year's report. The City's required contribution decreased from \$43.8 million in fiscal year 2022 to \$32.7 million in fiscal year 2023, and then is expected to decrease by about \$2 million per year for the next two years and by \$5 million in the fourth year as the current unfunded liability is fully amortized and recent asset gains are recognized. This assumes that the annual payments by the City will equal the administrative



SECTION I – EXECUTIVE SUMMARY

expenses, plus an amount needed to amortize the remaining unfunded liability as a level percentage of overall Safety payroll by July 1, 2026, as is required under the City's charter.

After July 1, 2026, the UAL is expected to be fully amortized, and the contribution would generally be equal to the administrative expense, beginning in 2026-2027. However, under the current asset smoothing method there are still expected to be some deferred asset gains, which will not be recognized until after 2026; the deferred recognition of these gains is expected to offset all of the administrative expenses in the final years of the graph on the previous page.

Note that the graph on the previous page does not forecast any future actuarial gains or losses or changes to the amortization policy. Even relatively modest losses could push the employer contribution over \$40 million in the next few years. We also note that the occurrence of any future gains or losses in the years leading up to or following the required full amortization date (July 1, 2026) may require a reconsideration of the funding policy for those gains or losses, as otherwise these changes would need to be recognized over an extremely short period.



SECTION I – EXECUTIVE SUMMARY

Asset and Liability Projections:

The following graph shows the projection of assets and liabilities assuming that assets will earn the assumed rate of return each year during the projection period.

Projection of Assets and Liabilities



The graph shows that the projected funded status increases as the current unfunded liability is fully amortized, assuming all actuarial assumptions are met. Once the Plan is projected to reach 100% funding, both the assets and liabilities are expected to decline as the Plan continues to mature.



SECTION II – IDENTIFICATION AND ASSESSMENT OF RISKS

Actuarial valuations are based on a set of assumptions about future economic and demographic experience. These assumptions represent a reasonable estimate of future experience, but actual future experience will undoubtedly be different and may be significantly different. This section of the report is intended to identify the primary risks to the plan, provide some background information about those risks, and provide an assessment of those risks.

Identification of Risks

The fundamental risk to a pension plan is that the contributions needed to pay the benefits become unaffordable. While the Plan cannot determine on its own what contribution level is unaffordable, we can project expected contributions and illustrate the potential impact of key sources of risk on those contribution rates so the City can assess affordability. While there are a number of factors that could lead to contribution amounts becoming unaffordable, we believe the primary sources are:

- Investment risk,
- COLA risk,
- Longevity risk, and
- Contribution risk.

Other risks that we have not identified may also turn out to be important.

Investment Risk is the potential for investment returns to be different than expected. Lower investment returns than anticipated will increase the Unfunded Actuarial Liability necessitating higher contributions in the future unless there are other gains that offset these investment losses. In contrast, higher investment returns than anticipated may create a potentially significant surplus that could be difficult to use until all benefits have been paid. Expected future investment returns and their potential volatility are determined by the Plan's asset allocation.

COLA Risk is the potential for future COLAs to increase contributions. Retirement allowances are based on the pensionable compensation attached to the average rank held during the three years immediately preceding retirement. Cost-of-living adjustments are therefore based on salary increases for current employees with the retiree's same rank at retirement. Salary increases less than or greater than those assumed cause gains or losses, respectively. COLA increases different from those expected over the last nine years are reflected in the "MOU Changes" column in the chart on the next page.

Longevity risk is the potential for mortality experience to be different than expected. Generally, longevity risk emerges slowly over time and is often exceeded by other changes, particularly those due to investment returns. However, for a closed plan such as PFRS the mortality experience will have a significant impact on future cash flows. The chart on the next page shows the liability gains and losses over the last nine years compared to the total change in the UAL for each year, a portion of which is associated with mortality experience.



SECTION II – IDENTIFICATION AND ASSESSMENT OF RISKS

Contribution risk is the potential for actual future actuarially determined contributions to deviate from expected future contributions. The City Charter sets the Plan's contribution policy. It requires the unfunded liability of the plan to be fully amortized by June 20, 2026. The Actuarially Determined Contribution (ADC) is based on a short remaining amortization period. As a result, a significant loss or change in assumptions may cause a large increase in the ADC.

The table below shows a nine-year history of changes in the UAL by source.

TABLE II-1 UAL Change by Source (\$ in Thousands) Contributions MOU Assumption vs. Tread Liability Total UAL FYE Changes Changes Water Investments Experience Change									
2013	\$	4,091	\$ 0	\$	(188,922)	\$	(3,803)	\$ 2,592	\$ (186,042)
2014		0	30,598		15,146		(10,729)	(19,869)	15,147
2015		0	0		17,023		(6,171)	6,522	17,374
2016		43,480	0		15,033		486	2,830	61,829
2017		0	22,730		22,888		(4,958)	(9,959)	30,702
2018		(1,475)	0		(24,214)		(7,128)	(7,467)	(40,284)
2019		(7,173)	0		(26,691)		(5,919)	1,797	(37,986)
2020		(6,541)	0		(27,417)		(1,877)	(417)	(36,252)
2021		0	0		(29,775)		(29,872)	(6,637)	(66,284)
Total	\$	32,383	\$ 53,328	\$	(226,927)	\$	(69,971)	\$ (30,608)	\$ (241,796)

The UAL was reduced by approximately \$241.8 million over the last nine years. Contributions in excess of the "tread water" level (i.e., interest on the UAL plus administrative expenses) reduced the UAL by \$226.9 million, liability experience reduced the UAL by \$30.6 million, and investment returns decreased the UAL by \$70.0 million. Meanwhile changes to MOUs increased the UAL by \$32.4 million and assumption changes increased the UAL by \$53.3 million.

Plan Maturity Measures

The future financial condition of a mature pension plan is more sensitive to each of the risks identified above than a less mature plan. Before assessing each of these risks, it is important to understand the maturity of the plan.

Plan maturity can be measured in a variety of ways, but they all get at one basic dynamic – the larger the plan is compared to the contribution or revenue base that supports it; the more sensitive the plan will be to risk. Given that the Plan has been closed to new entrants since 1976 with no remaining active members, the Plan considered as a standalone entity is very mature, though because of the diminishing benefit cash flows it is expected to have a declining impact on the overall City finances.

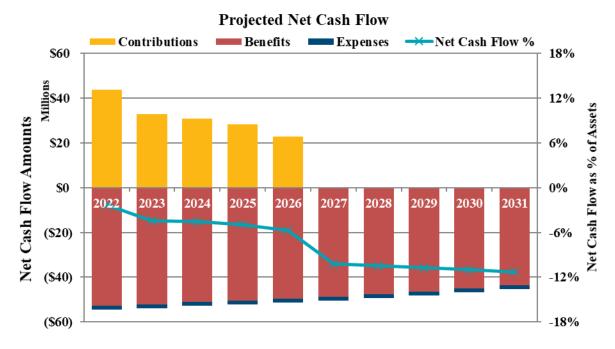


SECTION II – IDENTIFICATION AND ASSESSMENT OF RISKS

Net Cash Flow

The net cash flow of the plan as a percentage of the beginning of year assets indicates the sensitivity of the plan to short-term investment returns. Net cash flow is equal to contributions less benefit payments and administrative expenses. Mature plans can have large amounts of benefit payments compared to contributions, particularly if they are well funded.

The chart below shows the projected net cash flow for the next 10 fiscal years. The bars represent the dollar amounts of the different components of the projected net cash flow, and the line represents the net cash flow as a percentage of the assets as of the beginning of the fiscal year.



The Plan's contributions are expected to cease following the 2025-2026 Fiscal Year once the unfunded liability has been paid off. Beyond that point, the negative net cash flows are expected to continue until all benefits are paid.

The first issue this change presents to the Plan is a need for liquidity in the investments so that benefits can be paid. When the cash flow was positive or close to neutral, benefits could be paid out of contributions without liquidating investments. As net cash flow becomes increasingly negative, the benefit payments will require liquidation of some investments.

The other change of note is the sensitivity to short-term investment returns. Investment losses in the short term are compounded by the net withdrawal from the plan leaving a smaller asset base to try to recover from the investment losses. On the other hand, large investment gains in the short term also tend to have a longer beneficial effect as any future losses are relative to a smaller liability base due to the negative cash flow.

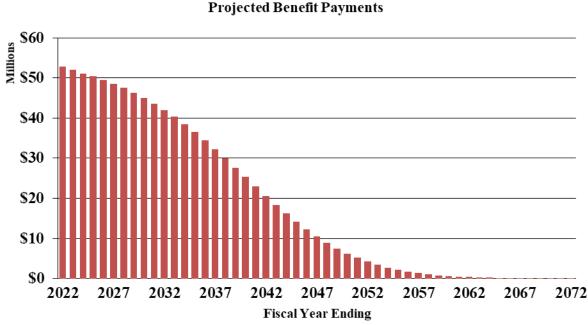


SECTION II – IDENTIFICATION AND ASSESSMENT OF RISKS

Assessing Costs and Risks

A closed pension plan will ultimately either end up with excess assets after all benefits have been paid or run out of assets before all benefits have been paid. The declining investment return assumption adopted by the Board implies an expectation the Plan will pursue a strategy of de-risking the Plan to minimize the impact of these scenarios, potentially by reducing the risk in its investment portfolio, immunizing investments, and/or purchase annuities to settle the remaining obligation.

However, even if the Plan were to run out of assets, PFRS would be forced to pay benefits directly on a pay-as-you-go basis. As long as PFRS (and the City) can afford the pay-as-you-go costs, benefits would remain secure. The chart below shows a projection of expected benefit payments for the closed plan.

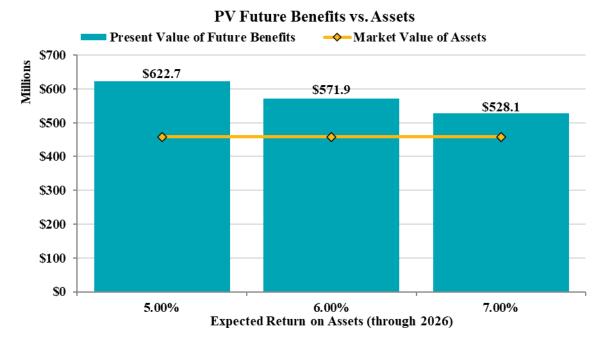


Sensitivity to Investment Returns

The chart on the next page compares assets to the present value of all projected future benefits discounted at the current expected rates of return – starting at 6.00% through 2026 and trending down to 3.25% over the following 10 years – and at investment returns 100 basis points above and below the expected rates of return for all years. The present value of future benefits is shown as a teal bar and the Market Value of Assets is shown by the gold line.



SECTION II – IDENTIFICATION AND ASSESSMENT OF RISKS



If actual investment returns meet the expected returns annually, the Plan would need approximately \$572 million in assets today to pay all projected benefits compared to current assets of \$458 million. If investment returns are 100 basis points lower each year, the Plan would need approximately \$623 million in assets today, and if investment returns are 100 basis points higher, the Plan would need approximately \$528 million in assets today.

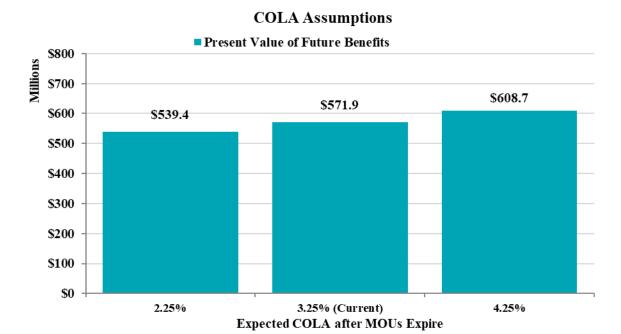
Sensitivity to COLA Changes

The present value of future benefits shown above assumes annual COLA increases of 3.25% per year once the current MOUs have expired. If COLA inflation is higher (because of higher than expected increases in the salaries of active employees); more assets would be needed to pay the benefits, and if COLA inflation is lower; fewer assets would be needed to pay benefits.

The chart on the next page shows the present value of all projected future benefits (discounted using the current expected rates of return) based on annual COLA increases of 3.25% per year once the current MOUs have expired – and at COLA increases 100 basis points above and below the current COLA assumptions.



SECTION II – IDENTIFICATION AND ASSESSMENT OF RISKS



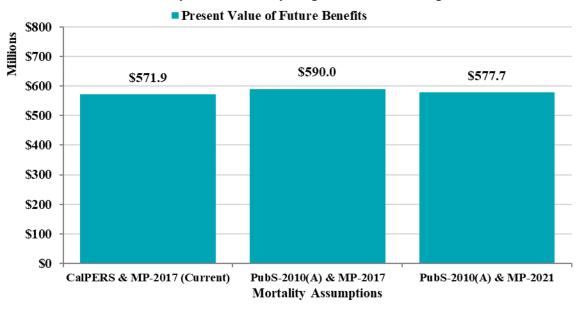
Sensitivity to Mortality Assumption Changes

The following chart on the next page shows the sensitivity of the Plan to longevity / mortality experience. In the first bar, we have shown the present value of benefits using the Plan's current mortality assumptions (i.e., using the 2017 CalPERS mortality assumptions, with projections for generational improvements using the Society of Actuary's MP-2017 improvement scales). In the second bar, we have shown the impact on the present value of benefits if actual longevity experience follows an alternative set of assumptions, reflecting new tables that have been developed using the experience Public Safety employees of U.S. public employers. In the third bar, we have shown an additional alternative, using the Public Sector table described above, but also reflecting a slower rate of future improvements in longevity, as reflected by the Society of Actuary's latest improvement scale (MP-2021). As always, actual experience will drive costs, but this exhibit provides an example of the level of sensitivity of the Plan's liabilities to recent changes in outlooks on mortality.



SECTION II – IDENTIFICATION AND ASSESSMENT OF RISKS

Mortality and Mortality Improvement Assumptions



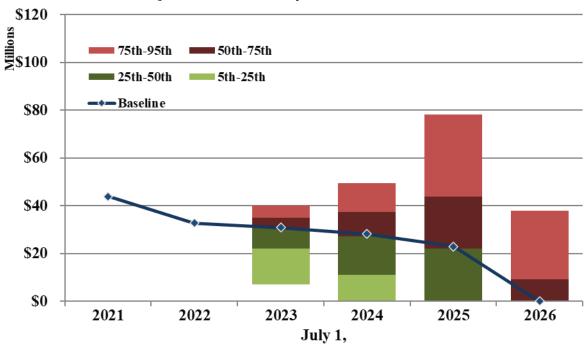
Stochastic Projections

The stochastic projections of contributions through the full funded date (June 30, 2026) in the chart on the following page shows a very wide range in future ADC's. This range is driven both by the volatility of investment returns (assumed to be 10.2% in these projections, based on previous information provided by Meketa) and by the short amortization period used to calculate the ADC. We note that if the Plan is required to remain fully funded after 2026, the contributions required will also vary widely.

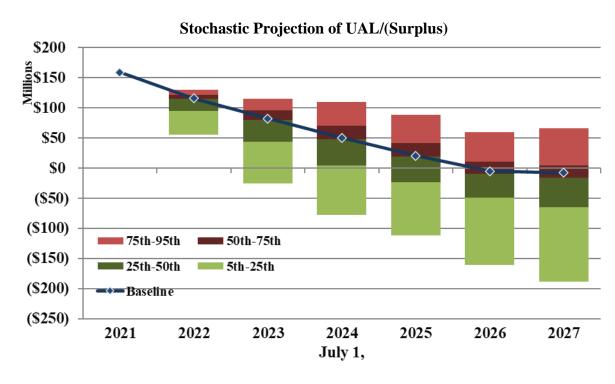


SECTION II - IDENTIFICATION AND ASSESSMENT OF RISKS





The chart below shows the projection of the UAL through the full funding date. While the UAL is projected in the baseline to be eliminated by 2026, because of the statutory requirement to fully fund the Plan by that time, there is still a wide range of potential outcomes.





SECTION II – IDENTIFICATION AND ASSESSMENT OF RISKS

More Detailed Assessment

A detailed assessment of risk would be valuable in understanding the risks identified above, especially given the closed nature of the plan. We encourage the Board to consider a more detailed analysis of some of the risks identified above, in particularly in developing a funding strategy to deal with changes in the UAL after the required full funding date.



SECTION III – ASSETS

Pension Plan assets play a key role in the financial operation of the Plan and in the decisions the Board may make with respect to future deployment of those assets. The level of assets, the allocation of assets among asset classes, and the methodology used to measure assets will likely impact benefit levels, employer contributions, and the ultimate security of participants' benefits.

In this section, we present detailed information on Plan assets including:

- **Disclosure** of Plan assets as of June 30, 2020 and June 30, 2021,
- Statement of the **changes** in market values during the year, and
- Development of the **Actuarial Value of Assets**.

Disclosure

There are two types of asset values disclosed in the valuation, the Market Value of Assets and the Actuarial Value of Assets. The market value represents "snapshot" or "cash out" values, which provide the principal basis for measuring financial performance from one year to the next. Market values, however, can fluctuate widely with corresponding swings in the marketplace. As a result, market values are sometimes not as suitable for long-range planning as are the Actuarial Value of Assets, which reflect smoothing of annual investment returns.

Table III-1 discloses and compares each component of the market asset value as of June 30, 2020 and June 30, 2021.

TABLE III-1 Statement of Assets at Market Value June 30, (in thousands)								
		2020		2021				
Cash and Cash Equivalents	\$	6,346	\$	6,324				
Receivables		8,079		2,462				
Investments, at Fair Value		404,721	_	503,781				
Total Assets	\$	419,146	\$	512,567				
Liabilities		40,171		54,034				
Market Value of Assets	\$	378,975	\$	458,533				



SECTION III – ASSETS

Changes in Market Value

The components of asset change are:

- Contributions (employer and employee)
- Benefit payments
- Administrative Expenses
- Investment income (realized and unrealized, net of investment expenses)

Table III-2 below shows the components of a change in the Market Value of Assets during 2020 and 2021.

TABLE III-2 Changes in Market Values June 30, (in thousands)							
		<u>2020</u>		<u>2021</u>			
Contributions	ф		ф	0			
Contributions of Plan Members	\$	0	\$	0			
Contributions from the City	_	43,409	-	43,648			
Total Contributions	_	43,409	-	43,648			
Investment Income							
Miscellaneous Income		0		1			
Investment Income	_	6,997	_	90,191			
Total Investment Income		6,997	_	90,192			
Disbursements							
Benefit Payments		(54,619)		(52,697)			
Administrative Expenses		(1,523)		(1,585)			
Total Disbursements	_	(56,142)	-	(54,282)			
Net increase (Decrease)		(5,736)		79,558			
Net Assets Held in Trust for Benefits:							
Beginning of Year		384,711	_	378,975			
End of Year	\$	378,975	\$ _	458,533			
Approximate Return		1.85%		24.14%			



SECTION III – ASSETS

Actuarial Value of Assets (AVA)

The Actuarial Value of Assets represents a "smoothed" value developed by the actuary to reduce the volatile results, which could develop due to short-term fluctuations in the Market Value of Assets. For this Plan, the Actuarial Value of Assets is calculated on a modified market-related value. The Actuarial Value of Assets recognizes one-fifth of the difference between the expected asset value (based on the 6.00% return assumption from 2020-2021) and the actual market value each year. The actuarial value is restricted to fall between 90% and 110% of the market value.

TABLE III-3 Development of Actuarial Value of Assets (in thousands)	
 Calculate Expected Actuarial Value of Assets a. Value of Actuarial Value of Assets - July 1, 2020 b. Total Contributions and Misc Income c. Administrative Expense d. Benefit Payments e. Expected Investment Earnings f. Expected Actuarial Value of Assets - July 1, 2021	\$ 371,467 43,649 (1,585) (52,697) 21,974 382,808
 a. Value of Market Value of Assets - July 1, 2021 b. Excess of MVA over Expected AVA [2a - 1f] c. Preliminary AVA [1f + 0.2 * 2b] d. 90% of MVA [90% * 2a] e. 110% of MVA [110% * 2a] 	\$ 458,533 75,725 397,953 412,680 504,386
3. Final Actuarial Value of Assets [2c, not less than 2d or greater than 2e]	\$ 412,680



SECTION III – ASSETS

Investment Performance

The following table calculates the investment related gain/loss for the plan year on both a market value and an actuarial value basis. The market value gain/loss is an appropriate measure for comparing the actual asset performance to the previous valuation's 6.00% assumption.

TABLE III-4 Asset Gain/(Loss) (in thousands)								
		Market Value	Actuarial Value					
July 1, 2020 value	\$	378,975 \$	371,467					
Contributions of Plan Members		0	0					
Contributions from the City		43,648	43,648					
Miscellaneous Income		1	1					
Benefit Payments		(52,697)	(52,697)					
Administrative Expenses		(1,585)	(1,585)					
Expected Investment Earnings (6.00%)		22,424	21,974					
Expected Value June 30, 2021	\$	390,766 \$	382,808					
Investment Gain / (Loss)		67,767	29,872					
July 1, 2021 value		458,533 \$	412,680					
Return		24.14%	14.16%					



SECTION IV – LIABILITIES

In this section, we present detailed information on Plan liabilities including:

- **Disclosure** of Plan liabilities on July 1, 2020 and July 1, 2021
- Statement of **changes** in these liabilities during the year

Disclosure

Several types of liabilities are typically shown in an actuarial valuation report. Each type is distinguished by the people ultimately using the figures and the purpose for which they are using them. Note that these liabilities are not applicable for settlement purposes, including the purchase of annuities and the payment of lump sums.

- **Present Value of Future Benefits:** Used for measuring all future Plan obligations, the obligations of the Plan earned as of the valuation date and those to be earned in the future by current plan participants under the current Plan provisions, if all assumptions are met.
- Actuarial Liability: Used for funding calculations, this liability is calculated taking
 the present value of future benefits and subtracting the present value of future normal
 costs under an acceptable actuarial funding method. Because the Plan has no active
 members, the Actuarial Liability is equal to the present value of future benefits (i.e.,
 all benefits are fully accrued).
- **Unfunded Actuarial Liability:** The excess of the Actuarial Liability over the Actuarial Value of Assets.

Table IV-1 on the next page discloses each of these liabilities for the current and prior valuations.



SECTION IV – LIABILITIES

TABLE IV-1 Liabilities/Net (Surplus)/Unfunded (in thousands)								
		July 1, 2020	July 1, 2021					
Present Value of Future Benefits								
Active Participant Benefits	\$	0 \$	0					
Retiree and Inactive Benefits		597,014	571,942					
Present Value of Future Benefits (PVB)	\$	597,014 \$	571,942					
Actuarial Liability								
Present Value of Future Benefits (PVB)	\$	597,014 \$	571,942					
Present Value of Future Normal Costs (PVFNC)		0	0					
Actuarial Liability (AL = PVB – PVFNC)	\$	597,014 \$	571,942					
Actuarial Value of Assets (AVA)		371,467	412,680					
Net (Surplus)/Unfunded (AL – AVA)	\$	225,547 \$	159,262					



SECTION IV – LIABILITIES

Changes in Liabilities

Each of the liabilities disclosed in the prior table is expected to change at each valuation. The components of that change, depending upon which liability is analyzed, can include:

- New hires since the last valuation (not applicable for this Plan)
- Benefits accrued since the last valuation (not applicable for this Plan)
- Plan amendments
- Passage of time which adds interest to the prior liability
- Benefits paid to retirees since the last valuation
- Participants retiring, terminating, dying, or receiving COLA adjustments at rates different than expected
- A change in actuarial or investment assumptions
- A change in the actuarial funding method or software

Unfunded liabilities will change because of all of the above and also due to changes in Plan assets resulting from:

- Employer contributions different than expected
- Investment earnings different than expected
- A change in the method used to measure plan assets

TABLE IV-2 Changes in Actuarial Liability (in thousands)								
Actuarial Liability at July 1, 2020	\$	597,014						
Actuarial Liability at July 1, 2021	\$	571,942						
Liability Increase (Decrease)	\$	(25,072)						
Change due to:								
Plan Design Changes	\$	0						
Assumption Change		0						
Accrual of Benefits		0						
Actual Benefit Payments		(52,697)						
Interest		34,263						
Data Corrections		0						
Actuarial Liability (Gain)/Loss	\$	(6,638)						



SECTION IV – LIABILITIES

TABLE IV-3 Liabilities by Group as of July 1, 2021 (in thousands)										
		Police		Fire		Total				
Actuarial Accrued Liability										
Active	\$	0	\$	0	\$	0				
Service Retirees		217,349		71,416		288,765				
Disabled Retirees		79,716		77,835		157,550				
Beneficiaries		72,994		52,633		125,627				
Total Accrued Liability	\$	370,058	\$	201,883	\$	571,942				



SECTION IV – LIABILITIES

TABLE IV-4 Development of Actuarial Gain / (Loss) (in thousands)	
Unfunded Actuarial Liability at Start of Year (not less than zero) \$ \\$	225,547
2. Employer Normal Cost at Start of Year	0
3. Interest on 1. and 2. to End of Year	13,533
4. Contributions and Miscellaneous Income for Prior Year	43,649
5. Administrative Expenses	(1,585)
6. Interest on 4. and 5. to End of Year	1,244
7. Change in Unfunded Actuarial Liability Due to Changes in Assumptions	0
8. Change in Unfunded Actuarial Liability Due to Changes in Actuarial Methods	0
9. Change in Unfunded Actuarial Liability Due to Changes in Plan Design	0
10. Change in Unfunded Actuarial Liability Due to Data Corrections	0
11. Expected Unfunded Actuarial Liability at End of Year [1. + 2. + 3 4 5 6. + 7. + 8. + 9. + 10.] \$	195,772
12. Actual Unfunded Actuarial Liability at End of Year (not less than zero)	159,262
13. Unfunded Actuarial Liability Gain / (Loss) [11. – 12.] \$	36,509



SECTION V – CONTRIBUTIONS

In the process of evaluating the financial condition of any pension plan, the actuary analyzes the assets and liabilities to determine what level (if any) of contributions is needed to properly maintain the funding status of the Plan. Typically, the actuarial process will use a funding technique that will result in a pattern of contributions that are both stable and predictable.

For this Plan, the actuarial funding method used to determine the normal cost and the Unfunded Actuarial Liability is the **Entry Age Normal Cost Method**.

The normal cost rate is determined with the normal cost percentage equal to the total projected value of benefits at entry age, divided by present value of future salary at entry age. Since there are no longer any active employees, the normal cost for this plan is \$0.

The Unfunded Actuarial Liability is the difference between the EAN Actuarial Liability and the Actuarial Value of Assets. For the contribution projections, the UAL payment is based on the unfunded liability of the Plan being fully amortized by June 30, 2026, in accordance with the City Charter. Amortization payments are determined based on an assumption that payments will increase by 3.25% each year, reflecting the assumed ultimate rate of increase in overall City Safety member salaries.

An amount equal to the expected administrative expenses for the Plan is added directly to the actuarial cost calculation.

Table V-1 on the next page shows the employer contribution amount for the 2022-2023 Fiscal Year. The projected assets and liabilities assume that all actuarial assumptions are met and that contributions are made as expected between now and June 30, 2022.

For this calculation, we have shown the contribution amount using both the projected actuarial and Market Value of Assets. The current funding policy uses the AVA to determine the UAL and the associated amortization payment. We have included the contribution amount as determined using the current Market Value of Assets to demonstrate what the actuarial cost would be if all deferred asset gains were fully recognized at the time the contributions commence. In both cases, the contribution is based on an assumption that the investment returns will exactly equal the assumed rate of return during the 2021-2022 Fiscal Year.



SECTION V – CONTRIBUTIONS

TABLE V-I Development of Projected 2022-2023 Employer Contribution Amount (in thousands)

(III CHOGGUIGG)				
	Actuarial Value of Assets		7	Market Value of Assets
Value of Assets at June 30, 2021: a. Expected Contributions and Misc Income b. Expected Administrative Expense	\$ \$ \$	412,680 43,820 (1,693)	\$ \$ \$	458,533 43,820 (1,693)
c. Expected Benefit Payments d. Expected Investment Earnings 2. Expected Value of Assets at June 30, 2022:	\$ \$ \$	(51,839) <u>24,474</u> 427,441	\$ \$ \$	(51,839) 27,225 476,045
a. Excess of Expected MVA over Expected AVA b. Preliminary AVA [Expected AVA + 20% * 2a] c. 90% of Expected MVA d. 110% of Expected MVA	\$ \$ \$ \$	48,604 437,162 428,441 523,650	Ψ	+70,0+3
 3. Final Expected AVA [2b, not less than 2c or greater than 2d] 4. Entry Age Liability at June 30, 2021 5. Expected Benefit Payments 6. Expected Interest 	\$ \$ \$	437,162 571,942 (51,839) 32,784	\$ \$ \$ \$	476,045 571,942 (51,839) 32,784
 7. Expected Entry Age Liability at June 30, 2022 8. Projected Unfunded Actuarial Liability: (7) - (3) 9. Funded Ratio: (3) / (7) 	\$ \$	552,886 115,725 79.1%	\$	552,886 76,841 86.1%
10. Unfunded Actuarial Liability Amortization at Middle of Year as a Level Percentage of Payroll (4 Years Remaining) as of June 30, 2022	\$	30,971	\$	20,565
11. Expected Administrative Expenses for Fiscal 2022-202312. Total Contribution: (10) + (11)	<u>\$</u> \$	1,741 32,712	<u>\$</u> \$	1,741 22,305



SECTION VI – HEADCOUNT AND BENEFIT PAYMENT PROJECTIONS

TABLE VI-1												
Benefit Payment and Headcount Projection												
	Police Fire Total											
Fiscal Year		1 one			THE			Iviai				
Ending		I	Benefits		В	Senefits		E	Benefits			
June 30,	Count	(in	thousands)	Count	(in t	housands)	Count	(in t	thousands)			
2022	439.0	\$	31,507	284.0	\$	20,333	723.0	\$	51,839			
2023	424.8	\$	31,419	270.6	\$	19,654	695.3	\$	51,072			
2024	410.6	\$	31,287	257.1	\$	18,788	667.6	\$	50,076			
2025	396.3	\$	31,030	243.6	\$	18,441	640.0	\$	49,471			
2026	382.0	\$	30,713	230.4	\$	17,905	612.4	\$	48,618			
2027	367.5	\$	30,330	217.3	\$	17,340	584.8	\$	47,670			
2028	352.7	\$	29,870	204.5	\$	16,747	557.2	\$	46,617			
2029	337.6	\$	29,327	192.0	\$	16,126	529.6	\$	45,453			
2030	322.2	\$	28,691	179.7	\$	15,478	501.9	\$	44,170			
2031	306.4	\$	27,958	167.7	\$	14,803	474.1	\$	42,760			
2032	290.1	\$	27,120	156.0	\$	14,099	446.1	\$	41,219			
2033	273.5	\$	26,176	144.5	\$	13,368	418.0	\$	39,544			
2034	256.5	\$	25,126	133.2	\$	12,611	389.7	\$	37,737			
2035	239.2	\$	23,973	122.2	\$	11,831	361.4	\$	35,804			
2036	221.6	\$	22,724	111.5	\$	11,033	333.1	\$	33,757			
2037	204.0	\$	21,391	101.1	\$	10,221	305.1	\$	31,611			
2038	186.4	\$	19,985	91.1	\$	9,402	277.5	\$	29,388			
2039	169.0	\$	18,524	81.5	\$	8,585	250.5	\$	27,109			
2040	152.0	\$	17,026	72.3	\$	7,778	224.3	\$	24,804			
2041	135.6	\$	15,513	63.6	\$	6,989	199.2	\$	22,502			
2042	119.8	\$	14,006	55.6	\$	6,228	175.4	\$	20,234			
2043	104.9	\$	12,528	48.1	\$	5,502	153.0	\$	18,030			
2044	91.0	\$	11,097	41.2	\$	4,819	132.2	\$	15,916			
2045	78.1	\$	9,731	35.1	\$	4,184	113.2	\$	13,915			
2046	66.4	\$	8,447	29.5	\$	3,601	95.9	\$	12,048			
2047	55.8	\$	7,255	24.7	\$	3,073	80.5	\$	10,329			
2048	46.5	\$	6,167	20.4	\$	2,600	66.8	\$	8,767			
2049	38.3	\$	5,186	16.7	\$	2,182	55.0	\$	7,368			
2050	31.2	\$	4,317	13.6	\$	1,816	44.8	\$	6,133			
2051	25.1	\$	3,557	11.0	\$	1,500	36.1	\$	5,057			



SECTION VI – HEADCOUNT AND BENEFIT PAYMENT PROJECTIONS

TABLE VI-1 Benefit Payment and Headcount Projection (Continued)									
	Police				Fire			Total	
Fiscal Year Ending June 30,	Count		Genefits Chousands)	Count		enefits nousands)	Count		enefits housands)
2052	20.1	\$	2,901	8.8	\$	1,230	28.8	\$	4,132
2052	15.8	\$ \$	2,343	7.0	\$ \$	1,002	22.8	\$ \$	3,346
2054	12.4	\$	1,875	5.5	\$	812	17.9	\$	2,687
2055	9.6	\$	1,486	4.3	\$	654	13.9	\$	2,140
2056	7.4	\$	1,168	3.3	\$	524	10.7	\$	1,692
2057	5.6	\$	911	2.6	\$	417	8.2	\$	1,328
2058	4.3	\$	706	2.0	\$	331	6.2	\$	1,037
2059	3.2	\$	543	1.5	\$	261	4.7	\$	804
2060	2.4	\$	415	1.1	\$	205	3.5	\$	621
2061	1.8	\$	316	0.9	\$	160	2.6	\$	476
2062	1.3	\$	238	0.7	\$	124	2.0	\$	362
2063	1.0	\$	178	0.5	\$	95	1.4	\$	273
2064	0.7	\$	132	0.4	\$	72	1.0	\$	204
2065	0.5	\$	97	0.3	\$	54	0.8	\$	151
2066	0.4	\$	70	0.2	\$	40	0.5	\$	110
2067	0.2	\$	50	0.1	\$	29	0.4	\$	78
2068	0.2	\$	34	0.1	\$	20	0.3	\$	54
2069	0.1	\$	23	0.1	\$	14	0.2	\$	37
2070	0.1	\$	14	0.0	\$	9	0.1	\$	23
2071	0.0	\$	9	0.0	\$	6	0.1	\$	14
2072	0.0	\$	5	0.0	\$	4	0.0	\$	8
2073	0.0	\$	2	0.0	\$	2	0.0	\$	4
2074	0.0	\$	1	0.0	\$	1	0.0	\$	2
2075	0.0	\$	0	0.0	\$	0	0.0	\$	1
2076	0.0	\$	0	0.0	\$	0	0.0	\$	0
2077	0.0	\$	0	0.0	\$	0	0.0	\$	0
2078	0.0	\$	0	0.0	\$	0	0.0	\$	0
2079	0.0	\$	0	0.0	\$	0	0.0	\$	0
2080	0.0	\$	0	0.0	\$	0	0.0	\$	0



APPENDIX A – MEMBERSHIP INFORMATION

Summary of Participant Data as of

	J	uly 1, 2020		J	July 1, 2021			
Active Participants	Police	Fire	Total	Police	Fire	Total		
Number	0	0	0	0	0	0		
Number Vested	0	0	0	0	0	0		
Average Age	0.0	0.0	0.0	0.0	0.0	0.0		
Average Service	0.0	0.0	0.0	0.0	0.0	0.0		
Average Pay	\$0	\$0	\$0	\$0	\$0	\$0		
Service Retirees								
Number	229	95	324	220	90	310		
Average Age	76.6	81.5	78.1	77.5	81.8	78.7		
Average Annual Benefit	\$78,850	\$81,876	\$79,737	\$81,398	\$84,427	\$82,277		
Disabled Retirees								
Number	99	96	195	88	92	180		
Average Age	75.9	77.1	76.5	76.7	78.0	77.4		
Average Annual Benefit	\$74,864	\$75,923	\$75,385	\$77,184	\$78,644	\$77,931		
Beneficiaries								
Number	132	117	249	131	102	233		
Average Age	80.5	83.1	81.7	80.2	82.7	81.3		
Average Annual Benefit	\$55,725	\$56,194	\$55,946	\$55,989	\$58,723	\$57,186		
All Inactives								
Number	460	308	768	439	284	723		
Average Age	77.6	80.8	78.8	78.1	80.9	79.2		
Average Annual Benefit	\$71,356	\$70,265	\$70,919	\$72,971	\$73,322	\$73,109		

Data pertaining to active and inactive Members and their beneficiaries as of the valuation date was supplied by the Plan Administrator.



APPENDIX A – MEMBERSHIP INFORMATION

Changes in Plan Membership: Police

	Actives	Service Retirees	Disabled Retirees	Beneficiaries	Total
July 1, 2020	0	229	99	132	460
Retired	0	0	0	0	0
Disabled	0	0	0	0	0
Deceased	0	(9)	(11)	(12)	(32)
New Beneficiary	0	0	0	11	11
July 1, 2021	0	220	88	131	439

Changes in Plan Membership: Fire

	Actives	Service Retirees	Disabled Retirees	Beneficiaries	Total
July 1, 2020	0	95	96	117	308
Retired	0	0	0	0	0
Disabled	0	0	0	0	0
Deceased	0	(5)	(4)	(16)	(25)
New Beneficiary	0	0	0	1	1
July 1, 2021	0	90	92	102	284

Changes in Plan Membership: All

	Actives	Service Retirees	Disabled Retirees	Beneficiaries	Total
July 1, 2020	0	324	195	249	768
Retired	0	0	0	0	0
Disabled	0	0	0	0	0
Deceased	0	(14)	(15)	(28)	(57)
New Beneficiary	0	0	0	12	12
July 1, 2021	0	310	180	233	723



APPENDIX A – MEMBERSHIP INFORMATION

Service Retired Participants

	Pe	olice	F	'ire	T	'otal
Age	Number	Total Annual Benefit	Number	Total Annual Benefit	Number	Total Annual Benefit
< 50	0	\$0	0	\$0	0	\$0
50-54	0	\$0	0	\$0	0	\$0
55-59	0	\$0	0	\$0	0	\$0
60-64	0	\$0	0	\$0	0	\$0
65-69	14	\$1,079,118	0	\$0	14	\$1,079,118
70-74	61	\$5,242,761	17	\$1,238,231	78	\$6,480,992
75-79	91	\$6,963,191	32	\$2,724,679	123	\$9,687,870
80-84	34	\$2,688,651	12	\$1,057,125	46	\$3,745,776
85-89	9	\$955,482	13	\$1,153,800	22	\$2,109,282
90-94	8	\$665,829	11	\$990,570	19	\$1,656,399
95-99	2	\$213,433	5	\$434,021	7	\$647,454
100+	1	\$99,129	0	\$0	1	\$99,129
Total	220	\$17,907,594	90	\$7,598,426	310	\$25,506,020

Disability Retired Participants

	Po	lice	F	'ire	Т	'otal
		Total		Total		Total
Age	Number	Annual	Number	Annual	Number	Annual
		Benefit		Benefit		Benefit
< 50	0	\$0	0	\$0	0	\$0
50-54	0	\$0	0	\$0	0	\$0
55-59	0	\$0	0	\$0	0	\$0
60-64	0	\$0	0	\$0	0	\$0
65-69	0	\$0	3	\$245,477	3	\$245,477
70-74	43	\$3,358,268	26	\$1,843,805	69	\$5,202,073
75-79	27	\$1,971,071	34	\$2,697,441	61	\$4,668,512
80-84	11	\$876,714	18	\$1,523,229	29	\$2,399,943
85-89	5	\$393,996	7	\$585,972	12	\$979,967
90-94	2	\$192,181	3	\$271,703	5	\$463,884
95-99	0	\$0	1	\$67,653	1	\$67,653
100+	0	\$0	0	\$0	0	\$0
Total	88	\$6,792,229	92	\$7,235,279	180	\$14,027,508



APPENDIX A – MEMBERSHIP INFORMATION

Beneficiaries

	Po	olice	F	ire	T	otal otal
Age	Number	Total Annual Benefit	Number	Total Annual Benefit	Number	Total Annual Benefit
< 50	0	\$0	0	\$0	0	\$0
50-54	0	\$0	0	\$0	0	\$0
55-59	1	\$52,095	0	\$0	1	\$52,095
60-64	3	\$175,604	2	\$148,362	5	\$323,966
65-69	9	\$576,640	7	\$446,609	16	\$1,023,248
70-74	30	\$1,542,683	14	\$852,980	44	\$2,395,663
75-79	32	\$1,701,659	18	\$1,073,595	50	\$2,775,254
80-84	15	\$797,091	16	\$917,976	31	\$1,715,067
85-89	16	\$1,026,060	21	\$1,216,295	37	\$2,242,356
90-94	17	\$1,022,988	18	\$967,371	35	\$1,990,359
95-99	7	\$359,375	6	\$366,607	13	\$725,981
100+	1	\$80,379	0	\$0	1	\$80,379
Total	131	\$7,334,574	102	\$5,989,793	233	\$13,324,367



APPENDIX B – STATEMENT OF ACTUARIAL ASSUMPTIONS AND METHODS

The assumptions and methods used in the actuarial valuation as of July 1, 2021 are:

Actuarial Method

The Entry Age Normal Actuarial Cost Method is used. Under this method, the Plan's Actuarial Liability (AL) is determined as the Present Value of Future Benefits (PVFB) less the Present Value of Future Normal Costs (PVFNC). Since all of the Plan's members are retired, the AL and the PVFB are the same.

The excess of the AL over the Actuarial Value of Assets (AVA) is the Unfunded Actuarial Liability (UAL). In accordance with the Plan's funding agreement with the City of Oakland, the UAL must be amortized by July 1, 2026, with contributions resuming in the 2017-2018 fiscal year. The projected fiscal year 2022-2023 contribution has been calculated using level percent of pay amortization, based on total projected City payroll for all Safety employees.

Actuarial Value of Plan Assets

In determining the recommended employer contribution to the PFRS, we use a smoothed Actuarial Value of Assets. The asset smoothing method dampens the volatility in asset values that could occur because of the fluctuations in market conditions. Use of an asset smoothing method is consistent with the long-term nature of the actuarial valuation process. Assets are assumed to be used exclusively for the provision of retirement benefits and expenses.

The Actuarial Value of Assets is equal to 100% of the *expected Actuarial Value of Assets* plus 20% of the difference between the current Market Value of Assets and the expected Actuarial Value of Assets. In no event will the Actuarial Value of Assets ever be less than 90% of the Market Value of Assets or greater than 110% of the Market Value of Assets.

The expected Actuarial Value of Assets is equal to the prior year's Actuarial Value of Assets increased with actual contributions made, decreased with actual disbursements made, all items (prior assets, contributions, and disbursements) further adjusted with expected investment returns for the year.



APPENDIX B – STATEMENT OF ACTUARIAL ASSUMPTIONS AND METHODS

Actuarial Assumptions

The assumptions used in this report reflect the results of an experience study performed by Cheiron covering the period from July 1, 2014 through June 30, 2017 and adopted by the Board. More details on the rationale for the demographic and economic assumptions can be found in the experience analysis presented to the Board on February 28, 2018.

1. Rate of Return

The expected annual rates of return, net of investment expenses, on all Plan assets are shown in the table below. The equivalent single discount rate for these returns using the Plan's expected projected benefit payments is 5.28%.

Benefit Payment	Expected
Year	Return
2021-2026	6.000%
2027	5.725%
2028	5.450%
2029	5.175%
2030	4.900%
2031	4.625%
2032	4.350%
2033	4.075%
2034	3.800%
2035	3.525%
2036+	3.250%

2. Inflation

The assumed rate of general inflation is 2.75% (entire US) and local inflation is 2.85% (Bay Area). The general inflation rate is used in the determination of the investment return assumptions. The local inflation rate is used in the determination of the growth in expenses and salaries (which determine the COLA increases).

3. Administrative Expenses

Administrative expenses for the Fiscal Year Ending June 30, 2022 are assumed to be \$1,692,500, growing at 2.85% per year.

4. Cost-of-Living Adjustments and Long-Term Salary Increases

Cost-of-living adjustments are based on salary increases for a retiree's rank at retirement.



APPENDIX B – STATEMENT OF ACTUARIAL ASSUMPTIONS AND METHODS

The long-term rate of salary increase is assumed to be 3.25% (2.85% inflation plus 0.4% productivity). The following schedule shows salary increases based on the current Police contract that expires on June 30, 2023 and the Fire contract that expires on December 31, 2023. All increases shown after those dates are assumptions.

Post-Retirement Benefit Increases (Based on Salary Increases for Rank at Retirement)				
Date of Increase	Police	Fire		
July 1, 2021	3.00%	1.50%		
January 1, 2022	N/A	2.00%		
July 1, 2022	3.50%	1.00%		
July 1, 2023	3.50%	0.00%		
December 1, 2023	N/A	2.00%		
Annual Increases Starting July 1, 2024	3.25%	3.25%		

5. Rates of Termination

None.

6. Rates of Disability

None.

7. Rates of Retirement

None.

8. Rates of Mortality for Healthy Lives

CalPERS Healthy Annuitant Table from the 2012-2015 experience study, excluding the 15-year projection using 90% of Scale MP-2016.

9. Rates of Mortality for Disabled Retirees

CalPERS Industrial Disability Mortality Table from the 2012-2015 experience study, excluding the 15-year projection using 90% of Scale MP-2016.



APPENDIX B – STATEMENT OF ACTUARIAL ASSUMPTIONS AND METHODS

10. Mortality Improvement

The mortality tables are projected to improve with MP-2017 generational mortality improvement tables, with improvements projected from a base year of 2014 (the mid-point of the CalPERS base tables).

11. Survivor Continuance

30% of disabled retirees' deaths are assumed to be related to injuries arising out of the performance of duty, entitling the surviving spouse to a 100% continuance.

12. Changes in Assumptions Since the Last Valuation

No changes have been made to the actuarial assumptions.



APPENDIX C – SUMMARY OF PLAN PROVISIONS

1. Plan Year

July 1 to June 30.

2. Membership

The Plan has been closed to new members since June 30, 1976.

3. Salary

Retirement allowances are based on the pensionable compensation attached to the average rank held during the three years immediately preceding retirement.

4. Employee Contributions

There are no active employees in the Plan, and thus no employee contributions.

5. Service Retirement

Eligibility

25 years of service, or 20 years of service and age 55, or age 65. A reduced early retirement is available with 20 years of service.

Benefit Amount

50% of Salary plus 1.67% for each additional year of service beyond that required for service retirement eligibility, to a maximum of 10 years. For retirements with less than 20 years of service, benefits are pro-rated.

6. Duty-Related Disability Retirement

Equivalent to service retirement benefit if 25 or more years of service.

7. Non-Duty Related Disability Retirement

Equivalent to service retirement benefit if age 55 is attained.

8. Post-Retirement Death Benefit

For retirees without a spouse at death, a \$1,000 lump sum is paid to designated beneficiary.

9. Cost-of-Living Adjustments

Benefit increases are based on increases in salary for rank at retirement (see above definition of Salary).



APPENDIX C – SUMMARY OF PLAN PROVISIONS

10. Benefit Forms

Benefit is paid for the lifetime of the member. For deaths following a service retirement or non-duty disability, a 66-2/3% continuance is paid for the lifetime of the spouse. If the member retired under a duty-related disability, a continuance of 100% is paid.

11. Changes in Plan Provisions Since the Last Valuation

None.



APPENDIX D – GLOSSARY

1. Actuarial Assumptions

Assumptions as to the occurrence of future events affecting pension costs such as mortality, withdrawal, disability, retirement, changes in compensation, and rates of investment return.

2. Actuarial Cost Method

A procedure for determining the actuarial present value of pension plan benefits and expenses and for developing an allocation of such value to each year of service, usually in the form of a normal cost and an Actuarial Liability.

3. Actuarial Gain (Loss)

The difference between actual experience and that expected based upon a set of actuarial assumptions during the period between two actuarial valuation dates, as determined in accordance with a particular actuarial cost method.

4. Actuarial Liability

The portion of the actuarial present value of projected benefits that will not be paid by future normal costs. It represents the value of the past normal costs with interest to the valuation date.

5. Actuarial Present Value (Present Value)

The value as of a given date of a future amount or series of payments. The actuarial present value discounts the payments to the given date at the assumed investment return and includes the probability of the payment being made.

6. Actuarial Valuation

The determination, as of a specified date, of the normal cost, Actuarial Liability, Actuarial Value of Assets, and related actuarial present values for a pension plan.

7. Actuarial Value of Assets

The value of cash, investments, and other property belonging to a pension plan as used by the actuary for the purpose of an actuarial valuation. The purpose of an Actuarial Value of Assets is to smooth out fluctuations in market values.

8. Actuarially Equivalent

Of equal actuarial present value, determined as of a given date, with each value based on the same set of actuarial assumptions.



APPENDIX D – GLOSSARY

9. Amortization Payment

The portion of the pension plan contribution that is designed to pay interest and principal on the Unfunded Actuarial Liability in order to pay for that liability in a given number of years.

10. Entry Age Normal Actuarial Cost Method

A method under which the actuarial present value of the projected benefits of each individual included in an actuarial valuation is allocated on a level basis over the earnings of the individual between entry age and assumed exit ages.

11. Funded Ratio

The ratio of the Actuarial Value of Assets to the Actuarial Liabilities.

12. Normal Cost

That portion of the actuarial present value of pension plan benefits and expenses that is allocated to a valuation year by the actuarial cost method.

13. Projected Benefits

Those pension plan benefit amounts which are expected to be paid in the future under a particular set of actuarial assumptions, taking into account such items as increases in future compensation and service credits.

14. Unfunded Actuarial Liability

The excess of the Actuarial Liability over the Actuarial Value of Assets.





OAKLAND POLICE AND FIRE RETIREMENT SYSTEM (A Pension Trust Fund of the City of Oakland)

Basic Financial Statements and Required Supplementary Information

Years Ended June 30, 2021 and 2020



OAKLAND POLICE AND FIRE RETIREMENT SYSTEM (A Pension Trust Fund of the City of Oakland)

Basic Financial Statements and Required Supplementary Information Years ended June 30, 2021 and 2020

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Independent Auditor's Report

Board of Administration Oakland Police and Fire Retirement System Oakland, California

We have audited the accompanying financial statements of the Oakland Police and Fire Retirement System (System), a pension trust fund of the City of Oakland, California (City), as of and for the years ended June 30, 2021 and 2020, and the related notes to the financial statements, which collectively comprise the System's basic financial statements as listed in the table of contents.

Management's Responsibility for the Financial Statements

Management is responsible for the preparation and fair presentation of these financial statements in accordance with accounting principles generally accepted in the United States of America; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

Auditor's Responsibility

Our responsibility is to express an opinion on these financial statements based on our audits. We conducted our audits in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Opinion

In our opinion, the financial statements referred to above present fairly, in all material respects, the fiduciary net position of the System as of June 30, 2021 and 2020, and the changes in its fiduciary net position for the years then ended in accordance with accounting principles generally accepted in the United States of America.

Other Matters

Required Supplementary Information

Accounting principles generally accepted in the United States of America require that the management's discussion and analysis, the schedule of changes in the employer's net pension liability and related ratios, the schedule of employer contributions, and the schedule of investment returns as listed in the table of contents be presented to supplement the basic financial statements. Such information, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

Walnut Creek, California December 8, 2021

Macias Gini & O'Connell LAP

Management's Discussion and Analysis – Unaudited June 30, 2021 and 2020

As management of the Oakland Police and Fire Retirement System (System), we offer readers of the System's financial statements this narrative overview and analysis of the financial activities of the System for the years ended June 30, 2021 and 2020. We encourage readers to consider the information presented here in conjunction with the System's financial statements that follow this section. These discussions and analyses are presented in the following sections:

- Organizational Overview and Highlights
- Financial Statement Overview

• Financial Analysis: 2021 vs. 2020

• Financial Analysis: 2020 vs. 2019

• Requests for Additional Information

ORGANIZATIONAL OVERVIEW AND HIGHLIGHTS

The City of Oakland City Charter established the System and provides for its funding. Accordingly, the System is an integral part of the City of Oakland (City) and its operations have been reported as a Pension Trust Fund in the City's basic financial statements. The System is a closed, single employer, defined benefit pension plan that provides retirement, disability and survivor benefits for eligible sworn safety employees of the City. The System serves the City's sworn employees hired prior to July 1, 1976 who have not transferred to the California Public Employees' Retirement System (CalPERS). The System is governed by a board of seven trustees: the Mayor or his/her designate, three Mayoral appointees approved by the City Council, an elected active or retired member of the Police Department, an elected active or retired member from the Fire Department, and an elected member position which alternates between the Police Department and Fire Department membership. Trustees receive no compensation.

The System has been funded by periodic employee and City contributions at actuarially determined amounts sufficient to accumulate the necessary assets to pay benefits when due as specified by the City Charter, unless the Board and the City have agreed to other funding options. In accordance with the City Charter, active members hired after July 1, 1951, and prior to July 1, 1976, contribute a percentage of their earned salaries based upon entry age as determined by consulting actuaries. During the years ended June 30, 2021 and 2020, the employee contribution rate was 0% for both years. There are no active participants in the Plan as of June 30, 2021 and 2020.

In July 2012, the City deposited \$210 million in pension obligation bond proceeds into the System and entered into a funding agreement with the System Board, which suspended contributions until the fiscal year beginning July 1, 2017.

As of June 30, 2021, the total pension liability of \$578.6 million less the fiduciary net position of \$458.5 million results in a net pension liability of approximately \$120.0 million. The fiduciary net position as a percentage of the total pension liability is 79.3 %.

As of June 30, 2020, the total pension liability of \$604.0 million less the fiduciary net position of \$379.0 million results in a net pension liability of approximately \$225.0 million. The fiduciary net position as a percentage of the total pension liability is 62.7%.

Management's Discussion and Analysis – Unaudited June 30, 2021 and 2020

The System membership at June 30, 2021 is 723, which includes 490 retirees and 233 beneficiaries. The System membership at June 30, 2020 is 768. The following are the significant assumptions used to compute contribution requirements in the July 1, 2020 Actuarial Valuation Report:

- Select and ultimate rates, equal to 5.29% single equivalent investment rate of return
- 2.75% inflation rate, U.S.
- 2.85% inflation rate, Bay Area
- 3.25% long-term post-retirement benefit increases

City contributions are based on spreading costs as a level percentage of the City's total uniform payroll to July 1, 2026. The System uses the entry age normal cost method for its disclosure and reporting. During fiscal years 2021 and 2020, the City contributions were \$43.6 million and \$43.4 million to the System. The next required City contribution is projected to be approximately \$43.8 million in fiscal year 2022.

FINANCIAL STATEMENT OVERVIEW

This annual financial report consists of three parts – management's discussion and analysis (this section), the basic financial statements and required supplementary information. The basic financial statements include *Statements of Fiduciary Net Position*; *Statements of Changes in Fiduciary Net Position*; and the *Notes to the Basic Financial Statements*.

The Statements of Fiduciary Net Position and the Statements of Changes in Fiduciary Net Position report information to assist readers in determining whether the System's finances as a whole have improved or deteriorated as a result of the year's activities. These statements report the net position of the System and the activities that caused the changes in the net position during the year, respectively.

The *Statements of Fiduciary Net Position* present information on all System assets and liabilities, with the difference between the two reported as net position restricted for pensions. Over time, increases or decreases in net position restricted for pensions may serve as a useful indicator of whether the financial condition of the System is improving or deteriorating.

While the Statements of Fiduciary Net Position provide information about the nature and amount of resources and obligations at year-end, the Statements of Changes in Fiduciary Net Position present the results of the System's activities during the fiscal year and information on the change in the net position restricted for pensions during the fiscal year. The Statements of Changes in Fiduciary Net Position measure the results of the System's investment performance as well as its additions from contributions and investment income and deductions for payment of benefits and administrative expenses. The Statements of Changes in Fiduciary Net Position can be viewed as indicators of the System's progress on the set goals of fully funding all current and past service costs and possessing sufficient additional resources to pay for current refunds of contributions and administrative and investment expenses.

The *Notes to the Basic Financial Statements* and *Required Supplementary Information* provide explanations and other information that is helpful to a full understanding of the data provided in the financial statements. The *Notes to the Basic Financial Statements* and *Required Supplementary Information* are found starting on page 11 and page 26, respectively.

Management's Discussion and Analysis – Unaudited June 30, 2021 and 2020

FINANCIAL ANALYSIS: 2021 VS. 2020

Table 1 summarizes net position restricted for pensions as of June 30, 2021 and 2020:

Table 1 Statements of Fiduciary Net Position As of June 30, 2021 and 2020

	June 30		Change	
	2021	2020	Amount	Percentage
Assets:				
Cash and cash equivalents	\$ 6,323,835	\$ 6,345,777	\$ (21,942)	-0.3%
Receivables	2,469,425	8,099,428	(5,630,003)	-69.5%
Investments	503,773,621	404,700,887	99,072,734	24.5%
Total Assets	512,566,881	419,146,092	93,420,789	22.3%
Liabilities:				
Accounts payable	1,110	8,161	(7,051)	-86.4%
Benefits payable	4,294,620	4,431,728	(137,108)	-3.1%
Investments payable	422,993	13,548,872	(13,125,879)	-96.9%
Investment management fees payable	361,228	278,835	82,393	29.5%
Securities lending liabilities	48,954,055	21,903,806	27,050,249	123.5%
Total liabilities	54,034,006	40,171,402	13,862,604	34.5%
Net position:				
Restricted for pensions	\$ 458,532,875	\$ 378,974,690	\$ 79,558,185	21.0%

Net position restricted for pensions increased \$79.6 million from June 30, 2020 to June 30, 2021. The main sources of this increase were City contribution of \$43.6 million and net investment income of \$90.2 million were more than offset by benefit payments of \$52.7 million. The remaining fluctuations in receivables and investments payable are primarily due to investment trading at year-end, where the outstanding balances represent investments either sold or purchased, but not yet settled.

Management's Discussion and Analysis – Unaudited June 30, 2021 and 2020

Table 2 summarizes changes in net position restricted for pensions for the years ended June 30, 2021 and 2020:

Table 2 Statements of Changes in Fiduciary Net Position For the Years Ended June 30, 2021 and 2020

	June 30		Change	
	2021	2020	Amount	Percentage
Additions:				
Contributions	\$ 43,648,000	\$ 43,409,000	\$ 239,000	0.6%
Net investment income	90,191,309	6,996,833	83,194,476	1189.0%
Other additions	908	132	776	587.9%
Total additions	133,840,217	50,405,965	83,434,252	165.5%
Deductions:				
Benefits to members and beneficiaries	52,697,378	54,619,079	(1,921,701)	-3.5%
Administrative expenses	1,584,654	1,522,910	61,744	4.1%
Total deductions	54,282,032	56,141,989	(1,859,957)	-3.3%
Changes in net position	79,558,185	(5,736,024)	85,294,209	1487.0%
Net position restricted for pensions:				
Beginning of year	378,974,690	384,710,714	(5,736,024)	-1.5%
End of year	\$ 458,532,875	\$ 378,974,690	\$ 79,558,185	21.0%

During fiscal year 2021, the City of Oakland contributed \$43.6 million to the System. In addition, the System's net investment income for the year ended June 30, 2021 was \$90.1 million, mainly due to net appreciation in fair value of the investment portfolio. The time-weighted annual return for the year ended June 30, 2021 was 24.2%, compared to a benchmark return of 22.3% and an actuarial expected rate of return of 5.29 %.

Management's Discussion and Analysis – Unaudited June 30, 2021 and 2020

FINANCIAL ANALYSIS: 2020 VS. 2019

Table 3 summarizes net position restricted for pensions as of June 30, 2020 and 2019:

Table 3
Statements of Fiduciary Net Position
As of June 30, 2020 and 2019

	June 30		Change	
	2020	2019	Amount	Percentage
Assets:			_	
Cash and cash equivalents	\$ 6,345,777	\$ 6,484,343	\$ (138,566)	-2.1%
Receivables	8,099,428	4,427,785	3,671,643	82.9%
Investments	404,700,887	420,244,755	(15,543,868)	-3.7%
Total Assets	419,146,092	431,156,883	(12,010,791)	-2.8%
Liabilities:				
Accounts payable	8,161	15,871	(7,710)	-48.6%
Benefits payable	4,431,728	4,596,563	(164,835)	-3.6%
Investments payable	13,548,872	7,464,071	6,084,801	81.5%
Investment management fees payable	278,835	351,847	(73,012)	-20.8%
Securities lending liabilities	21,903,806	34,017,817	(12,114,011)	-35.6%
Total liabilities	40,171,402	46,446,169	(6,274,767)	-13.5%
Net position:				
Restricted for pensions	\$ 378,974,690	\$ 384,710,714	\$ (5,736,024)	-1.5%

Net position restricted for pensions decreased \$5.7 million from June 30, 2019 to June 30, 2020. The main sources of this decrease were from benefit payments of \$54.6 million offset by contribution of \$43.4 million and net investment income of \$7.0 million. The remaining fluctuations in receivables and investments payable are primarily due to investment trading at year-end, where the outstanding balances represent investments either sold or purchased, but not yet settled.

Management's Discussion and Analysis – Unaudited June 30, 2021 and 2020

Table 4 summarizes changes in net position restricted for pensions for the years ended June 30, 2020 and 2019:

Table 4
Statements of Changes in Fiduciary Net Position
For the Years Ended June 30, 2020 and 2019

	June 30		Change	
	2020	2019	Amount	Percentage
Additions:				
Contributions	\$ 43,409,000	\$ 44,821,000	\$ (1,412,000)	-3.2%
Net investment income	6,996,833	21,551,868	(14,555,035)	-67.5%
Other additions	132	19,949	(19,817)	-99.3%
Total additions	50,405,965	66,392,817	(15,986,852)	-24.1%
Deductions:				
Benefits to members and beneficiaries	54,619,079	56,212,013	(1,592,934)	-2.8%
Administrative expenses	1,522,910	1,446,361	76,549	5.3%
Total deductions	56,141,989	57,658,374	(1,516,385)	-2.6%
Changes in net position	(5,736,024)	8,734,443	(14,470,467)	-165.7%
Net position restricted for pensions:				
Beginning of year	384,710,714	375,976,271	8,734,443	2.3%
End of year	\$ 378,974,690	\$ 384,710,714	\$ (5,736,024)	-1.5%

During fiscal year 2020, the City of Oakland contributed \$43.4 million to the System. In addition, the System's net investment income for the year ended June 30, 2020 was \$7.0 million, mainly due to net appreciation in fair value of the investment portfolio as a result of robust returns on investments. The time-weighted annual returns for the year ended June 30, 2020 was 2.3%, compared to a benchmark return of 4.6% and an actuarial expected rate of return of 5.37%.

REQUESTS FOR ADDITIONAL INFORMATION

This financial report is designed to provide a general overview of the System's finances and to account for the money that the System receives. Questions concerning any of the information provided in this report or requests for additional information should be addressed to:

Retirement System
City of Oakland
150 Frank H Ogawa Plaza, Suite 3349
Oakland, CA 94612

Statements of Fiduciary Net Position June 30, 2021 and 2020

	2021	2020
Assets		
Cash and Cash Equivalents	\$ 6,323,835	\$ 6,345,777
Receivables:		
Interest Receivable	758,877	720,730
Dividends Receivable	271,634	122,028
Investments Receivable	1,228,684	7,005,167
Retired Members and Beneficiaries	103,688	137,530
Miscellaneous	106,542	113,973
Total Receivables	2,469,425	8,099,428
Investments, at Fair Value:		
Short-Term Investments	7,786,908	14,097,351
Bonds	134,380,629	123,135,071
Domestic Equities and Mutual Funds	210,506,356	157,386,763
International Equities and Mutual Funds	58,539,803	44,599,350
Alternative Investments	44,016,067	43,589,826
Foreign Currency Contracts, Net	(7,612)	(20,041)
Securities Lending Collateral	48,551,470	21,912,567
Total Investments	503,773,621	404,700,887
Total Assets	512,566,881	419,146,092
Liabilities		
Accounts Payable	1,110	8,161
Benefits Payable	4,294,620	4,431,728
Investments Payable	422,993	13,548,872
Investment Management Fees Payable	361,228	278,835
Securities Lending Liabilities	48,954,055	21,903,806
Total Liabilities	54,034,006	40,171,402
Net Position Restricted for Pensions	\$ 458,532,875	\$ 378,974,690

Statements of Changes in Fiduciary Net Position Years Ended June 30, 2021 and 2020

	2021	2020
Additions	.	
Contributions from the City	\$ 43,648,000	\$ 43,409,000
Investment Income:		
Net Appreciation in Fair Value of Investments	84,719,944	677,414
Interest	3,965,167	4,598,569
Dividends	2,735,230	2,775,312
Less: Investment Expenses	(1,354,640)	(1,173,450)
Securities Lending Income:		
Securities Lending Earnings	105,651	521,009
Securities Lending Expenses, Net of Rebates	19,957	(402,021)
Net Securities Lending Income	125,608	118,988
Net Investment Income	90,191,309	6,996,833
Claims and Settlements	26	132
Other Income	882	
Total Additions	133,840,217	50,405,965
Deductions		
Benefits to Members and Beneficiaries:		
Retirement	32,157,272	33,125,069
Disability	18,803,904	19,696,369
Death	1,736,202	1,797,641
Total Benefits to Members and Beneficiaries	52,697,378	54,619,079
Administrative Expenses	1,584,654	1,522,910
Total Deductions	54,282,032	56,141,989
Change in Net Position	79,558,185	(5,736,024)
Net Position Restricted for Pensions		
Beginning of Year	378,974,690	384,710,714
End of Year	\$ 458,532,875	\$ 378,974,690

Notes to the Basic Financial Statements Years Ended June 30, 2021 and 2020

1. Description of the Oakland Police and Fire Retirement System

The Oakland Police and Fire Retirement System (System) is a closed, single-employer defined benefit pension plan (Plan) established by the City of Oakland (City) Charter. The System is governed by a board of seven trustees (Board); the City Mayor or his/her designate, three Mayoral appointees approved by the City Council, an elected active or retired member of the Police Department, an elected active or retired member from the Fire Department, and an elected member position which alternates between the Police Department and Fire Department membership. Trustees receive no compensation. As a result of a City Charter amendment, known as Measure R, approved by the electorate on June 8, 1976, membership in the Plan is limited to uniformed employees hired prior to July 1, 1976.

The System is exempt from the regulations of the Employee Retirement Income Security Act of 1974. The System is also exempt from federal and California income taxes.

The System is considered to be a part of the City's financial reporting entity and is included in the City's basic financial statements as a pension trust fund. The financial statements of the System are intended to present only the plan net position and changes in plan net position of the System. They do not purport to, and do not, present fairly the financial position of the City as of June 30, 2021 and 2020, and the changes in its financial position for the years then ended in conformity with accounting principles generally accepted in the United States of America. The City's basic financial statements can be obtained from the Finance Department, Controller's Bureau, City of Oakland, 150 Frank H. Ogawa Plaza, Suite 6353; Oakland, California 94612.

a) System Membership

At June 30, 2021 and 2020, the System membership consisted of only retirees and beneficiaries. The System's membership is as follows:

	2021	2020
Retirees and beneficiaries currently receiving benefits:		
Police	439	460
Fire	284	308
Total	723	768

b) Basic Benefit Provisions

The City Charter establishes plan membership, contribution, and benefit provisions. The System provides that any member who completes at least 25 years of service, regardless of age, or completes 20 years of service and attains age 55, or has attained age 65, is eligible for retirement benefits. The basic retirement allowance equals 50% of the compensation attached to the average rank held during the three years immediately preceding retirement, plus an additional allowance of 1 and 2/3% of such compensation for each year of service (up to ten) subsequent to (a) qualifying for retirement and (b) July 1, 1951. However, any member retiring at age 65 with less than 20 years of service shall receive a reduced retirement allowance based upon the number of years of service. A member is eligible for early retirement benefits after 20 to 24 years of service with a retirement allowance based upon 40% to 48% of the compensation attached to the average rank held during the three years preceding retirement. Additionally, a member with 10 to 19 years of service may retire and, on or after the 25th anniversary of his/her date of employment may receive a retirement allowance based upon 20% to 38% of the compensation attached to the average rank held during the three years preceding retirement.

Notes to the Basic Financial Statements Years Ended June 30, 2021 and 2020

1. <u>Description of the Oakland Police and Fire Retirement System</u> (Continued)

The System also provides for various death, disability, and survivors' benefits. Death and disability benefits are paid to eligible members who became disabled or passed away prior to retirement. If the member's death or disability is duty related, then the surviving spouse or member is paid a pension equivalent to an immediate service retirement. The duty related death or disability pension is paid at a level no less than 50% of the pay attached to the rank. If a death occurs after retirement, then a one-time payment of \$1,000 is paid to the member's designated beneficiary.

After retirement, members receive benefits based on a fixed monthly dollar amount. Pension amounts change based on changes to the compensation attached to the average rank. Upon a retiree's death, benefits are continued to an eligible surviving spouse at a two-thirds level for service and non-duty disabled retirees and at a 100% level for retirements for duty disability.

2. Summary of Significant Accounting Policies

a) Basis of Presentation

The financial statements are prepared in accordance with U.S. generally accepted accounting principles as applicable to governmental organizations. The System adheres to the reporting requirements established by the Governmental Accounting Standards Board (GASB).

b) Measurement Focus and Basis of Accounting

The financial statements are prepared on a flow of economic resources measurement focus using the accrual basis of accounting. Contributions are recognized in the period in which the contributions are due pursuant to formal commitments as well as statutory or contractual requirements, and benefits and refunds are recognized when payable under plan provisions.

c) Methods Used to Value Investments

Investments are reported at fair value. Securities traded on a national or international exchange are valued at the last reported sales price at current exchange rates. Investments that do not have an established market are reported at estimated fair values based on the net asset value as determined by the fund manager based on quoted market prices of fund holdings or values provided by the custodian or the applicable money manager. Purchases and sales of investments are recorded on a trade date basis.

d) Use of Estimates

The preparation of financial statements in conformity with generally accepted accounting principles in the United States of America requires management to make estimates and assumptions that affect certain reported amounts and disclosures. Accordingly, actual results could differ from those estimates.

3. Contributions

In accordance with the City Charter, active members hired after July 1, 1951, and prior to July 1, 1976, contributed a percentage of their earned salaries based upon entry age as determined by consulting actuaries. Since fiscal year 2015, there were no remaining active members in the System.

Notes to the Basic Financial Statements Years Ended June 30, 2021 and 2020

3. <u>Contributions</u> (Continued)

In March 1997, the City issued pension obligation bonds and deposited \$417 million into the System to pay the City's contributions through June 2011. In accordance with an agreement entered into at the time the pension obligation bonds were issued in 1997, the City was not expected to contribute until July 2011. In the year ended June 30, 2005, the City transferred excess proceeds of \$17.7 million from the Oakland Joint Powers Financing Authority Refunding Revenue 2005 Series B Bond to fund a portion of the City's future obligation to the System.

Effective July 1, 2011, the City resumed contributing to the System. The City contributed \$45.5 million in the year ended June 30, 2012. Using the current actuarial cost method, these contributions are based on spreading costs as a level percentage of all uniformed employees' compensation through June 30, 2026. Budgeted administrative expenses are included in the City contribution rates. The City must contribute, at a minimum, such amounts as are necessary, on an actuarial basis, to provide assets sufficient to meet benefits to be paid to plan members.

On July 30, 2012, the City contributed \$210 million to the System. As a result of a funding agreement entered into between the System's Board and the City no additional contributions were required until July 1, 2017. The City resumed contributions to the System on July 1, 2017. The City contributed \$43.65 million and \$43.41 million in the years ended June 30, 2021 and 2020, respectively. The next required contribution for fiscal year 2022 is \$43.82 million.

4. Cash, Deposits and Investments

a) Investment Policy

The System's investment policy authorizes investment in U.S. equities, international equities, U.S. fixed income instruments including U.S. Treasury notes and bonds, government agency mortgage backed securities, U.S. corporate notes and bonds, collateralized mortgage obligations, Yankee bonds and non-U.S.-issued fixed income securities denominated in foreign currencies. The System's investment portfolio is managed by external investment managers, except for the bond iShares which are managed internally. During the years ended June 30, 2021 and 2020, the number of external investment managers was twelve and twelve, respectively.

The System investments are also restricted by the City Charter. In November 2006, City voters passed Measure M to amend the City Charter to allow the System's Board to invest in non-dividend paying stocks and to change the asset allocation structure from 50% equities and 50% fixed income to the Prudent Person Standard as defined by the California Constitution.

The System's investment policy limits fixed income investments to a maximum average duration of 10 years and a maximum remaining term to maturity (single issue) at purchase of 30 years, with targeted portfolio duration of between 3 to 8 years and targeted portfolio maturity of 15 years. The System's investment policy allows the fixed income managers to invest in fixed income instruments and some exposure to investments below an investment grade rating, as long as the portfolio maintains an average credit quality of BBB (investment grade using Standard & Poor's, Moody's or Fitch ratings).

The System's investment policy states that investments in securities known as collateralized mortgage obligations (CMOs) shall be limited to a maximum of 20% of a broker account's fair value with no more than 5% in any one issue. CMOs are mortgage-backed securities that create separate pools of pass-through rates for different classes of bondholders with varying maturities. The fair values of CMOs are considered sensitive to interest rate changes because they have embedded options.

Notes to the Basic Financial Statements Years Ended June 30, 2021 and 2020

The investment policy allows for each fixed income asset manager to have a maximum of 10% of any single security investment in their individual portfolios with the exception of U.S. government securities, which is allowed to have a maximum of 25% in each manager's portfolio.

The following was the Board's adopted asset allocation policy as of June 30, 2021 and 2020:

Target Allocation

	I mage vis	
Asset Class	June 30, 2021	June 30, 2020
Fixed Income	21%	21%
Credit	2	2
Covered Calls	5	5
Domestic Equity	40	40
International Equity	12	12
Crisis Risk Offset	20	20
Total	100%	100%

The Board's target allocation does not include cash and cash equivalents, which are designated for approved administrative budget purposes.

b) Concentrations

GASB Statement No. 40 and GASB Statement No. 67 require the disclosure of investments in any one organization that represent 5 percent or more of the System's fiduciary net position. As of June 30, 2021, the System's investments in the Northern Trust Russell 1000 Growth Index Fund represented 24.23% of its fiduciary net position. As of June 30, 2020, the System's investment in the Northern Trust Russell 1000 Growth Index Fund and the Parametric Research Affiliates Systematic U.S. Fund represented 22.5% and 6.3% respectively, of its fiduciary net position.

c) Rate of Return

The money-weighted rate of return is a measure of the rate of return for an asset or portfolio of assets that incorporates the size and timing of cash flows. For the years ended June 30, 2021 and 2020, the annual money-weighted rates of return on pension plan investments, net of pension plan investment expenses, were 24.43% and 2.04%, respectively.

d) Cash and Cash Equivalents

As of June 30, 2021 and 2020, cash and cash equivalents consisted of cash in treasury held in the City's cash and investment pool as well as cash deposits held in bank and with a custodian. Funds in the City Treasury are invested according to the investment policy adopted by the City Council. Interest earned in the City Treasury is allocated monthly to all participants based on the average daily cash balance maintained by the respective funds. Information regarding the characteristics of the entire investment pool can be found in the City's June 30, 2021 and 2020 basic financial statements. As of June 30, 2021 and 2020, the System's share of the City's investment pool totaled \$6,318,773 and \$6,340,768, respectively. The System also had cash not included in the City's investment pool. As of June 30, 2021 and 2020, the System's cash and cash deposits not held in the City's investment pool totaled \$5,062 and \$5,009, respectively.

Notes to the Basic Financial Statements Years Ended June 30, 2021 and 2020

e) Hierarchy of Inputs

The System categorizes its fair value measurements within the fair value hierarchy established by generally accepted accounting principles. The hierarchy is based on the valuation inputs used to measure the fair value of the asset. Level 1 inputs are quoted prices in active markets for identical assets; Level 2 inputs are significant other observable inputs; and Level 3 inputs are significant unobservable inputs.

The System has the following recurring fair value measurements as of June 30, 2021:

	2021					
		Level One	Level Two			Total
Investments by fair value level:						
Bonds	\$	12,635,465	\$	104,543,460	\$	117,178,925
Domestic Equities and Mutual Funds		93,555,401		707,364		94,262,765
International Equities and Mutual Funds		58,539,803		-		58,539,803
Alternative Investments		43,940,518		75,549		44,016,067
Total investments by fair value level	\$	208,671,187	\$	105,326,373		313,997,560
Investments measured at net asset value (NAV): Short-Term Investment Funds Fixed Income Funds Domestic Equities and Mutual Funds Foreign Currency Contracts, Net Securities Lending Collateral - Short-Term Investment Fund Total investments measured at NAV	d					7,786,908 17,201,704 116,243,591 (7,612) 48,551,470 189,776,061
Total investments measured at fair value					\$:	503,773,621

The System has the following recurring fair value measurements as of June 30, 2020:

			2020		
		Level One	Level Two		Total
Investments by fair value level:		_	 _		
Short-Term Investments	\$	-	\$ 6,023,223	\$	6,023,223
Bonds		14,422,008	100,740,951		115,162,959
Domestic Equities and Mutual Funds		66,325,124	-		66,325,124
International Equities and Mutual Funds		44,599,350	_		44,599,350
Alternative Investments		27,764,888	_		27,764,888
Total investments by fair value level	\$	153,111,370	\$ 106,764,174		259,875,544
	-				
Investments measured at net asset value (NAV):					
Short-Term Investment Funds					8,074,128
Fixed Income Funds					7,972,112
Domestic Equities and Mutual Funds					91,061,639
Hedge Fund					15,824,938
Foreign Currency Contracts, Net					(20,041)
Securities Lending Collateral - Short-Term Investment Fun	nd				21,912,567
Total investments measured at NAV					144,825,343
Total investments measured at fair value				\$4	104,700,887

Notes to the Basic Financial Statements Years Ended June 30, 2021 and 2020

Investments measured at NAV represent commingled funds where fair value is measured based on the System's pro rata share of the total NAV. As of June 30, 2020, the System's hedge fund investment has monthly liquidity with a notice period of 5 days.

f) Interest Rate Risk

Interest rate risk is the risk that changes in interest rates will adversely affect the fair value of an investment. As described previously, the System's investment policy limits fixed income investments to a maximum average duration of 10 years and a maximum remaining term to maturity (single issue) at purchase of 30 years, with targeted portfolio duration of between 3 to 8 years and targeted portfolio maturity of 15 years. The weighted average duration for the System's fixed income investment portfolio excluding fixed income short-term investments, foreign currency contracts, and securities lending investments was 7.37 years as of June 30, 2021, and 7.69 years as of June 30, 2020.

The following summarizes the System's fixed income investments by category as of June 30, 2021 and 2020:

Short-Term Investment Duration

	2021		2020		
Investment Type	Fair Value	Modified Duration (Years)	Fair Value	Modified Duration (Years)	
Investment Type	1 an value	(1 cars)	Tan value	(1 cars)	
Short-Term Investment Funds U.S. Treasury Bills Foreign Currency Exchange Contracts, Net	\$ 7,786,908 - (7,612)	n/a n/a n/a	\$ 8,074,128 6,023,223 (20,041)	n/a 0.21 n/a	

Long-Term Investment Duration

	202	1	2020		
T	F . W .	Modified Duration	F : 17 1	Modified Duration	
Investment Type	Fair Value	(Years)	Fair Value	(Years)	
Fixed Income Investments U.S. Government Bonds					
U.S. Treasuries	\$ 18,816,292	5.79	\$ 8,153,603	8.03	
Government Agencies	32,516,334	8.26	39,171,830	7.23	
Total U.S. Government Bonds	51,332,626		47,325,433		
Corporate and Other Bonds					
Corporate Bonds	82,957,273	7.38	75,809,638	7.89	
Other Government Bonds	90,730	7.90	-	n/a	
Total Corporate and Other Bonds	83,048,003		75,809,638		
Total Fixed Income Investments	\$134,380,629	7.37	\$ 123,135,071	7.69	
Securities Lending Collateral	\$ 48,551,470		\$ 21,912,567		

Notes to the Basic Financial Statements Years Ended June 30, 2021 and 2020

g) Fair Value Highly Sensitive to Change in Interest Rates

The System has invested in CMOs, which are mortgage-backed bonds that pay pass-through rates with varying maturities. The fair values of CMOs are considered sensitive to interest rate changes because they have embedded options, which are triggers related to quantities of delinquencies or defaults in the loans backing the mortgage pool. If a balance of delinquent loans reaches a certain threshold, interest and principal that would be used to pay junior bondholders is instead directed to pay off the principal balance of senior bondholders, shortening the life of the senior bonds.

The following are the System's investments in CMOs at June 30, 2021:

	Weighted	Weighted		Percent of
	Average	Average		Total
	Coupon	Maturity		Investments
Investment Type	Rate	(Years)	Fair Value	Fair Value
Mortgage-backed securities	2.72%	23.28	\$20,789,617	4.13%

The following are the System's investments in CMOs at June 30, 2020:

	. •	Weighted		Percent of
	Average Coupon	Average Maturity		Total Investments
Investment Type	Rate	(Years)	Fair Value	Fair Value
Mortgage-backed securities	3.07%	23.76	\$27,010,178	6.67%

h) Credit Risk

Credit risk is the risk that an issuer or other counterparty to an investment will not fulfill its obligation.

The following provides information concerning the credit risk of fixed income securities as of June 30, 2021 and 2020:

Short-Term Investment Ratings

	20	21	2020		
Investment Type	S&P / Moody's Rating	Fair Value	S&P / Moody's Rating	Fair Value	
investment Type	Rating	Tan value	Rating	Tan value	
Short-Term Investment Funds	Not Rated	\$7,786,908	Not Rated	\$8,074,128	
U.S. Treasury Bills	n/a	-	AA/Aaa	6,023,223	
Foreign Currency Exchange Contracts, Net	Not Rated	(7,612)	Not Rated	(20,041)	

Notes to the Basic Financial Statements Years Ended June 30, 2021 and 2020

Long-Term Investment Ratings

	2021			2020		
S&P / Moody's Rating	 Fair Value	Percentage of Total Fair Value		Fair Value	Percentage of Total Fair Value	
sai / Woody s Rating	 I an value	Tan value		i an value	Tan value	
AAA/Aaa	\$ 53,058,908	39.4%	\$	48,352,450	39.3%	
AA/Aa	34,226,943	25.5%		26,839,048	21.8%	
A/A	14,322,857	10.7%		16,270,507	13.2%	
BBB/Baa	19,359,029	14.4%		22,504,035	18.3%	
BB/Ba	1,831,903	1.4%		1,388,389	1.1%	
B/B	9,550,906	7.1%		313,940	0.3%	
CCC/CCC	-	-		7,466,702	6.0%	
Unrated	2,030,083	1.5%		- ·	-	
	\$ 134,380,629	100.0%	\$	123,135,071	100.0%	

Securities Lending Ratings

S&P / Moody's Rating	202	1 Fair Value	202	20 Fair Value
Not Rated	\$	48.551.470	\$	21.912.567

i) Custodial Credit Risk

Custodial credit risk is the risk that, in the event of a failure of a depository financial institution or counterparty to a transaction, there will be an inability to recover the value of deposits, investments, or collateral securities in the possession of an outside party.

The California Government Code requires that governmental securities or first trust deed mortgage notes be used as collateral for demand deposits and certificates of deposit at 110 percent and 150 percent, respectively, of all deposits not covered by federal deposit insurance. As the City holds cash and certificates of deposit on behalf of the System, the collateral must be held by the pledging financial institution's trust department and is considered held in the City's name. For all other System deposits, the collateral must be held by the pledging financial institution's trust department and is considered held in the System's name.

The City, on behalf of the System, does not have any funds or deposits that are not covered by depository insurance, which are either uncollateralized, collateralized with securities held by the pledging financial institution, or collateralized with securities held by the pledging financial institution's trust department or agent, but not in the City's name. The System does not have any investments that are not registered in the name of the System and are either held by the counterparty or the counterparty's trust department or agent but not in the System's name.

Notes to the Basic Financial Statements Years Ended June 30, 2021 and 2020

j) Foreign Currency Risk

Foreign currency risk is the risk that changes in foreign exchange rates will adversely affect the fair values of an investment or deposit. Currency hedging is allowed under the System's investment policy for defensive purposes only. The investment policy limits currency hedging to a maximum of 25% of the portfolio value.

The following summarizes the System's investments denominated in foreign currencies as of June 30, 2021 and 2020:

	Fair V	Fair Value						
Foreign Currency	June 30, 2021	June 30, 2020						
Australian Dollar	\$ 1,456,518	\$ 1,165,827						
Brazilian Real	901,768	684,785						
British Pound	3,406,619	2,900,002						
Canadian Dollar	3,395,211	2,916,358						
Danish Krone	1,386,946	108,321						
Euro	8,778,172	5,257,480						
Hong Kong Dollar	3,664,544	2,540,943						
Indonesian Rupiah	221,352	179,056						
Japanese Yen	5,888,554	5,606,895						
Mexican Peso	108,650	652,060						
New Israeli Shekel	-	270,619						
Norwegian Krone	-	158,176						
Singapore Dollar	839,140	506,973						
South African Rand	575,339	254,493						
South Korean Won	212,370	-						
Swedish Krona	1,488,233	837,087						
Swiss Franc	2,344,951	2,093,668						
Turkish Lira	524,786	612,927						
Total	\$ 35,193,153	\$ 26,745,670						

k) Securities Lending Transactions

The System's investment policy authorizes participation in securities lending transactions, which are short-term collateralized loans of the System's securities to broker-dealers with a simultaneous agreement allowing the System to invest and receive earnings on the collateral received. All securities loans can be terminated on demand by either the System or the borrower, although the average term of loans is one week.

The administrator of the System's securities lending activities is responsible for maintaining an adequate level of collateral in an amount equal to at least 102% of market value of loaned U.S. government securities, common stock and other equity securities, bonds, debentures, corporate debt securities, notes, and mortgages or other obligations held in U.S. Dollar. The minimum collateral level is 105% of market value of loaned securities for any securities held in currencies other than the U.S. Dollar. Collateral received may include cash, letters of credit, or securities. The term to maturity of the loaned securities is generally not matched with the term to maturity of the investment of the said collateral. If securities collateral is received, the System cannot pledge or sell the collateral securities unless the borrower defaults.

Notes to the Basic Financial Statements Years Ended June 30, 2021 and 2020

As of June 30, 2021 and 2020, management believes the System has minimized its credit risk exposure to borrowers because the amounts held by the System as collateral exceeded the securities loaned by the System. The System's contract with the administrator requires it to indemnify the System if the borrowers fail to return the securities (and if the collateral is inadequate to replace the securities borrowed) or fails to pay the System for income distributions by the securities' issuers while the securities are on loan.

The following summarizes investments in securities lending transactions and collateral received at June 30, 2021 and 2020:

Securities Lending as of June 30, 2021

	Fair Value of Loaned Securities							
		For Cash	For	r Non-Cash				
Investment Type	(Collateral		Collateral		Total		
Securities on Loan for Cash Collateral								
U.S. Government and agencies	\$	9,621,902	\$	5,095,643	\$	14,717,545		
U.S. Corporate bonds		8,852,719		-		8,852,719		
U.S. Equities		29,098,075		97,296		29,195,371		
Non U.S. Equities		182,194		514,214		696,408		
Total investments in securities lending transactions	\$	47,754,890	\$	5,707,153	\$	53,462,043		
Collateral Received	\$	48,954,055	\$	5,840,751	\$	54,794,806		

Securities Lending as of June 30, 2020

	Fair Value of Loaned Securities					
		For Cash	For	· Non-Cash		_
Investment Type		Collateral		Collateral		Total
Securities on Loan for Cash Collateral				_		
U.S. Government and agencies	\$	4,674,146	\$	5,349,244	\$	10,023,390
U.S. Corporate bonds		7,480,228		-		7,480,228
U.S. Equities		9,388,017		470,835		9,858,852
Total investments in securities lending transactions	\$	21,542,391	\$	5,820,079	\$	27,362,470
Collateral Received	\$	21,903,806	\$	5,913,897	\$	27,817,703

1) Derivative Instruments

The Retirement System reports its derivative instruments under the provisions of GASB Statement No. 53, *Accounting and Financial Reporting for Derivatives Instruments*. Pursuant to the requirements of this statement, the Retirement System has provided a summary of derivative instrument activities during the reporting periods presented and the related risks.

As of June 30, 2021 and 2020, the derivative instruments held by the Retirement System are considered investments and not hedges for accounting purposes. All investment derivatives are reported as investments at fair value in the statements of fiduciary net position. The gains and losses arising from this activity are recognized as incurred in the statement of changes in fiduciary net position. All investment derivatives discussed below are included within the investment risk schedules, which precede this subsection. Investment derivative instruments are disclosed separately to provide a comprehensive and distinct view of this activity and its impact on the overall investment portfolio.

Notes to the Basic Financial Statements Years Ended June 30, 2021 and 2020

Valuation methods used by the System are described in more detail in Note 2.c). The fair value of the exchange traded derivative instruments, such as futures, options, rights, and warrants are based on quoted market prices. The fair values of forward foreign currency contracts are determined using a pricing service, which uses published foreign exchange rates as the primary source. The fair values of swaps are determined by the System's investment managers based on quoted market prices of the underlying investment instruments.

The tables below present the notional amounts, the fair values, and the related net appreciation (depreciation) in the fair value of derivative instruments that were outstanding at June 30, 2021 and 2020:

As of and for the Year Ended June 30, 2021

Derivative Type / Contract	Notional Amount		Fair Value		Net Appreciation (Depreciation) in Fair Value	
Forwards						
Foreign Currency Exchange Contracts	\$	-	\$	(7,612)	\$	-
Options						
Equity Contracts		72		(351,506)		(58,431)
Swaps						
Credit Contracts		1,990,000		50,816		7,768
Total	\$	1,990,072	\$	(308,302)	\$	(50,663)

As of and for the Year Ended June 30, 2020

Derivative Type / Contract	Notional Amount	Fa	Fair Value		Net Appreciation (Depreciation) in Fair Value	
Forwards	_					
Foreign Currency Exchange Contracts	\$ -	\$	(20,041)	\$	-	
Options						
Equity Contracts	69		(378,167)		108,759	
Rights/Warrants						
Rights/Warrants	5,630		_		-	
Swaps						
Credit Contracts	 1,920,000		(11,645)		32,754	
Total	\$ 1,925,699	\$	(409,853)	\$	141,513	

Counterparty Credit Risk

The System is not exposed to credit risk on non-exchange traded derivative instruments that are in liability positions. As of June 30, 2021 and 2020, the System held forward currency contracts in liability positions of \$7,612 and \$20,041, respectively. The System's counterparties to these contract held credit ratings of A or better, as assigned by one or more of the major credit rating organizations (S&P, Moody's and/or Fitch).

Notes to the Basic Financial Statements Years Ended June 30, 2021 and 2020

Custodial Credit Risk

The custodial credit risk disclosure for exchange traded derivative instruments is made in accordance with the custodial credit risk disclosure requirements of GASB Statement No. 40. At June 30, 2021 and 2020, all of the System's investments in derivative instruments are held in the System's name and are not exposed to custodial credit risk.

Interest Rate Risk

The tables below describe the maturity periods of the derivative instruments exposed to interest rate risk at June 30, 2021 and 2020.

Derivative Interest Rate Risk as of June 30, 2021

				Matur	ities	·	
Derivative Type / Contract		Fair Value		Less than 1 Year		1-5 years	
Forwards		_				_	
Forward Foreign Currency Exchange Contracts	\$	(7,612)	\$	(7,612)	\$	-	
Options							
Equity Contracts		(351,506)		(351,506)		-	
Swaps							
Credit Contracts		50,816				50,816	
Total	\$	(308,302)	\$	(359,118)	\$	50,816	

Derivative Interest Rate Risk as of June 30, 2020

				Matur	itie	s
Derivative Type / Contract		Fair Value		Less than 1 Year		1-5 years
Forwards		_				
Forward Foreign Currency Exchange Contracts	\$	(20,041)	\$	(20,041)	\$	-
Options						
Equity Contracts		(378,167)		(378,167)		-
Swaps						
Credit Contracts		(11,645)				(11,645)
Total	\$	(389,812)	\$	(378,167)	\$	(11,645)

Foreign Currency Risk

At June 30, 2021 and 2020, the System is exposed to foreign currency risk on \$7,612 and \$20,041, respectively, of its investments in forwards denominated in the Mexican peso.

Contingent Features

At June 30, 2021 and 2020, the System held no positions in derivatives containing contingent features.

Notes to the Basic Financial Statements Years Ended June 30, 2021 and 2020

5. Net Pension Liability

The components of the net pension liability of the City at June 30, 2021 and 2020, are as follows:

	June 30, 2021	June 30, 2020
Total pension liability	\$578,579,190	\$603,971,861
Less: Plan fiduciary net position	(458,532,875)	(378,974,690)
City's net pension liability	\$120,046,315	\$224,997,171
Plan fiduciary net position as a percentage		
of the total pension liability	79.3%	62.7%

a) Actuarial Method and Assumptions

The total pension liability as of June 30, 2021 was determined based on an actuarial valuation as of June 30, 2020, using the entry age normal actuarial cost method and the following actuarial assumptions, applied to all periods included in the measurement.

Investment Rate of Return	5.29%
Inflation Rate, U.S.	2.75%
Inflation Rate, Bay Area	2.85%
Long-term Post-Retirement Benefit Increases	3.25%

Measurements as of the June 30, 2021 are based on the fair value of assets as of June 30, 2021 and the total pension liability as of the valuation date, June 30, 2020, updated to June 30, 2021. There were no significant events between the valuation date and the measurement date. The update only included the addition of interest cost, offset by actual benefit payments. There are no active members of the plan, and thus no service cost.

Mortality rates for healthy lives were based on the CalPERS Healthy Table from the 2012-2015 Experience Study, excluding the 15-year projection using 90% of Scale MP-2016. Mortality rates for disabled lives were based on the CalPERS Industrial Disability Mortality Table from the 2012-2015 Experience Study, excluding the 15-year projection using 90% of Scale MP-2016. The mortality tables are projected to improve with MP-2017 generational mortality improvement tables, with improvements projected from a base year of 2014 (the mid-point of the CalPERS base tables).

The total pension liability as of June 30, 2020 was determined based on an actuarial valuation as of June 30, 2019, updated to June 30, 2020, using the entry age normal actuarial cost method and the actuarial assumptions as described above for the June 30, 2020 valuation, except for the assumed investment rate of return was 5.37%. Measurements as of June 30, 2020 are based on the fair value of assets as of June 30, 2020 and the total pension liability as of the valuation date, June 30, 2019, updated to June 30, 2020.

The actuarial assumptions used in the June 30, 2020 and 2019 valuations were based on the results of actuarial experience studies for the period of July 1, 2014 through June 30, 2017.

Notes to the Basic Financial Statements Years Ended June 30, 2021 and 2020

The long-term expected rate of return on pension plan investments was determined using a buildingblock method in which best-estimates ranges of expected future real rates of return (expected returns, net of pension plan investment expense and inflation) are developed for each major asset class. These ranges are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target allocation percentage and by adding expected inflation.

Best estimates of geometric real rates of return for each major class included in the pension plan's target asset allocation as of June 30, 2021 and 2020 are summarized in the following table:

	Long-Term Expected Real Rate of Return				
Asset Class	June 30, 2021	June 30, 2020			
Fixed Income	(0.30)%	2.29%			
Domestic Equity	4.70	5.55			
International Equity	5.00	7.69			
Covered Calls	2.60	4.64			
Crisis Risk Offset	1.95	3.78			
Credit	2.10	4.08			
Cash	(1.00)	1.92			

b) Discount Rate

The discount rates used to measure the total pension liability were 5.29% and 5.37% as of June 30, 2021 and 2020, respectively. The projection of cash flows used to determine the discount rate assumed that the City would contribute to the Plan based on its July 1, 2012 funding agreement with the System. This agreement suspended City contributions until the fiscal year beginning July 1, 2017, after which they would resume, based upon the recommendation of the actuary, with a City Charter requirement that the Plan's liabilities be fully funded by July 1, 2026. A cash flow projection showed that the projected fiduciary net position would be greater than or equal to the benefit payments projected for each future period. Therefore, the long-term expected rate of return on Plan investments was applied to all periods of projected benefit payments to determine the total pension liability.

c) Sensitivity of the Net Pension Liability to Changes in the Discount Rate

The following presents the net pension liability of the City, calculated using the discount rate, as well as what the Plan's net pension liability would be if it were calculated using a discount rate of 1-percentage-point lower or 1-percentage-point higher than the discount rate.

	June 30, 2021					
	1% Decrease (4.29%)	Current Discount Rate (5.29%)	1% increase (6.29%)			
City's net pension liability	pension liability \$171,086,474		\$76,004,962			
		June 30, 2020				
	1% Decrease (4.37%)	Current Discount Rate (5.37%)	1% increase (6.37%)			
City's net pension liability	\$279,560,331	\$224,997,171	\$178,053,408			

Notes to the Basic Financial Statements Years Ended June 30, 2021 and 2020

6. Reserves

Retired Member Contribution Reserve represents the total accumulated transfers from active member contributions and investments, less payments to retired members and beneficiaries.

Employer Reserve represents the total accumulated employer contributions for retirement payments. Additions include contributions from the employer, investment earnings and other income; deductions include payments to retired members and beneficiaries and administrative expenses.

The aggregate total of the System's major reserves as of June 30, 2021 and 2020 equals net position restricted for pensions and comprises the following:

	 2021	 2020
Retired member contribution reserve	\$ 26,828,201	\$ 29,205,764
Employer reserve	 431,704,674	 249,768,926
Total	\$ 458,532,875	\$ 378,974,690

7. Administrative Expenses

The City provides the System with accounting and other administrative services. Staff salaries included in administrative expenses for the years ended June 30, 2021 and 2020 were \$1,388,825 and \$1,257,550, respectively. Other administrative expenses including accounting and audit services, legal fees, annual report and miscellaneous expense for the years ended June 30, 2021 and 2020 were \$195,829 and \$265,360, respectively.

Required Supplementary Information Years Ended June 30, 2021 and 2020

Schedule of Changes in the Employer's Net Pension Liability and Related Ratios (Unaudited)

	2021	2020	2019	2018
Total Pension Liability				
Interest	\$ 34,680,418	\$ 36,078,037	\$ 37,621,301	\$ 44,320,094
Differences between expected and				
actual experience	(7,375,711)	(5,699,459)	(7,915,210)	(10,656,139)
Changes of assumptions	-	-	(1,475,030)	17,858,013
Benefit payments, including refunds	(-1 (0-1-0)	(= 4 54 0 0 = 0)	(=======	(== 000 =0 =0
of member contributions	(51,697,378)	(54,619,079)	(56,212,013)	(55,998,595)
Net change in total pension liability	(24,392,671)	(24,240,501)	(27,980,952)	(4,476,627)
Total pension liability – beginning	603,971,861	628,212,362	656,193,314	660,669,941
Total pension liability – ending (a)	\$ 579,579,190	\$603,971,861	\$628,212,362	\$656,193,314
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Plan fiduciary net position				
Contributions - member	\$ 43,448,000	\$ 43,409,000	\$ 44,821,000	\$ 44,860,000
Net investment income	90,191,309	6,996,833	21,557,961	35,446,275
Benefit payments, including refunds	()	(= 4 54 0 0 = 0)	(=======	(== 000 =0 =0
of member contributions	(52,697,378)	(54,619,079)	(56,212,013)	(55,998,595)
Administrative expense	(1,584,654)	(1,522,910)	(1,446,361)	(1,543,412)
Claims and settlements	908	132	13,856	9,145
Net change in plan fiduciary net position	79,358,185	(5,736,024)	8,734,443	22,773,413
Plan fiduciary net position – beginning	378,974,690	384,710,714	375,976,271	353,202,858
Plan fiduciary net position – ending (b)	\$458,332,875	\$378,974,690	\$384,710,714	\$375,976,271
City's net pension liability – ending				
(a) – (b)	\$120,046,315	\$224,997,171	\$243,501,648	\$280,217,043
Plan fiduciary net position as a percentage of the total pension liability	79%	63%	61%	57%
Covered payroll	\$ -	\$ -	\$ -	\$ -
Net pension liability as a percentage of covered payroll	N/A	N/A	N/A	N/A

Note: This is a 10-year schedule. Information for additional years will be presented when available.

Required Supplementary Information Years Ended June 30, 2021 and 2020

Schedule of Changes in the Employer's Net Pension Liability and Related Ratios (Unaudited) (Continued)

	2017	2016	2015	2014
Total Pension Liability				
Interest	\$ 44,931,829	\$ 42,480,394	\$ 41,262,826	\$ 42,333,496
Differences between expected and				
actual experience	3,027,944	6,977,470	(21,208,627)	-
Changes of assumptions	_	43,480,232	34,219,433	_
Benefit payments, including refunds				
of member contributions	(57,375,815)	(58,441,353)	(59,007,536)	(57,409,113)
Net change in total pension liability	(9,416,042)	34,496,743	(4,733,904)	(15,075,617)
Total pension liability – beginning	670,085,983	635,589,240	640,323,144	655,398,761
Total pension liability – ending (a)	\$660,669,941	\$670,085,983	\$635,589,240	\$640,323,144
Plan fiduciary net position				
Contributions - member	\$ -	\$ -	\$ -	\$ 4,441
Net investment income	50,158,795	(1,418,645)	15,438,586	66,392,409
Benefit payments, including refunds				
of member contributions	(57,375,815)	(58,441,353)	(59,007,536)	(57,409,113)
Administrative expense	(1,261,641)	(1,375,749)	(985,227)	(776,112)
Claims and settlements	70,282	3,593,096	-	-
Net change in plan fiduciary net position	(8,408,379)	(57,642,651)	(44,554,177)	8,211,625
Plan fiduciary net position – beginning	361,611,237	419,253,888	463,808,065	455,596,440
Plan fiduciary net position – ending (b)	\$353,202,858	\$361,611,237	\$419,253,888	\$463,808,065
City's net pension liability – ending				
(a) – (b)	\$307,467,083	\$308,474,746	\$216,335,352	\$176,515,079
Plan fiduciary net position as a percentage of the total pension liability	53%	54%	66%	72%
·				
Covered payroll	\$ -	\$ -	\$ -	\$ -
Net pension liability as a percentage of covered payroll	N/A	N/A	N/A	N/A

Required Supplementary Information Years Ended June 30, 2021 and 2020

Schedule of Employer Contributions (Unaudited) (dollars in millions)

	2	021	2	020	2	019	2	018	2	017*	20	016*	2	015*	20	014*	20	13**	2	012
Actuarially determined contribution	\$	43.6	\$	43.4	\$	44.8	\$	44.9		N/A		N/A		N/A	\$	20.3	\$	34.2	\$	45.1
Contributions in relation to the actuarially determined contribution	\$	43.6	\$	43.4	\$	44.8	\$	44.9	\$		\$		\$		\$		\$ 2	210.0	\$	45.5
Contribution deficiency/(excess)	\$		\$		\$		\$			N/A	_	N/A	_	N/A	\$	20.3	\$(<u>175.8</u>)	\$	(0.4)
Covered payroll	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	0.1	\$	0.1
Contributions as a percentage of covered payroll		N/A	210	000%	4:	5500%														

^{*} Actuarially determined contributions are calculated based on the actuarial valuation one year prior to the beginning of the fiscal year. Although actuarial valuations were performed as of June 30, 2014, June 30, 2015, and June 30, 2016, the System did not determine an actuarially determined contribution for FY 2015-2017, based on the City's funding policy.

Schedule of Investment Returns (Unaudited)

	2021	2020	2019	2018	2017	2016	2015	2014	2013	2012
Annual money-										
weighted rate of										
return net of										
investment										
expense	24.43%	2.04%	6.10%	10.57%	15.57%	-0.75%	3.90%	16.40%	9.70%	1.40%

^{**} In July 2012, the City of Oakland contributed \$210 million in Pension Obligation Bond (POB) proceeds to the Plan.

Note to Required Supplementary Information Years Ended June 30, 2021 and 2020

Note to Schedule of Employer Contributions

Actuarially determined contribution rates are calculated based on the actuarial valuation one year prior to the beginning of the fiscal year in which contributions are reported. Methods and assumptions used to determine contribution rates are:

Fiscal Year	Valuation Date	Discount Rate	Cost-of- Living Adjustments	Mortality	Other Significant Assumption Changes from Prior Year
2021	6/30/2019	5.50%	3.25%	CalPERS Mortality	None
2020	6/30/2018	5.50%	3.25%	Table from the 2012-2015 experience study,	Longevity Pay assumption for Fire members was added
2019	6/30/2017	5.50%	3.25%	excluding the 15- year projection using 90% of Scale	None
2018	6/30/2016	6.44%	3.25%	MP-2016	None
2017	6/30/2015	6.50%	3.25%	CalPERS Mortality Table from the 2006-2011	None
2016	6/30/2014	6.54%	3.25%	experience study, excluding the 20- year projection using Scale BB	None
2015	6/30/2013	6.75%	3.975%	RP-2000 Mortality Table from the 1997-2007 experience study, projected with Scale AA	None
2014	6/30/2012	6.75%	3.975%		None
2013	6/30/2011	6.75%	3.975%		None
2012	6/30/2010	7.00%	4.50%	RP-2000 Mortality Table from the 1997-2007 experience study	None

A complete description of the methods and assumptions used to determine contribution rates can be found in the corresponding actuarial valuation reports.

Table 1

OAKLAND POLICE AND FIRE RETIREMENT SYSTEM

Administrative Budget Spent to Date (Preliminary)
As of November 30, 2021

		Approved				
		Budget	November 2021	FYTD	Remaining	Percent Remaining
Internal Administrative Costs	<u> </u>					
PFRS Staff Salaries	\$	1,212,000	\$ 83,221	\$ 446,196	\$ 765,804	63.2%
Board Travel Expenditures		52,500	-	-	52,500	100.0%
Staff Training		20,000	-	-	20,000	100.0%
Staff Training - Tuition Reimbursement		7,500	-	-	7,500	100.0%
Board Hospitality		3,600	-	_	3,600	100.0%
Payroll Processing Fees		40,000	-	-	40,000	100.0%
Miscellaneous Expenditures		40,000	692	3,920	36,080	90.2%
Internal Service Fees (ISF)		88,000	-	49,501	38,499	43.7%
Contract Services Contingency		50,000	-	-	50,000	100.0%
Internal Administrative Costs Subtotal:	\$	1,513,600	\$ 83,913	\$ 499,617	\$ 1,013,983	67.0%
Actuary and Accounting Services						
Audit	\$	49,000	\$ 11,305	\$ 28,500	\$ 20,500	41.8%
Actuary		46,500	, -	-	46,500	100.0%
Actuary and Accounting Subtotal:	\$	95,500	\$ 11,305	\$ 28,500	\$ 67,000	70.2%
Legal Services						
City Attorney Salaries	\$	188,000	\$ 18,672	\$ 43,923	\$ 144,077	76.6%
Legal Contingency		150,000	, -	-	150,000	100.0%
Legal Services Subtotal:	\$	338,000	\$ 18,672	\$ 43,923	\$ 294,077	87.0%
Investment Services						
Money Manager Fees	\$	1,353,000	\$ 33,370	\$ 330,913	\$ 1,022,087	75.5%
Custodial Fee		124,000	,	29,125	94,875	76.5%
Investment Consultant		100,000	-	25,000	75,000	75.0%
Investment Subtotal:	\$	1,577,000	\$ 33,370	\$ 385,038	\$ 1,191,962	75.6%
Total Operating Budget	\$	3,524,100	\$ 147,259	\$ 957,078	\$ 2,567,022	72.84%

Table 2

OAKLAND POLICE AND FIRE RETIREMENT SYSTEM

Cash in Treasury (Fund 7100) - Preliminary As of November 30, 2021

	Nov	vember 2021
Beginning Cash as of 10/31/2021	\$	6,324,406
Additions:		
City Pension Contribution - November	\$	3,651,667
Investment Draw	\$	1,000,000
Misc. Receipts		587
Total Additions:	\$	4,652,254
Deductions:		
Pension Payment (October Pension Paid on 11/1/2021)		(4,348,739)
Expenditures Paid		(200,971)
Total Deductions	\$	(4,549,710)
Ending Cash Balance as of 11/30/2021*	\$	6,426,950

^{*} On 12/1/2021, November pension payment of appx \$4,349,000 will be made leaving a cash balance of \$2,078,000.

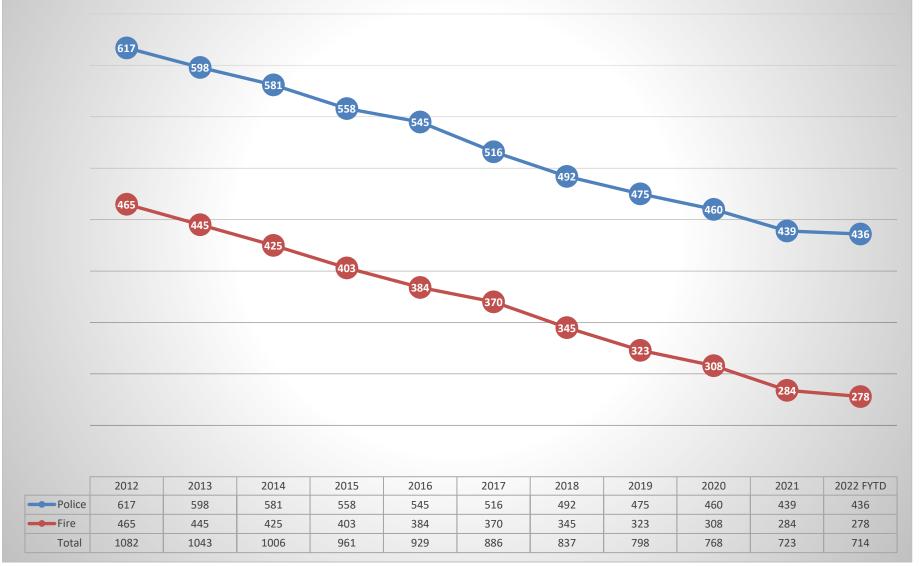
Table 3
CITY OF OAKLAND POLICE AND FIRE RETIREMENT SYSTEM

Census
As of November 30, 2021

COMPOSITION	POLICE	FIRE	TOTAL
Retired Member:			
Retiree	306	178	484
Beneficiary	130	100	230
Total Retired Members	436	278	714
Total Membership:	436	278	714

COMPOSITION	POLICE	FIRE	TOTAL
Retired Member:			
Service Retirement	291	141	432
Disability Retirement	134	125	259
Death Allowance	11	12	23
Total Retired Members:	436	278	714
Total Membership as of November 30, 2021:	436	278	714
Total Membership as of June 30, 2021:	439	284	723
Annual Difference:	-3	-6	-9

Oakland Police and Fire Retirement System Pension Plan Membership Count As of November 30, 2021 (FY 2012 - FY 2022)





A GENDA REPORT

TO: Oakland Police and Fire

Retirement System Board (PFRS)

FROM: Téir A. Jenkins

Investment & Operations

Manager

SUBJECT: Authorization and Reimbursement

of Board Member Wilkinson's Travel/Education Expenses **DATE:** January 26, 2022

R. Steven Wilkinson, Board Member of the **Oakland Police and Fire Retirement System** Board, requests authorization for reimbursement of travel and/or board education related funds for the event detailed below. Staff has verified that budgeted funds are available for this Board Member to be reimbursed.

Staff recommends the reimbursement of travel/education funds for the event below be approved by board motion.

Travel/Education Event: CALAPRS 2022 General Assembly

Event Location: Mission Bay Resort, San Diego, CA

Event Date: March 5, 2022 - March 8, 2022

Estimated Event Expense: \$1,700.00

Notes:

Respectfully submitted,

Téir A. Jenkins

Investment & Operations Manager

Oakland Police & Fire Retirement Systems

For questions please contact Maxine Visaya, Administrative Assistant II, at 510.238.7295

Attachments:

(1) Resolution 8036

(2) Conference Agenda

Agenda Item <u>4</u>
PFRS Audit Committee Meeting
January 26, 2022

^{*} If enrollment, registration or admission expenses are required, the fund will process a check in advance and pay vendor directly; all other board-approved reimbursements will be made upon delivery of receipts to staff by the travelling party. Cancellation of event attendance requires return of all reimbursed funds paid to attendee to the fund.

OAKLAND POLICE AND FIRE RETIREMENT SYSTEM BOARD

CITY OF OAKLAND, CALIFORNIA RESOLUTION No. 8036

Approved to Form and Legality	
Do Jogue	

ON MOTION OF MEMBER	SECONDED BY MEMBER
IN MICHAEL OF MEMBER	NEU CHALLERY WEWKER
JI VIO I IOI VOI MILMBLIX	SECONDED DI MEMBER

RESOLUTION APPROVING REQUEST OF OAKLAND POLICE AND RETIREMENT **SYSTEM BOARD MEMBER** WILKINSON TO TRAVEL AND ATTEND THE 2022 CALIFORNIA ASSOCIATION OF PUBLIC RETIREMENT SYSTEMS GENERAL ASSEMBLY (CALAPRS 2022 GENERAL ASSEMBLY) FROM MARCH 5, 2022 THROUGH MARCH 8, 2022 IN SAN DIEGO, CALIFORNIA AND FOR REIMBURSMENT OF REGISTRATION FEES AND TRAVEL-EXPENSES IN AN AMOUNT NOT TO EXCEED ONE RELATED THOUSAND SEVEN HUNDRED DOLLARS (\$1700.00)

WHEREAS, the Oakland Police and Fire Retirement System (PFRS) Education and Travel Policy ("Travel Policy") requires that PFRS Board members and staff obtain prior Board approval of all education and travel-related expenses that will be reimbursed by PFRS; and;

WHEREAS, PFRS Board Member R. Steven Wilkinson would like to attend the 2022 California Association of Public Retirement Systems General Assembly ("the Conference") in San Diego, CA from March 5, 2022 through March 8, 2022; and

WHEREAS, in compliance with Section IV(13)(c) of the Travel Policy, Member Wilkinson has submitted documentation showing the registration fees and estimated travel-related expenses to attend the Conference will be One Thousand Seven Hundred Dollars (\$1,700.00); and,

WHEREAS, in compliance with Section IV(1)(c) of the Travel Policy, Member Wilkinson seeks Board authorization to attend the Conference in San Diego, CA from March 5, 2022 through March 8 2022 at an estimated cost of One Thousand Seven Hundred Dollars (\$1,700.00); and, therefore be it

RESOLVED: That PFRS Board Member R. Steven Wilkinson's request to attend the 2022 California Association of Public Retirement Systems General Assembly in San Diego, CA from March 5, 2022 through March 8 2022 at an estimated cost of One Thousand Seven Hundred Dollars (\$1,700.00) is approved; and be it

OAKLAND POLICE AND FIRE RETIREMENT SYSTEM BOARD

CITY OF OAKLAND, CALIFORNIA

RESOLUTION No. 8036

FURTHER RESOLVED: That the PFRS Board authorizes reimbursement of the registration fees and travel-related expensed in an amount not to exceed One Thousand Seven Hundred Dollars (\$1,700.00) for Member Wilkinson's attendance at the 2022 California Association of Public Retirement Systems General Assembly.

IN BOARD MEETING, VIA ZOOM CONFERENCE _	JANUARY 26,	2022
PASSED BY THE FOLLOWING VOTE:		
AYES:		
NOES:		
ABSTAIN:		
ABSENT:		
	ATTEST:	
		President
	ATTEST:	
		SECRETARY



CALAPRS

EDUCATION • COMMUNICATION • NETWORKING California Association of Public Retirement Systems **2022 General Assembly**March 5 – March 8, 2022
Mission Bay Resort, San Diego, CA

The California Association of Public Retirement Systems (CALAPRS) invites you to attend the Annual General Assembly, March 5 - March 8, 2022 in sunny San Diego at the San Diego Mission Bay Resort! The General Assembly is an educational conference for retirement system trustees, senior staff, and our annual sponsors. This year, we're planning a safe return to the in-person format - attendees will learn from experts and peers, while getting the opportunity to greet their colleagues face-to-face and network.

REGISTRATION

Register online at www.calaprs.org/events.

- Retirement System Fee: \$250/person
- **Sponsor Fee:** Complimentary for up to 2 representatives*

LODGING

CALAPRS has arranged for a discounted room rate at the meeting hotel, the San Diego Mission Bay Resort for the duration of the meeting.

Room Rate: \$229/night, plus taxes and fees*

Book Online:

https://bit.ly/SDMissionBay_CALAPRSGA22 **By Phone:** 877-259-0010; Group Code: CAL304

*The regular resort rate of \$36/night is waived for those who book under the CALAPRS discounted rate.

Cut-off Date: The room rate is available until February 2, 2022 or until the block is sold out, whichever comes first.

SPONSORSHIP

Sign-up to Sponsor at www.calaprs.org/sponsors.

Fee: \$2,500 Sponsor Benefits:

- (2) Two complimentary registrations to the General Assembly
- Access to the CALAPRS Systems Directory
- A company listing in the CALAPRS Sponsor directory
- Subscription to the semi-annual CALAPRS Newsletter

HEALTH & SAFETY

CALAPRS is dedicated to providing a safe event experience for all participants involved including attendees, sponsors, staff, and guests. CALAPRS will conduct the General Assembly as advised by government (local, state, and national) regulations, CDC recommendations, and venue requirements at the time of the event. This may include, but is not limited to social distancing, requiring proof of vaccination, or wearing a face covering. CALAPRS will continue to monitor guidelines for safe in-person events. Requirements for attendance are subject to change.

^{*}Annual sponsorship required.

PROGRAM



SATURDAY, MARCH 5

4:00 – 6:00 PM Early-Bird Registration

SUNDAY, MARCH 6

10:00 AM - 5:00 PM Registration Open

10:00 AM - 12:00 PM AB1234 Ethics for Trustees

This two hour mandatory bi-annual training for public officials covers conflict of interest rules, public meeting and record requirements, due process requirements and other significant rules for legal compliance by public officials, with a particular focus on how these rules apply to retirement board trustees and senior staff. Note - this session is designed for system trustees and senior staff.

Speaker: Ashley Dunning, Partner, Nossaman LLP

2:00 – 2:15 PM Welcome Remarks

<u>Speakers:</u> Johanna Shick, CEO, San Joaquin County Employees Retirement Association (SJCERA) and General Assembly Conference Chair; and Carl Nelson, CEO, San Luis Obispo County Pension Trust and CALAPRS President

2:15 – 3:15 PM Issues Facing Pension Plans: A Fireside Chat with Hank Kim, Esq. and Kristen Santos, Administrator

What is top of mind for our trustees and system administrators alike? During this fireside chat, we'll hear about what is most concerning for public pension systems from varying perspectives – statewide, medium-sized pensions, and smaller/rural pensions.

<u>Moderator:</u> Steve Delaney, CEO, Orange County Employees Retirement System (OCERS) <u>Speakers:</u> Hank Kim, Esq., Executive Director and Counsel, National Conference on Public Employee Retirement Systems (NCPERS) and Kristen Santos, Administrator, Merced County Employees' Retirement Association (MCERA)

3:15 – 3:30 PM Networking Break

3:30 – 4:30 PM How Inflation will Impact Your Portfolio

During this session Jack Ross will discuss what pension systems should be aware of as they manage their portfolios in the coming year. How will real assets portfolios be impacted by higher inflation and what does it mean for the remainder of the portfolio? What are the unforeseen risks on the portfolio? How might asset allocations need to change if we have sustained inflation? How are investors measuring the impacts of higher inflation on their portfolios? These are just some of the questions that will be addressed.

Speaker: Jack Ross, Managing Partner and Co-founder, Waterfall Asset Management

7:00 - 9:30 PM Strolling Dinner at San Diego Mission Bay Resort (outdoor venue)

System attendees may bring a guest to the Strolling Dinner. Please contact info@calaprs.org to add your guest to your registration.

MONDAY, MARCH 7

7:00 AM - 4:00 PM Registration Open

7:15 – 8:15 AM Breakfast (outdoor venue)

8:15 – 8:30 AM Opening Remarks

Speaker: Johanna Shick, CEO, San Joaquin County Employees Retirement Association

(SJCERA) and General Assembly Conference Chair

8:30 – 9:30 AM Keynote Session featuring Kristina Hooper, Chief Global Market Strategist, Invesco

During this session, Kristina Hooper will cover her current macro outlook for 2022, including fiscal and monetary policy, asset class implications based on her base case outlook, as well as

implications for tail risk scenarios and key investment themes.

9:30 – 10:00 AM Networking Break

10:00 – 11:00 AM So Your System is Fully-Funded – What Now?

Recent record investment returns improved pension systems' funding, in some cases to full (or nearly full) funding. While full funding has been our goal, it presents challenges that most systems haven't contemplated in more than a decade. This panel of actuaries and investment consultants will discuss the policy and implementation considerations Boards and staff should consider. Should systems lower the return assumption? De-risk the portfolio? Establish a rainy-day reserve? What about amortization layers? Do these policy decisions affect members and employers differently? How do we manage potential pressure for benefit increases, contribution holidays? Alternatively, what happens if you stay the course and maintain your

current policy?

Moderator: Jeff Wickman, Administrator, Marin County Employees' Retirement Association

(MCERA)

<u>Panelists:</u> Paul Angelo, Senior Vice President and Actuary, The Segal Group; Graham Schmidt, ASA, Consulting Actuary, Cheiron; Jeff MacLean, CEO, Verus; and Steve McCourt, CFA,

Managing Principal / Co-CEO, Meketa

11:00 AM - 12:00 PM Delegating to the Investment Staff

Some argue pension systems are increasing their delegation of asset management duties, but how are those functions delegated and how does that affect the overall governance of the organization. Who determines the investment strategies of a plan and how they're implemented to ensure the success of plan assets? In this session, participants will hear from a number of investment professionals to discuss how the practice has changed within their systems, lessons learned, challenges, and successes.

Moderator: Roberto Peña, CEO, San Jose City Retirement Plans

<u>Panelists:</u> Shawn Dewane, Trustee, OCERS; Allan Emkin, Meketa Investment Gorup; Drew Lanza, San Jose City P&F Retirement Plan Chair; Prabhu Palani, CIO, San Jose City Retirement Plans; and Tim Price, CIO, Contra Costa County Employees' Retirement Association (CCCERA)

12:00 – 1:30 PM Lunch (outdoor venue)

1:30 – 2:30 PM Using A.I. in Retirement Administration

Artificial Intelligence is no longer a what-if, a myth, or some far-off idea that won't come to fruition until later in the future. It's being used NOW and used by many retirement systems worldwide, as well as by our supporting partners. So - what *are* they doing? Hear from pension plans, investment managers, and our partners in the private sector to hear about how they are using AI now and how you can implement it in your own organizations.

2:30 – 3:00 PM Networking Break

MONDAY, MARCH 7 (continued)

3:00 – 4:00 PM Death Verification

Timely detection of unreported deaths, and the resulting overpaid benefits, is an issue facing many sectors of the financial services industry including public pension systems. Come hear what steps CalPERS is taking to identify unreported deaths, confirm the living status of benefit recipients, locate beneficiaries and collect overpayments.

<u>Moderator:</u> Anthony Suine, Deputy Executive Officer, Customer Services & Support, California Public Employees' Retirement System (CalPERS)

<u>Speakers:</u> Roger Fujita, Assistant Division Chief, Disability and Survivor Benefits Division; and Tiffany Triplett, Section Manager, Disability and Survivor Benefits Division, California Public Employees' Retirement System (CalPERS)

5:00 - 6:00 PM Networking Reception (outdoor venue)

TUESDAY, MARCH 8

7:30 - 10:30 AM Registration Open

7:30 – 8:30 AM Breakfast (outdoor venue)

8:30 - 9:30 AM Succession Planning in the Public Pension Sector—Developing the Leadership

At the Board, executive, and staff levels, effective leadership and continuity of talent are key to your organization's success. Too often, we hear succession planning isn't possible in the public sector or, alternatively, the organization's succession plan consists primarily of, "Call the recruiter" or "Hopefully the Board of Supervisors appoints someone who knows about investments to the Board." This panel will discuss the programs and practices your organization can put in place now at the Board, Executive, and staff levels to help ensure there are well-qualified people ready, willing and able to step forward when turnover occurs.

Moderator: Johanna Shick, CEO, San Joaquin County Employees' Retirement Association

<u>Panelists:</u> Amy McDuffee, Founder and CEO, Mosaic Governance Advisors; Melissa Norcia, Chief Administrative Officer, CalSTRS; and Debra Smith, CEO, Montage Careers

9:30 – 10:00 AM Networking Break

11:00 AM

(SJCERA)

10:00 – 11:00 AM Cybersecurity and the Retirement System – What You Can do NOW to Protect Your Organization

We've heard it before and we all know that cyber crimes are not something to take lightly, but what can our systems do now to protect ourselves, especially now that most have transitioned to a fully virtual or hybrid workplace? During this session, panelists will provide tangible best practices that our public pension systems should adopt to ensure they're secure.

<u>Moderator:</u> Vijay Jagar, CTO, Alameda County Employees' Retirement Association (ACERA) <u>Panelists:</u> Matt Eakin, CISSP, CCSP, CEH, Director of Cyber Security, Orange County Employees' Retirement System (OCERS); Harsh Jadhav, Chief of Internal Audit, Alameda County Employees' Retirement Association (ACERA); and James Vorhis, Co-Chair, Insurance Recovery & Counseling Group, Nossaman LLP

Closing Remarks

<u>Speaker:</u> Johanna Shick, CEO, San Joaquin County Employees' Retirement Association (SJCERA)

GENERAL ASSEMBLY PLANNING COMMITTEE: Johanna Shick, SJCERA (Chair); Steve Delaney, OCERS; Scott Hood, SamCERA; David Nelsen, ACERA; Roberto Peña, San Jose City Retirement Plans; Kristen Santos, MercedCERA; and Anthony Suine, CalPERS



JANUARY 26, 2022

Oakland Police and Fire Retirement System DDJ Capital Management Group Trust – High Yield Investment Fund Portfolio Review DDJ Capital Management, LLC



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66 The DDJ investment philosophy is based upon the belief that by performing exhaustive fundamental and legal/structural analysis of each investment opportunity, we can construct a concentrated, value-oriented credit portfolio that can generate compelling risk-adjusted returns over a complete credit cycle. *9

- DAVID BREAZZANO PRESIDENT, CIO, PORTFOLIO MANAGER

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DDJ Capital Management, LLC



Ben Santonelli | Portfolio Manager CO-PM OF OPPORTUNISTIC HIGH YIELD, PM OF TOTAL RETURN CREDIT 17 years industry experience 17 years at DDJ



Kenzie Wedge | Assoc. Director INVESTOR REALTIONS

7 years industry experience
6 years at DDJ

Polen Capital Management, LLC



Jim Haymes | Head of Client Service
DISTRIBUTION & CLIENT SERVICE
31 years industry experience
8 years at Polen Capital



Jade Brown | Diversity & Inclusion Manager BUSINESS MANAGEMENT

1 year industry experience
1 year at Polen Capital



25 YEARS IN OPERATION

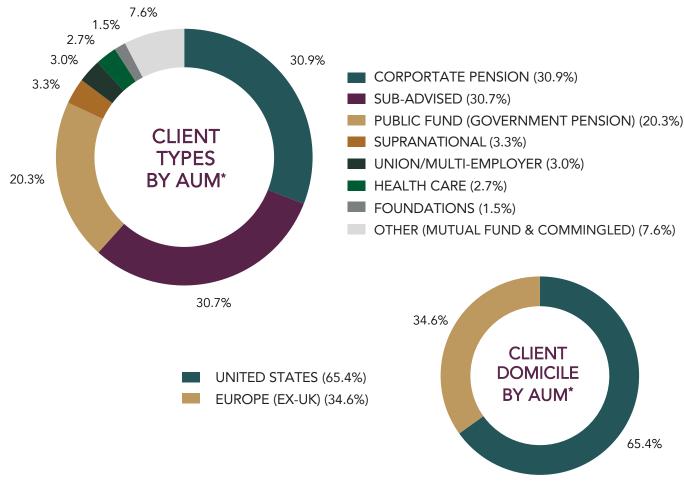
\$8.3 BILLION IN AUM

50 EMPLOYEES

16 INVESTMENT TEAM MEMBERS

2 IN-HOUSE ATTORNEYS

UNPRI SIGNATORY SINCE 2016 DDJ Capital Management is a privately-held investment manager with a sole focus on managing high yield debt portfolios for a diverse and stable institutional client base.



^{*} Does not include assets managed in legacy accounts, which are presently in wind-down. GIPS Composite Reports are available in the Appendix.

Investment Leadership Team



David Breazzano | President & CIO* CO-PM OF OPPORTUNISTIC HIGH YIELD, CO-PM OF UPPER TIER U.S. HIGH YIELD 41 years industry experience 25 years at DDJ



John Sherman | Portfolio Manager*
CO-PM OF OPPORTUNISTIC HIGH YIELD,
PM OF BANK LOAN
17 years industry experience
14 years at DDJ



Benjamin Santonelli | Portfolio Manager*
CO-PM OF OPPORTUNISTIC HIGH YIELD,
PM OF TOTAL RETURN CREDIT
17 years industry experience
17 years at DDJ



Roman Rjanikov | Portfolio Manager*
CO-PM OF UPPER TIER U.S. HIGH YIELD,
DIRECTOR OF RESEARCH, ESG INTEGRATION
18 years industry experience
14 years at DDJ

Additional Key Investment Personnel



Elizabeth Duggan | Assoc. General Counsel* **DEDICATED TRANSACTIONAL ATTORNEY**20 years industry experience

15 years at DDJ



Jason Rizzo | Head Trader
OVERSEES ALL TRADING ACTIVITIES
24 years industry experience
17 years at DDJ

- 7 Research Analysts2 In-House Attorneys
- 2 Traders

- Collaborative 16-member team; key professionals average 22 years industry experience
- Two in-house attorneys provide valuable legal perspective and analysis
- Investment Review Committee provides a regular forum for evaluation and review

^{6 *} Investment Review Committee personnel Additional information regarding industry coverage & responsibilities for the investment team can be found in the Appendix.

Polen Capital at a Glance

Key Characteristics

- Results driven culture with clear mission and vision
- Focused product set: concentrated quality growth
- Differentiated value proposition and business model
- Strong distribution, market traction, presence and partners
- Scale and financial strength

\$80B

Total Assets

1979

Founded

140

Employees

8 Strategies

Large Company Growth

- Focus Growth (U.S.)
- Global Growth
- International Growth

Small Company Growth

- U.S. Growth
- International Growth
- U.S. SMID Growth
- Global SMID Growth

Emerging Markets Growth

 Global Emerging Markets Growth

3 Offices

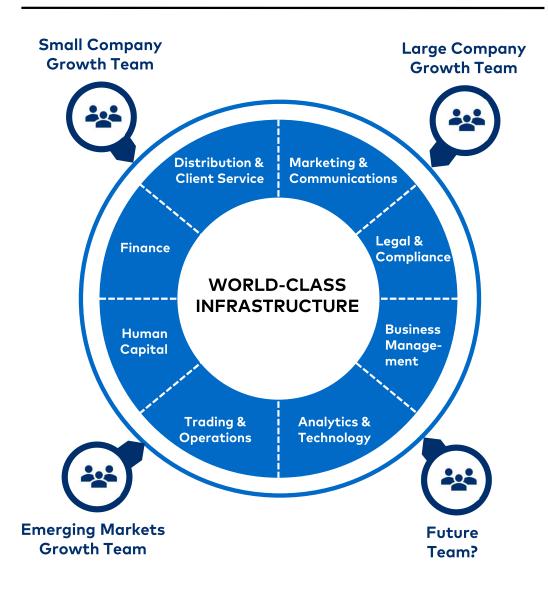




Our business model is resilient and provides an environment in which talent thrives



Polen Business Model



☑ Team Autonomy

 Investment teams focus on investing with no distractions

✓ No Competing Strategies

Each strategy is unique with no competing strategies

☑ Strong Business Leadership

 Business Management focuses on producing operational alpha / competitive advantage

☑ Global Distribution

Dedicated distribution leader for each investment team

World-Class Infrastructure

 Leading HR, finance, operations, technology and risk capabilities

☑ Economic Alignment

- The economic model is simple
- Equity granted based on milestones



Both DDJ and Polen Capital have dynamic, purpose-driven cultures...



polen capital

Our Pillars of Purpose



- Preserve and grow client assets to protect their present and to enable their future
- Do the right thing every decision made with clients in mind





- Top notch client service to ~40 clients, portfolio managers interact directly
- Emphasis on integrity and respect
- High value-added outcomes for clients

- Employee-owned, entrepreneurial
- Culture of autonomy, continuous improvement, purpose, and inclusivity
- Results Only Work Environment
- \$5,000 annual learning budget

Colleagues



- Entrepreneurial, employee-owned firm
- Focus on the employees
- Emphasis on results
- Robust professional development program with individual learning budaet

Extensive community involvement











Community



Offers paid time off for volunteerism















Polen Capital
Diversity & Inclusion Strategic Plan



Executive Summary

Diversity & Inclusion Defined

- We believe diversity of thought, unique perspectives, and inclusivity are central to our purpose and core values at Polen Capital
- Minority representation in our industry includes women, people of color, the LGBTQ+ community, people with disabilities, and veterans

Diversity & Inclusion Strategy

- We aim to increase minority representation within the asset management industry and the firm while enhancing our ability to go beyond for our clients
- Four pillars shape our diversity & inclusion strategy



Our Vision

We aspire...

...to be a leader in the diversity & inclusion space within the investment management industry.

...to build an inclusive firm that attracts and celebrates all backgrounds and cultures.

...to stand in partnership with our communities to strive to create a more equitable world.

Our diversity & inclusion strategy is a business imperative

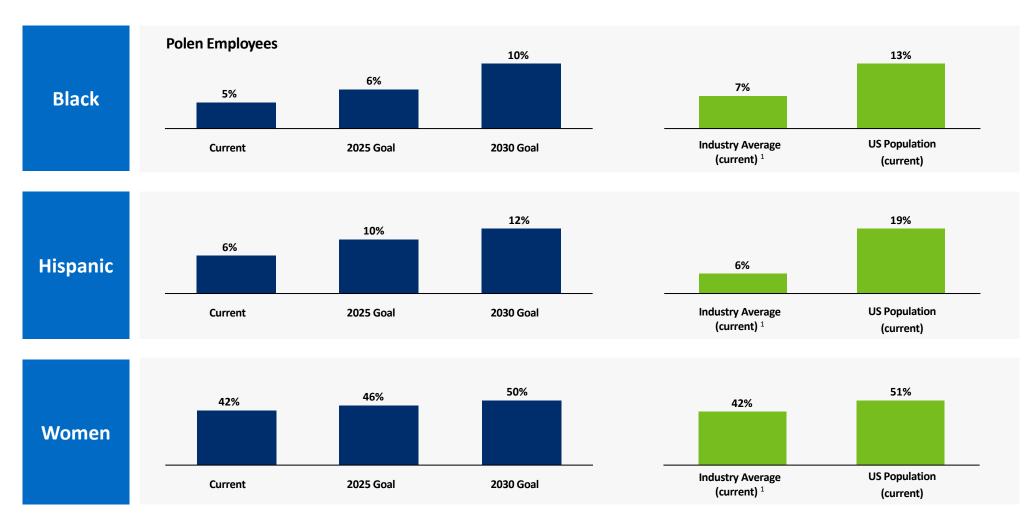
Four pillars shape our diversity & inclusion strategy

Pillar	Objective	Steps
1 Empower all voices	Increase minority representation of our workforce	 New relationships with talent search partners, colleges and universities Ensure minority representation on candidate and interviewer slates.
2 Enhance our workplace	 Foster a culture of belonging Advance allyship and inclusion Position diverse talent for career growth 	 Launch Employee Resource Groups (ERGs) Provide D&I training to employees Communicate goals and hold managers accountable
3 Engage our communities	 Support our local communities through volunteerism, charitable contributions, and skill development 	 Provide grants via Donor Advised Fund Partner with local high schools Promote gift matching
4 Expand our reach	 Drive sustainability and ESG initiatives Ensure business activities are inclusive, ethical, and comprised of diverse clients and vendors 	 Expand minority-focused vendor and client base Measure, monitor, and communicate progress



Measuring Success

% of Total Polen Capital FTEs



¹ Based off 2020 McLagan Asset Management data



Diversity & Inclusion Leadership

Committee Co-Chair

Diversity & Inclusion Sub Committee















Diversity & Inclusion Working Groups

Empower all voices: Jennifer Abrams, Whitney Crawford, PJ Fitzgerald

Enhance our Workplace: Rana Pritanjali, Pamela Macedo, Alejandro Claudio

Engage our Communities: Ellie Day, Brandon Ladoff, Lisa Vasquez

Expand our Reach: Christine Young, Lauren Harmon, Shane Smith

Employee Resource Groups

Women – launched in 2021, led by Taneka Lawrence and Rayna Lesser Hannaway

Multicultural – launched in 2021, led by Tenielle Welch and Leo Gonzalez

LGBTQ+ – launching in 2022, led by Jim Haymes and Miguel Marquez





Portfolio Review

Implementing DDJ's Philosophy

Through rigorous due diligence with a strong emphasis on margin of safety, DDJ believes that it can construct concentrated portfolios that can outperform broad high yield indices over a full credit cycle.

MISPRICED RISK

- Focus on most inefficient areas of the market
- Rating agency biases create opportunities
- Emphasis on sourcing opportunities in the secondary market

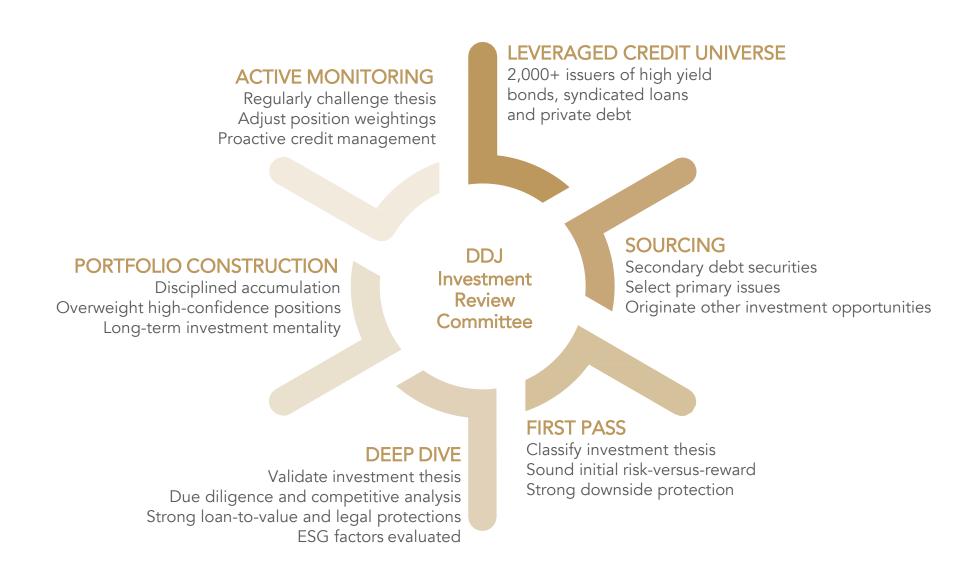
HIGH CONVICTION MANAGER

- Private equity-like analysis applied to leveraged credit markets
- Construct concentrated portfolios
- Analysts organized as sector specialists
 - Priority is to monitor existing positions

EXHAUSTIVE DUE DILIGENCE IS THE BEST RISK CONTROL

- Risk-reward is assessed through "loan-to-value" analysis
- Primarily concerned with principal protection
- Thorough legal analysis augmented by in-house attorneys

Process Overview



DDJ U.S. Opportunistic High Yield Strategy Overview

Market Inefficiencies

Middle Market (EBITDA \$75mm-\$250mm)

- Smaller issue size reduces the buyer base and results in liquidity premium
- DDJ believes rating agencies' view of smaller companies as inherently more risky oftentimes leads to mis-ratings

Lower Tier (B rated and below)

• Institutional investor restrictions or prohibitions on CCC-related holdings results in lower tier being "under-researched" relative to higher quality tiers

Special Situations

• The strategy may also target mispricing opportunities in higher-rated "fallen angels", stressed credits and certain private debt transactions identified by DDJ at various points in the credit cycle

Strategy

- Construct a portfolio with a yield premium relative to the benchmark of 200-400 bps
- Overweight high-confidence positions with 70 to 90 total issuers
- Maintain flexibility to invest across the capital structure bank loans and bonds
- Focus on downside protection through exhaustive fundamental and legal due diligence
- Limited exposure to stressed or distressed securities under normal market conditions
- Historically low correlation of excess returns to largest institutional high yield managers
- No duration or quality limits; duration typically falls well below benchmark due to structural allocation to bank loans

OBJECTIVE

Outperform a broad-based U.S. high yield index over a full credit cycle by 200 bps on a gross basis while experiencing realized credit losses at or below market level

BENCHMARK

ICE BofA U.S. Non-Financial High Yield Index

PHILOSOPHY

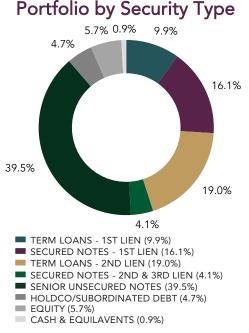
DDJ believes that the middle market and lower tier (B/CCC-rated) components of the high yield market are its most inefficient segments. Through rigorous due diligence with a strong emphasis on margin of safety, DDJ believes that it can construct concentrated portfolios that can outperform broad high yield indices over a full credit cycle.

AS OF 12/31/21

DDJ Capital Management Group Trust - High Yield Investment Fund

Performance	1 Year	3 Year (ann.)	5 Year (ann.)	7 Year (ann.)	Since Inception (ann.)
DDJ Capital Management Group Trust – High Yield Investment Fund (Gross)	9.20%	7.68%	7.30%	6.87%	7.32%
ICE BofA U.S. High Yield Index	5.36%	8.57%	6.10%	6.03%	6.34%

Credit Quality Allocation 100% 80% 60% BB B CCC CC, C, D DDJ CAPITAL MANAGEMENT GROUP TRUST – HIGH YIELD INVESTMENT FUND ICE BOFA U.S. HIGH YIELD INDEX TERM LOANS - 1ST SECURED NOTES - 2 SENIOR UNSECURED HOLDCO/SUBORDIN



Portfolio Characteristics	Fund	ICE BofA HY
Number of issuers	84	956
Top 10 issuers	29.5%	13.3%
Top 25 issuers	57.8%	22.9%
Average rating	CCC1	B1
Average coupon	7.14%	5.68%
Avg. blended yield	6.79%	4.32%
Average price	\$101.98	\$104.05
Adj. effective duration	2.16	4.02
Fund Net Asset Value	\$325,450,785	
Oakland Net Asset Value	\$9,3	372,204

The DDJ Capital Management Group Trust – High Yield Investment Fund (the "Fund") was incepted on July 1, 2011. Accordingly, performance since inception set forth above is calculated as of such date. However, the date of the first investment by Oakland Police & Fire Retirement System ("Oakland") was January 1, 2015. The full name of the index presented is the ICE BofA U.S. High Yield Index ("ICE BofA HY"). The ICE BofA HY is a broad high yield index that tracks the performance of U.S. dollar-denominated below investment grade corporate debt publicly issued in the U.S. domestic market. The index data referenced herein is the property of ICE Data Indices, LLC, its affiliates ("ICE Data") and/or its Third Party Suppliers and has been licensed for use by DDJ. ICE Data and its Third Party Suppliers accept no liability in connection with its use. Please contact DDJ for a full copy of the disclaimer. The returns set forth for the Fund are presented gross of all fees except for trading expenses, deal-related legal expenses and withholding taxes. Returns are calculated using daily time weighted rates of return and cash flows are recognized at the beginning of the day. Gross returns also do not reflect the deduction of the investment advisory fee charged by DDJ Capital Management; such expense, as well as other expenses the Fund may incur, will reduce the gross return set forth in the charts above. The investment advisory fees charged to each participating trust in the Fund are set forth in such trust's subscription agreement. Net returns are available upon request. Past performance is no quarantee of future returns. Please also reference the Endnotes on the subsequent slides for more information.

Top 10 Issuers by size of 12/31/21

•	
	% NAV Weight
NFP Corp.	3.7%
Ford Holdings	3.6%
Tekni-Plex	3.4%
Baffinland Iron Mines	3.2%
Surgery Center	2.9%
Asurion	2.7%
Assured Partners	2.6%
MHS Holdings	2.6%
Specialty Steel	2.6%
Duravant	2.3%
Total	29.5%

Top 5 by Issuer *YTD as of 12/31/21*

	Avg. Weight	Contrib. to Return
American Tire Distributors	1.06%	1.09%
Forum Energy	1.82%	0.69%
CWT Travel	0.19%	0.50%
Utex Industries	0.92%	0.48%
Specialty Steel	2.58%	0.41%
Total	6.57%	3.17%

Bottom 5 by Issuer YTD as of 12/31/21

	Avg. Weight	Contrib. to Return
GTT Communications	0.65%	-0.71%
Carlson Travel	0.87%	-0.45%
Bausch Health	0.49%	-0.04%
MultiPlan	0.20%	-0.02%
Wheel Pros	0.73%	-0.01%
Total	2.94%	-1.23%

Industry Groups as of 12/31/21

	Fund	ICE BofA HY	Difference
Automotive	7.2%	4.5%	2.8%
Banking	0.0%	1.3%	-1.3%
Basic Industry	15.6%	7.8%	7.8%
Capital Goods	18.6%	6.1%	12.5%
Consumer Goods	2.3%	4.7%	-2.4%
Energy	6.6%	13.4%	-6.8%
Financial Services	0.0%	4.9%	-4.9%
Healthcare	14.4%	9.8%	4.6%
Insurance	8.4%	1.3%	7.1%
Leisure	2.3%	6.4%	-4.1%
Media	5.5%	8.2%	-2.7%
Real Estate	0.0%	4.2%	-4.2%
Retail	3.3%	5.2%	-1.9%
Services	9.0%	6.4%	2.6%
Technology & Electronics	1.1%	4.0%	-2.9%
Telecommunications	3.3%	7.3%	-4.0%
Transportation	1.5%	1.8%	-0.3%
Utility	0.0%	2.8%	-2.8%
Cash & Equivalents	0.9%	0.0%	0.9%

The returns set forth for the Fund above are presented gross of all fees except for trading expenses, deal-related legal expenses and withholding taxes. Returns are calculated using daily time weighted rates of return and cash flows are recognized at the beginning of the day. Net returns are available upon request. Past performance is no guarantee of future returns. In order to obtain the calculation methodology with respect to the Contribution to Return set forth above, or a list showing a contribution of each holding in the account to the overall Fund's performance during this period, please contact investorrelations@ddjcap.com. The holdings identified above do not represent all of the securities purchased, sold or recommended for the Fund during this period.

PORTFOLIO CHARACTERISTICS DDJ Capital Management Group Trust - High Yield Investment Fund

Price as of 12/31/21

	Fund	ICE BofA HY	Difference
<70	2.2%	0.5%	1.8%
70-85	0.0%	0.6%	-0.6%
85-95	3.6%	2.5%	1.1%
95-100	27.7%	16.7%	11.0%
100-105	46.5%	48.6%	-2.2%
105-110	7.8%	20.4%	-12.6%
>110	5.6%	10.8%	-5.2%
Equity	5.7%	0.0%	5.7%
Cash & Equivalents	0.9%	0.0%	0.9%
Total	100.0%	100.0%	

Blended Yield as of 12/31/21

	Fund	ICE BofA HY	Difference
0-3%	0.3%	23.2%	-22.9%
3-6%	40.6%	63.7%	-23.1%
6-9%	43.1%	10.6%	32.6%
9-12%	4.9%	1.6%	3.3%
12-15%	1.8%	0.2%	1.6%
15-18%	0.6%	0.2%	0.5%
18%+	1.9%	0.6%	1.3%
Equity	5.7%	0.0%	5.7%
Cash & Equivalents	0.9%	0.0%	0.9%
Total	100.0%	100.0%	

Issue Size *as of 12/31/21*

	Fund	ICE BofA HY	Difference
<\$200mm	7.0%	0.0%	7.0%
\$200-400mm	27.3%	12.3%	15.1%
\$400-600mm	19.5%	21.3%	-1.8%
\$600mm-\$1bn	20.6%	31.1%	-10.5%
\$1-2bn	13.8%	26.5%	-12.7%
\$2-5bn	5.1%	8.9%	-3.7%
>\$5bn	0.0%	0.0%	0.0%
Equity	5.7%	0.0%	5.7%
Cash & Equivalents	0.9%	0.0%	0.9%
Total	100.0%	100.0%	

Adjusted Effective Duration as of 12/31/21

	Fund	ICE BofA HY	Difference
0-1 yr	39.9%	11.1%	28.8%
1-2 yrs	8.6%	12.3%	-3.6%
2-3 yrs	14.6%	14.0%	0.6%
3-4 yrs	8.3%	15.4%	-7.1%
4-5 yrs	10.6%	17.6%	-7.0%
5-6 yrs	5.1%	13.9%	-8.7%
>6 yrs	6.2%	15.7%	-9.6%
Equity	5.7%	0.0%	5.7%
Cash & Equivalents	0.9%	0.0%	0.9%
Total	100.0%	100.0%	

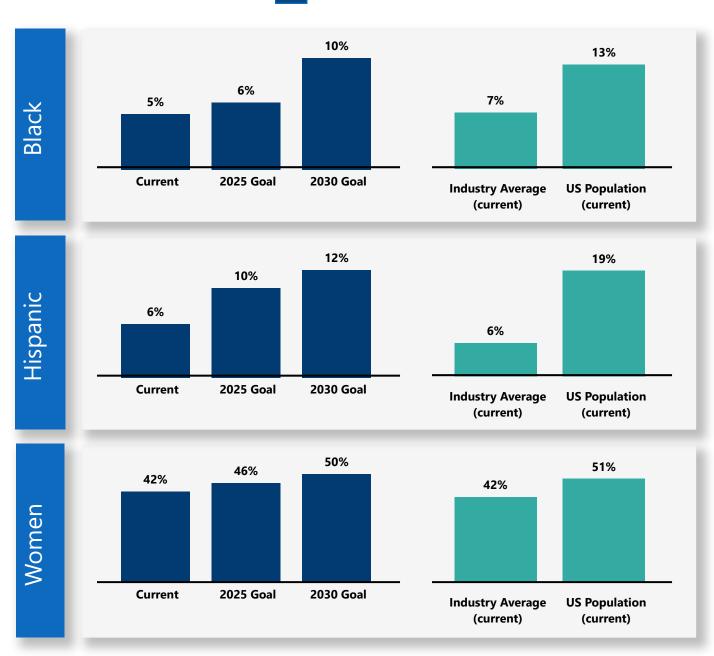
The full index name presented is the ICE BofA U.S. High Yield Index ("ICE BofA HY") and is used for comparative purposes only. The average rating characteristic is determined internally by DDJ pursuant to a consistent methodology. It is not an S&P credit rating or a rating issued from a ratings agency, and is not a credit opinion. With respect to the Fund, blended yield is a blend of (i) for securities trading at or above par, yield to worst for bonds, and yield to three year take out for loans, and (ii) for bonds and loans trading at a discount, yield to maturity. With respect to the benchmark, yield is shown as yield to worst. With respect to the Fund, the adjusted effective duration statistic provided is calculated by taking a weighted average of (i) modified duration to next reset date for all floating rate instruments, and (ii) effective duration for all fixed coupon instruments. With respect to the benchmark, duration is shown as effective duration.



Polen Capital Top 5 Goal for 2021: Develop and implement Diversity & Inclusion strategy to increase minority representation within the asset management industry and to enhance our ability to deliver to clients.

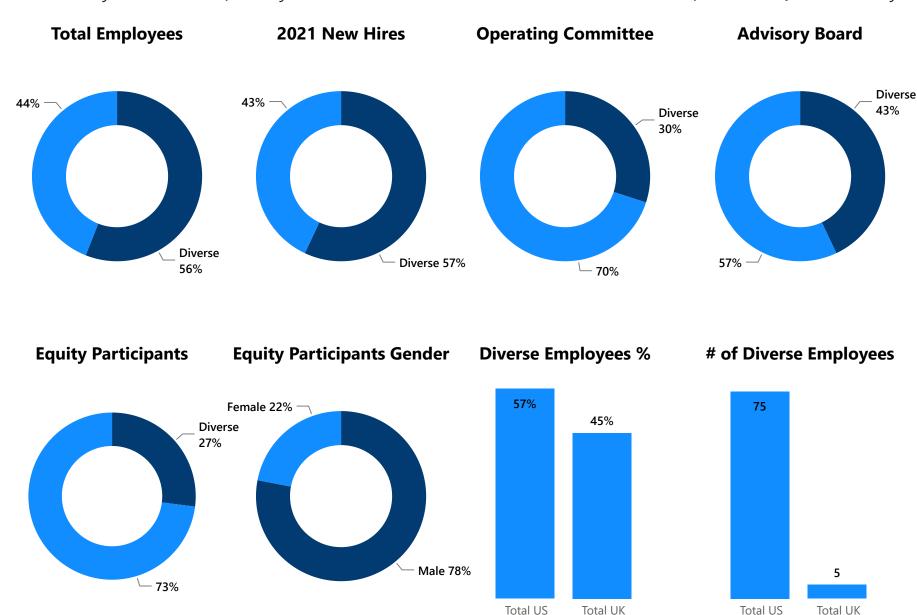
Aspirational Targets at Polen

% of Total Polen FTEs



By The Numbers

Diversity at Polen is defined by women, ethnic minorities, veterans, or members of the LGTBQ+ community



Recruitment Partnerships

Full Time Employees



Works to foster career advancement and increased leadership presence of underrepresented talent in the financial service industry



Identifies remarkable military service members, veterans, and spouses, empowering them with academic scholarships, leadership development opportunities and a diverse, global community of mentors and peers



Focuses on united individuals across the financial services industry to drive LGBTQ+ inclusion and inequality

Interns











Works to foster career advancement and increased leadership presence of underrepresented talent in the financial service industry

Expands access to careers in finance and entrepreneurship for undergraduate students from underrepresented backgrounds

Provides rising sophomores and juniors from underrepresented communities with an introduction to career possibilities in financial services

Provides young women online resources and a network of female role models delivering compelling and high-impact messages on the many benefits of investing as a career

FAMU in partnership with Adaptive Growth Leadership

Making a Difference

Firmwide Training: Conscious Inclusion (2019), Implicit Bias (2020), Behaviors of Inclusion (2021)

Polen Capital Diversity Charitable Fund: Donor Advised Fund with grants for minority-focused organizations managed by Roland Cole, Large Company Growth Team Research Analyst and Toigo alum

Employee Resources Groups: Women's ERG and Multicultural ERG established in 2021

The George Snow Scholarship Fund: Polen Capital will be funding a \$40,000 scholarship for a diverse rising college student who is interested in business or finance

The Diversity Project North America: An organization focused on diverse best practices that allows Polen to network with other finance institutions





DDJ Diversity & Inclusion

Diversity Representation Survey for Oakland Police & Fire

Diversity Representation Survey for Oakland Police and Fire

DATA AS OF 12/31/2021	
Firm Name	DDJ Capital Management, LLC
Product Managed for OPFRS	DDJ Capital Management Group Trust - High Yield Investment Fund
Total Number of Employees	50

	Percentage (%) of Board of Directors/	Percentage(%) of Firm	Percentage (%) of Firm	
	Managing Members	(Entire Staff)	(Investment Professionals)	
Race and Ethnicity*				
African American/Black	0.00%	2.00%	0.00%	
Asian/Hawaiian/Pacific Islander	0.00%	4.00%	6.25%	
Latino/Hispanic	0.00%	2.00%	0.00%	
White	100.00%	90.00%	93.75%	
American Indian/Alaska Native	0.00%	0.00%	0.00%	
Other	0.00%	2.00%	0.00%	
Gender				
Male	77.78%	62.00%	87.50%	
Female	22.22%	38.00%	12.50%	
Non-Identified/Other	0.00%	0.00%	0.00%	
	100.00%	100.00%	100.00%	
	100.00%	100.00%	100.00%	

Other represents two or more races.

Percentage of each category was calculated based on the total number of individuals in each group (Managing Members, Firm, and Investment Team).

DDJ does not maintain a Board of Directors. For the purposes of the Board of Directors/ Managing Members category, DDJ has included (1) the members DDJ's management operating committee, which is chaired by David Breazzano, president and chief investment officer, and includes three additional representatives (including one female employee) that collectively oversee the legal/compliance, finance/operations, and human resources; and (2) the members of DDJ's five-person investment review committee (which is also chaired by Mr. Breazzano and includes one female employee) who oversee the investment operations of the firm.

^{*}Racial/ethnic categories appear as defined by EEOC guidance.

Firmwide Diversity & Inclusion Council



Tim Dillon | Investment DIRECTOR, PORTFOLIO ANALYTICS 11 years industry experience 9 years at DDJ



Sameer Bhalla | Investment **SENIOR RESEARCH ANALYST** 18 years industry experience 6 years at DDJ



Jennifer Leger | Human Resources
DIRECTOR, HUMAN RESOURCES
28 years industry experience
3 years at DDJ



Erika Kennedy | Business Development & Client Service DIRECTOR, INVESTOR RELATIONS
15 years industry experience
4 years at DDJ*



Victoria Moore | Investment **RESEARCH ANALYST** 3 years industry experience 2 years at DDJ



Meaghan Mahoney | Business Development & Client Service DIRECTOR, INVESTOR RELATIONS
19 years industry experience
2 years at DDJ

The Diversity & Inclusion Council is tasked with identifying and developing partnership, training, recruitment and other initiatives to further the firm's progress on its Diversity & Inclusion efforts

Diversity & Inclusion Council

- As an equal opportunity employer, DDJ has an established Affirmative Action Plan and strives to identify the best candidate for all position openings, while recognizing the substantial benefit to the organization that is associated with employing a well-diversified staff
- DDJ is committed to the recruitment and advancement of people regardless of age, color, disability, ethnicity, family or marital status, gender identity or expression, language, national origin, physical and mental ability, political affiliation, race, religion, sexual orientation, socioeconomic status, veteran status, and other characteristics that make each of its employees unique
- Since 2015, 45% of the firm's new hires have been women and/or minorities, including the two most recent additions to its investment team
- Additionally, as of 12/31/2021, approximately 40% of the firm's employees are women and/or minorities and 20% of its employee equity owners (by count) are women and/or minorities
- Finally, DDJ proactively seeks to partner with vendors that identify as women, minority or veteran-owned businesses

Diversity & Inclusion Council

Drawing on the experiences of a cross-section of employees across the firm, DDJ officially launched its

Diversity & Inclusion (D&I)

Council in 2020 to formalize its D&I strategy with respect to:

RECRUITING

- Recruit with intention to identify and ultimately hire from a diverse candidate pool
- Develop internship programs, such as the firm's current partnership with the Posse Foundation, and other engagement opportunities, such as the firm's Whitepaper Challenge, to reach and attract under-represented groups in an effort to help improve the industry "pipeline" problem

DEVELOPING

- Create training and development opportunities for the firm and its employees individually to continue to progress on the D&I journey, including, but not limited to, mandatory annual firmwide training
- Develop an internal mentorship program and affinity groups
- Partner with external organizations, such as 100 Women in Finance and Boston Women in Finance, to augment internal development efforts

RETAINING

 Foster a culture of inclusivity and equality, allowing DDJ to remain a preferred place of employment and to retain its most important asset – its employees



Investment Team

	Industry Coverage / Responsibilities	Prior Investment Experience	Education
DAVID BREAZZANO PRESIDENT	Chief Investment Officer; Oversees strategies firm-wide; Co-PM on Opportunistic HY Strategy; Co-PM on Upper Tier U.S HY Strategy	Fidelity Investments T. Rowe Price	Cornell University, MBA Union College, BA
BENJAMIN SANTONELLI PORTFOLIO MANAGER	Co-PM on Opportunistic HY Strategy; PM on Total Return Credit Strategy; Assistant PM on Bank Loan Strategy		Amherst College, BA
JOHN SHERMAN PORTFOLIO MANAGER	Co-PM on Opportunistic HY Strategy; PM on Bank Loan Strategy; Assistant PM on Total Return Credit Strategy	Thoma Cressey Equity Partners Citigroup Investment Banking Division	University of Notre Dame, BBA
ROMAN RJANIKOV PORTFOLIO MANAGER	Co-PM on Upper Tier U.S. HY Strategy; Director of Research; ESG Integration	MFS Investment Management Fidelity International	Harvard Business School, MBA Plekhanov Russian University of Economics, MSc
SAMEER BHALLA SENIOR RESEARCH ANALYST	Energy, Chemicals, Industrials	Liberty Mutual Group Investor's Bank and Trust	Boston College, MSF Boston University Questrom School of Business, BS
MICHAEL GRAHAM, CFA SENIOR RESEARCH ANALYST	Healthcare	Macquarie Capital	Middlebury College, BA CFA Designation
ERIC HOFF, CFA SENIOR RESEARCH ANALYST	Metals & Mining, Autos, Aerospace & Defense	Newstar Capital (f/k/a Feingold O'Keeffe Capital)	Boston University Questrom School of Business, BS CFA Designation
NED HOLE, CFA SENIOR RESEARCH ANALYST	Telecommunications, Cable, Satellite, Consumer & Retail	Putnam Investments BlackRock Financial	Williams College, BA CFA Designation
MARK WEGNER SENIOR RESEARCH ANALYST	Building Materials, Paper & Packaging, Services	Silver Point Capital, L.P. Rothschild Inc.	The Johns Hopkins University, BA

	Industry Coverage / Responsibilities	Prior Investment Experience	Education
DOUGLAS WOODEN SENIOR RESEARCH ANALYST	Media, Technology, Gaming & Leisure	Fort Warren Capital Putnam Investments	University of Pennsylvania, BA
VICTORIA MOORE RESEARCH ANALYST	Support on various industries	Cambridge Associates	Yale University, BA
JASON RIZZO HEAD TRADER	High yield bonds, bank loans, and equity	Grantham, Mayo, Van Oterloo & Co. LLC Colonial Management Associates	State University of New York, BS
CHRIS KAMINSKI, CFA TRADER	High yield bonds, bank loans, and equity	Bank of New York Mellon	Boston University, BA CFA Designation
TIMOTHY DILLON DIRECTOR, PORTFOLIO MANAGEMENT ANALYST	Portfolio construction, modeling and analysis	Brown Brother Harriman & Co.	Middlebury College, BA Bentley University, MBA
JOSHUA MCCARTHY GENERAL COUNSEL & CHIEF COMPLIANCE OFFICER	Product structuring compliance and general transactional	Testa, Hurwitz & Thibeault, LLP	Duke University School of Law, JD Duke University, AB
BETH DUGGAN ASSOCIATE GENERAL COUNSEL	Loans, reorganizations, and general transactional	Goodwin Procter, LLP Pillsbury Winthrop, LLP	Northwestern University School of Law, JD Cornell University, BA

Biographies

DAVID BREAZZANO President, Chief Investment Officer, Portfolio Manager

Mr. Breazzano is a co-founder of DDJ and has more than 41 years of experience in high yield, distressed, and special situations investing. At DDJ, he oversees all aspects of the firm and chairs the Management Operating, Remuneration, and Investment Review Committees. In addition, Mr. Breazzano serves as co-portfolio manager of DDJ's U.S. Opportunistic High Yield and Upper Tier U.S. High Yield strategies. Prior to forming DDJ, from 1990 to 1996, he was a vice president and portfolio manager in the High-Income Group at Fidelity Investments, where he had investment management responsibility for over \$4 billion in high yield and distressed assets. Specifically, he was a portfolio manager of the Fidelity Capital & Income Fund, which was one of the largest high yield funds in existence at that time. In addition, Mr. Breazzano comanaged the distressed investing operation at Fidelity. Prior to joining Fidelity in 1990, Mr. Breazzano was a vice president and portfolio manager at T. Rowe Price Associates. Before joining T. Rowe Price in 1985, he was a high yield analyst and vice president at First Investors Asset Management, which had over \$1 billion in high yield assets under management. Mr. Breazzano began his professional career at New York Life as an investment analyst. Mr. Breazzano is the author of the chapter entitled "Distressed Investing" in Leveraged Financial Markets: A Comprehensive Guide to High-Yield Bonds, Loans, and Other Instruments and co-author of the chapter entitled "Trading in the Distressed Market" in Investing in Bankruptcies and Turnarounds. Mr. Breazzano serves as a member of the board of directors for the Children's Trust Fund following his appointment by Massachusetts Governor Charlie Baker in 2016. He received his MBA from the Johnson School at Cornell University where he currently is a member of the university's board of trustees. Mr. Breazzano graduated cum laude with a BA from Union College, where he also currently sits on its board of trustees.

BENJAMIN SANTONELLI Portfolio Manager

Mr. Santonelli joined DDJ in 2004 and has more than 17 years of experience in sourcing, analyzing, and managing investments across a variety of industries. Mr. Santonelli serves as coportfolio manager of DDJ's U.S. Opportunistic High Yield strategy, portfolio manager of DDJ's Total Return Credit strategy, and assistant portfolio manager of DDJ's Bank Loan strategy. He is also a member of the Investment Review Committee. Mr. Santonelli serves as a member of the board of directors of a portfolio company. Mr. Santonelli received his BA from Amherst College.

JOHN SHERMAN Portfolio Manager

Mr. Sherman joined DDJ in 2007 and has more than 17 years of corporate finance and investment experience. Mr. Sherman serves as co-portfolio manager of DDJ's U.S. Opportunistic High Yield strategy, portfolio manager of DDJ's Bank Loan strategy, and assistant portfolio manager of DDJ's Total Return Credit strategy. He is also a member of the Investment Review Committee. Mr. Sherman serves as a member of the board of directors of a portfolio company. Prior to joining DDJ, Mr. Sherman was an associate in the Healthcare Group at Thoma Cressey Equity Partners, focusing on private equity investments in middle-market companies. While at Thoma Cressey Equity Partners, Mr. Sherman participated in the due diligence of new standalone investments and tack-on acquisitions for existing portfolio companies. Prior to joining Thoma Cressey Equity Partners, Mr. Sherman was in the Investment Banking Division of Citigroup where he was an analyst in the Global Healthcare Group. While at Citigroup, he participated in the execution of initial public offerings, private placements, mergers and acquisitions, recapitalizations, and other corporate finance transactions. Mr. Sherman graduated *magna cum laude* with a BBA from the University of Notre Dame.

ROMAN RJANIKOV Portfolio Manager, Director of Research

Mr. Rjanikov joined DDJ in 2007 and has more than 18 years of experience in sourcing, analyzing, and managing investments across a variety of industries. Mr. Rjanikov serves as the co-portfolio manager of DDJ's Upper Tier U.S. High Yield strategy as well as the Director of Research. He is also a member of the Investment Review Committee and is currently spearheading DDJ's Environmental, Social, and Governance efforts (including the development of the DDJ Environmental Sustainability High Yield Strategy). Prior to joining DDJ, Mr. Rjanikov was an Equity Research Analyst at MFS Investment Management since 2003. While at MFS, Mr. Rjanikov covered a variety of industries with a focus on equities of public US companies. From 1995 to 2001, Mr. Rjanikov was a Senior Financial Analyst at Hewlett-Packard Company in the US, Switzerland and Russia. Mr. Rjanikov earned his MBA (with Distinction) from Harvard Business School and M. Sc. from Plekhanov Russian University of Economics.

JASON RIZZO Head Trader

Mr. Rizzo joined DDJ in 2004 and has more than 24 years of industry experience. Mr. Rizzo is responsible for the execution of trades in all securities in which DDJ invests including high yield bonds, bank debt, distressed bonds, convertible bonds, and equities as well as general oversight of the trading function. Prior to joining DDJ, Mr. Rizzo served in a trading support role at Grantham, Mayo, Van Otterloo & Co. LLC from 2000 to 2004. From 1999 to 2000, Mr. Rizzo was a pricing analyst with Colonial Management Associates and from 1997 to 1999 he worked at State Street Bank and Trust in the mutual fund accounting area. Mr. Rizzo received his BS from the State University of New York.

JOSHUA McCARTHY General Counsel & Chief Compliance Officer

Mr. McCarthy joined the DDJ legal department in 2003 and has over 21 years of experience in the legal profession. As General Counsel, Mr. McCarthy is responsible for overseeing DDJ's legal affairs and providing counsel related to the firm's investment management activities. In addition, in his role as Chief Compliance Officer, Mr. McCarthy administers DDJ's compliance program, including the firm's annual compliance review conducted pursuant to the requirements of the Investment Advisers Act of 1940. He is also a member of the Management Operating, Remuneration, and Fair Value Committees. Prior to joining DDJ, Mr. McCarthy worked as an associate in the business practice group at Testa, Hurwitz & Thibeault, LLP, where he represented various publicly and privately held companies as well as venture capital partnerships. Mr. McCarthy received his JD from Duke University School of Law, magna cum laude, and his AB from Duke University, magna cum laude. Mr. McCarthy is a member of the bar of the Commonwealth of Massachusetts.

ELIZABETH DUGGAN Associate General Counsel

Ms. Duggan joined the DDJ legal department in 2006 and has over 20 years of experience structuring and negotiating corporate and finance transactions. She focuses the majority of her work on primary issuances of loans and private placements, mergers and acquisitions, reorganizations and intercreditor issues. She is also a member of the Investment Review Committee. Prior to joining DDJ, she was a senior associate in the Leveraged Finance Group at Goodwin Procter, LLP and an associate in the Corporate, Securities, and Finance Group of Pillsbury Winthrop, LLP, in New York. Ms. Duggan has significant experience representing institutions on various domestic and cross-border financing transactions. Ms. Duggan received her JD from Northwestern University School of Law and her BA from Cornell University. She is a member of the bars of the Commonwealth of Massachusetts and the State of New York.

DAVID LEVINE, CFA Managing Director, Portfolio Specialist

Mr. Levine joined DDJ in 2008 and has more than 21 years of experience in the investment management industry. Mr. Levine works with the members of the business development and client service team to effectively communicate DDJ's investment philosophy and strategies with clients, consultants and prospects. In addition, Mr. Levine heads the group responsible for developing content, performance measurement, analytics and reporting. Before joining the business development and client service team in 2013, he served as performance manager for DDJ's analytics team where he was responsible for performance measurement, portfolio analytics, attribution, and GIPS compliance for the firm. Earlier in his career, he worked at Blackrock, Inc. and State Street Corporation. Mr. Levine received his MS in Finance from Bentley University and his BS from Framingham State University. Mr. Levine is a CFA charterholder.

ANDREW ROSS, CFA Director, Portfolio Specialist

Mr. Ross joined DDJ in 2016 and has more than 20 years of experience in the investment management industry. Mr. Ross works with members of the business development and client service team to effectively communicate DDJ's investment philosophy and strategies with clients, consultants and prospects. Prior to joining DDJ, he served as a fixed income product management analyst at Wellington Management Company, where he acted as a proxy for portfolio managers in communicating to clients, consultants, and prospects on investment strategies, positioning, and market outlook. Prior to that, Mr. Ross worked as an equity research associate at MFS Investment Management, where he built and maintained company models using bottom-up fundamental analysis to forecast various metrics. Mr. Ross graduated *cum laude* with a BS in Finance from the University of Massachusetts and is a CFA charterholder.

JOHN RUSSELL, CPA Chief Financial Officer

Mr. Russell joined DDJ in 1997 and has more than 31 years of industry experience. Mr. Russell is responsible for all day-to-day financial reporting, accounting, tax-related and back office accounting functions as well as oversight of DDJ's human resource function. He is also a member of the Management Operating, Remuneration, Fair Value, and Business Process Review Committees. Prior to joining DDJ, Mr. Russell worked as an audit manager in the Investment Management Group at Ernst & Young, LLP, and prior to that, as a senior and staff auditor. Mr. Russell earned his MS (accounting) / MBA from Northeastern University and his AB from Brown University. Mr. Russell is a certified public accountant and member of the Massachusetts Society of CPAs and the Private Equity CFO Association (Boston Chapter). Mr. Russell serves on the Board of Advisors of the Greater Boston Food Bank.

MATT HENSHER Director, Investor Relations

Mr. Hensher joined DDJ in 2016 and has more than 26 years of experience in the investment management industry. He is a relationship manager for DDJ and also has business development responsibilities. Prior to joining DDJ, he served as a director of relationship management at MFS International (UK) Limited in London for over ten years. Mr. Hensher worked with a broad range of institutional clients in the Nordic, North American and UK regions. Prior to that, Mr. Hensher was a client service manager, also at MFS International, where he set up and managed the London Institutional Client Service team. Earlier in his career, he worked at Goldman Sachs Asset Management, Rothschild Asset Management and Coutts & Co. Private Bank. Mr. Hensher received his Investment Management Certification (IMC) at the London School of Business.

ERIKA KENNEDY Director, Investor Relations

Ms. Kennedy most recently joined DDJ in 2017 and has more than 15 years of industry experience. She is responsible for business development in various regions of the U.S. She also served as a director at DDJ from 2008-2016. Prior to re-joining DDJ in 2017, Ms. Kennedy worked as Vice President of Institutional Sales and Consultant Relations at NWQ Investment Management Company. Prior to initially joining DDJ in 2008, Ms. Kennedy was a compliance analyst at Fidelity Investments. Ms. Kennedy received her MA from the University of Miami and her BS from Syracuse University and she holds her Series 7 and 63 registrations.

MEAGHAN MAHONEY Director, Investor Relations

Ms. Mahoney joined DDJ in 2019 and has more than 19 years of experience in the investment management industry. She is responsible for sales and consultant relations for DDJ. Prior to joining DDJ, she served as a senior vice president at Great Elm Capital Management, where she was responsible for investor relations for two publicly-traded, micro-cap companies. Prior to that, Ms. Mahoney was a Partner at MAST Capital Management, where she was responsible for marketing, investor relations and business development strategy. Earlier in her career, she worked at Strategic Value Partners, Avenue Capital, Protégé Partners, and Goldman Sachs. Ms. Mahoney received her BS from Cornell University and she holds her Series 7 and 63 registrations.

BILL PORTER Director, Investor Relations

Mr. Porter joined DDJ in 2019 and has more than 29 years of experience in the investment industry. He is responsible for business development and consultant relations for the firm. Prior to joining DDJ, Mr. Porter spent nine years at Amundi Pioneer Asset Management (f/k/a Pioneer Investments), where he served for seven years as senior vice president and head of institutional distribution for North America, and was a member of the firm's U.S. Management Committee. In this capacity, he was responsible for managing a team of business development, consultant relations, relationship management and client portfolio management professionals. During his first two years at Pioneer Investments, he served as head of consultant relations where he built and managed the team in North America. Prior to that, he spent twelve years at State Street Global Advisors (SSgA), where he held senior roles in consultant relations and client portfolio management. Earlier in his career, he worked at Scudder, Stevens & Clark. Mr. Porter received his MBA, with a concentration in Marketing, from Northeastern University and his BA, magna cum laude, from St. Lawrence University and he holds his Series 7 and 63 registrations.

KATHERINE (KENZIE) WEDGE Associate Director, Investor Relations

Ms. Wedge joined DDJ in 2015 and has more than seven years of experience in the investment management industry. She is responsible for developing and maintaining client and consultant relationships, as well as business development. Prior to joining DDJ, she served as a data integrity analyst at Commonwealth Financial Network, where she supported financial advisors by maintaining and analyzing the data related to both client accounts and sponsor companies. Ms. Wedge received her BS in Mathematics and Finance from the College of Charleston and she holds her Series 7 and 63 registrations.

DDJ Capital Management, LLC Schedule of Investment Performance - DDJ U.S. Opportunistic High Yield Composite March 31, 1998 to September 30, 2021

Year Ended 12/31	Total Gross Return (%)	Total Net Return (%)	Custom Benchmark Return (%)	Number of Portfolios	Composite Assets at End of Period (\$ millions)	Firm Assets at End of Period (\$ millions)	Composite Dispersion (%)	Composite 3 Yr. Annualized Standard Deviation (%)	Benchmark 3 Yr.Annualized Standard Deviation(%)
YTD 2021	8.84%	8.47%	4.73%	20	5,654	8,322	na	11.06%	9.58%
2020	8.36%	7.89%	6.04%	22	5,521	7,987	1.25%	11.06%	9.63%
2019	6.18%	5.73%	13.98%	24	6,041	7,861	0.64%	4.31%	4.23%
2018	0.88%	0.40%	-2.20%	25	6,345	8,207	1.75%	4.16%	4.85%
2017**	12.13%	11.56%	7.30%	18	5,643	7,831	0.54%	4.92%	5.93%
2016	17.53%	16.96%	18.33%	21	5,584	7,589	1.40%	4.96%	6.35%
2015	-3.82%	-4.28%	-5.43%	21	5,091	7,401	0.88%	4.04%	5.46%
2014	3.68%	3.12%	2.09%	15	4,091	8,028	1.84%	3.10%	4.51%
2013	10.16%	9.55%	7.23%	15	3,456	7,145	1.01%	4.54%	6.50%
2012	17.61%	16.92%	15.58%	13	2,475	5,032	1.51%	5.27%	7.13%
2011	3.57%	3.04%	4.38%	14	2,459	3,653	1.50%	8.37%	11.15%
2010	19.30%	18.63%	15.19%	10	2,455	3,985	2.86%	14.34%	17.16%
2009	58.52%	57.51%	57.51%	11	2,657	3,414	3.32%	14.19%	17.02%
2008	-29.22%	-29.51%	-26.39%	8	1,231	2,333	1.64%	11.13%	13.50%
2007	3.77%	3.27%	2.19%	7	1,517	2,791	na	3.72%	4.55%
2006	12.15%	11.52%	11.77%	5	1,450	2,835	na	3.85%	3.86%
2005	5.79%	5.32%	2.74%	3	1,425	2,617	na	5.89%	5.47%
2004	13.59%	12.18%	10.87%	2	1,158	2,220	na	7.44%	8.48%
2003	39.51%	34.18%	28.15%	2	914	1,675	na	8.82%	10.63%
2002	10.10%	9.23%	-1.89%	1	468	1,173	na	8.65%	10.30%
2001	7.17%	6.55%	4.48%	1	397	1,166	na	7.40%	7.93%
2000	-7.59%	-8.17%	-5.12%	1	355	1,126	na	na	na
1999	4.68%	4.04%	2.51%	1	363	1,111	na	na	na
1998⁺	-3.43%	-3.89%	-0.02%	1	347	1,040	na	na	na

^{*}Partial year, inception 3/31/98

DDJ Capital Management, LLC claims compliance with the Global Investment Performance Standards (GIPS®) and has prepared and presented this report in compliance with the GIPS standards. DDJ Capital Management, LLC has been independently verified for the periods March 1, 1996 to December 31, 2020.

A firm that claims compliance with the GIPS standards must establish policies and procedures for complying with all the applicable requirements of the GIPS standards. Verification provides assurance on whether the firm's policies and procedures related to composite and pooled fund maintenance, as well as the calculation, presentation, and distribution of performance, have been designed in compliance with the GIPS standards and have been implemented on a firm-wide basis. The DDJ U.S. Opportunistic High Yield Composite has had a performance examination for the periods January 1, 2005 to December 31, 2020. The verification and performance examination reports are available upon request.

U.S. OPPORTUNISTIC HIGH YIELD COMPOSITE DISCLOSURES

DDJ Capital Management, LLC ("the Firm", "DDJ") is an investment adviser, registered with the Securities and Exchange Commission, which specializes in high yield securities and special situations investing.

The DDJ U.S. Opportunistic High Yield Composite ("the Composite") was created in August 2007. The U.S. Opportunistic High Yield strategy seeks to generate capital appreciation and income by investing in high yield securities or higher rated securities that offer yields similar to those available in the high yield market. The strategy focuses on investments in high yield bonds and has a bias toward lower tier securities. Opportunistic High Yield portfolios not denominated in U.S. dollars, where currency hedging is a significant component of the strategy, are excluded from the Composite. Derivatives may be used for hedging purposes only; however, certain credit derivatives may be used in limited circumstances subject to client guidelines. Portfolios within the Composite will be permitted to invest in lower-rated debt securities, equity securities, bank debt, small issues and direct private investments, but allocations to these security types will vary. Portfolios within the Composite will generally invest at least 25% of assets in bank loans, hold no fewer than 50 issuers and will invest in illiquid securities. In January 2021, a lower limit on issuers held was added.

Gross returns do not reflect the deduction of investment management fees, but are net of trading expenses, deal-related legal expenses and foreign withholding tax. Net returns reflect the application of actual management and, if applicable, performance-based fees to gross returns. Composite dispersion is the equal-weighted standard deviation of annual gross returns of all accounts included in the Composite for the entire year. Composite dispersion is not applicable for composites which contain five accounts or fewer for the entire year. The three-year annualized standard deviation measures the variability of the Composite gross returns and the benchmark returns over the preceding 36-month period. A list of composite descriptions, a list of limited distribution pooled fund descriptions, and a list of broad distribution pooled funds as well as policies for valuing portfolio investments, calculating performance, and preparing GIPS Reports are available upon request.

At 12/31/2020, 12% of composite assets were valued using subjective, unobservable inputs.

The custom benchmark, the ICE BofA U.S. Non-Financial High Yield Index, is used for comparative purposes only. Like the investments of the benchmark, the Composite consists primarily of bonds and notes rated BB or lower. However, the benchmark is an unmanaged index and does not include any private (non-144A) obligations, convertible bonds, preferred and common equity, and certain other securities and obligations, and excludes financials. Investments made by DDJ on behalf of the portfolios managed according to the strategy may differ from those of the benchmark and may not have the same investment strategy. Accordingly, investment results for the Composite will differ from those of the benchmark. For periods prior to January 1, 2013, the Composite is measured against the ICE BofA U.S. High Yield Index.

The standard management fee schedule is as follows (per annum):

Separate Account		Commingled Fund	
First \$100 million	55 bps	First \$200 million	55 bps
Next \$100 million	50 bps	Next \$200 million	50 bps
Above \$200 million	45 bps	Above \$400 million	45 bps

From the most recent audited annual report dated 12/31/20, the total expense ratio of DDJ Capital Management Group Trust - High Yield Investment Fund, which is a member of this Composite, was 0.60%

Performance-based fee schedules are available for separate accounts. Management and performance-based fees may vary according to the specific mandate of the account, investment performance, and assets under management.

The index data referenced herein is the property of ICE Data Indices, LLC, its affiliates ("ICE Data") and/or its Third Party Suppliers and has been licensed for use by DDJ. ICE Data and its Third Party Suppliers accept no liability in connection with its use. Please contact DDJ for a full copy of the applicable disclaimer.

GIPS® is a registered trademark of CFA Institute. CFA Institute does not endorse or promote this organization, nor does it warrant the accuracy or quality of the content contained herein.

Past performance is not an indication of future results.

**Following a review of the Composite membership during the fourth quarter of 2017, DDJ removed four portfolios from the Composite, comprising approximately 10% of Composite AUM. Reasons for this removal include changes in client investment guidelines (and associated) constraints) as well as the overall evolution of the DDJ U.S. opportunistic high yield strategy and of the high yield market. Accordingly, DDJ migrated such portfolios, which remain under DDJ's management, to separate composites more appropriate for their respective investment strategies.



We've moved!

INVESTMENT MANAGER

DDJ Capital Management 1075 Main Street Suite 320 Waltham, MA 02451 www.ddjcap.com

DDJ Capital Management, LLC



December 7, 2021

Dear Clients and Partners,

I hope this letter finds you and your family well.

I am writing to you today to share the exciting news that DDJ Capital Management, LLC has reached an agreement to be acquired by Polen Capital Management, LLC, a U.S.-based growth equity asset management firm with over thirty years of experience in the investment management business and over \$80 billion in total client assets. Subject to customary closing conditions, we are seeking to finalize the closing of this transaction by year-end.

With DDJ becoming the dedicated leveraged credit arm of a growing and diversified investment firm, we believe that this transaction will improve DDJ's institutional stability. Over the years, DDJ has been approached by many suitors, and in each of those instances, I have made it clear that any deal would require the continued autonomy of our investment team. Also important to me was the prospect of enhanced distribution capabilities in order to ensure that DDJ remained a healthy and viable enterprise well into the future. In addition, I believe that this deal provides added benefits to our clients through leadership succession as well as access by DDJ to greater resources to invest in our technological infrastructure. I am confident that the agreement between DDJ and Polen facilitates these outcomes. Although I believe that DDJ would have continued to thrive as a stand-alone business, I also expect that this deal will enhance the overall experience for our clients and consultants, as well as provide for greater opportunity for DDJ's most valuable resource: its people.

Since I co-founded the firm in 1996, DDJ has focused on generating attractive risk-adjusted returns for its clients and consultants through its investments in high yield bonds, syndicated bank loans, private credit, and other special situation investments, growing the firm from its initial founding with \$245 million in assets under management to over \$8.2 billion today. This past March, we celebrated the firm's 25th anniversary, a milestone of which we are all incredibly proud. I believe that this agreement with Polen provides the DDJ franchise with the platform necessary to ensure our continued success for the next 25 years and beyond.

Importantly, this transaction will not change the team's focus on investing in the leveraged credit markets and delivering attractive performance returns to our clients. Upon the consummation of the transaction, Polen will acquire all of the assets of DDJ – its people, its processes, and its investment philosophy. Polen's business model will provide DDJ with the autonomy to continue operating as a specialist High Yield and Leveraged Loan investment manager, yet with the resources of a larger firm. Polen's approach creates a clear delineation of roles and responsibilities, which enables its investment teams to solely focus on investing. I believe that partnering with Polen will enhance DDJ's ability to invest in its people and business, further empowering the DDJ team to achieve excellent investment performance and deliver high-quality client service.

DDJ Capital Management, LLC



From an investment philosophy perspective, both firms are extremely like-minded in their focus and belief that bottom-up security selection together with the management of concentrated investment portfolios will generate superior investment performance over the long-term. Although DDJ and Polen invest in different asset classes and areas of the market and are thereby complementary in nature, the two organizations nonetheless share critical similarities in terms of corporate culture with their mutual commitment to the on-going development of human capital, community outreach, and diversity and inclusion, to name but a few.

In terms of any potential effect that this transaction may have on you, I would like to underscore how important it is to all of us at DDJ that your relationship with the firm changes as little as possible. The members of the firm's Investment Review Committee, including myself and each of the portfolio managers, have entered into multi-year employment contracts with Polen, ensuring that your investment experience with DDJ will remain unchanged. On the non-investment side of the business, Polen has committed to retaining the entire DDJ team, though we expect that the combination of the various support functions throughout the broader organization will happen in time. Further, I (somewhat selfishly) welcome the opportunity to reallocate some of my non-investment functions, allowing me to devote a greater percentage of my time to the investment process, which, as you likely know, is my true passion. Lastly, I am pleased to report that the entire DDJ team will continue to operate out of our new office location at 1075 Main Street in Waltham, Massachusetts.

As this transaction will constitute a change of control of DDJ, we will be seeking client consent for the assignment of our investment management agreements. Your relationship manager will be in touch shortly to work with you and your team on the approval process and associated documentation.

I am extremely grateful for the confidence that you and your organization have shown in our firm, and we look forward to deepening our relationship with you for many years to come. We at DDJ are excited to begin this new chapter in our firm's history. If any questions arise, please do not hesitate to reach out to either me or your relationship manager directly.

Kind regards and best wishes,

David J. Breazzano

President & Chief Investment Officer

DDJ Capital Management, LLC



December 8, 2021

To: Investment Advisory Clients of DDJ Capital Management, LLC ("<u>DDJ</u>") and investors in certain funds advised or managed by DDJ ("<u>DDJ Funds</u>")

Re: Request for Consent under the Investment Advisers Act of 1940, as amended (the "Advisers Act")

You are receiving this letter because you are an investment advisory client of DDJ and/or you are an investor in a DDJ Fund.

DDJ has entered into a Membership Interest Purchase Agreement, dated as of December 2, 2021, pursuant to which Polen Capital Management, LLC ("<u>Polen Capital</u>") will purchase 100% of the outstanding equity interests in DDJ (the "<u>Transaction</u>").

DDJ and Polen Capital are seeking to close the transaction by December 31, 2021, subject to the satisfaction of customary closing conditions. Upon the closing of the transaction, the DDJ investment team will remain intact and continue to have complete autonomy over its investment process. In addition, DDJ's president and chief investment officer, David Breazzano, as well as each of the members of the firm's investment review committee, has entered into a multi-year employment contract with Polen Capital. Mr. Breazzano will also continue to lead the DDJ investment team as head of the U.S. High Yield franchise, and the firm's current portfolio managers will continue managing their existing client portfolios. Furthermore, DDJ's accounting/finance, legal/compliance, performance/analytics, and client service departments will continue to remain accountable for supporting the high yield platform with no interruption, while your existing relationship manager will continue to serve as your primary contact. This outcome should result in DDJ's clients seeing no change in the management of their portfolios or in any related client servicing and reporting.

Although Polen Capital and DDJ do not intend to make any changes to DDJ's investment philosophy or process, the Transaction nonetheless will constitute an "assignment" under the Advisers Act, thereby requiring the consent of DDJ's clients.

As a client of DDJ or an investor in one or more DDJ Funds, you are hereby requested to provide your written consent to the Transaction. If you are an investor in a DDJ Fund, your consent will serve as authorization for the applicable general partner, manager or trustee of the DDJ Fund to formally consent to the Transaction.

Please complete the attached Consent Form and return it to DDJ by email to Joshua McCarthy, General Counsel and Chief Compliance Officer of DDJ, at <u>jmccarthy@ddjcap.com</u> at your earliest convenience, but no later than December 23, 2021.

We look forward to continuing to serve you. Please contact Joshua McCarthy at (781) 283-8511 or imccarthy@ddjcap.com if you have any questions relating to the foregoing.

Sincerely,

DDJ Capital Management, LLC

Name: David J. Breazzano

Title: President

CONSENT FORM

This is the Consent Form accompanying the December 8, 2021 letter to DDJ Capital Management, LLC clients and investors in DDJ Funds regarding the purchase by Polen Capital Management, LLC of all of the outstanding equity interests of DDJ Capital Management, LLC (the "<u>Transaction</u>").

The person(s) signing below (i) hereby CONSENT(S) to the Transaction on behalf of the client/investor named below and (ii) represent(s) and warrant(s) to DDJ that they are duly authorized to consent to the Transaction on behalf of the client/investor named below with respect to all investment advisory accounts advised by DDJ and all DDJ Funds in which the client/investor is invested.

Client/Investor Name: The Oakland Police and Fire Retirement System

By:		
Name:		
Title:		
Date: January _	, 2022	
By:		
Name:		
Title:		
Date: January	, 2022	



MEMORANDUM

TO: Oakland Police and Fire Retirement System (OPFRS)

FROM: Meketa Investment Group

DATE: January 26, 2022

RE: DDJ Capital- Manager Update

Background

In December 2021, DDJ Capital reached an agreement to be acquired by Polen Capital, a Florida-based growth equity asset management firm with over thirty years of experience and over \$80 billion in total client assets. It was expected to close by 2021-year end.

DDJ Opportunistic High Yield strategy continues to be a high conviction strategy, and the transaction will benefit the team without affecting the philosophy, investment process, or culture. **However, as a result of the organizational change, Meketa recommends maintaining watch status and closely monitoring the team and the investment portfolio.**

DDJ Background & Organizational Update

DDJ was founded in 1996 and is based in Waltham, MA. Co-founder Dave Breazzano remains active in the organization serving as President and Chief Investment Officer. DDJ manages more than \$8 billion in credit-oriented strategies with the flagship Opportunistic High Yield strategy. DDJ will become the dedicated credit arm of Polen and remain located in Waltham, MA enabling the investment team to stay intact and operating independently. There are no direct cost synergies or redundancies, and no one will be terminated.

Over the last few years, Mr. Breazzano had been transitioning equity to employees and had spoken with a handful of insurance companies and asset managers, but he did not like any of the arrangements. A sub-advisory partner of DDJ who own some of Polen's equity mentioned to DDJ six months ago that Polen was looking to expand into fixed income to diversify its offerings away from equity. They were connected and the deal came together.

Transaction Details

Ownership Structure Changes: Mr. Breazzano (together with his family trusts established for estate planning purposes) currently is a majority and controlling shareholder of DDJ while 20-30% of the total equity is owned by current senior employees and 11% of the firm is owned by former employees of DDJ. Cornell University Foundation currently holds a small amount of equity, which was a gift from Mr. Breazzano. Polen has agreed to purchase 100% of the outstanding equity units of DDJ including shares held by all employees, former employees, and the Cornell Foundation. Upon closing, franchise equity in the high yield operation will be awarded by Polen Capital to key senior members of the DDJ investment team so they retain some economic interest in DDJ. No franchise equity will be issued to former employees or the Cornell Foundation.

Investment Team Retention Incentives: The DDJ Investment Review Committee, including Mr. Breazzano and each of the portfolio managers, have entered into a three-year contract. Additionally,



Mr. Breazzano is locked up for five years. Mr. Breazzano will become a member on Polen's Operating Committee giving him a voice at the table of the parent company. He will remain CIO of the high yield group and stay involved in the investment process but will reallocate much of the non-investment functions to Polen. Finally, they will have access to a reserve pool at Polen that can be used for bonuses for employees of DDJ.

Polen Capital Overview

Polen Capital is a Florida-based growth equity-oriented asset manager with over \$80 billion in assets. The majority of firm assets are in US and global large cap strategies. Polen has a long-term investment philosophy and possesses a thorough due diligence process within their strategies. Currently, the firm is 71% employee-owned. iM Global Partners owns 20% in passive, permanent interest, and the late founder's Polen family owns the remaining 9%. Polen employees control 100% of the firm. Ownership is spread among 33 employees, but Portfolio Managers David Davidoff and Damon Ficklin and CEO Stan Moss own the majority of the equity.

Performance Update
OPFRS Portfolio Annualized Returns (as of 12/31/2021)

	2021	2020	2019	3-year	5-year	Since Inception (Feb-2015)
DDJ Opportunistic High Yield (Net)	8.9	7.9	4.6	6.9	6.3	5.9
ICE BofA High Yield TR	5.4	6.2	14.4	8.6	6.1	6.0

In 2021, DDJ outperformed their benchmark by 350 basis points and ranked in the 9th percentile of the eVestment Alliance high yield manager universe. While the 3-year performance number is heavily weighed down by 2019, longer-term performance shows DDJ's success versus the index.

While we expect DDJ may continue to face shorter-term periods of underperformance due to their unique strategy that combines 1) a lower credit quality focus, 2) overweight to smaller issuers, 3) a high bank loan allocation and 4) more portfolio concentration, we believe the firm will continue to execute this strategy and has a high likelihood of outperformance over longer time periods.

Potential Opportunities and Risks

Given Polen Capital's acquisition of DDJ, OPFRS has three options, 1) retain and monitor the manager, 2) terminate DDJ and conduct a replacement search, or 3) do nothing. As noted earlier in this memo, recent performance of the DDJ high yield strategy has been strong. DDJ's strategy is somewhat unique compared to peers and they have executed on it well. That said, there is the potential risk of investment personnel turnover associated with the manager in the short-intermediate term. Should the investment team experience departures our opinion on the strategy my change.



Summary & Recommendation

We think the transaction will benefit the team and is unlikely to affect the philosophy, investment process, or culture. Mr. Breazzano is in no rush or need for cash and has taken his time in finding what he believes is the right partner. Being acquired by a parent company with ten times DDJ's size in AUM should benefit them with additional resources and take some of the non-investment tasks away from the team enabling them to focus on investing.

A contract with a three-year earnout and lockup of senior investment team members, the opportunity to have economic interest via franchise shares, and potentially bigger bonuses from a reserve pool at Polen serve as the critical tools to retain the team. Given there are no synergies driving the deal, the team does not have to worry about cost cuts, redundancies, or relocation. As the first bond manager at Polen, the DDJ team should remain largely independent and autonomous.

As such we recommend that OPFRS maintain "watch" status and continue to monitor over the next 6-9 months.

DS/PN/JLC/ep



Economic and Market Update

Data as of December 31, 2021



Market Returns¹

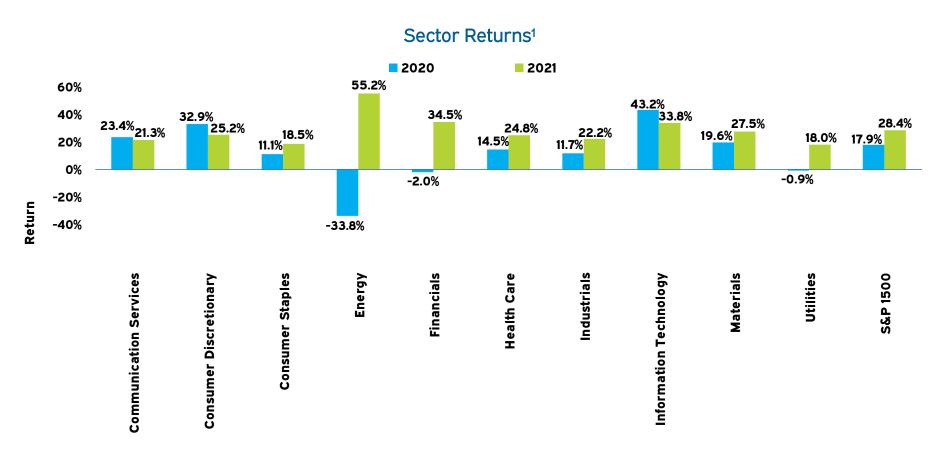
Indices	December	1 Year	3 Year	5 Year	10 Year
S&P 500	4.5%	28.7%	26.1%	18.5%	16.6%
MSCI EAFE	5.1%	11.3%	13.5%	9.6%	8.0%
MSCI Emerging Markets	1.9%	-2.5%	10.9%	9.9%	5.5%
MSCI China	-3.2%	-21.7%	7.8%	9.4%	7.2%
Bloomberg Barclays Aggregate	-0.3%	-1.5%	4.8%	3.6%	2.9%
Bloomberg Barclays TIPS	0.3%	6.0%	8.4%	5.3%	3.1%
Bloomberg Barclays High Yield	1.9%	5.3%	8.8%	6.3%	6.8%
10-year US Treasury	-0.4%	-3.6%	5.1%	3.5%	2.4%
30-year US Treasury	-2.1%	-4.6%	9.7%	7.0%	4.4%

- Declining fears over the Omicron variant and expectations for continued corporate strength contributed
 to global equity markets posting positive returns for December. Developed markets led the way with
 international equities (MSCI EAFE) outpacing US equities (S&P 500). Emerging markets lagged mainly due
 to continued concerns related to China. Overall in 2021, US equities had the best results given continued
 policy support, relative success in reopening the economy, and strong corporate fundamentals.
- In December, rising inflation and expectations for less accommodative policy led to the US bond market (Bloomberg Barclays Aggregate) declining slightly, while high yield bonds increased in the risk-on environment. For the year, TIPS led the way in bonds, up 6%, followed by high yield with the broad bond market index declining by 1.5%.

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¹ Source: Investment Metrics and Bloomberg. Data is as of December 31, 2021.

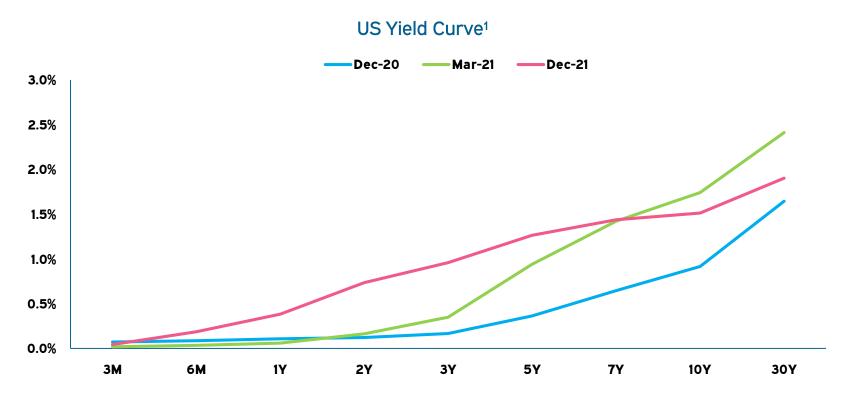




- All sectors advanced in 2021 with energy leading the way followed by financials, a reversal of the 2020 trend.
- The technology sector also produced strong results last year building on the 40%+ returns in the prior year.

¹ Source: Bloomberg, Data is as of December 31, 2021.

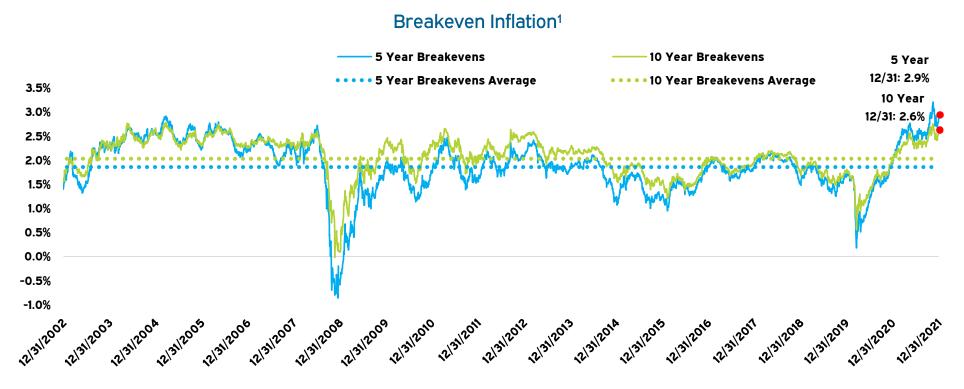




- During the first half of 2021, the Treasury yield curve steepened on both higher growth and inflation expectations as vaccines were deployed and economic growth prospects improved on the opening of the economy, while monetary policy anchored short-dated rates near 0%.
- Over the latter-half of the year, however, shorter-dated yields from 1- to 5-years rose sharply as the FOMC signaled that policy rates may be tightened more aggressively than previously anticipated.

¹ Source: Bloomberg, Data is as of December 31, 2021.



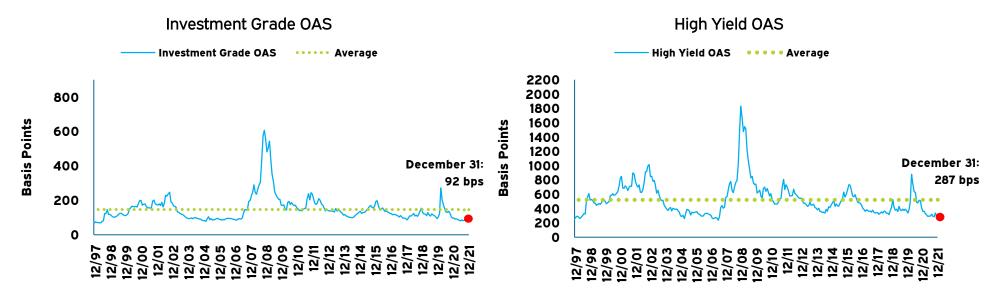


- Inflation expectations finished the year higher than they started, ending at a level well above the Fed's 2% target.
- Supply chain issues potentially persisting as new variants of the virus increase the risk of re-shuttering sectors
 of the global economy and wage pressures remain key drivers of inflation expectations.
- Additionally, changes to Fed policy focused on an average inflation target may play a role in inflation market dynamics and, specifically, the risk that consumer inflation expectations get entrenched at higher inflation growth rates.

¹ Source: Bloomberg, Data is as of December 31, 2021.



Credit Spreads (High Yield & Investment Grade)1



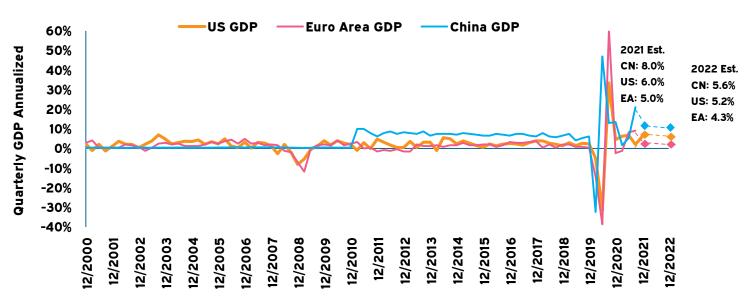
- Credit spreads (the yield spread above a comparable maturity Treasury) narrowed in December after the modest widening in November on the discovery of the new virus variant (Omicron).
- Policy support, strong corporate fundamentals, and the search for yield in a low-rate environment have been key drivers in the decline in US credit spreads to well below long-term averages, particularly for high yield issuers.

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¹ Source: Barclays Live. Data represents OAS and is as of December 31, 2021.







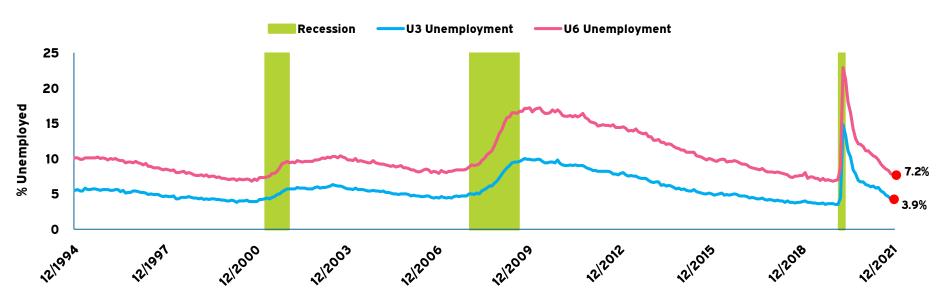
- In late 2020 and early 2021, major economies grew at rates far above potential. These high rates of growth are
 expected to decline slightly, with projections continuing to decline due to supply disruptions, reopening trends
 moderating, and some countries continuing to struggle with the virus.
- The US is expected to grow faster than the euro area again in 2022, with some growth pulled forward due to the relative success in distributing the vaccine and a substantially larger fiscal stimulus response to the pandemic.
- China is projected to grow at 8.0% in 2021 and 5.6% in 2022, both above the expected US growth rate. Questions remain, though, about the highly levered property market and increased government regulations.

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¹ Source: Bloomberg, and IMF; Euro Area and China figures annualized by Meketa. Projections via October 2021 IMF World Economic Outlook and represent annual numbers.







- The US labor market continues to recover, and the unemployment rate (U3) fell from 4.2% to 3.9% in December. It still remains slightly above pre-pandemic levels though, but far below the pandemic peak.
- The broader measure of unemployment (U6) that includes discouraged and underemployed workers also continued to decline but is much higher at 7.2%. Also, the labor force participation rate remains quite low at 61.9% and is below the 63.4% level of January 2020.
- Continued improvements in the labor market have contributed to recent expectations that the Federal Reserve will increase its pace of policy removal in 2022.

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¹ Source: Bloomberg. Data is as of December 31, 2021. Bars represent recessions as observed by the National Bureau of Economic Research.



Disclaimers

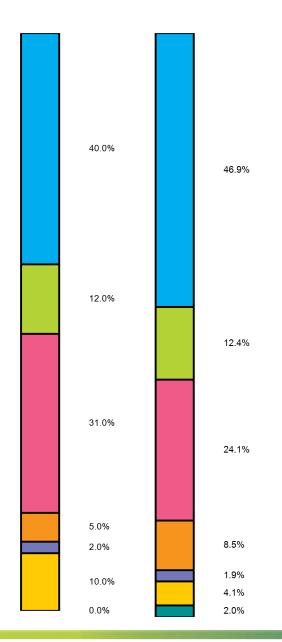
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December Flash Report

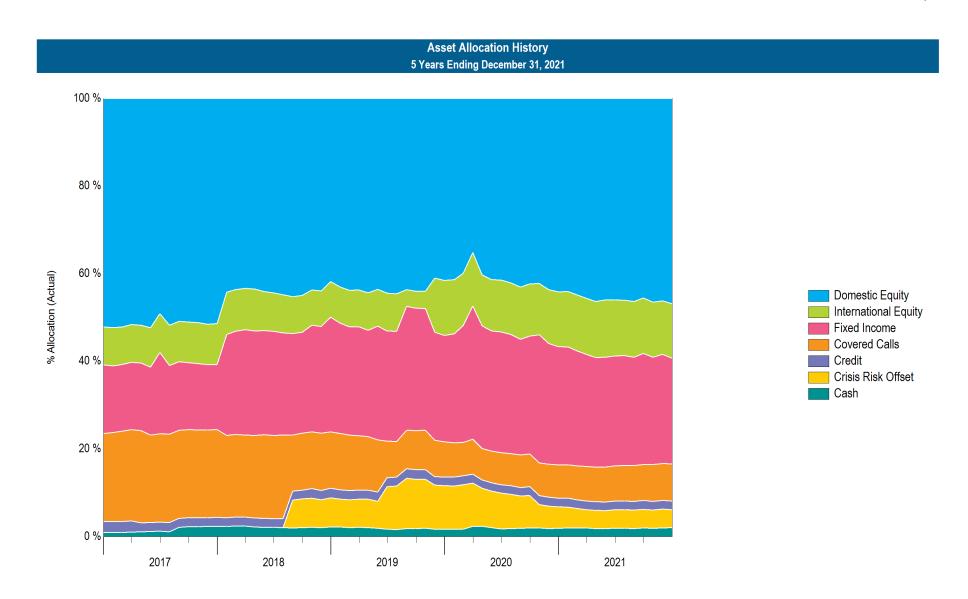






Allocation vs. Targets and Policy										
	Current Balance	Current Allocation	Policy	Difference	Within IPS Range?					
Domestic Equity	\$226,498,729	46.9%	40.0%	6.9%	Yes					
International Equity	\$60,100,247	12.4%	12.0%	0.4%	Yes					
Fixed Income	\$116,568,599	24.1%	31.0%	-6.9%	No					
Covered Calls	\$41,091,899	8.5%	5.0%	3.5%	Yes					
Credit	\$9,372,205	1.9%	2.0%	-0.1%	Yes					
Crisis Risk Offset	\$19,890,317	4.1%	10.0%	-5.9%	No					
Cash	\$9,698,983	2.0%	0.0%	2.0%	Yes					
Total	\$483,220,978	100.0%	100.0%							







	Asset Class Performance Summary									
	Market Value (\$)	% of Portfolio	1 Mo (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	S.I. (%)	S.I. Date
OPFRS Total Plan	483,220,978	100.0	3.1	5.4	13.9	14.8	11.3	9.8	7.2	Dec-88
OPFRS Policy Benchmark			2.4	4.2	11.8	14.4	10.7	9.3	8.5	Dec-88
Domestic Equity	226,498,729	46.9	5.0	9.3	25.0	24.5	17.2	15.8	9.8	Jun-97
Russell 3000 (Blend)			3.9	9.2	25.7	25.8	18.0	16.3	10.0	Jun-97
International Equity	60,100,247	12.4	4.7	1.4	10.6	14.5	10.8	8.6	5.9	Jan-98
MSCI ACWI ex US (Blend)			4.2	-1.1	8.3	13.7	10.1	7.8	6.0	Jan-98
Fixed Income	116,568,599	24.1	-0.3	0.2	-0.3	5.5	4.3	3.6	5.4	Dec-93
Bloomberg Universal (Blend)			-0.1	0.0	-1.1	<i>5.2</i>	3.8	3.3	5.2	Dec-93
Credit	9,372,205	1.9	1.0	2.5	9.6	7.6	7.0		6.6	Feb-15
Bloomberg US High Yield TR			1.9	1.6	<i>5.3</i>	8.8	6.3	6.8	6.1	Feb-15
Covered Calls	41,091,899	8.5	4.1	10.1	24.7	19.4	13.4		11.1	Apr-14
CBOE S&P 500 BuyWrite USD			3.8	8.3	20.3	10.9	8.0	7.6	7.1	Apr-14
Crisis Risk Offset	19,890,317	4.1	-2.2	2.0	-6.7	-6.8			-8.0	Aug-18
SG Multi Alternative Risk Premia Index			3.3	1.6	7.6	-1.7			-2.0	Aug-18
Cash	9,698,983	2.0	0.0	0.0	0.0	1.2	1.3	0.7	0.6	Mar-11
FTSE T-Bill 3 Months TR			0.0	0.0	0.0	1.0	1.1	0.6	0.6	Mar-11

Fiscal year begins on July 1.

Cash balances held in ETF accounts at the Custodian are reflected in the Cash account market value.

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OPFRS Total Plan As of December 31, 2021

	Tr	ailing Net	Perforr	nance							
	Market Value (\$)	% of Portfolio	% of Sector	1 Mo (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	S.I. (%)	S.I. Date
OPFRS Total Plan	483,220,978	100.0		3.1	5.4	13.9	14.8	11.3	9.8	7.2	Dec-88
OPFRS Policy Benchmark				2.4	4.2	11.8	14.4	10.7	9.3	8.5	Dec-88
Domestic Equity	226,498,729	46.9	46.9	5.0	9.3	25.0	24.5	17.2	15.8	9.8	Jun-97
Russell 3000 (Blend)				3.9	9.2	25.7	25.8	18.0	16.3	10.0	Jun-97
Northern Trust Russell 1000	122,696,981	25.4	54.2	4.0	10.0	26.5	26.2	18.4	16.5	15.8	Jun-10
Russell 1000				4.1	10.0	26.5	26.2	18.4	16.5	15.8	Jun-10
EARNEST Partners	51,502,726	10.7	22.7	6.7	10.2	25.7	28.2	19.2	16.9	11.8	Apr-06
Russell MidCap				4.1	5.4	22.6	23.3	15.1	14.9	10.2	Apr-06
iShares Edge MSCI Min Vol ETF	23,024,059	4.8	10.2	6.8	10.7	20.8				28.0	Apr-20
MSCI USA Minimum Volatility GR USD				6.8	10.7	21.0	17.9	14.7	14.2	28.2	Apr-20
Rice Hall James	17,436,537	3.6	7.7	4.3	2.1	16.2	19.8			14.2	Jul-17
Russell 2000 Growth				0.4	-5.6	2.8	21.2	14.5	14.1	13.8	Jul-17
Brown Fundamental Small Cap Value	11,838,425	2.4	5.2	6.0	7.3					10.8	Apr-21
Russell 2000 Value				4.1	1.2	28.3	18.0	9.1	12.0	5.9	Apr-21
International Equity	60,100,247	12.4	12.4	4.7	1.4	10.6	14.5	10.8	8.6	5.9	Jan-98
MSCI ACWI ex US (Blend)				4.2	-1.1	8.3	13.7	10.1	7.8	6.0	Jan-98
SGA ACWI ex-U.S. Equity	42,401,389	8.8	70.6	5.1	2.2	10.8				9.1	Dec-19
MSCI ACWI ex USA Gross				4.2	-1.1	8.3	13.7	10.1	7.8	11.6	Dec-19
Vanguard Developed Markets ETF	17,098,207	3.5	28.4	2.7	-0.9	8.2				12.2	Sep-19
FTSE Developed All Cap Ex US TR USD				<i>5.1</i>	1.6	11.9	14.7	10.2	6.8	14.8	Sep-19

Fiscal year begins July 1.

Throughout the report performance for new funds will be shown after one full month of investment.

International equity performance inclusive of residual cash in Hansberger transition.

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OPFRS Total Plan As of December 31, 2021

	Market Value (\$)	% of Portfolio	% of Sector	1 Mo (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	S.I. (%)	S.I. Date
Fixed Income	116,568,599	24.1	24.1	-0.3	0.2	-0.3	5.5	4.3	3.6	5.4	Dec-93
Bloomberg Universal (Blend)				-0.1	0.0	-1.1	5.2	3.8	3.3	5.2	Dec-93
Ramirez	79,372,600	16.4	68.1	-0.4	0.2	0.1	5.5			4.3	Jan-17
Bloomberg US Aggregate TR				-0.3	0.1	-1.5	4.8	<i>3.6</i>	2.9	3.6	Jan-17
Reams	29,560,445	6.1	25.4	-0.1	0.4	-1.2	8.7	6.2	4.7	5.9	Feb-98
Bloomberg Universal (Blend)				-0.1	0.0	-1.1	<i>5.2</i>	3.8	3.3	4.9	Feb-98
Wellington Core Bond	7,635,510	1.6	6.6	-0.2	0.0					1.9	Apr-21
Bloomberg US Aggregate TR				-0.3	0.1	-1.5	4.8	3.6	2.9	1.9	Apr-21
Credit	9,372,205	1.9	1.9	1.0	2.5	9.6	7.6	7.0		6.6	Feb-15
Bloomberg US High Yield TR				1.9	1.6	<i>5.3</i>	8.8	6.3	6.8	6.1	Feb-15
DDJ Capital	9,372,205	1.9	100.0	1.0	2.5	9.6	7.6	7.0		6.6	Feb-15
ICE BofA High Yield Master TR				1.9	1.6	5.4	8.6	6.1	6.7	6.0	Feb-15
Covered Calls	41,091,899	8.5	8.5	4.1	10.1	24.7	19.4	13.4		11.1	Apr-14
CBOE S&P 500 BuyWrite USD				3.8	8.3	20.3	10.9	8.0	7.6	7.1	Apr-14
Parametric DeltaShift	23,455,117	4.9	57.1	4.6	12.1	29.1	24.5	16.5		13.8	Apr-14
CBOE S&P 500 BuyWrite USD				3.8	8.3	20.3	10.9	8.0	7.6	7.1	Apr-14
Parametric BXM	17,636,781	3.6	42.9	3.5	7.6	19.2	13.8	10.0		8.7	Apr-14
CBOE S&P 500 BuyWrite USD				3.8	<i>8.3</i>	20.3	10.9	8.0	7.6	7.1	Apr-14
Crisis Risk Offset	19,890,317	4.1	4.1	-2.2	2.0	-6.7	-6.8	-		-8.0	Aug-18
SG Multi Alternative Risk Premia Index				3.3	1.6	7.6	-1.7			-2.0	Aug-18
Vanguard Long-Term Treasury ETF	19,890,317	4.1	100.0	-2.2	2.0	-6.7				5.3	Jul-19
Bloomberg US Govt Long TR				-1.4	3.5	-4.6	8.8	6.5	4.5	6.1	Jul-19
Cash	9,698,983	2.0	2.0	0.0	0.0	0.0	1.2	1.3	0.7	0.6	Mar-11
FTSE T-Bill 3 Months TR				0.0	0.0	0.0	1.0	1.1	0.6	0.6	Mar-11
Cash - Treasury	6,676,000	1.4	68.8								
Cash	3,022,983	0.6	31.2	0.0	0.0	0.1	1.4	1.4	0.8	0.7	Mar-11
FTSE T-Bill 3 Months TR				0.0	0.0	0.0	1.0	1.1	0.6	0.6	Mar-11

Cash balances held in ETF accounts at the Custodian are reflected in the Cash account market value.





	Cash Flow Summary Month to Date			
	Beginning Market Value	Net Cash Flow	Net Investment Change	Ending Market Value
Brown Fundamental Small Cap Value	\$11,173,401	\$0	\$665,024	\$11,838,425
Cash	\$2,624,335	\$9,463	\$389,186	\$3,022,983
Cash - Treasury	\$6,470,000	\$206,000	\$0	\$6,676,000
DDJ Capital	\$9,286,405	\$0	\$85,799	\$9,372,205
EARNEST Partners	\$48,277,885	\$0	\$3,224,841	\$51,502,726
Hansberger Transition	\$432,308	\$0	\$168,343	\$600,651
iShares Edge MSCI Min Vol ETF	\$21,618,140	\$0	\$1,405,919	\$23,024,059
Northern Trust Russell 1000	\$118,924,857	-\$1,000,000	\$4,772,124	\$122,696,981
Parametric BXM	\$17,047,397	\$0	\$589,384	\$17,636,781
Parametric DeltaShift	\$22,421,043	\$0	\$1,034,074	\$23,455,117
Ramirez	\$79,703,198	\$0	-\$330,598	\$79,372,600
Reams	\$29,590,827	\$0	-\$30,382	\$29,560,445
Reams Low Duration	\$44	\$0	\$0	\$44
Rice Hall James	\$16,712,955	\$0	\$723,582	\$17,436,537
Securities Lending Northern Trust	\$0	-\$9,463	\$9,463	\$0
SGA ACWI ex-U.S. Equity	\$40,332,686	\$0	\$2,068,703	\$42,401,389
Vanguard Developed Markets ETF	\$16,642,791	\$0	\$455,416	\$17,098,207
Vanguard Long-Term Treasury ETF	\$20,337,415	\$0	-\$447,098	\$19,890,317
Wellington Core Bond	\$7,655,025	\$0	-\$19,515	\$7,635,510
Total	\$469,250,712	-\$794,000	\$14,764,266	\$483,220,978



Benchmark History As of December 31, 2021

Total Plan x Securities Lending x Reams LD Exception Comp

1/1/2019	Present	40% Russell 3000 / 12% MSCI ACWI ex USA Gross / 33% Bloomberg US Universal TR / 5% CBOE BXM / 6.7% SG Multi Alternative Risk Premia Index / 3.3% Bloomberg US Treasury Long TR
5/1/2016	12/31/2018	48% Russell 3000 / 12% MSCI ACWI ex USA Gross / 20% Bloomberg US Universal TR / 20% CBOE BXM
10/1/2015	4/30/2016	43% Russell 3000 / 12% MSCI ACWI ex USA Gross / 20% Bloomberg US Universal TR / 15% CBOE BXM / 10% CPI - All Urban Consumers (unadjusted) +3%
1/1/2014	9/30/2015	48% Russell 3000 / 12% MSCI ACWI ex USA Gross / 20% Bloomberg US Universal TR / 10% CBOE BXM / 10% CPI - All Urban Consumers (unadjusted) +3%
3/1/2013	12/31/2013	40% Russell 3000 / 10% MSCI ACWI ex USA Gross / 17% Bloomberg US Universal TR / 33% ICE BofA 3M US Treasury TR USD
8/1/2012	2/28/2013	20% Russell 3000 / 7% MSCI ACWI ex USA Gross / 18% Bloomberg US Universal TR / 55% ICE BofA 3M US Treasury TR USD
10/1/2007	7/31/2012	53% Russell 3000 / 17% MSCI ACWI ex USA Gross / 30% Bloomberg US Universal TR
4/1/2006	9/30/2007	35% Russell 3000 / 15% MSCI ACWI ex USA Gross / 50% Bloomberg US Universal TR
1/1/2005	3/31/2006	35% Russell 3000 / 15% MSCI ACWI ex USA Gross / 50% Bloomberg US Aggregate TR
4/1/1998	12/31/2004	50% Bloomberg US Aggregate TR / 10% Russell 1000 / 20% Russell 1000 Value / 5% Russell MidCap / 15% MSCI EAFE
9/1/1988	3/31/1998	40% S&P 500 / 55% Bloomberg US Aggregate TR / 5% FTSE T-Bill 3 Months TR



Cash Flow Recommendation Summary

Asset Class / Manager Liquidity

	Jan - Mar 2022 Report	
Asset Class	Fund	Tier
Domestic Equity	Northern Trust	1
Domestic Equity	EARNEST Partners	3
Domestic Equity	iShares MSCI Min Vol ETF	3
Domestic Equity	Rice Hall James	3
Domestic Equity	Brown Small Cap Value	3
International Equity	SGA MSCI ACWI ex-US	3
International Equity	Vanguard Developed ETF	3
Domestic Fixed Income	Ramirez	2
Domestic Fixed Income	Reams	2
Domestic Fixed Income	Wellington Core Bond	3
Credit	DDJ	2
Covered Calls	Parametric	2
Crisis Risk Offset	Vanguard Long Duration ETF	3
Cash	Cash	1

Description of Liquidity Tiers

Tier	Description	Amount	in Months
1	Public, Scheduled Withdrawal Allowances	\$130.6	21.8
2	Public, Accommodating of Withdrawals	157.8	26.3
3	Public, Must Plan Withdrawals	187.0	31.2
4	Closely Held	0.0	-
Total		\$475.4	



Cash Flow Recommendation Summary

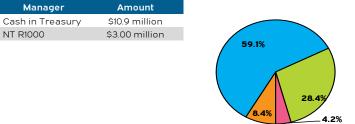
		For Oct - D	ash flows ec Benefits t of each month	Suggested Cash flows For Jan - Mar Benefits Payable the 1st of each month				
	Market	Market	Target (%)	\$ Variance	Inflow	Outflow	Inflow	Outflow
Northern Trust	Value (\$M)	Value (%) 25.6%	20.0%	(from basic target) 26,441,913	(\$M)	(\$M) (3.0)	(\$M)	(\$M) (3.0)
EARNEST Partners	48.8	10.3%	8.0%	10,781,284		(3.0)		(3.0)
iShares MSCI Min Vol ETF	22.1	4.6%	6.0%	(6,455,039)				
Rice Hall James	17.4	3.7%	3.0%	3,157,793				
Brown Small Cap Value	11.4	2.4%	3.0%	(2,875,204)				
Total Domestic Equity	221.2	46.5%	40.0%	31,050,747				
SGA MSCI ACWI ex-US	42.0	8.8%	8.4%	2,028,863				
Vanguard Developed ETF	17.5	3.7%	3.6%	337.749				
Total International Equity	59.8	12.5%	12.0%	2,366,612				
Total Public Equity	281.1	59.0%	52.0%	33,417,360				
Parametric	39.7	8.4%	5.0%	15,957,243				
Total Covered Calls	39.7	8.4%	5.0%	15,957,243				
Long Duration ETF	19.8	4.2%	3.3%	4,000,464				
TBD Risk Premia & STF Managers			6.7%	(31,694,896)				
Total Crisis Risk Offset	19.8	4.2%	10.0%	(27,694,432)				
Ramirez	79.4	16.7%	17.0%	(1,460,918)				
Reams	29.4	6.2%	12.0%	(27,635,694)				
Wellington Core Bond	7.6	1.6%	2.0%	(1,864,734)				
DDJ	9.3	2.0%	2.0%	(192,996)				
Total Public Fixed	125.7	26.4%	33.0%	(31,154,341)				
Cash	9.0	1.9%	0.0%	9,047,775	10.90	(10.90)	10.90	(10.90)
Total Stable	134.8	28.4%	33.0%	(22,106,566)				
Total Portfolio	475.4	100.0%	100.0%	_	10.90	(13.90)	10.90	(13.90)

October 31 Market Values by Portfolio Segment

Portfolio Segment	MV (\$M)
Total Domestic Equity	221.2
Total International Equity	59.8
Total Public Equity	281.1
Total Covered Calls	39.7
Total Crisis Risk Offset	19.8
Total Public Fixed	125.7
Total Stable	134.8
Total Portfolio	475.4

 $[\]ensuremath{^{\star}}$ Estimated based on PFRS October 31 Northern Trust statement.

Suggested Cash Withdrawals Projected Equity to Fixed Allocation (MV)



[■] Total Covered Calls
■ Total Public Equity
■ Total Stable
■ Total CRO
\$ difference in MV of Public

Equity from 52% allocation: \$33.4 million

MEKETA INVESTMENT GROUP
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^{**} Preliminary value as of October 31 per OPFRS staff.



Cash Flow Recommendation Summary

Projected OPFRS Asset Allocation¹

	Est Mkt Value (\$M)	Est Mkt Value (%)	Target (%)	Projected % Variance <i>(from target)</i>	Projected \$ Variance (from target)
Northern Trust	115.5	24.6%	20.0%	4.6%	21,641,913
iShares MSCI Min Vol ETF	22.1	4.7%	6.0%	-1.3%	(6,095,039)
EARNEST Partners	48.8	10.4%	8.0%	2.4%	11,261,284
Brown Small Cap Value	11.4	2.4%	3.0%	-0.6%	(2,695,204)
Rice Hall James	17.4	3.7%	3.0%	0.7%	3,337,793
Total Domestic Equity	215.2	45.8%	40.0%	5.8%	27,450,747
Vanguard Developed ETF	17.5	3.7%	3.6%	0.1%	553,749
SGA MSCI ACWI ex-US	42.0	8.9%	8.4%	0.5%	2,532,863
Total International Equity	59.8	12.7%	12.0%	0.7%	3,513,341
Total Public Equity	275.1	58.6%	52.0%	6.6%	30,964,089
Parametric	39.7	8.5%	5.0%	3.5%	16,257,243
Total Covered Calls	39.7	8.5%	5.0%	3.5%	16,257,243
Long Duration ETF	19.8	4.2%	3.3%	0.9%	4,200,463
TBD Risk Premia Manager	0.0	0.0%	6.7%	-6.7%	(31,294,900)
Total Crisis Risk Offset	19.8	4.2%	10.0%	-5.8%	(27,094,436)
Reams	29.4	6.3%	12.0%	-5.7%	(26,915,694)
DDJ	9.3	2.0%	2.0%	0.0%	(72,996)
Ramirez	79.4	16.9%	19.0%	-2.1%	(9,829,482)
iShares Core US Agg Bond ETF	7.6	1.6%	2.0%	-0.4%	(1,744,734)
Total Public Fixed	125.7	26.8%	33.0%	-6.2%	(29,174,341)
Cash	9.0	1.9%	0.0%	1.9%	9,047,775
Total Stable	134.8	28.7%	33.0%	-4.3%	(20,126,566)
Total Portfolio	469.4	100.0%	100.0%		

MEKETA INVESTMENT GROUP
Page 3 of 3

¹ Report reflects change in asset allocation from October 31, 2021 values listed by Northern Trust, and beneficiary payments estimated at \$13.9 million on a quarterly basis per OPFRS. Report reflects quarterly City contributions of \$10.9 million. Current City of Oakland quarterly contribution amount is based on FY 2020/2021 actuarial annual required contribution of \$43.65 million.



MEMORANDUM

TO: Oakland Police and Fire Retirement System (PFRS)

FROM: Meketa Investment Group ("Meketa")

CC: David Sancewich; Paola Nealon - Meketa

Teir Jenkins - PFRS

DATE: January 26, 2022

RE: 2021 Asset Allocation Memo – Inflation Update

Summary and Recommendation:

During the August 2021 meeting, Meketa presented the board with expected return estimates for the next 20-years utilizing our 2021 Capital Market assumptions. Following discussion with the board, Meketa was asked to evaluate any potential changes to the asset allocation regarding the addition of an inflation sensitive component.

Currently, there is no allocation in the PFRS portfolio to inflation sensitive assets. The portfolio has three general components: public equites, fixed income and CRO. However, as PFRS continues to move towards de-risking the plan the need for risky assets (public equities) decreases.

There are three portfolio options for PFRS to consider with regard to changing the PFRS asset allocation.

- 1. Do Nothing Keep the long-term asset allocation.
- 2. Keep the current Interim allocation. The current interim allocation has a lower allocation to CRO and a larger allocation to fixed income.
- 3. Create an Inflation sensitive class. Allocation 5% of the portfolios assets to an inflation sensitive component utilizing short-duration TIPs.
 - a. As of 9/30/2021 PFRS fixed income managers (Wellington, Ramirez, and Reams) had a total of 0.001% in TIPs.

While all three of the options listed are reasonable, Meketa recommends Option #3.

The general theme of the 2021 Meketa Capital Market Assumptions are lower future expected returns. This is a theme which is consistent across the board in the industry and largely driven by the significant changes in interest rates during 2020. Lower interest rates result in lower expected returns for most yield oriented asset classes as starting yield is often a fairly reasonable predictor of future returns for many fixed income related classes. Other approaches which focus on building forecasts from a more bottom-up or fundamental view point for equities and other economic growth risk linked classes are often (or at least in some part) influenced by valuation levels. With a strong year across the board for equity markets, valuations increased across many measures.



As such, expected returns are lower for anyone relying solely on a valuation approach as well. It's important to remember that our capital market assumptions and those of other practitioners and peers have a significant range of error in terms of potential future outcomes. For example, the higher the expected standard deviation, the higher the range of possible outcomes is expected to be for any asset class or portfolio. It is also important to note that the long-term expected portfolio compound return assumes net-of-fee returns, with no attempt to seek added value via active management.

It is important to note that our capital market assumptions are over a 20-year time horizon which is different from the time horizon used by PFRS's actuary, Chieron which projects out over 30-years. Further summary comments of our 2021 capital market assumptions and the detailed projections by asset class are shown on the following page.



- In 2021 our cash return expectations declined materially from 2020 from 2.4% to 1.1% pushing the real return expectation even further into negative territory.
 - Short-term rates declined significantly, with 3 month treasury yields starting at 1.55% and dropping to 0% on March 25th and 26th 2020, before remained low the rest of the year and ending at 0.09%.
- Fixed income yields across the maturity and quality spectrum fell significantly during 2020 reducing return expectations for Fixed Income, High Yield, and Long Duration (a part of Crisis Risk Offset).
- With the exception of Public Equities, no class in the PFRS portfolio is forecasted to achieve a compound return above 7.00% over the next 20 years.
 - Public Equity contains U.S. Equity and International Equity. The next highest returning sub-asset class is Covered Calls at ~4.7%.
- Over the next 20-years the PFRS Long-term policy portfolio is projected to produce a return of 5.63%. The addition of an inflation component reduces this return expectation to 5.48%, however this assumes normal expected inflation.

Current Interim Policy

2021 20-Year Assumptions

Investment Class	Target * (%)	Exp. Comp. Return**	Expected Std. Dev.
US Equity	40	6.80	18.00
International Equity	12	7.10	19.00
Covered Calls	5	4.70	13.00
Fixed Income	31	1.80	4.00
Credit	2	4.20	11.00
Crisis Risk Offset	10	4.05	8.90
Cash		1.10	1.00
Total	100	5.37	10.24



Current Long-Term Policy

2021 20-Year Assumptions

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Investment Class	Target * (%)	Exp. Comp. Return**	Expected Std. Dev.	
US Equity	40	6.80	18.00	
International Equity	12	7.10	19.00	
Covered Calls	5	4.70	13.00	
Fixed Income	21	1.80	4.00	
Credit	2	4.20	11.00	
Crisis Risk Offset	20	4.05	8.90	
Cash		1.10	1.00	
Total	100	5.63	10.21	

Long-Term Policy with (Short-Term Tips)

2021 20-Year Assumptions

			•
Investment Class	Target * (%)	Exp. Comp. Return**	Expected Std. Dev.
US Equity	40	6.80	18.00
International Equity	12	7.10	19.00
Covered Calls	5	4.70	13.00
Fixed Income	21	1.80	4.00
Credit	2	4.20	11.00
Crisis Risk Offset	15	4.05	8.90
Inflation (Short-Term Tips)	5	1.50	5.00
Cash		1.10	1.00
Total	100	5.48	10.28



Long-Term Policy with (Gold)

2021 20-Year Assumptions

Investment Class	Target * (%)	Exp. Comp. Return**	Expected Std. Dev.
US Equity	40	6.80	18.00
International Equity	12	7.10	19.00
Covered Calls	5	4.70	13.00
Fixed Income	21	1.80	4.00
Credit	2	4.20	11.00
Crisis Risk Offset	15	4.05	8.90
Inflation (Gold)	5	2.30	20.00
Cash		1.10	1.00
Total	100	5.48	10.28

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MEMORANDUM

TO: Oakland Police and Fire Retirement System (PFRS)

FROM: Meketa Investment Group ("Meketa")

CC: David Sancewich; Paola Nealon - Meketa

Teir Jenkins - PFRS

DATE: January 22, 2022

RE: Update on ESG Changes – SEC and DOL

In March 2021, the SEC annouced the formation of the Climate and Environmental, Social and Goverance task force (ESG task force) within its enforcement division. The task force had 22 members from various areas of the SEC, including headquarters, regional offices, and the enforcement division. The goal of this group is to identify material gaps or mistatements in current disclosures of climate risk.

As part of this initiative, the SEC also sought consultation from the public, including investors and market participants about the adequacy of current ESG disclosures and climate change. ESG and climate change seems to have become a priority to both the current federal administration and the SEC chair Gary Gensler. A full report is expected in the first half of 2022.

Separately, the Department of Labor (DOL) has also asked for public comment regarding current ESG disclosures and on proxy voting. The deadline for comments was December 13, 2021 with a summary report expected to be released in the first half of 2022.

As the rules and regulations regarding ESG change, Meketa will continue to work with the PFRS board to provide additional discussion and education as to the impact on its current portfolio.

OAKLAND POLICE AND FIRE RETIREMENT BOARD CITY OF OAKLAND, CALIFORNIA RESOLUTION NO. 8037

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Annroyed to Form

ON MOTION OF MEMBER	SECONDED BY MEMBER
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RESOLUTION DETERMINING THAT CONDUCTING IN-PERSON MEETINGS OF THE POLICE AND FIRE RETIRMENT SYSTEM (PFRS) BOARD AND ITS COMMITTEES WOULD PRESENT IMMINENT RISK TO HEALTH OR SAFETY OF ATTENDEES AND ELECTING TO CONTINUE TO CONDUCT PFRS BOARD AND COMMITTEE MEETINGS USING TELECONFERENCING IN ACCORDANCE WITH CALIFORNIA GOVERNMENT CODE SECTION 54953(e) AS AMENDED BY CALIFORNIA ASSEMBLY BILL NO. 361 (SEPTEMBER 16, 2021).

WHEREAS, on March 4, 2020, Governor Gavin Newsom declared a state of emergency related to COVID-19, pursuant to California Government Code Section 8625, and said declaration has not been lifted or rescinded, see https://www.gov.ca.gov/wp-content/uploads/2020/03/3.4.20-Coronavirus-SOE-Proclamation.pdf; and

WHEREAS, on March 9, 2020, the City Administrator, as the Director of the Emergency Operations Center (EOC), issued a proclamation of local emergency due to the spread of COVID-19 in Oakland, and on March 12, 2020, the City Council passed Resolution No. 88075 C.M.S. ratifying the proclamation of local emergency pursuant to Oakland Municipal Code (O.M.C.) section 8.50.050(C); and

WHEREAS, City Council Resolution No. 88075 remains in full force and effect to date; and

WHEREAS, the Centers for Disease Control (CDC) recommends physical distancing of at least six (6) feet whenever possible, avoiding crowds, and avoiding spaces that do not offer fresh air from the outdoors, particularly for people who are not fully vaccinated or who are at high risk of getting very sick from COVID-19, *see* https://www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/prevention.html; and

WHEREAS, the CDC recommends that people who live with unvaccinated people avoid activities that make physical distancing difficult, *see* https://www.cdc.gov/coronavirus/2019-ncov/your-health/about-covid-19/caring-for-children/families.html; and

WHEREAS, the CDC recommends that older adults limit in-person interactions as much as possible, particularly when indoors, *see* https://www.cdc.gov/aging/covid19/covid19-older-adults.html; and

WHEREAS, the CDC, the California Department of Public Health, and the Alameda County Public Health Department all recommend that people

OAKLAND POLICE AND FIRE RETIREMENT BOARD

CITY OF OAKLAND, CALIFORNIA

RESOLUTION No. 8037

experiencing COVID-19 symptoms stay home, *see* <u>https://www.cdc.gov/coronavirus/2019-ncov/if-you-are-sick/steps-when-sick.html</u>; and

WHEREAS, people without symptoms may be able to spread the COVID-19 virus, *see* https://www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/prevention.html; and

WHEREAS, fully vaccinated people who become infected with the COVID-19 Delta variant can spread the virus to others, *see* https://www.cdc.gov/coronavirus/2019-ncov/vaccines/effectiveness/why-measure-effectiveness/breakthrough-cases.html; and

WHEREAS, as of December 20, 2021, the Omicron variant has been detected in most states and territories and is rapidly increasing the proportion of COVID-19 cases it is causing, see https://www.cdc.gov/coronavirus/2019-ncov/variants/omicron-variant.html; and

WHEREAS, the CDC does not yet know how easily the Omicron variant spreads, the severity of illness it causes, or how well available vaccines and medications work against it, see https://www.cdc.gov/coronavirus/2019-ncov/variants/omicron-variant.html; and

WHEREAS, the City's public-meeting facilities are indoor facilities that are not designed to provide circulation of fresh/outdoor air, particularly during periods of cold or rainy weather; and

WHEREAS, the City's public-meeting facilities are not designed to ensure that attendees can remain six (6) feet apart; and

WHEREAS, most of the members of the Police and Fire Retirement System are at higher risk of becoming very sick from COVID-19 due their age; and

WHEREAS, holding in-person meetings will bring people from different households together in an indoor facility against CDC guidance; and

WHEREAS, some attendees may use public transportation to travel to an in-person meeting, which will expose them additional people outside of their household and put them at further risk of contracting COVID-19; now, therefore, be it:

RESOLVED: that the Police and Fire Retirement System Board ("PFRS Board") finds and determines that the foregoing recitals are true and correct and hereby adopts and incorporates them into this Resolution; and be it

OAKLAND POLICE AND FIRE RETIREMENT BOARD

CITY OF OAKLAND, CALIFORNIA

RESOLUTION No. 8037

FURTHER RESOLVED: that, based on these findings, the PFRS Board determines that conducting in-person board and committee meetings would pose imminent risks to the health of attendees; and be it

FURTHER RESOLVED: that the PFRS Board firmly believes that the community's health and safety and the community's right to participate in local government are critically and equally important, and is committed to balancing the two by continuing to use teleconferencing to conduct public meetings, in accordance with California Government Code Section 54953(e); and be it

FURTHER RESOLVED: That the PFRS Board will reconsider the state of emergency and determine whether the state of emergency continues to directly impact the ability of members to meet safely in person at least every thirty (30) days in accordance with California Government Code section 54953(e) until the state of emergency related to COVID-19 has been lifted, or the PFRS Board finds that in-person meetings no longer pose imminent risks to the health of attendees, whichever is occurs first.

IN BOARD MEETING, VIA ZOOM CONFERENCE	JANUARY 26, 2022	_
PASSED BY THE FOLLOWING VOTE:		
AYES:		
NOES:		
ABSENT:		
	ATTEST:	
		President
	ATTEST:	
		SECRETARY