



ANNUAL COMPREHENSIVE FINANCIAL REPORT

*For the years ended
December 31, 2022 and 2021*

GERP

City of Aurora
General Employees'
Retirement Plan

City of Aurora General Employees' Retirement Plan

A component unit of the City of Aurora, Colorado



Government Finance Officers Association

Certificate of
Achievement
for Excellence
in Financial
Reporting

Presented to

**City of Aurora General Employees' Retirement Plan
Colorado**

For its Annual Comprehensive
Financial Report
For the Fiscal Year Ended

December 31, 2021

Christopher P. Morill

Executive Director/CEO

City of Aurora General Employees' Retirement Plan

A component unit of the City of Aurora, Colorado

Annual Comprehensive Financial Report

For the years ended December 31, 2022 and 2021

Prepared by the General Employees' Retirement Board

Steven Shanks, Pension Plan Administrator

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INTRODUCTORY SECTION



City of Aurora
General Employees' Retirement Plan



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July 31, 2023

To the Honorable Mayor, City Council and citizens of the City of Aurora, Colorado:

The annual comprehensive financial report of the City of Aurora General Employees' Retirement Plan ("GERP") for the year ended December 31, 2022 is hereby submitted for your information and review. The Plan is a component unit of the municipal government of the City of Aurora, Colorado.

This report is prepared under the authority of Aurora City Code section 102-145(g), which requires the Retirement Board to submit a financial report to City Council and to Plan participants each year. Responsibility for the accuracy, completeness and fairness of this presentation, including all disclosures, rests with the Retirement Plan administration. To the best of our knowledge and belief, the enclosed data are accurate in all material respects and are reported in a manner that presents fairly the financial position and results of operations of the Plan. All disclosures necessary to enable the reader to gain an understanding of the Plan's financial activities have been included.

This annual comprehensive financial report is presented in five sections:

- The **introductory** section, which is unaudited, includes this letter of transmittal, the Plan's organizational chart and a listing of trustees, staff and service providers.
- The **financial** section includes the independent auditors' report, management's discussion and analysis, the basic financial statements and notes, required supplementary information and other supplementary information.
- The **investment, actuarial** and **statistical** sections, which are unaudited, include selected financial and demographic information presented on a multi-year basis.

Plan Background

The City of Aurora General Employees' Retirement Plan is a defined benefit pension plan created by the Aurora City Council in 1967 for the exclusive benefit of participants and their beneficiaries. Participation in the Plan is mandatory for the City's career service employees, for Council-appointed employees hired after 1997 and for the Plan's administrative staff members; the City's executive personnel have the option to participate. The Plan is intended to qualify under section 401(a) of the Internal Revenue Code and the trust created under the Plan is intended to be exempt under section 501(a).

In 2022, participating employees contributed 7.00% of their gross compensation to GERP. The City of Aurora contributed an equal amount, for a total contribution of 14.0% of pay. Under the plan, as outlined in the Aurora City Code, the combined contribution rate will automatically adjust between 11.0% and 14.0% based on the Plan's funded status.

Contributions received by GERP are held in trust, under the supervision of its Board of Trustees. The trustees have designated a custodian for Plan assets and have delegated investment authority to several registered investment advisors. A Pension Plan Administrator and support staff are employed by the Board to carry out administrative functions. The Board also contracts with consultants and advisors, as needed.

Upon termination of employment, retirement, or death, a participant (or beneficiary) may qualify for a monthly pension. The amount of the pension is dependent on the participant's age, final average pay and length of service. Alternatively, participants may choose to receive a lump sum refund of their contribution account balance and vested City contributions.

Those who elect to retire and collect a regular pension benefit may also receive a supplemental benefit, which is an additional cash payment intended to assist retirees with health care expenses. Both the regular and supplemental benefits may be subject to annual cost of living adjustments. A \$6,250 lump sum death benefit is payable to the designated beneficiary upon the death of a retired employee who had been receiving a monthly pension.

Major Initiatives

Part of the Board of Trustee's fiduciary duties as defined by the Investment Policy Statement are to establish the Fund's asset allocation (defined as determining an appropriate mix of the Fund's assets between various asset classes and investment styles) in a manner to achieve the Fund's goals and objectives without undue risk and to monitor and evaluate performance results to assure compliance with investment guidelines and objectives are being met.

During 2021, the Board commissioned an asset and liability study to determine an appropriate long-term mix between return-seeking assets, such as equities, real assets and alternatives and risk-mitigating assets, such as cash and fixed income, based on factors including return assumptions, funded status, liquidity needs and liability growth.

The results of the study were published in February, 2022. The results compared five different optimal mixes of the existing asset classes. The one-year return, ten-year compound return and risk (standard deviation) were reviewed for each optimal mix. The mix recommended by Callan, the Plan's investment consultant, and selected by the Board, changed the existing target allocations by increasing public equity by five percent and increasing private equity by three percent, while decreasing core fixed income by five percent and decreasing timber by three percent.

The changes in the Plan's target mix were incorporated into the Investment Policy Statement which was adopted in December 2022.

Financial Information

The Board of Trustees is vested with the responsibility for the general administration, management and proper operation of the Plan, including the determination of eligibility for benefits and the supervision of trust fund investments. As the Board's chief administrative officer, the Pension Plan Administrator has established an internal control structure. Because the cost of internal control should not exceed anticipated benefits, the objective is to provide reasonable, rather than absolute, assurance that the financial statements are free of any material misstatements and that Plan assets are protected from loss, theft or misuse. The Pension Plan Administrator also serves as secretary and treasurer of the Board and is charged with maintaining records, compiling accounting data and preparing financial statements in conformity with accounting principles generally accepted in the United States of America. The Plan's financial statements are audited and its internal control structure is evaluated annually by the independent auditor.

An annual expense budget is prepared by the Pension Plan Administrator and approved by the Board. The Board's authorization (through either the budget or a special appropriation) is required for the expenditure of any funds from the retirement trust. As demonstrated by the statements, schedules and report of the independent auditor included in the financial section of this report, the Board continues to meet its responsibility for sound operational and financial management.

Funded Status

As of the January 1, 2023 valuation report, GERP's funded ratio was 95.3% and its unfunded liability was \$31.2 million. There were no changes to actuarial assumptions implemented in the January 1, 2023 valuation. Due to higher than expected salary increases, plus a higher than expected cost of living adjustment combined with investment losses, the actuarial accrued liability increased by \$21.7 million more than expectations,

GERP ended 2022 with an actuarial value of assets of \$638.3 million. Due to the Plan's policy of smoothing investment gains and losses over a three-year period, there are \$59.2 million in deferred losses that will be recognized in future years.

Normal cost (the cost of anticipated benefits for active participants that is allocated to the current year) was 11.1% of payroll at the start of 2023. Normal cost is expected to trend downward for the next several years and is currently below the Plan's 14.0% contribution rate for 2023. The total *actuarially determined contribution* (which includes normal cost and an amortized payment of the unfunded liability) was 12.6% of payroll for this year.

The Plan's current benefit structure and the contribution rates that were adopted by Council in 2011 have put the Plan on course to decrease normal cost and eventually eliminate its remaining unfunded liability, provided all assumptions are realized.

Investment Activities

GERP's investments are managed by the Retirement Board according to an Investment Policy Statement which was adopted by the Board and reviewed annually. The Investment Policy Statement includes a strategic asset allocation and requirements for rebalancing the strategic allocation. It also includes criteria for selecting external investment managers and

descriptions of and restrictions on each asset class, as well as benchmarks to measure Plan performance objectives.

GERP's investment portfolio lost 11.69% in 2022 after posting double digit gains for the past three years. Encompassing both rising and falling markets, GERP's performance has ranked in the top ten percentile for its peer group for the past 3 and 5 year periods while ranking in the top quartile for the past 7, 10 and 15 year periods. Callan, the Plan's investment consultant, prepared the analysis of investment results which is included in Section III of this report.

All invested assets are held in trust by the Northern Trust Company, the Plan's custodian, or in the case of commingled funds and partnerships, by other independent custodians.

Independent Audit

Section 102-145(g) of the Aurora City Code requires the Board to engage a certified public accountant to conduct an independent audit of the Plan each year. FORVIS, LLP performed the calendar year 2022 audit in accordance with auditing standards generally accepted in the United States of America, and with the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States. Their opinion on the Plan's financial statements is included in the financial section of this report. Plan management's discussion and analysis of the financial statements also appears in the financial section.

Awards

The Government Finance Officers Association of the United States and Canada (GFOA) awarded a Certificate of Achievement for Excellence in Financial Reporting to the City of Aurora General Employees' Retirement Plan for its annual comprehensive financial report for the fiscal year ended December 31, 2021. This was the twenty-third consecutive year that the Plan has achieved this prestigious award. In order to be awarded a Certificate of Achievement, a government must publish an easily readable and efficiently organized annual comprehensive financial report. This report must satisfy both generally accepted accounting principles and applicable legal requirements.

A Certificate of Achievement is valid for a period of one year only. We believe that our current annual comprehensive financial report continues to meet the Certificate of Achievement Program's requirements and we are submitting it to the GFOA to determine its eligibility for another certificate.

Acknowledgment

The Board wishes to thank the Mayor and the members of the Aurora City Council for their continued support of the Plan.

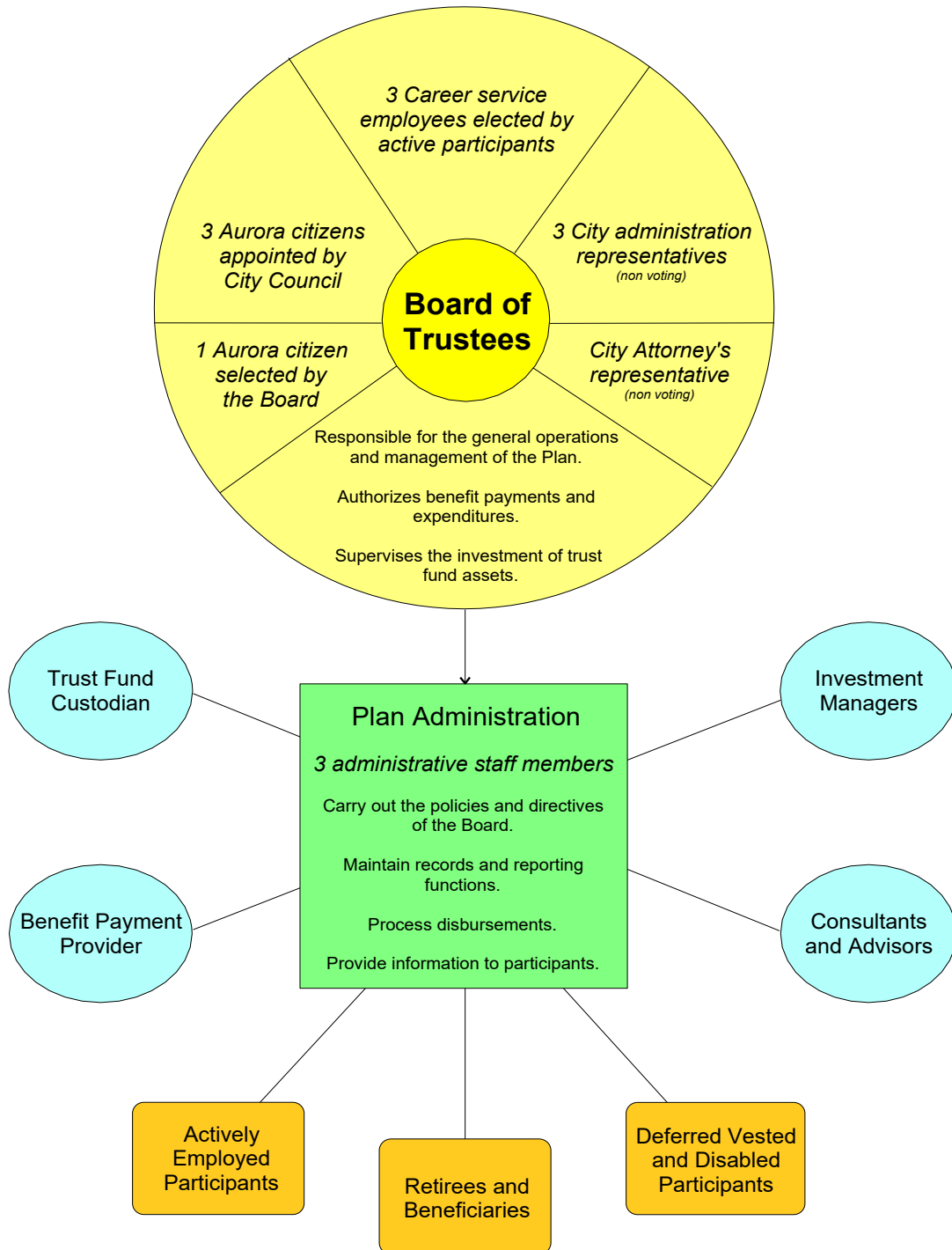


David L. McConico
Chairperson, Board of Trustees



Steven Shanks
Pension Plan Administrator

City of Aurora General Employees' Retirement Plan Organizational Chart



**Retirement Board Trustees and Staff Members
Plan Year 2022**

Voting Trustees

Cliff Haight	<i>Employee Elected</i>
Andrew Jamison	<i>Employee Elected</i>
David L. McConico	<i>Council Appointed</i>
Michelle Reding	<i>Council Appointed</i>
Sue Sandstrom	<i>Board Selected</i>
Tom Tobiassen	<i>Council Appointed</i>
Trevor C. Vaughn	<i>Employee Elected</i>

***Ex Officio* Members of the Board**

Jim Twombly (represented by Sheree Van Buren)	<i>City Manager</i>
Ryan Lantz	<i>Director of Human Resources</i>
Terri L. Velasquez	<i>Director of Finance</i>

City Attorney's Representative

Hanosky Hernandez	<i>Assistant City Attorney</i>
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Administrative Staff

Steven Shanks	<i>Pension Plan Administrator</i>
Aaron D. Kahn	<i>Benefit Administrator</i>
Laura Steege	<i>Administrative Assistant</i>

Investment Managers Plan Year 2022

Abbott Capital Management	New York, NY	<i>Private Equity</i>
American Century Investments	Kansas City, MO	<i>International Equity</i>
BlackRock Institutional Trust Company Capital Group	San Francisco, CA Los Angeles, CA	<i>U.S. Equity</i> <i>International Equity</i>
Cohen & Steers Capital Management	New York, NY	<i>Real Estate, Infrastructure</i>
Dodge & Cox	San Francisco, CA	<i>International Equity</i>
HarbourVest Partners, LLC	Boston, MA	<i>Private Equity</i>
Heitman	Chicago, IL	<i>Real Estate</i>
Molpus Woodlands Group	Jackson, MS	<i>Timberland</i>
Morgan Stanley	New York, NY	<i>Real Estate</i>
Pantheon Access (U.S.) L.P.	San Francisco, CA	<i>Private Equity</i>
Segall, Bryant & Hamill	Denver, CO	<i>U.S. Fixed Income</i>
Smith, Graham & Company	New York, NY	<i>U.S. Equity</i>
Western Asset Management Company	Pasadena, CA	<i>U.S. Fixed Income</i>

Other Professional Service Providers

Actuary

Milliman Denver, CO

Auditor

FORVIS, LLP Denver, CO

Custodian and Benefit Payment Provider

The Northern Trust Company Chicago, IL

Investment Consultant

Callan Denver, CO

Legal Advisor

Reinhart Boerner Van Deuren SC Milwaukee, WI

Participant Education Consultant

Innovest Portfolio Solutions Denver, CO

Information regarding the fees paid to the Plan's professional service providers and investment managers can be found on pages 57 and 58. Brokerage commissions paid are found on page 85.

FINANCIAL SECTION



City of Aurora
General Employees' Retirement Plan

Independent Auditor's Report

The Retirement Board
City of Aurora General Employees' Retirement Plan
Aurora, Colorado

Report on the Audit of the Financial Statements

Opinion

We have audited the financial statements of the City of Aurora General Employees' Retirement Plan (the Plan), a component unit of the City of Aurora, Colorado, as of and for the years ended December 31, 2022 and 2021, and the related notes to the financial statements, which collectively comprise the Plan's basic financial statements as listed in the table of contents.

In our opinion, the accompanying financial statements referred to above present fairly, in all material respects, the respective financial position of the Plan as of December 31, 2022 and 2021, and the respective changes in financial position in accordance with accounting principles generally accepted in the United States of America.

Basis for Opinion

We conducted our audit in accordance with auditing standards generally accepted in the United States of America (GAAS) and the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States (*Government Auditing Standards*). Our responsibilities under those standards are further described in the "Auditor's Responsibilities for the Audit of the Financial Statements" section of our report. We are required to be independent of the Plan, and to meet our other ethical responsibilities, in accordance with the relevant ethical requirements relating to our audit. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Emphasis of Matter

As discussed in Note 2 to the financial statements, in 2022, the Plan adopted Governmental Accounting Standards Board Statement No. 87, *Leases*. Our opinion is not modified with respect to this matter.

Responsibilities of Management for the Financial Statements

Management is responsible for the preparation and fair presentation of the financial statements in accordance with accounting principles generally accepted in the United States of America, and for 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.

In preparing the financial statements, management is required to evaluate whether there are conditions or events, considered in the aggregate, that raise substantial doubt about the Plan's ability to continue as a going concern for 12 months beyond the financial statement date, including any currently known information that may raise substantial doubt shortly thereafter.

Auditor's Responsibilities for the Audit of the Financial Statements

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance but is not absolute assurance and therefore is not a guarantee that an audit conducted in accordance with GAAS and *Government Auditing Standards* will always detect a material misstatement when it exists. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control. Misstatements are considered material if there is a substantial likelihood that, individually or in the aggregate, they would influence the judgment made by a reasonable user based on the financial statements.

In performing an audit in accordance with GAAS and *Government Auditing Standards*, we:

- Exercise professional judgment and maintain professional skepticism throughout the audit.
- Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, and design and perform audit procedures responsive to those risks. Such procedures include examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements.
- Obtain an understanding of internal control relevant to the audit 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 Plan's internal control. Accordingly, no such opinion is expressed.
- Evaluate the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluate the overall presentation of the financial statements.
- Conclude whether, in our judgment, there are conditions or events, considered in the aggregate, that raise substantial doubt about the Plan's ability to continue as a going concern for a reasonable period of time.

We are required to communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit, significant audit findings, and certain internal control-related matters that we identified during the audit.

Required Supplementary Information

Accounting principles generally accepted in the United States of America require that the management's discussion and analysis, schedules of changes in net pension (asset) liability and related ratios, schedule of employer contributions and schedule of investment returns be presented to supplement the basic financial statements. Such information is the responsibility of management and, 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

The Retirement Board
City of Aurora General Employees' Retirement Plan

supplementary information in accordance with GAAS, 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.

Supplementary Information

Our audit was conducted for the purpose of forming an opinion on the financial statements that collectively comprise the Plan's basic financial statements. The schedule of administrative expenses and schedule of investment expenses listed in the table of contents are presented for purposes of additional analysis and are not a required part of the basic financial statements. Such information is the responsibility of management and was derived from and relates directly to the underlying accounting and other records used to prepare the basic financial statements. The information has been subjected to the auditing procedures applied in the audit of the basic financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the basic financial statements or to the basic financial statements themselves, and other additional procedures in accordance with GAAS. In our opinion, the schedule of administrative expenses and schedule of investment expenses are fairly stated, in all material respects, in relation to the basic financial statements as a whole.

Other Information

Management is responsible for the other information included in the annual comprehensive financial report. The other information comprises the introductory, investment, actuarial, and statistical sections of the annual comprehensive financial report but does not include the basic financial statements and our auditor's report thereon. Our opinions on the basic financial statements do not cover the other information, and we do not express an opinion or any form of assurance thereon.

In connection with our audit of the basic financial statements, our responsibility is to read the other information and consider whether a material inconsistency exists between the other information and the basic financial statements, or the other information otherwise appears to be materially misstated. If, based on the work performed, we conclude that an uncorrected material misstatement of the other information exists, we are required to describe it in our report.

Other Reporting Required by Government Auditing Standards

In accordance with *Government Auditing Standards*, we have also issued our report dated April 26, 2023, on our consideration of the Plan's internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts and grant agreements, and other matters. The purpose of that report is solely to describe the scope of our testing of internal control over financial reporting and compliance and the results of that testing, and not to provide an opinion on the effectiveness of the Plan's internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the Plan's internal control over financial reporting and compliance.

FORVIS,LLP

Denver, Colorado
April 26, 2023

City of Aurora
General Employees' Retirement Plan
Management's Discussion and Analysis
(Not Subjected to Auditing Procedures)
December 31, 2022 and 2021

This section presents an overview and analysis of the financial statements of the City of Aurora General Employees' Retirement Plan (GERP or the Plan) for the years ended December 31, 2022 and 2021, and was prepared by GERP's management. It should be read in conjunction with the Plan's financial statements, the notes to the financial statements and the required supplementary information.

Financial Highlights

- GERP's net position restricted for pension benefits decreased by \$94.6 million to \$579.1 million for the year ended December 31, 2022. Spending for benefits and operating expenses exceeded contributions by about \$16.2 million, and investment losses and other income absorbed \$59.6 million of plan assets so net position decreased by 14.0% for the year.
- After posting double digit gains for the last three years, due to the conflict in Europe and inflationary pressures, the investment portfolio lost 11.69% for the year ended December 31, 2022, (an 11.80% loss net of all asset management fees). Due to the market pressures noted, the Plan's domestic equity investments lost 16.64%, which is more than 150% less than the 30.39% return in 2021. Private equity had a smaller decrease of 7.04% as they often react slower to market conditions. International equity investments struggled more than domestic equity partially due to the high portion of international equity invested in Europe, losing 17.87%, down from a 6.47% return in 2021. Due to increasing inflation and increases in the federal funds rate by the Federal Reserve, domestic fixed income lost 15.09% for the year, down from a loss of 1.10% in 2021. Timber is included in the portfolio as a hedge against inflation, so it performed well in 2022 with a return of 13.10% up from 4.04% in 2021. Global listed infrastructure had a smaller loss than equity and fixed income, losing 4.81% in 2022 since some of the underlying investments have revenues that automatically increase with inflation, compared to a gain of 15.91% in 2021. Real estate was flat overall in 2022 with a 0.11% gain which included large losses to the REIT accompanied by expected gains from the private real estate funds and in 2021 real estate posted an overall gain of 23.39%. The Plan's latest three, five and 10-year annualized rates of return were gains of 6.06%, 6.59% and 7.90%, respectively, (5.93%, 6.45% and 7.76% net of fees).
- As of January 1, 2022 (the date of the most recent actuarial valuation report), GERP's funded ratio¹ was 98.0%, compared with 92.3% in the prior year's report, mostly due to cumulative investment returns above expectations. At the end of 2022, the Plan's actuary rolled forward the total pension liability and compared it to the Plan's fiduciary net position, as required under Government Accounting Standards Board Statement No. 67. The resulting ratio was 87.52% and 109.5% in 2022 and 2021, respectively.

¹ The *funded ratio* is the actuarial value of assets divided by the actuarial accrued liability.

City of Aurora
General Employees' Retirement Plan
Management's Discussion and Analysis
(Not Subjected to Auditing Procedures)
December 31, 2022 and 2021

Overview of the Financial Statements

GERP's financial presentation is composed of four parts: (1) the financial statements; (2) notes to the financial statements; (3) required supplementary information and (4) other supplementary information. Below is a summary of the information provided in each of these sections.

Financial Statements

The Statements of Fiduciary Net Position present information on the Plan's assets and liabilities and the resulting net position restricted for pensions. They indicate the fair value of GERP's investments, cash deposits and accounts payable and receivable on the last day of calendar years 2022 and 2021.

The Statements of Changes in Fiduciary Net Position present the Plan's transactions under the categories of additions and deductions. Additions include contributions to GERP by the City of Aurora and by participating employees, net appreciation in the fair value of investments, dividend and interest income and other miscellaneous sources of income.

Investment income is reduced by investment-related expenses such as asset management fees, custody charges and consulting fees. Deductions include outlays for monthly pension benefits, death benefits, refunds of contributions to employees and fees paid for professional services and administrative expenses.

Notes to Financial Statements

The Notes to Financial Statements provide detailed information and explanations that are essential to a more complete understanding of the Plan's financial statements.

Required Supplementary Information

This section consists of three historical trend exhibits concerning the funding status of GERP: a Schedule of Changes in Net Pension Liability and Related Ratios, a Schedule of Employer Contributions accompanied by the Notes to Schedule of Employer Contributions, and a Schedule of Investment Returns.

Other Supplementary Information

The information in this section is not a required part of the basic financial statements but is provided by the Plan for purposes of additional analysis. A Schedule of Administrative Expenses and a Schedule of Investment Expenses offer a more detailed accounting of GERP expenditures.

City of Aurora
General Employees' Retirement Plan
Management's Discussion and Analysis
(Not Subjected to Auditing Procedures)
December 31, 2022 and 2021

Financial Analysis

GERP's total assets were \$579.9 million as of December 31, 2022, compared with \$674.9 million as of December 31, 2021 and \$577.1 million as of December 31, 2020. This year ended the three years of gains in plan net position after a one-year loss in 2018 that followed nine consecutive years of increases since the 2008 financial crisis.

Total liabilities represent amounts owed to vendors, leases, benefit payments due and payments for securities purchased. Liabilities were \$0.8 million as of December 31, 2022, \$1.3 million as of December 31, 2021, and \$0.4 million as of December 31, 2020.

A summary of GERP's net position for the years ended December 31, 2022, 2021 and 2020 is presented below:

Fiduciary Net Position

	December 31, 2022	December 31, 2021 *	2021 to 2022 Percentage Change	December 31, 2020 **	2020 to 2021 Percentage Change
Assets					
Cash	\$ 153,568	\$ 124,027	23.8%	\$ 79,042	56.9%
Receivables	1,552,614	2,376,318	-34.7%	1,241,739	91.4%
Prepaid expenses	48,453	38,518	25.8%	31,986	20.4%
Investments	578,009,318	672,217,355	-14.0%	575,762,302	16.8%
Lease assets	96,226	137,465	-30.0%	-	0.0%
Total assets	<u>579,860,179</u>	<u>674,893,683</u>	<u>-14.1%</u>	<u>577,115,069</u>	<u>16.9%</u>
Liabilities					
Accounts payable	233,012	214,434	8.7%	226,731	-5.4%
Benefits payable	119,295	371,857	-67.9%	63,316	487.3%
Securities purchased	344,687	533,379	-35.4%	74,496	616.0%
Lease liability	99,300	139,698	-28.9%	-	0.0%
Total liabilities	<u>796,294</u>	<u>1,259,368</u>	<u>-36.8%</u>	<u>364,543</u>	<u>245.5%</u>
Net pension restricted for pension benefits	<u>\$ 579,063,885</u>	<u>\$ 673,634,315</u>	<u>-14.0%</u>	<u>\$ 576,750,526</u>	<u>16.8%</u>

* Restated for Implementation of GASB 87

** Not Restated for Implementation of GASB 87

While investments lost 11.69% in 2022, total assets decreased by more due to the net withdrawal over contributions of \$16.2 million over the course of the year to pay benefits and expenses. Rates of investment return are calculated by an independent consultant using linked, time-weighted monthly returns. Contributions and withdrawals are taken into consideration, but fees billed directly by investment managers are not.

City of Aurora
General Employees' Retirement Plan
Management's Discussion and Analysis
(Not Subjected to Auditing Procedures)
December 31, 2022 and 2021

Below are the time-weighted returns for each asset class together with their respective benchmark returns. A *benchmark* is a published market index whose characteristics and performance make it a generally accepted proxy for a particular asset class. GERP's total fund benchmark is the weighted average of its individual asset class benchmarks. The actual percentage invested in each asset class is also shown in comparison to the Plan's investment policy target range. The Plan's investment policy allows for a period of re-balancing for any illiquid asset classes which exceed the target range. For performance measurement, any cash equivalents held by investment managers are included within their respective allocation percentages.

	GERP's 2022 Investment Returns by Asset Class	Benchmark Returns	Actual Investment Allocation	Investment Policy Target Range
U.S. equity: large cap	-18.12%	-18.11%	18%	17.5% to 24.5%
U.S. equity: small/mid cap	-12.73%	-18.37%	7%	7.5% to 9.5%
International equity	-17.87%	-17.87%	16%	16.0% to 24.0%
Private equity partnerships	-7.04%	-18.36%	15%	10.0% to 16.0%
Fixed income	-15.09%	-13.01%	22%	16.0% to 24.0%
Real estate	0.11%	7.56%	11%	7.0% to 13.0%
Timberland	13.10%	12.90%	5%	0.0% to 5.0%
Global listed infrastructure	-4.81%	-4.87%	6%	3.0% to 7.0%
Total portfolio	-11.69%			

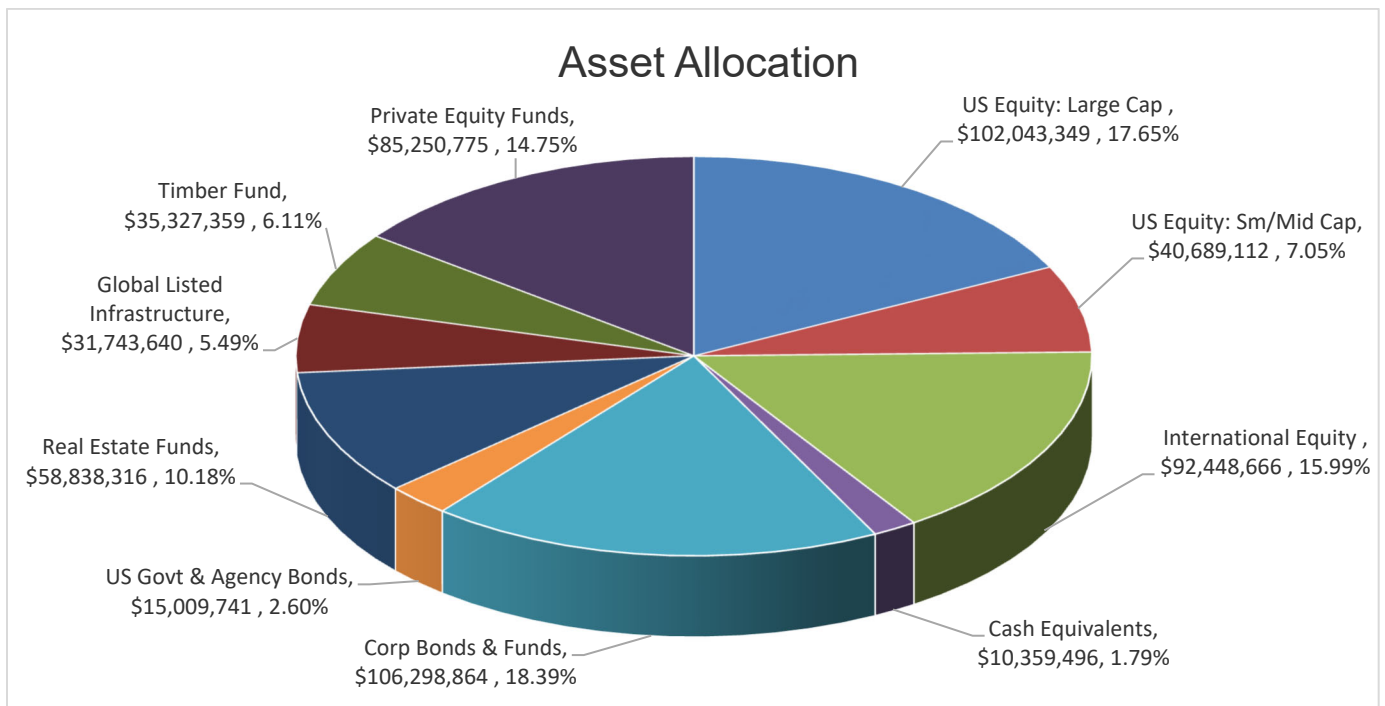
GERP's portfolio lost 11.69% for the year, which is lower than the Policy Target of a 11.46% loss. The portfolio has returned above the Policy Target for the last 3, 5, 7, 10, 15, 20 and 25-year periods.² The total fund gained 20.03% in 2021 and 12.55% in 2020.

² From GERP's December 31, 2022 Investment Measurement Services Quarterly Review prepared by Callan.

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GERP's asset allocation as of December 31, 2022 is shown below. In this pie chart, uninvested funds in each manager's account and in the Plan's operating account are combined and reported as "cash equivalents." These uninvested funds are swept into the custodian bank's short-term investment fund at the end of each day.

Figure 1



The Retirement Board made adjustments to its investment target allocation in December 2022 following an asset/liability study. Those changes were implemented in 2022. Historically, GERP's investment portfolio has taken on less risk and has lower volatility than its mid-sized public fund peers³.

³ GERP compares its investment program to other mid-sized public retirement plans in the U.S. with assets of \$100 million to \$1 billion. This peer group is compiled by Callan, an independent investment consulting firm.

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A summary of the changes in net position for the years ended December 31, 2022, 2021 and 2020 is presented below.

Changes in Fiduciary Net Position

	2022	2021*	2021 to 2022 Percentage Change	2020**	2020 to 2021 Percentage Change
Additions					
Contributions					
City of Aurora	\$ 9,393,456	\$ 8,732,379	7.6%	\$ 8,431,103	3.6%
Plan members	9,394,498	8,732,412	7.6%	8,431,103	3.6%
Net investment income (loss)	(78,358,653)	112,101,230	-169.9%	65,294,290	71.7%
Other income	<u>3,531</u>	<u>5,104</u>	<u>-30.8%</u>	<u>5,572</u>	<u>-8.4%</u>
Total additions to net pension	<u>(59,567,168)</u>	<u>129,571,125</u>	<u>-146.0%</u>	<u>82,162,068</u>	<u>-57.7%</u>
Deductions					
Benefits	31,617,329	29,667,046	6.6%	27,111,082	9.4%
Refunds of contributions	2,774,106	2,463,308	12.6%	1,801,818	36.7%
Administrative expenses	<u>611,827</u>	<u>556,982</u>	<u>9.8%</u>	<u>535,115</u>	<u>4.1%</u>
Total deductions to net pension	<u>35,003,262</u>	<u>32,687,336</u>	<u>7.1%</u>	<u>29,448,015</u>	<u>11.0%</u>
Net increase (decrease) in plan net position	(94,570,430)	96,883,789	-197.6%	52,714,053	83.8%
Net pension restricted for pension benefits					
Beginning of year	<u>673,634,315</u>	<u>576,750,526</u>	<u>16.8%</u>	<u>524,036,473</u>	<u>10.1%</u>
End of year	<u>\$ 579,063,885</u>	<u>\$ 673,634,315</u>	<u>-14.0%</u>	<u>\$ 576,750,526</u>	<u>16.8%</u>

* Restated for Implementation of GASB 87

** Not Restated for Implementation of GASB 87

Additions to Plan Net Position

The Plan relies on contributions from the City of Aurora and GERP members, as well as income earned on investments, to pay benefits and operating expenses. Under a funding plan adopted by the Aurora City Council in 2011, the member contribution rate (which had been fixed at 5.50% of pay for the previous 25 years) increased by 0.25% annually until it reached 7.00% in 2017 and will continue at 7.00% until specific funding goals are met. All regular employee contributions are matched by the City. Under certain circumstances, plan members are permitted to purchase service credit for periods of previous City employment. These special service purchases are not matched, which accounts for the small differences between the City of Aurora contributions and plan member contributions.

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The Plan's net investment income decreased to a \$78.4 million loss in 2022, compared with net investment income of \$112.1 million and \$65.3 million in 2021 and 2020, respectively.

Other income decreased to \$3,531 in 2022, compared to \$5,104 in 2021 and \$5,572 in 2020. This category is comprised of securities litigation settlements, consent payments and reimbursements received from the City of Aurora's *Elected Officials' and Executive Personnel Defined Benefit Plan* for administrative services provided.

Deductions from Plan Net Position

Deductions from plan assets include monthly pension payments, death benefits, contribution refunds and administrative expenses. Spending for pension and death benefits grew by 6.6% between 2021 and 2022, compared with a 9.4% increase between 2020 and 2021. GERP pensioners received a 5.0% cost of living increase on January 1, 2022 reflecting the highest increase allowed under the Plan since the consumer price index increased by more than 8% over the previous year due to inflation. Contribution refunds increased by 12.6% in 2022 compared to 36.7% in 2021. Changes in contribution refunds is highly influenced by the timing of terminations in general and specifically by retirements of participants with high contribution balances.

A 2011 plan amendment by the Aurora City Council created a lower tier of retirement benefits for new employees hired in 2012 and after (Tier 2). By the end of 2022, approximately 74% of the active workforce (but only 18 out of GERP's 1,240 pensioners) were Tier 2 participants.

Administrative expenses increased by 9.8% in 2022, compared to an increase of 4.1% in 2021.

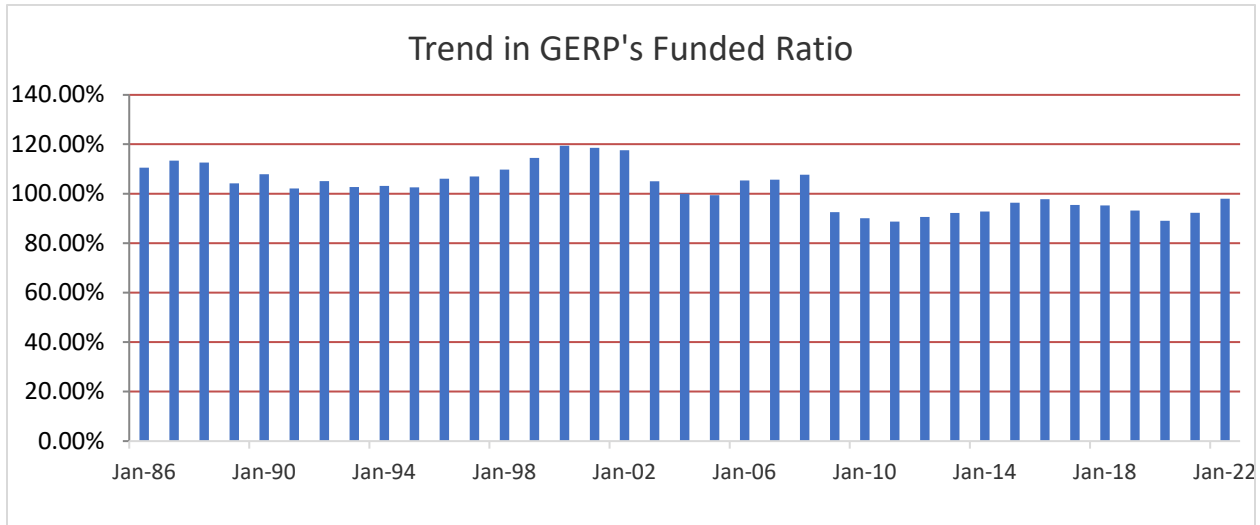
Historical Trends

The funded ratio (assets divided by liabilities) is a widely used measure of a pension plan's ability to meet its expected benefit obligations. GERP's funded ratio was 98.0% according to the Plan's January 1, 2022 actuarial valuation report. By comparison, the actuarial consulting firm Milliman reported that the aggregate funded ratio for the 100 largest U.S. public pension plans as of December 2021 was 85.5%.

From 1986 until 2008, GERP's actuarial accrued liability had been fully funded. Investment losses stemming from the global financial crisis changed that funded status. In the years since, GERP has made steady progress in reducing its unfunded liability. The trend in the Plan's funded ratio over the past 35 years is presented on the next page.

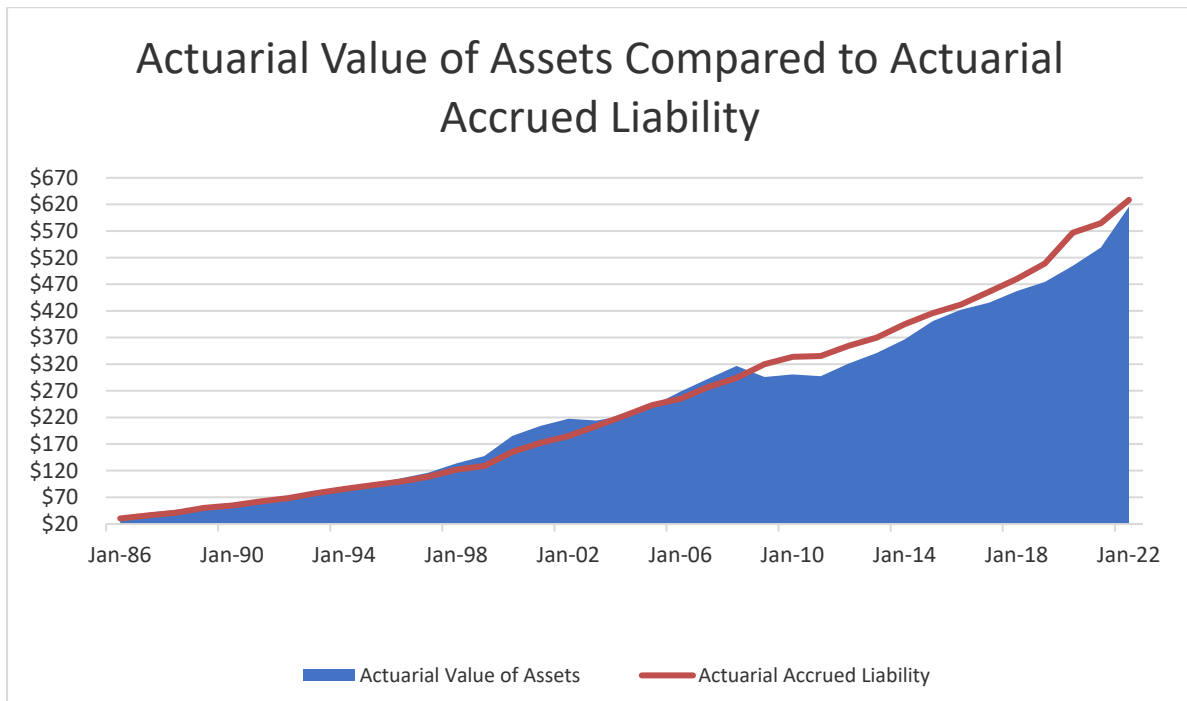
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Figure 2



The long-term trend in the growth of the Plan's assets and liabilities is illustrated below.

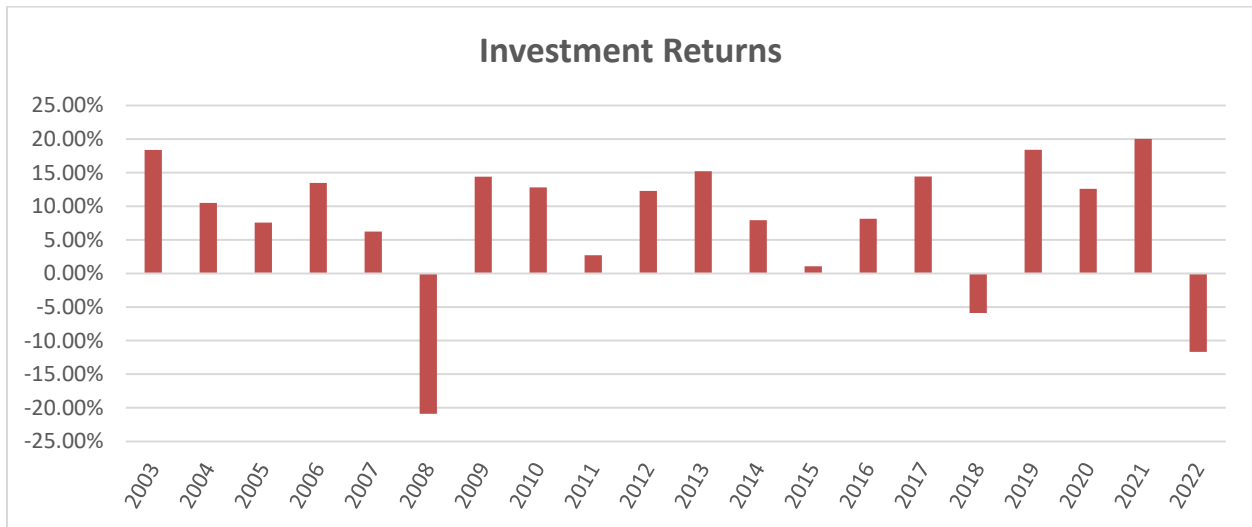
Figure 3



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The Plan's funded status is most strongly influenced by its investment results. The returns for each of the last 20 years appear below. The Plan's actuarial investment return assumption was 8.0% at the beginning of 1998. The Retirement Board lowered the assumption to 7.75% in 2014, to 7.25% in 2017 and again to 7.00% in 2019. The actual annualized rate of return earned for the 20-year period was 7.53% and for the 25 years was 6.78%.

Figure 4



City of Aurora
General Employees' Retirement Plan
Statements of Fiduciary Net Position
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Assets

	<u>2022</u>	<u>2021*</u>
Cash	\$ 153,568	\$ 124,027
Receivables		
Contributions	755,863	715,692
Interest and dividends	706,003	706,465
Securities sold	68,087	939,514
Other	<u>22,661</u>	<u>14,647</u>
Total receivables	<u>1,552,614</u>	<u>2,376,318</u>
Prepaid Expenses	<u>48,453</u>	<u>38,518</u>
Investments, at Fair Value		
Short-term cash investments	10,359,496	13,409,023
Equity securities and funds	235,181,127	284,035,487
U.S. government and U.S. government agency obligations	15,009,741	11,585,657
Corporate and government bonds and funds	106,298,864	140,544,037
Real estate funds	58,838,316	52,753,799
Alternative investments	<u>152,321,774</u>	<u>169,889,352</u>
Total investments	<u>578,009,318</u>	<u>672,217,355</u>
Lease Assets		
Office lease	178,704	178,704
Accumulated amortization lease assets	<u>(82,478)</u>	<u>(41,239)</u>
Net lease assets	<u>96,226</u>	<u>137,465</u>
Total assets	<u>579,860,179</u>	<u>674,893,683</u>
Liabilities		
Accounts payable and accrued expenses	233,012	214,434
Benefits and refunds payable	119,295	371,857
Securities purchased	344,687	533,379
Lease liability	<u>99,300</u>	<u>139,698</u>
Total liabilities	<u>796,294</u>	<u>1,259,368</u>
Net position restricted for pension benefits	<u>\$ 579,063,885</u>	<u>\$ 673,634,315</u>

* Restated for Implementation of GASB 87

City of Aurora
General Employees' Retirement Plan
Statements of Changes in Fiduciary Net Position
Years Ended December 31, 2022 and 2021

	2022	2021*
Additions to Net Position Attributed to		
Contributions		
City of Aurora	\$ 9,393,456	\$ 8,732,379
Plan members	9,394,498	8,732,412
Total contributions	18,787,954	17,464,791
Investment income		
Net appreciation (depreciation) in fair value	(83,098,660)	102,310,979
Interest	2,247,318	2,041,760
Dividends	5,029,934	10,208,406
Less investment expenses	(2,537,245)	(2,459,915)
Net investment income (loss)	(78,358,653)	112,101,230
Other income	3,531	5,104
Total additions (reductions) to net position	(59,567,168)	129,571,125
Deductions to Net Position Attributed to		
Benefits paid to participants	31,617,329	29,667,046
Refunds of contributions	2,774,106	2,463,308
Administrative expenses	611,827	556,982
Total deductions to net position	35,003,262	32,687,336
Net increase (decrease) in plan net position	(94,570,430)	96,883,789
Net position restricted for pension benefits at beginning of year	673,634,315	576,750,526
Net position restricted for pension benefits at end of year	\$ 579,063,885	\$ 673,634,315

* Restated for Implementation of GASB 87

City of Aurora
General Employees' Retirement Plan
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Note 1: Plan Description

The City of Aurora General Employees' Retirement Plan (the Plan) is a single-employer, defined benefit pension plan covering substantially all full-time and part-time employees of the City of Aurora, Colorado, including the administrative staff of the Plan, but excluding certain executive and council appointed employees, police officers, paid firefighters, elected officials, and temporary employees. The Plan is maintained for the exclusive benefit of the employees of the City of Aurora and their beneficiaries. The Plan is not subject to the provisions of the *Employee Retirement Income Security Act of 1974* (ERISA). However, the Plan is qualified as a tax-exempt plan under Sections 401(a) and 501(a) of the Internal Revenue Code. Employee contributions are required as a condition of employment and are matched equally by the City of Aurora.

The Plan is considered a component unit of the City of Aurora and is included in the City of Aurora's financial reporting entity as a pension trust fund. The City of Aurora General Employees' Retirement Board (the Board), established by the City of Aurora, administers the Plan.

Membership of the Plan consists of the following at January 1, 2022 and 2021, the dates of the most recent actuarial valuations:

	2022	2021
Retirees and Beneficiaries Receiving Benefits	1,240	1,184
Tier I	1,218	1,170
Tier II	22	14
Terminated Plan Members Entitled to But Not Yet Receiving Benefits	267	250
Tier I	216	215
Tier II	51	35
Active Plan Members	1,814	1,794
Tier I	529	606
Tier II	1,285	1,188
	3,321	3,228

Note 2: Summary of Significant Accounting Policies

Basis of Accounting

The Plan's financial statements are prepared using the accrual basis of accounting in accordance with accounting principles generally accepted in the United States of America and reporting standards applicable to governmental accounting for public employee retirement systems. Employee and employer contributions are recognized as revenues when due, pursuant to formal commitments, as well as statutory or contractual requirements. Benefits and refunds are recognized when due and payable in accordance with the terms of the Plan.

City of Aurora
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Investments

At December 31, 2022 and 2021, the Plan's securities are in the custody of Northern Trust Corporation, the master custodian. The Plan contracts with investment managers to manage all of the Plan's investments. The City of Aurora General Employees' Retirement Board has sole discretion over the investments of the Plan. Board policies allow investments consisting of government, corporate and international bonds, domestic and international equities, mutual funds, limited partnership holdings, real estate, mortgages and other alternative investments.

Plan investments are reported at fair value. Short-term investments are carried at cost, which approximates fair value. Securities and funds traded on a national or international exchange are valued at the last reported sales price at current exchange rates. Real estate funds not actively traded on a national or international exchange are valued based upon periodic appraisals of the real estate underlying the investment units held by the Plan. Alternative investments represent investments in private equity partnerships in which the Plan enters under limited partnership agreements. For alternative investments where no readily ascertainable fair value exists, management reviewed information from the general partner of the partnerships, in consultation with investment advisors, and determined the fair values of the individual investments.

The Plan presents, in the statements of changes in fiduciary net position, the net appreciation (depreciation) in the fair value of its investments, which consists of the realized gains and losses and unrealized appreciation and depreciation on those investments. Purchases and sales are recorded on the trade date. Interest income is recorded on the accrual basis. Dividends are recorded on the ex-dividend date.

There are certain market risks, credit risks, foreign currency exchange risks, and event risks which may subject the Plan to economic changes occurring in certain industries, sectors or geographies.

Derivatives

The Plan is permitted to own derivative investments. During the years ended December 31, 2022 and 2021, the Plan's only derivative investments were in connection with managed (mutual) funds. Because the Plan does not own any specific identifiable investment securities held by managed funds, the market risk associated with any derivative investments held in these funds is not apparent. The degree of market risk depends on the underlying portfolios of the funds, which were selected by the Plan in accordance with its investment policy guidelines, including risk assessment.

Furniture and Equipment

Furniture and equipment is carried at cost. Depreciation expense is computed using the straight-line method based on the estimated five-year useful lives of the related assets. Accumulated depreciation at December 31, 2022 and 2021 was \$25,761. At December 31, 2022 and 2021, furniture and equipment is fully depreciated.

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Lease Assets

Lease assets are initially recorded at the initial measurement of the lease liability, plus lease payments made at or before the commencement of the lease term, less any lease incentives received from the lessor at or before the commencement of the lease, plus initial direct costs that are ancillary to place the asset into service. Lease assets are amortized on a straight-line basis over the shorter of the lease term or the useful life of the underlying asset.

Administrative Expenses

The costs of administering the Plan is financed through contributions and investment earnings that it receives.

Use of Estimates

The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements, and the reported amounts of revenues and expenses during the reporting periods. Actual results could differ from those estimates.

Actuarial Valuation

The information included in the required supplementary schedules is based on the actuarial valuation performed as of January 1, 2022, with the measurement date and reporting date as of December 31, 2022, to comply with the requirements of GASB No. 67. Significant actuarial assumptions used in the valuation are included in the notes to the required supplementary schedules.

Implementation of New Accounting Standard

In June 2017, GASB issued Statement No. 87, *Leases*. The statement requires recognition of lease assets and liabilities for certain leases that previously were classified as operating leases and recognized as inflows of resources or outflows of resources based on the payment provisions of the lease contract. It establishes a single model for lease accounting based on the foundational principle that leases are the financing of the right-to-use an underlying asset. Under the statement, a lessee is required to recognize a lease liability and a tangible right-to-use lease asset, and a lessor is required to recognize a lease receivable and a deferred inflow of resources, thereby enhancing the relevance and consistency of information about governments' leasing activities. Effective January 1, 2021, the Plan implemented the provisions of GASB Statement No. 87. The impact of the implementation at January 1, 2021 resulted in the recognition of right to use leased assets of \$178,704 and lease liabilities of \$178,704. The implementation also resulted in a decrease to the 2021 ending net position of \$2,233.

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Note 3: Cash Deposits

Cash Deposits

Deposits are exposed to custodial credit risk if they are uninsured and uncollateralized. Custodial credit risk is the risk that, in the event of bank failure, the Plan will not be able to recover the value of its deposits. The Plan does not have a formal policy for custodial credit risk. The Colorado Public Deposit Protection Act (PDPA) requires that all units of local government deposit cash in eligible public depositories. Eligibility is determined by state regulators. Amounts on deposit in excess of federal insurance levels must be collateralized.

The eligible collateral is determined by the PDPA. PDPA allows the institution to create a single collateral pool for all public funds. The pool for all the uninsured public deposits as a group is to be maintained by another institution or held in trust. The fair value of the collateral must be at least equal to the aggregate uninsured deposits.

The State Commissioner for banks and financial services is required by statute to monitor the naming of eligible depositories and reporting of the uninsured deposits and assets maintained in the collateral pools. At December 31, 2022 and 2021, the Plan had \$153,568 and \$124,027, respectively, held in cash deposits. Bank value and carrying value equaled as there were no outstanding reconciling items at December 31, 2022 and 2021. All amounts for both years were fully insured by federal depository insurance. Therefore, at December 31, 2022 and 2021, the Plan had no cash deposits that were exposed to custodial credit risk.

Note 4: Investments

Credit Risk

Credit risk is the risk that an issuer or other counterparty to an investment will not fulfill its obligation to the Plan. Credit risk exposure is dictated by each manager's agreement. Each portfolio is managed in accordance with investment guidelines as stated in the Plan's investment policy, which was revised and became effective on December 1, 2022. These guidelines are specific to two strategies (core and core plus) within the fixed income asset class.

The *core* portfolio will include the following:

- Debt instruments issued by the U.S. government, its agencies and instrumentalities.
- Debt instruments that have been issued by domestic entities rated BBB- or Baa3 or above by Standard & Poor's Rating Service or Moody's, respectively.
- Dollar denominated debt of comparable quality issued by non-domestic entities in the United States, including securities issued under U.S. Securities and Exchange Commission rule 144(A); and mortgage-backed and asset-backed securities of investment grade quality.

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- For purposes of diversification, the exposure to any single issuer, other than securities issued by the U.S. Treasury or a Government Sponsored Enterprise, shall not exceed 5% of the fair value of the portfolio. Exposure to any single issue or mortgage pool issued by a Government Sponsored Enterprise shall not exceed 5% of the fair value of the portfolio.
- Securities that derive their returns from factors other than interest rates are not permitted in the fixed income portfolio. Examples of such securities are structured notes whose returns are tied to currencies or commodity prices.

The *core plus* portfolio will follow the above guidelines with the following exceptions:

- While the overall portfolio credit quality shall be maintained at investment grade, up to 25% of the portfolio at fair value may be invested in securities rated below investment grade. Split rated securities will be governed by the lower designation.
- Up to 20% of the portfolio at fair value may be invested in securities issued by foreign issuers and denominated in foreign currencies.
- The *core plus* manager has received authorization to use options, forwards, and futures to hedge currency exposure.
- For investment in a *core plus* commingled fund, the manager is authorized full discretion to use derivative instruments, consistent with the fund prospectus.

At December 31, 2022 and 2021, the Plan held the following fixed income investments with respective quality ratings, excluding those obligations of the U.S. government or obligations explicitly guaranteed by the U.S. government, which are not considered to have credit risk.

Description	2022		
	Credit Quality Rating	Fair Value	% of Total
Government and collateralized mortgage backed	Aaa/AA+	\$ 6,316,811	5.9%
Government and collateralized mortgage backed	Baa/BB	422,578	0.3%
Corporate and municipal bonds	Aaa/AAA	5,057,641	4.8%
Corporate and municipal bonds	Aa/AA	5,754,348	5.4%
Corporate and municipal bonds	A	13,468,787	12.7%
Corporate and municipal bonds	Baa/BBB	14,450,713	13.6%
Corporate and municipal bonds	Ba/BB	294,825	0.3%
Bond fund	NR	60,533,161	57.0%
Total bonds and funds		<u>\$ 106,298,864</u>	<u>100.0%</u>

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Description	Credit Quality Rating	2021	
		Fair Value	% of Total
Government mortgage backed	Aaa/AA+	\$ 7,746,852	5.5%
Corporate and municipal bonds	Aaa/AAA	4,601,494	3.3%
Corporate and municipal bonds	Aa/AA	10,864,964	7.7%
Corporate and municipal bonds	A	21,109,996	15.0%
Corporate and municipal bonds	Baa/BBB	19,553,109	13.9%
Corporate and municipal bonds	Ba/BB	548,975	0.4%
Bond fund	NR	76,118,647	54.2%
Total bonds and funds		<u>\$ 140,544,037</u>	<u>100.0%</u>

Interest Rate Risk

Interest rate risk is the risk that changes in interest rates will adversely affect the fair value of an investment. Interest rate risk exposure is dictated by each manager's agreement. Each portfolio is managed in accordance with investment guidelines as stated in the Plan's investment policy, which was revised and became effective on December 1, 2022. These guidelines are specific to two strategies (core and core plus) within the fixed income asset class.

- The *core fixed income portfolio* is to maintain duration within plus or minus 25% of the duration of the Bloomberg Barclays Capital Government/Credit Index.
- The *core plus portfolio* is to maintain duration within plus or minus 25% of the duration of the Barclays Capital Aggregate Index.

Colorado revised statutes limit investment maturities to five years or less unless formally approved by the Board of Trustees. The Board of Trustees for the Plan has formally adopted an investment policy that allows investment maturities greater than five years.

City of Aurora
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Using the specific identification method, the Plan had the following investments and maturities at December 31, 2022 and 2021:

Investment Type	Fair Value	2022			
		Investment Maturities (in years)			
		Less than 1	1-5	6-10	>10
Industrial bonds	\$ 17,138,905	\$ 1,337,336	\$ 7,184,538	\$ 3,741,440	\$ 4,875,591
Utility bonds	5,064,641	974,854	1,488,380	1,012,698	1,588,709
Finance bonds	8,334,024	396,742	2,986,815	2,624,604	2,325,863
Municipal bonds	5,981,289	-	129,233	1,405,349	4,446,707
Asset backed bonds	2,507,455	-	1,852,919	554,862	99,674
Government and collateralized mortgage backed	6,739,389	-	1,464,450	1,306,157	3,968,782
U.S. Treasury bonds	15,009,741	1,474,453	6,896,826	159,934	6,478,528
	<u>60,775,444</u>	<u>4,183,385</u>	<u>22,003,161</u>	<u>10,805,044</u>	<u>23,783,854</u>
Investments with undetermined or without maturity dates:					
Bond fund *	60,533,161	-	-	-	-
Domestic & international equities	235,181,127	-	-	-	-
Short-term cash investments	10,359,496	-	-	-	-
Real estate funds	58,838,316	-	-	-	-
Alternative investments	152,321,774	-	-	-	-
	<u>517,233,874</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>
Total	<u>\$ 578,009,318</u>	<u>\$ 4,183,385</u>	<u>\$ 22,003,161</u>	<u>\$ 10,805,044</u>	<u>\$ 23,783,854</u>

* Weighted average life for the bond fund is 15.72 years.

Investment Type	Fair Value	2021			
		Investment Maturities (in years)			
		Less than 1	1-5	6-10	>10
Industrial bonds	\$ 29,022,988	\$ 1,530,051	\$ 10,682,438	\$ 6,048,927	\$ 10,761,572
Utility bonds	6,794,585	577,515	2,662,541	976,987	2,577,542
Finance bonds	9,618,927	635,425	3,680,926	3,075,437	2,227,139
Municipal bonds	8,497,962	-	-	1,090,259	7,407,703
Asset backed bonds	2,744,076	-	1,436,815	592,206	715,055
Government mortgage backed	7,746,852	-	577,627	2,826,570	4,342,655
U.S. Treasury bonds	11,585,657	-	5,958,163	262,332	5,365,162
	<u>76,011,047</u>	<u>2,742,991</u>	<u>24,998,510</u>	<u>14,872,718</u>	<u>33,396,828</u>
Investments with undetermined or without maturity dates:					
Bond fund *	76,118,647	-	-	-	-
Domestic & international equities	284,035,487	-	-	-	-
Short-term cash investments	13,409,023	-	-	-	-
Real estate funds	52,753,799	-	-	-	-
Alternative investments	169,889,352	-	-	-	-
	<u>596,206,308</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>
Total	<u>\$ 672,217,355</u>	<u>\$ 2,742,991</u>	<u>\$ 24,998,510</u>	<u>\$ 14,872,718</u>	<u>\$ 33,396,828</u>

* Weighted average life for the bond fund is 11.70 years.

City of Aurora
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Custodial Credit Risk

Custodial credit risk for investments is the risk that, in the event of the failure of the counterparty, the Plan will not be able to recover the value of its investments or collateral securities that are in the possession of an outside party. The Plan has no formal policy for custodial credit risk. At December 31, 2022 and 2021, the Plan did not identify any investments subject to custodial credit risk.

Concentration of Credit Risk

Concentration of credit risk is the risk of loss attributed to the magnitude of the Plan's investment in a single issuer. For the fixed income investment manager, the Plan's investment policy states that for purposes of diversification, the exposure to any single issuer, other than securities guaranteed by the U.S. Treasury or issued by a Government Sponsored Enterprise, shall not exceed 5% of the fair value of the portfolio. Also, exposure to any single issue or mortgage pool issued by a Government Sponsored Enterprise shall not exceed 5% of the fair value of the portfolio. For the domestic equity investment manager, the Plan's investment policy states that the fair value of any single security holding should be limited to a weight of 5% of the portfolio, or 150% of the security's weight in the benchmark, whichever is higher. There is no formal policy for concentration of credit risk for the international equity and real estate investment managers.

At December 31, 2022, the Plan had one investment in Cohen and Steers Global Listed Infrastructure which represented 5.5% of the Plan's assets, in addition to the following indexed and commingled funds:

Investment	2022	
	Value	% of Investments
Blackrock Equity Index Fund A	\$ 102,043,349	17.7%
Western Asset U.S. Core Plus	\$ 60,533,161	10.6%
Dodge & Cox International Stock Fund	\$ 41,617,963	7.2%
American EuroPacific Growth	\$ 34,723,032	6.0%

At December 31, 2021, the Plan did not have investments in any one organization representing 5% or more of the Plan's assets other than the following indexed and commingled funds:

Investment	2021	
	Value	% of Investments
Blackrock Equity Index Fund A	\$ 124,627,834	18.5%
Western Asset U.S. Core Plus	\$ 76,118,647	11.3%
American EuroPacific Growth	\$ 44,934,251	6.7%
Dodge & Cox International Stock Fund	\$ 44,646,004	6.6%

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Foreign Currency Risk

Foreign currency risk is the risk that changes in exchange rates will adversely impact the fair value of an investment or deposit. The Plan's current risk exposure resides within investments in international equity mutual funds and one private equity limited partnership. While the Plan does not currently have a foreign currency risk policy within its formal investment policy, the Plan has delegated responsibility for currency management to its international equity managers.

The Plan's exposure to foreign currency risk as of December 31, 2022 and 2021, is disclosed by investment type below:

	Fund Valued In	Currency Exposure	2022	2021
International equity mutual funds	U.S. dollars	Various currencies worldwide	\$ 92,448,667	\$ 112,557,194
Short-term cash investments	Euros	Euros	162,187	188,528
HarbourVest International Private Equity Partners VI	Euros	Euros, U.S. dollar, British pound, Swiss franc, Swedish krona, Japanese yen, Australian dollar	<u>2,852,569</u>	<u>3,910,261</u>
			<u>\$ 95,463,423</u>	<u>\$ 116,655,983</u>

Fair Value Measurement

Fair value is the price that would be received to sell an asset in an orderly transaction between market participants at the measurement date. Fair value measurements must maximize the use of observable inputs and minimize the use of unobservable inputs. There is a hierarchy of three levels of inputs that may be used to measure fair value:

- Level 1** Quoted prices (unadjusted) in active markets for identical assets that a government can access at the measurement date
- Level 2** Observable inputs other than Level 1 quoted prices, such as quoted prices for similar assets in active markets; quoted prices in markets that are not active; or other inputs that are observable or can be corroborated by observable market data for substantially the full term of the assets
- Level 3** Unobservable inputs supported by little or no market activity and are significant to the fair value of the assets

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The following tables present the fair value measurements of assets recognized in the accompanying financial statements measured at fair value on a recurring basis and the level within the fair value hierarchy in which the fair value measurements fall at December 31, 2022 and 2021:

2022 Investments by Fair Value Level	Fair Value	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
Short-term cash investments	\$ 10,359,496	\$ 10,359,496	\$ -	\$ -
Asset backed securities	2,507,455	-	2,507,455	-
Equity securities	235,181,127	117,030,106	118,151,021	-
Corporate bonds	30,537,570	-	30,537,570	-
Bond fund	60,533,161	-	60,533,161	-
U.S. Treasury bonds	15,009,741	15,009,741	-	-
Government and collateralized mortgage backed	6,739,389	-	6,739,389	-
Municipal bonds	5,981,289	-	5,981,289	-
Real estate funds	10,231,109	-	10,231,109	-
Global listed infrastructure	<u>31,743,640</u>	<u>-</u>	<u>31,743,640</u>	<u>-</u>
Total investments by fair value level	408,823,977	<u>\$ 142,399,343</u>	<u>\$ 266,424,634</u>	<u>\$ -</u>
Items at NAV	<u>169,185,341</u>			
Total investments	<u>\$ 578,009,318</u>			

2021 Investments by Fair Value Level	Fair Value	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
Short-term cash investments	\$ 13,409,023	\$ 13,409,023	\$ -	\$ -
Asset backed securities	2,744,076	-	2,744,076	-
Equity securities	284,035,487	136,430,714	147,604,773	-
Corporate bonds	45,436,500	-	45,436,500	-
Bond fund	76,118,647	-	76,118,647	-
U.S. Treasury bonds	11,585,657	11,585,657	-	-
Government mortgage backed	7,746,852	-	7,746,852	-
Municipal bonds	8,497,962	-	8,497,962	-
Real estate funds	13,697,786	-	13,697,786	-
Global listed infrastructure	<u>33,348,856</u>	<u>-</u>	<u>33,348,856</u>	<u>-</u>
Total investments by fair value level	496,620,846	<u>\$ 161,425,394</u>	<u>\$ 335,195,452</u>	<u>\$ -</u>
Items at NAV	<u>175,596,509</u>			
Total investments	<u>\$ 672,217,355</u>			

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Investments

Where quoted market prices are available in an active market, securities are classified within Level 1 of the valuation hierarchy. If quoted market prices are not available, then fair values are estimated by using quoted prices of securities with similar characteristics or independent asset pricing services and pricing models, the inputs of which are market-based or independently sourced market parameters, including, but not limited to, yield curves, interest rates, volatilities, prepayments, defaults, cumulative loss projections and cash flows. Such securities are classified in Level 2 of the valuation hierarchy. In certain cases where Level 1 or Level 2 inputs are not available, securities are classified within Level 3 of the hierarchy.

As a practical expedient, a government can use the Net Asset Value (NAV) per share for investments in a nongovernmental entity that does not have a readily determinable fair value. The NAV is not permitted for valuation if it is probable the government will sell the investment at a different price. Investments measured at NAV would be excluded from the fair value hierarchy (Level 1, 2 or 3). The valuation method for investments measured at the NAV per share (or its equivalent) is presented on the next pages.

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NAV Investments - 2022	Value	Unfunded Commitments
Abbott Capital PE Fund V	\$ 592,265	\$ -
Abbott Capital PE Fund VI	3,836,309	50,000
Abbott Capital PE Fund VII	24,897,371	200,000
Abbott Capital Private Equity Investors 2016 Lp	7,148,448	75,624
CF Heitman America Real Estate Trust Lp Fund	26,203,141	-
CF Morgan Stanley Prime Property Fund	22,404,063	-
HarbourVest Intl Pep VI Pshp Fund	2,852,569	217,840
HarbourVest Partners IX Credit Opportunities Fund	479,340	150,000
HarbourVest Partners IX Buyout Fund	1,953,122	442,500
HarbourVest Partners IX Venture Fund	2,827,699	100,000
HarbourVest Partners VIII Buyout Fund	338,658	120,000
HarbourVest Partners VIII Mezzanine and Distressed Debt Fund	115,249	80,000
HarbourVest Partners VIII Venture Fund	1,360,738	80,000
HarbourVest Partners X Buyout Fund, Lp	5,757,671	1,190,000
HarbourVest Partners X Venture Fund, Lp	5,932,911	127,500
HarbourVest Ptrs VII Buyout Pship	10,207	220,000
HarbourVest Ptrs VII Mezzanine Hldg Fund	14,665	120,000
HarbourVest Ptrs VII Vent Pshp Fund	86,541	70,000
HarbourVest Ptrs XI Buyout Pship	2,259,789	1,110,000
HarbourVest Ptrs XI Micro Buyout Fund	408,605	153,500
HarbourVest Ptrs XI Vent Pshp Fund	1,776,219	262,500
HIPEP VII Partnership Fund Lp	21,037,948	2,350,000
Molpus Woodlands Fund III	14,176,208	-
Molpus Woodlands Fund IV, Lp	14,765,753	1,410,000
Molpus Woodlands Fund V, Lp	6,385,398	-
Pantheon Access (U.S.) L.P.	1,564,454	13,387,500
	<u>\$ 169,185,341</u>	<u>\$ 21,916,964</u>

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NAV Investments - 2021	Value	Unfunded Commitments
Abbott Capital PE Fund V	\$ 1,040,140	\$ -
Abbott Capital PE Fund VI	5,453,410	50,000
Abbott Capital PE Fund VII	33,519,939	200,000
Abbott Capital Private Equity Investors 2016 Lp	7,517,441	84,374
CF Heitman America Real Estate Trust Lp Fund	21,099,612	3,400,000
CF Morgan Stanley Prime Property Fund	17,956,401	4,300,000
HarbourVest Intl Pep VI Pshp Fund	3,910,261	227,460
HarbourVest Partners IX Credit Opportunities Fund	565,012	200,000
HarbourVest Partners IX Buyout Fund	2,696,700	442,500
HarbourVest Partners IX Venture Fund	3,971,343	100,000
HarbourVest Partners VIII Buyout Fund	517,868	120,000
HarbourVest Partners VIII Mezzanine and Distressed Debt Fund	158,147	80,000
HarbourVest Partners VIII Venture Fund	2,084,898	80,000
HarbourVest Partners X Buyout Fund, Lp	6,209,236	2,555,000
HarbourVest Partners X Venture Fund, Lp	6,995,813	217,500
HarbourVest Ptrs VII Buyout Pship	10,292	220,000
HarbourVest Ptrs VII Mezzanine Hldg Fund	14,696	120,000
HarbourVest Ptrs VII Vent Pshp Fund	129,072	70,000
HarbourVest Ptrs XI Buyout Pship	1,668,860	1,740,000
HarbourVest Ptrs XI Micro Buyout Fund	258,561	292,500
HarbourVest Ptrs XI Vent Pshp Fund	1,490,546	562,500
HIPEP VII Partnership Fund Lp	26,963,941	3,050,000
Molpus Woodlands Fund III	12,013,310	-
Molpus Woodlands Fund IV, Lp	13,763,827	1,410,000
Molpus Woodlands Fund V, Lp	5,587,183	-
Pantheon Access (U.S.) L.P.	-	15,000,000
	<u>\$ 175,596,509</u>	<u>\$ 34,521,834</u>

Note 5: Contributions

Contribution percentages are established by and may be amended by the City of Aurora. The Plan's funding policy during 2022 and 2021 required employees to contribute 7.00% of their covered compensation to the Plan, and required matching contributions by the City of Aurora. The City of Aurora's covered payroll and total payroll paid to employees during 2022 was \$133,667,035 and \$295,375,184, respectively. The covered payroll and total payroll paid to employees during 2021 was \$123,517,357 and \$267,239,788, respectively.

City of Aurora
General Employees' Retirement Plan
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Note 6: Benefits

The Plan provides retirement benefits, as well as death, disability and supplemental benefits. Plan benefits are established by and may be amended by the City of Aurora.

Contribution Refunds

Employees with less than five years of credited service at the date of termination are required to receive a refund of their contributions, including interest at 4%, since January 1, 2010 plus their vested City of Aurora contribution. Employees with five or more years of credited service may elect to receive a refund. For participants in the Plan prior to January 1, 2012 (Tier 1), the amount of a participant's vested City contributions is a 25% match of the participant's contribution and interest for less than one year of credit service, increasing by 5% for each whole year of credit service, for a maximum of 100% match. For participants who first became participants in the Plan after December 31, 2011 (Tier 2), there is no vesting in the City of Aurora contributions until the participant has five years of credited service. After five years, the amount of the participant's vested City of Aurora contributions shall be 50% of participant's contribution accumulation, increasing by 5% for each whole year of credited service, for a maximum 100% match.

Normal Retirement

Normal retirement age is 65 for Tier 1 participants and 67 for Tier 2 participants. Normal retirement benefits are the greater of 1.75% of final average monthly compensation, multiplied by years of credited service, including fractional years, or the annuitized value of the contribution refund described above. Final average monthly compensation is the average pay an employee received (excluding overtime and non-regular remuneration) during his/her highest paid 36 consecutive months with the City of Aurora within the employee's last 10 years of employment. Optional forms of benefit are available in lieu of the single life annuity, in order to provide survivorship benefits.

Tier 1 participants automatically receive annual cost of living adjustments linked to the Consumer Price Index and limited to 5% per year. Tier 2 participants may be granted cost of living adjustments at the discretion of the Board, at a rate not to exceed the rate of increase given to Tier 1 participants.

A supplemental benefit is provided to all retirees who have five or more years of credited service and is prorated for service of less than 20 years. Periodic cost of living adjustments to the supplemental benefit may be approved by the Plan's Board of Trustees and are limited to 5% per year.

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Early Retirement or Termination

If termination occurs before normal retirement age, participants who are age 50 or older with at least 10 years of credited service may elect to begin receiving early retirement benefits.

Reductions for early retirement will be applied to the normal retirement benefit if the sum of a participant's years of age and credited service is less than 80 (the Rule of 80). Depending on the participant's age and length of service, the reduction for Tier 1 participants can be up to 6% for each year they are below age 55, plus an additional 2% for each year they are short of attaining the sooner of either the Rule of 80 or normal retirement age. For Tier 2 participants, the reduction is 6% for each year a participant is short of attaining the sooner of normal retirement age or the Rule of 80.

Deferred Vested Benefits

Participants with at least five years of credited service who terminate before normal retirement age may leave their contribution accumulation with the Plan and opt to receive an early or normal retirement benefit at a later date.

Disability Retirement Benefits

Participants who meet the eligibility requirements for the City of Aurora's long-term disability insurance program continue to earn credited service during the period of time they collect disability insurance benefits. Once insurance payments have ended, the Plan's disability retirement benefit is calculated in the same manner as the normal retirement benefit, using the higher of the average highest paid 36 consecutive months of compensation or the monthly rate of compensation at the time of disability. Early retirement reductions may apply if benefits begin before normal retirement age.

Death Benefits

The beneficiary of a deceased active employee or deferred vested participant may be eligible to receive a contribution refund or a monthly pension benefit, depending on the age and credited service the participant had earned.

At retirement, a participant may designate a joint annuitant to receive pension benefits upon his/her death. The Plan also pays a one-time lump-sum death benefit of \$6,250 to the beneficiary designated by the retiree. This payment is separate from, and in addition to, any other benefits received.

City of Aurora
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Note 7: Net Pension (Asset) Liability

The components of the net pension (asset) liability of the Plan at December 31, 2022 and 2021 are as follows:

Net Pension Liability - 2022

Total pension liability	\$ 661,649,431
Fiduciary net position	<u>579,063,885</u>
Net pension liability	<u>\$ 82,585,546</u>
Fiduciary net position as a % of total pension liability	87.52%
Covered payroll	\$ 133,667,035 **
Net pension liability as a % of covered payroll	61.78%

** Covered payroll figures are projected numbers as of January 1, 2022 using actuarial assumptions within the valuation. Figures at Note 5 are actual paid values for 2022.

Net Pension (Asset) Liability - 2021

Total pension liability	\$ 615,066,783
Fiduciary net position	<u>673,634,315</u>
Net pension (asset) liability	<u>\$ (58,567,532)</u>
Fiduciary net position as a % of total pension liability	109.52%
Covered payroll	\$ 124,748,271 **
Net pension (asset) liability as a % of covered payroll	46.95%

** Covered payroll figures are projected numbers as of January 1, 2021 using actuarial assumptions within the valuation. Figures at Note 5 are actual paid values for 2021.

City of Aurora
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Actuarial Assumptions

The assumptions and methods presented below were determined based upon the actuarial valuations at the dates indicated. Additional information as of the latest actuarial valuation follows:

Valuation date	January 1, 2022	January 1, 2021
Actuarial cost method	Entry age normal	Entry age normal
Amortization method	Level percent of projected payroll, open	Level percent of projected payroll, open
Remaining amortization period	20 years	20 years
Asset valuation method	Three-year smoothed market; 20% corridor	Three-year smoothed market; 20% corridor
Inflation	2.50%	2.50%
Salary increases including inflation	Service based	Service based
Cost-of-living increases	Tier 1: Base benefit 2.50%	Tier 1: Base benefit 2.50%
	Tier 2: Base benefit 0.00%	Tier 2: Base benefit 0.00%
Investment rate of return	7.00%	7.00%
Retirement age	Table of rates by tier, age, and eligibility	Table of rates by tier, age, and eligibility
Mortality	Pub-2010 general employees retirement mortality table, projected generationally with scale MP2018	Pub-2010 general employees retirement mortality table, projected generationally with scale MP2018

Long-term Expected Return on Plan Assets

The long-term expected rate of return on pension plan investments was determined using a building-block method in which best-estimate 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 asset allocation percentage and by adding expected inflation.

Best estimates of arithmetic real rates of return were adopted by the Plan's trustees after considering input from the Plan's investment consultant(s) and actuary(s). For each major asset class that is included in the pension plan's target asset allocation as of January 1, 2022 and 2021, these best estimates are summarized in the following tables:

Asset Class - 2022	Target Allocation	Long-term Expected Real Rate of Return
Broad U.S. equity	30%	4.85%
Global ex-U.S. equity	20%	4.95%
Core U.S. fixed income	20%	1.75%
Core real estate	10%	3.25%
Private equity	13%	6.00%
Global listed infrastructure	5%	4.43%
Timber	2%	2.88%
Total	100%	

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Asset Class - 2021	Target Allocation	Long-term Expected Real Rate of Return
Domestic fixed income	25%	-0.50%
Domestic equity	26%	4.35%
International equity	19%	4.25%
Private equity	10%	5.75%
Real estate	10%	3.50%
Global listed infrastructure	5%	4.05%
Timber	5%	3.15%
Total	100%	

Single Discount Rate

A single discount rate of 7.00% was used to measure the total pension liability in 2022 and 2021. This single discount rate was based on the expected rate of return on pension plan investments of 7.00% for 2022 and 2021. The projection of cash flows used to determine this single discount rate assumed that plan member contributions and City of Aurora contributions will be made at the current contribution rates. Based on these assumptions, the pension plan's fiduciary net position was projected to be available to make all projected future benefit payments of current plan members. Therefore, the long-term expected rate of return on pension plan investments was applied to all periods of projected benefit payments to determine the total pension liability.

Sensitivity of Results

Regarding the sensitivity of the net pension (asset) liability to changes in the single discount rate, the following presents the Plan's net (asset) liability, calculated using a single discount rate of 7.00% for 2022 and 2021, as well as what the Plan's net pension (asset) liability would be if it were calculated using a single discount rate that is one-percentage-point lower or one-percentage-point higher:

2022	1% Decrease 6.00%	Current Discount Rate 7.00%	1% Increase 8.00%
Net pension liability	<u>\$ 167,429,994</u>	<u>\$ 82,585,546</u>	<u>\$ 12,281,609</u>
2021	1% Decrease 6.00%	Current Single Discount Rate 7.00%	1% Increase 8.00%
Net pension (asset) liability	<u>\$ 20,821,883</u>	<u>\$ (58,567,532)</u>	<u>\$ (124,350,394)</u>

City of Aurora
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Note 8: Commitments

Partnership Capital Commitments

The Plan is a party to multiple private equity and Timberland limited partnership agreements, which terminate from 2023 to 2035. The Plan is also a party to real estate trusts formed to have perpetual existences. Under the terms of the agreements, the Plan has pledged to invest approximately \$202,700,000 as of December 31, 2022 and 2021. Failure by the Plan to fund a capital call is considered a default under the agreements and various penalties, as defined, may be imposed upon the Plan for such failure. The commitment period for all partnerships extends until the Plan's capital commitment is fulfilled, or the partnership's term is reached. At December 31, 2022 and 2021, the Plan had remaining unfunded capital commitments of \$21,916,964 and \$34,521,834, respectively.

Note 9: Risk Management

The Plan is exposed to various risks of loss related to torts; theft of, damage to, and destruction of assets; errors and omissions, injuries to employees and natural disasters. Losses are covered by the Plan's risk management policies and agreements, including commercial insurance purchased by the Plan. The Plan has not had claims on losses in the past three years.

Note 10: Tax Status

The Plan received a favorable determination letter from the Internal Revenue Service dated June 24, 2014, that the Plan is designed in accordance with applicable sections of the Internal Revenue Code (IRC). Although the Plan has been amended and restated since receiving the determination letter, the plan administrator and the Plan's legal counsel believe that the Plan is designed and is currently being operated in compliance with the applicable requirements of the IRC and remains in tax-exempt status. The letter relates only to the status of the Plan under the Internal Revenue Code and is not a determination regarding the effect of other federal or local statutes.

Note 11: Plan Termination

Upon a complete or partial termination of the Plan, the rights of each affected participant to benefits accrued under the Plan to the date of such discontinuance, to the extent then funded, shall be nonforfeitable. Upon a partial or complete termination of the Plan or a permanent discontinuance of contributions to the Plan, the proportionate interests of each affected participant and beneficiary shall be determined by the actuary.

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Note 12: Related Parties

The Plan's Board of Trustees consists of seven voting members. Three voting members are employees of the City of Aurora, who are elected by the employees of the City of Aurora, and are participants in the Plan. Three more voting members are qualified electors of the City of Aurora who have resided in the City of Aurora at least one year. These members are appointed by City Council and cannot be employees or officials of the City of Aurora. The last voting member is a resident of the City for at least one year and is elected by the six other members noted above. Non-voting members are the City Manager, Director of Human Resources and the Director of Finance.

The City of Aurora code also names the City Attorney as the legal consultant for the Plan's Board of Trustees. The Board may retain outside legal counsel to serve under its direction.

Note 13: Lease Assets and Liabilities

The Plan leases office space, the terms of which expire in 2025. The lease payments include base rent, which is specifically identified under the lease contract, plus variable operating costs based on actual maintenance and taxes that are not included in the lease liability because they are not fixed in substance.

The following is a schedule by year of payments under the lease as December 31, 2022:

Year Ending December 31,	Total to Be Paid	Principal	Interest
2023	\$ 42,999	\$ 41,996	\$ 1,003
2024	43,360	42,889	471
2025	<u>14,452</u>	<u>14,415</u>	<u>37</u>
Total	<u>\$ 100,811</u>	<u>\$ 99,300</u>	<u>\$ 1,511</u>

Lease assets activity for the years ended December 31, 2022, was:

	Beginning Balance	Additions	Disposals	Transfers	Ending Balance
Office space	\$ 178,704	\$ -	\$ -	\$ -	\$ 178,704
Less accumulated amortization	<u>(41,239)</u>	<u>(41,239)</u>	<u>-</u>	<u>-</u>	<u>(82,478)</u>
Lease assets, net	<u>\$ 137,465</u>	<u>\$ (41,239)</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ 96,226</u>

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Lease assets activity for the years ended December 31, 2021, was:

	Beginning Balance	Additions	Disposals	Transfers	Ending Balance
Office space	\$ 178,704	\$ -	\$ -	\$ -	\$ 178,704
Less accumulated amortization	<u>-</u>	<u>(41,239)</u>	<u>-</u>	<u>-</u>	<u>(41,239)</u>
Lease assets, net	<u>\$ 178,704</u>	<u>\$ (41,239)</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ 137,465</u>

Note 14: Subsequent Event

On March 3, 2023, Molpus Woodlands Group issued a “Liquidity Opportunity Notice and Request for Consent to Amendment to the Fund’s Partnership Agreement” (the Notice). That Notice requested consent to an extension of the term of Molpus Woodlands Fund III, L.P. through December of 2032 and approval of the amendment to accomplish that extension. The Notice also provides details of a liquidity opportunity. At the March 16, 2023 Board meeting, the Board of Trustees elected to approve the amendment to extend the term of the fund and accept the liquidity opportunity. Under the terms of the liquidity opportunity, GERP will receive 95% of the Fund’s value as of September 30, 2022 less certain fees and expenses amounting to \$11,078,857 to be paid on June 30, 2023.

Required Supplementary Information

City of Aurora
General Employees' Retirement Plan
Schedules of Changes in Net Pension (Asset) Liability and Related Ratios
For the Years Ended December 31,

	2022	2021*	2020	2019	2018
Total Pension Liability					
Service cost	\$ 13,635,290	\$ 12,865,163	\$ 12,833,841	\$ 11,633,711	\$ 11,350,764
Interest on the total pension liability	42,825,803	41,132,155	39,496,100	36,225,221	34,591,830
Effect of plan changes	68,644	(2,068,194)	9,523	-	(120,833)
Effect of economic/demographic losses	24,444,346	4,737,483	1,495,863	7,613,137	2,545,181
Assumption changes	-	-	-	36,397,071	-
Benefit payments	(31,617,329)	(29,667,046)	(27,111,082)	(25,569,802)	(22,256,553)
Refund	(2,774,106)	(2,463,308)	(1,801,818)	(2,509,996)	(1,971,763)
Net change in total pension liability	46,582,648	24,536,253	24,922,427	63,789,342	24,138,626
Total Pension Liability - Beginning of Year	<u>615,066,783</u>	<u>590,530,530</u>	<u>565,608,103</u>	<u>501,818,761</u>	<u>477,680,135</u>
Total Pension Liability - End of Year	<u>\$ 661,649,431</u>	<u>\$ 615,066,783</u>	<u>\$ 590,530,530</u>	<u>\$ 565,608,103</u>	<u>\$ 501,818,761</u>
Plan Fiduciary Net Position					
Contributions - employer	\$ 9,393,456	\$ 8,732,379	\$ 8,431,103	\$ 8,187,470	\$ 7,632,330
Contributions - employee	9,394,498	8,732,412	8,431,103	8,190,368	7,638,089
Net investment income (loss), including other income	(78,355,122)	112,106,334	65,299,862	85,965,859	(15,675,274)
Benefit payments	(31,617,329)	(29,667,046)	(27,111,082)	(25,569,802)	(22,256,553)
Refund	(2,774,106)	(2,463,308)	(1,801,818)	(2,509,996)	(1,971,763)
Administrative expense	(611,827)	(556,982)	(535,115)	(595,501)	(555,220)
Net change in plan fiduciary net position	(94,570,430)	96,883,789	52,714,053	73,668,398	(25,188,391)
Plan Fiduciary Net Position - Beginning of Year	<u>673,634,315</u>	<u>576,750,526</u>	<u>524,036,473</u>	<u>450,368,075</u>	<u>475,556,466</u>
Plan Fiduciary Net Position - End of Year	<u>\$ 579,063,885</u>	<u>\$ 673,634,315</u>	<u>\$ 576,750,526</u>	<u>\$ 524,036,473</u>	<u>\$ 450,368,075</u>
Net Pension (Asset) Liability - End of Year	<u>\$ 82,585,546</u>	<u>\$ (58,567,532)</u>	<u>\$ 13,780,004</u>	<u>\$ 41,571,630</u>	<u>\$ 51,450,686</u>
Plan fiduciary net position as a percentage of total pension liability	87.52%	109.52%	97.67%	92.65%	89.75%
Covered payroll	\$ 133,667,035	\$ 124,748,271	\$ 119,508,118	\$ 115,554,570	\$ 108,311,922
Net pension (asset) liability as a percentage of covered payroll	61.78%	-46.95%	11.53%	35.98%	47.50%

* Restated for Implementation of GASB 87

City of Aurora
General Employees' Retirement Plan
Schedules of Changes in Net Pension (Asset) Liability and Related Ratios (continued)
For the Years Ended December 31,

	2017	2016	2015	2014
Total Pension Liability				
Service cost	\$ 10,281,602	\$ 10,397,915	\$ 9,614,337	\$ 9,208,869
Interest on the total pension liability	34,837,001	33,149,005	31,821,333	30,291,215
Effect of plan changes	(1,438,988)	-	-	-
Effect of economic/demographic losses (gains)	6,056,597	(9,448,945)	(1,083,775)	-
Assumption changes	-	-	-	-
Benefit payments	(20,590,653)	(19,272,014)	(18,142,394)	(16,059,746)
Refund	(1,564,295)	(1,891,573)	(1,981,332)	(1,567,690)
	<u>27,581,264</u>	<u>12,934,388</u>	<u>20,228,169</u>	<u>21,872,648</u>
Net change in total pension liability				
Total Pension Liability - Beginning of Year	<u>450,098,871</u>	<u>437,164,483</u>	<u>416,936,314</u>	<u>395,063,666</u>
Total Pension Liability - End of Year	<u>\$ 477,680,135</u>	<u>\$ 450,098,871</u>	<u>\$ 437,164,483</u>	<u>\$ 416,936,314</u>
Plan Fiduciary Net Position				
Contributions - employer	\$ 7,321,152	\$ 6,703,676	\$ 6,135,777	\$ 5,536,583
Contributions - employee	7,326,872	6,709,396	6,137,147	5,531,417
Net investment income (loss), including other income	58,406,988	31,024,129	2,970,528	29,167,614
Benefit payments	(20,590,653)	(19,272,014)	(18,142,394)	(16,059,746)
Refund	(1,564,295)	(1,891,573)	(1,981,332)	(1,567,690)
Administrative expense	(574,824)	(558,960)	(548,813)	(544,961)
	<u>50,325,240</u>	<u>22,714,654</u>	<u>(5,429,087)</u>	<u>22,063,217</u>
Net change in plan fiduciary net position				
Plan Fiduciary Net Position - Beginning of Year	<u>425,231,226</u>	<u>402,516,572</u>	<u>407,945,659</u>	<u>385,882,442</u>
Plan Fiduciary Net Position - End of Year	<u>\$ 475,556,466</u>	<u>\$ 425,231,226</u>	<u>\$ 402,516,572</u>	<u>\$ 407,945,659</u>
Net Pension (Asset) Liability - End of Year	<u>\$ 2,123,669</u>	<u>\$ 24,867,645</u>	<u>\$ 34,647,911</u>	<u>\$ 8,990,655</u>
Plan fiduciary net position as a percentage of total pension liability	99.56%	94.48%	92.07%	97.84%
Covered payroll	\$ 104,251,452	\$ 99,114,004	\$ 94,369,963	\$ 88,399,268
Net pension (asset) liability as a percentage of covered payroll	2.04%	25.09%	36.71%	10.17%

City of Aurora
General Employees' Retirement Plan
Schedule of Employer Contributions
For the Ten Years Ended December 31,

Employer Contributions					
Year	Actuarially Determined Contributions	Actual Employer Contributions	Contribution Deficiency (Excess)	Covered Payroll *	Actual Contribution as a % of Covered Payroll
2022	\$ 6,408,257	\$ 9,393,456	\$ (2,985,199)	\$ 133,667,035	7.03%
2021	\$ 8,522,867	\$ 8,732,379	\$ (209,512)	\$ 124,748,271	7.00%
2020	\$ 9,938,349	\$ 8,431,103	\$ 1,507,246	\$ 119,508,118	7.05%
2019	\$ 7,309,985	\$ 8,187,470	\$ (877,485)	\$ 115,554,570	7.09%
2018	\$ 6,450,947	\$ 7,632,330	\$ (1,181,383)	\$ 108,311,922	7.05%
2017	\$ 6,285,399	\$ 7,321,152	\$ (1,035,753)	\$ 104,251,452	7.02%
2016	\$ 4,649,567	\$ 6,703,676	\$ (2,054,109)	\$ 99,114,004	6.76%
2015	\$ 5,126,751	\$ 6,135,776	\$ (1,009,025)	\$ 94,369,963	6.50%
2014	\$ 5,803,254	\$ 5,536,583	\$ 266,671	\$ 88,399,268	6.26%
2013	\$ 6,949,075	\$ 5,007,530	\$ 1,941,545	\$ 83,458,825	6.00%

* Covered payroll is the amount in force as of the valuation date and likely differs from the actual payroll paid during the year

City of Aurora

General Employees' Retirement Plan

Notes to Schedule of Employer Contributions

Methods and Assumptions Used to Determine Contribution Rates:

	January 1, 2022	January 1, 2021	January 1, 2020
Valuation Date	Entry age normal	Entry age normal	Entry age normal
Actuarial Cost Method	Level percent of projected payroll, open	Level percent of projected payroll, open	Level percent of projected payroll, open
Amortization Method	20 years	20 years	20 years
Remaining Amortization Period	Three-year smoothed market; 20% corridor	Three-year smoothed market; 20% corridor	Three-year smoothed market; 20% corridor
Asset Valuation Method	2.50%	2.50%	2.50%
Inflation	Service based	Service based	Service based
Salary Increases Including Inflation	Tier 1: Base benefit 2.50%	Tier 1: Base benefit 2.50%	Tier 1: Base benefit 2.50%
Cost-of-Living Increases	Tier 2: Base benefit 0.00%	Tier 2: Base benefit 0.00%	Tier 2: Base benefit 0.00%
Investment Rate of Return	7.00%	7.00%	7.00%
Retirement Age	Table of rates by tier, age, and eligibility	Table of rates by tier, age, and eligibility	Table of rates by tier, age, and eligibility
Mortality	Pub-2010 general employees retirement mortality table, projected generationally with scale MP2018	Pub-2010 general employees retirement mortality table, projected generationally with scale MP2018	Pub-2010 general employees retirement mortality table, projected generationally with scale MP2018

Other Information:

Notes	There were no benefit changes during the year. Members and the City are contributing at a rate of 7.00% of members' monthly compensation for 2022; 7.00% of members' monthly compensation for 2021. The roll-forward methodology employed for purposes of the GASB disclosure is based upon generally accepted actuarial methods.	There were no benefit changes during the year. Members and the City are contributing at a rate of 7.00% of members' monthly compensation for 2021; 7.00% of members' monthly compensation for 2020. The roll-forward methodology employed for purposes of the GASB disclosure is based upon generally accepted actuarial methods.	There were no benefit changes during the year. Members and the City are contributing at a rate of 7.00% of members' monthly compensation for 2020; 7.00% of members' monthly compensation for 2019. The roll-forward methodology employed for purposes of the GASB disclosure is based upon generally accepted actuarial methods.
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City of Aurora
General Employees' Retirement Plan
Notes to Schedule of Employer Contributions (continued)

Methods and Assumptions Used to Determine Contribution Rates:

	January 1, 2019	January 1, 2018	January 1, 2017
Valuation Date	Entry age normal	Entry age normal	Entry age normal
Actuarial Cost Method	Level percent of projected payroll, open	Level percent of projected payroll, open	Level percent of projected payroll, open
Amortization Method	20 years	20 years	20 years
Remaining Amortization Period	Three-year smoothed market; 20% corridor	Three-year smoothed market; 20% corridor	Three-year smoothed market; 20% corridor
Asset Valuation Method	2.50%	2.75%	2.75%
Inflation	Service based	Service based	Service based
Salary Increases Including Inflation	Tier 1: Base benefit 2.50%	Tier 1: Base benefit 2.75%	Tier 1: Base benefit 2.75%
Cost-of-Living Increases	Tier 2: Base benefit 0.00%	Tier 2: Base benefit 0.00%	Tier 2: Base benefit 0.00%
Investment Rate of Return	7.00%	7.25%	7.25%
Retirement Age	Table of rates by tier, age, and eligibility	Table of rates by tier, age, and eligibility	Table of rates by tier, age, and eligibility
Mortality	Pub-2010 general employees retirement mortality table, projected generationally with scale MP2018	Table, with adjustments	Table, with adjustments

Other Information:

Notes	There were no benefit changes during the year. Members and the City are contributing at a rate of 7.00% of members' monthly compensation for 2019; 7.00% of members' monthly compensation for 2018. The roll-forward methodology employed for purposes of the GASB disclosure is based upon generally accepted actuarial methods.	There were no benefit changes during the year. Members and the City are contributing at a rate of 7.00% of members' monthly compensation for 2018; 7.00% of members' monthly compensation for 2017. The roll-forward methodology employed for purposes of the GASB disclosure is based upon generally accepted actuarial methods.	There were no benefit changes during the year. Members and the City are contributing at a rate of 7.00% of members' monthly compensation for 2017; 6.75% of members' monthly compensation for 2016. The roll-forward methodology employed for purposes of the GASB disclosure is based upon generally accepted actuarial methods.
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City of Aurora

General Employees' Retirement Plan

Notes to Schedule of Employer Contributions (continued)

Methods and Assumptions Used to Determine Contribution Rates:

	January 1, 2016	January 1, 2015	January 1, 2014
Valuation Date	Entry age normal	Entry age normal	Entry age normal
Actuarial Cost Method	Level percentage of payroll, open	Level percentage of payroll, open	Level percentage of payroll, open
Amortization Method	30 years	30 years	30 years
Remaining Amortization Period	Three-year smoothed market; 20% corridor	Three-year smoothed market; 20% corridor	Three-year smoothed market; 20% corridor
Asset Valuation Method	3.25%	3.25%	3.25%
Inflation	3.25% to 6.00%	3.25% to 6.00% including inflation	3.25% to 6.00% including inflation
Salary Increases Including Inflation	Tier 1: Base benefit 3.25%	Tier 1: Base benefit 3.25%	Tier 1: Base benefit 0.0%
Cost-of-Living Increases	Tier 2: Base benefit 0.0%	Tier 2: Base benefit 0.0%	Tier 2: Base benefit 0.0%
Investment Rate of Return	7.75%	7.75%	7.75%
Retirement Age	Experience-based table of rates that are specific to the type of eligibility condition. Last updated for the 2014 valuation pursuant to an experience study of the period 2009 - 2013.	Experience-based table of rates that are specific to the type of eligibility condition. Last updated for the 2014 valuation pursuant to an experience study of the period 2009 - 2013.	Experience-based table of rates that are specific to the type of eligibility condition. Last updated for the 2014 valuation pursuant to an experience study of the period 2009 - 2013.
Mortality	RP-2000 Combined Healthy Mortality Table	RP-2000 Combined Healthy Mortality Table	RP-2000 Combined Healthy Mortality Table

Other Information:

Notes	There were no benefit changes during the year. Members and the City are contributing at a rate of 6.75% of members' monthly compensation for 2016, increasing by 0.25% each year up to a contribution rate of 7.00% in 2017. The roll-forward methodology employed for purposes of the GASB disclosures is based on generally accepted actuarial methods.	There were no benefit changes during the year. Members and the City are contributing at a rate of 6.50% of members' monthly compensation for 2015, increasing by 0.25% each year up to a contribution rate of 7.00% in 2017. The roll-forward methodology employed for purposes of the GASB disclosures is based on generally accepted actuarial methods.	There were no benefit changes during the year.
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City of Aurora
General Employees' Retirement Plan
Schedule of Investment Returns
For the Years Ended December 31,

Fiscal Year Ended December 31,	Annual Return ¹
2022	-11.79%
2021	19.71%
2020	12.62%
2019	19.34%
2018	-3.33%
2017	13.87%
2016	7.79%
2015	0.60%
2014	7.48%

¹ Annual money - weighted rate of return, net of investment expenses.

Supplementary Information

City of Aurora
General Employees' Retirement Plan
Schedule of Administrative Expenses
Years Ended December 31, 2022 and 2021

	<u>2022</u>	<u>2021*</u>
Salaries		
Professional salaries	\$ 247,682	\$ 233,907
Benefits, vacation and sick leave	<u>79,184</u>	<u>75,160</u>
	<u>326,866</u>	<u>309,067</u>
Professional Fees		
Audit	40,685	39,610
Benefit processing	16,709	16,709
Computer consulting	3,300	4,222
Legal	<u>1,937</u>	<u>8,577</u>
	<u>62,631</u>	<u>69,118</u>
Actuary Fees	<u>65,442</u>	<u>41,688</u>
Other		
Amortization office lease	41,239	41,239
Board meeting	276	16
Business travel, entertainment, education	14,618	12,531
Computer software and accessories	1,976	1,904
Dues, memberships, publications	1,200	1,951
Furniture and equipment expense	7,502	6,857
Insurance	62,918	52,145
Interest office lease	1,517	1,825
Miscellaneous	850	898
Office supplies	2,298	1,704
Photocopying	695	1,485
Postage	3,526	3,651
Printing	1,744	3,322
Receptions	7,134	-
Repairs and maintenance	3,877	1,938
Telephone and communications	<u>5,518</u>	<u>5,643</u>
	<u>156,888</u>	<u>137,109</u>
Total administrative expenses	<u>\$ 611,827</u>	<u>\$ 556,982</u>

* Restated for Implementation of GASB 87

City of Aurora
General Employees' Retirement Plan
Schedule of Investment Expenses
Years Ended December 31, 2022 and 2021

	<u>2022</u>	<u>2021</u>
Investment Management Fees ⁽¹⁾		
Segall Bryant & Hamill	\$ 177,079	\$ 186,552
Smith Graham & Company	305,428	364,348
BlackRock Institutional Trust Company	22,349	16,709
Abbott Capital Management	261,394	286,442
HarbourVest Partners	504,338	523,681
Molpus Woodlands Group	305,122	284,707
Heitman	278,127	202,367
Western Asset Management	202,625	213,377
Morgan Stanley	250,176	189,036
Pantheon	33,380	-
	<u>2,340,018</u>	<u>2,267,219</u>
Investment Consultant Fees		
Callan Associates	<u>123,936</u>	<u>119,405</u>
Custody Fees		
Northern Trust Corporation	<u>73,291</u>	<u>73,291</u>
 Total investment expense	 <u>\$ 2,537,245</u>	 <u>\$ 2,459,915</u>

⁽¹⁾ Management fees for private equity investments with Abbott Capital Management, HarbourVest Partners and Timberland investments with Molpus Woodlands Group are based on a percentage of committed capital. Fees for the Heitman and Morgan Stanley private real estate investments, are based on the market value of those portfolios. Each of these managers deducted its fee from the Plan's investment and reported those amounts, which are shown above.

Management fees for commingled fund investments with American Century, American Funds, Cohen & Steers, and Dodge & Cox were deducted from net assets at the fund level, and the charges allocated to the Plan were not separately reported. The fees charged by those funds are based on the expense ratios disclosed in their management agreements or prospectuses and are applied to the average portfolio balance at fair value. Expense ratios for 2022 and 2021 ranged from 0.57% to 0.95% and 0.50% to 1.00%, respectively, on total average portfolios of approximately \$147 million and \$143 million for 2022 and 2021, respectively. The Plan estimates that the fees deducted by those managers totaled approximately \$852,000 and \$837,000 for 2022 and 2021, respectively.

Report on Internal Control Over Financial Reporting and on Compliance and Other Matters Based on an Audit of Financial Statements Performed in Accordance with *Government Auditing Standards*

Independent Auditor's Report

The Retirement Board
City of Aurora General Employees' Retirement Plan
Aurora, Colorado

We have audited, in accordance with the auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States (*Government Auditing Standards*), the financial statements of the City of Aurora General Employees' Retirement Plan (the Plan), a component unit of the City of Aurora, Colorado, which comprise the Plan's statement of fiduciary net position as of December 31, 2022, and the related statement of changes in fiduciary net position and the related notes to the financial statements, and have issued our report thereon dated April 26, 2023, which contained an emphasis of matter paragraph regarding implementation of new accounting standards.

Report on Internal Control Over Financial Reporting

In planning and performing our audit of the financial statements, we considered the Plan's internal control over financial reporting (internal control) as a basis for designing audit procedures that are appropriate in the circumstances for the purpose of expressing our opinion on the financial statements, but not for the purpose of expressing an opinion on the effectiveness of the Plan's internal control. Accordingly, we do not express an opinion on the effectiveness of the Plan's internal control.

A deficiency in internal control exists when the design or operation of a control does not allow management or employees, in the normal course of performing their assigned functions, to prevent, or detect and correct, misstatements on a timely basis. *A material weakness* is a deficiency, or a combination of deficiencies, in internal control, such that there is a reasonable possibility that a material misstatement of the entity's financial statements will not be prevented, or detected and corrected, on a timely basis. *A significant deficiency* is a deficiency, or a combination of deficiencies, in internal control that is less severe than a material weakness, yet important enough to merit attention by those charged with governance.

Our consideration of internal control was for the limited purpose described in the first paragraph of this section and was not designed to identify all deficiencies in internal control that might be material weaknesses or significant deficiencies. Given these limitations, during our audit we did not identify any deficiencies in internal control that we consider to be material weaknesses. However, material weaknesses or significant deficiencies may exist that were not identified.

The Retirement Board
City of Aurora General Employees' Retirement Plan

Report on Compliance and Other Matters

As part of obtaining reasonable assurance about whether the Plan's financial statements are free from material misstatement, we performed tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements, noncompliance with which could have a direct and material effect on the financial statements. However, providing an opinion on compliance with those provisions was not an objective of our audit, and accordingly, we do not express such an opinion. The results of our tests disclosed no instances of noncompliance or other matters that are required to be reported under *Government Auditing Standards*.

Purpose of This Report

The purpose of this report is solely to describe the scope of our testing of internal control and compliance and the results of that testing, and not to provide an opinion on the effectiveness of the entity's internal control or on compliance. This report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the entity's internal control and compliance. Accordingly, this communication is not suitable for any other purpose.

FORVIS, LLP

Denver, Colorado
April 26, 2023

INVESTMENT SECTION



City of Aurora
General Employees' Retirement Plan

Investment Section

The introduction to this section and the exhibits detailing the largest holdings and brokerage commissions paid were compiled by the Pension Plan Administrator. The investment performance analysis was prepared by Callan, an independent consultant.

Investment Policy Statement

Through the investment policy statement, the Retirement Board declares its fiduciary responsibility to invest and manage Plan assets as a prudent investor would, exercising reasonable care, skill and caution. Assets are to be managed for the exclusive benefit of Plan participants, retirees and beneficiaries. Board members are prohibited from managing assets in any way that might reflect, or appear to reflect, a conflict of interest. All records of investment holdings and transactions are available for public inspection.

The objective for the total fund is to earn a rate of return over the long term that is sufficient to fulfill the Plan's actuarial return assumption (7.00% for 2022 and 2021) and to meet benefit obligations without exceeding the level of risk deemed appropriate. A strategic asset allocation has been derived through a portfolio optimization process, based on the Plan's time horizon, risk tolerance, performance expectations and asset class preferences. Asset diversification is intended to reduce the risk of the total fund, enabling the Plan to include a greater proportion of higher returning investments than would otherwise be the case. The policy specifies an acceptable range of variance around the target allocations for each asset class, beyond which, rebalancing is required.

The policy defines the legal, organizational and philosophical criteria governing the selection and retention of external investment managers and lists their duties and responsibilities. Both general guidelines for security selection and trading strategy, and specific limitations applicable to each asset class are provided. The standards against which manager performance is to be evaluated are explained, including benchmark indexes, peer groups and relevant measures of risk.

Portfolio Management and Analysis

Callan provides performance measurement services, conducts manager searches and consults to the Board on investment matters.

The Plan's investment performance has compared favorably against both its investment policy target and the median results of the mid-sized public fund peer group compiled by Callan (shown below).

	Latest 1 Year	Latest 3 Years (annualized)	Latest 5 Years (annualized)	Latest 10 Years (annualized)
GERP return	(11.69%)	6.06%	6.59%	7.90%
Policy target return	(11.46%)	5.17%	6.21%	7.27%
Median public fund	(13.43%)	3.79%	5.06%	7.22%

GERP's domestic equity allocation is divided between *BlackRock Institutional Trust (formerly Barclays Global Investors, hired in 2004)* with 18.12% of invested assets and *Smith, Graham & Company (formerly Ark Asset Management, hired in 1999)* with 7.33%. The BlackRock commingled fund replicates the Standard & Poor's 500 Index. Smith Graham actively manages a small and mid-cap value portfolio.

Performance measurement methodology

The rates of return on pages 65 through 84 were calculated by Callan. They are linked, time-weighted monthly returns computed on a gross basis before deductions for fees and expenses, except in the case of certain mutual funds whose performance is reported net of fees.

Returns are based on the fair value of securities held at the end of each month, including accrued income, and are recomputed whenever there are cash flows to or from investment accounts. Account valuations are adjusted to take into consideration amounts payable for purchases and receivable from sales. The private equity internal rate of return and the multiples shown on page 80 were calculated consistent with that industry's standards. See the generalized formula for time-weighted rate of return on page 69.

Dodge & Cox (hired in 2007), Capital Group/American Funds (2014) and American Century Investments (2014) share responsibility for the Plan's 16.42% international equity allocation. The three firms utilize actively managed commingled funds to gain exposure to developed non-U.S. markets, emerging markets and small cap opportunities.

Segall, Bryant & Hamill (formerly Denver Investments hired in 1990), manages 11.10% of invested assets in a domestic core fixed income account with an emphasis on investment grade corporate securities. The Plan also had a 10.75% allocation to the *Western Asset Management Company (2017)*. The Western Asset Management Company fund is categorized as "core plus," which differs from traditional core fixed income investing in that the manager also has the discretion to hold high yield bonds, foreign-issued debt securities (including emerging markets) and has the authority to use derivative instruments.

Real estate investments comprise 10.49% of the portfolio, with roughly one-half in the *Heitman America Real Estate Trust (2012)* and one-third in the *Morgan Stanley Prime Property Fund (2015)*. Both are open-end core real estate funds that buy, sell, develop and manage office, residential, retail and industrial properties throughout the U.S. The remainder of the Plan's real estate investment is in a global real estate securities (REIT) fund managed by *Cohen & Steers Capital Management (1997)*.

Beginning in 2002, the Board authorized a series of private equity investments encompassing venture capital, buyouts, mezzanine financing and distressed debt. Twenty-one "fund of funds" limited partnerships managed by *HarbourVest Partners, Abbott Capital Management and Pantheon Access* have been selected as the investment vehicles. As of December 31, 2022 the Plan's private equity commitments totaled \$130.5 million but only \$108.3 million (82.99% of committed capital) had been drawn down by the general partners for investment. Private equity partnerships represent approximately 14.72% of invested assets.

In 2009 the Board established a 10% target allocation for real return assets in order to provide protection against future inflation and reduced that target to 7% with the adoption of an updated investment policy in December 2022. GERP has committed a total of \$35.0 million to the *Molpus Woodlands Group (2010)*, a timberland investment manager. At year-end 93.61% of committed capital had been drawn down by Molpus. In addition, *Cohen & Steers Capital Management (2018)* was selected to manage a global listed infrastructure fund. At year-end GERP had invested \$25.7 million in the fund.

Report on Investment Activity

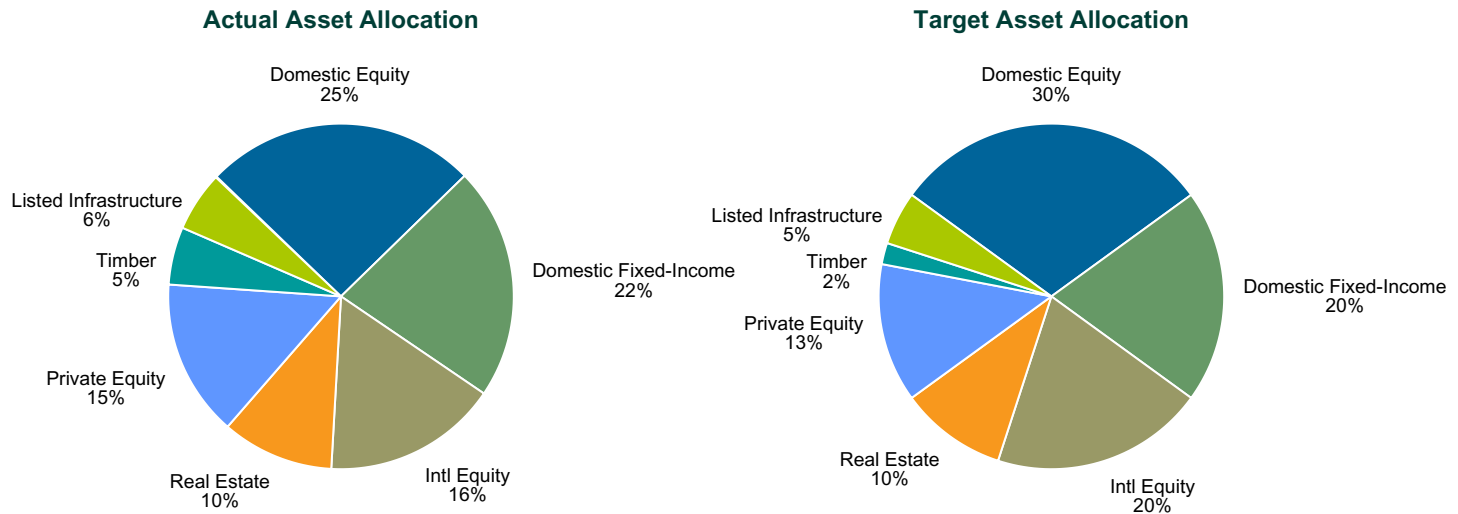
The investment performance report appearing on pages 65 through 84 was prepared by Callan and represents the Plan's investment positions and results for the periods ending December 31, 2022. In Callan's report the term *market value* means the fair value of invested assets plus accrued income and amounts payable or receivable for unsettled trades. Valuations for alternative assets are lagged by one quarter, and consequently, do not match the fair values reported in the Plan's financial statements.

Short-term cash investments held for the payment of benefits and operating expenses are not included in Callan's investment report. Those accounts totaled \$10,359,496 and \$13,409,023 and represented approximately 1.79% and 1.99% of the Plan's net position at December 31, 2022 and 2021.

The exhibits summarizing investment holdings and brokerage commissions on pages 85 and 86 were prepared by the Pension Plan Administrator from data provided by the Northern Trust Company, the custodian of Plan assets.

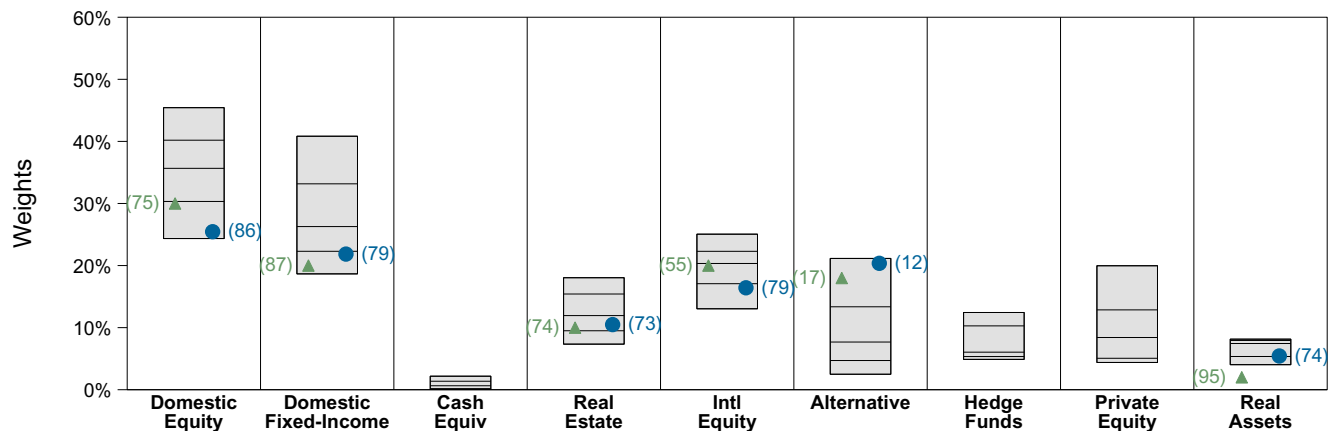
Actual vs Target Asset Allocation As of December 31, 2022

The top left chart shows the Fund's asset allocation as of December 31, 2022. The top right chart shows the Fund's target asset allocation as outlined in the investment policy statement. The bottom chart ranks the fund's asset allocation and the target allocation versus the Callan Public Fund Spons- Mid (100M-1B).



Asset Class	\$000s Actual	Weight Actual	Target	Percent Difference	\$000s Difference
Domestic Equity	143,311	25.5%	30.0%	(4.5%)	(25,617)
Domestic Fixed-Income	123,012	21.8%	20.0%	1.8%	10,394
Intl Equity	92,449	16.4%	20.0%	(3.6%)	(20,170)
Real Estate	59,071	10.5%	10.0%	0.5%	2,762
Private Equity	82,905	14.7%	13.0%	1.7%	9,703
Timber	30,601	5.4%	2.0%	3.4%	19,339
Listed Infrastructure	31,744	5.6%	5.0%	0.6%	3,589
Total	563,093	100.0%	100.0%		

Asset Class Weights vs Callan Public Fund Spons- Mid (100M-1B)



	Domestic Equity	Domestic Fixed-Income	Cash Equiv	Real Estate	Intl Equity	Alternative	Hedge Funds	Private Equity	Real Assets
10th Percentile	45.43	40.83	2.18	18.04	25.05	21.15	12.44	19.97	8.14
25th Percentile	40.19	33.17	1.37	15.42	22.29	13.36	10.28	12.86	7.94
Median	35.66	26.28	0.64	11.94	20.33	7.68	6.05	8.41	7.44
75th Percentile	30.33	22.30	0.18	9.50	17.08	4.70	5.34	5.06	5.35
90th Percentile	24.35	18.66	0.04	7.34	13.04	2.49	4.88	4.39	4.03
Fund ●	25.45	21.85	-	10.49	16.42	20.36	-	-	5.43
Target ▲	30.00	20.00	-	10.00	20.00	18.00	-	-	2.00
% Group Invested	100.00%	100.00%	72.41%	68.97%	96.55%	34.48%	24.14%	17.24%	20.69%

* Current Quarter Target = 30.0% Russell 3000 Index, 20.0% Blmbg Aggregate, 20.0% MSCI ACWI xUS IMI, 13.0% Private Equity, 8.0% NCREIF NFI-ODCE Eq Wt Net, 5.0% FTSE GI Core Infr 50/50 N, 2.0% FTSE EP/NA Developed and 2.0% NCREIF Timberland Index.

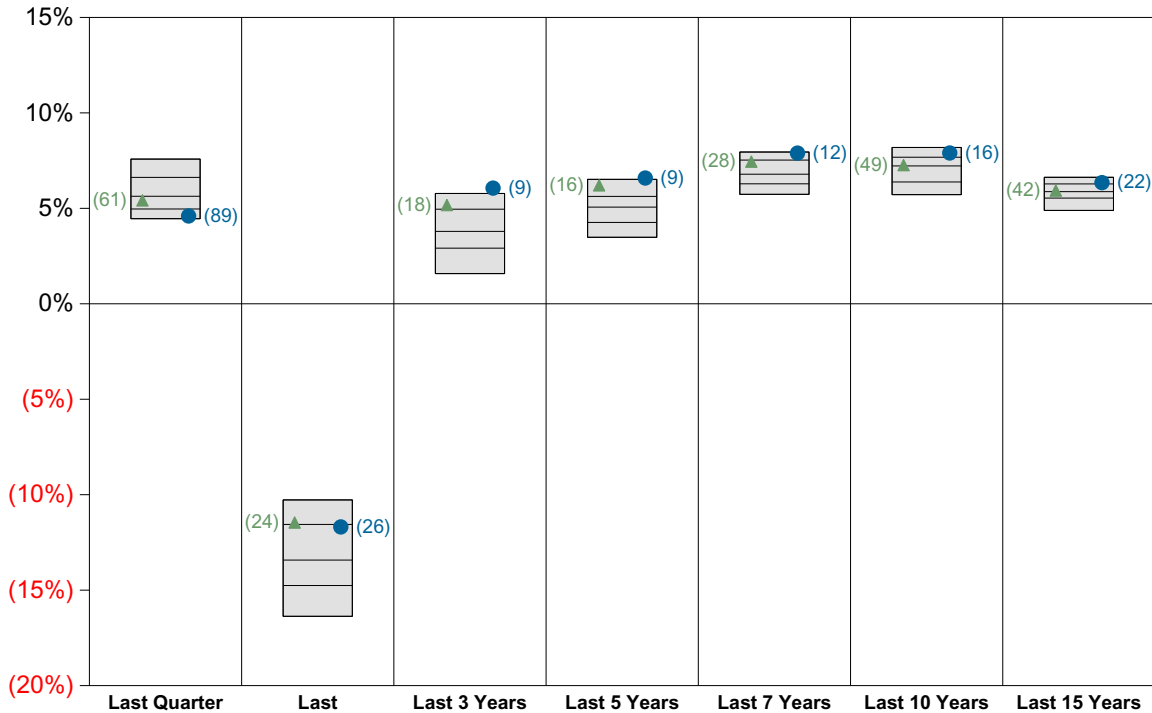
Total Fund

Period Ended December 31, 2022

Quarterly Summary and Highlights

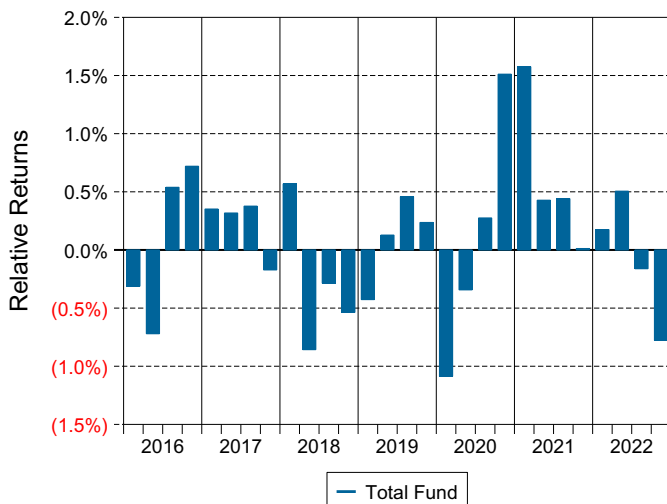
- Total Fund's portfolio posted a 4.60% return for the quarter placing it in the 89 percentile of the Callan Public Fund Spons- Mid (100M-1B) group for the quarter and in the 26 percentile for the last year.
- Total Fund's portfolio underperformed the Policy Target by 0.82% for the quarter and underperformed the Policy Target for the year by 0.23%.

Performance vs Callan Public Fund Spons- Mid (100M-1B) (Gross)

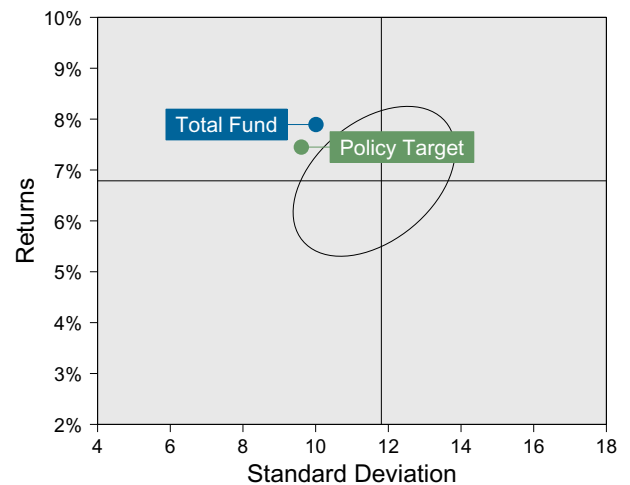


10th Percentile	7.58	(10.27)	5.78	6.52	7.95	8.19	6.63
25th Percentile	6.62	(11.56)	4.96	5.63	7.53	7.68	6.28
Median	5.63	(13.43)	3.79	5.06	6.79	7.22	5.87
75th Percentile	4.97	(14.76)	2.91	4.26	6.28	6.38	5.54
90th Percentile	4.46	(16.37)	1.58	3.48	5.73	5.72	4.89
Total Fund	● 4.60	(11.69)	6.06	6.59	7.89	7.90	6.35
Policy Target	▲ 5.42	(11.46)	5.17	6.21	7.45	7.27	5.93

Relative Return vs Policy Target



Callan Public Fund Spons- Mid (100M-1B) (Gross) Annualized Seven Year Risk vs Return



[See page 67 for performance measurement method]

Investment Manager Asset Allocation

The table below contrasts the distribution of assets across the Fund's investment managers as of December 31, 2022, with the distribution as of September 30, 2022. The change in asset distribution is broken down into the dollar change due to Net New Investment and the dollar change due to Investment Return.

Asset Distribution Across Investment Managers

	December 31, 2022				September 30, 2022	
	Fair Value	Weight	Net New Inv.	Inv. Return	Fair Value	Weight
Domestic Equity	\$143,311,134	25.45%	\$0	\$11,214,379	\$132,096,755	24.24%
Large Cap Equity	\$102,043,349	18.12%	\$0	\$7,163,429	\$94,879,919	17.41%
BlackRock	102,043,349	18.12%	0	7,163,429	94,879,919	17.41%
Small/Mid Cap Equity	\$41,267,785	7.33%	\$0	\$4,050,950	\$37,216,836	6.83%
Smith Graham & Co.	41,267,785	7.33%	0	4,050,950	37,216,836	6.83%
Private Equity	\$82,904,977	14.72%	\$(4,039,712)	\$(1,562,595)	\$88,507,284	16.24%
Abbott Capital V	574,862	0.10%	0	(3,705)	578,567	0.11%
Abbott Capital VI	3,732,798	0.66%	(249,098)	(80,278)	4,062,174	0.75%
Abbott Capital VII	24,200,750	4.30%	(1,595,437)	(919,929)	26,716,116	4.90%
Abbott Capital 2016	6,944,266	1.23%	(80,000)	(36,716)	7,060,982	1.30%
Harbour Vest VII-Mezzanine	14,665	0.00%	0	28	14,637	0.00%
Harbour Vest VII-Buyout	10,207	0.00%	0	19	10,188	0.00%
Harbour Vest VII-Venture	86,541	0.02%	(9,866)	431	95,976	0.02%
Harbour Vest VIII-Mezzanine	115,249	0.02%	0	(4,774)	120,023	0.02%
Harbour Vest VIII-Buyout	338,658	0.06%	(34,719)	(8,621)	381,998	0.07%
Harbour Vest VIII-Venture	1,360,738	0.24%	(186,890)	(33,219)	1,580,847	0.29%
Harbour Vest IX-Credit Opps	481,590	0.09%	(39,441)	10,099	510,932	0.09%
Harbour Vest IX-Buyout	1,902,985	0.34%	(105,232)	(79,826)	2,088,043	0.38%
Harbour Vest IX-Venture	2,776,754	0.49%	(103,897)	(34,959)	2,915,610	0.54%
Harbour Vest X - Buyout	5,611,847	1.00%	(279,094)	49,549	5,841,392	1.07%
Harbour Vest X - Venture	5,825,954	1.03%	(75,672)	(120,226)	6,021,852	1.11%
Harbour Vest XI - Buyout	2,266,427	0.40%	(20,008)	14,584	2,271,851	0.42%
Harbour Vest XI - MICRO Buyout	409,711	0.07%	15,974	10,901	382,836	0.07%
Harbour Vest XI - Venture	1,779,538	0.32%	39,437	(23,688)	1,763,789	0.32%
Harbour Vest International VI	2,847,643	0.51%	(161,366)	374,688	2,634,321	0.48%
Harbour Vest HIPEP VII	20,098,453	3.57%	(846,903)	(719,879)	21,665,235	3.98%
Pantheon Access	1,525,341	0.27%	(307,500)	42,926	1,789,915	0.33%
Timber	\$30,601,227	5.43%	\$(433,508)	\$151,574	\$30,883,161	5.67%
Molpus Woodlands Fund III	11,863,124	2.11%	(119,451)	160,552	11,822,023	2.17%
Molpus Woodlands Fund IV	13,372,841	2.37%	(222,213)	(453)	13,595,507	2.49%
Molpus Woodlands Fund V	5,365,262	0.95%	(91,844)	(8,525)	5,465,631	1.00%
Listed Infrastructure	\$31,743,638	5.64%	\$0	\$2,633,279	\$29,110,359	5.34%
Cohen & Steers Infrastructure	31,743,638	5.64%	0	2,633,279	29,110,359	5.34%
Domestic Fixed-Income	\$123,012,139	21.85%	\$(2,071,235)	\$2,776,720	\$122,306,654	22.44%
Segall Bryant & Hamill	62,478,978	11.10%	(571,235)	1,219,094	61,831,119	11.35%
Western	60,533,161	10.75%	(1,500,000)	1,557,626	60,475,535	11.10%
International Equity	\$92,448,667	16.42%	\$0	\$11,445,947	\$81,002,720	14.86%
Dodge & Cox Intl Equity	41,617,963	7.39%	0	5,742,553	35,875,410	6.58%
American Funds Euro Pacific Growth	34,723,032	6.17%	0	4,206,564	30,516,467	5.60%
American Century Non-US Small Cap	16,107,672	2.86%	0	1,496,830	14,610,842	2.68%
Real Estate	\$59,071,271	10.49%	\$(398,856)	\$(1,558,921)	\$61,029,048	11.20%
Cohen & Steers Global REIT	10,231,109	1.82%	0	631,641	9,599,468	1.76%
Heitman America	26,436,100	4.69%	(166,496)	(1,322,889)	27,925,485	5.12%
Morgan Stanley Prime Property	22,404,063	3.98%	(232,360)	(867,673)	23,504,095	4.31%
Total Fund	\$563,093,053	100.0%	\$(6,943,311)	\$25,100,384	\$544,935,981	100.0%

Performance Measurement Methodology

The rates of return were calculated by Callan. They are linked time-weighted monthly returns computed on a gross basis before deductions for fees and expenses, except in the case of certain mutual funds whose performance is reported net of fees.

Returns are based on the fair value of securities held at the end of each month, including accrued income, and are recomputed whenever there are cash flows to or from investment accounts. Account valuations are adjusted to take into consideration amounts payable for purchases and receivable from sales. The private equity internal rate of return and the multiples were calculated consistent with the industry's standards. The generalized formula for time-weighted rate of return is: $TWR = (1 + R_1) * (1 + R_2) * \dots * (1 + R_n) - 1$, where R is the simple return for each time period ($R = (V_e - V_b) / V_b$); where: R is the simple rate of return for a time period (EX: day, quarter, year), V_e is the value of an investment at the end of the measured period, and V_b is the value of an investment at the start of the measured period

Investment Manager Returns

The table below details the rates of return for the Fund's investment managers over various time periods ended December 31, 2022. Negative returns are shown in red, positive returns in black. Returns for one year or greater are annualized. The first set of returns for each asset class represents the composite returns for all the fund's accounts for that asset class.

Returns for Periods Ended December 31, 2022

	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 7 Years
Domestic Equity	8.49%	(16.64%)	7.92%	8.78%	11.14%
Russell 3000 Index	7.18%	(19.21%)	7.07%	8.79%	11.04%
Domestic Equity Target**	7.52%	(18.18%)	7.03%	8.47%	10.82%
Large Cap Equity	7.55%	(18.12%)	7.68%	9.47%	11.52%
BlackRock	7.55%	(18.12%)	7.68%	9.47%	11.52%
S&P 500	7.56%	(18.11%)	7.66%	9.42%	11.48%
Small/Mid Cap Equity	10.88%	(12.73%)	8.02%	6.76%	9.78%
Smith Graham & Co.	10.88%	(12.73%)	8.02%	6.76%	9.78%
Russell 2500 Value Index	9.21%	(13.08%)	5.22%	4.75%	8.26%
Russell 2500 Index	7.43%	(18.37%)	5.00%	5.89%	9.00%
Private Equity	(1.79%)	(7.04%)	23.11%	20.73%	18.01%
Abbott Capital V	(0.64%)	(41.79%)	(10.56%)	(4.35%)	(1.88%)
Abbott Capital VI	(2.05%)	(13.50%)	16.43%	15.94%	16.09%
Abbott Capital VII	(3.51%)	(10.47%)	25.57%	24.85%	20.65%
Abbott Capital 2016	(0.52%)	2.82%	28.72%	20.66%	-
Harbour Vest VII-Mezzanine	0.19%	(0.29%)	(5.22%)	(5.23%)	1.59%
Harbour Vest VII-Buyout	0.19%	(1.24%)	(6.56%)	(1.41%)	0.80%
Harbour Vest VII-Venture	0.45%	(25.30%)	(7.24%)	(3.59%)	(2.47%)
Harbour Vest VIII-Mezzanine	(3.98%)	(2.65%)	(2.01%)	(2.13%)	0.43%
Harbour Vest VIII-Buyout	(2.27%)	0.51%	17.06%	14.97%	15.61%
Harbour Vest VIII-Venture	(2.12%)	(21.62%)	19.35%	18.33%	14.77%
Harbour Vest IX Credit Opportunities	2.14%	12.71%	14.98%	13.49%	13.40%
Harbour Vest IX - Buyout	(3.84%)	(5.81%)	20.25%	20.44%	19.84%
Harbour Vest IX - Venture	(1.20%)	(15.79%)	36.58%	32.08%	24.47%
Harbour Vest X - Venture	(2.01%)	(6.34%)	35.30%	30.83%	24.76%
Harbour Vest X - Buyout	0.86%	7.73%	24.16%	21.57%	21.53%
Harbour Vest XI - Buyout	0.65%	13.54%	30.13%	-	-
Harbour Vest XI - MICRO Buyout	2.73%	32.37%	38.39%	-	-
Harbour Vest XI - Venture	(1.33%)	9.20%	33.77%	-	-
Harbour Vest International VI	14.30%	(8.29%)	13.46%	12.93%	14.42%
Harbour Vest HIPEP VII	(3.34%)	(7.79%)	20.16%	18.13%	15.84%
Pantheon Access	2.90%	-	-	-	-
MSCI ACWI	9.76%	(18.36%)	4.00%	5.23%	8.10%
Timber Composite	0.49%	13.10%	5.53%	3.40%	3.25%
Molpus Woodlands Fund III LP	1.36%	8.44%	6.86%	4.15%	4.03%
Molpus Woodlands Fund IV LP	(0.00%)	18.55%	3.75%	2.41%	2.08%
Molpus Woodlands Fund V LP	(0.16%)	11.19%	6.80%	-	-
NCREIF Timberland Index	4.89%	12.90%	7.51%	5.37%	4.72%
Listed Infrastructure	9.05%	(4.81%)	2.78%	-	-
Cohen & Steers Infrastructure	9.05%	(4.81%)	2.78%	-	-
FTSE GI Core Infr 50/50	9.01%	(4.87%)	1.59%	4.72%	7.45%
Domestic Fixed-Income	2.28%	(15.09%)	(2.63%)	0.43%	1.59%
Segall Bryant & Hamill	1.98%	(12.94%)	(1.97%)	0.71%	1.72%
Western	2.57%	(17.24%)	(3.34%)	0.13%	-
Bimbg Aggregate	1.87%	(13.01%)	(2.71%)	0.02%	0.89%
Bimbg Gov/Credit	1.80%	(13.58%)	(2.57%)	0.21%	1.14%
International Equity	14.13%	(17.87%)	0.70%	1.15%	5.19%
Dodge & Cox Intl Equity	16.01%	(6.78%)	1.90%	1.27%	5.24%
American Fund Europacific Growth	13.78%	(22.72%)	(0.09%)	1.57%	5.28%
American Century Non-US Small Cap	10.24%	(29.90%)	(0.67%)	(0.08%)	4.71%
MSCI ACWI ex US IMI Index	14.15%	(16.58%)	0.20%	0.85%	4.84%
MSCI ACWI ex US	14.28%	(16.00%)	0.07%	0.88%	4.80%
MSCI ACWI ex US Growth	12.89%	(23.05%)	(0.40%)	1.49%	5.17%
ACWI Sm Cap ex US	13.31%	(19.97%)	1.07%	0.67%	5.08%
Real Estate	(2.56%)	0.11%	6.73%	6.50%	6.95%
Cohen & Steers Global REIT	6.58%	(25.31%)	(2.09%)	2.46%	4.09%
Heitman America	(4.77%)	10.34%	11.28%	8.67%	8.58%
Morgan Stanley Prime Property Fund	(3.69%)	6.08%	9.28%	8.39%	8.56%
NAREIT Equity Index	4.14%	(24.95%)	0.20%	4.43%	5.62%
Developed REIT Net Idx	6.85%	(25.10%)	(4.94%)	(0.24%)	1.83%
NFI-ODCE Equal Weight Net	(5.08%)	7.56%	9.72%	8.31%	8.12%
Total Fund	4.60%	(11.69%)	6.06%	6.59%	7.89%
Policy Target	5.42%	(11.46%)	5.17%	6.21%	7.45%
CPI + 4.5%	0.84%	10.76%	9.64%	8.39%	7.87%

Performance Measurement Methodology

The rates of return were calculated by Callan. They are linked time-weighted monthly returns computed on a gross basis before deductions for fees and expenses, except in the case of certain mutual funds whose performance is reported net of fees.

Returns are based on the fair value of securities held at the end of each month, including accrued income, and are recomputed whenever there are cash flows to or from investment accounts. Account valuations are adjusted to take into consideration amounts payable for purchases and receivable from sales. The private equity internal rate of return and the multiples were calculated consistent with the industry's standards. The generalized formula for time-weighted rate of return is: $TWRR = (1 + R_1) * (1 + R_2) * \dots * (1 + R_n) - 1$, where R is the simple return for each time period ($R = (V_e - V_b) / V_b$); where: R is the simple rate of return for a time period (EX: day, quarter, year), V_e is the value of an investment at the end of the measured period, and V_b is the value of an investment at the start of the measured period

* Current Quarter Target = 30.0% Russell 3000 Index, 20.0% Bimbg Aggregate, 20.0% MSCI ACWI xUS IMI, 13.0% Private Equity, 8.0% NCREIF NFI-ODCE Eq Wt Net, 5.0% FTSE GI Core Infr 50/50 N, 2.0% FTSE EP/NA Developed and 2.0% NCREIF Timberland Index.

** Domestic Equity Target = 80% S&P 500 and 20% Russell 2000 through June 2014; thereafter the Target represents 70% S&P 500 and 30% Russell 2500.

Investment Manager Returns

The table below details the rates of return for the Fund's investment managers over various time periods ended December 31, 2022. Negative returns are shown in red, positive returns in black. Returns for one year or greater are annualized. The first set of returns for each asset class represents the composite returns for all the fund's accounts for that asset class.

Returns for Periods Ended December 31, 2022

	Last 10 Years	Last 15 Years	Last 20 Years	Last 25 Years	Last 34-3/4 Years
Domestic Equity	12.31%	8.69%	9.76%	-	-
Russell 3000 Index	12.13%	8.66%	9.88%	7.68%	10.34%
Domestic Equity Target**	11.82%	8.48%	9.73%	7.58%	-
Large Cap Equity	12.63%	8.90%	9.72%	6.77%	7.98%
BlackRock	12.61%	8.89%	-	-	-
S&P 500	12.56%	8.81%	9.80%	7.64%	10.42%
Small/Mid Cap Equity	11.28%	8.03%	9.84%	-	-
Smith Graham & Co.	12.01%	9.92%	10.91%	-	-
Russell 2500 Value Index	8.93%	7.45%	9.56%	8.33%	10.62%
Russell 2500 Index	10.03%	8.10%	10.26%	8.46%	10.43%
Private Equity	16.66%	11.99%	-	-	-
Abbott Capital	2.32%	2.47%	-	-	-
Abbott Capital VI	15.20%	-	-	-	-
Harbour Vest VII-Mezzanine	4.32%	4.78%	3.62%	-	-
Harbour Vest VII-Buyout	4.61%	4.43%	-	-	-
Harbour Vest VII-Venture	2.22%	3.13%	-	-	-
Harbour Vest VIII-Mezzanine	3.13%	3.47%	-	-	-
Harbour Vest VIII-Buyout	15.89%	11.51%	-	-	-
Harbour Vest VIII-Venture	15.67%	11.90%	-	-	-
Harbour Vest IX - Buyout	18.27%	-	-	-	-
Harbour Vest IX - Credit Opportunities F	13.75%	-	-	-	-
Harbour Vest IX - Venture	23.36%	-	-	-	-
Harbour Vest Internatal PEP VI	13.02%	-	-	-	-
MSCI ACWI	7.98%	4.84%	8.04%	-	-
Timber Composite	4.53%	-	-	-	-
Molpus Woodlands Fund III LP	5.12%	-	-	-	-
NCREIF Timberland Index	5.80%	4.74%	6.98%	6.26%	10.33%
Domestic Fixed-Income	1.53%	3.45%	3.95%	4.59%	5.67%
Segall Bryant & Hamill	1.70%	3.41%	3.92%	4.64%	-
Blmbg Aggregate	1.06%	2.66%	3.10%	3.97%	5.36%
Blmbg Gov/Credit	1.16%	2.77%	3.18%	4.06%	5.42%
International Equity	5.09%	2.28%	6.34%	4.59%	-
Dodge & Cox Intl Equity	4.83%	2.54%	-	-	-
MSCI ACWI ex US IMI Index	3.98%	1.74%	7.03%	4.98%	-
MSCI ACWI ex US	3.80%	1.52%	6.73%	-	-
MSCI ACWI ex US Growth	4.68%	2.10%	6.82%	-	-
ACWI Sm Cap ex US	5.24%	3.33%	9.13%	6.87%	-
Real Estate	8.18%	4.89%	7.38%	7.74%	6.95%
Cohen & Steers Global REIT	4.89%	-	-	-	-
Heitman America	10.15%	-	-	-	-
NAREIT Equity Index	7.10%	6.64%	9.42%	8.16%	9.62%
Developed REIT Net Idx	2.99%	2.09%	-	-	-
NFI-ODCE Equal Weight Net	9.46%	5.38%	7.40%	7.77%	6.37%
Total Fund	7.90%	6.35%	7.53%	6.78%	8.15%
Policy Target	7.27%	5.93%	7.15%	6.60%	8.17%
CPI + 4.5%	7.07%	6.84%	7.02%	6.97%	-

Performance Measurement Methodology

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* Current Quarter Target = 30.0% Russell 3000 Index, 20.0% Blmbg Aggregate, 20.0% MSCI ACWI xUS IMI, 13.0% Private Equity, 8.0% NCREIF NFI-ODCE Eq Wt Net, 5.0% FTSE GI Core Infr 50/50 N, 2.0% FTSE EP/NA Developed and 2.0% NCREIF Timberland Index.

** Domestic Equity Target = 80% S&P 500 and 20% Russell 2000 through June 2014; thereafter the Target represents 70% S&P 500 and 30% Russell 2500.

BlackRock

Period Ended December 31, 2022

Investment Philosophy

BlackRock index strategies are designed to provide the best possible tracking error versus their respective benchmarks with minimal transaction costs. BlackRock account funded 11/4/04. First full quarter is 1st Quarter 2005.

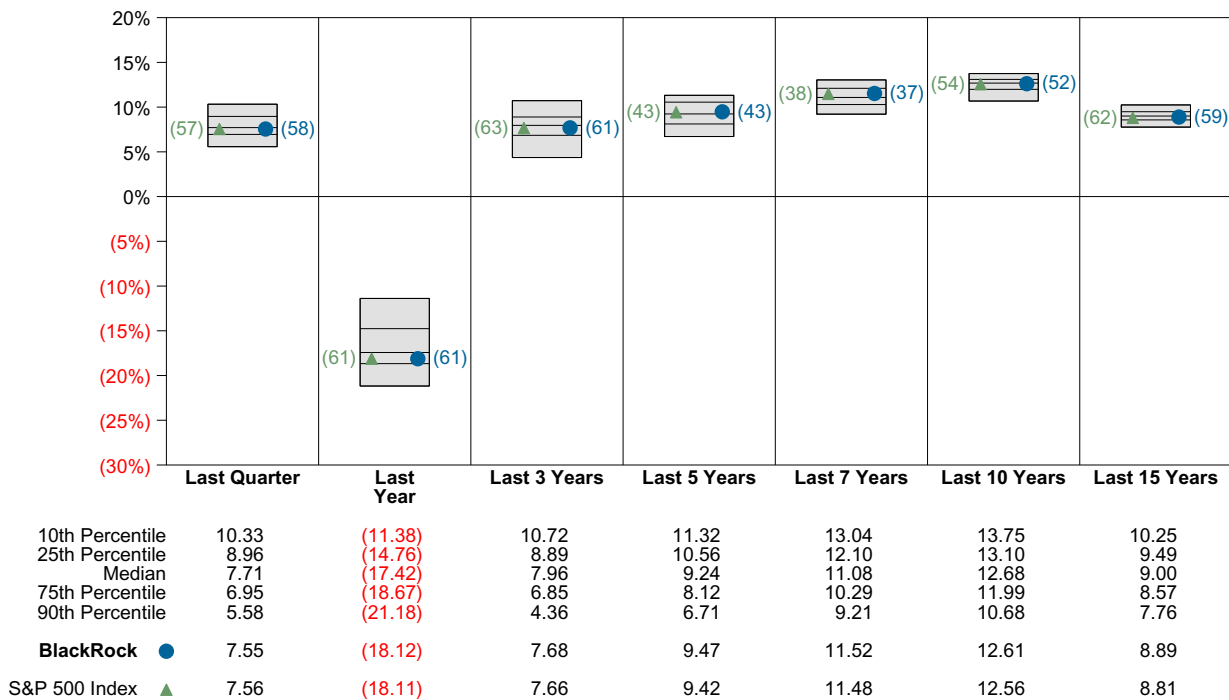
Quarterly Summary and Highlights

- BlackRock's portfolio posted a 7.55% return for the quarter placing it in the 58 percentile of the Callan Large Cap Core group for the quarter and in the 61 percentile for the last year.
- BlackRock's portfolio underperformed the S&P 500 Index by 0.01% for the quarter and underperformed the S&P 500 Index for the year by 0.01%.

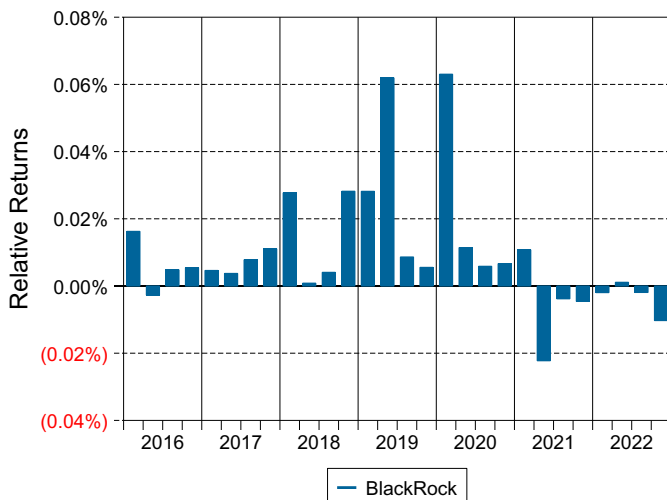
Quarterly Asset Growth

Beginning Fair Value	\$94,879,919
Net New Investment	\$0
Investment Gains/(Losses)	\$7,163,429
Ending Fair Value	\$102,043,349

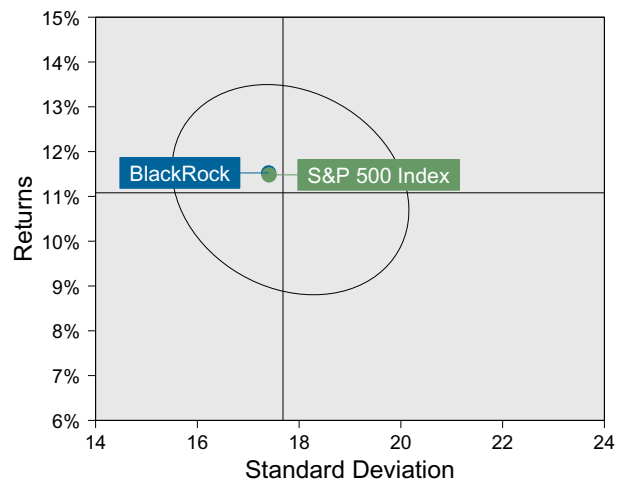
Performance vs Callan Large Cap Core (Gross)



Relative Return vs S&P 500 Index



Callan Large Cap Core (Gross) Annualized Seven Year Risk vs Return



[See page 69 for performance measurement method]

Smith Graham & Co. Period Ended December 31, 2022

Investment Philosophy

Smith Graham & Co. believes that attractive returns can be achieved within the small-mid cap universe by combining a systematic quantitative approach with a traditional fundamental analysis. The SMID Cap Value investment process is designed to create a diversified portfolio across the Russell Global Sectors consisting of small-mid cap U.S. securities with attractive valuations that also exhibit positive earning trends. The strategy is designed to provide the asset class exposure with value added through stock selection. The mandate changed from Small Cap Value to SMID Cap Value on 7/19/2014. The Value Blended Benchmark reflects the Russell 2000 Value through June 2014 and Russell 2500 Value thereafter. The SMID Blended Benchmark reflects the Russell 2000 through June 2014 and Russell 2500 thereafter.

Quarterly Summary and Highlights

- Smith Graham & Co.'s portfolio posted a 10.88% return for the quarter placing it in the 30 percentile of the Callan Small/MidCap Broad group for the quarter and in the 31 percentile for the last year.
- Smith Graham & Co.'s portfolio outperformed the Value Blended Benchmark by 1.67% for the quarter and outperformed the Value Blended Benchmark for the year by 0.35%.

Quarterly Asset Growth

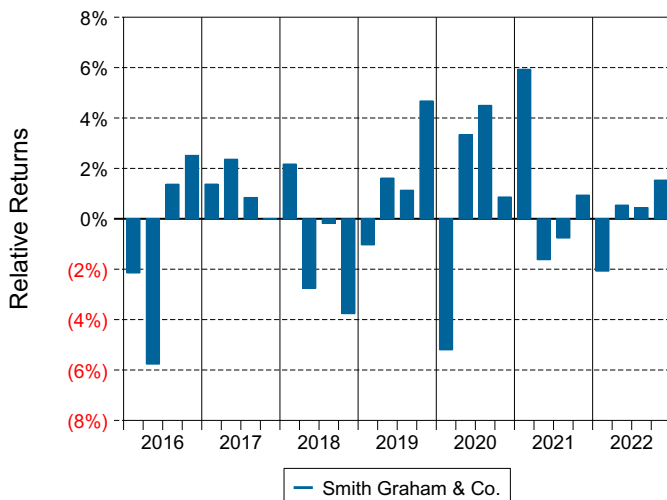
Beginning Fair Value	\$37,216,836
Net New Investment	\$0
Investment Gains/(Losses)	\$4,050,950
Ending Fair Value	\$41,267,785

Performance vs Callan Small/MidCap Broad (Gross)

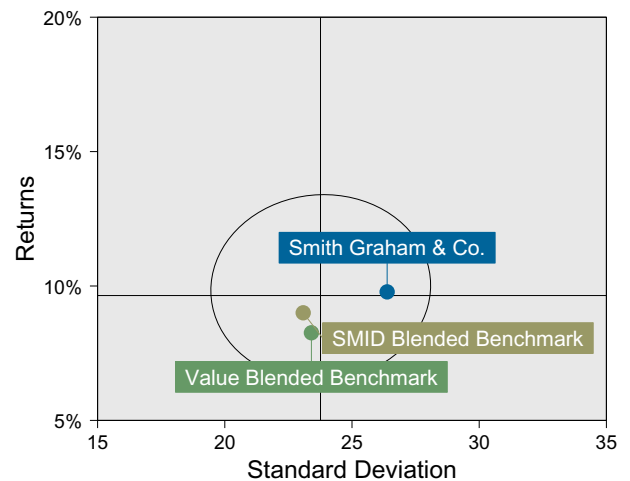


		Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 7 Years	Last 10 Years	Last 15 Years
10th Percentile		12.93	(7.16)	10.26	10.42	12.60	13.29	10.75
25th Percentile		11.26	(11.78)	8.42	8.47	11.25	12.01	10.36
Median		9.75	(16.86)	6.01	6.85	9.64	10.76	9.09
75th Percentile		6.66	(24.22)	3.56	5.27	8.52	9.94	8.47
90th Percentile		3.79	(30.85)	2.49	3.91	7.34	8.90	7.88
Smith Graham & Co.	● A	10.88	(12.73)	8.02	6.76	9.78	12.01	9.92
SMID Blended Benchmark	■ B	7.43	(18.37)	5.00	5.89	9.00	9.90	7.74
Value Blended Benchmark	▲	9.21	(13.08)	5.22	4.75	8.26	8.65	6.92

Relative Return vs Value Blended Benchmark



Callan Small/MidCap Broad (Gross) Annualized Seven Year Risk vs Return



[See page 69 for performance measurement method]

Dodge & Cox Intl Equity

Period Ended December 31, 2022

Investment Philosophy

Dodge & Cox's investment process is fundamentally based, focused on identifying temporarily out-of-favor stocks with favorable long-term growth potential. The firm's process used to identify investment ideas has remained consistent since its founding in 1930 and is based on the following core principles: 1) fundamental analysis of future earnings prospects, 2) a strict valuation discipline, and 3) a long-term investment horizon. Dodge & Cox searches for potential stock ideas with market capitalizations greater than \$1 billion and valuations in the bottom half of the of non-U.S. universe. The Fund generally holds between 70-100 securities and typically has exposure to emerging markets that ranges from 15-25%. The Dodge & Cox fund was inception 2/07. The first full quarter of performance was 2nd Quarter, 2007.

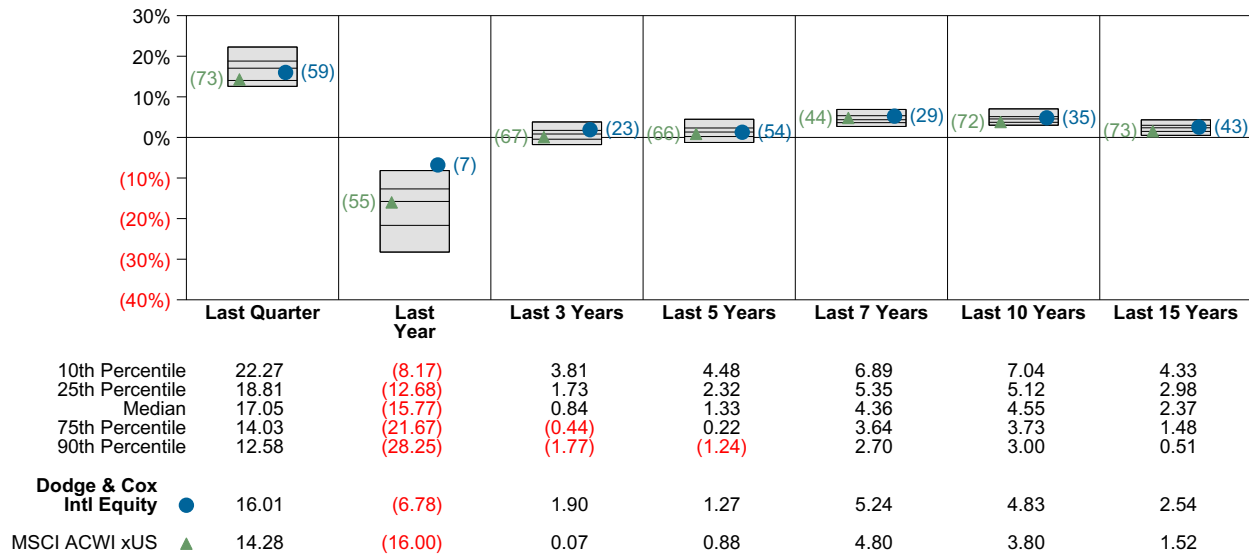
Quarterly Summary and Highlights

- Dodge & Cox Intl Equity's portfolio posted a 16.01% return for the quarter placing it in the 59 percentile of the Callan Non US Equity Mutual Funds group for the quarter and in the 7 percentile for the last year.
- Dodge & Cox Intl Equity's portfolio outperformed the MSCI ACWI xUS by 1.72% for the quarter and outperformed the MSCI ACWI xUS for the year by 9.22%.

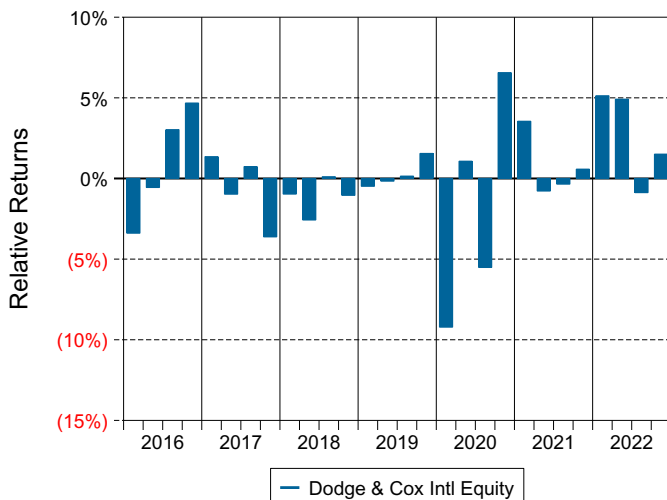
Quarterly Asset Growth

Beginning Fair Value	\$35,875,410
Net New Investment	\$0
Investment Gains/(Losses)	\$5,742,553
Ending Fair Value	\$41,617,963

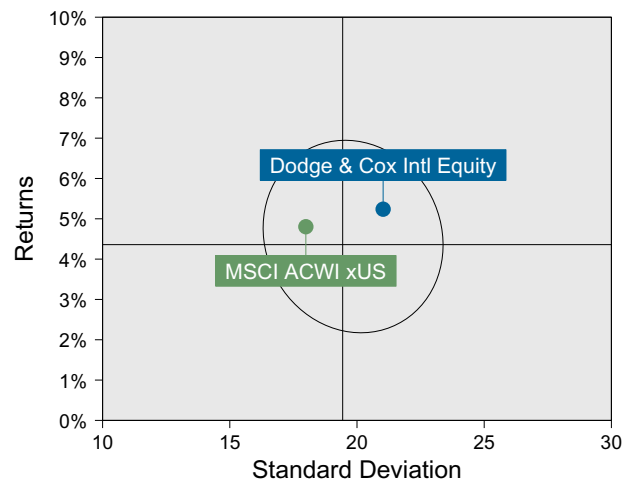
Performance vs Callan Non US Equity Mutual Funds (Institutional Net)



Relative Return vs MSCI ACWI xUS



Callan Non US Equity Mutual Funds (Institutional Net) Annualized Seven Year Risk vs Return



[See page 69 for performance measurement method]

American Funds Europacific Growth Period Ended December 31, 2022

Investment Philosophy

The Fund is highly diversified and includes multiple autonomous investment sleeves. In eleven of the sleeves, the portfolio managers have full autonomy in selecting securities. In the two remaining sleeves, a group of senior research analysts are directly responsible for stock selection. While the sleeves range in style from value to growth, in aggregate the Fund has a significant growth bias. Over the last ten years, this bias has slowly become more pronounced but should not be considered a permanent attribute. Although we consider this Fund to be a core option, it is not benchmark-aware. It may have significant deviations from the benchmark from both a country and sector perspective and will typically have a significant exposure to emerging markets. Although this Fund could serve as a standalone option for smaller accounts, we would recommend clients utilize this Fund in a multi-manager non-US structure with diversifying strategies. The Europacific Growth fund was inceptioned in the plan in April 2014. The first full quarter of performance was 3rd quarter 2014. Performance prior to this date reflects Europacific Growth mutual fund.

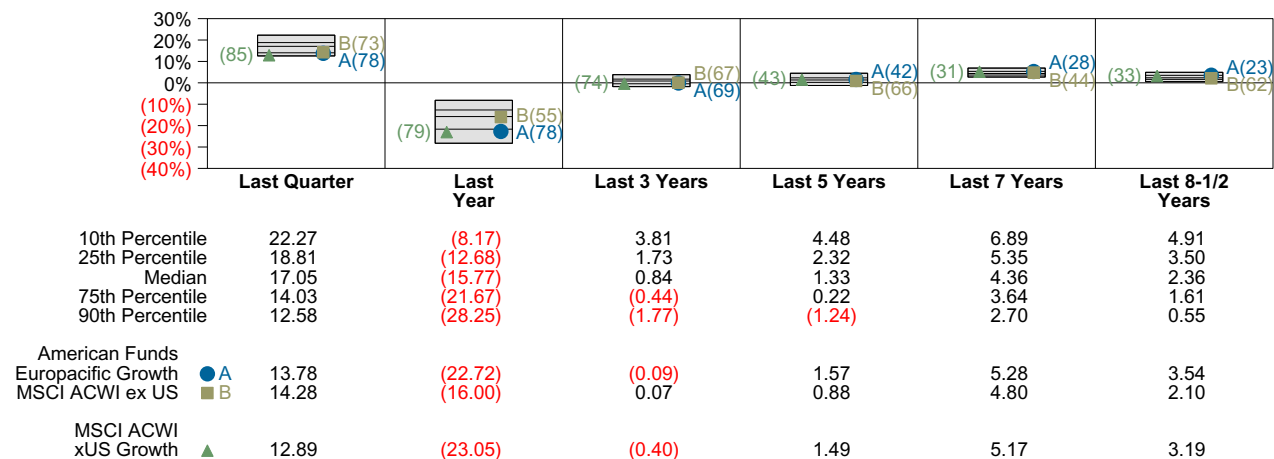
Quarterly Summary and Highlights

- American Funds Europacific Growth's portfolio posted a 13.78% return for the quarter placing it in the 78 percentile of the Callan Non US Equity Mutual Funds group for the quarter and in the 78 percentile for the last year.
- American Funds Europacific Growth's portfolio outperformed the MSCI ACWI xUS Growth by 0.90% for the quarter and outperformed the MSCI ACWI xUS Growth for the year by 0.33%.

Quarterly Asset Growth

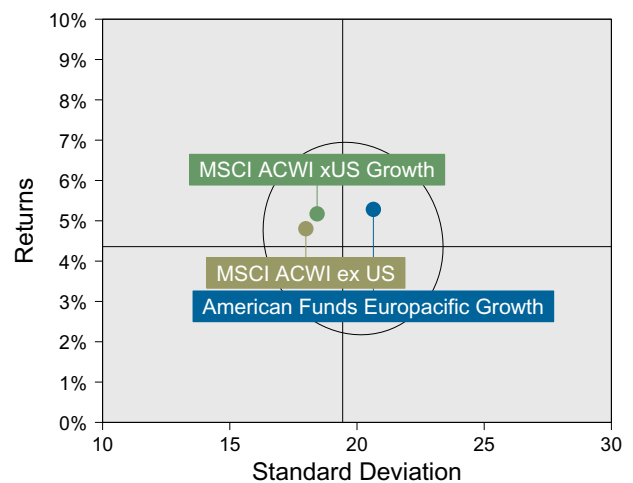
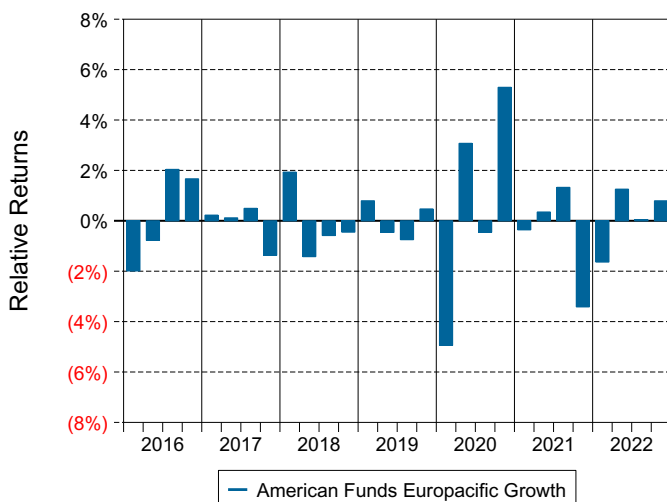
Beginning Fair Value	\$30,516,467
Net New Investment	\$0
Investment Gains/(Losses)	\$4,206,564
Ending Fair Value	\$34,723,032

Performance vs Callan Non US Equity Mutual Funds (Institutional Net)



Callan Non US Equity Mutual Funds (Institutional Net) Annualized Seven Year Risk vs Return

Relative Return vs MSCI ACWI xUS Growth



[See page 69 for performance measurement method]

American Century Non-US Small Cap Period Ended December 31, 2022

Investment Philosophy

American Century Non-US Small Cap is a diversified fundamental aggressive growth strategy. It seeks to identify the growth acceleration in earnings and revenues, rather than the absolute level of growth. Though year-over-year tracking error can be high given the strategys aggressive growth style and high momentum exposure, the strategy has delivered positive relative returns over the long term. The American Century Non-US Small Cap Fund was inceptioned May 2014. The first full quarter of performance was 3rd quarter 2014. Performance prior to this date reflects the American Century Non-US Small Cap composite.

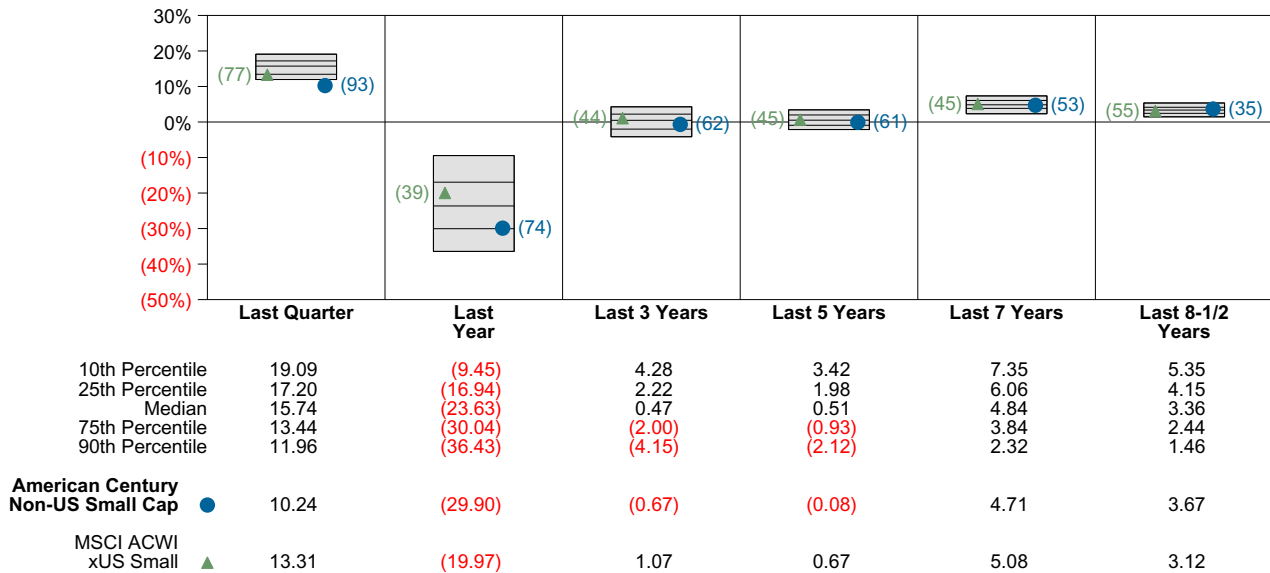
Quarterly Summary and Highlights

- American Century Non-US Small Cap's portfolio posted a 10.24% return for the quarter placing it in the 93 percentile of the Callan International Small Cap Mut Funds group for the quarter and in the 74 percentile for the last year.
- American Century Non-US Small Cap's portfolio underperformed the MSCI ACWI xUS Small by 3.06% for the quarter and underperformed the MSCI ACWI xUS Small for the year by 9.92%.

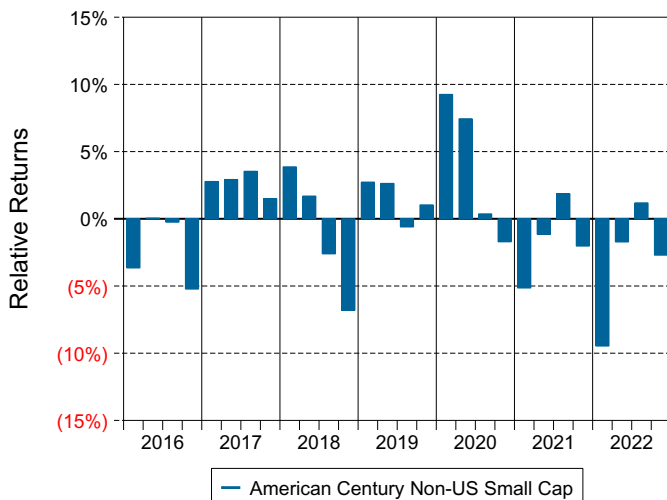
Quarterly Asset Growth

Beginning Fair Value	\$14,610,842
Net New Investment	\$0
Investment Gains/(Losses)	\$1,496,830
Ending Fair Value	\$16,107,672

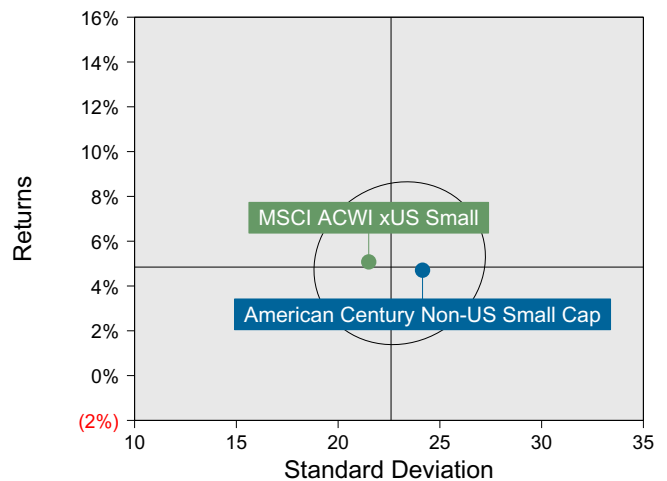
Performance vs Callan International Small Cap Mut Funds (Institutional Net)



Relative Return vs MSCI ACWI xUS Small



Callan International Small Cap Mut Funds (Institutional Net) Annualized Seven Year Risk vs Return



[See page 69 for performance measurement method]

Segall Bryant & Hamill Period Ended December 31, 2022

Investment Philosophy

Segall Bryant focuses exclusively on managing investment grade fixed income portfolios. Security selection is based on the firm's bottom-up, fundamental research. This bottom-up research also drives sector and credit quality weightings. Duration is kept within 10% of the index. The investable universe consists of securities rated investment grade or better by S&P and Moody's, dollar denominated issues, SEC registered, Treasury, Agency, Mortgage-Backed, Asset-Backed, Corporate, Cash, Yankee, Sovereign and Taxable Municipals.

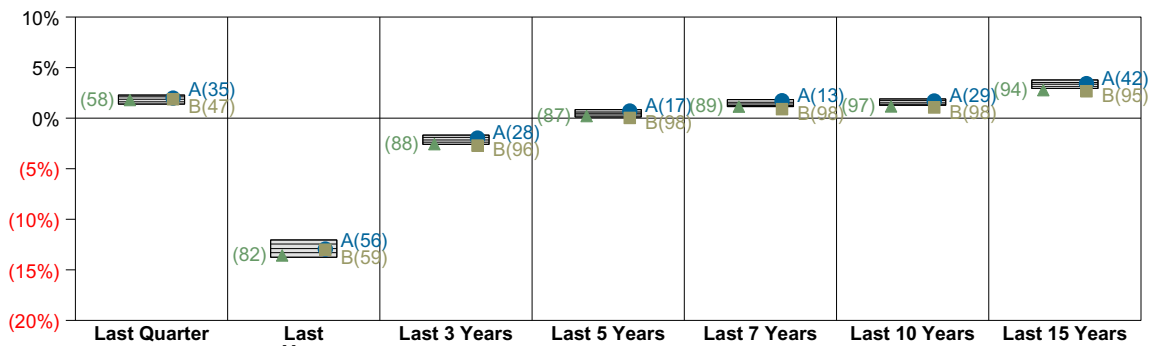
Quarterly Summary and Highlights

- Segall Bryant & Hamill's portfolio posted a 1.98% return for the quarter placing it in the 35 percentile of the Callan Core Bond Fixed Income group for the quarter and in the 56 percentile for the last year.
- Segall Bryant & Hamill's portfolio outperformed the Blmbg Gov/Credit by 0.19% for the quarter and outperformed the Blmbg Gov/Credit for the year by 0.63%.

Quarterly Asset Growth

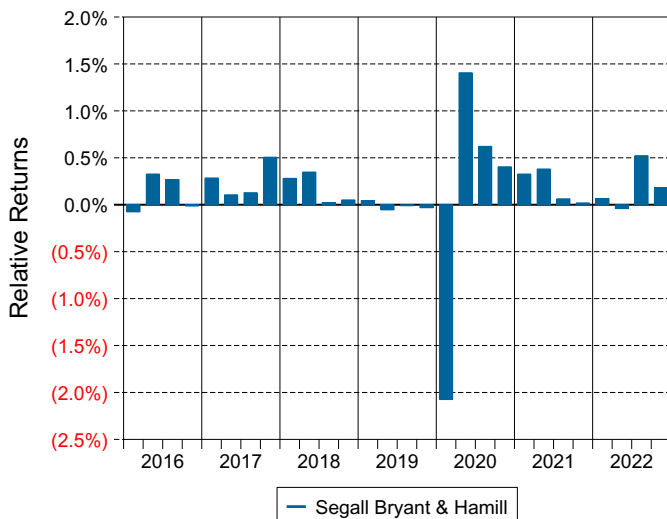
Beginning Fair Value	\$61,831,119
Net New Investment	\$-571,235
Investment Gains/(Losses)	\$1,219,094
Ending Fair Value	\$62,478,978

Performance vs Callan Core Bond Fixed Income (Gross)

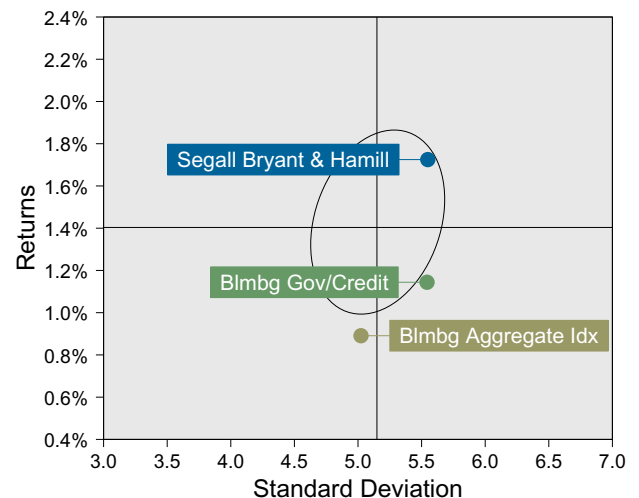


	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 7 Years	Last 10 Years	Last 15 Years
10th Percentile	2.28	(12.04)	(1.68)	0.84	1.84	1.90	3.78
25th Percentile	2.11	(12.45)	(1.90)	0.61	1.57	1.74	3.52
Median	1.87	(12.90)	(2.16)	0.48	1.40	1.52	3.35
75th Percentile	1.62	(13.30)	(2.38)	0.31	1.25	1.37	3.11
90th Percentile	1.39	(13.75)	(2.59)	0.12	1.14	1.28	2.93
Segall Bryant & Hamill	● A 1.98	(12.94)	(1.97)	0.71	1.72	1.70	3.41
Blmbg Aggregate Idx	■ B 1.87	(13.01)	(2.71)	0.02	0.89	1.06	2.66
Blmbg Gov/Credit	▲ 1.80	(13.58)	(2.57)	0.21	1.14	1.16	2.77

Relative Return vs Blmbg Gov/Credit



Callan Core Bond Fixed Income (Gross) Annualized Seven Year Risk vs Return



[See page 69 for performance measurement method]

Western Period Ended December 31, 2022

Investment Philosophy

Western's Core Plus Fund takes a long-term approach to uncovering value and relies heavily on its research intensive process and a deep bench of research analysts. Value is derived primarily through sector allocation and security selection, though the team also takes active duration and yield curve positions. The Fund can purchase up to 20% in high yield and non-US dollar denominated securities, including emerging markets debt. The Western Core Plus Fund was inceptioned January 2017. The first full quarter of performance was 2nd quarter 2017. Performance prior to this date reflects the Western Core Plus commingled fund.

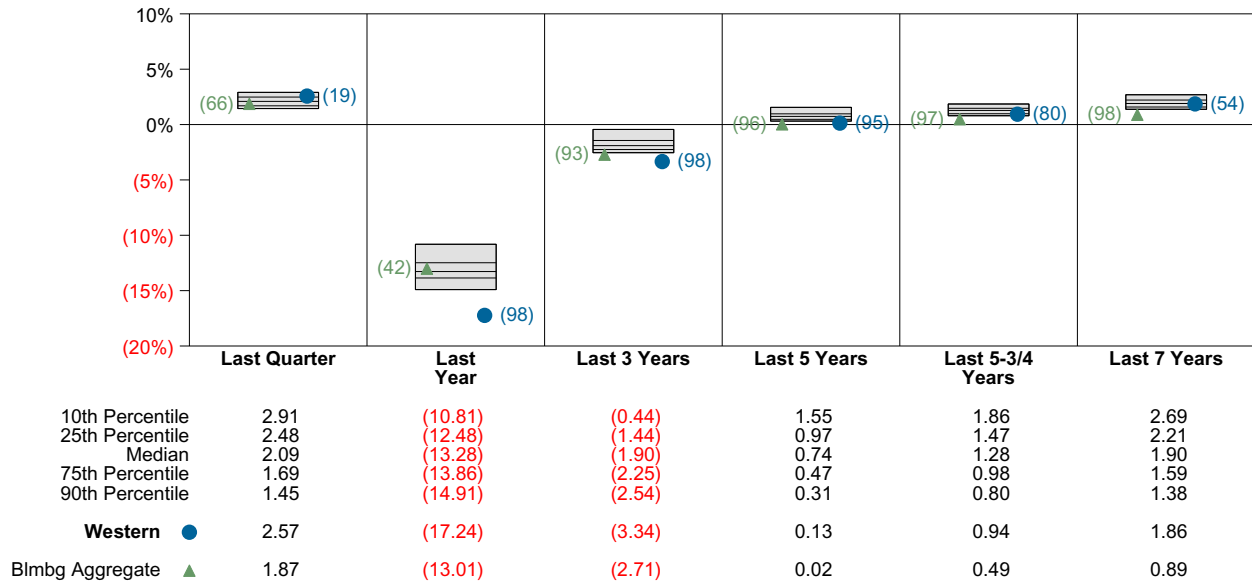
Quarterly Summary and Highlights

- Western's portfolio posted a 2.57% return for the quarter placing it in the 19 percentile of the Callan Core Plus Fixed Income group for the quarter and in the 98 percentile for the last year.
- Western's portfolio outperformed the Blmbg Aggregate by 0.70% for the quarter and underperformed the Blmbg Aggregate for the year by 4.23%.

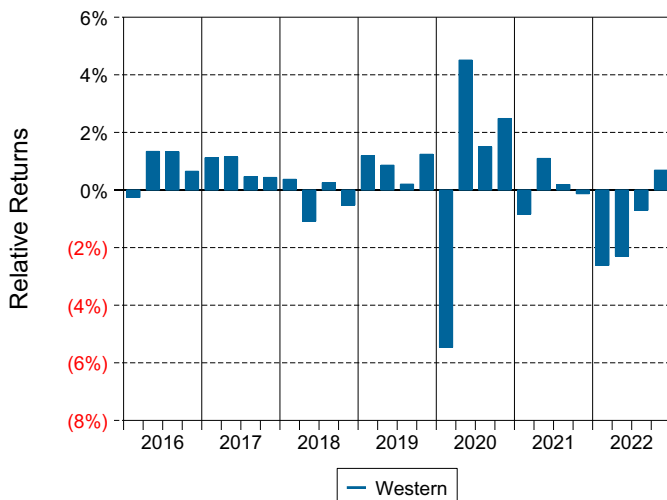
Quarterly Asset Growth

Beginning Fair Value	\$60,475,535
Net New Investment	\$-1,500,000
Investment Gains/(Losses)	\$1,557,626
Ending Fair Value	\$60,533,161

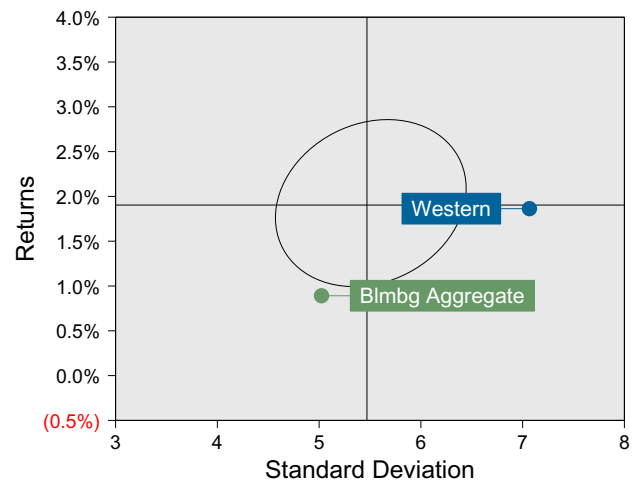
Performance vs Callan Core Plus Fixed Income (Gross)



Relative Return vs Blmbg Aggregate



Callan Core Plus Fixed Income (Gross) Annualized Seven Year Risk vs Return



[See page 69 for performance measurement method]

Heitman America

Period Ended December 31, 2022

Investment Philosophy

Heitman America Real Estate Trust, L.P. is a Delaware limited partnership, organized as a perpetual-life, core open-ended commingled fund to invest in real estate assets. The Fund seeks to deliver to its investors a combination of current income return and moderate appreciation. In acquiring individual assets for HART, Heitman adheres to the following principles: Buy in major markets and build a portfolio that is diversified by property type, economic exposure and geography. Buy assets with strong site attributes, such as proximity to amenities, complementary land uses and transportation networks. Buy well-constructed assets with features that will continue to appeal to tenants over long periods of time. Heitman was incepted 6/12. The first full quarter of performance was 3rd Quarter, 2012. Historical data reflects Heitman America Real Estate Trust.

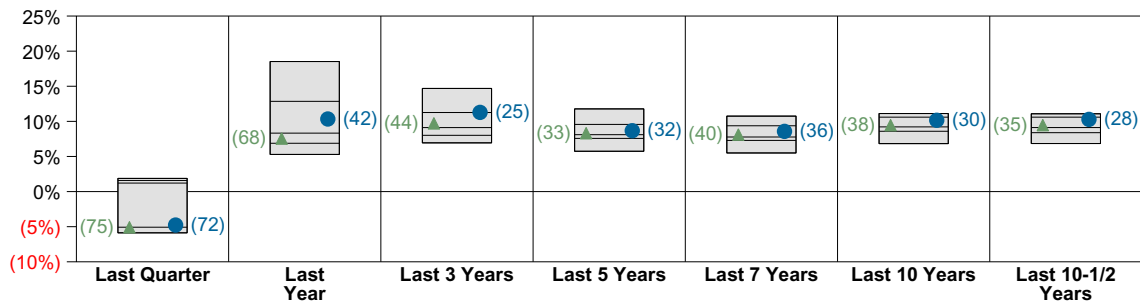
Quarterly Summary and Highlights

- Heitman America's portfolio posted a (4.77)% return for the quarter placing it in the 72 percentile of the Callan Open End Core Cmmingled Real Est group for the quarter and in the 42 percentile for the last year.
- Heitman America's portfolio outperformed the NFI-ODCE Equal Weight Net by 0.32% for the quarter and outperformed the NFI-ODCE Equal Weight Net for the year by 2.78%.

Quarterly Asset Growth

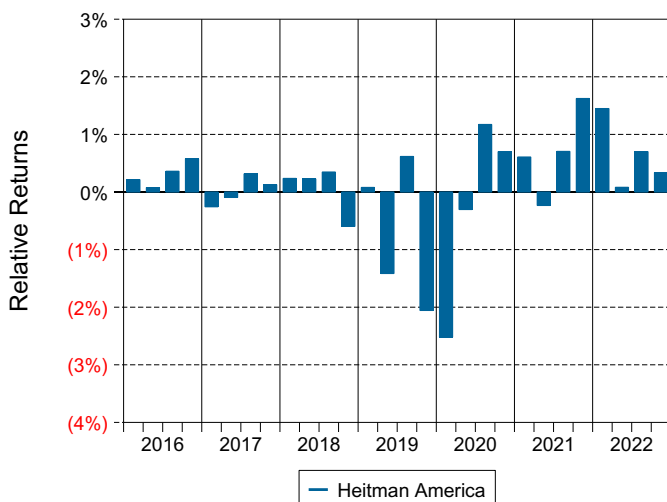
Beginning Fair Value	\$27,925,485
Net New Investment	\$-166,496
Investment Gains/(Losses)	\$-1,322,889
Ending Fair Value	\$26,436,100

Performance vs Callan Open End Core Cmmingled Real Est (Net)

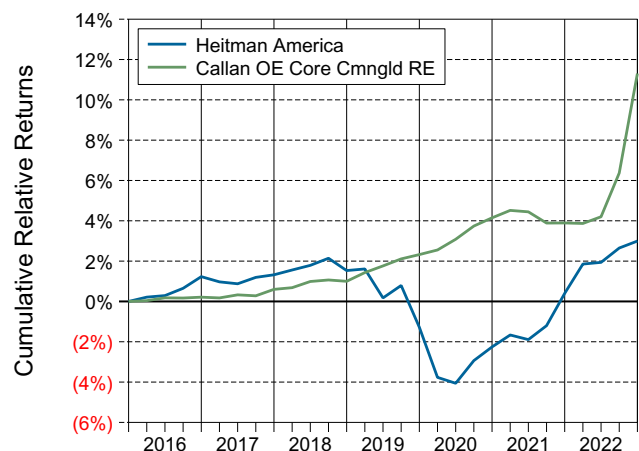


	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 7 Years	Last 10 Years	Last 10-1/2 Years
10th Percentile	1.88	18.52	14.69	11.78	10.75	11.11	11.08
25th Percentile	1.58	12.85	11.26	9.57	9.37	10.60	10.60
Median	1.21	8.33	9.11	8.11	7.77	9.21	9.12
75th Percentile	(5.07)	6.88	8.01	7.58	7.29	8.59	8.39
90th Percentile	(5.88)	5.29	6.94	5.74	5.50	6.83	6.84
Heitman America ●	(4.77)	10.34	11.28	8.67	8.58	10.15	10.28
NFI-ODCE Equal Weight Net ▲	(5.08)	7.56	9.72	8.31	8.12	9.46	9.46

Relative Returns vs NFI-ODCE Equal Weight Net



Cumulative Returns vs NFI-ODCE Equal Weight Net



[See page 69 for performance measurement method]

Morgan Stanley Prime Property Period Ended December 31, 2022

Investment Philosophy

The overall strategy of Prime Property Fund is to acquire and own well located, high quality, income-producing commercial real estate in markets with proven investor demand on resale. The Fund is diversified across property types and geographic regions and targets properties with high occupancy levels to provide a relatively stable income component. Morgan Stanley was incepted 6/15. The first full quarter of performance was 3rd Quarter, 2015. Historical data reflects Morgan Stanley Prime Property Fund.

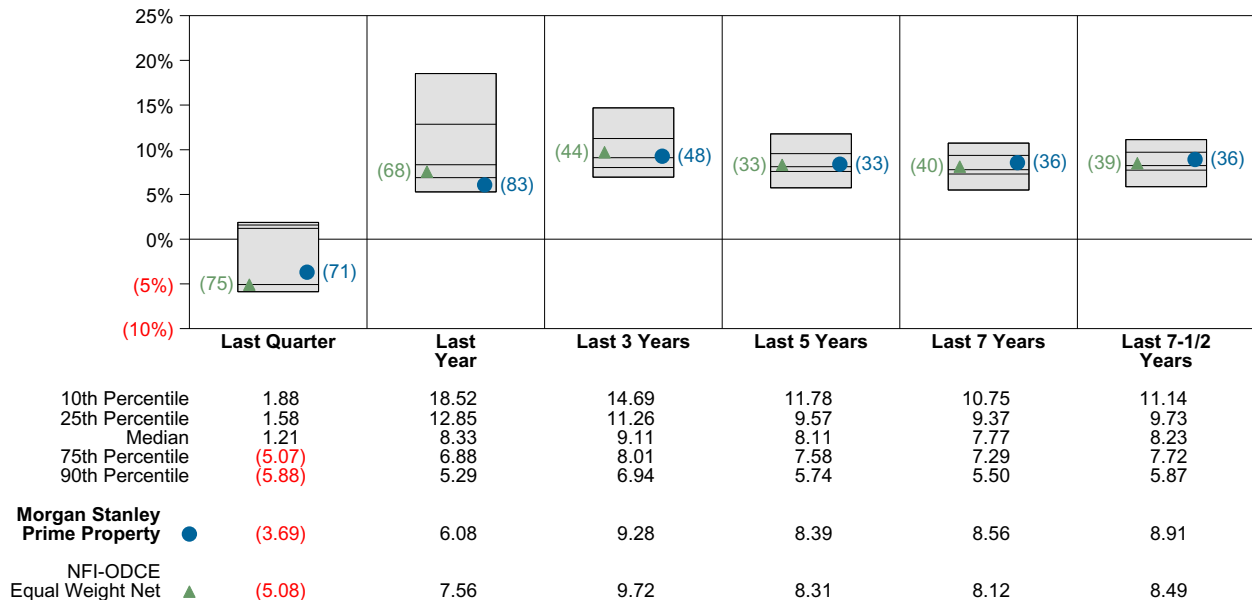
Quarterly Summary and Highlights

- Morgan Stanley Prime Property's portfolio posted a (3.69)% return for the quarter placing it in the 71 percentile of the Callan Open End Core Cmmingled Real Est group for the quarter and in the 83 percentile for the last year.
- Morgan Stanley Prime Property's portfolio outperformed the NFI-ODCE Equal Weight Net by 1.39% for the quarter and underperformed the NFI-ODCE Equal Weight Net for the year by 1.48%.

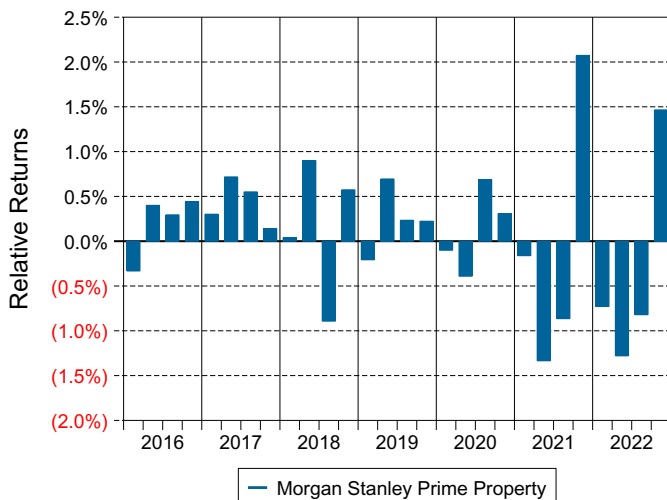
Quarterly Asset Growth

Beginning Fair Value	\$23,504,095
Net New Investment	\$-232,360
Investment Gains/(Losses)	\$-867,673
Ending Fair Value	\$22,404,063

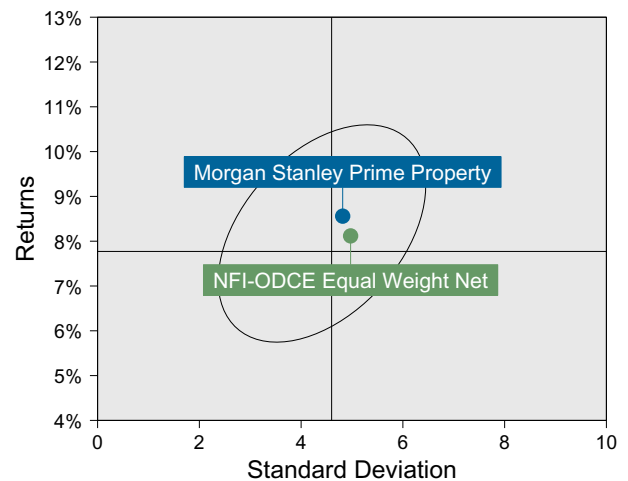
Performance vs Callan Open End Core Cmmingled Real Est (Net)



Relative Returns vs NFI-ODCE Equal Weight Net



Callan Open End Core Cmmingled Real Est (Net) Annualized Seven Year Risk vs Return



[See page 69 for performance measurement method]

Cohen & Steers Global REIT Period Ended December 31, 2022

Investment Philosophy

Cohen & Steers U.S. Realty Total Return strategy focuses on REITs and other publicly traded real estate securities within the United States that have superior growth prospects, attractive valuations and the ability to generate income from operations. The portfolio invests in real estate companies with strong market positions, superior management teams and first-tier properties. The strategy seeks to outperform client benchmarks and to maximize total return with a balance of capital appreciation and current income. Cohen & Steers was incepted 6/11. The first full quarter of performance was 3rd Quarter, 2011. Historical data reflects Cohen & Steers Global REIT Fund.

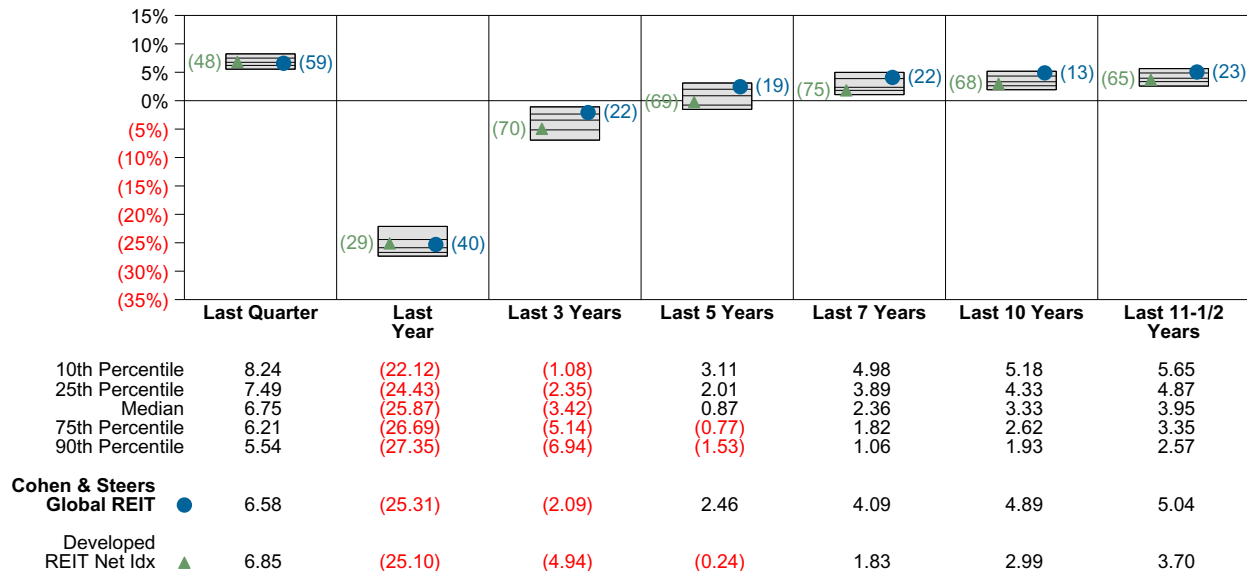
Quarterly Summary and Highlights

- Cohen & Steers Global REIT's portfolio posted a 6.58% return for the quarter placing it in the 59 percentile of the Callan Global Real Estate Mutual Funds group for the quarter and in the 40 percentile for the last year.
- Cohen & Steers Global REIT's portfolio underperformed the Developed REIT Net Idx by 0.27% for the quarter and underperformed the Developed REIT Net Idx for the year by 0.21%.

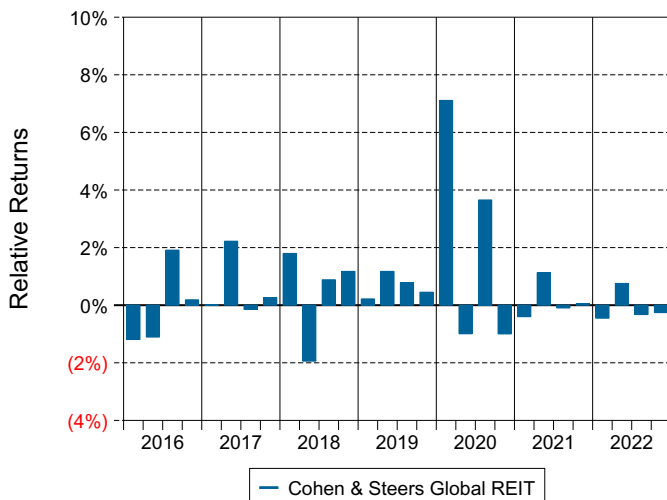
Quarterly Asset Growth

Beginning Fair Value	\$9,599,468
Net New Investment	\$0
Investment Gains/(Losses)	\$631,641
Ending Fair Value	\$10,231,109

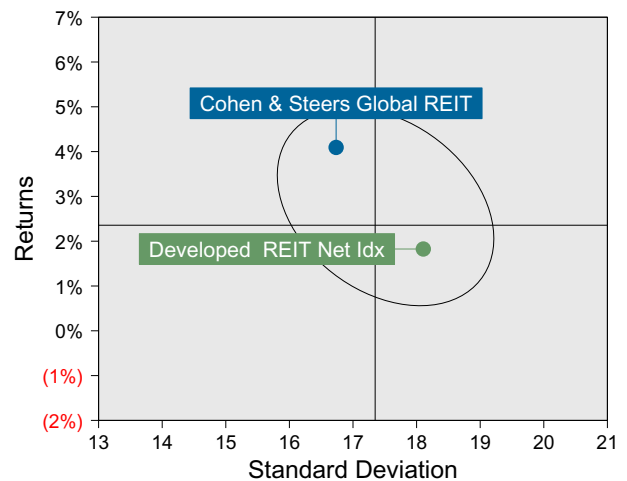
Performance vs Callan Global Real Estate Mutual Funds (Net)



Relative Return vs Developed REIT Net Idx



Callan Global Real Estate Mutual Funds (Net) Annualized Seven Year Risk vs Return



[See page 69 for performance measurement method]

Private Equity - MGR Data
Private Equity Investment Portfolio
Quarterly Changes in Market Value

	Beg. of Period Market	+	Capital Contri- butions	+	Appre- ciation	-	Distri- butions	=	End of Period Market
12/2014	38,035,516		2,295,674		1,589,967		2,752,094		39,169,063
03/2015	39,169,063		1,720,000		708,992		2,498,353		39,099,702
06/2015	39,099,702		2,524,293		1,513,486		2,903,837		40,233,644
09/2015	40,233,644		2,605,000		(56,706)		2,174,986		40,606,952
12/2015	40,606,952		3,194,500		931,900		3,236,670		41,496,682
03/2016	41,496,682		2,156,352		(31,868)		1,729,988		41,891,178
06/2016	41,891,178		2,910,000		743,580		1,427,227		44,117,531
09/2016	44,117,531		1,742,409		1,273,378		1,911,887		45,271,431
12/2016	45,271,431		2,925,032		1,046,359		2,296,227		46,946,595
03/2017	46,946,595		1,673,071		1,662,837		1,984,830		48,297,673
06/2017	48,297,673		2,231,684		2,407,667		1,972,930		50,964,094
09/2017	50,964,094		3,560,018		2,176,994		2,666,938		54,034,168
12/2017	54,034,168		4,352,393		2,941,099		5,495,944		55,831,716
03/2018	55,831,716		2,316,563		2,306,088		2,229,335		58,225,033
06/2018	58,225,033		2,958,438		2,852,570		2,719,867		61,316,174
09/2018	61,316,174		1,881,166		2,572,035		2,531,048		63,238,327
12/2018	63,238,327		3,758,463		1,274,311		3,779,537		64,491,564
03/2019	64,491,564		1,436,250		2,584,388		1,971,447		66,540,754
06/2019	66,540,754		633,750		3,585,719		1,151,324		69,608,898
09/2019	69,608,898		1,940,000		1,513,624		2,772,277		70,290,245
12/2019	70,290,245		2,087,350		3,743,255		3,732,322		72,388,528
03/2020	72,388,528		1,811,250		(6,875,144)		1,148,673		66,175,962
06/2020	66,175,962		1,668,750		7,684,261		825,670		74,703,303
09/2020	74,703,303		550,827		9,364,650		1,260,590		83,358,189
12/2020	83,358,189		1,385,648		14,206,040		5,154,636		93,795,241
03/2021	93,795,241		509,863		10,875,578		3,331,509		101,849,173
06/2021	101,849,173		1,071,250		10,315,238		5,767,630		107,468,030
09/2021	107,468,030		902,500		8,181,604		8,011,687		108,540,448
12/2021	108,540,448		1,073,750		4,284,997		9,283,601		104,615,594
03/2022	104,615,594		1,396,250		(2,977,382)		4,859,609		98,174,853
06/2022	98,174,853		1,940,000		(6,213,306)		2,053,322		91,848,226
09/2022	91,848,226		339,077		(1,665,553)		3,826,531		86,695,219
12/2022	86,695,219		55,411		(0)		4,650,769		82,099,861
	0		107,902,622		100,366,310		126,219,070		82,099,861

Returns

MSCI ACWI Cumulative TWR = 8.04%
Net Portfolio Cumulative IRR = 12.20%

Ratios

Capital Account = \$82,099,861
Total Value = \$208,318,931
Paid In Capital = \$107,902,622
TVPI Investment Multiple (Total Value/Paid In Capital) = 1.93x
DPI Realization Multiple (Distributions/Paid In Capital) = 1.17x
RVPI Residual Multiple (Capital Account/Paid In Capital) = 0.76x

*Data begins 3/31/03

[See page 69 for performance measurement method]

Molpus Woodlands Fund III

Period Ended December 31, 2022

Investment Philosophy

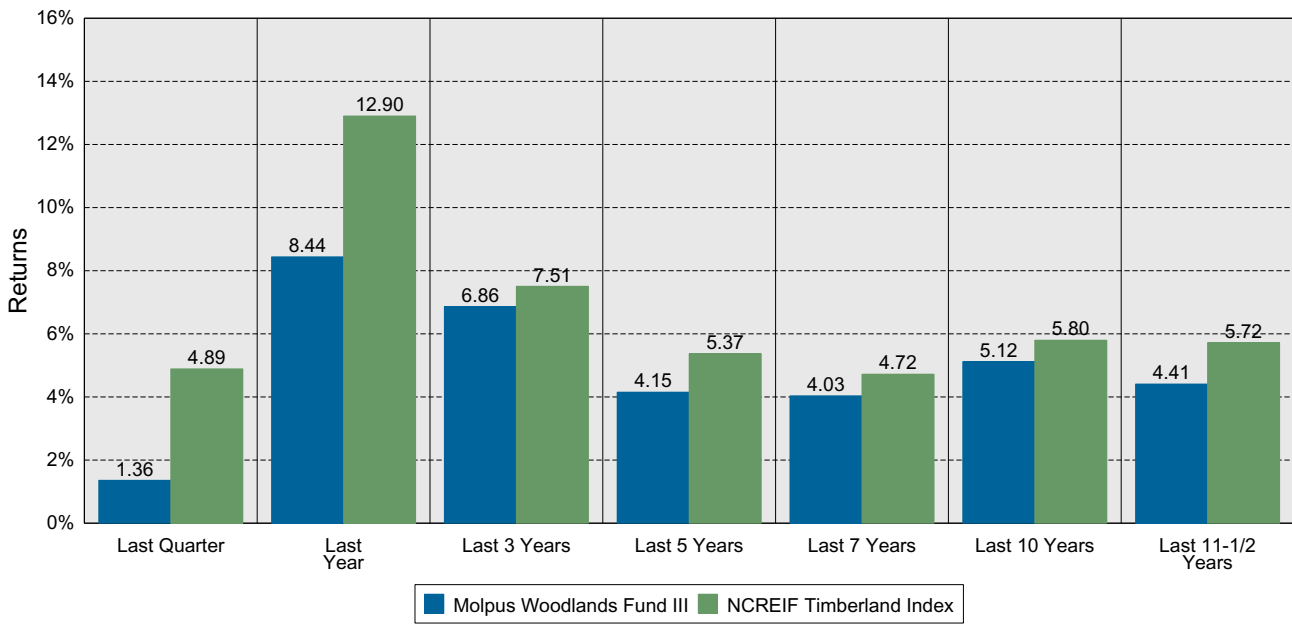
The Fund will focus its investment strategy on acquiring, managing, harvesting and divesting of timberland, and will invest in industrial timberland growing regions of North America, primarily in the United States.

Quarterly Summary and Highlights

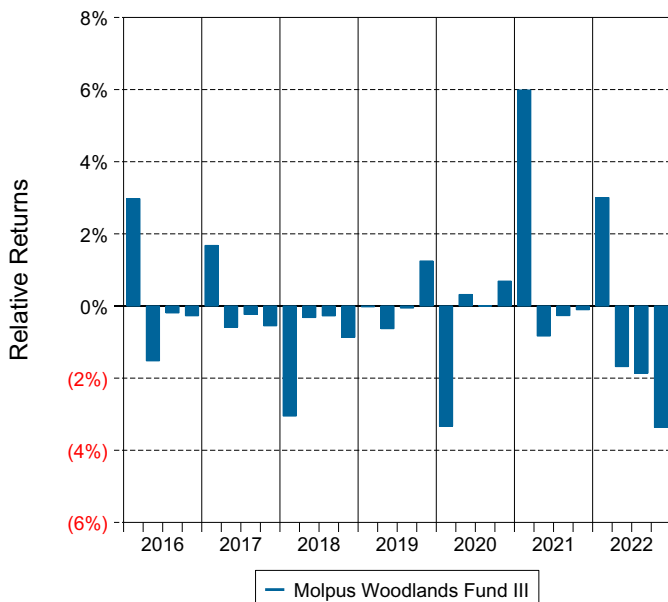
- Molpus Woodlands Fund III's portfolio underperformed the NCREIF Timberland Index by 3.53% for the quarter and underperformed the NCREIF Timberland Index for the year by 4.46%.

Quarterly Asset Growth

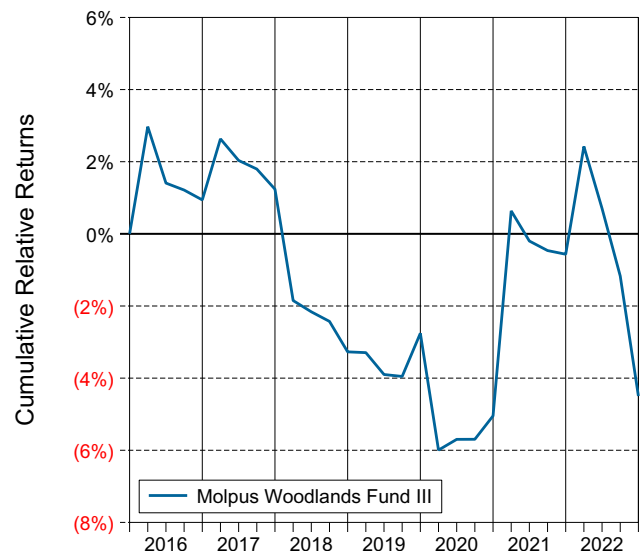
Beginning Fair Value	\$11,822,023
Net New Investment	\$-119,451
Investment Gains/(Losses)	\$160,552
Ending Fair Value	\$11,863,124



Relative Return vs NCREIF Timberland Index



Cumulative Returns vs NCREIF Timberland Index



[See page 69 for performance measurement method]

Molpus Woodlands Fund IV LP

Period Ended December 31, 2022

Investment Philosophy

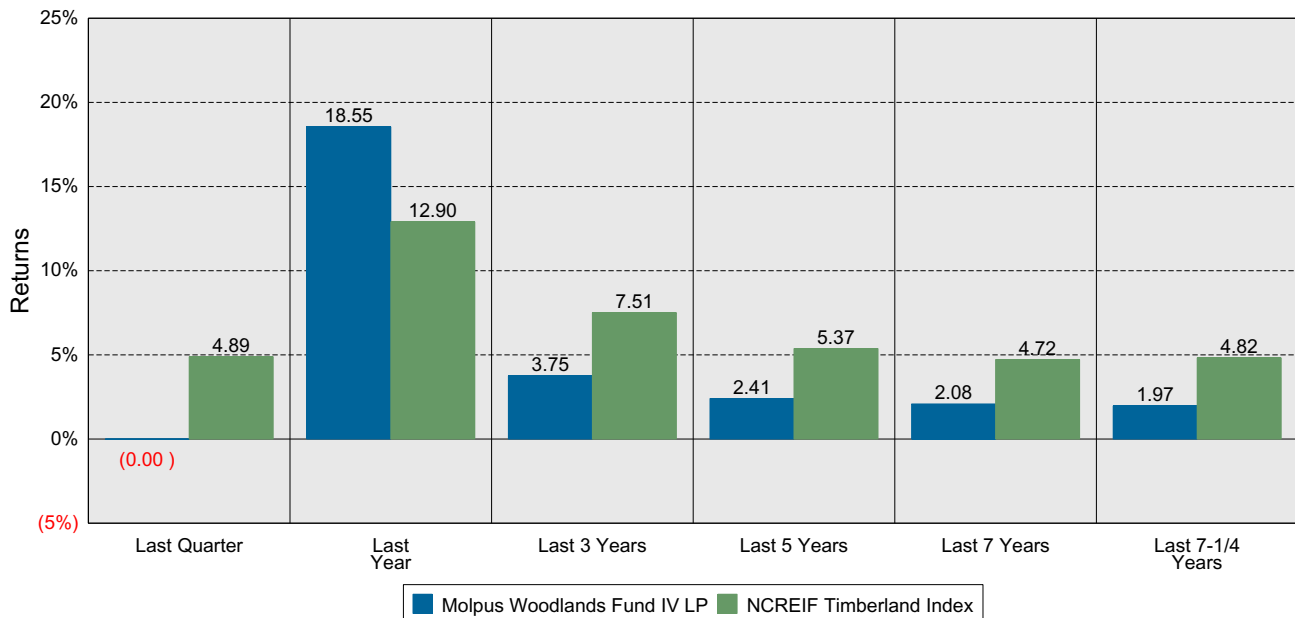
The Fund will focus its investment strategy on acquiring, managing, harvesting and divesting of timberland, and will invest in industrial timberland growing regions of North America, primarily in the United States.

Quarterly Summary and Highlights

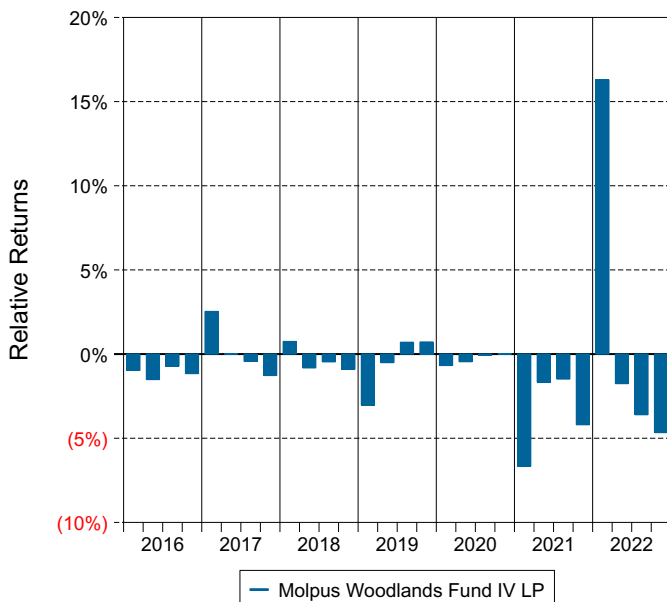
- Molpus Woodlands Fund IV LP's portfolio underperformed the NCREIF Timberland Index by 4.89% for the quarter and outperformed the NCREIF Timberland Index for the year by 5.65%.

Quarterly Asset Growth

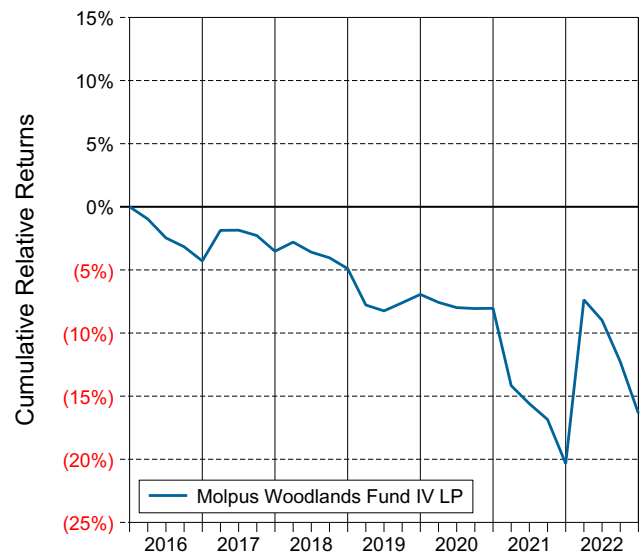
Beginning Fair Value	\$13,595,507
Net New Investment	\$-222,213
Investment Gains/(Losses)	\$-453
Ending Fair Value	\$13,372,841



Relative Return vs NCREIF Timberland Index



Cumulative Returns vs NCREIF Timberland Index



[See page 69 for performance measurement method]

Molpus Woodlands Fund V LP

Period Ended December 31, 2022

Investment Philosophy

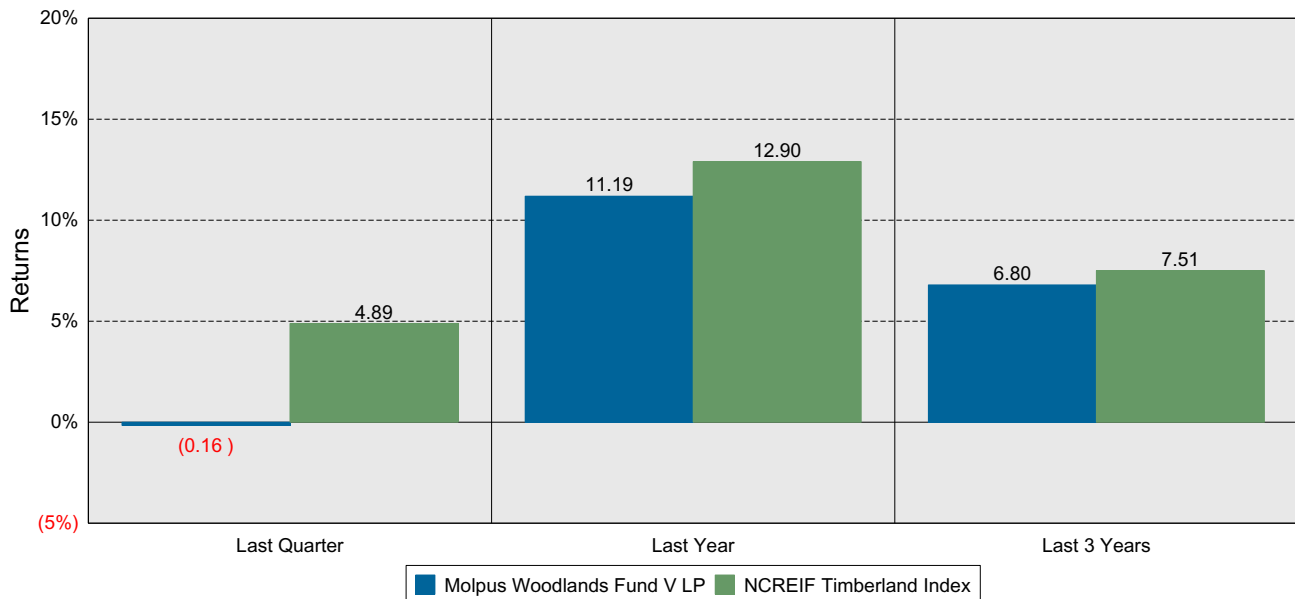
The Fund will focus its investment strategy on acquiring, managing, harvesting and divesting of timberland, and will invest in industrial timberland growing regions of North America, primarily in the United States.

Quarterly Summary and Highlights

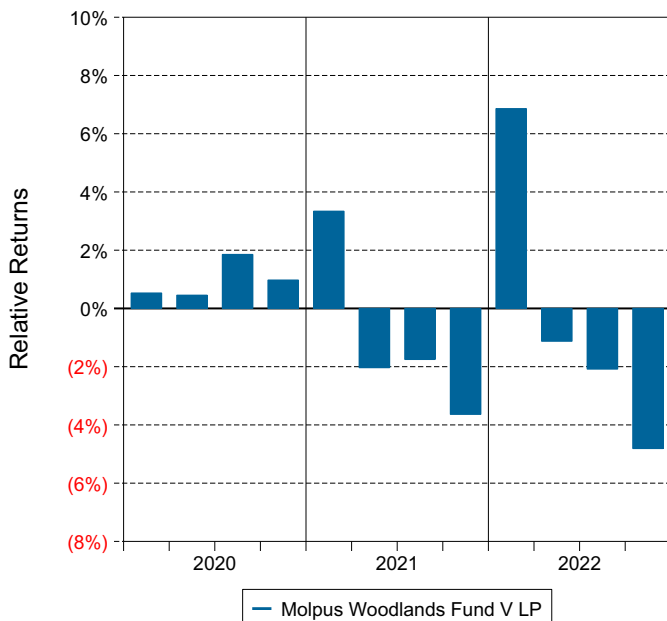
- Molpus Woodlands Fund V LP's portfolio underperformed the NCREIF Timberland Index by 5.04% for the quarter and underperformed the NCREIF Timberland Index for the year by 1.71%.

Quarterly Asset Growth

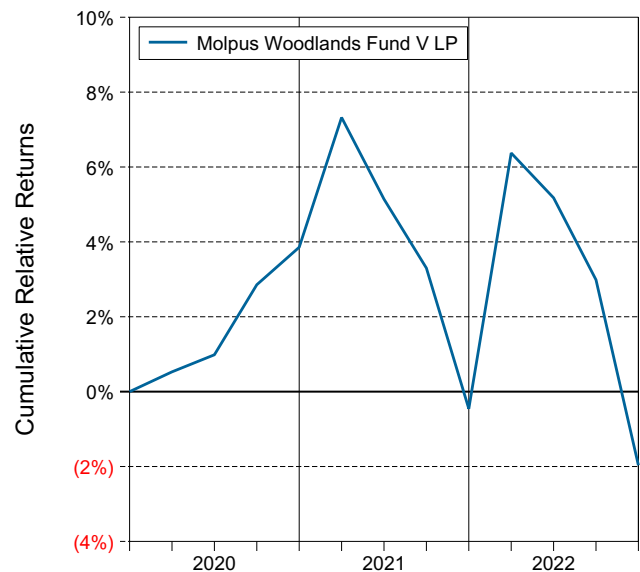
Beginning Fair Value	\$5,465,631
Net New Investment	\$-91,844
Investment Gains/(Losses)	\$-8,525
Ending Fair Value	\$5,365,262



Relative Return vs NCREIF Timberland Index



Cumulative Returns vs NCREIF Timberland Index



[See page 69 for performance measurement method]

Cohen & Steers Infrastructure Period Ended December 31, 2022

Investment Philosophy

Cohen & Steers Global Listed Infrastructure Fund was incepted in the plan in May 2018. The first full quarter of performance was second quarter 2018. Performance prior to this date reflects the Global Listed Infrastructure Fund composite.

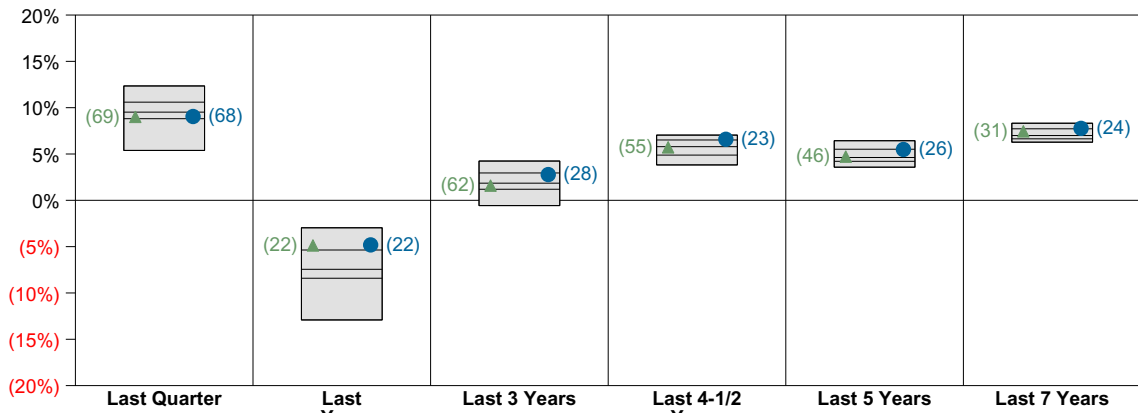
Quarterly Summary and Highlights

- Cohen & Steers Infrastructure's portfolio posted a 9.05% return for the quarter placing it in the 68 percentile of the Callan Global Infrastructure Mut Funds group for the quarter and in the 22 percentile for the last year.
- Cohen & Steers Infrastructure's portfolio outperformed the FTSE GI Core Infr 50/50 N by 0.04% for the quarter and outperformed the FTSE GI Core Infr 50/50 N for the year by 0.05%.

Quarterly Asset Growth

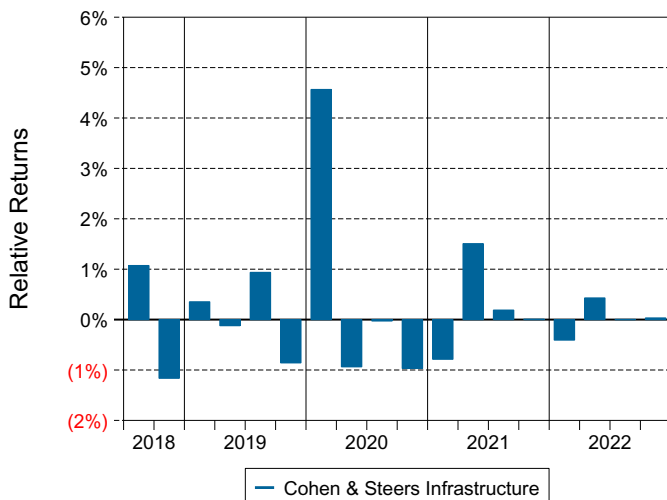
Beginning Fair Value	\$29,110,359
Net New Investment	\$0
Investment Gains/(Losses)	\$2,633,279
Ending Fair Value	\$31,743,638

Performance vs Callan Global Infrastructure Mut Funds (Institutional Net)

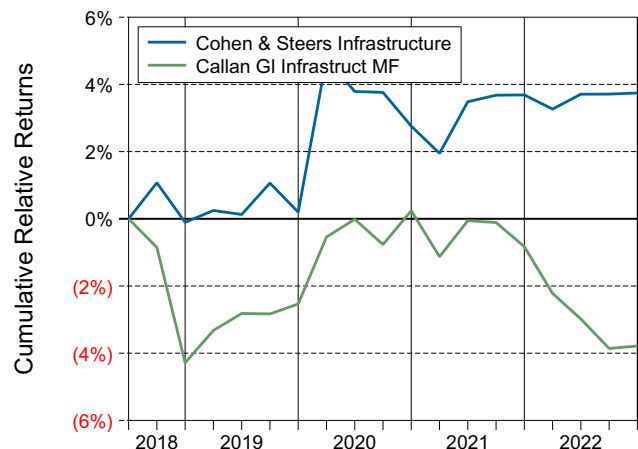


	Last Quarter	Last Year	Last 3 Years	Last 4-1/2 Years	Last 5 Years	Last 7 Years
10th Percentile	12.35	(2.97)	4.24	7.04	6.43	8.32
25th Percentile	10.60	(5.36)	2.95	6.52	5.52	7.72
Median	9.52	(7.45)	1.85	5.79	4.62	6.99
75th Percentile	8.81	(8.41)	1.20	4.88	4.21	6.64
90th Percentile	5.38	(12.91)	(0.57)	3.82	3.58	6.28
Cohen & Steers Infrastructure	● 9.05	(4.81)	2.78	6.59	5.49	7.76
FTSE GI Core Infr 50/50 N	▲ 9.01	(4.87)	1.59	5.72	4.72	7.45

Relative Return vs FTSE GI Core Infr 50/50 N



Cumulative Returns vs FTSE GI Core Infr 50/50 N



[See page 69 for performance measurement method]

Five Largest Holdings by Asset Type

Common Stocks	Fair Value at December 31, 2022	Percentage of Net Position
Quanta Services, Inc.	\$605,055	0.11%
Jabil, Inc.	602,615	0.11%
Elevance Health, Inc.	590,428	0.10%
The Cigna Group	532,795	0.09%
Deckers Outdoor Corp.	526,492	0.09%
Fixed Income Securities		
US Treasury Bond 2.25% 11/15/2025	\$2,240,560	0.39%
US Treasury Bond .75% 4/30/2026	2,045,075	0.36%
US Treasury Bond 3.125% 11/15/2041	2,040,560	0.36%
US Treasury Bond 1.25% 5/15/2050	1,813,797	0.32%
US Treasury Bond 2.75% 11/15/2023	1,474,453	0.26%
Commingled Funds and Partnerships		
BlackRock Institutional Trust Co. Equity Index Fund A	\$102,043,349	17.87%
Western Asset Management Core Plus Bond Fund	60,533,161	10.60%
Dodge & Cox International Stock Fund	41,617,963	7.29%
American Funds Europacific Growth Fund	34,723,032	6.08%
Cohen & Steers Global Listed Infrastructure Fund	31,743,638	5.56%

The complete schedule of holdings at year-end is available from the Pension Plan Administrator.

Brokerage Commissions

Equity trades were directed to eleven brokerage firms by the Plan’s U.S. small/midcap equity separate account manager, Smith Graham & Company. Commissions paid directly in 2022 totaled \$19,471.32 and are summarized below.

The Plan also owns units in commingled equity funds managed by American Century Investments, BlackRock Institutional Trust Company, American Funds, Cohen & Steers Capital Management and Dodge & Cox. Detailed information on those funds’ individual security trades is not provided by the funds, and therefore those brokerage costs are not included in this report.

The Plan does not maintain any commission recapture, directed payment or “soft dollar” arrangements with regard to brokerage commissions.

Brokerage Firm	Number of Shares Traded	Total Commissions Paid	Average Cost per Share
Cowen and Company, LLC	127,608	\$ 1,126.36	\$ 0.009
Bofa Securities, Inc.	63,950	2,078.50	0.033
Goldman Sachs & Co.	63,512	2,064.27	0.033
Jefferies LLC	62,170	2,020.59	0.033
Wells Fargo Bank Minnesota NA	61,550	1,874.99	0.031
Stifel, Nicolaus & Company, Inc.	55,640	1,808.40	0.033
Piper Jaffray & Company	54,720	1,778.46	0.033
CitiGroup Global Markets Inc.	52,194	1,696.39	0.033
RBC Capital Markets, LLC	52,014	1,690.49	0.033
Instinet LLC	51,416	1,671.10	0.033
Raymond James & Associates, Inc.	51,130	1,661.77	0.033

ACTUARIAL SECTION



City of Aurora
General Employees' Retirement Plan



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June 20, 2023

Board of Trustees
City of Aurora General Employees' Retirement Plan
12100 E. Iliff Avenue, Suite 108
Aurora, Colorado 80014

Dear Members of the Board:

As requested, we have performed an annual actuarial valuation of the City of Aurora General Employees' Retirement Plan as of January 1, 2023. We have prepared the following summary exhibits of the actuarial valuation for inclusion in the Actuarial Section of the Plan's Annual Comprehensive Financial Report for the year ended December 31, 2022.

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Information prior to January 1, 2017 is from reports prepared by the prior actuary and is used without audit.

In preparing this report, we relied, without audit, on information (some oral and some in writing) supplied by the Plan's staff. This information includes, but is not limited to, statutory provisions, employee data, and financial information. We found this information to be reasonably consistent and comparable with information used for other purposes. The valuation results depend on the integrity of this information. If any of this information is inaccurate or incomplete our results may be different and our calculations may need to be revised.

All costs, liabilities, rates of interest, and other factors for the Plan have been determined on the basis of actuarial assumptions and methods which are individually reasonable (taking into account the experience of the City and reasonable expectations); and which, in combination, offer our best estimate of anticipated experience affecting the City. Further, in our opinion, each actuarial assumption used is reasonably related to the experience of the Plan and to reasonable expectations which, in combination, represent our best estimate of anticipated experience under the Plan. The actuarial assumptions and methods used for funding purposes meet the parameters set by Actuarial Standards of Practice.

This work product was prepared solely for the City of Aurora for the purposes described herein and may not be appropriate to use for other purposes. Milliman does not intend to benefit and assumes no duty or liability to other parties who receive this work. Milliman recommends that third parties be aided by their own actuary or other qualified professional when reviewing the Milliman work product.

This valuation report is only an estimate of the Plan's financial condition as of a single date. It can neither predict the Plan's future condition nor guarantee future financial soundness. Actuarial valuations do not affect the ultimate cost of Plan benefits, only the timing of Plan contributions. While the valuation is based on an array of individually reasonable assumptions, other assumption sets may also be reasonable and valuation results based on those assumptions would be different. No one set of assumptions is uniquely correct. Determining results using alternative assumptions is outside the scope of our engagement.

Future actuarial measurements may differ significantly from the current measurements presented in this report 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; increases or decreases expected as part of the natural operation of the methodology used for these measurements (such as the end of an amortization period or additional cost or contribution requirements based on the Plan's funded ratio); and changes in plan provisions or applicable law. Due to the limited scope of our assignment, we did not perform an analysis of the potential range of future measurements. The Board of Trustees has the final decision regarding the appropriateness of the assumptions and has adopted them.

Actuarial computations presented in this report are for purposes of determining the recommended funding amounts for the Plan. Actuarial computations under GASB Statements No. 67 and No. 68 are for purposes of fulfilling financial accounting requirements. The calculations in the enclosed report have been made on a basis consistent with our understanding of the Plan's funding requirements and goals, and of GASB Statements No. 67 and 68. Results under GASB Statements No. 67 and 68 are not included in this report, but this report will be the basis for determining these disclosures for the Measurement Period ending December 31, 2023 and the Employer Reporting Period ending December 31, 2024. The calculations in this report have been made on a basis consistent with our understanding of the plan provisions described in Appendix A of this report. Determinations for purposes other than meeting these requirements may be significantly different from the results contained in this report. Accordingly, additional determinations may be needed for other purposes.

The valuation results were developed using models intended for valuations that use standard actuarial techniques. The intent of the models is to estimate future plan costs. We have reviewed the models, including their inputs, calculations, and outputs for consistency, reasonableness, and appropriateness to the intended purpose and in the compliance with generally accepted actuarial practice and relevant actuarial standards of practice.

Milliman's work is prepared solely for the internal business use of the City of Aurora General Employees' Retirement Plan ("Plan"). To the extent that Milliman's work is not subject to disclosure under applicable public records laws, Milliman's work may not be provided to third parties without Milliman's prior written consent. Milliman does not intend to benefit or create a legal duty to any third-party recipient of its work product. Milliman's consent to release its work product to any third party may be conditioned on the third party signing a Release, subject to the following exception(s):

- (a) The Plan may provide a copy of Milliman's work, in its entirety, to the Plan's professional service advisors who are subject to a duty of confidentiality and who agree to not use Milliman's work for any purpose other than to benefit the Plan.
- (b) The Plan may provide a copy of Milliman's work, in its entirety, to other governmental entities, as required by law.

This work product was prepared solely for the City of Aurora for the purposes described herein and may not be appropriate to use for other purposes. Milliman does not intend to benefit and assumes no duty or liability to other parties who receive this work. Milliman recommends that third parties be aided by their own actuary or other qualified professional when reviewing the Milliman work product.



No third-party recipient of Milliman's work product should rely upon Milliman's work product. Such recipients should engage qualified professionals for advice appropriate to their own specific needs.

The consultants who worked on this assignment are actuaries. Milliman's advice is not intended to be a substitute for qualified legal or accounting counsel.

The signing actuaries are independent of the plan sponsor. We are not aware of any relationship that would impair the objectivity of our work.

On the basis of the foregoing, I hereby certify that, to the best of my knowledge and belief, this report is complete and accurate and has been prepared in accordance with generally recognized and accepted actuarial principles and practices which are consistent with the principles prescribed by the Actuarial Standards Board and the *Code of Professional Conduct and Qualification Standards for Actuaries Issuing Statements of Actuarial Opinion in the United States* published by the American Academy of Actuaries. I am a member of the American Academy of Actuaries and meet the Qualification Standards to render the actuarial opinion contained herein.

Sincerely,

A handwritten signature in blue ink that reads 'Joel E. Stewart'.

Joel E. Stewart, FSA, EA, MAAA
Principal and Consulting Actuary
JES:fm

Exhibit 1

ACTUARIAL PROCEDURES AND ASSUMPTIONS

The actuarial assumptions used in the valuation are intended to estimate future experience affecting projected benefit flow and investment earnings. Any variations in future experience from that expected from these assumptions will result in corresponding changes in the estimated costs of the Plan's benefits.

The tables in this section give rates of decrement, referred to in actuarial notation by the general symbol "q'." The underlying theory is described more fully in Jordan, *Life Contingencies*, Society of Actuaries (Second Edition, 1967), page 277. Any age referred to in a table is always the age of the person at his or her nearest birthday.

Actuarial Cost Method

The actuarial cost method we use to calculate the funding requirements of the Plan is called the **entry age normal actuarial cost method**.

Under this cost method, the actuarial present value of the projected benefits of each individual included in the valuation is allocated on a level basis over the earnings of the individual between entry age and assumed exit age. The portion of this actuarial present value allocated to a valuation year is called the Normal Cost. The portion of the actuarial present value not provided for at the valuation date by future Normal Costs is called the actuarial accrued liability.

Actuarial Value of Assets

The actuarial value of assets is determined by calculating the expected return on the prior year's market value of assets, adjusted for cash flows of contributions, administrative expenses, and benefit payments for the year, and interest credited using the Plan's long-term investment return assumption applicable to that plan year. The difference between this expected value and the actual return for the plan year is recognized over 3 years. The actuarial value of assets is then the actual market value minus the gains and losses for prior years that are still deferred. The resulting value is limited to between 80% and 120% of the market value of assets.

Actuarially Determined Contribution (Adopted January 1, 2017)

The method for calculating the Actuarially Determined Contribution (ADC) was adopted by the Board of Trustees. The ADC is calculated using a 20-year amortization of the unfunded actuarial accrued liability or funding excess to determine the amortization component of the ADC. On each valuation date, the newly determined unfunded actuarial accrued liability or funding excess is amortized over an open (or rolling) 20-year amortization period as a level percent of projected pay.

Investment Earnings (Adopted January 1, 2020)

7.00% per annum, compounded annually, net of investment expenses.

The investment return assumption was selected based on the Plan's asset allocation and capital market assumptions from several sources, including published studies summarizing the expectations of various investment experts. This information was then used to develop forward looking long-term expected returns, producing a range of reasonable expectations according to industry experts. Based on the resulting range of potential assumptions, in our professional judgement the selected investment return assumption is reasonable and is not expected to have any significant bias.

Inflation (Adopted January 1, 2020)

2.50% per annum, compounded annually. The assumption is based on capital market assumption sources and published studies used to develop the Plan's investment return assumption.

Compensation Increase (Inflation and Real Wage Growth adopted January 1, 2020; Merit adopted January 1, 2014)

Annual salary increases are based on a table graded by service. Rates are as follows:

Years of Service	Percentage Increase at Age			
	Inflation	Real Wage Growth	Merit	Total
0-1	2.50%	0.75%	2.75%	6.00%
2	2.50	0.75	2.25	5.50
3	2.50	0.75	1.75	5.00
4-7	2.50	0.75	1.25	4.50
8	2.50	0.75	0.75	4.00
9	2.50	0.75	0.50	3.75
10+	2.50	0.75	0.00	3.25

The inflation and real wage growth assumptions are based on capital market assumption sources and published studies used to develop the Plan's inflation assumption. The merit component is based on City of Aurora experience as reviewed with the 2019 Experience Study. The Plan's experience was reviewed as of the most recent measurement date. The assumption remains reasonable.

Total Payroll Growth Rate (Adopted January 1, 2014)

3.25% per annum.

Expenses (Adopted January 1, 2018)

Expenses other than investment expenses are assumed to be \$585,000 per year, payable mid-year.

Employee Contribution Rate

7.00% of compensation, the current employee contribution rate for 2023.

Per guidance provided in the City Code, actual future rates may increase or decrease 0.25% each year depending upon the financial condition of the Plan. Per the City Code, the contribution rate may not exceed 7.00% or be less than 5.50%.

Contribution Accumulation Rate (Adopted January 1, 2010)

4.00% per annum, compounded biweekly.

The contribution accumulation rate is established by the Board at a rate of at least three percent per annum compounded annually. The current rate is 4.00% per annum, compounded biweekly. The Retirement Board reviews this rate in December of each year and has the authority to change it.

Mortality (Adopted January 1, 2020)

Healthy Lives (post-retirement) – Pub-2010 General Employees Retiree Mortality Table (amount-weighted), projected generationally using Scale MP-2018

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Healthy Lives (pre-retirement) – Pub-2010 General Employees Mortality Table (amount-weighted), projected generationally using Scale MP-2018

Disabled Lives – Pub-2010 Disabled Retiree (Non Safety) Mortality Table (amount-weighted), projected generationally using Scale MP-2018

The assumption included a margin for future mortality improvements at the time of the most recent experience study completed as of December 31, 2018.

The size of the Plan population is not large enough to have a statistically credible independent study of retiree mortality serve as the sole basis for assumption setting. As such, we rely on a standard published table that is appropriate to the Plan's employee and retiree population while also taking into account statistically significant trends in the United States regarding improvements in life expectancy. The Plan's mortality experience was reviewed as of the most recent measurement date. The assumption remains reasonable.

Retirement (Adopted January 1, 2020)

For active participants, table of rates by age, based on Tier and eligibility for unreduced retirement, as follows:

Age	Reduced		Unreduced	
	Tier 1	Tier 2	Tier 1	Tier 2
50	2.0%	2.0%	3.0%	3.0%
51	3.0	3.0	3.0	3.0
52	3.0	3.0	10.0	10.0
53	3.0	3.0	10.0	10.0
54	3.0	3.0	10.0	10.0
55	3.0	3.0	8.0	8.0
56	6.0	6.0	8.0	8.0
57	6.0	6.0	8.0	8.0
58	6.0	6.0	8.0	8.0
59	6.0	6.0	8.0	8.0
60	6.0	6.0	8.0	8.0
61	6.0	6.0	15.0	15.0
62	15.0	15.0	25.0	25.0
63	15.0	15.0	20.0	20.0
64	15.0	15.0	15.0	15.0
65	N/A	30.0	30.0	30.0
66	N/A	30.0	30.0	30.0
67	N/A	N/A	30.0	30.0
68	N/A	N/A	50.0	50.0
69	N/A	N/A	50.0	50.0
70+	N/A	N/A	100.0	100.0

Current and future vested inactive members are assumed to retire as follows:

- Tier 1: Earlier of age 55 with 10 or more years of service, or age 65
- Tier 2: Normal retirement age (67)

This assumption is based on the 2019 Experience Study. The Plan's experience was reviewed as of the most recent measurement date. The assumption remains reasonable.

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Disablement (Adopted January 1, 2014)

Graduated rates based on age and gender. Sample rates are as follows:

Age	Male	Female
30	0.03%	0.11%
35	0.05	0.16
40	0.06	0.21
45	0.10	0.35
50	0.14	0.48
55	0.25	0.87
60	0.36	1.26

Withdrawal Rates (Adopted January 1, 2020)

Graduated rates based on years of service, age and gender are used. Sample rates are as follows:

Years of Service	Male	Female
0-1	20.0%	23.0%
1-2	17.6	19.8
2-3	14.3	16.5
3-4	11.0	13.0
4-5	9.9	12.1
<u>At Five or More Years of Service:</u>		
Age		
30	8.5%	11.0%
40	5.8	7.2
50	3.8	3.9
60	2.3	1.7

This assumption is based on the 2019 Experience Study. The Plan's experience was reviewed as of the most recent measurement date. The assumption remains reasonable.

Marital Assumptions

85% of active and deferred vested members not currently receiving benefits are assumed to be married. Male spouses are assumed to be three years older than their female spouses.

Form of Payment Election Assumption (Adopted in 2020)

Current inactive vested members are assumed to take a monthly annuity at retirement in lieu of a lump sum distribution (refund of contribution accumulation plus vested city contributions). 0% of retirements from active service and 30% of terminations from active service are assumed to take lump sums. 100% of members who opt for a monthly annuity are assumed to elect the normal form of payment.

This assumption is based on the 2019 Experience Study. The Plan's experience was reviewed as of the most recent measurement date. The assumption remains reasonable.

Post Retirement Cost of Living Adjustment Assumption (Adopted January 1, 2020 for Tier 1 Base Benefits; Adopted January 1, 2011 for all other benefits)

Tier 1 Participants: 2.50% per annum for base benefits; 0.00% per annum for supplemental benefits

Tier 2 Participants: 0.00% per annum for base benefits; 0.00% per annum for supplemental benefits

Development of Demographic Assumptions

An experience study was performed based on data over the five-year period ending December 31, 2018, as documented in the Experience Study report dated February 17, 2020. The demographic assumptions are reviewed annually and refined as necessary based on demographic experience and expectations of future experience. Assumptions for which participant data are limited, such as retiree mortality, were also drawn from published actuarial tables. The assumptions used in this valuation are based on the Experience Study report noted above, and were approved by the Board of Trustees at their September 2019 meeting reviewing the 2019 Experience Study.

Changes in Actuarial Assumptions and Methods as of January 1, 2023

None

Exhibit 2

PLAN SUMMARY

All actuarial calculations are based upon our understanding of the provisions of the City of Aurora General Employees' Retirement Plan, as amended through December 31, 2022. This summary does not attempt to cover all of the detailed provisions.

Plan

The City of Aurora General Employees' Retirement Plan is a single employer defined benefit pension plan created by the Aurora City Council in 1967 for the exclusive benefit of participants and their beneficiaries.

Plan Year

The Plan Year is the 12-month period beginning January 1 and ending December 31.

Effective Date

The original effective date of the Plan is March 1, 1967. The Plan was most recently amended effective January 1, 2021.

Employee

All full and part-time career service and Council-appointed employees of the City, other than police officers, firefighters, elected officials, certain executive-level personnel and temporary employees.

Participation

An Employee shall become a Participant upon completion of one hour of service.

Plan Tier

Participants in the plan prior to January 1, 2012 are Tier 1 participants. Participants who first enter the plan after December 31, 2011 are Tier 2 participants.

Final Average Monthly Compensation

An employee's compensation from the city during the 36 highest paid consecutive calendar months of the last ten years of credit service, divided by 36.

Compensation

Compensation means the total base pay, including acting pay, longevity credit, 414(h) and 457 contributions and Section 125 elective pre-tax employee contributions. Overtime, vacation and sick leave pay, and bonuses are excluded.

Compensation is limited under Internal Revenue Code Section 401(a)(17).

Credited Service

A participant's credited service is the elapsed time period from employment commencement date to the date of termination of such employment. Generally, one day of credited service shall be credited for each day in the elapsed period.

Employee Contributions

Beginning in 2017, employees contribute 7.00% of pay. Rates beyond 2017 may increase or decrease 0.25% each year upon the financial condition of the fund but in no case would the rate increase above 7.00% or decrease below 5.50%. Rate changes are based on a decision flowchart designed to keep the funded ratio between 100% and 110%. The employee's contribution account is credited with interest of 4.0% compounded biweekly.

Employer (City) Contributions

The city contributes to the trust an amount equal to the contributions of the employee. Currently, the City contributes 7.00% of payroll.

Normal Retirement Date

Tier 1 Participants: 65th Birthday

Tier 2 Participants: 67th Birthday

Normal Retirement Pension

Each participant who becomes eligible for a Normal Retirement Pension under the Plan will be entitled to receive a monthly retirement pension benefit beginning at the participant's Normal Retirement Date and payable in the Normal Benefit Form equal to 1.75% of Final Average Monthly Compensation multiplied by Years of Credited Service.

In lieu of a monthly pension, the participant may elect to receive a lump sum equal to the participant's contribution accumulated and vested city contributions.

Normal Benefit Form

Life Annuity

Early Retirement Pension

(a) Eligibility

Termination on or after age 50 with 10 or more years of credited service, and not eligible for Normal Retirement Pension or Special Early Retirement Pension

(b) Amount (Base Benefit)

A participant's Early Retirement Pension is a monthly pension benefit equal to his Normal Retirement Pension based on Final Average Monthly Compensation and Credited Service at his date of retirement, and reduced as follows:

Tier 1 Participants

- (i) After age 55: 2% per year prior to the earlier of age 65 (Normal Retirement) or Rule of 80 (age plus service equal to 80 or more)
- (ii) Under age 55 with less than 25 years of credited service: 2% per year for each year that the participant's years of credited service are less than 25 (up to a max of 20%), then further reduced by 6% per year for each year the commencement precedes age 55
- (iii) Under age 55 with at least 25 years of credited service: 6% per year prior to Rule of 80 (age plus service equal to 80 or more)

Tier 2 Participants: 6% per year prior to the earlier of age 67 (Normal Retirement) or Rule of 80 (age plus service equal to 80 or more)

For determining Rule of 80 date for early retirement reductions, service is determined at date of retirement and age is projected forward.

In lieu of a monthly pension, the participant may elect to receive a lump sum equal to the participant's contribution accumulated and vested city contributions.

Special Early Retirement Pension – Rule of 80

(a) Eligibility

Termination on or after age 50 with age plus credited service equal to 80 or more, and not eligible for Normal Retirement Pension

(b) Amount (Base Benefit)

A participant's Special Early Retirement Pension is a monthly pension benefit equal to his Normal Retirement Pension based on Final Average Monthly Compensation and Credited Service at his date of retirement, without reduction.

In lieu of a monthly pension, the participant may elect to receive a lump sum equal to the participant's contribution accumulated and vested city contributions.

Deferred Vested Pension

(a) Eligibility

5 or more years of Credited Service.

(b) Amount (Base Benefit)

A participant's Deferred Vested Pension shall be equal to the participant's Accrued Benefit, payable at Normal Retirement Date. If a participant terminates employment after completing 10 years of credited service, the participant may retire with an Early Retirement Benefit any time after attainment of age 50 and prior to the participant's normal retirement date.

In lieu of a monthly pension, the participant may elect to receive a lump sum equal to the participant's contribution accumulated and vested city contributions.

Money Purchase Pension

(a) Eligibility

Eligible for a Normal Retirement, Early Retirement, Special Early Retirement, or Deferred Vested Pension, and the monthly money purchase pension is greater than the monthly pension calculated pursuant to any of these pensions.

(b) Amount (Base Benefit)

A participant's Money Purchase Pension shall be a monthly amount equal to the Actuarial Equivalent of the participant's contribution accumulation and vested city contributions as of the date the pension commences. The Money Purchase Pension is payable in lieu of a Normal Retirement, Early Retirement, Special Early Retirement, or Deferred Vested Pension.

Disability Retirement Pension

(a) Eligibility

Termination due to Disability, and the Participant received long-term disability insurance payments from the City until his Normal Retirement Date.

(b) Amount (Base Benefit)

A participant's Disability Retirement Pension shall be equal to the participant's Normal Retirement Pension based on the higher of the Final Average Monthly Compensation or the monthly rate of compensation on the date of disablement, and Credited Service the participant would have accrued had he continued employment through his Normal Retirement Date (or date of discontinuance of disability benefits, if earlier).

Supplemental Benefit

(a) Eligibility

In receipt of a monthly benefit under a Normal Retirement, Early Retirement, Special Early Retirement, Deferred Vested, Disability Retirement, or Money Purchase Pension.

(b) Amount (Supplemental Benefit)

A monthly amount equal to \$176.00. This benefit is reduced proportionally if the years of credited service are less than 20.

Termination before Vested Benefit

If a participant terminates employment prior to 5 years of Credited Service, the participant will receive a refund of accumulated employee and vested employer contributions, if any.

Vesting Schedule

(a) For Defined Benefit:

<u>Years of Credited Service</u>	<u>Vested Percentage</u>
Less than 5	0%
5 or more	100%

Participants are fully vested at Normal Retirement Date.

(b) For Vesting in City Contributions:

Participants are vested in the City's contributions and interest according to the following schedule:

<u>Years of Credited Service</u>	<u>Tier 1 Vested Percentage</u>	<u>Tier 2 Vested Percentage</u>
0	25%	0%
1	30%	0%
2	35%	0%
3	40%	0%
4	45%	0%
5	50%	50%
6	55%	55%
7	60%	60%
8	65%	65%
9	70%	70%
10	75%	75%
11	80%	80%
12	85%	85%
13	90%	90%

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<u>Years of Credited Service</u>	<u>Tier 1 Vested Percentage</u>	<u>Tier 2 Vested Percentage</u>
14	95%	95%
15+	100%	100%

Participants are 100% vested in Employee contributions and interest immediately.

Optional Benefit Forms

Optional Benefit Forms are available for base benefits and equal to the Actuarial Equivalent of the Normal Benefit Form. Such distribution may be as a Joint & 50%, 75%, or 100% Survivor Annuity with Pop-up feature, a 10 or 15 Year Certain and Life Annuity or a Partial Lump Sum up to 20% of the actuarial equivalent of the accrued benefit.

The Supplemental Benefit is paid as a monthly benefit as long as a monthly Base Benefit is being received by a participant or a participant's beneficiary.

Pre-Retirement Death Benefit

If a participant dies prior to completing 5 years of service, the Participant's beneficiary will receive a refund of accumulated employee and vested employer contributions, if any. If a Participant dies after completing 5 years of service, the participant's beneficiary will receive a monthly benefit equal to the supplemental benefit plus the larger of the actuarial equivalent of 60% of the defined benefit formula benefit or the actuarial equivalent of the vested employee and employer contributions. Benefit payments may begin at any time after the date the participant would have attained the earliest retirement age.

Lump Sum Death Benefit

Upon the death of a Retired member receiving a monthly pension, \$6,250 shall be paid in a single sum to the member's designated beneficiary.

In addition, upon the last to die of a Retired member and any beneficiary receiving a monthly pension, a lump sum shall be paid to the estate. This amount shall be equal to the excess, if any, of the participant's contribution accumulation and vested city contributions on the date the pension commenced over the total monthly benefits paid from the time of pension commencement to the date of death.

Cost of Living Adjustment

Tier 1 Participants

- (a) Base Benefit: The monthly amount of the base benefit provided by the Plan shall be increased annually on the first day of each January by the change in the U.S. Consumer Price Index for Urban Wage Earners and Clerical Works (CPI-W) for the averages of the third quarter, rounded to the nearest ½%. The benefit cannot be decreased and annual increases may not exceed 5%.
- (b) Supplemental Benefit: Annual cost of living increases are discretionary and may be granted on an annual basis as determined by the board. The annual increase or decrease cannot exceed plus or minus 5%.

Tier 2 Participants

- (a) Base Benefit: Annual cost of living increases are discretionary and may be granted on an annual basis as determined by the Board. The annual increase cannot exceed the lesser of 5% or the increase which applies to Tier 1 participants.
- (b) Supplemental Benefit: Annual cost of living increases are discretionary and may be granted on an annual basis as determined by the Board. The annual increase or decrease cannot exceed plus or minus 5%.

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Actuarial Equivalence

Actuarial Equivalence is calculated using the Society of Actuaries' Pub-2010 General Employees Retiree Mortality Table (amount weighted), blended 50% male, 50% female, and projected to 2028 using the ultimate rates from Scale MP-2018, a 7.0% interest rate, and a Cost-of-Living assumption of 2.5% for Tier 1 benefits and 0.25% for Tier 2 benefits.

Plan Changes

The Board granted a discretionary cost of living increase for the Base Benefit for Tier 2 Participants effective January 1, 2023 equal to 5.00%.

Exhibit 3

SCHEDULE OF ACTIVE MEMBERS

Number of Members by Age and Service Groups

Age	Years of Service										Total	
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40&Up		
0-24	46	23	-	-	-	-	-	-	-	-	-	69
25-29	71	82	15	-	-	-	-	-	-	-	-	168
30-34	56	128	64	6	2	-	-	-	-	-	-	256
35-39	39	88	55	13	17	-	-	-	-	-	-	212
40-44	31	79	64	25	23	9	-	-	-	-	-	231
45-49	20	47	60	21	21	26	2	-	-	-	-	197
50-54	22	58	48	25	35	29	9	2	-	-	-	228
55-59	25	37	50	16	40	25	14	7	6	-	-	220
60-64	12	27	35	20	32	14	11	8	7	6	-	172
65-69	3	10	19	6	9	5	5	4	1	-	-	62
70&Up	-	6	5	2	-	1	-	1	1	-	-	16
Total	325	585	415	134	179	109	41	22	15	6	6	1,831

Average Anticipated Total Payroll by Age and Service Groups

Age	Years of Service										Average	
	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40&Up		
0-24	48,008	54,350	-	-	-	-	-	-	-	-	-	50,122
25-29	57,171	63,324	68,747	-	-	-	-	-	-	-	-	61,208
30-34	61,904	70,862	76,449	75,379	85,841	-	-	-	-	-	-	70,522
35-39	61,144	72,152	77,814	83,029	79,262	-	-	-	-	-	-	72,833
40-44	62,571	77,818	82,227	90,455	86,538	80,809	-	-	-	-	-	79,346
45-49	73,572	71,734	84,923	90,801	106,809	86,756	112,891	-	-	-	-	84,109
50-54	78,870	76,046	80,170	86,121	87,534	96,029	83,842	64,478	-	-	-	82,803
55-59	89,442	76,426	82,288	87,067	97,331	85,476	95,305	90,202	101,695	-	-	87,170
60-64	56,402	69,584	78,933	80,141	90,151	82,131	107,498	83,000	84,577	111,114	-	81,749
65-69	64,813	89,704	77,126	101,293	87,821	74,689	84,427	110,008	72,583	-	-	84,890
70&Up	-	62,855	55,860	65,648	-	63,993	-	129,234	69,554	-	-	65,657
Average	62,684	71,406	79,594	86,476	91,534	87,082	95,591	90,620	89,623	111,114	111,114	76,769

Exhibit 3 (continued)

SCHEDULE OF ACTIVE MEMBERS

HISTORICAL SUMMARY OF ACTIVE MEMBER DATA

Year Beginning January 1.	<u>Active Members</u>		<u>Covered Payroll</u>		<u>Average Salary</u>		Average Age	Average Service
	<u>Number</u>	<u>Percent Increase (Decrease)</u>	<u>Amount in \$ Millions</u>	<u>Percent Increase (Decrease)</u>	<u>\$ Amount</u>	<u>Percent Increase (Decrease)</u>		
2000	1,434	2.7%	51.2	7.6%	35,691	4.6%	44.3	9.3
2001	1,493	4.1%	56.2	9.8%	37,630	5.4%	44.6	9.2
2002	1,582	6.0%	62.2	10.7%	39,304	4.4%	44.6	9.0
2003	1,580	(0.1%)	65.4	5.1%	41,387	5.3%	45.1	9.4
2004	1,614	2.2%	69.2	5.8%	42,896	3.6%	45.5	9.7
2005	1,626	0.7%	72.7	5.1%	44,737	4.3%	45.7	9.9
2006	1,604	(1.4)%	72.0	(1.0)%	44,865	0.3%	46.1	10.0
2007	1,648	2.7%	76.6	6.4%	46,493	3.6%	46.2	9.9
2008	1,751	6.3%	84.5	10.3%	48,277	3.8%	45.8	9.7
2009	1,711	(2.3)%	86.1	1.9%	50,321	4.2%	46.3	10.0
2010	1,624	(5.1)%	84.4	(2.0)%	51,973	3.3%	47.1	10.9
2011	1,601	(1.4)%	84.0	(0.5)%	52,450	0.9%	47.4	11.3
2012	1,560	(2.6)%	81.5	(3.0)%	52,241	(0.4)%	47.9	11.5
2013	1,564	0.3%	81.5	0.0%	52,088	(0.3)%	47.9	11.3
2014	1,605	2.6%	84.1	3.2%	52,402	0.6%	47.5	11.0
2015	1,643	2.4%	92.0	9.4%	56,021	6.9%	47.3	10.5
2016	1,650	0.4%	95.9	4.2%	58,101	3.7%	47.1	10.4
2017	1,733	5.0%	102.8	7.2%	59,308	2.1%	46.4	9.6
2018	1,755	1.3%	107.4	4.5%	61,183	3.2%	46.3	9.5
2019	1,754	(0.1)%	111.9	4.2%	63,815	4.3%	45.8	9.1
2020	1,816	3.5%	119.2	6.5%	65,629	2.8%	45.6	8.5
2021	1,794	-1.2%	120.5	1.1%	67,182	2.4%	45.6	8.7
2022	1,814	1.1%	131.3	9.0%	72,402	7.8%	45.2	8.3
2023	1,831	0.9%	140.6	7.1%	76,769	6.0%	44.9	8.0

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Exhibit 4

SCHEDULE OF FUNDING PROGRESS

Valuation Date	Actuarial Value of Assets (AVA)	Actuarial Accrued Liability (AAL)	Unfunded Actuarial Liability (UAAL) (3) - (2)	Funded Ratio (2)/(3)	Annual Covered Payroll*	UAAL as % of Payroll (4)/(6)
(1)	(2)	(3)	(4)	(5)	(6)	(7)
January 1, 2000	185,264,480	155,169,044	(30,095,436)	119.4%	55,381,109	(54.3)%
January 1, 2001	203,862,059	172,005,869	(31,856,190)	118.5%	60,241,455	(52.9)%
January 1, 2002	217,476,110	184,999,951	(32,476,159)	117.6%	64,949,909	(50.0)%
January 1, 2003	214,320,251	203,999,260	(10,320,991)	105.1%	68,337,782	(15.1)%
January 1, 2004	223,140,793	223,126,549	(14,244)	100.0%	71,415,709	(0.0)%
January 1, 2005	241,818,542	243,234,592	1,416,050	99.4%	72,821,091	1.9%
January 1, 2006	268,566,265	255,005,107	(13,561,158)	105.3%	75,385,673	(18.0)%
January 1, 2007	292,889,736	277,052,492	(15,837,244)	105.7%	82,531,926	(19.2)%
January 1, 2008	316,567,579	294,142,225	(22,425,354)	107.6%	87,742,224	(25.6)%
January 1, 2009	296,021,806	319,750,886	23,729,080	92.6%	87,089,965	27.2%
January 1, 2010	300,704,227	333,831,950	33,127,723	90.1%	84,110,750	39.4%
January 1, 2011	297,494,555	335,310,191	37,815,636	88.7%	83,091,597	45.5%
January 1, 2012	320,996,231	354,416,941	33,420,710	90.6%	82,607,164	40.5%
January 1, 2013	340,856,093	369,696,290	28,840,197	92.2%	83,458,825	34.6%
January 1, 2014	366,577,369	395,063,666	28,486,297	92.8%	88,399,268	32.2%
January 1, 2015	400,748,065	415,852,539	15,104,474	96.4%	94,369,963	16.0%
January 1, 2016	422,124,860	431,659,846	9,534,986	97.8%	99,114,004	9.6%
January 1, 2017	435,153,161	455,759,906	20,606,745	95.5%	104,251,452	19.8%
January 1, 2018	457,124,471	479,969,556	22,845,085	95.2%	108,311,922	21.1%
January 1, 2019	474,289,088	508,917,257	34,628,169	93.2%	115,554,570	30.0%
January 1, 2020	504,806,469	567,006,106	62,199,637	89.0%	119,508,118	52.0%
January 1, 2021	539,466,232	584,677,921	45,211,689	92.3%	124,748,271	36.2%
January 1, 2022	615,781,429	628,618,281	12,836,852	98.0%	133,667,035	9.6%
January 1, 2023*	638,280,703	669,516,926	31,236,223	95.3%	140,564,949	22.2%

* Annual covered payroll is estimated for 2023; actual for all other years.

Exhibit 5

SCHEDULE OF EMPLOYER CONTRIBUTIONS

Plan Year Ended	Actual Employer Contribution	Actuarially Determined Contribution	Percentage Contributed
December 31, 1999	2,802,722	806,473	347.5%
December 31, 2000	3,045,961	1,410,087	216.0%
December 31, 2001	3,313,280	1,671,956	198.2%
December 31, 2002	3,572,245	2,039,756	175.1%
December 31, 2003	3,758,578	3,953,744	95.1%
December 31, 2004	3,927,864	5,115,536	76.8%
December 31, 2005	4,005,160	7,245,072	55.3%
December 31, 2006	4,146,212	5,253,328	78.9%
December 31, 2007	4,539,320	5,532,018	82.1%
December 31, 2008	4,826,337	5,596,076	86.2%
December 31, 2009	4,790,713	8,144,982	58.8%
December 31, 2010	4,626,990	8,415,022	55.0%
December 31, 2011	4,571,135	8,002,631	57.1%
December 31, 2012	4,786,740	7,489,412	63.9%
December 31, 2013	5,007,530	6,949,075	72.1%
December 31, 2014	5,536,583	5,803,254	95.4%
December 31, 2015	6,135,777	5,126,751	119.7%
December 31, 2016	6,703,676	4,649,567	144.2%
December 31, 2017	7,321,152	6,285,399	116.5%
December 31, 2018	7,632,330	6,450,947	118.3%
December 31, 2019	8,187,470	7,309,985	112.0%
December 31, 2020	8,431,103	9,938,349	84.8%
December 31, 2021	8,732,379	8,522,867	102.5%
December 31, 2022	9,393,456	6,408,257	146.6%

Exhibit 6

HISTORICAL SUPPLEMENTAL INFORMATION

Notes to Required Supplementary Information

The information presented in the required supplementary schedules was determined as part of the actuarial valuation at the dates indicated. Additional information as of the latest actuarial valuation follows:

Valuation date	January 1, 2023
Actuarial cost method	Entry Age Normal
Amortization method	Level percent, open
Remaining amortization period	20 Years
Asset valuation method	3-year smoothing
Actuarial assumptions:	
Investment rate of return	7.00%
Payroll growth rate	3.25%
Projected compensation increases	3.25% to 6.00%
Cost-of-living adjustments	2.50% on Base (Tier 1) 0.00% on Base (Tier 2) 0.00% on Supplemental

Exhibit 7

SOLVENCY TEST

Valuation Date	Actuarial Accrued Liabilities for:			Valuation Assets	Portion of Accrued Liabilities Covered by Valuation Assets		
	(1) Active Member Contributions	(2) Inactive Members	(3) Active Members		(1)	(2)	(3)
January 1, 2000	38,805,144	49,290,698	67,073,202	185,264,480	100%	100%	100%
January 1, 2001	41,631,805	56,856,612	73,517,451	203,862,059	100%	100%	100%
January 1, 2002	44,768,076	60,305,096	79,926,779	217,476,110	100%	100%	100%
January 1, 2003	48,736,137	66,075,645	89,187,478	214,320,251	100%	100%	100%
January 1, 2004	53,289,266	71,919,853	97,917,430	223,140,793	100%	100%	100%
January 1, 2005	58,118,119	80,238,773	104,877,700	241,818,542	100%	100%	99%
January 1, 2006	59,491,429	96,596,749	98,916,929	268,566,265	100%	100%	100%
January 1, 2007	61,700,894	108,083,741	107,267,857	292,889,736	100%	100%	100%
January 1, 2008	65,237,335	115,157,203	113,747,687	316,567,579	100%	100%	100%
January 1, 2009	68,764,295	131,939,654	119,046,937	296,021,806	100%	100%	80%
January 1, 2010	72,311,211	138,108,376	123,412,363	300,704,227	100%	100%	73%
January 1, 2011	74,768,249	142,446,528	118,095,414	297,494,555	100%	100%	68%
January 1, 2012	74,788,283	162,428,901	117,199,757	320,996,231	100%	100%	71%
January 1, 2013	74,453,807	179,793,207	115,449,276	340,856,093	100%	100%	75%
January 1, 2014	75,409,870	205,480,329	114,173,467	366,577,369	100%	100%	75%
January 1, 2015	74,299,208	226,648,240	114,905,091	400,748,065	100%	100%	87%
January 1, 2016	74,856,178	239,245,818	117,557,850	422,124,860	100%	100%	92%
January 1, 2017	73,701,869	261,377,011	120,681,026	435,153,161	100%	100%	83%
January 1, 2018	75,156,324	282,710,162	122,103,070	457,124,471	100%	100%	81%
January 1, 2019	74,072,180	312,151,820	122,693,257	474,289,088	100%	100%	72%
January 1, 2020	72,242,119	351,659,021	143,104,966	504,806,469	100%	100%	57%
January 1, 2021	75,147,460	366,787,270	142,743,191	539,466,232	100%	100%	68%
January 1, 2022	75,003,767	404,295,897	149,318,617	615,781,429	100%	100%	91%
January 1, 2023	74,931,355	441,945,310	152,640,261	638,280,703	100%	100%	80%

This work product was prepared solely for the City of Aurora for the purposes described herein and may not be appropriate to use for other purposes. Milliman does not intend to benefit and assumes no duty or liability to other parties who receive this work. Milliman recommends that third parties be aided by their own actuary or other qualified professional when reviewing the Milliman work product.

Exhibit 8

ANALYSIS OF FINANCIAL EXPERIENCE

Plan Year Ending	Actuarial (Gains)/Losses			Changes in Plan Provisions	Changes in Assumption/ Methods	Total (Gain)/Loss
	Asset Sources	Liability Sources	Total			
December 31, 2010	23,485,448	(8,080,563)	15,404,885	0	(15,247,082)*	157,803
December 31, 2011	(4,483,174)	(5,162,188)	(9,645,362)	0	975,975*	(8,669,387)
December 31, 2012	(1,064,320)	(6,771,318)	(7,835,638)	0	0	(7,835,638)
December 31, 2013	(5,791,149)	(5,712,203)	(11,503,352)	0	8,841,210*	(2,662,142)
December 31, 2014	(12,639,488)	(1,020,194)	(13,659,682)	0	0	(13,659,682)
December 31, 2015	1,452,303	(6,389,686)	(4,937,383)	0	956,983	(3,980,400)
December 31, 2016	11,641,132	(5,754,735)	5,886,397	0	6,996,522	12,882,919
December 31, 2017	1,207,709	2,378,124	3,585,833	(83,708)	0	3,502,125
December 31, 2018	6,124,973	7,094,194	13,219,167	4,302	0	13,223,469
December 31, 2019	(8,866,867)	1,705,597	(7,161,270)	3,639	36,085,838	28,928,207
December 31, 2020	(12,342,172)	(4,018,060)	(16,360,232)	(1,825,024)	0	(18,185,256)
December 31, 2021	(54,296,574)	22,580,265	(31,716,309)	54,421	0	(31,661,888)
December 31, 2022	3,832,181	17,801,806	21,633,987	78,576	0	21,712,563

Values for plan year ending December 31, 2015 and earlier as reported by the prior actuary.

* Net "non-recurring" changes. Prior actuary's report did not delineate between plan and assumption/method changes.

Exhibit 9

SCHEDULE OF RETIREES AND BENEFICIARIES

Plan Year Ending	Number Added to Rolls	Allowances Added to Rolls ⁽¹⁾	Number Removed from Rolls	Annual Allowances Removed from Rolls	Number of Annual Allowances	Annual Allowances	% Increase in Annual Allowances	Average Annual Allowances
12/31/1998	24	\$336,386	10	\$92,939	334	\$3,142,316	8.4%	\$9,408
12/31/1999	26	494,602	12	86,138	348	3,550,780	13.0	10,204
12/31/2000	29	424,053	7	40,491	370	4,059,627	14.3	10,972
12/31/2001	34	522,592	19	141,937	385	4,440,282	9.4	11,533
12/31/2002	29	519,243	17	141,245	397	4,818,280	8.5	12,137
12/31/2003	16	439,456	17	114,998	396	5,142,738	6.7	12,987
12/31/2004	42	432,739	17	155,755	421	5,731,232	11.4	13,613
12/31/2005	53	1,360,120	12	148,221	462	6,943,131	21.1	15,028
12/31/2006	44	983,775	9	91,156	497	7,835,750	12.9	15,766
12/31/2007	36	797,303	19	196,227	514	8,436,826	7.7	16,414
12/31/2008	54	1,429,071	16	271,603	552	9,594,295	13.7	17,381
12/31/2009	41	604,010	19	213,688	574	9,984,617	4.1	17,395
12/31/2010	59	1,188,630	19	231,051	614	10,942,196	9.6	17,821
12/31/2011	67	1,844,967	19	255,630	662	12,531,532	14.5	18,930
12/31/2012	66	1,573,353	13	144,397	715	13,960,488	11.4	19,525
12/31/2013	55	1,246,991	13	180,841	757	15,026,638	7.6	19,850
12/31/2014	75	1,893,779	18	243,569	814	16,676,848	11.0	20,488
12/31/2015	65	1,496,283	21	439,176	858	17,733,955	6.3	20,669
12/31/2016	99	1,961,129	12	141,738	945	19,553,346	10.3	20,691
12/31/2017	64	1,981,956	13	193,799	996	21,341,503	9.1	21,427
12/31/2018	99	2,869,920	17	242,026	1,078	23,969,397	12.3	22,235
12/31/2019	86	2,632,899	30	499,676	1,134	26,102,620	8.9	23,018
12/31/2020	76	1,984,935	26	387,871	1,184	27,699,684	6.1	23,395
12/31/2021	81	3,387,402	25	456,078	1,240	30,631,008	10.6	24,702
12/31/2022	70	3,332,791	14	433,352	1,296	33,530,447	9.5	25,872

⁽¹⁾ Includes Cost of Living adjustments

STATISTICAL SECTION



City of Aurora
General Employees' Retirement Plan

Statistical Section

In this section, financial data and Plan member information are presented graphically in order to illustrate trends over recent time periods.

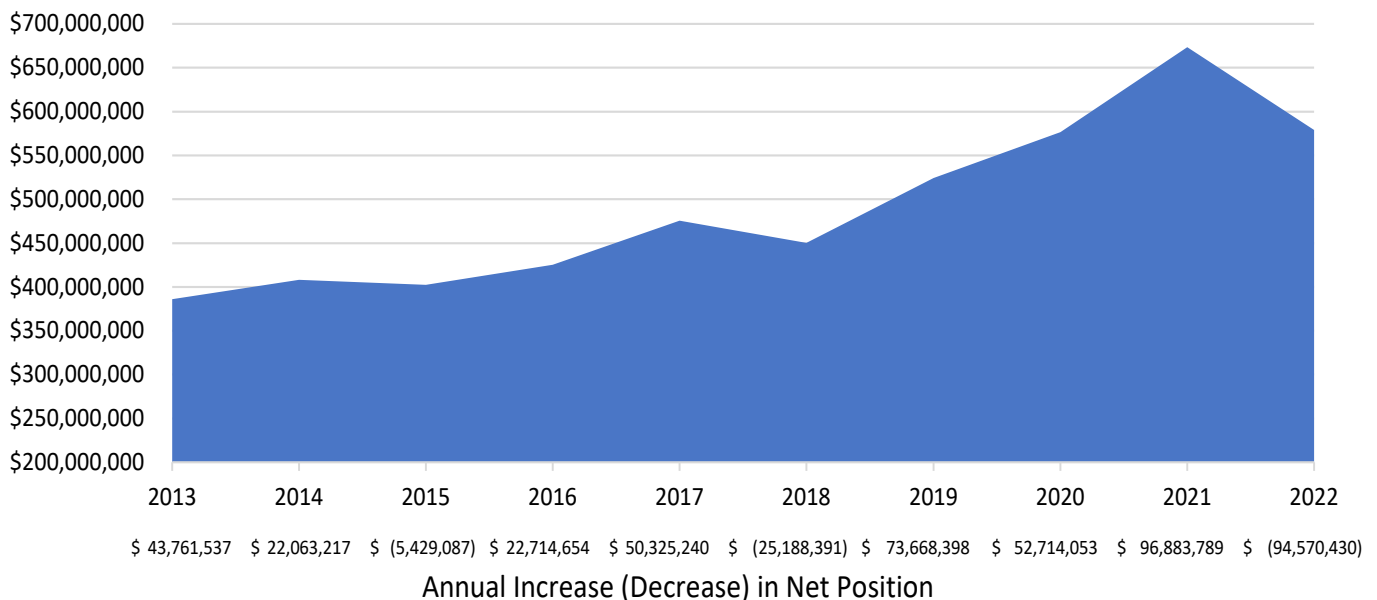
The chart below shows how the GERP’s net position has changed over the last ten years. This time period encompasses most of the recovery from the 2008 global financial crisis. The increase or decrease for each year is displayed at the bottom of the chart.

Pages 112 and 113 illustrate the ten-year trends in total additions to and deductions from the Plan’s net position.

Benefits and contribution refunds by type are detailed at the top of page 114. Monthly pension payments to retired members and beneficiaries comprised 90% of the Plan’s total benefit expense in 2022. The ten-year trend in average pension payments appears at the bottom of page 114.

Information on pensioners currently in payment status is provided on page 115. Data as of January 1, 2023 is used for this analysis, consistent with the timeframe of actuary’s annual valuation report. Page 116 shows the final average salary earned and monthly benefit received for pensioners who were added in each of the last ten years.

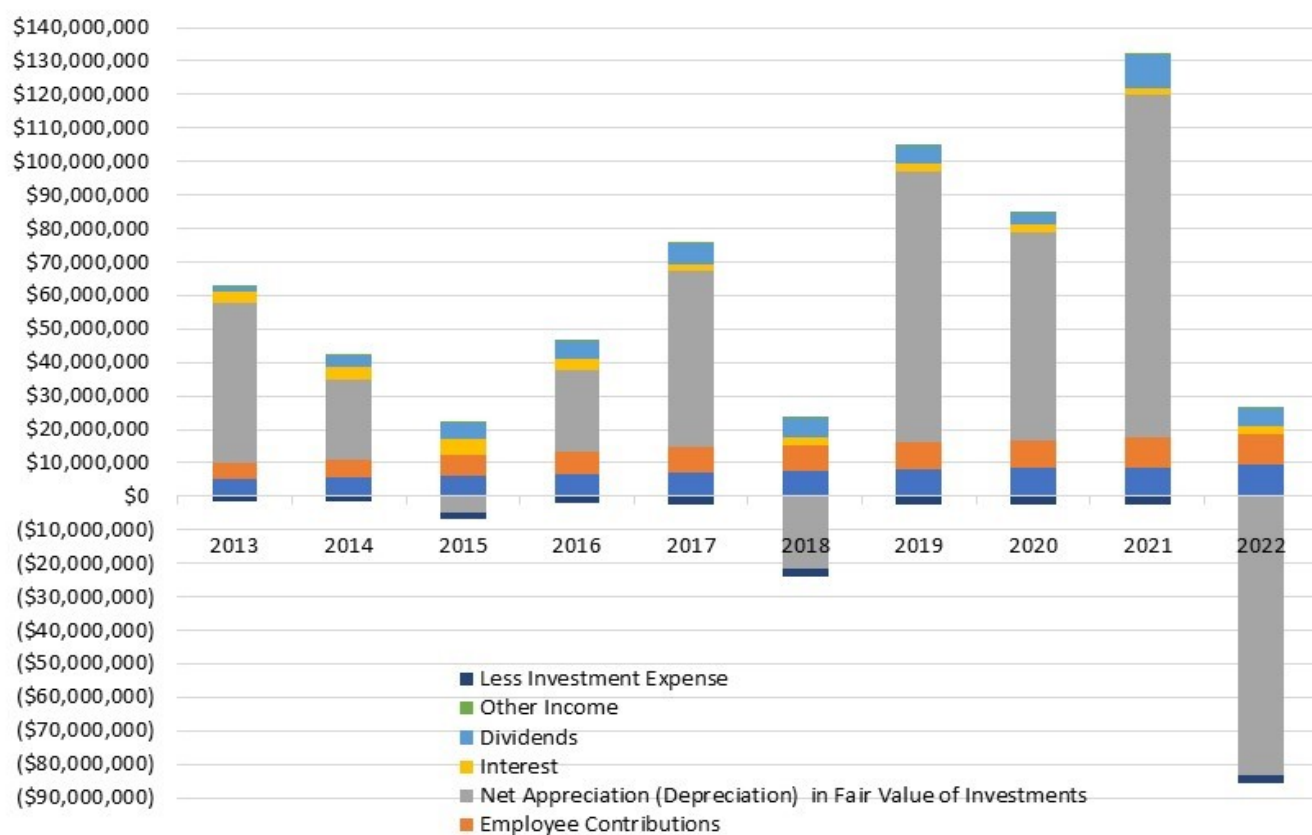
Change in Net Position 2013 - 2022



ADDITIONS TO NET POSITION BY SOURCE

Fiscal Year	Employer Contributions	Employee Contributions	Net Appreciation (Depreciation) in Fair Value of Investments	Interest	Dividends	Other Income	Less Investment Expense	Total Additions (Reductions)
2013	5,007,530	5,021,435	47,594,940	3,344,932	1,794,131	42,323	(1,431,396)	61,373,895
2014	5,536,583	5,531,417	23,582,791	3,813,774	3,375,884	21,156	(1,625,991)	40,235,614
2015	6,135,777	6,137,147	(4,667,981)	5,048,403	4,431,771	13,592	(1,855,257)	15,243,452
2016	6,703,676	6,709,396	24,281,596	3,390,350	5,367,706	13,392	(2,028,915)	44,437,201
2017	7,321,152	7,326,872	52,764,310	2,088,738	5,853,853	20,306	(2,320,219)	73,055,012
2018	7,632,330	7,638,089	(21,636,658)	2,263,238	5,943,842	10,148	(2,255,844)	(404,855)
2019	8,187,470	8,190,368	80,541,599	2,319,004	5,443,636	31,834	(2,370,214)	102,343,697
2020	8,431,103	8,431,103	62,159,031	1,979,064	3,464,868	5,572	(2,308,673)	82,162,068
2021	8,732,379	8,732,412	102,310,979	2,041,760	10,208,406	5,104	(2,459,915)	129,571,125
2022	9,393,456	9,394,498	(83,098,660)	2,247,318	5,029,934	3,531	(2,537,245)	(59,567,168)

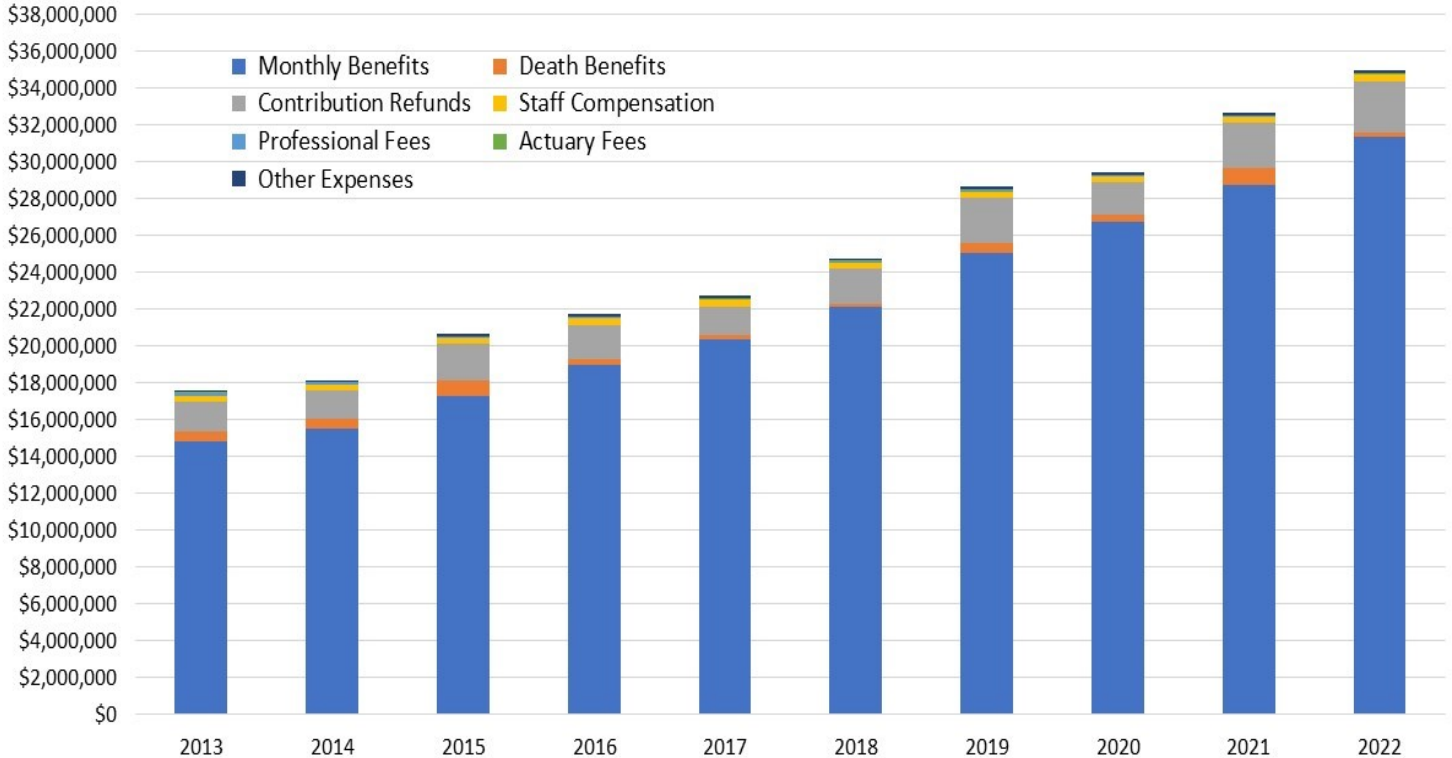
Trend in Revenue Sources 2013 - 2022



DEDUCTIONS FROM NET POSITION BY EXPENSE TYPE

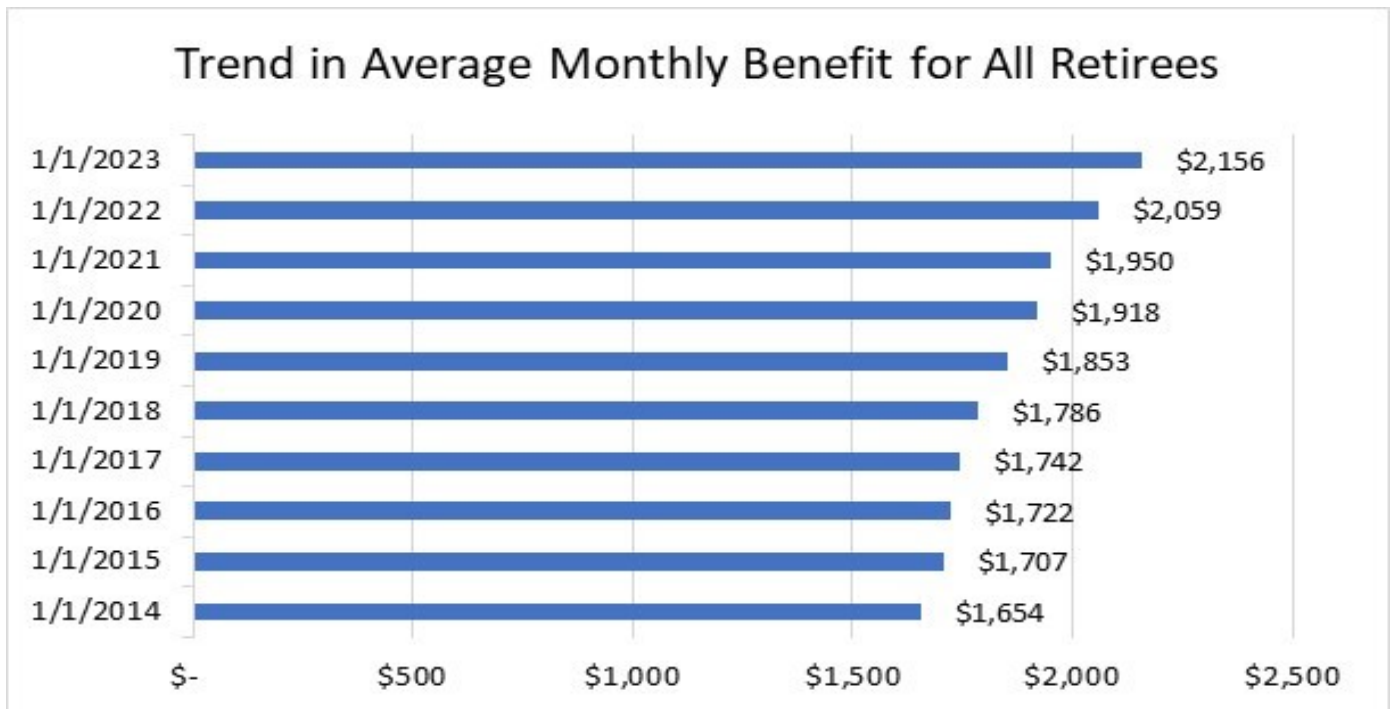
Fiscal Year	Benefit Expense	Staff Compensation	Professional Fees	Actuary Fees	Other Expenses	Total Deductions
2013	17,023,098	297,373	120,687	68,957	102,243	17,612,358
2014	17,627,436	308,607	95,910	35,990	104,454	18,172,397
2015	20,123,726	326,193	68,550	42,500	111,570	20,672,539
2016	21,163,587	340,309	61,581	41,752	115,318	21,722,547
2017	22,154,948	343,440	61,231	40,483	129,670	22,729,772
2018	24,228,316	306,305	80,774	37,450	130,691	24,783,536
2019	28,079,798	305,042	62,926	77,000	150,533	28,675,299
2020	28,912,900	312,356	60,811	42,061	119,887	29,448,015
2021	32,130,354	309,067	69,118	41,688	134,876	32,685,103
2022	34,391,435	326,866	62,631	65,442	156,888	35,003,262

Trend in Expenses 2013 - 2022



BENEFIT EXPENSES BY TYPE

Year Ending	<u>Retired Members</u>		<u>Beneficiaries</u>			<u>Terminated Members</u>	Total Benefit Expense
	<i>Regular Pension Benefits</i>	<i>Supplemental Benefits</i>	<i>Survivor Pension Benefits</i>	<i>Survivor Supplemental Benefits</i>	<i>Lump Sum Death Benefits</i>	<i>Contribution Refunds</i>	
2013	12,771,378	1,106,994	816,620	111,353	583,450	1,633,303	17,023,098
2014	13,440,328	1,178,476	830,358	113,439	497,145	1,567,690	17,627,436
2015	15,149,869	1,276,526	780,098	110,711	825,190	1,981,332	20,123,726
2016	16,685,617	1,380,876	774,005	109,892	321,624	1,891,573	21,163,587
2017	17,997,440	1,486,644	802,244	115,973	188,352	1,564,295	22,154,948
2018	19,541,351	1,569,276	920,016	125,090	100,820	1,971,763	24,228,316
2019	22,347,134	1,714,201	878,108	118,912	511,447	2,509,996	28,079,798
2020	23,791,137	1,790,767	1,016,671	130,018	382,489	1,801,818	28,912,900
2021	25,673,343	1,851,775	1,093,756	136,574	911,598	2,463,308	32,130,354
2022	27,893,822	1,931,715	1,361,300	156,990	273,502	2,774,106	34,391,435



**PENSIONERS IN PAYMENT STATUS ON JANUARY 1, 2023
BY BENEFIT AMOUNT, RETIREMENT TYPE AND PAYMENT OPTION**

Total Monthly Benefit

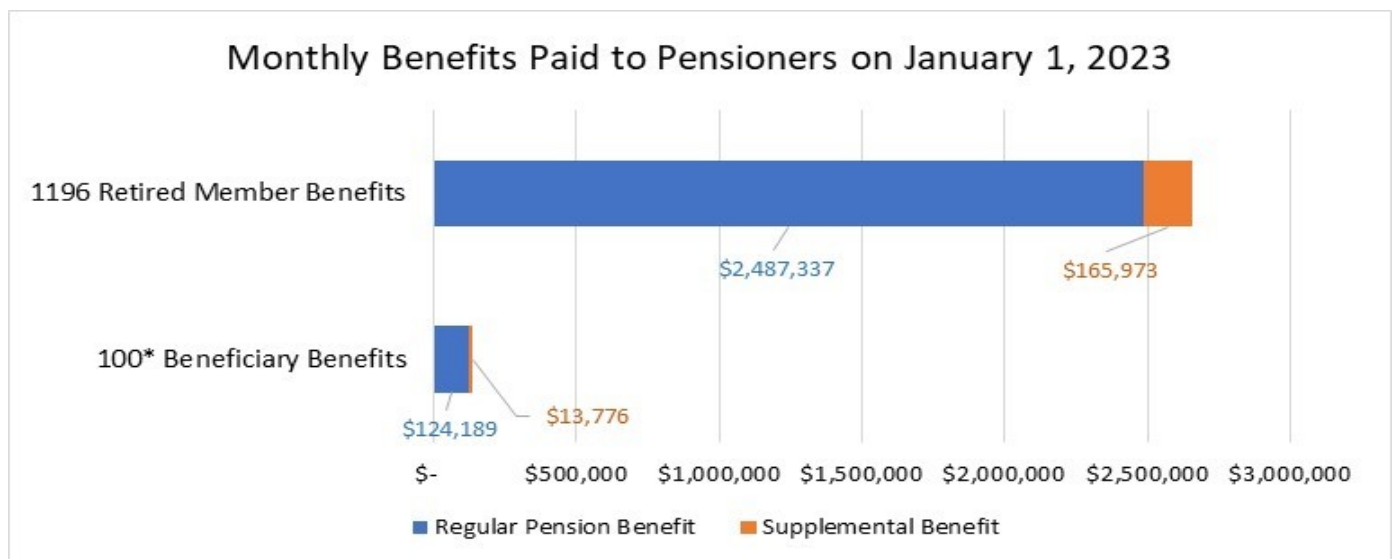
	\$1 to \$500	\$501 to \$1,000	\$1,001 to \$1,500	\$1,501 to \$2,000	Above \$2,000	Total
Number of Pensioners	88	225	214	171	598	1,296

By Type of Retirement

Early retirement with reductions	7	103	98	50	54	312
Unreduced early retirement	0	1	15	56	369	441
Normal retirement	71	83	86	47	142	429
Beneficiary of a deceased Plan member	8	31	12	17	22	90
Other (10 receive benefits as both retired members and beneficiaries; 14 are DRO alternate payees)	2	7	3	1	11	24

By Payment Option Selected

Straight Life Annuity	35	100	99	64	237	535
50%, 75% or 100% Joint & Survivor Annuity	40	78	87	75	285	565
10- or 15-Year Certain and Lifetime Annuity	0	3	1	3	1	8
Partial Lump Sum, together with one of the annuities above	13	44	27	29	75	188



The Supplemental Benefit was added to the Plan in 1986 to assist pensioners with their health care expenses. It does not represent an obligation by the Plan or the City to pay post-employment health care costs. Participants with 20 or more years of credited service receive a maximum of \$176 per month; the benefit amount is prorated for shorter service.

*Ten pensioners received benefits as both retired members and beneficiaries.

AVERAGE BENEFIT PAYMENTS BY SERVICE INCREMENT FOR PENSIONERS (RETIRED MEMBERS AND BENEFICIARIES) ENTERING PAYMENT STATUS IN THE LATEST 10 YEARS

For pension benefits starting	Years of Credited Service							Total
	Less than 5	5-10	10-15	15-20	20-25	25-30	Greater than 30	
<u>1/1/2013 to 12/31/2013</u>								
Average monthly benefit	\$ 200	\$ 503	\$ 786	\$ 879	\$ 1,751	\$ 2,349	\$ 2,727	\$ 1,567
Final average monthly salary	\$ 6,712	\$ 3,709	\$ 4,049	\$ 3,878	\$ 3,803	\$ 4,659	\$ 4,987	\$ 4,321
Number of pensioners added	1	11	10	5	9	11	14	61
<u>1/1/2014 to 12/31/2014</u>								
Average monthly benefit	\$ -	\$ 498	\$ 995	\$ 1,234	\$ 1,381	\$ 2,362	\$ 3,346	\$ 1,690
Final average monthly salary	\$ -	\$ 3,828	\$ 4,776	\$ 4,298	\$ 3,736	\$ 4,650	\$ 5,736	\$ 4,616
Number of pensioners added	0	12	12	14	7	7	16	68
<u>1/1/2015 to 12/31/2015</u>								
Average monthly benefit	\$ 145	\$ 523	\$ 1,004	\$ 1,572	\$ 1,695	\$ 2,175	\$ 3,781	\$ 1,987
Final average monthly salary	\$ 3,657	\$ 3,181	\$ 4,471	\$ 5,923	\$ 4,075	\$ 4,403	\$ 6,064	\$ 4,976
Number of pensioners added	4	7	16	13	7	7	22	76
<u>1/1/2016 to 12/31/2016</u>								
Average monthly benefit	\$ 117	\$ 662	\$ 808	\$ 998	\$ 2,166	\$ 2,922	\$ 3,345	\$ 1,723
Final average monthly salary	\$ 2,476	\$ 4,624	\$ 4,284	\$ 3,891	\$ 5,086	\$ 6,536	\$ 5,473	\$ 4,760
Number of pensioners added	2	8	23	19	11	9	19	91
<u>1/1/2017 to 12/31/2017</u>								
Average monthly benefit	\$ 744	\$ 565	\$ 898	\$ 1,507	\$ 2,284	\$ 2,461	\$ 3,081	\$ 1,966
Final average monthly salary	\$ 7,919	\$ 2,944	\$ 4,585	\$ 5,020	\$ 5,718	\$ 4,971	\$ 5,196	\$ 4,896
Number of pensioners added	1	7	14	13	7	6	24	72
<u>1/1/2018 to 12/31/2018</u>								
Average monthly benefit	\$ 40	\$ 446	\$ 1,084	\$ 1,409	\$ 2,092	\$ 2,304	\$ 3,799	\$ 1,827
Final average monthly salary	\$ 1,356	\$ 3,210	\$ 4,847	\$ 4,729	\$ 5,338	\$ 5,460	\$ 5,363	\$ 4,801
Number of pensioners added	1	11	23	14	15	5	17	86
<u>1/1/2019 to 12/31/2019</u>								
Average monthly benefit	\$ -	\$ 740	\$ 858	\$ 1,683	\$ 2,073	\$ 2,948	\$ 4,200	\$ 2,348
Final average monthly salary	\$ -	\$ 4,800	\$ 4,599	\$ 5,032	\$ 5,259	\$ 5,711	\$ 6,861	\$ 5,569
Number of pensioners added	0	14	15	21	19	8	32	109
<u>1/1/2020 to 12/31/2020</u>								
Average monthly benefit	\$ 538	\$ 674	\$ 1,213	\$ 1,902	\$ 2,167	\$ 2,222	\$ 4,041	\$ 1,770
Final average monthly salary	Alt Payee	\$ 4,476	\$ 5,173	\$ 5,620	\$ 5,317	\$ 4,600	\$ 6,453	\$ 5,253
Number of pensioners added	1	15	19	20	21	3	7	86
<u>1/1/2021 to 12/31/2021</u>								
Average monthly benefit	\$ 313	\$ 492	\$ 1,373	\$ 1,752	\$ 1,920	\$ 2,565	\$ 4,499	\$ 2,160
Final average monthly salary	\$ 1,020	\$ 4,476	\$ 5,925	\$ 5,822	\$ 4,473	\$ 5,123	\$ 7,201	\$ 5,595
Number of pensioners added	3	9	14	22	12	9	17	86
<u>1/1/2022 to 12/31/2022</u>								
Average monthly benefit	\$ 1,320	\$ 578	\$ 1,217	\$ 2,514	\$ 2,168	\$ 2,800	\$ 4,238	\$ 2,521
Final average monthly salary	\$ 1,800	\$ 4,180	\$ 5,209	\$ 8,284	\$ 5,670	\$ 5,683	\$ 6,910	\$ 6,240
Number of pensioners added	2	6	15	18	21	17	21	100