

## **CITY OF KNOXVILLE PENSION SYSTEM**

A Pension Trust Fund of the City of Knoxville, Tennessee

Annual Comprehensive Financial Report

Fiscal Year Ended June 30, 2022

(with comparative financial statements

for the fiscal year ended June 30, 2021)

Prepared by the City of Knoxville Pension Board

Kristi Paczkowski, Executive Director

Stephanie Cooper, Accounting Manager

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## **INTRODUCTORY SECTION**

## BOARD MEMBERS

Mayor Indya Kincannon  
Boyce Evans  
Lynne Fugate  
James Kennedy, Jr.  
Jacob Mason  
Alex Neubert  
Dennis Owen  
R. Phillip Reyes  
Twuanna Munroe Ward

## CITY OF KNOXVILLE



## PENSION BOARD

Kristi Fowler Paczkowski, CPA – Executive Director

## STAFF

Whitney Bean  
Amanda Bradley  
Stephanie Cooper

December 8, 2022

To the Pension Board, the City of Knoxville, and the Members of the Pension System:

The Annual Comprehensive Financial Report (ACFR) of the City of Knoxville Pension System (the System) for the fiscal year ended June 30, 2022 is herewith submitted. The ACFR is an overview intended to give the reader reliable and useful information which describes the financial position of the System and provides assurance that the System is in compliance with applicable legal provisions. Management assumes full responsibility for the accuracy and reliability of the information contained in this report, based upon a comprehensive framework of internal control that it has established for this purpose. 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. Monitoring and evaluation of internal controls is a function that is maintained on an ongoing basis.

U.S. generally accepted accounting principles (GAAP) require that management provide a narrative introduction, overview, and analysis to accompany the basic financial statements in the form of Management's Discussion and Analysis (MD&A). This letter of transmittal is designed to complement MD&A and should be read in conjunction with it. The System's MD&A can be found in the Financial Section of this report.

Crosslin, PLLC as the System's independent auditors has issued an unmodified ("clean") opinion on the System's financial statements for the year ended June 30, 2022. The independent auditor's report begins on page 1 of the Financial Section of this report.

### Profile of the System

The System was established in 1929 to provide retirement, survivor, and disability benefits to eligible City of Knoxville (City) employees. Plan H is the only open plan and covers both general government and uniformed safety employees and is a hybrid defined benefit plan. General government and uniformed body employees hired after January 1, 2013 are granted automatic membership into the System at their date of hire and are required to contribute 6% of their regular bi-weekly salary to help fund the System.

All regular employees of the City are covered members of the System under one of six defined benefit plans established by the City of Knoxville Charter Article XIII.

Plan A is a closed plan primarily covering Board of Education members and has 3 remaining participants who have not retired from the System. Plan B is also a closed plan and has only 1 remaining active participant. Plan C is a closed plan covering the uniformed bodies of fire and police hired prior to January 1, 2013 and has 423 participants who have not retired from the System. Plan F is a closed plan covering retired police and fire and has no remaining active participants. Plan G is a closed plan covering general-government employees hired between January 1, 1997 and December 31, 2012. There are 34 and 283 active participants remaining between G-1 and G-2 divisions respectively of plan G. The six plans are described in more detail in the Notes to the Financial Statements which can be found in the Financial Section of this report.

The System provides normal, early, and deferred retirement benefit options. At the time of retirement, a member may elect to receive a reduced benefit in order to provide one of the following benefits: 1) a lifetime benefit to a spouse upon the member's death; or 2) a life annuity to the member with a guaranteed payment for sixty (60), one hundred twenty (120), or one hundred eighty (180) months as selected by the member to a beneficiary(ies); or 3) a life annuity to the member payable monthly and upon the death of the member, a lump sum amount could be payable to the member's beneficiary(ies) equal to the difference, if any, between the actuarially determined single sum value of the benefit and the total of the monthly payments paid to the retired member. The System also provides disability benefits, both occupational and non-occupational. Employees in Plans A, C and G are vested in the System after five years of service. Employees in Plans B and H are vested in the System after ten years of service.

The System is considered a part of the City of Knoxville's financial reporting entity and is included in the City's ACFR as a pension trust fund, a fiduciary fund type. The City's ACFR is also submitted to the Government Finance Officers Association for annual review under the Certificate of Achievement for Excellence in Financial Reporting program and is available online at [https://www.knoxvilletn.gov/government/city\\_departments\\_offices/Finance/annual\\_comprehensive\\_financial\\_report](https://www.knoxvilletn.gov/government/city_departments_offices/Finance/annual_comprehensive_financial_report).

### **Funding Status**

The System's funding objective is to meet long-term benefits promised through employee and employer contributions that remain approximately level as a percent of member payroll. Increased funding improves the ratio of assets and provides greater investment potential. The advantage of a well-funded plan is that participants are confident that assets are committed to the payment of their current and future benefits.

The System ended the year with Fiduciary Net Position equaling 68.86% of Total Pension Liability based on the entry age normal funding actuarial method. The goal of the System is to be fully funded. The Total Pension Liability and Fiduciary Net Position as of June 30, 2022 were \$932,811,646 and \$642,378,359 respectively. Additional information relative to the funded status of the System is provided in the Actuarial Section of this report.

## **Investments**

The primary investment objective of the System is to ensure, over the long-term, an adequate level of assets to fund the benefits guaranteed to the System members and their beneficiaries at the time they are payable. A secondary investment objective is to earn a total rate of return, after all expenses, that equals or exceeds the actuarial investment return assumption. The Pension Board (the Board), along with help from its actuary and investment consultant, uses the System's asset allocation as the primary tool to achieve this objective. As this is a long-term projection and investments are subject to short-term volatility, the main investment focus of the Board toward the total System's assumed rate of return and that of each investment manager will be on performance relative to the appropriate asset class, mix of asset classes, and peer performance over relevant time periods. Each manager is expected to maintain a consistent philosophy and style, perform well versus others utilizing the same style, and add incremental value after costs.

An integral part of the overall investment policy is the strategic asset allocation policy. The targeted strategic asset allocation is designed to provide an optimal diversification to reduce risk and maximize total rate of return relative to risk. This emphasizes a maximum diversification of the portfolio that protects the System from declines that a particular asset class may experience in any given period. The System continually reviews asset allocation to reflect the current investment market with a focus on lowering the volatility of the overall fund.

The System's actual time-weighted investment return of -7.1% for the year ended June 30, 2022 was significantly less than the actuarially expected rate of return of 7.25% which is one reason the System is phasing in a reduced rate of return over the next five years. The rate of return will be decreased by five basis points each year culminating in a rate of return of 7.00% for the fiscal year ending June 30, 2027. Employer contributions will continue to be above the long-term annual costs of the plan which places stress on the City's overall financial environment. A summary of the System's June 30, 2022 asset allocation can be found in the Investment Section of this report along with more detailed investment information.

### **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 Knoxville Pension System for its ACFR for the fiscal year ended June 30, 2021. The Certificate of Achievement is a prestigious national award recognizing excellence in the preparation of state and local government financial reports. To be awarded the Certificate of Achievement for Excellence in Financial Reporting, a government unit must publish an easily readable and efficiently organized report, the contents of which meet or exceed program standards. The report must satisfy both generally accepted accounting principles and applicable legal requirements. A Certificate of Achievement is valid for one year. The System has received a Certificate of Achievement for ten years in a row. We believe this current report continues to meet the Certificate of Achievement program requirements and will submit it to the GFOA for consideration again this year.

### **Conclusion**

This annual report reflects the combined efforts of the System staff members and is intended to provide complete and reliable information as a basis for making management decisions and determination of responsible stewardship of the assets of the System.

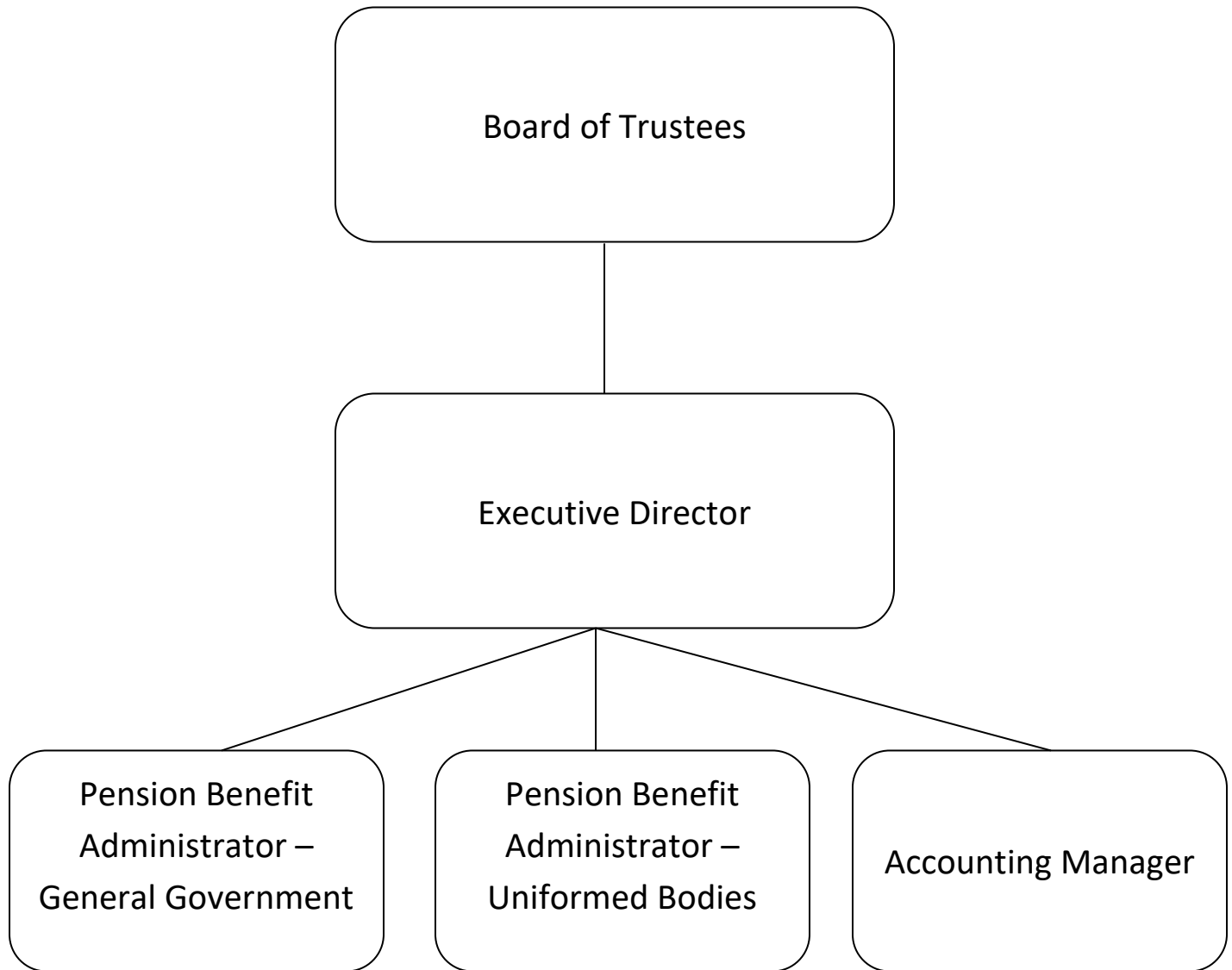
Respectfully submitted,



Kristi F. Paczkowski, CPA  
Executive Director



## Organizational Chart



## **Administrative Organization**

### **Board of Trustees**

Mayor Indya Kincannon, Chair

Alex Neubert, Vice-Chair  
General Government Seat A

Boyce Evans, Secretary  
City Finance Director

Lynne Fugate  
City Council Representative

James Kennedy, Jr.  
Uniformed Bodies Seat A

Jacob Mason  
Uniformed Bodies Seat B

Dennis Owen  
Mayoral Appointee

R. Phillip Reyes  
General Government Seat B

Twuanna Munroe Ward  
Mayoral Appointee

### **Administrative Staff**

Whitney Bean  
Pension Benefit Administrator

Amanda Bradley  
Pension Benefit Administrator

Stephanie Cooper  
Accounting Manager

Kristi Paczkowski  
Executive Director

### **Actuary**

Laura Stewart  
USI Consulting Group  
Brentwood, Tennessee

### **Auditor**

Crosslin, PLLC  
Nashville, Tennessee

### **Legal**

Kathy D. Aslinger  
Kennerly, Montgomery & Finley P.C.  
Knoxville, Tennessee

### **Custodian**

Northern Trust  
Chicago, Illinois

### **Investment Consultant**

Marquette Associates  
Chicago, Illinois

### **Investment Managers\*\***

57 Stars, LLC  
Washington, DC

Aberdeen Asset Management Inc.  
Philadelphia, Pennsylvania

Acadian Asset Management LLC  
Boston, Massachusetts

Adams Street Partners, LLC  
Chicago, Illinois

Aether Investment Partners  
Denver, Colorado

## Administrative Organization (Continued)

### Investment Managers\*\* (Continued)

Eagle Capital Management  
New York, New York

Fort Washington Investment Advisors, Inc.  
Cincinnati, Ohio

IFM Investors (US), LLC  
New York, New York

Income Research & Management  
Boston, Massachusetts

NB Alternatives Advisers, LLC  
Dallas, Texas

Ninety One Limited  
New York, New York

Northern Trust Investments, Inc.  
Chicago, Illinois

Parametric  
Minneapolis, Minnesota

Partners Group  
Boston, Massachusetts

Pinnacle Associates LTD  
New York, New York

Principal Global Investors  
Des Moines, Iowa

RREEF  
New York, New York

Schroder Investment Management  
New York, New York

Silchester International Investors  
New York, New York

Top Tier Capital Partners, LLC  
San Francisco, California

Ullico Investment Advisors  
Silver Spring, Maryland

William Blair & Company  
Chicago, Illinois

\*\*Refer to the Schedules of Fees and Commissions (pages 59-61) for details of fees paid to each Investment Manager.



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Tennessee

For its Annual Comprehensive  
Financial Report  
for the Fiscal Year Ended

June 30, 2021

*Christopher P. Morrell*

Executive Director/CEO

## **FINANCIAL SECTION**



## Independent Auditor's Report

To the Members of the Pension Board  
City of Knoxville Pension System  
Knoxville, Tennessee

### **Report on the Audit of the Financial Statements**

#### ***Opinions***

We have audited the accompanying financial statements of the City of Knoxville Pension System (the "System"), a pension trust fund of the City of Knoxville, Tennessee, which comprise the statements of fiduciary net position as of June 30, 2022 and 2021, and the related statements of changes in fiduciary net position for the years then ended, and the related notes to the financial statements as listed in the table of contents.

In our opinion, the financial statements referred to above present fairly, in all material respects, the City of Knoxville Pension System's fiduciary net position as of June 30, 2022 and 2021, and the changes in its fiduciary net position, for the years then ended in accordance with accounting principles generally accepted in the United States of America.

#### ***Basis for Opinions***

We conducted our audit in accordance with 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. 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 System 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 opinions.

#### ***Emphasis of Matter***

As discussed in Note 1(a), the financial statements present only the statements of fiduciary net position and changes in fiduciary net position of the System and do not purport to, and do not, present fairly the financial position of the City of Knoxville, Tennessee, as of June 30, 2022 and 2021, the changes in its financial position for the years then ended in accordance with accounting principles generally accepted in the United States of America. 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.



To the Members of the Pension Board  
City of Knoxville Pension System

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 System's ability to continue as a going concern for twelve 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 opinions. 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 generally accepted auditing standards 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 generally accepted auditing standards 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 System'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 System's ability to continue as a going concern for a reasonable period of time.



To the Members of the Pension Board  
City of Knoxville Pension System

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 on pages 5 – 8 and the schedules of changes in the net pension liability and related ratios, employer contributions, investment returns, on pages 44 – 46 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 supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

***Supplementary Information***

Our audit was conducted for the purpose of forming opinions on the financial statements that collectively comprise the System's basic financial statements. The accompanying supporting schedules 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 auditing standards generally accepted in the United States of America. In our opinion, the supporting schedules 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 report. The other information comprises the introductory, investment, actuarial, and statistical sections 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.





To the Members of the Pension Board  
City of Knoxville Pension System

**Other Reporting Required by *Government Auditing Standards***

In accordance with *Government Auditing Standards*, we have also issued our report dated December 8, 2022, on our consideration of the System'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 System'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 System's internal control over financial reporting and compliance.

Nashville, Tennessee  
December 8, 2022

## **CITY OF KNOXVILLE PENSION SYSTEM**

### **Management's Discussion and Analysis**

This is an analysis and overview of the financial activities of the City of Knoxville Pension System (the System) for the years ended June 30, 2022 and 2021. For more detailed information, please refer to the basic financial statements, notes to the financial statements, required supplementary information and supporting schedules.

### **Financial Highlights**

- The net position restricted for pension benefits at the close of the plan year ending June 30, 2022 was \$642.4 million. All of the net position is available to meet the System's ongoing obligations to plan participants and their beneficiaries.
- The System's net position decreased \$76.5 million, or 10.6%, primarily as a result of unfavorable financial markets during the fiscal year. Investment expenses exceeded investment earnings during the year resulting in a net investment loss of \$55.0 million.
- Additions to net position included \$4.5 million in contributions from active members and \$28.7 million in contributions from the City of Knoxville.
- Deductions from net position increased \$1.4 million, or 2.6%, from the prior year primarily due to the annual cost of living adjustment to the benefits paid to retired members and beneficiaries.
- The System's overall funding level decreased from the prior year. The Plan Fiduciary Net Position as a Percentage of Total Pension Liability was 68.86% as of June 30, 2022 and 83.77% as of June 30, 2021. This decrease was due to a combination of factors occurring during the year, the most significant of which was the negative return on investments. The City of Knoxville made considerable salary adjustments to most of the workforce during the year ending June 30, 2022. These changes increased the pension liability, thus contributing to the decrease in the funded status. Also affecting the funding level was a change made to lower the discount rate assumption to align with expectations of future investment returns more closely.

### **Overview of the Financial Statements**

The following discussion and analysis is intended to serve as an introduction to the System's financial statements which follow. The financial statements include:

1. Statements of Fiduciary Net Position
2. Statements of Changes in Fiduciary Net Position
3. Notes to the Financial Statements
4. Required Supplementary Information

Each *Statement of Fiduciary Net Position* is a snapshot of account balances at year-end. It indicates the assets available for future payments to retirees and any current liabilities that are owed at that time.

Each *Statement of Changes in Fiduciary Net Position* shows the additions to and deductions from the System's net position over the year.

The Governmental Accounting Standards Board (GASB) promulgates the requirements for financial statement presentation and certain disclosures for state and local governmental entities. The financial statements, notes to financial statements, and required supplementary information presented in this report were prepared in compliance with applicable GASB pronouncements.

The Statement of Fiduciary Net Position and the Statement of Changes in Fiduciary Net Position report information about the System's activities. These statements include all assets and liabilities using the accrual basis of accounting. Investment activities have been reported based on trade dates and were valued pursuant to independent outside sources. Both realized and unrealized gains and losses are shown on investments, and all capital assets are depreciated over their useful lives.

*Notes to the Financial Statements* provide additional information which is essential for a full understanding of the data provided in the basic financial statements.

*Required Supplementary Information* provides additional information and details about the System's progress in funding its future obligations and the history of employer and employee contributions.

## Financial Analysis

There are several ways to measure the System's financial status. One way is to determine the net position available to pay benefits. Net position is the difference between total assets and total liabilities. The table below provides a summary of the System's net position as of June 30, 2022 and the preceding two years for comparative purposes.

	As of June 30		
	2022	2021	2020
<b>Assets</b>			
Investments	\$ 642,999,928	\$ 718,943,012	\$ 603,672,624
Cash on Hand	787	2,217	898
Receivables	1,808,501	3,989,884	1,963,465
Capital Assets	-	4,086	9,834
	644,809,216	722,939,199	605,646,821
<b>Liabilities</b>	2,430,857	4,104,153	2,591,962
<b>Fiduciary Net Position</b>	<b>\$ 642,378,359</b>	<b>\$ 718,835,046</b>	<b>\$ 603,054,859</b>

The System's net position increased during the fiscal year ending in 2021 and decreased in the fiscal years ending in 2022 and 2020. Each year's change was primarily due to the performance of the financial markets. The following table provides a summary of the changes in net position for these three years.

	For the Fiscal Year Ended June 30		
	2022	2021	2020
<b>Additions to Fiduciary Net Position</b>			
Net Investment Income/(Loss)	\$ (55,003,697)	\$ 135,614,528	\$ 15,174,020
Contributions	33,119,927	33,377,640	33,544,360
Total Additions	(21,883,770)	168,992,168	48,718,380
<b>Deductions from Fiduciary Net Position</b>			
Benefit Payments	53,054,434	51,710,349	50,299,815
Employee Refunds	610,524	804,450	792,107
Administrative Expenses	907,959	697,182	739,388
Total Deductions	54,572,917	53,211,981	51,831,310
Change in Fiduciary Net Position	(76,456,687)	115,780,187	(3,112,930)
Fiduciary Net Position at Beginning of Year	718,835,046	603,054,859	606,167,789
<b>Fiduciary Net Position at End of Year</b>	<b>\$ 642,378,359</b>	<b>\$ 718,835,046</b>	<b>\$ 603,054,859</b>

### ***Additions to Fiduciary Net Position***

The funds needed to pay benefits are accumulated from the contributions made by the City and member-employees and income generated from the System's investments. Earnings or losses on investments are reported net of investment management expenses. The employer contribution rates for Plan C were 17.65%, 17.52%, and 17.71% of covered payroll for the fiscal years ended 2022, 2021, and 2020 respectively with an additional contribution towards the unfunded liability of \$12,227,000, \$12,319,900, and \$12,355,524 for the fiscal years ended 2022, 2021, and 2020 respectively. The employer contribution rates for Plans G, A, and B were 7.35%, 7.27%, and 7.27% for those same periods with an additional contribution towards the unfunded liability of \$4,758,000, \$4,922,900, and \$5,138,755 for the fiscal years ended 2022, 2021, and 2020 respectively. The City made contributions to Plan H at a rate of 8.83%, 8.85%, and 8.01% of covered payroll for general government employees in fiscal years ended 2022, 2021, and 2020 respectively. Plan H contributions for the uniformed bodies were 12.96%, 12.86%, and 12.89% for those same periods.

Employee contributions are at a fixed rate of 6% of regular pay. Fluctuations in base wages will cause a corresponding increase or decrease to the employees' contributions. For the fiscal years ended in 2022 and 2021 employee contributions increased 0.9% and 1.2% respectively.

### ***Deductions from Fiduciary Net Position***

Annual expenses of the System include retirement benefits, DROP distributions, refunds of employee contributions to terminated members and administrative expenses. Deductions for the current fiscal year increased 2.6% from the prior year which is comparable to the 2.7% increase from the year before that. The increases are attributable to higher benefit payments as a result of the annual cost of living adjustments.

### **Requests for Information**

This financial report is designed to provide a general overview of the City of Knoxville Pension System's finances for all of those with an interest in the System's finances. Questions concerning any of the information provided in this report or requests for additional financial information should be directed to:

City of Knoxville Pension System  
Attention: Executive Director  
917B East Fifth Avenue  
Knoxville, Tennessee 37917

# CITY OF KNOXVILLE PENSION SYSTEM

## STATEMENTS OF FIDUCIARY NET POSITION

As of June 30,

	<u>2022</u>	<u>2021</u>
<b><u>ASSETS</u></b>		
Investments Held by Trustee		
Cash and Cash Equivalents	\$ 6,765,119	\$ 10,982,017
United States Government Securities	73,940,864	77,870,612
State and Municipal Government Securities	3,736,283	2,713,462
International Securities	142,307,263	176,467,483
Domestic Corporate Bonds and Debentures	54,838,982	71,236,702
Real Assets	128,679,022	98,668,658
Domestic Equity Securities	<u>232,732,395</u>	<u>281,004,078</u>
Total Investments Held by Trustee	<u>642,999,928</u>	<u>718,943,012</u>
 Cash on Hand	 <u>787</u>	 <u>2,217</u>
 Receivables		
Pending Sale Proceeds	456,255	2,739,730
Accrued Interest and Dividends	1,352,246	1,250,109
Other Receivables	<u>-</u>	<u>45</u>
Total Receivables	<u>1,808,501</u>	<u>3,989,884</u>
 Capital Assets, Net of Accumulated Depreciation	 <u>-</u>	 <u>4,086</u>
 <b>Total Assets</b>	 <b><u>644,809,216</u></b>	 <b><u>722,939,199</u></b>
 <b><u>LIABILITIES</u></b>		
Accounts Payable - Administrative	489,550	506,253
Liability for Investment Purchases Pending	<u>1,941,307</u>	<u>3,597,900</u>
 <b>Total Liabilities</b>	 <b><u>2,430,857</u></b>	 <b><u>4,104,153</u></b>
 <b>Net Position Restricted for Pension Benefits</b>	 <b><u>\$ 642,378,359</u></b>	 <b><u>\$ 718,835,046</u></b>

\*\*The accompanying notes are an integral part of these financial statements.\*\*

# CITY OF KNOXVILLE PENSION SYSTEM

## STATEMENTS OF CHANGES IN FIDUCIARY NET POSITION

For the Years Ended June 30,

	<u>2022</u>	<u>2021</u>
<b><u>ADDITIONS TO FIDUCIARY NET POSITION</u></b>		
Net Investment Earnings		
Interest	\$ 4,956,194	\$ 5,242,515
Dividends	2,440,260	2,409,463
Net (Depreciation) Appreciation in Fair Value of Investments	(58,117,079)	131,510,220
Other Income	17,976	63,163
Total Investment Earnings	(50,702,649)	139,225,361
Less Investment Expense (See Page 48)	(4,301,048)	(3,610,833)
<b>Net Investment Earnings</b>	<u>(55,003,697)</u>	<u>135,614,528</u>
Contributions		
City of Knoxville Employer Contributions	28,650,787	28,947,231
Employee Contributions	4,469,140	4,430,409
<b>Total Contributions</b>	<u>33,119,927</u>	<u>33,377,640</u>
<b>Total Additions</b>	<u><b>(21,883,770)</b></u>	<u><b>168,992,168</b></u>
<b><u>DEDUCTIONS FROM FIDUCIARY NET POSITION</u></b>		
Participant Benefit Payments	53,054,434	51,710,349
Refunds to Terminated Employees	610,524	804,450
Administrative Expenses		
Depreciation	4,086	5,748
Other (See Page 47)	903,873	691,434
<b>Total Administrative Expenses</b>	<u>907,959</u>	<u>697,182</u>
<b>Total Deductions</b>	<u><b>54,572,917</b></u>	<u><b>53,211,981</b></u>
<b>NET CHANGE IN FIDUCIARY NET POSITION</b>	(76,456,687)	115,780,187
<b>NET POSITION RESTRICTED FOR PENSION BENEFITS</b>		
<b>AT BEGINNING OF YEAR</b>	<u>718,835,046</u>	<u>603,054,859</u>
<b>NET POSITION RESTRICTED FOR PENSION BENEFITS</b>		
<b>AT END OF YEAR</b>	<u><u>\$ 642,378,359</u></u>	<u><u>\$ 718,835,046</u></u>

**\*\*The accompanying notes are an integral part of these financial statements.\*\***

# CITY OF KNOXVILLE PENSION SYSTEM

## NOTES TO FINANCIAL STATEMENTS

June 30, 2022 and 2021

### NOTE 1 - SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

(a) *Reporting Entity*

The City of Knoxville Pension System (the "System") has separate legal standing and is fiscally independent of the City of Knoxville. However, based upon the criterion of financial accountability as defined by GASB Statement No. 84, *Fiduciary Activities*, the System is considered a part of the City's financial reporting entity and is included in the City's Annual Comprehensive Financial Report (ACFR) as a pension trust fund, a fiduciary fund type.

(b) *Basis of Accounting and Presentation*

The financial statements were prepared using the accrual basis of accounting. Employee and employer contributions are recognized as additions to plan net position in the period in which the employee services are performed and respective contributions are due. Deductions from fiduciary net position are recorded when the corresponding liabilities are incurred according to provisions of the System, regardless of when paid.

(c) *Plan Expenses*

The System's Board acts as the trustee of the System's assets. The operating and other administrative expenses incurred by the Board or its employees in the performance of its duties are paid from the assets of the System, which are accumulated from the contributions and investment earnings.

(d) *Investments*

The System is authorized to invest in eligible investments as approved by the Pension Board as set forth in its investment policy which is approved by City Council. Investments of the System shall be in accordance with all applicable laws of the State of Tennessee, specifically the prudent investor rule as set forth in Tenn. Code Ann. Sec. 35-14-103. The System's investments are held by a bank-administered custodial fund. Investments held by the System are stated at fair value. Many factors are considered in arriving at that fair value and are further explained in Note 5 of the financial statements.

(e) *Investment Income*

Dividend income is recorded on the ex-dividend date and interest income is recorded as earned on an accrual basis. Gains and losses on sales, maturities or exchanges of investments are determined on an average cost basis and are reflected in the statements of changes in fiduciary net position.



## **NOTE 1 - SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)**

### **(f) *Cash and Cash Equivalents***

Cash and cash equivalents consist of highly liquid investments, including cash held on a temporary basis by the Custodian, money market funds and certificates of deposit. Substantially all cash and cash equivalents are uninsured and uncollateralized; carrying values approximate bank balances. Only investments with maturities of three months or less at the time of purchase are classified as cash equivalents.

### **(g) *Capital Assets***

Property and equipment are stated at cost, less accumulated depreciation. Depreciation has been provided for using the straight-line method over the estimated useful life of the related asset.

### **(h) *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 certain reported amounts and disclosures. Accordingly, actual results could differ from those estimates. Significant estimates include fair value of investments and all actuarial calculations.

### **(i) *Reclassifications***

Management made certain reclassifications to the 2021 financial statements in order for those to conform to the 2022 presentation. These reclassifications had no effect on the change in fiduciary net position.

## **NOTE 2 - DESCRIPTION OF THE CITY OF KNOXVILLE PENSION SYSTEM**

### **(a) *General***

The City of Knoxville Pension System (the System) is a single-employer contributory, qualified defined benefit plan established under the City of Knoxville Pension Act of 1935, covering substantially all employees of the City of Knoxville (City), including uniformed bodies (Fire and Police) and employees of the former City of Knoxville Education System (Education). The System is designed to provide retirement, disability, and death benefits. Depending on which Division the participant is a member of, participants in the System remain non-vested in the City's contribution and the related earnings thereon until five to ten years of service has been achieved. The City of Knoxville Pension System is a governmental plan as defined by the Employee Retirement Income Security Act (ERISA) of 1974, is not subject to many of the provisions of ERISA, and is exempt from the reporting requirements of the Internal Revenue Service. The Divisions described in Note 2(g) are funded by contributions from the employers and employees in the various City departments and agencies.

## NOTE 2 - DESCRIPTION OF THE CITY OF KNOXVILLE PENSION SYSTEM (Continued)

Management of the System is entrusted to the Pension Board which consists of nine members. Four Board members are elected employee representatives – two from the general government, one from the police department and one from the fire department. The Council of the City of Knoxville elects one member who must be a resident of the City of Knoxville. The Mayor of the City of Knoxville appoints two members who must be residents of the City and have financial or accounting expertise. The Mayor of the City and the City Finance Director are ex-officio members of the Board.

The following description of the System is provided for general informational purposes only. For complete details of the plan, refer to the City of Knoxville Charter Article XIII, Sections 1301 – 1390.

### (b) *Financial Statement Presentation*

The System's actuarial valuations are performed annually. The latest available actuarial valuation is as of July 1, 2022, which corresponds to the financial information as of and for the year ended June 30, 2022.

The assets of the System are included in the City's annual comprehensive financial report as a fiduciary pension trust fund. The System receives significant contributions from the City.

### (c) *Membership*

As of July 1, 2022, the System had approximately 1,951 retirees and beneficiaries currently receiving benefits, 67 employees currently participating in the Delayed Retirement Option Program ("DROP") and 141 deferred vested participants. Of the approximately 1,392 active employees in the System, 745 are fully vested and the remaining 647 are not vested.

For comparative purposes, as of July 1, 2021, the System had 1,979 retirees and beneficiaries receiving benefits, 68 employees participating in the DROP and 129 deferred vested participants. Of the 1,423 active employees, 813 were fully vested and 610 were not vested.

### (d) *Board of Education*

Included in the financial statements are benefit amounts relating to certain former employees of the City of Knoxville Board of Education which was abolished and transferred to Knox County as of July 1, 1987. The City treats these benefit amounts as belonging to a terminated department and makes actuarially determined contributions sufficient to amortize the participants' accrued pension liabilities through July 1, 1987. The Board of Education merger with Knox County Schools is discussed further in Note 3 to the financial statements.

### (e) *Employer Contributions*

In accordance with Section 1360.10 of the City Charter, the City's contribution is based on an actuarially determined percentage of the monthly base earnings of the System's participants. The contribution for the former Board of Education department is an actuarially determined amount based on a level dollar amount to fund any actuarial liability.

**NOTE 2 - DESCRIPTION OF THE CITY OF KNOXVILLE PENSION SYSTEM (Continued)**

The recommended contributions are determined using the entry age normal funding method. Unfunded actuarial accrued liabilities are being amortized over a twenty-year period beginning July 1, 2022. Projected covered payroll for the year beginning July 1, 2022 amounted to approximately \$85,646,982. The ratio of the net pension liability to the covered payroll was 339%.

The contributions for the year ended June 30, 2022 were based on actuarial calculations as of July 1, 2020. The table below shows the contribution rates as percentages of covered payroll, with comparison to 2021.

<u>Plan</u>	<u>2022</u>	<u>2021</u>
C	17.65%	17.52%
A,B,G	7.35%	7.27%
H (general government)	8.83%	8.85%
H (uniformed)	12.96%	12.86%

In the fiscal year ended in 2018 the City began making payments on the unfunded actuarial accrued liabilities separate from the Normal Cost of benefits based on current payroll. The amortization payments made, by Plan, are as shown here:

<u>Plan</u>	<u>2022</u>	<u>2021</u>
C	\$12,227,000	\$12,319,900
A,B,G (general government)	\$ 4,758,000	\$ 4,922,900
A,B (education)	\$ 2,373,000	\$ 2,422,900

In addition to these actuarially determined contributions, the City of Knoxville contributes 1.5% of the monthly base earnings of participants in Division G, Option 1 to defined contribution accounts held within the System. Contributions to this plan for the fiscal years ended June 30, 2022 and 2021 were \$47,601 and \$71,773, respectively.

(f) *Plan Termination*

No provision has been made for the System's termination and the resulting order of allocation of benefits if termination should occur. The Pension Benefit Guaranty Corporation does not insure the System.

## NOTE 2 - DESCRIPTION OF THE CITY OF KNOXVILLE PENSION SYSTEM (Continued)

### (g) Description of Divisions Comprising the System

#### **DIVISION A**

Employees covered

- Substantially all civil service employees hired after 1/15/1963 and before 1/1/1997, who did not elect Division G
- At their option, certain elected officials and appointed employees
- Those Division B members who elected to transfer to Division A
- Any teacher employed by the City between 1/16/1963 (or prior if that teacher elected to transfer from Division B) and 12/31/1976
- Those Division A uniformed body employees who did not elect Division C

Employees excluded

- Teachers hired by the City after 12/31/1976 (they participate in Tennessee Consolidated Retirement System). All City employees hired after December 31, 1996 (now in Division G).

Employee contributions

- 3% of the first \$4,800 of annual earnings and 5% of annual earnings in excess of \$4,800

Normal retirement age and required creditable service

- Age 62

Normal retirement benefit

- The normal retirement benefit for life will be equal to one-twelfth of the product of (a) and (b) below:
  - (a) Credited service (in years, completed months and days)
  - (b) X% of average base earnings, plus Y% of average excess earnings as follows:

<u>Age at Retirement</u>	<u>X%</u>	<u>Y%</u>
62 or earlier	0.75	1.50
63	0.78	1.58
64	0.83	1.66
65 or older	0.88	1.76

Base earnings are annual earnings up to \$4,800. Excess earnings are annual earnings over \$4,800. Average is defined as the highest average earnings over a span of two years (for general government) or three years (for education).

## NOTE 2 - DESCRIPTION OF THE CITY OF KNOXVILLE PENSION SYSTEM (Continued)

### (g) *Description of Divisions Comprising the System (Continued)*

#### **DIVISION A (continued)**

- |                    |  |
|--------------------|--|
| Benefit adjustment | <ul style="list-style-type: none"><li>• Cost of living adjustment (COLA) is applied annually on January 1<ol style="list-style-type: none"><li>1. Education members retired on or before 7/1/1987 and General Government members receive an increase of 3% based on the prior year's benefit. If member is over 62 an additional increase of <math>\frac{1}{2}</math> of the excess by which the percentage increase in the CPI exceeds 3% is awarded. The total COLA may not exceed 4%.</li><li>2. Education members retired after 7/1/1987 and receiving a benefit for the preceding 12 months receive an increase/decrease based on the percent increase/decrease in the CPI not to exceed 3%. If member is over age 62 an additional increase of <math>\frac{1}{2}</math> of the excess by which the percentage increase in the CPI exceeds 3% is awarded. The total COLA may not exceed 4%.</li></ol></li></ul> |
| Other              | <ul style="list-style-type: none"><li>• Members of Division A are covered by Social Security</li><li>• Division is closed to new members</li></ul>   |

## NOTE 2 - DESCRIPTION OF THE CITY OF KNOXVILLE PENSION SYSTEM (Continued)

### (g) Description of Divisions Comprising the System (Continued)

#### **DIVISION B**

Employees covered	<ul style="list-style-type: none"><li>• All employees, except uniformed police and fire personnel, who were employed prior to 1/17/1963, and who participated in the City of Knoxville Pension System as created by the City of Knoxville Pension Act of 1935, who elected to continue in Division B and were not over age 40 when electing to contribute.</li></ul>
Employees excluded	<ul style="list-style-type: none"><li>• Members of the Tennessee Consolidated Retirement System</li></ul>
Employee contributions	<ul style="list-style-type: none"><li>• 4% of annual earnings</li><li>• Annual earnings referred to above excludes overtime payments</li></ul>
Normal retirement age and required creditable service	<ul style="list-style-type: none"><li>• Age 50, 25 years of service</li></ul>
Normal retirement benefit	<ul style="list-style-type: none"><li>• The immediate monthly pension is 50% of the member's average monthly salary for the highest two years. To this percentage will be added 1% of each year (and fraction based on complete months) of service worked after 1/1/79, and after the member has reached age 50 and completed 25 years of service, subject to a maximum addition of 10%.</li></ul>
Benefit adjustment	<ul style="list-style-type: none"><li>• Cost of living adjustment (COLA) is applied annually on January 1 for members receiving a benefit for the preceding 12 months. The COLA is an increase of 3% based on the prior year's benefit. If member is over 62 an additional increase of ½ of the excess by which the percentage increase in the CPI exceeds 3% is awarded. The total COLA may not exceed 4%.</li></ul>
Other	<ul style="list-style-type: none"><li>• Members of Division B are not covered by Social Security</li><li>• Division is closed to new members</li><li>• Members remain non-vested in the City's contribution and the related earnings thereon until ten years of service has been completed, at which time the participant vests fully</li></ul>

## NOTE 2 - DESCRIPTION OF THE CITY OF KNOXVILLE PENSION SYSTEM (Continued)

### (g) *Description of Divisions Comprising the System (Continued)*

#### **DIVISION C**

Employees covered	<ul style="list-style-type: none"><li>• All uniformed fire and police personnel employed after 1/2/1971 and before 1/1/2013</li><li>• Members who transferred from Division A on 1/2/1971</li></ul>
Employees excluded	<ul style="list-style-type: none"><li>• Members who elected to remain in Division A</li></ul>
Employee contributions	<ul style="list-style-type: none"><li>• 6% of annual earnings (subject to a maximum of 30 years)</li><li>• Annual earnings referred to above excludes overtime payments</li><li>• Member contributions were limited to the 30-year maximum referred to above effective 1/1/1997</li></ul>
Normal retirement age and required creditable service	<ul style="list-style-type: none"><li>• Age 50, 25 years of service</li></ul>
Normal retirement benefit	<ul style="list-style-type: none"><li>• The normal monthly retirement benefit payable for life is as follows:<ul style="list-style-type: none"><li>2.0% of member's average salary for each year of service, subject to a maximum of 30 years of service until 1/4/1997</li><li>2.1% of member's average salary for each year of service, subject to a maximum of 30 years of service until 1/4/1999</li><li>2.4% of member's average salary for each year of service, subject to a maximum of 30 years of service until 1/5/2001, and 2.5% of member's average salary thereafter</li></ul></li></ul> <p>Average salary is determined over three years until 1/4/1997, two years thereafter.</p> <p>Creditable service was defined in terms of whole years until 1/6/2001, in terms of whole years and whole months until 10/3/2004, and in terms of whole years, whole months and completed days thereafter.</p>

## NOTE 2 - DESCRIPTION OF THE CITY OF KNOXVILLE PENSION SYSTEM (Continued)

### (g) *Description of Divisions Comprising the System* (Continued)

#### **DIVISION C (continued)**

- |                    |   |
|--------------------|---|
| Benefit adjustment | <ul style="list-style-type: none"><li>• Cost of living adjustment (COLA) is applied annually on January 1 for members receiving a benefit for the preceding 12 months. The COLA is an increase of 3% based on the prior year's benefit. If member is over 62 an additional increase of ½ of the excess by which the percentage increase in the CPI exceeds 3% is awarded. The total COLA may not exceed 4%.</li></ul> |
| Other              | <ul style="list-style-type: none"><li>• Members of Division C are covered by Social Security</li><li>• Delayed Retirement Option Program ("DROP")</li><li>• Members remain non-vested in the City's contribution and the related earnings thereon until five years of service has been completed, at which time the participant vests fully</li><li>• Division is closed to new members</li></ul>                     |



## NOTE 2 - DESCRIPTION OF THE CITY OF KNOXVILLE PENSION SYSTEM (Continued)

### (g) *Description of Divisions Comprising the System* (Continued)

#### **DIVISION F**

Employees covered	<ul style="list-style-type: none"><li>• Fire and police personnel hired before January 1, 1963</li></ul>
Employees excluded	<ul style="list-style-type: none"><li>• Fire and police personnel hired after December 31, 1962</li></ul>
Employee contributions	<ul style="list-style-type: none"><li>• 5% of monthly earnings</li></ul>
Normal retirement age and required creditable service	<ul style="list-style-type: none"><li>• Age 50, 25 years of service</li></ul>
Normal retirement benefit	<ul style="list-style-type: none"><li>• 50% of the member's highest monthly salary while employed in an eligible position. To this percentage will be added 2% for each year of service worked after 25 years to a maximum of 30 years (maximum of 60% benefit).</li></ul>
Benefit adjustment	<ul style="list-style-type: none"><li>• Cost of living adjustment (COLA) is applied annually on January 1. The increase will be the greater of 6% of the original benefit or 4% of the prior year's benefit.</li></ul>
Other	<ul style="list-style-type: none"><li>• Members of Division F are not covered by Social Security</li><li>• Division is closed to new members</li></ul>

## NOTE 2 - DESCRIPTION OF THE CITY OF KNOXVILLE PENSION SYSTEM (Continued)

### (g) Description of Divisions Comprising the System (Continued)

#### **DIVISION G**

- Employees covered
- All general government employees who were employed on or after January 1, 1997 and before January 1, 2013 after completion of six months service
  - All general government employees who elected to transfer from Division A on July 1, 1997
  - Elected members of the legislative and judicial branches of City Government before January 1, 2013

- Employees excluded
- Members of Division A who elected not to transfer
  - Members of Divisions B, C and F

- Employee contributions
- 6% of annual earnings (Option 1 - 3% defined benefit, 3% supplemental defined contribution; Option 2 - 6% defined benefit)
  - Annual earnings referred to above excludes overtime payments

- Normal retirement age and required creditable service
- Age 62 or "Rule of 80" (member's age plus years of service)

#### Normal retirement benefit

##### ***Option 1***

- The monthly normal retirement benefit for life will be equal to one-twelfth of the product of (a) and (b) below:
  - (a) Credited service (in years and completed months and days) times:

<u>Age at Retirement</u>	<u>% of Average Annual Earnings</u>	
	<u>Through 1/5/2001</u>	<u>Thereafter</u>
62 or less	1.07%	1.15%
63	1.12	1.21
64	1.18	1.27
65 or older	1.25	1.35

- (b) Average annual earnings – Average is determined by using the two highest 12-month periods. Periods do not have to be consecutive and any month may be used in only one period.

## NOTE 2 - DESCRIPTION OF THE CITY OF KNOXVILLE PENSION SYSTEM (Continued)

### (g) *Description of Divisions Comprising the System* (Continued)

#### **DIVISION G (continued)**

(In addition to the above-defined benefit, 3% of the member contributions are going into a supplemental retirement account. The City is contributing 1-1/2% of gross regular bi-weekly payroll into this account. At retirement, the member is entitled to the value of this account.)

#### ***Option 2***

- Credited service (in years and completed months and days) times 2% of average annual earnings (until 1/5/2001) as defined above.
- 2.1 % of average annual earnings thereafter

#### Benefit adjustment

- Cost of living adjustment (COLA) is applied annually on January 1. The COLA is an increase of 3% based on the prior year's benefit. If member is over 62 an additional increase of ½ of the excess by which the percentage increase in the CPI exceeds 3% is awarded. The total COLA may not exceed 4%. Members receiving benefits for less than the preceding 12 months will have the COLA prorated based on the number of months benefits were received.

#### Other

- Members of Division G are covered by Social Security
- DROP
- Members remain non-vested in the City's contribution and the related earnings thereon until five years of service has been completed, at which time the participant vests fully
- Division is closed to new members

## NOTE 2 - DESCRIPTION OF THE CITY OF KNOXVILLE PENSION SYSTEM (Continued)

### (g) Description of Divisions Comprising the System (Continued)

#### **DIVISION H**

- |   |   |
|---|---|
| Employees covered                                     | • All general government and uniformed safety employees who were employed on or after January 1, 2013   |
| Employees excluded                                    | • Members of Divisions A, B, C, F and G   |
| Employee contributions                                | <ul style="list-style-type: none"><li>• 6% of annual earnings</li><li>• Annual earnings referred to above excludes overtime payments</li></ul>  |
| Normal retirement age and required creditable service | <ul style="list-style-type: none"><li>• General Government: Age 63 and ten years of service</li><li>• Uniformed Safety: Age 56 and twenty-five years of service or age 63 and ten years of service</li></ul>  |
| Normal retirement benefit                             | <ul style="list-style-type: none"><li>• The monthly normal retirement benefit for life will be equal to one-twelfth of the greater of (a) or (b) below:<ul style="list-style-type: none"><li>(a) 2% for each year of service times average compensation<br/>Average is determined by using the five highest 12-month periods. Periods do not have to be consecutive and any month may be used in only one period.</li><li>(b) The annuity value of the member's hypothetical account which includes:<ul style="list-style-type: none"><li>• Member's contributions</li><li>• Employer contribution credit equal to 8% of member's compensation for general government and 10% for uniformed safety, and</li><li>• Interest credit based on the change in fair value of the fund</li></ul></li></ul></li></ul> |
| Benefit adjustment                                    | <ul style="list-style-type: none"><li>• Cost of living adjustment (COLA) is applied annually on January 1 to the prior year's benefit amount. Members receiving benefits for less than the preceding 12 months will have the COLA prorated based on the number of months benefits were received. The COLA is calculated by multiplying the increase in the CPI (up to 3%) by the funding factor shown in the following table:</li></ul>   |

<u>Division H funded percentage</u>	<u>COLA funding factor</u>
Greater than or equal to 95%	100%
Greater than or equal to 80% but less than 95%	50%
Greater than or equal to 60% but less than 80%	25%
Less than 60%	0%

## NOTE 2 - DESCRIPTION OF THE CITY OF KNOXVILLE PENSION SYSTEM (Continued)

### (g) *Description of Divisions Comprising the System* (Continued)

#### **DIVISION H (continued)**

##### Other

- Members of Division H are covered by Social Security
- Members remain non-vested in the City's contribution and the related earnings thereon until ten years of service has been completed, at which time the participant vests fully

\* \* \* \* \*

Adjustments of employee contributions rates and benefit terms included in Note 2(g) above require amendments to the Charter of the City of Knoxville through a vote of the citizens of the City.

## NOTE 3 - ABOLISHMENT OF THE CITY SCHOOL SYSTEM

Effective July 1, 1987, the City School System, whose employees were members of the Board of Education department, was abolished and the former City school operations were absorbed into those of Knox County. Although there has not been an actual plan termination, the City's abolishment of its school system and a Court of Appeals ruling has resulted in an in-substance termination of the Board of Education department of the Pension Board.

Pension benefits for non-certified employees of the former City Schools are projected based on the salaries received and to be received from the Knox County Board of Education, as well as the estimated retirement dates for such personnel. Under the terms of the City of Knoxville Charter as construed by the Pension Board, the City is responsible for the difference in the total benefits due non-certified personnel had they remained in the System and amounts payable to such personnel under the Knox County retirement plan. The pension benefit obligation for certified personnel is calculated on a termination basis as of July 1, 1987. Under the terms of an agreement with Knox County executed November 7, 1994, the City is responsible for funding the benefits earned by certified personnel through July 1, 1987. Knox County is responsible for funding the difference, if any, between the pension benefits due based on the employee's salary and service as of July 1, 1987, and the actual pension obligation when the employee retires.

The System's actuary has determined the actuarial value of pension benefits which former City school system employees would be entitled to if their earned benefits were frozen as of July 1, 1987. The excess of this amount over the fair value of System's assets allocated to the Board of Education is being amortized by City contributions to the System. The City made contributions for this department of \$2,373,234 and \$2,422,900 for the years ended June 30, 2022 and 2021, respectively.

#### **NOTE 4 - DELAYED RETIREMENT OPTION PROGRAM**

When applicable, a member who is eligible for a normal retirement benefit may elect a delayed retirement through participation in the Delayed Retirement Option Program (DROP). The delayed retirement date may be no more than 24 months after the election is effective. A member will no longer be permitted to make contributions to the pension system once the DROP is elected.

A member's retirement benefit entitlement is computed when the member makes the DROP election and neither additional service nor increased salaries will affect this entitlement. The accumulated benefits in the DROP at the delayed retirement date are payable in a one-time payment in the month following the delayed retirement date. The member has the option to rollover all or part of this one-time payment to another eligible tax-deferred arrangement. The member's regular monthly benefit which was established at the member's election to participate in the DROP will also begin in the month following the delayed retirement date. Any cost of living adjustments for which the member is eligible during the member's DROP participation period will increase the monthly benefit entitlement established at the time of the member's election to participate in the DROP.

On June 30, 2022 there were 67 members on the DROP and the balance of accumulated benefits was \$3,333,042. On June 30, 2021 there were 68 members on the DROP and the balance of accumulated benefits was \$2,445,245.

#### **NOTE 5 – INVESTMENTS AT FAIR VALUE**

City Charter section 1350.2(B) requires a Statement of Investment Policy be adopted by the System, which can be amended by the Board by a majority vote of its members. It is the policy of the Board to pursue an investment strategy that reduces risk through diversification of the portfolio across a broad selection of asset classes. Liquidity is required only to meet defined payout needs, and as such, each investment manager's portfolio is to be fully invested notwithstanding the brief period of time between a sale and reinvestment. The following is the Board's broad asset allocation policy which was adopted in February 2020:

<u>Asset Class</u>	<u>Target Allocation</u>
Equity	51%
Fixed Income	29%
Real Assets	20%

## NOTE 5 – INVESTMENTS AT FAIR VALUE (Continued)

Purchases and sales of securities, including gain or loss on sales or exchanges, are recorded on a trade-date basis. Discounts and premiums on fixed income securities are included in net appreciation in the fair value of investments. The effect on the financial statements of not amortizing discounts and premiums is considered immaterial.

As a retirement defined benefit pension fund, the System holds a significant amount of investments that are measured at fair value on a recurring basis. Investing is a key part of the System's activities. The System categorizes its fair value measurements within the fair value hierarchy established by generally accepted accounting principles. The framework for measuring fair value provides a fair value hierarchy that prioritizes the inputs to valuation techniques used to measure fair value. The hierarchy gives the highest priority to unadjusted quoted prices for identical assets in active markets that can be accessed at the measurement date (Level 1) and the lowest priority to unobservable inputs (Level 3).

The three levels of the fair value hierarchy under GASB 72 are described as follows:

- **Level 1** – Inputs are quoted prices (unadjusted) for identical assets or liabilities in active markets that a government can access at the measurement date.
- **Level 2** – Inputs include quoted prices for similar assets or liabilities in active markets; quoted prices for identical or similar assets or liabilities in inactive markets; inputs other than quoted prices that are observable for the asset or liability like interest rates and yield curves observable at commonly quoted intervals, implied volatilities, or credit spreads; inputs that are derived principally from or corroborated by observable market data by correlation or other means. If the asset or liability has a specified term, the level 2 must be observable for substantially the full term of the asset or liability.
- **Level 3** – Inputs are unobservable and significant to the fair value measurement.

The asset or liability's fair value measurement level within the fair value hierarchy is based on the lowest level of any input that is significant to the fair value measurement. Valuation techniques used need to maximize the use of relevant observable inputs and minimize the use of unobservable inputs.

Descriptions of the valuation methodologies used for each category of investment measured at fair value are listed below as they appear in the fair value table.

## NOTE 5 – INVESTMENTS AT FAIR VALUE (Continued)

The System has the following recurring fair value measurements as of June 30, 2022:

		Fair Value Measurements Using		
		Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
<b>Investments by Fair Value Level</b>				
<b>Debt Securities:</b>				
U.S. Treasury Securities	\$ 34,153,506	\$ 34,153,506	\$ -	\$ -
U.S. Government Backed Securities	1,980,888	1,980,888	-	-
Commercial Mortgage-Backed Securities	5,840,587	-	5,840,587	-
Asset Backed Securities	5,920,324	-	5,920,324	-
Residential Mortgage-Backed Securities	17,027,961	-	17,027,961	-
Corporate Bonds	49,981,113	49,981,113	-	-
Municipal Bonds	5,607,597	5,607,597	-	-
TIPS	22,309,302	22,309,302	-	-
Total Debt Securities	142,821,278	114,032,406	28,788,872	-
<b>Equity Securities:</b>				
Consumer Discretionary	10,682,231	10,682,231	-	-
Consumer Staples	742,283	742,283	-	-
Energy	1,710,135	1,710,135	-	-
Financials	13,007,429	13,007,429	-	-
Healthcare	6,602,829	6,602,829	-	-
Industrials	9,295,743	9,295,743	-	-
Information Technology	12,502,833	12,502,833	-	-
Materials	1,667,787	1,667,787	-	-
Reit Financials	1,192,311	1,192,311	-	-
Telecommunications Services	15,199,512	15,199,512	-	-
Utilities	333,908	333,908	-	-
<b>Mutual Funds:</b>				
Infrastructure	9,164,905	9,164,905	-	-
Large Cap Growth	42,557,173	42,557,173	-	-
Total Equity Securities	124,659,079	124,659,079	-	-



## NOTE 5 – INVESTMENTS AT FAIR VALUE (Continued)

Fair value measurements as of June 30, 2022 (continued):

		Fair Value Measurements Using		
		Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
Private Equity:				
Debt	\$ 7,061,522	\$ -	\$ -	\$ 7,061,522
Diversified	32,369,819	-	-	32,369,819
Energy	4,935,777	-	-	4,935,777
International	6,887,493	-	-	6,887,493
Secondary Markets	15,044,233	-	-	15,044,233
Venture Capital	4,738,578	-	-	4,738,578
Total Private Equity	71,037,422	-	-	71,037,422
Total Investments by fair value level	338,517,779	\$ 238,691,485	\$ 28,788,872	\$ 71,037,422

### Investments measured at the net asset value (NAV)

Global Low Volatility	28,914,400
Real Estate Funds	82,867,240
Infrastructure	31,989,494
International Equities	98,442,887
Defensive Equity	31,178,889
International - Emerging Markets Debt	25,304,821
Total investment measured at the NAV	298,697,731
Total investments measured at fair value	637,215,510
Cash held by money managers	5,651,612
Total Investment Assets	\$ 642,867,122 <sup>(1)</sup>

<sup>(1)</sup> - Total investment assets presented in the fair value table include pending items and accruals.

## NOTE 5 – INVESTMENTS AT FAIR VALUE (Continued)

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

		Fair Value Measurements Using		
		Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
<b>Investments by Fair Value Level</b>				
Debt Securities:				
U.S. Treasury Securities	\$ 34,115,631	\$ 34,115,631	\$ -	\$ -
U.S. Government Backed Securities	2,480,697	2,480,697	-	-
Commercial Mortgage-Backed Securities	6,290,310	-	6,290,310	-
Asset Backed Securities	5,465,758	-	5,465,758	-
Residential Mortgage-Backed Securities	21,779,009	-	21,779,009	-
Corporate Bonds	67,503,430	67,503,430	-	-
Municipal Bonds	5,962,350	5,962,350	-	-
TIPS	22,749,963	22,749,963	-	-
Total Debt Securities	166,347,148	132,812,071	33,535,077	-
Equity Securities:				
Consumer Discretionary	13,195,503	13,195,503	-	-
Consumer Staples	788,427	788,427	-	-
Energy	1,193,539	1,193,539	-	-
Financials	21,357,951	21,357,951	-	-
Healthcare	7,441,893	7,441,893	-	-
Industrials	9,730,316	9,730,316	-	-
Information Technology	13,779,976	13,779,976	-	-
Materials	1,986,943	1,986,943	-	-
REIT Financials	2,207,423	2,207,423	-	-
Telecommunications Services	23,411,214	23,411,214	-	-
Utilities	710,285	710,285	-	-
Mutual Funds:				
Infrastructure	30,034,722	30,034,722	-	-
Large Cap Growth	61,989,120	61,989,120	-	-
Total Equity Securities	187,827,312	187,827,312	-	-

## NOTE 5 – INVESTMENTS AT FAIR VALUE (Continued)

Fair value measurements as of June 30, 2021 (continued):

		Fair Value Measurements Using		
		Quoted Prices		
		in Active	Significant	
		Markets for	Other	Significant
		Identical	Observable	Unobservable
		Assets	Inputs	Inputs
		(Level 1)	(Level 2)	(Level 3)
Private Equity:				
Debt	\$ 7,765,740	\$ -	\$ -	\$ 7,765,740
Diversified	31,412,427	-	-	31,412,427
Energy	7,438,682	-	-	7,438,682
International	6,931,012	-	-	6,931,012
Secondary Markets	12,845,696	-	-	12,845,696
Venture Capital	3,608,242	-	-	3,608,242
Total Private Equity	70,001,799	-	-	70,001,799
Total Investments by fair value level	424,176,259	\$ 320,639,383	\$ 33,535,077	\$ 70,001,799

### Investments measured at the net asset value (NAV)

Global Low Volatility	32,759,350
Real Estate Funds	61,439,367
International Equities	131,416,607
Defensive Equity	32,494,996
International - Emerging Markets Debt	26,020,479
Total investment measured at the NAV	284,130,799
Total investments measured at fair value	708,307,058
Cash held by money managers	11,027,893
Total Investment Assets	\$ 719,334,951 <sup>(1)</sup>

<sup>(1)</sup> - Total investment assets presented in the fair value table include pending items and accruals.

## **NOTE 5 – INVESTMENTS AT FAIR VALUE (Continued)**

Debt Securities – Actively traded debt instruments such as those securities issued by the U.S. Treasury, Federal Agencies and most corporate issuers are reported at fair value as of the close of the trading date. Fair values in irregular traded debt securities are obtained from pricing vendors who employ modeling techniques in determining security values. Inputs typically employed by pricing vendors include cash flows, maturity and credit rating. Corporate bonds, commercial and residential mortgage-backed securities and asset-backed securities classified as Level 2 are valued based on yields currently available on comparable securities of issuers with similar credit ratings.

Equities – Equities held by the System consist of domestic, international and global securities, including those traded in emerging markets and are actively traded on major security exchanges or over-the-counter. Fair value for exchange traded securities is determined as of the close of the trading date in the primary market or agreed upon exchange. The last known price is used for listed securities that did not trade on a particular date. Fair value is obtained from third party pricing sources for securities trade over-the-counter.

Mutual Funds – Equities mutual funds are valued at the daily closing price as reported by the fund. Mutual funds held by the System are open-end mutual funds that are registered with the SEC. These funds are required to publish their daily net asset value and to transact at the price. These mutual funds are deemed to be actively traded.

Private Equities – The fair value of the System’s various private equities depends upon the nature of the investment and the underlying business. Typically, the alternative investments are less liquid and subject to redemption restrictions explained further in the next section. Fair value is determined quarterly either with valuations conducted by general partners, management and/or valuation specialists. Valuation techniques vary by investment type and involve significant expert judgment.

## NOTE 5 – INVESTMENTS AT FAIR VALUE (Continued)

Private Equities and investments measured at NAV are typically more illiquid than other asset classes. The System had the following holdings in these types of investments.

### Redemption Periods and Unfunded Commitments as of June 30, 2022:

	Fair Value	Unfunded Commitments	Redemption Frequency (if Currently Eligible)	Redemption Notice Period
Infrastructure Funds	\$ 31,989,494	\$ -	Quarterly *	45 - 90 days
Real Estate Funds	82,867,240	-	Quarterly, Daily	45 days, 1 day
International Equities	98,442,887	-	Monthly	10 - 30 days
Defensive Equity	31,178,889	-	Monthly	5 days
International - Emerging Market Debt	25,304,821	-	Monthly	3 days
Global Low Volatility	28,914,400	-	Daily	1 day
Total investment measured at the NAV	<u>\$ 298,697,731</u>	<u>\$ -</u>		
Private Equity:				
Debt	\$ 7,061,522	\$ 3,225,000		
Diversified	32,369,819	11,147,120		
Energy	4,935,777	835,627		
International	6,887,493	897,708		
Secondary Markets	15,044,233	8,350,000		
Venture Capital	4,738,578	3,853,184		
Total Private Equity	<u>\$ 71,037,422</u>	<u>\$ 28,308,639</u>		

### Redemption Periods and Unfunded Commitments as of June 30, 2021:

	Fair Value	Unfunded Commitments	Redemption Frequency (if Currently Eligible)	Redemption Notice Period
Infrastructure Funds	\$ -	\$ 30,000,000	Quarterly *	45 - 90 days
Real Estate Funds	61,439,367	-	Quarterly, Daily	45 days, 1 day
International Equities	131,416,607	-	Monthly	10 - 30 days
Defensive Equity	32,494,996	-	Monthly	5 days
International - Emerging Market Debt	26,020,479	-	Monthly	3 days
Global Low Volatility	32,759,350	-	Daily	1 day
Total investment measured at the NAV	<u>\$ 284,130,799</u>	<u>\$ 30,000,000</u>		
Private Equity:				
Debt	\$ 7,765,740	\$ 3,225,000		
Diversified	31,412,427	7,657,120		
Energy	7,438,682	805,908		
International	6,931,012	1,196,190		
Secondary Markets	12,845,696	9,730,000		
Venture Capital	3,608,242	5,039,703		
Total Private Equity	<u>\$ 70,001,799</u>	<u>\$ 27,653,921</u>		

\*The quarterly liquidity begins after a lock up period of four years for one of the infrastructure managers which expires February 28, 2024.

## NOTE 5 – INVESTMENTS AT FAIR VALUE (Continued)

Infrastructure Funds – This investment type consists of two private core managers plus a publicly traded mutual fund. The two core investments consist of open-ended private infrastructure funds with one focused globally and one concentrated in North America in various industries. Even after the two private managers called their committed funds, the System maintained the remaining funds in the publicly traded mutual fund opportunistically. The goal of these investments is to provide a high degree of yield from rental/fee incomes and a diversification away from many aspects of the traditional economic cycle.

Real Estate – This type includes two managers that invest in commercial real estate properties across the United States. The System's investment managers will look to buy entire properties in hopes of improving their overall offering, increasing both its rental income and ultimate selling price. Depending on the particular investment fund, fair values of the portfolios are determined either daily or quarterly and proceeds are only able to be added or withdrawn at this time. The fair value of real estate investments, principally rental property subject to long-term leases has been estimated on the basis of future rental receipts and estimated residual values discounted at interest rates commensurate with the risks involved. The goal of these investments is to provide a high degree of yield from rental incomes and some growth from capital appreciation.

International equities – This type of investment consists of one manager that invests in non-U.S. publicly-traded companies. The manager has restrictions on countries and industry sectors it is allowed to invest in as well as permissible size of each investment. Fair values of the portfolios are determined each month using the NAV per share of the investment, and proceeds are only able to be added or withdrawn at this time. The goal of these investments is to provide growth for the portfolio as well as diversification away from the United States.

Defensive Equity – This investment type consists of one manager and provides exposure to the U.S. large cap equity space while aiming to provide downside market protection to the portfolio as well as incorporating a differentiated source of returns (insurance risk premium “IRP”) than in the broad equity universe. The portfolio is invested 50% in the S&P 500 index and 50% in Treasury Bills. The strategy will also sell out-of-the-money put and call options on the S&P 500. Options are financial insurance contracts, and like all insurance contracts, they are not free, and the pricing tends to favor the sellers. Overpricing in these contracts represents IRP paid by option buyers to option sellers. S&P 500 Index options have historically been overpriced, resulting in a differentiated (and persistent) source of return to the investors in this strategy. Expected returns for this strategy are equal to  $(50\% \times \text{S\&P 500 Return}) + (50\% \times \text{T-Bill Return}) + (100\% \times \text{IRP})$ . Fair values of the portfolios are determined each month using the NAV per share (or its equivalent) of the investment, and proceeds are only able to be added or withdrawn at this time. The goal of this investment is to provide growth to the portfolio with significantly less volatility than traditional equity exposure.

## NOTE 5 – INVESTMENTS AT FAIR VALUE (Continued)

Emerging Market Debt – This type of investment consists of one manager who invests in both government and corporate bonds issued in emerging market countries. These issues tend to have lower credit quality than their counterparts in the U.S. and developed world, so these securities typically offer a higher premium and interest rate. The System also has exposure to the emerging market country currencies through these investments. Fair values of the portfolios are determined each month using the NAV per share (or its equivalent) of the investment, and proceeds are only able to be added or withdrawn at this time. The goal of these investments is to provide growth from higher yields for the portfolio as well as diversification away from the United States.

Global Low Volatility – This investment type consists of one manager who invests in global lower risk stocks that consist of long-only investments that are highly liquid. The strategy seeks to minimize volatility at the portfolio construction level instead of eliminating high volatility subsets as is common among low volatility peers. Additionally, the strategy has constraints of plus/minus 3% relative to the MSCI World benchmark with respect to sector, industry, region, and country weights. The goal of this investment is to provide growth to the portfolio with significantly less volatility while remaining highly liquid.

**RATE OF RETURN** - The annual money-weighted rate of return on pension plan investments, net of pension plan investment expense, was -7.72% and 22.10% for the fiscal years ended 2022 and 2021, respectively. The money-weighted rate of return expresses investment performance, net of investment expense, adjusted for the changing amounts actually invested.

**NOTE 5 – INVESTMENTS AT FAIR VALUE (Continued)**

For the years ended June 30, 2022 and 2021, net (depreciation) appreciation, including realized gains and losses, associated with the System's investments were as follows:

	2022	2021
Government Securities	\$ (10,051,099)	\$ (365,014)
Foreign Securities	(26,774,188)	45,318,820
Corporate Bonds and Debentures	(16,538,846)	(2,173,829)
Real Assets	19,562,641	4,650,777
Alternative Assets	5,631,409	18,019,816
Domestic Equity Securities	(29,946,996)	66,059,650
	<u>\$ (58,117,079)</u>	<u>\$ 131,510,220</u>

**INTEREST RATE RISK** - Interest rate risk is the risk that changes in interest rates will adversely affect the fair value of an investment or a deposit. Duration is a measure of a debt investment's exposure to fair value changes arising from changing interest rates based upon the present value of cash flows, weighted for those cash flows as a percentage of the investment's full price. As of June 30, the System's exposure to interest rate risk as measured by the weighted average maturity by investment category is listed in the following table:

	2022		2021	
	Fair Value (including pending items & accruals)	Weighted Average Maturity (Years)	Fair Value (including pending items & accruals)	Weighted Average Maturity (Years)
Fixed Income type				
Core Bonds	\$ 65,228,898	9.5	\$ 72,780,188	8.4
Long Bonds	56,922,485	23.9	71,304,713	22.8
Treasury Inflation Protection Securities	22,385,821	4.8	22,825,254	4.9
Emerging Markets Debt	25,304,822	9.4	26,020,479	12.7

Descriptions for each category of the System's fixed income investment portfolio are listed below as they appear in the weighted average maturity table. The City of Knoxville Pension System has an approved investment policy which targets the combined fixed income portfolios at 29%. The investment policy permits portfolios of fixed income investments to go up to 75% of the total investment value of the fund. As of June 30, 2022, these portfolios were 26.42% of the total investment value. In accordance with the investment policy, interest rate sensitivity of collateralized mortgage obligations cannot be greater than the underlying mortgage-backed security.

Core Bonds – consist of a combination of U.S. Treasury, municipal bonds, investment grade corporate bonds which contain various corporate sectors, mortgage-backed securities both corporate and government backed, and asset backed securities.

Long Bonds – consist of longer-term investments in various core bond products.



## NOTE 5 – INVESTMENTS AT FAIR VALUE (Continued)

Treasury Inflation Protection Securities (“TIPS”) – are made up of public obligations of the U.S. Treasury that are adjusted for inflation.

Emerging Markets Debt – consist of sovereign and corporate issuers from emerging market countries, with the debt denominated in either the local currency of the issuer (local currency, typically benchmarked against the JPM GBI-EM GD) or U.S. Dollar denominated (hard currency, typically benchmarked against the JPM EMBI GD).

**CREDIT RISK** – Credit risk is the risk that an issuer or other counterparty to an investment will default or will otherwise not fulfill its obligations.

The System’s investment policy mandates a diversified investment portfolio among several asset classes. The policy further requires general adherence to the prudent person rule for the investments within that classification to have an overall credit rating of investment grade or better. Occasionally, the System’s investment managers notify the System of an investment that has been downgraded below investment grade, but the manager must provide a plan for holding or disposition and report the status regularly to the Board through the Investment Committee.

The System’s exposure to credit risk as of June 30, 2022 is presented below, in thousands, by investment category as rated by S&P or Moody’s Investment Service:

Bond Type	AAA/ Aaa	AA/Aa	A/A	BBB/ Baa	BB/Ba	B/B	CCC/ Caa	Not Rated or Rating Not Available	Total
Commercial Mortgage-									
backed securities	\$ 2,550	\$ -	\$ -	\$ 326	\$ -	\$ -	\$ -	\$ 3,676	\$ 6,552
Asset-Backed Securities	2,349	-	-	-	-	-	-	3,740	6,089
Corporate Bonds	468	2,974	14,872	26,830	1,807	1,452	530	1,873	50,806
Municipal Bonds	1,020	1,310	359	-	-	-	-	1,047	3,736
<b>Total Fixed Income</b>									
Securities Exposed									
to Credit Risk	\$ 6,387	\$ 4,284	\$ 15,231	\$ 27,156	\$ 1,807	\$ 1,452	\$ 530	\$ 10,336	\$ 67,183
<b>Percentage of total Fixed</b>									
<b>Income Portfolio</b>	3.8%	2.5%	9.0%	16.0%	1.1%	0.9%	0.3%	6.1%	39.6%

## NOTE 5 – INVESTMENTS AT FAIR VALUE (Continued)

The System's exposure to credit risk as of June 30, 2021 is presented below, in thousands, by investment category as rated by S&P or Moody's Investor Service:

Bond Type	AAA/ Aaa	AA/Aa	A/A	BBB/ Baa	BB/Ba	B/B	CCC/ Caa	Not Rated or Rating Not Available	Total
Commercial Mortgage- backed securities	\$ 3,604	\$ -	\$ -	\$ 397	\$ -	\$ -	\$ -	\$ 3,469	\$ 7,470
Asset-Backed Securities	2,996	-	-	-	-	-	-	4,966	7,962
Corporate Bonds	-	5,204	23,183	30,806	3,642	1,578	459	2,075	66,947
Municipal Bonds	-	1,111	-	369	-	-	-	1,233	2,713
<b>Total Fixed Income</b>									
<b>Securities Exposed to Credit Risk</b>	<u>\$ 6,600</u>	<u>\$ 6,315</u>	<u>\$ 23,183</u>	<u>\$ 31,572</u>	<u>\$ 3,642</u>	<u>\$ 1,578</u>	<u>\$ 459</u>	<u>\$ 11,743</u>	<u>\$ 85,092</u>
<b>Percentage of total Fixed Income Portfolio</b>	<u>3.4%</u>	<u>3.3%</u>	<u>12.0%</u>	<u>16.4%</u>	<u>1.9%</u>	<u>0.8%</u>	<u>0.2%</u>	<u>6.1%</u>	<u>44.1%</u>

The System held debt investments in the form of mutual funds for the years ended June 30, 2022 and 2021. The System owned shares of the mutual fund's investments in aggregate and does not own shares of the underlying individual assets. The mutual funds are currently unrated.

**CONCENTRATION OF CREDIT RISK** - Investment with any one issuer shall not exceed 5%, except for obligations of the U. S. Government. As of June 30, 2022, the only non-U.S. Government investments greater than the 5% of the total investment value of the fund were fully diversified commingled funds/pooled funds/mutual funds.

Investments by money manager that represent 5% or more of the System's net position are as follows:

### June 30, 2022:

Income Research & Management	\$ 87,614,720
Silchester International Investors	68,700,475
Schroder Investment Management	56,922,485
Eagle Capital Management LLC	44,600,494
RREEF America II - Real Estate Investment Trust	43,881,870
Northern Trust Investments R1000	42,557,173
Principal Global Investors	38,985,370

## NOTE 5 – INVESTMENTS AT FAIR VALUE (Continued)

### June 30, 2021:

Income Research & Management	\$	95,605,442
Silchester International Investors		83,105,103
Schroder Investment Management		71,304,713
Northern Trust Investments R1000		61,989,120
Eagle Capital Management LLC		60,792,276
Acadian Asset Management, LLC		48,311,504

**CUSTODIAL CREDIT RISK – Deposits** – In the case of bank deposits, this is the risk that in the event of a bank failure, the System’s deposits may not be returned to it. As required by state statutes, the System’s policy is to require that financial institutions holding its deposits to be members of the Tennessee Collateral Pool or pledge collateral for deposits exceeding federal depository insurance. Collateral is required to be held by the System or its agent in the System’s name. As of June 30, 2022, the System’s bank balance of \$787 was not exposed to custodial credit risk.

**FOREIGN CURRENCY RISK** – Foreign currency risk is the risk that changes in exchange rates will adversely affect the fair value of an investment or deposit. All investments of the System are denominated in U.S. dollars. International equity investment is done via fully diversified open-ended commingled funds.

## NOTE 6 – OTHER INCOME

Other income consists of the following:

	<u>2022</u>	<u>2021</u>
Securities litigation income	\$ 16,621	\$ 61,102
Commission recapture income	<u>1,355</u>	<u>2,061</u>
	<u>\$ 17,976</u>	<u>\$ 63,163</u>

## NOTE 7 – CAPITAL ASSETS

Capital asset activity for years ended June 30, 2022 and 2021 was as follows:

	<u>Beginning Balance</u>	<u>Additions</u>	<u>Deletions</u>	<u>Ending Balance</u>
<b>June 30, 2022:</b>				
Depreciable Furniture & Equipment	\$ 38,168	\$ -	\$ -	\$ 38,168
Accumulated Depreciation				
Furniture & Equipment, net	<u>(34,082)</u>	<u>(4,086)</u>	<u>-</u>	<u>(38,168)</u>
	<u>\$ 4,086</u>	<u>\$ (4,086)</u>	<u>\$ -</u>	<u>\$ -</u>
<b>June 30, 2021:</b>				
Depreciable Furniture & Equipment	\$ 38,168	\$ -	\$ -	\$ 38,168
Accumulated Depreciation				
Furniture & Equipment, net	<u>(28,334)</u>	<u>(5,748)</u>	<u>-</u>	<u>(34,082)</u>
	<u>\$ 9,834</u>	<u>\$ (5,748)</u>	<u>\$ -</u>	<u>\$ 4,086</u>

## NOTE 8 – NET PENSION LIABILITY OF THE CITY

The components of the net pension liability as of June 30 were as follows:

	<u>2022</u>	<u>2021</u>
Total pension liability	\$ 932,811,646	\$ 858,090,083
Plan fiduciary net position	<u>(642,378,359)</u>	<u>(718,835,046)</u>
Net pension liability	<u>\$ 290,433,287</u>	<u>\$ 139,255,037</u>

Plan fiduciary net position as a  
percentage of the total pension  
liability

68.86%

83.77%

## NOTE 9 – ACTUARIAL METHODS AND ASSUMPTIONS

**Actuarial Assumptions:** The actuarial assumptions used in the July 1, 2022 valuation were based on the results of an actuarial experience study for the period July 1, 2016 through July 1, 2021. This experience study led to changes in the mortality tables used for all non-Division H groups, a decrease in the discount rate, and a reset of the amortization period for the unfunded liability. Further details on the changes in assumptions can be found in the Actuarial Section of this report.

Significant actuarial assumptions used in the valuation as of July 1, 2022 include:

- (a) Plan H rate of return on investment of present and future assets of 5.5% per annum, based on a 2.5% inflation assumption; 0.5% expense assumption. All other plans' rate of return on investment of present and futures assets of 7.2% per annum (decreasing by 5 basis points each year to 7.00%), based on a 2.5% inflation assumption; 0.5% expense assumption. The July 1, 2021 valuation utilized a rate of return on assets of 7.25% per annum for all plans other than H.
- (b) The assumed salary scale is based on a review of the experience study of the plan, the assumed salary increases are greater at younger ages and lower at older ages.
- (c) Projected postretirement benefit (COLA) increases of 3.0% annually for Plan H and 3.5% annually for all other plans.
- (d) Actuarial valuation method is entry age normal with the unfunded liability amortized over a closed period beginning July 1, 2022; 20 years remaining.
- (e) Discount Rate is 5.5% for Division H and 7.2% for all others (decreasing by 5 basis points each year to 7.00%). The July 1, 2021 valuation used a rate of 7.25% per year for all plans other than H.

## NOTE 9 – ACTUARIAL METHODS AND ASSUMPTIONS (Continued)

The salary scale assumption mentioned in (b) above is based on the experience study shown below:

	<u>General Government</u>	<u>Uniformed Bodies</u>
Age 20	11.5%	11.5%
Age 25	6.3%	7.7%
Age 30	5.3%	6.5%
Age 35	4.7%	5.7%
Age 40	4.3%	5.0%
Age 45	3.9%	4.4%
Age 50	3.6%	3.8%
Age 55	3.4%	3.4%
Age 60	3.0%	3.0%

The actuarial value of assets was determined using techniques that smooth the effect of short-term volatility in the fair value of equities over a ten-year period, but which limits the actuarial value to between 80% and 120% of the fair value. The projection of benefits is based on benefit levels and cost-sharing arrangements as of the date of the valuation and do not explicitly reflect the potential effects of legal or contractual funding limitations.

Beginning July 1, 2022 the mortality rates for General Government (not including Board of Education) and Uniformed Bodies were based on 115% of the RP-2014 Blue Collar table rates projected to 2021 with MP-2021. Board of Education mortality rates were based on the 2021 PPA Annuitant static table. For the July 1, 2021 valuation, mortality rates for General Government (not including Board of Education) and Uniformed Bodies were based on 110% of the RP-2000 Healthy Annuitant static table rates. Board of Education mortality rates were based on the 2016 PPA Annuitant static table.

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.

## NOTE 9 – ACTUARIAL METHODS AND ASSUMPTIONS (Continued)

Best estimates of geometric real rates of return for each major class included in the System's target asset allocation as of June 30, 2022 (see the discussion of the System's investment policy in the Investment Section) are summarized in the following table:

	30-Year Expected Nominal Return*	30-Year Expected Real Return
Core Fixed Income	4.1%	1.6%
Long-Term Government Fixed Income	2.7%	0.2%
TIPS	3.3%	0.8%
Emerging Markets Debt	6.8%	4.3%
Defensive Equity	4.9%	2.4%
Large Cap Value Stocks	7.5%	5.0%
Large Cap Growth Stocks	7.5%	5.0%
Small/Mid Cap Growth Stocks	8.0%	5.5%
Small/Mid Cap Value Stocks	8.0%	5.5%
Developed International Value Stocks	7.6%	5.1%
Emerging Markets Stocks	8.0%	5.5%
Global Low Volatility	7.6%	5.1%
Private Equity	11.1%	8.6%
Core Real Estate	7.4%	4.9%
Real Assets	7.6%	5.1%
Cash	3.5%	1.0%

\*Includes 2.5% Inflation

**Discount Rate:** The discount rate used to measure the total pension liability on the first basis is equal to the System's expected rate of return of 7.2%. The projection of cash flows used to determine the discount rate assumed that contributions from plan members will be made at the current statutory contribution rates and that contributions from the City will be made at the current statutory contributions rates. Based on those assumptions, the System's net position is expected to be available indefinitely. Accordingly, the discount rate is equal to the expected long-term rate of return on assets and does not include a component of the municipal bond rate. The long-term expected rate of return on pension plan investments was applied to periods of projected benefit payments.

**NOTE 9 – ACTUARIAL METHODS AND ASSUMPTIONS (Continued)**

**Sensitivity of the net pension liability to changes in the discount rate:** The following presents the net pension liability of the City, calculated using the discount rate of 7.2%, as well as what the net pension liability would be if it were calculated using a discount rate that is 1-percentage-point lower (6.2%) or 1-percentage-point higher (8.2%) than the current rate:

	<u>1% Decrease (6.2%)*</u>	<u>Current Discount Rate (7.2%)*</u>	<u>1% Increase (8.2%)*</u>
Net Pension Liability at June 30, 2022	\$ 402,214,927	\$ 290,433,287	\$ 197,315,472
	<u>1% Decrease (6.25%)*</u>	<u>Current Discount Rate (7.25%)*</u>	<u>1% Increase (8.25%)*</u>
Net Pension Liability at June 30, 2021	\$ 238,688,258	\$ 139,255,037	\$ 56,159,576

\*For Division H, the current rate is 5.5%; 1% Decrease is 4.5% and 1% Increase is 6.5%.

**NOTE 10 – CONTINGENCIES**

The System is subject to potential litigation and other legal proceeding arising in the ordinary course of business. In the opinion of management, in consultation with legal counsel, there is no present litigation that would have a material impact on the financial condition of the System. Accordingly, no provision has been made within the accompanying financial statements.



# CITY OF KNOXVILLE PENSION SYSTEM

## Required Supplementary Information

June 30, 2022

### Schedule of Changes in the Net Pension Liability and Related Ratios (Dollar amounts in millions)

	Fiscal Year ended June 30									
	<u>2022</u>	<u>2021</u>	<u>2020</u>	<u>2019</u>	<u>2018</u>	<u>2017</u>	<u>2016</u>	<u>2015</u>	<u>2014</u>	<u>2013</u>
<b>Discount Rate</b>	7.25%	7.25%	7.25%	7.25%	7.25%	7.375%	7.375%	7.375%	7.375%	**
<b>Total Pension Liability</b>										
Service cost	\$ 13.5	\$ 13.4	\$ 13.2	\$ 13.0	\$ 13.0	\$ 13.1	\$ 13.1	\$ 12.6	\$ 12.3	
Interest	60.2	59.1	57.9	56.4	55.1	52.5	51.8	50.9	49.4	
Changes of benefit terms	-	-	-	-	-	-	-	-	-	
Differences between expected and actual experience	29.2	2.1	(2.6)	2.1	(1.9)	(3.7)	2.1	(6.1)	0.9	
Changes in assumptions	25.5	-	-	-	-	21.0	-	-	-	
Benefit payments/refunds	<u>(53.7)</u>	<u>(52.5)</u>	<u>(51.1)</u>	<u>(47.5)</u>	<u>(47.5)</u>	<u>(46.2)</u>	<u>(44.7)</u>	<u>(43.5)</u>	<u>(42.3)</u>	
<b>Net Change in Total Pension Liability</b>	74.7	22.1	17.4	24.0	18.7	36.7	22.3	13.9	20.3	
<b>Total Pension Liability - Beginning</b>	<u>858.1</u>	<u>836.0</u>	<u>818.6</u>	<u>794.6</u>	<u>775.9</u>	<u>739.2</u>	<u>716.9</u>	<u>703.0</u>	<u>682.7</u>	
<b>Total Pension Liability - Ending (a)</b>	<u>\$ 932.8</u>	<u>\$ 858.1</u>	<u>\$ 836.0</u>	<u>\$ 818.6</u>	<u>\$ 794.6</u>	<u>\$ 775.9</u>	<u>\$ 739.2</u>	<u>\$ 716.9</u>	<u>\$ 703.0</u>	
<b>Plan Fiduciary Net Position</b>										
Contributions - employer	\$ 28.7	\$ 28.9	\$ 29.2	\$ 28.7	\$ 25.7	\$ 23.8	\$ 23.9	\$ 22.6	\$ 15.2	
Contributions - employee	4.5	4.4	4.4	4.3	4.2	4.4	4.4	4.1	4.0	
Net investment income	(55.0)	135.5	15.1	30.8	37.6	63.3	(1.0)	7.9	87.1	
Benefit payments/refunds	(53.7)	(52.5)	(51.1)	(47.5)	(47.5)	(46.2)	(44.7)	(43.5)	(42.3)	
Administrative expenses	(0.9)	(0.7)	(0.7)	(0.7)	(0.7)	(0.7)	(0.7)	(0.7)	(0.8)	
Other	-	-	-	-	-	-	-	-	-	
<b>Net Change in Plan Fiduciary Net Position</b>	\$ (76.4)	\$ 115.7	\$ (3.1)	\$ 15.6	\$ 19.3	\$ 44.6	\$ (18.1)	\$ (9.6)	\$ 63.2	
<b>Plan Fiduciary Net Position - Beginning</b>	<u>718.8</u>	<u>603.1</u>	<u>606.2</u>	<u>590.6</u>	<u>571.3</u>	<u>526.7</u>	<u>544.8</u>	<u>554.4</u>	<u>491.2</u>	
<b>Plan Fiduciary Net Position - Ending (b)</b>	<u>\$ 642.4</u>	<u>\$ 718.8</u>	<u>\$ 603.1</u>	<u>\$ 606.2</u>	<u>\$ 590.6</u>	<u>\$ 571.3</u>	<u>\$ 526.7</u>	<u>\$ 544.8</u>	<u>\$ 554.4</u>	
<b>City's Net Pension Liability - ending (a) - (b)</b>	<u>\$ 290.4</u>	<u>\$ 139.3</u>	<u>\$ 232.9</u>	<u>\$ 212.4</u>	<u>\$ 204.0</u>	<u>\$ 204.6</u>	<u>\$ 212.5</u>	<u>\$ 172.1</u>	<u>\$ 148.6</u>	
<b>Plan Fiduciary Net Position as a % of the Total Pension Liability</b>	68.9%	83.8%	72.1%	74.1%	74.3%	73.6%	71.3%	76.0%	78.9%	
<b>Covered payroll</b>	\$ 85.6	\$ 76.3	\$ 74.5	\$ 73.7	\$ 72.0	\$ 72.6	\$ 71.5	\$ 71.0	\$ 69.9	
<b>Net Pension Liability as a % of covered payroll</b>	339.3%	182.6%	312.6%	288.2%	283.3%	281.8%	297.4%	242.4%	212.6%	

The net pension liability reported in 2015 includes the benefit of the City's contributions held in reserve. The net pension liability as calculated by the actuary in the July 1, 2015 actuarial valuation was \$174.1 million and did not include the \$2.0 million held in reserve. In 2016, the \$2.0 million was applied back to the Fair Value of Assets leaving no credit balance.

\*\*Only nine years of complete data is available for this schedule as 2014 was the first year this information was calculated.

See Summary of Actuarial Assumptions and Methods in the Actuarial Section of the report for details regarding methods and assumptions used.

**CITY OF KNOXVILLE PENSION SYSTEM**  
**Required Supplementary Information**  
June 30, 2022

Schedule of Employer Contributions  
(Dollar amounts in millions)

	Fiscal Year ended June 30									
	<u>2022</u>	<u>2021</u>	<u>2020</u>	<u>2019</u>	<u>2018</u>	<u>2017</u>	<u>2016</u>	<u>2015</u>	<u>2014</u>	<u>2013</u>
Actuarially determined contribution	\$ 28.7	\$ 28.9	\$ 29.2	\$ 28.7	\$ 25.7	\$ 23.8	\$ 23.9	\$ 22.6	\$ 20.9	\$ 13.4
Contributions in relation to the actuarially determined contribution	<u>28.7</u>	<u>28.9</u>	<u>29.2</u>	<u>28.7</u>	<u>25.7</u>	<u>23.8</u>	<u>23.9</u>	<u>22.6</u>	<u>20.9</u>	<u>13.5</u>
Contribution deficiency (excess)	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ (0.1)</u>
Covered payroll	\$ 85.6	\$ 76.3	\$ 74.5	\$ 73.7	\$ 72.0	\$ 72.6	\$ 71.5	\$ 71.0	\$ 69.9	\$ 67.8
Contributions as a percentage of covered payroll	33.5%	37.9%	39.2%	38.9%	35.7%	32.8%	33.4%	31.8%	29.9%	19.9%

See Summary of Actuarial Assumptions and Methods in the Actuarial Section of the report for details regarding methods and assumptions used to determine contribution rates.

**CITY OF KNOXVILLE PENSION SYSTEM**  
**Required Supplementary Information**  
June 30, 2022

Schedule of Investment Returns

	Fiscal Year ended June 30									
	<u>2022</u>	<u>2021</u>	<u>2020</u>	<u>2019</u>	<u>2018</u>	<u>2017</u>	<u>2016</u>	<u>2015</u>	<u>2014</u>	<u>2013</u>
Annual money-weighted rate of return, net of investment expense	-7.72%	22.10%	2.04%	5.54%	6.32%	12.10%	-0.11%	1.52%	18.24%	**

\*\*Only nine years of complete data is available for this schedule as 2014 was the first year this information was calculated.

# CITY OF KNOXVILLE PENSION SYSTEM

## Supporting Schedules

For the Year Ended June 30, 2022

### Schedule of Administrative Expenses

<b><i>Depreciation</i></b>		<u>\$ 4,086</u>
<b><i>Other Administrative Expenses:</i></b>		
<b>Personnel Expenses</b>		\$457,944
<b>Professional Services</b>		
Actuarial	\$250,873	
Audit	27,500	
Legal	50,548	
Benefit Payments	<u>38,151</u>	
<i>Total Professional Services</i>		367,072
<b>Miscellaneous Expenses</b>		
Computer Software and Support	\$ 10,381	
Copier Maintenance and Lease	3,658	
Dues & Subscriptions	7,855	
Insurance	40,975	
Internet and Website	5,155	
Mass Mailings	1,995	
Office Maintenance	2,540	
Office Supplies	3,447	
Printing and Publications	470	
Professional Development	1,199	
Travel	<u>1,182</u>	
<i>Total Miscellaneous Expenses</i>		<u>78,857</u>
<b><i>Total Other Administrative Expenses:</i></b>		<u>903,873</u>
<b><i>Total Administrative Expenses</i></b>		<u><u>\$ 907,959</u></u>

See independent auditor's report.

**CITY OF KNOXVILLE PENSION SYSTEM**  
**Supporting Schedules**  
For the Year Ended June 30, 2022

Schedule of Investment Expenses

Consultant Services	\$ 175,000
Custodial Fees	126,952
Investment Manager Fees	<u>3,999,096</u>
<b><i>Total Investment Expenses</i></b>	<b><u><u>\$ 4,301,048</u></u></b>

The Schedule of Fees and Commissions on pages 59-61 in the Investment Section details all investment services.

See independent auditor's report.

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## **INVESTMENT SECTION**

October 7, 2022

To: The Board of Trustees of the City of Knoxville Employees' Pension System

### **Introduction**

This report is prepared for the City of Knoxville Employees' Pension System (System) by Marquette Associates (Marquette) based on information supplied by System's custodian, Northern Trust Company (NT). NT holds assets in safe-keeping for the System, regularly values the assets for the System, and provides Marquette with beginning and ending fair values, cash flows, securities transactions and positions for the System as well as each manager, where applicable. Where System assets are invested in pooled investment vehicles, such as mutual funds or commingled trusts, third-party custodians for the pooled investment vehicles provide NT net asset values and the System's audited financial statements for those investments. The custodian audits the information contained in its monthly accounting reports. Marquette uses NT's monthly accounting reports to calculate investment returns for the System and its Board of Trustees.

### **Distinction of Responsibilities**

The System's Board of Trustees (Trustees) is responsible for the investment and administration of System assets. This includes establishing the strategic asset allocation that, over time, is the primary determinant of investment return on assets. A thorough understanding of both the System's assets and liabilities is essential for determining an appropriate asset allocation. The key drivers of this analysis are the projection of the System's liabilities and the projections of expected future returns and risk for each class, as well as correlation between asset classes. The liabilities include all key dimension of the System's pension plan: membership, benefits, liabilities, assets, and funding requirements.

Marquette recently presented an asset allocation review to the Executive Director and Trustees. This asset allocation review highlighted how the defensive allocations within the portfolio have been additive to returns by providing effective downside protection. Additionally, the asset allocation review also analyzed how minor tweaks to existing composites such as real assets and fixed income could modestly increase expected returns while lowering expected risks in the portfolio. During the remainder of 2022, the Trustees and Executive Director will continue to review the suggested asset allocation changes provided by Marquette.



## **Investment Policy/Structure**

The asset allocation adopted by the Trustees is included in the System's Statement of Investment Policy (SIP). The System employs various investment managers to implement the asset allocation within the guidelines and limitations contained in the SIP. System assets are invested using numerous investment managers to diversify the System's assets among multiple asset classes, investment styles, and investment strategies. Each investment manager is delegated full investment discretion for its respective portfolio including the discretion to purchase, hold and sell individual securities and control industry and economic sector exposure within certain managers' geographic exposure.

The System's SIP is designed to provide broad diversification among asset classes and investment strategies in order to maximize return at an appropriate level of risk and to minimize the risk of large losses to the System. In addition, asset allocation ranges, target allocations, and a process of periodic rebalancing are used to maintain compliance with the SIP and to increase the likelihood that the System will achieve its long-term risk and return objectives.

The following table outlines the System's long-term target asset allocation, as of June 30, 2022:

Asset Class	Allocation Target
Domestic Equity	24.0%
International Equity	14.0%
Global Equity	5.0%
Private Equity	8.0%
Fixed Income	29.0%
Real Assets	20.0%
Total Portfolio	100.0%

## **Investment Objectives**

The System's SIP contains the following objectives:

1. To provide, over the life of the System's pension fund, an adequate level of assets available to fund benefits at the time they are payable;
2. To earn a total rate of investment return on System assets, after all expenses, which equals/exceeds the actuarial investment return assumption over the long term;

Additionally, one of the investment goals contained in the SIP is for the System's assets to achieve an investment return, net of expenses, which meets/exceeds a Policy Index. The Policy Index is constructed of the returns of the various broad market benchmarks representing the asset classes in which the System's assets are invested and weighted to reflect the System's target asset allocation.

The Policy Index was constructed as follows (as of June 30, 2022): 22.5% Russell 3000 Index, 4% 50% S&P 500 Index/50% T Bill, 16.5% MSCI ACWI ex-US Index, 8% Cambridge Associates All PE, 29% Bloomberg Barclays Aggregate Index, 5% JPM GBI-EM Global Diversified Index, 15% NCREIF-ODCE Index.

In addition, the System's investment performance is evaluated relative to the InvestmentMetrics Public DB plan universe; representing the performance 609 public pension plans as of June 30, 2022. Finally, each investment manager in the portfolio is measured and evaluated against its relevant broad market index and style peer universe.

### **Market Overview**

The fiscal-year period of July 1, 2021 to June 30, 2022 was characterized by rising inflation, interest rates and global market volatility. Given that bond prices are inversely related to interest rate movements, the massive rate increases this year have led to the worst start for fixed income in history of the bellwether bond index. The performance of the core fixed income, long-duration bonds, and emerging market debt allocations all posted double-digit losses while the TIPS allocation performed the best of the fixed income composites in this inflationary environment. During the past fiscal year, the fixed income composite returned -14.5% versus the benchmark which returned -10.3% over the same period.

After a 44.2% return in the prior fiscal year, the Russell 3000 saw a double-digit decline during the fiscal-year period of July 1, 2021 to June 30, 2022. The same macroeconomic pressures of inflation and an aggressively hawkish Fed that have plagued the fixed income segment, have also been meaningful headwinds for domestic equities. However, from a pricing perspective, the downward trending volatility of the markets have brought valuations back towards historical averages, with small-cap and value indices being the most attractive. During the past fiscal year, the total U.S. equity composite returned -17.5% versus the benchmark which returned -13.9% over the same period.

On the international front, global equities also suffered double digit losses during the fiscal-year period of July 1, 2021 to June 30, 2022: Emerging market returns trailing developed market returns significantly partially due to several emerging market countries being ahead of their developed market counterparts with regards to a rate hike cycle. Specifically, in response to rising inflation, many prominent emerging market economies such as Brazil's have seen a meaningful rise in their interest rates. In light of the ongoing equity market declines, multiples for non-U.S. stocks have also corrected in a manner similar to U.S. equities, with valuations back to March 2020 levels. During the past fiscal year, the non-U.S. equity composite returned -14.4% versus the benchmark which returned -19.4% over the same period.

The most recent fiscal year was an overwhelmingly positive one for real assets. Heightened inflation trends and rate hikes have highlighted the favorable income

attributes and the pricing power of real estate relative to other asset classes, especially fixed income. Strong demographic drivers and household formation trends have been some of the major drivers of resilient fundamentals across property types, especially industrial and multifamily where occupancy and utilization rates have reached record highs. During the past fiscal year, the Real Assets composite returned +20.0% versus the benchmark which returned +21.5% over the same period.

### **Investment Performance**

Marquette calculates and reports all returns in accordance with Global Investment Performance Standards (GIPS). As an investment consultant, Marquette is prohibited from stating that investment performance is shown “in compliance with” or “in accordance with” GIPS, as GIPS compliance is reserved solely for use by asset management firms. However, Marquette strives to uphold and maintain the guiding principles underlying GIPS standards, both ethically and in its performance calculation methodology. Accordingly, all performance returns are calculated using a time-weighted methodology known as the Modified Dietz method. This algorithm attempts to eliminate the effects of cash flows and geometrically links period returns.

The total net of fees return for the fiscal year ending June 30, 2022, on all assets was -7.8%, which ranked in the 16<sup>th</sup> percentile. As the System’s Investment Policy calls for measuring performance for the total portfolio over longer periods, it is worth noting that the System’s assets have compounded at annual net of fees rate of return of +7.2% over the past 10 years.

The fair value of all assets was \$ 643.9 million on June 30, 2022, compared to \$719.8 million on June 30, 2021. At the end of the fiscal year 2022, the System’s assets were allocated as follows:

Asset Class	Fair Value (millions)	Percent of Total	Fiscal Year Rate of Return	
			System	Benchmark
Domestic Equity	\$148.8	23.1%	-17.5	-13.9
International Equity	\$98.4	15.3%	-14.4	-19.4
Global Equity	\$28.9	4.5%	-9.1	-0.6
Private Equity	\$66.1	10.3%	10.1	8.9
Fixed Income	\$169.8	26.4%	-14.5	-10.3
Real Assets	\$129.2	20.1%	20.0	21.5
Cash	\$2.5	0.4%	0.5	N/A
Total	\$643.9	100.0%	-7.8	-6.4

Given the ongoing discussions that the Marquette team is having with the Board and Investment Committee regarding asset allocation, it is clear that the Executive Director and Trustees have continued to prioritize downside protection as a key portion of their main objective of hitting the long-term target rate of return of 7.25%.

The Marquette team looks forward to continuing the ongoing review of the System's current asset allocation in anticipation of key macroeconomic changes that are brewing within the United States as well as in the international markets.

Sincerely,

A handwritten signature in black ink, appearing to read 'Kweku Obed', is centered within a light gray rectangular box.

Kweku Obed, CFA, CAIA  
Managing Director

# CITY OF KNOXVILLE PENSION SYSTEM

## Outline of Investment Policies

The *Statement of Investment Policy of the City of Knoxville Employees' Pension System* serves to articulate the Pension Board and its Investment Committee's view of the System's investment objectives and risk tolerance. That document is used to assist the Investment Committee with the development of a suitable asset allocation, the selection of appropriate investment managers or pooled funds within the asset allocation, and the prudent monitoring and evaluation of performance of the plan, selected investment managers and pooled funds. The Statement also defines the roles and responsibilities of persons associated with the System.

## Investment Objectives

The primary objective of the System is to ensure, over the long-term life of the System, an adequate level of assets to fund the benefits guaranteed to Plan members and their beneficiaries at the time they are payable. In meeting this objective, the Board seeks to achieve a high level of investment return consistent with a prudent level of portfolio risk.

In addition, a secondary investment objective of the System is to earn a total rate of return after all expenses that equals or exceeds the actuarial investment return assumption. The Board, with help from its actuary and investment consultant, will use the System's asset allocation as the primary tool to achieve this objective. As this is a long-term projection and investments are subject to short-term volatility, the main investment focus of the Board towards the total System's assumed rate of return and that of each investment manager will be on performance relative to the appropriate asset class, mix of asset classes, and peer performance over relevant time periods. Each manager is expected to maintain a consistent philosophy and style, perform well versus others utilizing the same style, and add incremental value after costs.

# CITY OF KNOXVILLE PENSION SYSTEM

## Investment Performance

Investment returns are calculated using a time-weighted rate of return based on the fair value of assets. Returns are reported gross of fees unless otherwise stated. Annualized investment results compared with benchmarks for the year ending June 30, 2022 are as follows:

	<u>1 Year</u>	<u>3 Year</u>	<u>5 Year</u>	<u>10 Year</u>
US Equity	-17.1%	8.1%	9.6%	11.9%
Russell 3000 Index	-13.9%	9.8%	10.6%	12.6%
International Equity	-13.8%	1.8%	2.1%	6.3%
MSCI ACWI-EX US Index	-19.4%	1.4%	2.5%	4.8%
Fixed Income	-14.2%	-0.2%	1.9%	2.7%
Bloomberg US Aggregate TR Index	-10.3%	-0.9%	0.9%	1.5%
Real Assets	21.3%	8.0%	6.1%	8.1%
NCREIF-ODCE Index	21.5%	8.6%	7.4%	7.6%
Total Portfolio	-7.1%	5.7%	6.0%	7.7%
Total Fund Policy Index	-6.2%	6.0%	6.3%	7.5%

# CITY OF KNOXVILLE PENSION SYSTEM

## Asset Allocation

Based on its determination of the appropriate risk posture for the System and its related long-term return expectations, the Board, along with the investment consultant and actuary, will periodically review and establish asset-mix guidelines for the System. The guidelines will be based on fair values and shall always comply with the authorized limits set by City Council, which are as follows:

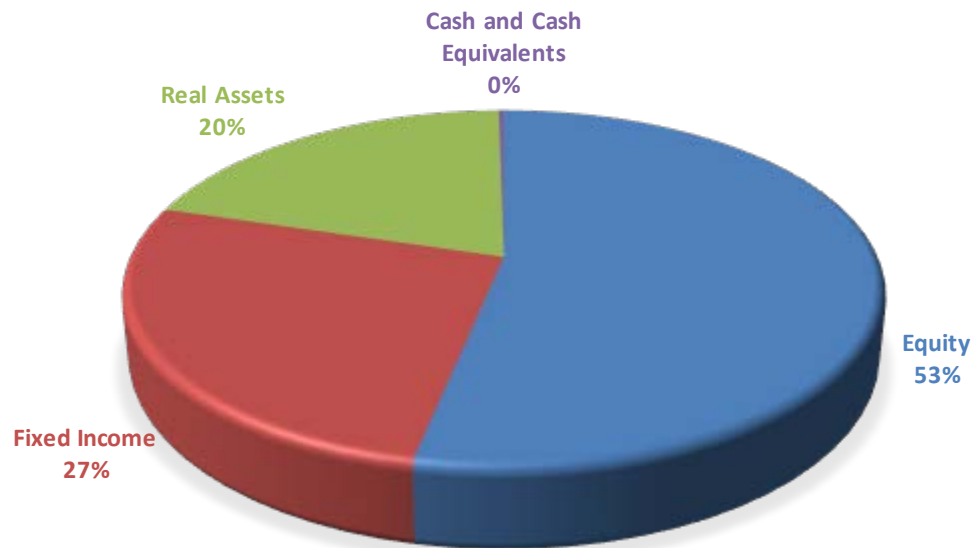
<u>ASSET CLASS</u>	<u>AUTHORIZED LIMITS</u>
Equity	0% - 75%
Fixed Income	0% - 75%
Real Assets	0% - 20%
Cash	0% -100%

The Board recognizes that adherence to an asset allocation plan has the greatest impact on long-term performance results. The risk return profile is maintained by identifying a long-term strategic asset allocation. In February 2020, the asset allocation plan was amended to eliminate Hedge Funds, Risk Parity, and Energy/Commodities from the investment mix. In addition, allocations were added for Global Low Volatility Stocks, Opportunistic Real Estate, and Global Infrastructure. Temporary deviations from the targets are held within ranges. The allocation targets and acceptable ranges adopted as of February 2020 are as follows:

<u>ASSET CLASS</u>	<u>TARGET ALLOCATION</u>	<u>NORMAL ALLOCATION</u>
<b>Equity</b>	<b>51%</b>	<b>41% - 61%</b>
Large Cap Stocks	15%	10% - 20%
Defensive Equity	4%	0% – 8%
Small-Mid Cap Stocks	5%	0% - 9%
Developed International Stocks	10%	5% - 15%
Emerging Markets Stocks	4%	0% - 10%
Global Low Volatility Stock	5%	0% - 10%
Private Equity	8%	0% - 15%
<b>Fixed Income</b>	<b>29%</b>	<b>19% - 39%</b>
Core/Core Plus	24%	14% - 34%
Emerging Markets Debt	5%	0% - 10%
<b>Real Assets</b>	<b>20%</b>	<b>10% - 20%</b>
Core Real Estate	10%	5% - 15%
Opportunistic Real Estate	5%	0% - 10%
Global Infrastructure	5%	0% - 10%
<b>Cash</b>	<b>0%</b>	<b>0% - 5%</b>

## CITY OF KNOXVILLE PENSION SYSTEM

The total fair value of the System on June 30, 2022 was \$642,378,359, primarily consisting of investments. Those investment assets were allocated as shown in the following chart:



### Ten Largest Bond Holdings (by Fair Value)

June 30, 2022

<u>Par Value</u>	<u>Bond</u>	<u>Coupon Rate</u>	<u>Due Date</u>	<u>Fair Value</u>
\$ 7,145,500	UNITED STATES TREAS BONDS	2.000%	08/15/51	\$ 5,576,101
6,696,900	UNITED STATES TREAS BONDS	1.875%	11/15/51	5,040,805
3,563,387	UNITED STATES TREAS BONDS	2.250%	02/15/52	3,108,637
6,764,000	UNITED STATES TREAS BD STRIPPED PRIN	0.000%	05/15/48	2,903,503
2,864,000	UNITED STATES TREAS NOTES	0.625%	07/31/26	2,604,757
3,599,000	UNITED STATES TREAS BONDS	1.125%	08/15/40	2,501,614
2,170,000	US TREASURY N/B	1.250%	08/15/31	1,878,255
2,143,400	UNITED STATES TREAS BONDS	2.375%	02/15/42	1,836,661
1,200,000	UNITED STATES TREAS NOTES INFL IDX T-BON	1.004%	01/15/29	1,392,318
1,054,000	US TSY INFL IX TREAS BD	0.776%	01/15/24	1,332,068

A complete listing of portfolio holdings is available upon request from the Pension System office.



## CITY OF KNOXVILLE PENSION SYSTEM

### Ten Largest Stock Holdings (by Fair Value)

June 30, 2022

<u>Shares</u>	<u>Stock</u>	<u>Fair Value</u>
15,992	MICROSOFT CORP COM	\$4,107,225
1,747	ALPHABET INC CAP STK USD0.001 CL C	3,821,475
5,169	UNITEDHEALTH GROUP INC COM	2,654,953
23,300	AMAZON COM INC COM	2,474,693
15,969	MARRIOTT INTL INC NEW COM STK CL A	2,171,944
13,403	META PLATFORMS INC	2,161,234
6,532	GOLDMAN SACHS GROUP INC COM	1,940,135
48,560	COMCAST CORP NEW-CL A	1,905,494
24,682	MORGAN STANLEY COM STK USD0.01	1,877,313
6,682	AON PLC	1,802,002

A complete listing of portfolio holdings is available upon request from the Pension System office.

# CITY OF KNOXVILLE PENSION SYSTEM

## Schedule of Investment Commissions June 30, 2022

<u>Broker</u>	<u>Quantity</u> <u>(Units)</u>	<u>Broker</u> <u>Commission</u>	<u>Commission/</u> <u>Share</u>
ABEL NOSER Total	54,186	\$ 2,167	\$ 0.04000
B. RILEY AND CO., LLC Total	7,160	286	0.04000
BARCLAYS BANK PLC (ALL U.K. OFFICES) Total	19,142	543	0.02835
BMO CAPITAL MARKETS CORP. Total	7,990	125	0.01565
BOFA SECURITIES, INC. Total	5,402	96	0.01773
BTIG LLC Total	3,294	66	0.02000
CABRERA CAPITAL MARKETS LLC Total	318	6	0.02000
CANTOR FITZGERALD & CO. Total	6,139	184	0.03000
CITATION GROUP (THE) Total	1,500	60	0.04000
CITIGROUP GLOBAL MARKETS INC.CP AND CD Total	27,844	1,114	0.04000
COWEN AND COMPANY, LLC Total	21,428	664	0.03099
CREDIT SUISSE SECURITIES (USA) LLC Total	3,137	112	0.03557
GOLDMAN, SACHS & CO. Total	38,881	1,040	0.02674
HILLTOP SECURITIES Total	788	32	0.04000
INSTINET, LLC Total	9,618	127	0.01325
ISI GROUP INC. Total	6,917	277	0.04000
ITG INC. Total	3,032	53	0.01750
J.P. MORGAN SECURITIES LLC Total	56,465	1,210	0.02142
JEFFERIES LLC Total	16,575	403	0.02429
JOHNSON RICE & COMPANY LLC Total	2,700	108	0.04000
JONESTRADING INSTITUTIONAL SERVICES, LLC. Total	19,253	462	0.02399
KEEFE BRUYETTE Total	19,093	382	0.02000
KEYBANC CAPITAL MARKETS INC Total	18,584	372	0.02000
LIQUIDNET INC Total	41,011	547	0.01334
LOOP CAPITAL MARKETS LLC Total	1,998	40	0.02000

# CITY OF KNOXVILLE PENSION SYSTEM

## Schedule of Investment Commissions (Continued)

June 30, 2022

<u>Broker</u>	<u>Quantity</u> <u>(Units)</u>	<u>Broker</u> <u>Commission</u>	<u>Commission/</u> <u>Share</u>
LUMINEX TRADING AND ANALYTICS Total	11,706	\$ 77	\$ 0.00658
MISCHLER FINANCIAL GROUP INC-EQUITIES Total	2,893	58	0.02000
MORGAN STANLEY & CO. LLC Total	32,485	723	0.02227
NEEDHAM AND COMPANY LLC Total	10,480	392	0.03740
NORTH SOUTH CAPITAL LLC Total	730	15	0.02000
PENSERRA SECURITIES LLC Total	1,576	32	0.02000
PIPER JAFFRAY & CO Total	896,371	9,215	0.01028
RAYMOND JAMES & ASSOCIATES, INC. Total	23,689	694	0.02929
RBC CAPITAL MARKETS, LLC Total	7,213	171	0.02377
ROBERT W. BAIRD & CO. INCORPORATED Total	73,529	1,442	0.01961
SANFORD C. BERNSTEIN & CO., LLC Total	28,038	541	0.01929
STEPHENS INC Total	4,001	82	0.02044
STIFEL, NICOLAUS & COMPANY, INCORPORATED Total	28,094	817	0.02909
STRATEGAS SECURITIES LLC Total	122	5	0.04000
SUNTRUST CAPITAL MARKETS INC. Total	1,628	33	0.02000
UBS AG STAMFORD BRANCH Total	24,154	369	0.01529
VIRTU AMERICAS LLC Total	9,066	68	0.00750
WELLS FARGO BANK MINNESOTA NA Total	9,670	203	0.02096
WILLIAMS CAPITAL GROUP L.P., THE Total	990	20	0.02000
	1,558,890	\$ 25,429	\$ 0.01631

Total recaptured commissions were \$1,355.

# CITY OF KNOXVILLE PENSION SYSTEM

## Schedule of Investment Fees

June 30, 2022

Assets Under Management  
(including Cash & Cash  
Equivalents) and Pending

	<u>Items</u>	<u>Fees</u>
<i>Equity Managers</i>		
57 Stars, LLC	\$ 6,887,493	\$ 34,510
Aberdeen Asset Management	7,212,518	60,000
Acadian Asset Management	29,742,412	306,105
Adams Street Partners	3,566,915	36,068
Eagle Capital Management	44,600,494	429,728
Fort Washington Investment Advisors	15,044,233	103,515
NB Alternatives Advisers	7,061,522	52,500
Northern Trust Investments	71,535,769	101,464
Parametric	31,178,889	108,454
Partners Group	21,590,386	284,117
Pinnacle Associates	14,972,872	157,183
Silchester International Investors	68,700,475	560,711
Top Tier Capital Partners	4,738,578	60,652
William Blair & Company	15,539,831	145,964
<i>Total Equity</i>	\$ 342,372,388	\$ 2,440,971
<i>Fixed Income Managers</i>		
Income Research & Management	\$ 87,614,720	\$ 187,977
Ninety One Limited	25,304,822	122,800
Schroder Investment Management	56,922,485	177,895
<i>Total Fixed Income</i>	\$ 169,842,027	\$ 488,672
<i>Real Asset Managers</i>		
Aether Investment Partners	\$ 4,935,777	\$ 96,417
IFM	21,413,997	93,365
Principal Global Investors	38,985,370	330,739
RREEF	53,046,775	364,634
Ullico	10,575,497	184,298
<i>Total Real Assets</i>	\$ 128,957,416	\$ 1,069,453
<b>Total Investment Manager Fees</b>		<b>\$ 3,999,096</b>
<b>Other Investment Service Fees</b>		
Custody Fees		\$126,952
Consultant Fees		\$175,000

This schedule does not include certain investment manager fees which are not practical to separate from net appreciation in fair value of investments.

# CITY OF KNOXVILLE PENSION SYSTEM

## Schedule of Investment Summary June 30, 2022

Investment Type	<u>Fair Value</u>	<u>Percentage of Portfolio</u>
United States Government Securities		
US Treasuries	\$ 56,462,797	8.78%
US Government Agencies	17,478,067	2.72%
Total US Government Securities	<u>73,940,864</u>	<u>11.50%</u>
State and Municipal Government Securities	<u>3,736,283</u>	<u>0.58%</u>
Corporate Bonds & Debentures		
Corporate Bonds	41,834,620	6.51%
Asset Backed Securities	6,452,317	1.00%
Collateralized Mortgage Obligations	6,552,045	1.02%
Total Corporate Bonds & Debentures	<u>54,838,982</u>	<u>8.53%</u>
Equity Securities	<u>232,732,395</u>	<u>36.19%</u>
International Securities		
Equity Securities	131,996,148	20.53%
Corporate Bonds	10,311,115	1.60%
Total International Securities	<u>142,307,263</u>	<u>22.13%</u>
Real Assets	<u>128,679,022</u>	<u>20.01%</u>
Cash and Cash Equivalents	<u>6,765,119</u>	<u>1.05%</u>
Total Investment Assets	<u>\$ 642,999,928</u>	<u>100.00%</u>

## **ACTUARIAL SECTION**



USI Consulting Group  
5301 Virginia Way  
Suite 400  
Brentwood, TN 37027  
www.usicg.com  
Tel: 615.665.1640

September 8, 2022

Ms. Kristi Paczkowski  
Executive Director  
City of Knoxville Pension Board  
917B E. Fifth Avenue  
Knoxville, TN 37917-7737

Re: **Actuary's Certification Letter**

Dear Kristi:

The purpose of this letter is to certify the actuarial adequacy of contributions being made by the City of Knoxville for the City of Knoxville Pension System and to discuss the approach currently being taken toward meeting the financing objectives of the Plan.

The most recent actuarial valuation completed as of the year ending June 30, 2022 for the City of Knoxville Pension System was performed as of July 1, 2022. Valuations are performed annually. The valuation was based on a set of actuarial assumptions (described in detail in the report section headed "Summary of Actuarial Assumptions and Methods ") which was adopted by the Pension Board on the recommendation of the actuary after a study of actual experience during the five-year period ending June 30, 2021. The results of the most recent experience study were applied to the July 1, 2022 valuation.

Effective January 1, 2013, the Pension Plan introduced Division H for new employees. The provisions of each division of the City of Knoxville Pension System are described in detail in the section headed "Summary of Plan Provisions" in the City of Knoxville Pension System Valuation and Report.

Effective July 1, 2022, the Pension Board elected to amortize all unfunded accrued liabilities over the ensuing 20-year period. Liabilities are being amortized over 20 years as of July 1, 2022.

In performing the 2022 valuation, we relied on employee data and asset information provided by the administrative staff of the City of Knoxville Pension System. In the case of employee data, each individual record was audited for reasonableness and internal consistency, although the validity of the information was not traced to source documents. With respect to plan assets, a general review for consistency with the information furnished for prior valuations was performed.

Certain tables presented in the Comprehensive Annual Financial Report are derived from the July 1, 2022 actuarial valuation report prepared by USI Consulting Group. The tables were prepared by the staff of the City of Knoxville Pension Plan and examined by our firm. These tables include the following –

***Required Supplementary Information***

- Schedule of Changes in Net Pension Liability and Related Ratios
- Schedule of Employer Contributions
- Schedule of Investment Returns

***Actuarial Section***

- Summary of Actuarial Assumptions and Methods
- Schedule of Active Member Valuation Data by Section
- Solvency Test
- Analysis of Financial Experience

The 2022 valuation was prepared in accordance with accepted actuarial principles of practice prescribed by the Actuarial Standards Board and the principles of Governmental Accounting Standards Board Statement 67 and 68, including the overall appropriateness of the analysis, assumptions, and results and conforms to appropriate Standards of Practice as promulgated from time to time by the Actuarial Standards Board, which standards form the basis for the actuarial report. The actuarial assumptions and methods used for both funding and financial reporting purposes meet the parameters set by the Actuarial Standards of Practice. I am a Member of the American Academy of Actuaries with experience in performing valuations for public retirement systems; all calculations were performed either by me or by other qualified actuaries under my direct supervision.

Based upon the valuation results and the contribution rates adopted by the Pension Board, it is our opinion that the City of Knoxville Pension System continues to fund its liabilities in accordance with standard actuarial principles of advance funding.

Sincerely,

A handwritten signature in cursive script that reads "Laura S Stewart".

Laura S Stewart, FSA

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# **CITY OF KNOXVILLE PENSION SYSTEM**

## **Summary of Actuarial Assumptions and Methods**

An experience study is performed every five years. Recommended changes to the actuarial assumptions, if any, based upon the experience study are approved by the Pension Board. Actuarial assumptions and methods shown in the supporting schedules were selected by the Pension Board based upon the recommendations of the actuary following the experience study conducted in 2021.

A summary of the plan provisions is contained in Note 2 to the financial sections within the Financial Section of this Comprehensive Annual Financial Report.

Following is a summary of the key actuarial assumptions and methods used in the most recent actuarial valuation dated July 1, 2022.

### **Rate of Investment Return**

#### Effective July 1, 2022:

Plan H-5.5% per annum based on a 2.5% inflation assumption; 0.5% expense assumption. All other plans- 7.2% per annum based on a 2.5% inflation assumption; 0.5% expense assumption.

#### Prior to July 1, 2022:

Plan H- 5.5% per annum based on a 2.5% inflation assumption; 0.5% expense assumption. All other plans- 7.25% per annum based on a 2.5% inflation assumption; 0.5% expense assumption.

### **Asset Valuation Method**

Fair Value, adjusted for 10-year phase-in of each year's difference between actual and expected value. Actuarial value to be no more than 120% and no less than 80% of fair value.

### **Benefit Cost of Living Adjustment**

3.5% per annum for all except Division H; 3.0% per annum for Division H.

### **Actuarial Valuation Method**

Entry Age Normal; Unfunded liability will be amortized over a 20-year period beginning July 1, 2022. Current amortization period is 20 years (closed amortization).

### **Discount Rate**

#### Effective July 1, 2022:

Plan H – 5.5% compounded annually; all others 7.2% compounded annually.

#### Prior to July 1, 2022:

Plan H – 5.5% compounded annually; all others 7.25% compounded annually.

## **CITY OF KNOXVILLE PENSION SYSTEM**

### **Summary of Actuarial Assumptions and Methods (Continued)**

The City of Knoxville is responsible to establish and maintain the funding policy for the System with City Council approval.

An independent “level three” actuarial review was performed by Acuff & Associates for the July 1, 2014 actuarial valuation report prepared by the System’s actuary, USI Consulting Group (formerly BPS&M). The City established an actuarial audit policy that will require an independent actuarial review for the actuarial valuation report as part of the funding policy procedures at least once in a ten-year period. The report by Acuff & Associates, dated January 2, 2015, examined the actuarial methods and assumptions utilized by USI for reasonableness and internal consistency as described in Actuarial Audits Best Practices issued by GFOA. The review procedures performed indicated that the actuarial methods and assumptions employed by USI appeared reasonable and internally consistent with prior year reports.

# CITY OF KNOXVILLE PENSION SYSTEM

## Summary of Actuarial Assumptions and Methods (Continued)

### Pre- and Post-Retirement Mortality Rates

#### Effective July 1, 2022:

Divisions A, B, C, F, G and H (not including Board of Education) are based on the 115% of the RP-2014 Blue Collar table rates projected to 2021 with MP-2021. Board of Education mortality rates are based on the 2021 PPA Annuitant static table.

#### Prior to July 1, 2022:

Divisions A, B, C, F, G and H (not including Board of Education) are based on the standard 110% of the RP-2000 Healthy Annuitant static table rates. Board of Education mortality rates are based on the 2016 PPA Annuitant static table.

### Rate of Normal Retirement

#### Divisions A and B

<u>Age</u>	<u>Percent Retiring</u>	<u>Age</u>	<u>Percent Retiring</u>
53	2%	62	35%
54	2%	63	10%
55	2%	64	5%
56	3%	65	8%
57	3%	66	5%
58	5%	67	2%
59	5%	68	2%
60	5%	69	1%
61	5%	70	0%

**Division C:** 20% retire at each age beginning with age 50 and 25 years of Credited Service, but in no event later than age 60.

**Division G:** 12.5% retire at each age once the rule of 80 is met from age 50 to age 61  
25% retire at each age from 62 to 69  
100% retire by age 70

**Division H - General Government:**  
25% retire at each age from 63 to 69  
100% retire by age 70

**Division H - Uniformed Bodies:**  
40% retire at age 56 and 25 years of service  
20% retire at each age from 57 to 62 with 25 years of service  
100% retire by age 63

# CITY OF KNOXVILLE PENSION SYSTEM

## Summary of Actuarial Assumptions and Methods (Continued)

### Withdrawal Rates

#### Estimated Experience (1<sup>st</sup> Year Select)

<u>20</u>	<u>35</u>	<u>50</u>	<u>60</u>
17.1%	16.5%	13.9%	11.0%

#### Estimated Experience (2<sup>nd</sup> Year Select)

	<u>20</u>	<u>35</u>	<u>50</u>	<u>60</u>
Division A (Board of Ed.), Division C and Division H (Uniformed)	7.0%	6.9%	6.2%	5.3%
All Others	14.1%	13.7%	12.3%	10.6%

#### Estimated Experience (Ultimate)

	<u>20</u>	<u>35</u>	<u>50</u>	<u>60</u>
Division A (Board of Ed.)	5.3%	3.0%	1.9%	1.6%
Divisions C and H (Uniformed)	8.1%	3.1%	0.4%	0.0%
All Others	10.3%	6.2%	2.3%	0.0%

### Salary Increases

#### Divisions A, B, G, and H (General Government)

<u>Age</u>	<u>Annual Rate of Salary Increase</u>
20	11.5%
35	4.7%
50	3.6%
60	3.0%

#### Divisions C, F, and H (Uniformed Bodies)

<u>Age</u>	<u>Annual Rate of Salary Increase</u>
20	11.5%
35	5.7%
50	3.8%
60	3.0%

# CITY OF KNOXVILLE PENSION SYSTEM

## Schedule of Active Member Valuation Data by Section

### General Government Members:

	Number Active		Annual Average	Percent Increase
Valuation Date	Members	Annual Payroll	Pay	Average Pay
6/30/2022	725	\$41,052,176	\$56,624	13.0%
6/30/2021	757	\$37,946,937	\$50,128	3.3%
6/30/2020	765	\$37,123,968	\$48,528	2.7%
6/30/2019	764	\$36,113,566	\$47,269	2.4%
6/30/2018	763	\$35,219,197	\$46,159	2.4%
6/30/2017	790	\$35,614,930	\$45,082	1.8%
6/30/2016	791	\$35,037,801	\$44,296	2.6%
6/30/2015	806	\$34,812,676	\$43,192	0.8%
6/30/2014	792	\$33,928,906	\$42,840	0.8%
6/30/2013	773	\$32,847,136	\$42,493	1.7%

### Board of Education Members:

	Number Active		Annual Average	Percent Increase
Valuation Date	Members	Annual Payroll	Pay	Average Pay
6/30/2022	1	\$23,886	\$23,886	0.0%
6/30/2021	1	\$23,886	\$23,886	-16.1%
6/30/2020	2	\$56,971	\$28,486	0.0%
6/30/2019	2	\$56,972	\$28,486	0.0%
6/30/2018	2	\$56,972	\$28,486	0.0%
6/30/2017	2	\$56,972	\$28,486	37.3%
6/30/2016	4	\$82,979	\$20,745	49.9%
6/30/2015	6	\$83,024	\$13,837	-9.7%
6/30/2014	7	\$107,255	\$15,322	-1.9%
6/30/2013	9	\$140,501	\$15,611	27.4%

### Uniformed Bodies Members:

	Number Active		Annual Average	Percent Increase
Valuation Date	Members	Annual Payroll	Pay	Average Pay
6/30/2022	666	\$44,570,920	\$66,923	16.0%
6/30/2021	665	\$38,373,855	\$57,705	1.1%
6/30/2020	655	\$37,367,686	\$57,050	0.7%
6/30/2019	662	\$37,513,489	\$56,667	2.4%
6/30/2018	664	\$36,744,459	\$55,338	3.2%
6/30/2017	689	\$36,944,734	\$53,621	-0.2%
6/30/2016	677	\$36,360,988	\$53,709	1.6%
6/30/2015	683	\$36,096,249	\$52,850	5.9%
6/30/2014	718	\$35,816,751	\$49,884	1.6%
6/30/2013	709	\$34,794,666	\$49,076	2.9%

# CITY OF KNOXVILLE PENSION SYSTEM

## Schedule of Retiree and Beneficiary Data by Section

### General Government:

	<u>Added to Rolls</u>		<u>Removed from Rolls</u>		<u>On Rolls at Year End</u>			
Valuation		Annual		Annual		Annual	Average	% Incr.
Date	Number	Allowance	Number	Allowance	Number	Allowance	Annual Allowance	Avg. Allowance
6/30/2022	40	\$1,435,933	33	\$664,857	657	\$15,819,738	\$24,079	4.0%
6/30/2021	46	\$1,428,250	34	\$588,749	650	\$15,048,662	\$23,152	4.0%
6/30/2020	44	\$1,582,734	37	\$1,262,594	638	\$14,209,161	\$22,271	1.2%
6/30/2019	48	\$2,013,817	34	\$612,196	631	\$13,889,021	\$22,011	8.8%
6/30/2018	43	\$1,254,396	27	\$419,412	617	\$12,487,400	\$20,239	4.4%
6/30/2017	33	\$839,795	32	\$531,929	601	\$11,652,416	\$19,388	2.5%
6/30/2016	39	\$1,210,660	24	\$295,947	600	\$11,344,550	\$18,908	6.1%
6/30/2015	37	\$1,052,460	26	\$416,700	585	\$10,429,837	\$17,829	4.5%
6/30/2014	39	\$1,024,381	21	\$311,110	574	\$9,794,076	\$17,063	4.5%
6/30/2013	36	\$209,646	6	\$61,607	556	\$9,080,805	\$16,332	-3.8%

### Board of Education:

	<u>Added to Rolls</u>		<u>Removed from Rolls</u>		<u>On Rolls at Year End</u>			
Valuation		Annual		Annual		Annual	Average	% Incr.
Date	Number	Allowance	Number	Allowance	Number	Allowance	Annual Allowance	Avg. Allowance
6/30/2022	8	\$298,895	39	\$510,424	607	\$5,821,568	\$9,591	1.4%
6/30/2021	9	\$228,628	51	\$801,120	638	\$6,033,097	\$9,456	-2.7%
6/30/2020	7	\$249,380	37	\$520,609	680	\$6,605,589	\$9,714	0.3%
6/30/2019	7	\$248,439	44	\$581,985	710	\$6,876,818	\$9,686	0.4%
6/30/2018	6	\$182,276	45	\$577,517	747	\$7,210,364	\$9,652	-0.2%
6/30/2017	8	\$268,119	52	\$694,992	786	\$7,605,605	\$9,676	0.0%
6/30/2016	16	\$283,637	39	\$527,488	830	\$8,032,478	\$9,678	-0.3%
6/30/2015	6	230209.2	58	663344.88	853	\$8,276,329	\$9,703	0.8%
6/30/2014	23	333791	40	497027	905	\$8,709,465	\$9,624	0.0%
6/30/2013	24	421438	59	712806	922	\$8,872,701	\$9,623	0.5%

**CITY OF KNOXVILLE PENSION SYSTEM**  
**Schedule of Retiree and Beneficiary Data by Section (Continued)**

**Uniformed Bodies:**

	<u>Added to Rolls</u>		<u>Removed from Rolls</u>		<u>On Rolls at Year End</u>		<u>Average</u>	<u>% Incr.</u>
<b>Valuation</b>	<b>Annual</b>	<b>Annual</b>	<b>Annual</b>	<b>Annual</b>	<b>Annual</b>	<b>Annual</b>	<b>Annual</b>	<b>% Incr.</b>
<b>Date</b>	<b>Number</b>	<b>Allowance</b>	<b>Number</b>	<b>Allowance</b>	<b>Number</b>	<b>Allowance</b>	<b>Allowance</b>	<b>Avg.</b>
6/30/2022	53	\$3,122,003	58	\$2,334,041	754	\$30,924,010	\$41,013	3.3%
6/30/2021	50	\$2,391,034	32	\$1,381,604	759	\$30,136,048	\$39,705	1.0%
6/30/2020	43	\$2,227,568	23	\$1,206,815	741	\$29,126,618	\$39,307	0.8%
6/30/2019	37	\$3,435,863	32	\$1,053,569	721	\$28,105,865	\$38,982	8.5%
6/30/2018	38	\$2,154,396	24	\$1,056,095	716	\$25,723,571	\$35,927	2.4%
6/30/2017	37	\$2,073,560	34	\$1,089,574	702	\$24,625,270	\$35,079	3.7%
6/30/2016	57	\$1,125,519	31	\$491,229	699	\$23,641,283	\$33,822	-1.1%
6/30/2015	11	1060916.7	22	642362.54	673	\$23,006,993	\$34,186	3.5%
6/30/2014	21	1161912	22	601379	684	\$22,588,439	\$33,024	2.7%
6/30/2013	22	1257604	25	395164	685	\$22,027,906	\$32,158	4.5%

## CITY OF KNOXVILLE PENSION SYSTEM

### Solvency Test

A short-term solvency test is one means of checking a retirement plan's progress under its funding program. In a short-term solvency test, a plan's actuarial value of assets is compared with the accrued liabilities.

<b>Actuarial Accrued Liabilities</b>					<b>Portion of Accrued Liabilities Covered by Valuation Assets</b>		
	<b>(1) Retirees, Beneficiaries &amp; Defined Contribution Accounts</b>	<b>(2) Terminated Vested Members</b>	<b>(3) Active Members</b>				
<b>Valuation Date</b>				<b>Valuation Assets</b>	<b>(1)</b>	<b>(2)</b>	<b>(3)</b>
6/30/2022	\$572,520,750	\$60,526,639	\$299,764,257	\$697,810,250	100%	100%	22%
6/30/2021	\$542,509,180	\$57,841,772	\$257,739,131	\$671,360,850	100%	100%	28%
6/30/2020	\$521,790,357	\$55,230,776	\$259,014,418	\$643,733,298	100%	100%	26%
6/30/2019	\$504,291,924	\$52,764,553	\$261,504,692	\$617,738,389	100%	100%	23%
6/30/2018	\$498,101,727	\$41,571,266	\$254,965,163	\$584,314,809	100%	100%	18%
6/30/2017	\$483,794,933	\$38,187,462	\$253,894,646	\$566,872,686	100%	100%	18%
6/30/2016	\$464,619,843	\$35,812,397	\$238,752,810	\$559,557,871	100%	100%	25%
6/30/2015	\$451,656,077	\$28,736,146	\$236,448,215	\$550,957,059	100%	100%	30%
6/30/2014	\$450,555,300	\$26,857,039	\$225,612,840	\$532,054,261	100%	100%	24%
6/30/2013	\$442,310,943	\$24,260,623	\$216,129,202	\$518,592,807	100%	100%	24%



## CITY OF KNOXVILLE PENSION SYSTEM

### Analysis of Financial Experience

Approximate reconciliation of gains (losses) in the unfunded accrued liability resulting from differences between assumed experience and actual experience:

Gains/(Losses) in Millions	<u>General</u> <u>Government</u>	<u>Division H</u> <u>General</u> <u>Government</u>	<u>Uniformed</u> <u>Bodies</u>	<u>Division H</u> <u>Uniformed</u> <u>Bodies</u>	<u>Board of</u> <u>Education</u>	<u>Total</u>
Assets (Actual minus Expected MV)	\$ (31.42)	\$ (2.18)	\$ (62.42)	\$ (1.14)	\$ (2.77)	\$ (99.93)
Plan Experience:						
Retirement/Termination	(3.00)	0.38	(2.24)	0.28	-	(4.58)
Deaths	1.74	(0.01)	3.76	-	(0.36)	5.13
New Entrants	-	(0.22)	-	(0.38)	-	(0.60)
Salary Increases	(6.20)	(0.89)	(22.96)	(0.43)	-	(30.48)
Inactive Data Adjustments*	(0.27)	-	(1.50)	-	(0.19)	(1.96)
Disabled	(0.23)	(0.01)	0.26	0.19	-	0.21
DROP Elections	(0.50)	-	(0.85)	-	-	(1.35)
G1 to G2 Transfers	(0.04)	-	-	-	-	(0.04)
Actual Benefit Payments	2.07	0.83	0.49	0.25	(0.05)	3.59
Other	<u>0.35</u>	<u>0.16</u>	<u>0.38</u>	<u>-</u>	<u>(0.01)</u>	<u>0.88</u>
Total Plan Experience	<u>(6.08)</u>	<u>0.24</u>	<u>(22.66)</u>	<u>(0.09)</u>	<u>(0.61)</u>	<u>(29.20)</u>
Assumption Changes:						
2021 Experience Study	<u>(8.35)</u>	<u>(0.50)</u>	<u>(15.19)</u>	<u>(0.09)</u>	<u>(1.33)</u>	<u>(25.46)</u>
<b>Net Changes</b>	<u>\$ (45.85)</u>	<u>\$ (2.44)</u>	<u>\$ (100.27)</u>	<u>\$ (1.32)</u>	<u>\$ (4.71)</u>	<u>\$ (154.59)</u>

\*Changes to benefit amount, benefit form of payment, spouse age, etc.

# CITY OF KNOXVILLE PENSION SYSTEM

## Schedule of Funding Progress

Valuation Date	Actuarial Value of Assets (a)	Actuarial Accrued Liability (b)	Unfunded Actuarial Accrued Liability (UAAL) (b-a)	Funded Ratio (a/b)	Annual Covered Payroll (c)	UAAL as a Percentage of Covered Payroll ((b-a)/c)
7/1/2022	\$ 697,810,250	\$ 932,811,646	\$ 235,001,396	74.8%	\$ 85,646,982	274.4%
7/1/2021	671,360,850	858,090,083	186,729,233	78.2%	76,344,678	244.6%
7/1/2020	643,733,298	836,035,551	192,302,253	77.0%	74,548,625	258.0%
7/1/2019	617,738,389	818,561,168	200,822,779	75.5%	73,684,027	272.5%
7/1/2018	584,314,809	794,638,156	210,323,347	73.5%	72,020,628	292.0%
7/1/2017	566,872,686	775,877,041	209,004,355	73.1%	72,616,635	287.8%
7/1/2016	559,557,871	739,185,050	179,627,179	75.7%	71,481,768	251.3%
7/1/2015	550,957,059	716,840,438	165,883,379	76.9%	70,991,948	233.7%
7/1/2014	532,054,261	703,025,179	170,970,918	75.7%	69,852,912	244.8%
7/1/2013	518,592,807	682,700,768	164,107,961	76.0%	67,782,302	242.1%

Notes: This schedule does not include Board of Education payroll amounts for teachers with frozen benefits as described in Note 3.

See the 10-year schedule of actuarially determined and actual contributions provided in Required Supplementary Information.

## **STATISTICAL SECTION**

## CITY OF KNOXVILLE PENSION SYSTEM

### Statistical Section Overview

This portion of the financial report presents additional information to provide readers with added historical perspective, context, and detail to assist in using the information in the financial statements, notes to the financial statements, and required supplementary information to understand and assess the System's financial condition. It also contains benefits and service data to help the reader understand how the System's financial report relates to the services of the System and the activities it performs.

### SCHEDULE OF CHANGES IN PLAN FIDUCIARY NET POSITION – 10 YEARS

	Fiscal Year Ended June 30				
	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>
<b>Additions to Plan Net Position</b>					
Net Investment Earnings (Loss)	\$ 62,606,358	\$ 87,070,012	\$ 7,873,669	\$ (1,048,951)	\$ 63,411,480
Employer Contributions	13,762,164	15,239,948	22,590,334	23,900,725	23,791,166
Member Contributions	<u>3,884,989</u>	<u>4,000,994</u>	<u>4,122,537</u>	<u>4,414,955</u>	<u>4,417,803</u>
<i>Total Additions to Plan Net Position</i>	<u>\$ 80,253,511</u>	<u>\$ 106,310,954</u>	<u>\$ 34,586,540</u>	<u>\$ 27,266,729</u>	<u>\$ 91,620,449</u>
<b>Deductions from Plan Net Position</b>					
Benefit Payments	\$ 40,578,906	\$ 41,502,497	\$ 42,608,879	\$ 43,946,206	\$ 45,379,447
Refunds	881,014	768,187	910,626	771,127	844,031
Administrative Expenses	<u>625,958</u>	<u>828,357</u>	<u>740,110</u>	<u>679,971</u>	<u>721,540</u>
<i>Total Deductions from Plan Net Position</i>	<u>\$ 42,085,878</u>	<u>\$ 43,099,041</u>	<u>\$ 44,259,615</u>	<u>\$ 45,397,304</u>	<u>\$ 46,945,018</u>
<b>Change in Plan Net Position</b>	<u>\$ 38,167,633</u>	<u>\$ 63,211,913</u>	<u>\$ (9,673,075)</u>	<u>\$ (18,130,575)</u>	<u>\$ 44,675,431</u>

### SCHEDULE OF BENEFITS BY TYPE OF BENEFIT

	Fiscal Year Ended June 30				
	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>
Age and Service Benefits	\$ 30,434,474	\$ 31,371,089	\$ 32,047,709	\$ 33,080,572	\$ 34,260,695
Beneficiaries	5,916,506	6,095,555	6,337,654	6,271,499	6,948,065
Disability Benefits	2,909,177	2,954,808	2,929,203	2,880,244	2,794,187
DROP Benefits	<u>1,318,749</u>	<u>1,081,045</u>	<u>1,294,313</u>	<u>1,713,891</u>	<u>1,376,500</u>
<b>Total Benefit Payments</b>	<u>\$ 40,578,906</u>	<u>\$ 41,502,497</u>	<u>\$ 42,608,879</u>	<u>\$ 43,946,206</u>	<u>\$ 45,379,447</u>
Refunds to Terminated Members	<u>\$ 881,014</u>	<u>\$ 768,187</u>	<u>\$ 910,626</u>	<u>\$ 771,127</u>	<u>\$ 844,031</u>

## CITY OF KNOXVILLE PENSION SYSTEM

### SCHEDULE OF CHANGES IN PLAN FIDUCIARY NET POSITION – 10 YEARS (Continued)

	Fiscal Year Ended June 30				
	<u>2018</u>	<u>2019</u>	<u>2020</u>	<u>2021</u>	<u>2022</u>
<b>Additions to Plan Net Position</b>					
Net Investment Earnings (Loss)	\$ 37,559,310	\$ 30,792,467	\$ 15,174,020	\$ 135,614,528	\$ (55,003,697)
Employer Contributions	25,719,853	28,710,668	29,167,107	28,947,231	28,650,787
Member Contributions	<u>4,214,055</u>	<u>4,290,930</u>	<u>4,377,253</u>	<u>4,430,409</u>	<u>4,469,140</u>
<i>Total Additions to Plan Net Position</i>	<u>\$ 67,493,218</u>	<u>\$ 63,794,065</u>	<u>\$ 48,718,380</u>	<u>\$ 168,992,168</u>	<u>\$ (21,883,770)</u>
<b>Deductions from Plan Net Position</b>					
Benefit Payments	\$ 46,640,954	\$ 46,951,343	\$ 50,299,815	\$ 51,710,349	\$ 53,054,434
Refunds	853,221	597,616	792,107	804,450	610,524
Administrative Expenses	<u>707,932</u>	<u>665,290</u>	<u>739,388</u>	<u>697,182</u>	<u>907,959</u>
<i>Total Deductions from Plan Net Position</i>	<u>\$ 48,202,107</u>	<u>\$ 48,214,249</u>	<u>\$ 51,831,310</u>	<u>\$ 53,211,981</u>	<u>\$ 54,572,917</u>
<b>Change in Plan Net Position</b>	<u>\$ 19,291,111</u>	<u>\$ 15,579,816</u>	<u>\$ (3,112,930)</u>	<u>\$ 115,780,187</u>	<u>\$ (76,456,687)</u>

### SCHEDULE OF BENEFITS BY TYPE OF BENEFIT (Continued)

	Fiscal Year Ended June 30				
	<u>2018</u>	<u>2019</u>	<u>2020</u>	<u>2021</u>	<u>2022</u>
Age and Service Benefits	\$ 34,496,626	\$ 35,416,864	\$ 36,257,375	\$ 37,592,953	\$ 38,937,894
Beneficiaries	7,307,891	7,746,005	8,277,529	8,749,664	9,062,796
Disability Benefits	2,701,516	2,725,786	2,792,305	2,781,591	2,822,365
DROP Benefits	<u>2,134,921</u>	<u>1,062,688</u>	<u>2,972,606</u>	<u>2,586,141</u>	<u>2,231,379</u>
<b>Total Benefit Payments</b>	<u>\$ 46,640,954</u>	<u>\$ 46,951,343</u>	<u>\$ 50,299,815</u>	<u>\$ 51,710,349</u>	<u>\$ 53,054,434</u>
Refunds to Terminated Members	<u>\$ 853,221</u>	<u>\$ 597,616</u>	<u>\$ 792,107</u>	<u>\$ 804,450</u>	<u>\$ 610,524</u>

**CITY OF KNOXVILLE PENSION SYSTEM**  
**SCHEDULE OF RETIRED MEMBERS BY TYPE OF BENEFIT**  
**JUNE 30, 2022**

Monthly Benefit Amount	Number of Retirees	Type of Retirement			Option Selected*							
		Age & Service	Disability	Beneficiary	1	2	3	4	5	6	7	8
\$1 - \$250	137	119	-	18	81	20	1	9	-	2	1	5
\$251 - \$500	248	205	4	39	152	29	6	13	3	1	4	1
\$501 - \$750	175	147	4	24	93	30	5	16	1	0	3	3
\$751 - \$1,000	110	77	6	27	51	12	2	14	1	1	-	2
\$1,001 - \$1,250	82	44	8	30	26	15	2	8	-	-	1	-
\$1,251 - \$1,750	152	86	7	59	53	20	4	12	2	-	-	2
\$1,751 - \$2,000	95	54	13	28	36	11	1	13	-	2	2	2
\$2,001 - \$2,250	88	49	15	24	35	13	4	12	-	-	-	-
\$2,251 - \$2,500	95	54	18	23	35	16	7	8	-	2	1	3
\$2,501 - \$2,750	75	39	12	24	26	11	1	10	1	1	1	-
\$2,751 - \$3,000	82	49	14	19	34	17	1	8	1	-	-	2
\$3,001 - \$3,500	142	99	8	35	45	31	8	21	-	-	1	1
\$3,501 - \$3,750	64	56	1	7	21	10	11	14	-	1	-	-
\$3,751 - \$4,000	75	65	1	9	21	20	9	13	1	1	-	1
\$4,001 - \$4,500	136	115	-	21	45	33	20	14	1	1	1	-
\$4,501 - \$5,000	100	94	-	6	31	33	12	16	-	-	2	-
\$5,001 & over	94	91	-	3	41	23	5	20	-	1	1	-

\*Option Selected:

1 – Life only

2 – 100% Joint and Survivor

3 – 75% Joint and Survivor

4 – 50% Joint and Survivor

5 – 5 Year Certain

6 – 10 Year Certain

7 – 15 Year Certain

8 – Cash Refund

# CITY OF KNOXVILLE PENSION SYSTEM

## AVERAGE MONTHLY BENEFIT PAYMENTS TO NEW RETIREES

Retirement Effective Dates for Fiscal Year Ending June 30	Years of Credited Service							
	<u>5-10</u>	<u>11-15</u>	<u>16-20</u>	<u>21-25</u>	<u>26-30</u>	<u>31-35</u>	<u>36-40</u>	<u>41+</u>
<b>2022</b>								
Avg Monthly Benefit	\$1,093	\$1,268	\$1,362	\$2,238	\$4,155	\$3,098	\$4,817	\$5,094
Final Avg Monthly Salary	\$3,908	\$4,524	\$3,768	\$5,337	\$6,415	\$5,558	\$7,477	\$6,871
Number of Retirees	4	11	3	10	19	4	1	4
<b>2021</b>								
Avg Monthly Benefit	\$713	\$766	\$1,794	\$2,175	\$3,548	\$3,733	\$0	\$6,753
Final Avg Monthly Salary	\$6,405	\$3,110	\$5,232	\$4,670	\$5,523	\$5,308	\$0	\$8,862
Number of Retirees	3	7	4	14	23	7	0	1
<b>2020</b>								
Avg Monthly Benefit	\$507	\$1,085	\$2,494	\$2,177	\$3,370	\$3,708	\$3,141	\$3,705
Final Avg Monthly Salary	\$4,036	\$4,663	\$6,210	\$4,378	\$5,479	\$5,753	\$4,276	\$5,137
Number of Retirees	9	7	6	8	27	7	2	1
<b>2019</b>								
Avg Monthly Benefit	\$713	\$882	\$1,394	\$2,089	\$3,621	\$4,229	\$2,045	\$3,528
Final Avg Monthly Salary	\$5,528	\$3,684	\$3,970	\$4,091	\$5,571	\$5,758	\$3,751	\$5,588
Number of Retirees	6	10	8	9	18	4	2	6
<b>2018</b>								
Avg Monthly Benefit	\$272	\$1,326	\$2,601	\$2,889	\$2,923	\$4,195	\$3,012	\$3,368
Final Avg Monthly Salary	\$1,724	\$5,208	\$6,306	\$5,178	\$4,793	\$8,338	\$4,290	\$4,806
Number of Retirees	8	5	4	4	24	2	5	7
<b>2017</b>								
Avg Monthly Benefit	\$814	\$888	\$1,070	\$2,058	\$3,228	\$3,788	\$3,966	\$1,954
Final Avg Monthly Salary	\$6,101	\$2,789	\$2,930	\$3,085	\$3,150	\$3,828	\$3,469	\$2,994
Number of Retirees	3	9	6	12	11	5	2	1
<b>2016</b>								
Avg Monthly Benefit	\$366	\$439	\$1,954	\$2,201	\$3,150	\$3,333	\$2,752	\$4,079
Final Avg Monthly Salary	\$3,462	\$3,213	\$5,604	\$3,935	\$5,211	\$5,181	\$4,395	\$5,160
Number of Retirees	8	10	9	8	21	4	1	5
<b>2015</b>								
Avg Monthly Benefit	\$289	\$887	\$1,266	\$2,109	\$2,623	\$3,214	\$2,238	\$575
Final Avg Monthly Salary	\$2,588	\$3,337	\$3,758	\$4,240	\$4,755	\$4,888	\$3,825	\$4,029
Number of Retirees	6	8	3	10	14	3	3	1
<b>2014</b>								
Avg Monthly Benefit	\$485	\$644	\$1,081	\$2,300	\$2,766	\$3,152	\$2,801	\$1,798
Final Avg Monthly Salary	\$3,899	\$2,272	\$2,514	\$3,417	\$3,757	\$3,403	\$3,367	\$2,772
Number of Retirees	3	7	12	8	3	7	5	4
<b>2013</b>								
Avg Monthly Benefit	\$206	\$448	\$762	\$1,501	\$2,342	\$2,949	\$2,681	\$3,170
Final Avg Monthly Salary	\$1,867	\$2,824	\$3,646	\$3,315	\$3,342	\$3,368	\$3,150	\$3,598
Number of Retirees	4	13	9	3	7	9	9	2

## **COMPLIANCE SECTION**





Independent Auditor's 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

To the Members of the Pension Board  
City of Knoxville Pension System  
Knoxville, Tennessee

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, the financial statements of the City of Knoxville Pension System (the "System"), a pension trust fund of the City of Knoxville, Tennessee, which comprise the statement of fiduciary net position as of June 30, 2022, and the related statement of changes in fiduciary net position for the year then ended and the related notes to the financial statements, and have issued our report thereon dated December 8, 2022.

**Report on Internal Control over Financial Reporting**

In planning and performing our audit of the financial statements, we considered the System'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 opinions on the financial statements, but not for the purpose of expressing an opinion on the effectiveness of the System's internal control. Accordingly, we do not express an opinion on the effectiveness of the System'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.



To the Members of the Pension Board  
City of Knoxville Pension System

### **Report on Compliance and Other Matters**

As part of obtaining reasonable assurance about whether the System'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.

Nashville, Tennessee  
December 8, 2022

**CITY OF KNOXVILLE PENSION SYSTEM**

Schedule of Prior Year Findings  
For the Year Ended June 30, 2022

The System had no prior year audit findings.