



**NEW YORK STATE AND LOCAL RETIREMENT SYSTEM**

Basic Financial Statements, Required Supplementary Information, and  
Other Supplementary Information

March 31, 2023

(With Independent Auditors' Reports Thereon, in Accordance With  
Government Auditing Standards)

# NEW YORK STATE AND LOCAL RETIREMENT SYSTEM

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## Independent Auditors' Report

The Trustee  
New York State and Local Retirement System:

### Report on the Audit of the Financial Statements

#### *Opinion*

We have audited the financial statements of the New York State and Local Retirement System (the System) as of and for the year ended March 31, 2023, and the related notes to the financial statements, which collectively comprise the System's basic financial statements as listed in the table of contents.

In our opinion, the accompanying financial statements referred to above present fairly, in all material respects, the fiduciary net position of the System as of March 31, 2023, and the changes in its fiduciary net position for the year then ended in accordance with U.S. generally accepted accounting principles.

#### *Basis for Opinion*

We conducted our audit in accordance with auditing standards generally accepted in the United States of America (GAAS) and the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States. Our responsibilities under those standards are further described in the Auditors' 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 opinion.

#### *Responsibilities of Management for the Financial Statements*

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

In preparing the financial statements, management is required to evaluate whether there are conditions or events, considered in the aggregate, that raise substantial doubt about the 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.

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



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

- Exercise professional judgment and maintain professional skepticism throughout the audit.
- Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, and design and perform audit procedures responsive to those risks. Such procedures include examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the 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.

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*

U.S. generally accepted accounting principles require that the management's discussion and analysis, schedule of changes in employers' net pension liability (asset) and related ratios, schedule of employer contributions, schedule of investment returns, and notes to required supplementary information 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 an opinion on the financial statements that collectively comprise the System's basic financial statements. The schedule of administrative expenses, schedule of investment expenses and schedule of consulting fees 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 schedule of administrative expenses, schedule of investment expenses and schedule of consulting fees are fairly stated, in all material respects, in relation to the basic financial statements as a whole.



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

In accordance with *Government Auditing Standards*, we have also issued our report dated July 21, 2023 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.

KPMG LLP

July 21, 2023

## NEW YORK STATE AND LOCAL RETIREMENT SYSTEM

### Management's Discussion and Analysis

March 31, 2023

(Unaudited)

The following overview of the financial activity of the New York State and Local Retirement System (the System) for the fiscal year ended March 31, 2023 is intended to provide the reader with an analysis of the System's overall financial position. The System is comprised of the New York State and Local Employees' Retirement System (ERS) and the New York State and Local Police and Fire Retirement System (PFRS). The net position of the System is held in the New York State Common Retirement Fund (the Fund), which was established to hold all assets and record changes in fiduciary net position allocated to the System. This management's discussion and analysis should be read in conjunction with the basic financial statements of the System, which follow.

### Financial Highlights

The fiduciary net position of the System held in trust to pay pension benefits was \$249.5 billion as of March 31, 2023 and \$273.7 billion as of March 31, 2022. This amount reflects a decrease of \$24.2 billion from the prior fiscal year. This change is primarily the result of the net depreciation of the fair value of the investment portfolio. The Fund continues to diversify and monitor downside risks. Net depreciation/appreciation in fair value of investments for the fiscal years ended March 31, 2023 and 2022 was \$(17.3) billion and \$18.5 billion, respectively.

- The System's investments reported a negative money-weighted rate of return, net of investment expense, of 4.43 percent for the fiscal year ended March 31, 2023 and a positive money-weighted rate of return, net of investment expense, of 9.44 percent for the fiscal year ended March 31, 2022.
- Retirement and death benefits paid during the fiscal year ended March 31, 2023 to 514,629 annuitants totaled \$15.5 billion, as compared to \$14.7 billion paid to 507,923 annuitants for the fiscal year ended March 31, 2022. The increase is primarily due to the number of new retirees.
- Contributions from employers decreased to \$4.4 billion for the fiscal year ended March 31, 2023, from \$5.6 billion for the fiscal year ended March 31, 2022. The decrease in employer contributions was related to a decrease in contribution rates from the previous year.
- The Net Pension Liability (NPL) for ERS was \$21.4 billion for the measurement period ended March 31, 2023 as compared to a Net Pension Asset (NPA) of \$8.2 billion for the measurement period ended March 31, 2022. The fiduciary net position, restricted for pension benefits as of March 31, 2023, was \$211.2 billion, which represents 90.8 percent of the calculated total pension liability for ERS. This NPL is allocated to participating employers and reported in their financial statements pursuant to Governmental Accounting Standards Board (GASB) Statement 68.
- The NPL for PFRS was \$5.5 billion for the measurement period ended March 31, 2023 as compared to \$6 billion for the measurement period ended March 31, 2022. The fiduciary net position, restricted for pension benefits as of March 31, 2023, was \$38.3 billion, which represents 87.4 percent of the calculated total pension liability for PFRS. This NPL is allocated to participating employers and reported in their financial statements pursuant to GASB Statement 68.

### Overview of the Financial Statements

The financial statements consist of the combining basic statement of fiduciary net position, the combining basic statement of changes in fiduciary net position, and the notes to the basic financial statements. The required supplementary information that appears after the notes to the basic financial statements is not a required part of the basic financial statements, but is supplementary information required by the GASB. The other

## **NEW YORK STATE AND LOCAL RETIREMENT SYSTEM**

### Management's Discussion and Analysis

March 31, 2023

(Unaudited)

supplementary information following the required supplementary information is not required, but management has chosen to include such information to increase transparency.

The combining basic statement of fiduciary net position reflects the resources available to pay members, retirees and beneficiaries at the close of the System's fiscal year. This statement also provides information about the fair value and composition of the System's fiduciary net position.

The combining basic statement of changes in fiduciary net position presents the changes to the System's fiduciary net position for the fiscal year, including net investment income (loss), which includes net appreciation (depreciation) in fair value of the investment portfolio, and contributions from members and employers. Benefits and administrative expenses paid by the System are included under the deductions section of the statement.

The notes to the basic financial statements are an integral part of the basic financial statements and provide additional information about the plans, policies, and performance of the System.

The required supplementary information includes: Management's Discussion and Analysis, Schedule of Changes in the Employers' Net Pension Liability (Asset) and Related Ratios, Schedule of Employer Contributions and Schedule of Investment Returns and related notes to the required supplementary information.

The additional supplementary information includes: Schedule of Administrative Expenses, Schedule of Investment Expenses, and Schedule of Consulting Fees.

### **Analysis of the Overall Financial Position of the System**

The purpose of the System's investments is to provide for long-term growth, while also ensuring a reliable cash flow that meets the funding requirements of the near-term pension obligations. To achieve these goals, the investments are allocated to a variety of asset types and strategies in order to meet the System's current funding needs as well as future growth requirements. Equity-related investments are included for their long-term return and growth characteristics. While a majority of fixed income and debt-related investments are generally included in the allocation for their ability to control investment risk and provide for a reliable cash flow that meets the funding requirements, a portion is strategically invested in more actively traded markets. It is important to note that the change from year to year is due not only to changes in fair values but also to purchases, sales, and redemptions. Tables 1, 2, and 3 summarize and compare financial data for the current and prior years.

## NEW YORK STATE AND LOCAL RETIREMENT SYSTEM

### Management's Discussion and Analysis

March 31, 2023

(Unaudited)

*Table 1*

Summary schedule of fiduciary net position as of March 31, 2023, as compared to March 31, 2022:

	<u>2023</u>	<u>2022</u>	<u>Dollar change</u>	<u>Percentage change</u>
	(Dollars in thousands)			
<b>Assets:</b>				
Investments	\$ 248,524,917	\$ 272,121,262	\$ (23,596,345)	(8.7)%
Securities lending collateral – invested	29,078,812	22,478,217	6,600,595	29.4
Receivables and other assets	<u>2,724,190</u>	<u>2,973,061</u>	<u>(248,871)</u>	<u>(8.4)</u>
Total assets	<u>280,327,919</u>	<u>297,572,540</u>	<u>(17,244,621)</u>	<u>(5.8)</u>
<b>Liabilities:</b>				
Securities lending obligations	29,079,603	22,506,168	6,573,435	29.2
Payables and other liabilities	<u>1,740,230</u>	<u>1,347,649</u>	<u>392,581</u>	<u>29.1</u>
Total liabilities	<u>30,819,833</u>	<u>23,853,817</u>	<u>6,966,016</u>	<u>29.2</u>
Net position, restricted for pension benefits	<u>\$ 249,508,086</u>	<u>\$ 273,718,723</u>	<u>\$ (24,210,637)</u>	<u>(8.8)%</u>

The fiduciary net position of the System totaled \$249.5 billion as of March 31, 2023, a decrease of \$24.2 billion from the prior fiscal year, primarily attributable to the net depreciation of invested assets.

*Table 2*

Schedule of invested assets as of March 31, 2023, as compared to March 31, 2022:

	<u>2023</u>	<u>2022</u>	<u>Dollar change</u>	<u>Percentage change</u>
	(Dollars in thousands)			
Domestic equity	\$ 75,054,447	\$ 94,271,236	\$ (19,216,789)	(20.4)%
Global fixed income	48,479,229	52,497,456	(4,018,227)	(7.7)
International equity	33,944,147	39,188,932	(5,244,785)	(13.4)
Private equity	36,976,567	37,026,072	(49,505)	(0.1)
Real estate	25,054,357	22,873,140	2,181,217	9.5
Short-term investments	4,018,739	3,852,320	166,419	4.3
Real assets	7,811,998	6,051,188	1,760,810	29.1
Opportunistic/ARS investments	6,463,357	5,729,981	733,376	12.8
Mortgage loans	1,310,637	1,421,139	(110,502)	(7.8)
Credit	<u>9,411,439</u>	<u>9,209,798</u>	<u>201,641</u>	<u>2.2</u>
Total investments	<u>\$ 248,524,917</u>	<u>\$ 272,121,262</u>	<u>\$ (23,596,345)</u>	<u>(8.7)%</u>

## NEW YORK STATE AND LOCAL RETIREMENT SYSTEM

### Management's Discussion and Analysis

March 31, 2023

(Unaudited)

The largest percentage increase to the invested assets were in real assets and opportunistic/ARS, which represent 3.1 percent and 2.6 percent of the total portfolio, respectively. In the real assets and opportunistic/ARS portfolios, the growth reflects asset appreciation and new allocations to bring these portfolios closer to the targeted allocation.

The largest percentage decrease to the invested assets was in domestic equity, which represents 30.2 percent of the total portfolio. The decrease in public equities primarily reflects market depreciation and rebalancing activities.

*Table 3*

Summary schedule of changes in fiduciary net position for the year ended March 31, 2023, as compared to the year ended March 31, 2022:

	<u>2023</u>	<u>2022</u>	<u>Dollar change</u>	<u>Percentage change</u>
	(Dollars in thousands)			
<b>Additions:</b>				
Net investment (loss) income	\$ (13,540,771)	\$ 22,374,115	\$ (35,914,886)	160.5%
Total contributions	5,133,771	6,332,048	(1,198,277)	(18.9)
Total additions	<u>(8,407,000)</u>	<u>28,706,163</u>	<u>(37,113,163)</u>	<u>129.3</u>
<b>Deductions:</b>				
Total benefits paid	15,595,642	14,905,023	690,619	4.6
Administrative expenses	207,995	163,500	44,495	27.2
Total deductions	<u>15,803,637</u>	<u>15,068,523</u>	<u>735,114</u>	<u>4.9</u>
Net (decrease) increase	(24,210,637)	13,637,640	(37,848,277)	277.5
Net position, restricted for pension benefits – beginning of year	<u>273,718,723</u>	<u>260,081,083</u>	<u>13,637,640</u>	<u>5.2</u>
Net position, restricted for pension benefits – end of year	<u>\$ 249,508,086</u>	<u>\$ 273,718,723</u>	<u>\$ (24,210,637)</u>	<u>(8.8)%</u>

The change in net investment income is primarily attributable to the net depreciation in fair value of investments from 2022 to 2023. The increase in total benefits paid is attributable to the number of new retirees.

### **Economic Factors and Rates of Return**

The Fund announced a negative investment performance for the fiscal year ended March 31, 2023, with a time-weighted rate of return of negative 4.14 percent. Public equity, private equity, fixed income and credit portfolios reported negative returns highlighting continuing concerns around inflation, geopolitical and trade tensions and a challenging final quarter of the fiscal year driven by multiple bank failures and liquidity concerns. We continue to monitor monetary policy, geopolitical tensions, and the possibility of stagflation here in the US and elsewhere in the world.

## **NEW YORK STATE AND LOCAL RETIREMENT SYSTEM**

Management's Discussion and Analysis

March 31, 2023

(Unaudited)

### **Requests for Information**

This financial report is designed to provide a general overview of the System's finances for all interested parties. Questions concerning any of the information provided in this report or requests for additional financial information should be addressed to the New York State and Local Retirement System, 110 State Street, Albany, New York 12244-001. The report can also be accessed on the Comptroller's website at: [www.osc.state.ny.us/retire/about\\_us/financial\\_statements\\_index.php](http://www.osc.state.ny.us/retire/about_us/financial_statements_index.php)

**NEW YORK STATE AND LOCAL RETIREMENT SYSTEM**

Combining Basic Statement of Fiduciary Net Position

March 31, 2023

(Dollars in thousands)

	<u>Employees' Retirement System</u>	<u>Police and Fire Retirement System</u>	<u>Total</u>
Assets:			
Investments (notes 2(b), 4, 5, 8, and 11):			
Domestic equity	\$ 63,530,201	\$ 11,524,246	\$ 75,054,447
Global fixed income	41,035,479	7,443,750	48,479,229
Private equity	31,298,995	5,677,572	36,976,567
International equity	28,732,188	5,211,959	33,944,147
Real estate	21,207,382	3,846,975	25,054,357
Credit	7,966,358	1,445,081	9,411,439
Real assets	6,612,504	1,199,494	7,811,998
Opportunistic/ARS	5,470,940	992,417	6,463,357
Short-term	3,401,681	617,058	4,018,739
Mortgage loans	1,109,395	201,242	1,310,637
Total investments	<u>210,365,123</u>	<u>38,159,794</u>	<u>248,524,917</u>
Securities lending collateral – invested (notes 7 and 8)	24,613,902	4,464,910	29,078,812
Forward foreign exchange contracts (notes 6 and 8)	1,213	220	1,433
Receivables:			
Employers' contributions	101,320	94,953	196,273
Members' contributions	12,046	1,506	13,552
Member loans	909,265	9,850	919,115
Investment income	361,965	65,660	427,625
Investment sales	388,286	70,434	458,720
Other	63,210	13,098	76,308
Total receivables	<u>1,836,092</u>	<u>255,501</u>	<u>2,091,593</u>
Capital assets, at cost, net of accumulated depreciation	534,252	96,912	631,164
Total assets	<u>237,350,582</u>	<u>42,977,337</u>	<u>280,327,919</u>
Liabilities:			
Securities lending obligations (notes 7 and 8)	24,614,571	4,465,032	29,079,603
Forward foreign exchange contracts (notes 6 and 8)	1,212	220	1,432
Accounts payable – investments	583,739	105,889	689,628
Benefits payable	197,343	13,457	210,800
Other liabilities (note 2(f))	770,494	67,876	838,370
Total liabilities	<u>26,167,359</u>	<u>4,652,474</u>	<u>30,819,833</u>
Net position, restricted for pension benefits	\$ <u>211,183,223</u>	\$ <u>38,324,863</u>	\$ <u>249,508,086</u>

See accompanying notes to basic financial statements.

**NEW YORK STATE AND LOCAL RETIREMENT SYSTEM**

Combining Basic Statement of Changes in Fiduciary Net Position

Year ended March 31, 2023

(Dollars in thousands)

	<u>Employees' Retirement System</u>	<u>Police and Fire Retirement System</u>	<u>Total</u>
Additions:			
Income from investing activities:			
Interest income	\$ 1,285,811	\$ 231,375	\$ 1,517,186
Dividend income	1,424,417	256,316	1,680,733
Other income	1,201,920	216,279	1,418,199
Less: investment expenses	(790,200)	(142,192)	(932,392)
Net depreciation in fair value of investments	<u>(14,636,186)</u>	<u>(2,633,846)</u>	<u>(17,270,032)</u>
Total loss from investing activities	<u>(11,514,238)</u>	<u>(2,072,068)</u>	<u>(13,586,306)</u>
Income from securities lending activities:			
Securities lending income	655,995	118,043	774,038
Less: securities lending rebates	(614,007)	(110,487)	(724,494)
Less: securities lending management fees	<u>(3,398)</u>	<u>(611)</u>	<u>(4,009)</u>
Total income from securities lending activities	<u>38,590</u>	<u>6,945</u>	<u>45,535</u>
Total net investment loss	<u>(11,475,648)</u>	<u>(2,065,123)</u>	<u>(13,540,771)</u>
Contributions:			
Employers	3,305,845	1,098,241	4,404,086
Members	565,110	91,654	656,764
Interest on accounts receivable	9,388	6,138	15,526
Other, net	<u>55,260</u>	<u>2,135</u>	<u>57,395</u>
Total contributions	<u>3,935,603</u>	<u>1,198,168</u>	<u>5,133,771</u>
Total additions	<u>(7,540,045)</u>	<u>(866,955)</u>	<u>(8,407,000)</u>
Deductions:			
Benefits paid:			
Retirement benefits	12,745,565	2,428,677	15,174,242
Death benefits	289,991	20,263	310,254
Other, net	<u>106,420</u>	<u>4,726</u>	<u>111,146</u>
Total benefits paid	13,141,976	2,453,666	15,595,642
Administrative expenses	<u>184,229</u>	<u>23,766</u>	<u>207,995</u>
Total deductions	<u>13,326,205</u>	<u>2,477,432</u>	<u>15,803,637</u>
Net decrease	(20,866,250)	(3,344,387)	(24,210,637)
Net position, restricted for pension benefits – beginning of year	<u>232,049,473</u>	<u>41,669,250</u>	<u>273,718,723</u>
Net position, restricted for pension benefits – end of year	<u>\$ 211,183,223</u>	<u>\$ 38,324,863</u>	<u>\$ 249,508,086</u>

See accompanying notes to basic financial statements.

## NEW YORK STATE AND LOCAL RETIREMENT SYSTEM

Notes to Basic Financial Statements

March 31, 2023

### (1) Description of Plans

The Office of the New York State Comptroller administers the following plans: the New York State and Local Employees' Retirement System (ERS) and the New York State and Local Police and Fire Retirement System (PFRS), which are collectively referred to as the New York State and Local Retirement System (the System). The net position of the System is held in the New York State Common Retirement Fund (the Fund), which was established to hold all assets and record changes in fiduciary net position allocated to the System.

The Comptroller of the State of New York serves as the trustee of the Fund and is the administrative head of the System. The Comptroller is an elected official determined in a direct statewide election and serves a four-year term. Thomas P. DiNapoli has served as Comptroller since February 7, 2007. In November 2022, he was elected for a new term commencing January 1, 2023.

The external advisory committees appointed by the Comptroller meet periodically throughout the year and provide independent, expert assistance in guiding the Fund. These committees include: the Advisory Council for the Retirement System; the Investment Advisory Committee; the Real Estate Advisory Committee; the Actuarial Advisory Committee; and the Audit Advisory Committee.

System benefits are established under the provisions of the New York State Retirement and Social Security Law (RSSL). Once a public employer elects to participate in the System, the election is irrevocable. The New York State Constitution provides that pension membership is a contractual relationship and plan benefits cannot be diminished or impaired. Benefits can be changed for future members only by enactment of a State statute. Generally, members of the System are employees, other than teachers, of the State and its municipalities, other than New York City.

ERS and PFRS are cost-sharing, multiple-employer, defined benefit pension plans. The System is included in the State of New York's financial report as a pension trust fund. The Public Employees' Group Life Insurance Plan (GLIP) provides death benefits in the form of life insurance. In these statements, GLIP amounts are apportioned to and included in ERS and PFRS.

As of March 31, 2023, the number of participating employers for ERS and PFRS consisted of the following:

	ERS	PFRS
State	1	1
Counties	57	4
Cities	61	61
Towns	919	169
Villages	481	298
Other	768	37
School districts	690	
Total	2,977	570

**NEW YORK STATE AND LOCAL RETIREMENT SYSTEM**

Notes to Basic Financial Statements

March 31, 2023

As of March 31, 2023, the System membership for ERS and PFRS consisted of the following:

	<u>ERS</u>	<u>PFRS</u>
Retirees and beneficiaries currently receiving benefits	474,561	40,068
Active members	481,547	32,603
Inactive members*	<u>178,203</u>	<u>3,151</u>
Total members and benefit recipients	<u><u>1,134,311</u></u>	<u><u>75,822</u></u>

\* Includes vested members not currently receiving benefits and nonvested members.

**(a) Membership Tiers**

Pension legislation enacted in 1973, 1976, 1983, 2009 and 2012 established distinct classes of membership. For convenience, the System uses a tier concept to distinguish these groups, generally:

**ERS**

- Tier 1 Those persons who last became members before July 1, 1973.
- Tier 2 Those persons who last became members on or after July 1, 1973, but before July 27, 1976.
- Tier 3 Generally, those persons who are State correction officers who last became members on or after July 27, 1976, but before January 1, 2010, and all others who last became members on or after July 27, 1976, but before September 1, 1983.
- Tier 4 Generally, except for correction officers, those persons who last became members on or after September 1, 1983, but before January 1, 2010.
- Tier 5 Those persons who last became members on or after January 1, 2010, but before April 1, 2012.
- Tier 6 Those persons who first became members on or after April 1, 2012.

**PFRS**

- Tier 1 Those persons who last became members before July 31, 1973.
- Tier 2 Those persons who last became members on or after July 31, 1973, but before July 1, 2009.
- Tier 3 Those persons who last became members on or after July 1, 2009, but before January 9, 2010.
- Tier 4 Not Applicable.
- Tier 5 Those persons who last became members on or after January 9, 2010, but before April 1, 2012, or who were previously PFRS Tier 3 members who elected to become Tier 5.
- Tier 6 Those persons who first became members on or after April 1, 2012.

## NEW YORK STATE AND LOCAL RETIREMENT SYSTEM

### Notes to Basic Financial Statements

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#### **(b) Vesting**

Members who joined the System prior to January 1, 2010 need five years of service to be 100 percent vested. Members who joined on or after January 1, 2010 (ERS) or January 9, 2010 (PFRS) require ten years of service credit to be 100 percent vested.

As of April 9, 2022, legislation was passed that reduced the number of years of service credit from ten years to five years. Therefore, all Members are vested when they reach five years of service credit.

#### **(c) Employer Contributions**

Participating employers are required under the RSSL to contribute to the System at an actuarially determined rate adopted annually by the Comptroller. The average contribution rate for ERS for the fiscal year ended March 31, 2023 was approximately 11.6 percent of covered payroll. The average contribution rate for PFRS for the fiscal year ended March 31, 2023 was approximately 27.0 percent of covered payroll. Delinquent annual bills for employer contributions accrue interest at the actuarial interest rate applicable during the year. For the fiscal year ended March 31, 2023, the applicable interest rate was 5.9 percent.

#### **(d) Member Contributions**

Generally, Tier 3, 4, and 5 members must contribute 3 percent of their salary to the System. As a result of Article 19 of the RSSL, eligible Tier 3 and 4 employees, with a membership date on or after July 27, 1976, who have ten or more years of membership or credited service with the System, are not required to contribute. Members cannot be required to begin making contributions or to make increased contributions beyond what was required when membership began. For Tier 6 members, the contribution rate varies from 3 percent to 6 percent depending on salary. Generally, Tier 5 and 6 members are required to contribute for all years of service.

#### **(e) Benefits**

##### **Tiers 1 and 2**

**Eligibility:** Tier 1 members, with the exception of those retiring under special retirement plans, must be at least age 55 to be eligible to collect a retirement benefit. There is no minimum service requirement for Tier 1 members. Tier 2 members, with the exception of those retiring under special retirement plans, must have five years of service and be at least age 55 to be eligible to collect a retirement benefit. The age at which full benefits may be collected for Tier 1 is 55, and the full benefit age for Tier 2 is 62.

**Benefit Calculation:** Generally, the benefit is 1.67 percent of final average salary for each year of service if the member retires with less than 20 years. If the member retires with 20 or more years of service, the benefit is 2 percent of final average salary for each year of service. Tier 2 members with five or more years of service can retire as early as age 55 with reduced benefits. Tier 2 members age 55 or older with 30 or more years of service can retire with no reduction in benefits. As a result of Article 19 of the RSSL, Tier 1 and Tier 2 members who worked continuously from April 1, 1999 through October 1, 2000 received an additional month of service credit for each year of credited service they have at retirement, up to a maximum of 24 additional months.

Final average salary is the average of the wages earned in the three highest consecutive years of employment. For Tier 1 members who joined on or after June 17, 1971, each year's compensation used in the final average salary calculation is limited to no more than 20 percent greater than the

## NEW YORK STATE AND LOCAL RETIREMENT SYSTEM

### Notes to Basic Financial Statements

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previous year. For Tier 2 members, each year of final average salary is limited to no more than 20 percent greater than the average of the previous two years.

#### **Tiers 3, 4, and 5**

**Eligibility:** Tier 3 and 4 members, with the exception of those retiring under special retirement plans, must have five years of service and be at least age 55 to be eligible to collect a retirement benefit. Tier 5 members, with the exception of those retiring under special retirement plans, must have five years of service and be at least age 55 to be eligible to collect a retirement benefit. The full benefit age for Tiers 3, 4 and 5 is 62.

**Benefit Calculation:** Generally, the benefit is 1.67 percent of final average salary for each year of service if the member retires with less than 20 years. If a member retires with between 20 and 30 years of service, the benefit is 2 percent of final average salary for each year of service. If a member retires with more than 30 years of service, an additional benefit of 1.5 percent of final average salary is applied for each year of service over 30 years. Tier 3 and 4 members with five or more years of service and Tier 5 members with five or more years of service can retire as early as age 55 with reduced benefits. Tier 3 and 4 members age 55 or older with 30 or more years of service can retire with no reduction in benefits.

Final average salary is the average of the wages earned in the three highest consecutive years of employment. For Tier 3, 4 and 5 members, each year's compensation used in the final average salary calculation is limited to no more than 10 percent greater than the average of the previous two years.

#### **Tier 6**

**Eligibility:** Tier 6 members, with the exception of those retiring under special retirement plans, must have five years of service and be at least age 55 to be eligible to collect a retirement benefit. The full benefit age for Tier 6 is 63 for ERS members and 62 for PFRS members.

**Benefit Calculation:** Generally, the benefit is 1.67 percent of final average salary for each year of service if the member retires with less than 20 years. If a member retires with 20 years of service, the benefit is 1.75 percent of final average salary for each year of service. If a member retires with more than 20 years of service, an additional benefit of 2 percent of final average salary is applied for each year of service over 20 years. Tier 6 members with five or more years of service can retire as early as age 55 with reduced benefits.

Final average salary is the average of the wages earned in the five highest consecutive years of employment. For Tier 6 members, each year's compensation used in the final average salary calculation is limited to no more than 10 percent greater than the average of the previous four years.

#### **Special Plans**

The 25-Year Plans allow a retirement after 25 years of service with a benefit of one-half of final average salary, and the 20-Year Plans allow a retirement after 20 years of service with a benefit of one-half of final average salary. These plans are available to certain PFRS members, sheriffs, and correction officers.

# NEW YORK STATE AND LOCAL RETIREMENT SYSTEM

## Notes to Basic Financial Statements

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### **Disability Retirement Benefits**

Disability retirement benefits are available to ERS and PFRS members unable to perform their job duties because of permanent physical or mental incapacity. There are three general types of disability benefits: ordinary, performance of duty, and accidental disability benefits. Eligibility, benefit amounts, and other rules such as any offsets of other benefits depend on a member's tier, years of service, and plan.

### **Ordinary Death Benefits**

Death benefits are payable upon the death, before retirement, of a member who meets eligibility requirements as set forth by law. The first \$50,000 of an ordinary death benefit is paid in the form of group term life insurance. The benefit is generally three times the member's annual salary. For most members, there is also a reduced post-retirement ordinary death benefit available.

### **Post-Retirement Benefit Increases**

A cost-of-living adjustment is provided annually to: (i) all retirees who have attained age 62 and have been retired for five years; (ii) all retirees who have attained age 55 and have been retired for ten years; (iii) all disability retirees, regardless of age, who have been retired for five years; (iv) ERS recipients of an accidental death benefit, regardless of age, who have been receiving such benefit for five years; and (v) the spouse of a deceased retiree receiving a lifetime benefit under an option elected by the retiree at retirement. An eligible spouse is entitled to one-half the cost-of-living adjustment amount that would have been paid to the retiree when the retiree would have met the eligibility criteria. This cost-of-living adjustment is a percentage of the annual retirement benefit of the eligible retiree as computed on a base benefit amount not to exceed \$18,000 of the annual retirement benefit. The cost-of-living percentage shall be 50 percent of the annual Consumer Price Index as published by the U.S. Bureau of Labor, but cannot be less than 1 percent or exceed 3 percent.

## **(2) Summary of Significant Accounting Policies**

### **(a) Basis of Accounting**

The System maintains records and accounts, and prepares financial statements using the accrual basis of accounting. Employer contributions are recognized when legally due, pursuant to statutory requirements, in accordance with the terms of each plan. Member contributions are based on earned member salaries and are recognized when due. Benefits, expenses, and refunds are recognized when due and payable.

### **(b) Investments**

Investments are recorded on a trade-date basis and reported at fair value. Fair value is defined as the amount that can reasonably be expected to be received for an investment in a current sale between a willing buyer and a willing seller. Due to the nature of investments, it is reasonable that changes in the value of investments will occur in the near future, and such changes could materially affect the amounts reported. The amounts reported as investments on the financial statements are allocated between ERS and PFRS based on each system's monthly average equity in the Fund. See note 4(c) for detailed information on the System's policy on investment valuation and note 8 for more detail regarding the methods used to measure the fair value of investments.

## NEW YORK STATE AND LOCAL RETIREMENT SYSTEM

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#### **(c) Member Loan Programs**

Members who joined prior to January 1, 2018 are entitled to participate in a loan program that allows them to borrow up to 75 percent of their member contributions or \$50,000, whichever is less. Members who joined on or after January 1, 2018, may borrow up to 50 percent of their contribution balance or \$50,000, whichever is less. Repayment of outstanding amounts is generally made through payroll deductions within five years. The interest rate charged for COESC Member Loans is fixed at 1 percent below the actuarial interest rate at the time the loan is granted. The rate for loans issued during the fiscal year ended March 31, 2023 was 5.0 percent.

#### **(d) Capital Assets**

Capital assets are capitalized at cost and depreciated on a straight-line basis over the related assets estimated useful lives.

During the fiscal year ended March 31, 2014, the System began capitalizing outlays associated with the redesign of its pension administration system. As of March 31, 2023, capitalized outlays for the project total \$589.3 million. This project is currently ongoing and is expected to be completed in fiscal year 2024, at which time depreciation of the capitalized costs will begin.

#### **(e) Contributions Receivable**

Employers' contributions receivable are presented net of withdrawals, refunds, advance employer payments, and credits due employers. Receivable amounts from participating employers include \$20.4 million for amortization of retirement incentives, new plan adoptions, and retroactive membership. The RSSL includes several provisions related to the amortization of employer contribution amounts. These include:

- Chapter 57 of the Laws of 2010 authorized the State and local employers to amortize a portion of their annual pension costs during periods when actuarial contribution rates exceed thresholds established by the statute. Amortized amounts will be paid in equal annual installments over a ten-year period including a rate of interest set by the Comptroller annually. Employers may prepay these amounts at any time without penalty. The first payment will be due in the fiscal year following the decision to amortize. Chapter 57 further provides that when contribution rates fall below legally specified levels and all outstanding amortizations have been paid, employers that elected to amortize will be required to pay additional moneys into reserve funds, specific to each employer, which will be used to offset their contributions in the future. These reserve funds will be invested separately from pension assets.

**NEW YORK STATE AND LOCAL RETIREMENT SYSTEM**

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The following represents the amortized receivable balance from the State and Local participating employers as of March 31, 2023, including the statutory amortization threshold and interest rate, for each respective fiscal year:

**Chapter 57, Laws of 2010**

Year	% of Payroll		Interest %	Local (Dollars in millions)
	ERS	PFRS		
2011	9.5	17.5	5.00	\$ —
2012	10.5	18.5	3.75	—
2013	11.5	19.5	3.00	—
2014	12.5	2.5	3.67	2.5
2015	13.5	21.5	3.15	8.9
2016	14.5	22.5	3.21	8.8
2017	15.1	23.5	2.33	2.3
2018	14.9	24.3	2.84	2.3
2019	14.4	23.5	3.64	2.7
2020	14.2	23.5	2.55	—
2021	14.1	24.4	1.33	—
2022	15.1	25.4	1.76	0.9
2023	14.1	26.4	3.61	—
				<u>\$ 28.4</u>

- The fiscal year 2014 Enacted Budget included an alternate contribution program (the Alternate Contribution Stabilization Program) that provided certain participating employers with a one-time election to amortize slightly more of their required contributions than would be available for amortization under the 2010 legislation. In addition, the maximum payment period was increased from ten years to twelve years. The election was available to: counties, cities, towns, villages, BOCES, school districts and the four public health care centers operated in the counties of Nassau, Westchester and Erie. The State was not eligible to participate in the Alternate Contribution Stabilization Program.

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Notes to Basic Financial Statements

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The following represents the amortized receivable balance from Local participating employers as of March 31, 2023, including the statutory amortization threshold and interest rate, for each respective fiscal year:

**Chapter 57, Laws of 2013**

Year	% of Payroll		Interest %	Local (Dollars (in millions))
	ERS	PFRS		
2014	12.0	20.0	3.76	\$ 7.3
2015	12.0	20.0	3.50	15.7
2016	12.5	20.5	3.31	15.9
2017	13.0	21.0	2.63	10.7
2018	13.5	21.5	3.31	11.2
2019	14.0	22.0	3.99	7.0
2020	14.2	22.5	2.87	5.6
2021	14.1	23.0	1.60	6.6
2022	14.6	23.5	2.24	18.2
2023	14.1	24.0	3.70	12.8
				<u>\$ 111.0</u>

**(f) Postemployment Benefits Other than Pensions**

Employees of the System participate in a Postemployment Benefits Other than Pensions (OPEB) Plan administered by the State. The State has established a trust to fund the OPEB plan. Substantially all of the System’s employees may become eligible for postemployment benefits if they reach retirement age while working for the System. The costs of providing the postemployment benefits, which primarily consists of health insurance coverage, are shared between the System and the retired employee.

The System’s net OPEB liability was measured as of March 31, 2022 and was determined by an actuarial valuation as of April 1, 2021 rolled forward to March 31, 2022. The net OPEB liability and related OPEB amounts were allocated to the System based on the percentage of the System’s full-time equivalents to the total full-time equivalents of the State. The OPEB amounts recorded by the System include the net OPEB liability (\$254.8 million), deferred outflows of resources (\$30.9 million), deferred inflows of resources (\$39.9 million) and OPEB expense (-\$1.2 million). OPEB expense is recorded as part of administrative expenses on the combining statement of changes in fiduciary net position. Due to immateriality of the OPEB amounts to the System as a whole, the net OPEB liability, deferred outflows of resources and deferred inflows of resources are netted and included in other liabilities on the combining statement of fiduciary net position. Additionally, due to immateriality, the System has not presented all disclosures and required supplementary information prescribed by GASB Statement No. 75. For the fiscal year ended March 31, 2023, the System paid \$9.2 million in benefit payments.

**NEW YORK STATE AND LOCAL RETIREMENT SYSTEM**

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**(g) Use of Estimates**

The preparation of financial statements in conformity with U.S. generally accepted accounting principles requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and the disclosure of contingencies. These estimates are subject to a certain amount of uncertainty in the near term, which could result in changes in the values reported for those assets in the combined statement of fiduciary net position. Estimates also affect the reported amounts of income/additions and expenses/deductions during the reporting period. Actual results could differ from these estimates.

**(3) System Reserves**

The legally required reserves, as covered by provisions of the RSSL, are maintained by the System, are fully funded as of March 31, 2023, and are described below:

- *Annuity Savings Funds* – Funds in which contributions of Tier 1 and Tier 2 members are accumulated.
- *Annuity Reserve Funds* – Funds from which member contribution annuities are paid.
- *Pension Accumulation Funds* – Funds in which employer contributions and income from the investments of the System are accumulated.
- *Pension Reserve Funds* – Funds from which pensions are paid.
- *Designated Annuitant Funds* – Funds from which beneficiary annuities are paid.
- *Loan Insurance Funds* – Funds that provide loan insurance coverage for members with existing no default loan balances at time of death.
- *Group Life Insurance Plan Reserve* – Reserves that provide group term death benefits not to exceed \$50,000, payable upon the death of eligible members.
- *Coescalation (COESC) Contribution Funds* – Funds in which member contributions are accumulated. These funds are transferred to the Pension Accumulation Fund at retirement.

As of March 31, 2023, the System reserves for ERS and PFRS consisted of the following:

	<u>ERS</u>	<u>PFRS</u>
	(Dollars in thousands)	
Annuity savings	\$ 1,992	71,377
Annuity reserve	48,012	43,054
Pension accumulation	71,083,973	10,013,467
Pension reserve	130,676,520	27,814,562
Designated annuitant	54,088	22,270
Loan insurance	—	126
Group Life Insurance Plan reserve	55,820	606
COESC contribution	9,262,818	359,401
	<hr/>	<hr/>
Total	\$ <u>211,183,223</u>	<u>38,324,863</u>

## NEW YORK STATE AND LOCAL RETIREMENT SYSTEM

Notes to Basic Financial Statements

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### (4) Investments

#### (a) *Investment Policy*

The State Comptroller, currently Comptroller Thomas P. DiNapoli, is Trustee of the Fund. He is directly accountable for the investment of Fund assets and for the oversight and management of the Fund. Comptroller DiNapoli is responsible for implementing an asset allocation with an appropriate balance of risk and return. The Trustee has put in place investment policies and practices designed to ensure that investments are made for the exclusive benefit of the participants and beneficiaries of the System, on whose behalf the assets of the Fund are invested, and that Fund investments are made with the care that a prudent person serving in a like capacity and familiar with such matters would use in the conduct of an enterprise of like character and with like aims – the “prudence” and “exclusive benefit” fiduciary standards of investment. Additionally, the Trustee has adopted policies and practices to ensure that the Fund is managed with high levels of ethical conduct and transparency.

The Comptroller seeks the input of a wide range of internal and external advisors to determine the allocation of assets and the appropriate investment choices for the Fund. The Comptroller appoints a Chief Investment Officer to oversee the Division of Pension Investment and Cash Management (PICM) operations, manage staff, and supervise investments on a day-to-day basis. The Fund also relies on advice from a network of outside advisors, consultants, and legal counsel, as well as the members of independent external advisory committees appointed by the Comptroller. Outside advisors and internal investment staff are part of the chain of approval that must recommend all investment decisions before they reach the Comptroller for final approval.

The asset allocation is not intended to be an absolute limit on the type of investments that can be made by the Comptroller or considered by staff. The Comptroller is expressly permitted to invest the assets of the Fund pursuant to various provisions of State law, including, among others, Article 4-A of the RSSL, which also contains limitations on the amount and quality of investments the Fund may hold in certain asset categories. Investments purchased pursuant to these provisions are so-called “legal list” investments. In addition to the foregoing, section 177(9) of the RSSL contains a provision that currently provides that up to 35 percent of the Fund’s assets may be placed in investments not specifically authorized by any other provision of law. In making investments under this provision, the Comptroller is subject to the exclusive benefit and prudence standards in the statute. Subject to such standards, investments made under this provision must also, to the extent reasonably possible, benefit the overall economic health of the State. Investments made pursuant to section 177(9) of the RSSL are so-called “basket clause” investments.

**NEW YORK STATE AND LOCAL RETIREMENT SYSTEM**

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**(b) Asset Allocation**

The following was the adopted asset allocation policy as of March 31, 2023:

<b>Asset class</b>	<b>Target allocation</b>
Domestic equity	32.0%
International equity	15.0
Private equity	10.0
Real estate	9.0
Opportunistic/Absolute Return Strategy	3.0
Credit	4.0
Real assets	3.0
Fixed Income	23.0
Cash	1.0
	100.0%

**(c) Methods Used to Value Investments**

Equity securities traded on a national or international exchange are reported at current quoted fair values.

Bonds and other fixed income assets are primarily reported at fair values obtained from independent pricing services.

Mortgages are valued on the basis of future principal and interest payments and are discounted at prevailing interest rates for similar instruments.

Direct investments in real estate are valued based on independent appraisals made every three years or according to the contract.

Real estate partnerships, global fixed income funds, commingled international equity funds and various alternative investments (private equity, opportunistic/ARS funds, real assets, and credit) are reported at net asset values as provided by the general partners or investment managers.

Information on securities lending is available in note 7. Information on foreign currency risks and derivative financial instruments can be found in note 5(f) and note 6, respectively.

The Fund trades in foreign exchange contracts in the normal course of its investing activities in order to manage exposure to market risks. Such contracts, which are generally for a period of less than one year, are used to purchase and sell foreign currency at a guaranteed future price. These contracts are recorded at fair value using foreign currency exchange rates.

**(d) Rates of Return**

In accordance with U.S. generally accepted accounting principles, the money-weighted rate of return on plan investments, net of investment expenses, was (4.43) percent for the year ended March 31,

## NEW YORK STATE AND LOCAL RETIREMENT SYSTEM

### Notes to Basic Financial Statements

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2023. For internal purposes, the System evaluates investment performance using the time-weighted rate of return, gross of certain investment fees, which was (4.14) percent for the year ended March 31, 2023.

#### **(5) Deposit and Investment Risk Disclosure**

##### ***(a) Custodial Credit Risk for Investments***

Investment securities are exposed to custodial credit risk if the securities are not registered in the name of the Fund, or are held either by the counterparty or the counterparty's trust department or agent, but not in the name of the Fund.

Equity and fixed income investments owned directly by the Fund, which trade in the United States (U.S.) markets, are generally held by the Fund's custodian, in separate accounts, in the name of the Comptroller of the State of New York in Trust for the Fund. These securities are typically held in electronic form through the Federal Book Entry System and by the Depository Trust Company (DTC) and its subsidiaries acting as an agent of the Fund's custodian bank. Securities held directly by the Fund that trade in markets outside the U.S. are held by a subsidiary of the Fund's custodian bank in the local market, a bank performing custodial services in the local market acting as an agent for the Fund's custodian bank, and in some foreign markets, the securities are held in electronic form by a DTC subsidiary or an organization similar to DTC.

Equity investments held indirectly by the Fund via limited partnerships, commingled investment funds, joint ventures, and other similar vehicles are held in custody by an organization contracted by the general partner and/or the investment management firm responsible for the management of each investment organization.

Title to real estate invested in by the Fund is held either by a real estate holding company or a real estate investment fund. Ownership of mortgage assets is documented by the Fund's holding of original mortgage and note documents by the Office of the State Comptroller's PICM.

##### ***(b) Custodial Credit Risk for Deposits***

Deposits are exposed to custodial credit risk if the deposits are not covered by depository insurance or the deposits are uncollateralized, collateralized with securities held by the pledging financial institution, or collateralized with securities held by the pledging institution's trust department or agent, but not in the name of the Fund.

In accordance with existing policies and procedures, the PICM in the Office of the State Comptroller monitors deposit balances for the purpose of determining collateralization levels. Collateral sufficient to cover all uninsured deposits is held at the State's custodial bank.

##### ***(c) Interest Rate Risk***

The System is subject to interest rate risk, which is the risk that changes in market interest rates will adversely affect the fair value of the Fund's fixed income securities. Pursuant to the Fund's investment policies and procedures and to address changing economic factors and their impact on various sectors of the economy, PICM staff meets regularly to discuss the investment strategy for the fixed income portfolio. Several factors are taken into account when formulating this strategy, including sector weightings and the current duration of the portfolio.

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The price volatility of the Fund's fixed income holdings is measured by duration. Effective duration is a measure of the price sensitivity of a bond to interest rate movements. Effective duration follows the concept that interest rates and bond prices move in opposite directions.

As of March 31, 2023, the duration of the fixed income portfolio is as follows (dollars in thousands):

Category	Fair value	Percentage of portfolio	Effective duration (In years)
Global fixed income:			
Core portfolio:			
Treasury	\$ 18,241,435	37.6 %	8.20
Treasury Inflation-Protected Securities (TIPS)	259,541	0.5	8.44
Federal agency	276,228	0.6	3.56
Corporate	14,115,535	29.1	5.50
Asset-backed	2,231,522	4.6	2.76
Commercial mortgage-backed	1,162,249	2.4	2.28
Mortgage-backed	5,495,509	11.3	6.54
Collateralized loan obligations	3,196,697	6.6	0.06
Municipal bonds	637,294	1.3	10.02
Core portfolio	45,616,010	94.1	6.17
Externally managed funds:			
Advent Capital	436,821	0.9	3.31
Calvert Research and Management	250,290	0.5	6.19
DoubleLine Capital	220,594	0.5	14.61
Morgan Stanley Investment Management	245,011	0.5	8.2
New Century Advisors	534,819	1.1	5.39
Ramirez Asset Management	335,432	0.7	7.89
Schroder Investment Management	292,739	0.6	1.98
Teachers Advisors (Nuveen)	235,379	0.5	6.23
Wellington Management Company	312,134	0.6	6.38
Total global fixed income	\$ 48,479,229	100.0 %	
Mortgage loans:			
Berkadia	990,593	75.6	4.23
CPC	320,044	24.4	8.68
Total mortgage loans	\$ 1,310,637	100.0 %	
Total	\$ 49,789,866		

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**(d) Credit Risk of Debt Securities**

Fixed income obligations purchased pursuant to section 177(1-a) of the RSSL must be investment grade at the time of their acquisition. A bond is considered investment grade if its credit rating is Baa or higher by Moody's or BBB- or higher by Standard & Poor's. Fixed income obligations purchased pursuant to section 177(9) of the RSSL, the "basket clause," are subject to a standard of prudence. As of March 31, 2023, credit ratings, obtained from several industry rating services, for the fixed income portfolio are as follows (dollars in thousands):

Quality rating	Fair value	Percentage of fair value
Global fixed income:		
AAA	\$ 30,085,942	62.06 %
AA	3,710,634	7.66
A	7,219,226	14.89
BBB	6,981,015	14.40
BB	89,552	0.19
B	35,813	0.07
CCC	9,761	0.02
C	6,425	0.01
Not Rated	<u>340,861</u>	<u>0.70</u>
Total Global fixed income	\$ <u>48,479,229</u>	<u>100.00 %</u>
Mortgage loans: Not Rated	<u>1,310,637</u>	<u>100.00 %</u>
Total	\$ <u>49,789,866</u>	

**(e) Concentration of Credit Risk**

Concentration of credit risk is the risk of loss attributed to the magnitude of the Fund's investment in a single issuer.

As of March 31, 2023, the System did not hold any investments in any one issuer that totaled 5 percent or more of the pension plan's fiduciary net position. Investments issued or explicitly guaranteed by the U.S. government and pooled investments are excluded.

Issuer limits for investments held by the Fund are established by law and by policy guidelines adopted by the PICM.

Short-term fixed income investments not purchased pursuant to section 177(9) of the RSSL are generally limited to the following investment types maturing in one year or less:

- Obligations for which the full faith and credit of the U.S. government is pledged to provide payment of interest and principal.

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- Obligations issued by any Federal Home Loan Bank or obligations fully guaranteed as to principal and interest by the Federal National Mortgage Association or the Federal Home Loan Mortgage Corporation.
- Commercial paper that has received the highest rating from two nationally recognized rating services. A maximum of \$500 million of the short-term portfolio may be invested in any one commercial paper issuer.
- Simultaneous purchase and sale of U.S. Treasury obligations may be executed with Primary Government dealers.
- Corporate and asset-backed securities (ABS) that are rated investment grade by two nationally recognized rating services. ABS must have a weighted average life of one year or less.

Fixed income investments not purchased pursuant to section 177(9) of the RSSL are generally limited to the following investment types with maturities longer than one year:

- Obligations for which the full faith and credit of the U.S. government is pledged to provide payment of principal and interest.
- Obligations payable in U.S. dollars issued by any department, agency, or political subdivision of the U.S. government or issued by any corporation, company, or other issuer of any kind or description created or existing under the laws of the U.S., any state of the U.S., the District of Columbia, or the Commonwealth of Puerto Rico, and obligations payable in U.S. funds of Canada or any province or city of Canada, provided each obligation at the time of investment shall be rated investment grade by two nationally recognized rating services (or by one nationally recognized rating service in the event only one such service rates such obligation). The aggregate investment by the Fund in the obligations of any one issuer shall not exceed 2 percent of the assets of the Fund or 5 percent of the direct liabilities of the issuer.
- Interest-bearing obligations payable in U.S. funds, which at the time of investment are rated in one of the three highest rating grades by each rating service approved by the New York State Department of Financial Services that has rated such obligations. The aggregate amount invested in the obligations of any single issuer may not exceed 1 percent of the assets of the Fund.
- Bonds issued or guaranteed by the State of Israel and approved by the United States Comptroller of the Currency, payable in U.S. dollars, not to exceed 5 percent of the assets of the Fund.
- Obligations issued or guaranteed by the International Bank for Reconstruction and Development (not to exceed 5 percent of the assets of the Fund), the Inter-American Development Bank, the Asian Development Bank, or the African Development Bank.

Fixed income investments purchased pursuant to section 177(9) of the RSSL are subject to standards of prudence and the exclusion benefit rules. Subject to such standards, investments made under section 177(9) must, to the extent reasonably possible, benefit the overall economic health of the State.

## NEW YORK STATE AND LOCAL RETIREMENT SYSTEM

Notes to Basic Financial Statements

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**(f) Foreign Currency Risk**

Foreign currency risk is the risk that changes in exchange rates will adversely affect the fair value of an investment or a deposit. The Fund has exposure through direct investments in international equities, international equity commingled funds, international real estate investments, international private equity investments, international opportunistic/ARS funds, international real asset funds and international credit funds. The Fund's asset allocation and investment policies allow for active and passive investments in international securities. The Fund permits the managers of direct investments in international equities to use forward currency contracts to manage their exposure to foreign currencies relative to the U.S. dollar. Where the Fund participates in commingled funds, limited partnerships, or other investment arrangements, the decision whether or not to use forward currency contracts to manage their foreign currency exposure is left up to the individual investment managers. To address the impact of changes in exchange rates, forward foreign exchange contracts are allowed when used to lessen portfolio volatility or hedge the portfolio's currency exposure.

**NEW YORK STATE AND LOCAL RETIREMENT SYSTEM**

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Foreign investments included in the combining basic statement of fiduciary net position as of March 31, 2023 are as follows (dollars in thousands):

	<u>Equity</u>	<u>Cash</u>	<u>Real estate</u>	<u>Private equity, OARS, real assets, and credit</u>	<u>Total</u>
Albanian Lek	\$ —	\$ —	\$ 2	\$ —	\$ 2
Algerian Dinar	—	—	48	—	48
Angolan Kwanza	—	—	—	207	207
Argentine Peso	—	—	—	4,371	4,371
Australian Dollar	495,970	4,380	192,720	689,857	1,382,927
Bahamian Dollar	—	—	9,759	—	9,759
Barbadian Dollar	—	—	—	448	448
Bermudian Dollar	—	—	—	164,774	164,774
Botswana Pula	—	—	—	7,666	7,666
Brazilian Real	282,305	696	43,630	671,206	997,837
British Pound Sterling	2,674,930	5,986	582,081	4,200,309	7,463,306
Bulgarian Lev	—	—	63	18,745	18,808
Burmese Kyat	—	—	—	7,107	7,107
Cambodian Riel	—	—	—	177	177
Canadian Dollar	651,135	9,507	229,041	1,025,120	1,914,803
Cayman Islands Dollar	—	—	—	703,500	703,500
Central African CFA Franc	—	—	—	87	87
Chilean Peso	9,197	278	—	105,536	115,011
Chinese Renminbi (Yuan)	285,426	—	165,315	1,432,359	1,883,100
Colombian Peso	1,274	24	2	63,726	65,026
Costa Rican Colón	—	—	—	(930)	(930)
Czech Koruna	206	12	50,461	11,379	62,058
Danish Krone	583,401	5,814	259,776	345,596	1,194,587
Dominican Peso	—	—	—	185	185
Eastern Caribbean dollar	—	—	—	16,662	16,662
Egyptian Pound	1,494	34	—	15,292	16,820
Euro	5,600,206	4,147	1,991,871	8,325,474	15,921,698
Georgian Lari	—	—	—	25	25
Ghanaian Cedi	—	—	—	11,887	11,887
Guatemalan Quetzal	—	—	—	1,013	1,013
Hong Kong Dollar	1,458,096	1,111	67,692	204,697	1,731,596
Hungarian Forint	20,449	—	—	5,707	26,156
Icelandic Króna	—	—	—	7,614	7,614
Indian Rupee	515,765	1,510	229,402	1,469,689	2,216,366
Indonesian Rupiah	97,637	105	—	115,199	212,941
Iraqi Dinar	—	—	—	346	346
Israeli New Shekel	58,900	3,568	—	675,252	737,720
Jamaican Dollar	—	—	—	23	23
Japanese Yen	2,787,457	11,704	99,943	320,686	3,219,790
Kazakhstani Tenge	—	—	—	(6)	(6)
Kenyan Shilling	—	—	—	25,625	25,625
Lebanese Pound	—	—	—	76	76
Malaysian Ringgit	49,030	310	—	72,188	121,528
Maldivian Rufiyaa	—	—	7,222	7,170	14,392

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	Equity	Cash	Real estate	Private equity, OARS, real assets, and credit	Total
Mauritian Rupee	\$ —	\$ —	\$ 35	\$ 69,822	\$ 69,857
Mexican Peso	90,150	269	6,111	45,903	142,433
Moroccan Dirham	—	—	—	8,138	8,138
New Taiwan Dollar	517,518	25,715	—	43,569	586,802
New Zealand Dollar	540	10	3,749	56,529	60,828
Nigerian Naira	—	—	—	47,448	47,448
Norwegian Krone	105,300	1,357	32,727	113,826	253,210
Panamanian Balboa	—	—	—	(2)	(2)
Peruvian Sol	—	—	—	53,175	53,175
Philippine Peso	7,364	25	—	76,255	83,644
Polish Zloty	21,110	51	130,670	66,981	218,812
Qatari Riyal	7,156	83	—	84	7,323
Romanian Leu	—	—	842	(152)	690
Russian Ruble	—	—	1,087	11,267	12,354
Rwandan franc	—	—	—	166	166
Saudi Riyal	34,319	68	—	(2,380)	32,007
Serbian Dinar	—	—	1	1,393	1,394
Singapore Dollar	294,436	85	9,736	330,912	635,169
South African Rand	43,650	473	70	16,821	61,014
South Korean Won	633,970	182	39,361	399,450	1,072,963
Sri Lankan Rupee	—	—	70	2,060	2,130
Swedish Krona	405,283	288	295,589	617,417	1,318,577
Swiss Franc	903,136	1,943	51	480,175	1,385,305
Tanzanian Shilling	—	—	—	3,138	3,138
Thai Baht	88,754	—	—	94,568	183,322
Tunisian Dinar	—	—	—	309	309
Turkish Lira	28,586	110	—	61,428	90,124
Ugandan Shilling	—	—	—	3,960	3,960
Ukrainian Hryvnia	—	—	1,708	8,535	10,243
United Arab Emirates Dirham	13,047	—	11,048	74,741	98,836
Uruguayan Peso	—	—	—	(1,069)	(1,069)
Venezuelan Sovereign Bolívar	—	—	—	3,842	3,842
Vietnamese đồng	—	—	355	107,250	107,605
West African CFA Franc	—	—	—	3,081	3,081
Zambian Kwacha	—	—	—	2,670	2,670
Other	—	—	9,543	—	9,543
<b>Total Subject to Foreign</b>					
Currency Risk	18,767,197	79,845	4,471,781	23,527,354	46,846,177
Commingled International Equity in US Dollars	10,419,570	—	—	—	10,419,570
Foreign Investments in US Dollars	4,757,380	—	30	12,136,759	16,894,169
<b>TOTAL FOREIGN INVESTMENTS</b>	<b>\$ 33,944,147</b>	<b>\$ 79,845</b>	<b>\$ 4,471,811</b>	<b>\$ 35,664,113</b>	<b>\$ 74,159,916</b>

#### (6) Derivatives

A derivative is generally defined as an investment contract or security with a value that depends on, or is derived from, the value of an underlying asset, reference rate, or financial index.

## NEW YORK STATE AND LOCAL RETIREMENT SYSTEM

### Notes to Basic Financial Statements

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#### *Forward Currency Contracts*

The System may enter into forward currency contracts to manage exposure to fluctuations in foreign currency exchange rates on portfolio holdings. The System also enters into forward exchange contracts to settle future obligations. A forward exchange contract is a commitment to purchase or sell a foreign currency at a future date at a negotiated forward rate. A contract is classified as a forward contract when the settlement date is more than two days after the trade date. Risk associated with such contracts includes movement in the value of a foreign currency relative to the U.S. dollar. The contracts are valued at forward exchange rates and include net appreciation/depreciation in the combining statement of fiduciary net position. Realized gain or loss on forward currency contracts is the difference between the original contract and the closing value of such contract and is included in the combining basic statement of changes in fiduciary net position.

The table below summarizes the fair value of foreign currency contracts as of March 31, 2023 (dollars in thousands):

<u>Currency</u>	<u>Forward currency contracts</u>	<u>Spot currency contracts</u>	<u>Totals</u>
Australian Dollar	\$ (683)	\$ (872)	\$ (1,555)
Brazilian Real	—	(2,635)	(2,635)
British Pound Sterling	—	5,908	5,908
Canadian Dollar	—	(1,192)	(1,192)
Danish Krone	—	(1,939)	(1,939)
Euro	683	20,061	20,744
Hong Kong Dollar	—	(3,015)	(3,015)
Hungarian Forint	—	39	39
Indian Rupee	—	(147)	(147)
Indonesian Rupiah	—	174	174
Israeli New Shekel	—	(5,711)	(5,711)
Japanese Yen	—	(5,076)	(5,076)
Malaysian Ringgit	—	61	61
Mexican Peso	—	(399)	(399)
New Taiwan Dollar	(313)	—	(313)
New Zealand Dollar	—	(25)	(25)
Norwegian Krone	162	285	447
Polish Zloty	—	(1,474)	(1,474)
Singapore Dollar	—	823	823
South African Rand	274	(936)	(662)
South Korean Won	—	(66)	(66)
South African Rand	—	—	—
South Korean Won	—	—	—
Swedish Krona	—	—	—
Swiss Franc	—	—	—
Thai Baht	—	—	—
Turkish Lira	—	—	—
U.S Dollar	—	—	—
United Arab Emirates Dirham	—	—	—
Total	\$ <u>123</u>	\$ <u>3,864</u>	\$ <u>3,987</u>

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### Notes to Basic Financial Statements

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#### **(7) Securities Lending Program**

Section 177-d of the RSSL authorizes the Fund to enter into security loan agreements with broker/dealers and state or national banks. The Fund has two providers to manage a securities lending program. These programs are subject to written contracts between the Fund and the Contractor who acts as securities lending agent for the Fund. The securities lending agents are authorized to lend securities within the borrower limits and guidelines established by the Fund. Types of collateral received from borrowers for securities loaned are cash, government securities, and obligations of federal agencies. The securities lending providers are authorized to invest the cash collateral in short-term investments that are legal for the Fund. These include domestic corporate and bank notes, U.S. Treasury obligations, obligations of federal agencies, repurchase agreements, and specific asset-backed securities. All rights of ownership to securities pledged as collateral remain with the borrower except in the event of default. As of March 31, 2023, there were no violations of legal or contractual provisions. The Fund has not experienced any losses resulting from the default of a borrower or lending agent during the year ended March 31, 2023.

The Fund lends fixed income, domestic equity, and international equity securities to approved broker/dealers. Collateral for securities loaned equals 102 percent of fair value for domestic securities and 105 percent for international securities. Credit risk associated with the investment of cash collateral pledged by borrowers is mitigated by the maturity restrictions, percentage limitations, and rating requirements for individual asset classes included in the Fund's reinvestment guidelines. Each Contractor acknowledges responsibility to reimburse the Fund for losses that might arise from managing the program in a manner inconsistent with the contract. The Fund manages its market risk by recording investments at market value daily and maintaining the value of the collateral held by the Fund in excess of the value of the securities loaned. As of March 31, 2023, the fair value of securities on loan was \$28.6 billion. The associated collateral was \$29.2 billion, of which \$29.2 billion was cash collateral and \$.09 million was securities. The cash collateral has been reinvested in other instruments, which had a fair value of \$29.1 billion as of March 31, 2023. The securities lending obligations were \$29.1 billion. The unrealized loss in invested cash collateral on March 31, 2023 was \$.8 million, which is reported in the combining basic statement of changes in fiduciary net position as part of "Net depreciation in fair value of investments."

All open security loans can be terminated on demand by either the Fund or the borrower. To provide sufficient liquidity, the policy of the Fund is to maintain a minimum of 5 percent collateral in overnight investments, 10 percent must mature within seven days, and 20 percent must mature within 30 days. While the Fund's Securities Lending Investment Guidelines allow investments up to a maximum of three years for U.S. Treasury and federal agency obligations and one year for all other investments, the average term of open security loans at March 31, 2023 was 23.3 days. All loans were open loans. There were no direct matching loans.

The collateral pool is valued at fair value obtained from independent pricing services.

#### **(8) Fair Value Measurement**

The System's investments, measured and reported at fair value, including securities lending collateral and obligations and forward foreign exchange contracts, are classified according to the following hierarchy in which the levels are based on the nature of inputs used to measure the fair value of the investment:

Level 1 – Investment fair values based on prices quoted or published in active markets for identical assets.

Level 2 – Investment fair values based on observable inputs for the assets either directly or indirectly, other than those considered Level 1 inputs, which may include quoted or published prices for identical assets in

## NEW YORK STATE AND LOCAL RETIREMENT SYSTEM

### Notes to Basic Financial Statements

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markets that are not considered to be active, and quoted or published prices of similar assets in active or inactive markets.

Level 3 – Investment fair values based on unobservable inputs.

The categorization of investments within the hierarchy above is based solely upon the objectivity of the inputs used in the measurement of the fair value of the investments and does not reflect the level of risk associated with the investments. Investments classified in Level 1 of the fair value hierarchy are valued from predetermined external pricing vendors or primary dealers who source quoted or published prices in active markets which are readily attainable exit values of these securities. Investments classified in Level 2 are subject to alternative pricing sources, including a combination of price sources, descriptive data and pricing models based on attributes such as spread data, sector, quality, duration, and prepayment characteristics. Investments classified as Level 3 are valued using best available sources such as property appraisals, discounted cash flow models and public market comparables of similar assets where applicable. The values are supplied by advisors or general partners who hold those or similar assets in investment vehicles they oversee. These pricing sources may or may not be indicative of realizable exit values attainable for the assets.

**NEW YORK STATE AND LOCAL RETIREMENT SYSTEM**

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The table below summarizes assets and liabilities carried at fair value based on levels from the fair value hierarchy as of March 31, 2023, with certain assets carried at net asset value (NAV) and cost also included to allow reconciliation to the statement of fiduciary net position (dollars in thousands):

	<u>Total</u>	<u>Level 1</u>	<u>Level 2</u>	<u>Level 3</u>
<b>Assets:</b>				
<b>Investments by fair value level:</b>				
Fixed income securities:				
Short-term	\$ 3,164,655	\$ —	\$ 3,164,655	\$ —
Global fixed income	<u>48,479,229</u>	<u>91,718</u>	<u>48,387,511</u>	<u>—</u>
Total fixed income securities	51,643,884	91,718	51,552,166	—
Equity securities:				
Domestic equities	70,187,678	70,187,489	—	189
International equities	<u>31,861,806</u>	<u>31,861,443</u>	<u>99</u>	<u>264</u>
Total equity securities	102,049,484	102,048,932	99	453
Credit	10,113	—	—	10,113
Mortgages	1,310,637	—	—	1,310,637
Private equity	523,088	—	—	523,088
Opportunistic/ARS	77,675	—	—	77,675
Real assets	47,505	—	—	47,505
Real estate	1,612,061	—	—	1,612,061
Securities lending collateral	18,075,949	—	18,075,949	—
Forward foreign exchange contracts	<u>1,433</u>	<u>—</u>	<u>1,433</u>	<u>—</u>
Total investment assets by fair value level	\$ <u>175,351,829</u>	\$ <u>102,140,650</u>	\$ <u>69,629,647</u>	\$ <u>3,581,532</u>
<b>Investments measured at cost:</b>				
Securities lending collateral	\$ <u>11,002,863</u>			
Total investments measured at cost	\$ <u>11,002,863</u>			
<b>Investments measured at Net Asset Value (NAV):</b>				
Domestic equities <sup>1</sup>	\$ 4,866,769			
International equities <sup>2</sup>	2,082,341			
Alternative investments: <sup>3</sup>				
Credit	9,401,326			
Private equity	36,453,479			
Opportunistic/ARS	6,385,682			
Real assets	7,764,493			
Real estate	<u>23,442,296</u>			
Total alternative investments	<u>83,447,276</u>			
Total investments measured at NAV	\$ <u>90,396,386</u>			
Investment related cash and cash equivalents not included in above	<u>854,084</u>			
Total investment assets	\$ <u>277,605,162</u>			
<b>Liabilities:</b>				
<b>Investments by fair value level:</b>				
Forward foreign exchange contracts	<u>(1,432)</u>	<u>—</u>	<u>(1,432)</u>	<u>—</u>
Total investment liabilities by fair value level	\$ <u>(1,432)</u>	\$ <u>—</u>	\$ <u>(1,432)</u>	\$ <u>—</u>

## NEW YORK STATE AND LOCAL RETIREMENT SYSTEM

### Notes to Basic Financial Statements

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The table below summarizes liquidity information for investments valued at NAV (dollars in thousands):

<u>Investments measured at NAV</u>	<u>Amount</u>	<u>Unfunded Commitments</u>	<u>Redemption Frequency</u>	<u>Period</u>
Domestic equities <sup>1</sup>	\$ 4,866,769	n/a	N/A, Weekly, Monthly, Annually	N/A, 2-90 days
International equities <sup>2</sup>	2,082,341	n/a	Daily, Monthly, Quarterly	15-120 days
Alternative investments: <sup>3</sup>				
Credit	9,401,326	7,281,045	N/A, monthly, 1-3 years	N/A, 1-30 days, 18 months
Private equity	36,453,479	14,167,305	N/A	N/A
Opportunistic/ARS	6,385,682	3,499,949	N/A, Monthly, Quarterly	NA, 5-90 days
Real assets	7,764,493	4,768,789	N/A	N/A
Real estate	23,442,296	8,446,450	N/A	N/A
Total investments measured at NAV	<u>\$ 90,396,386</u>	<u>\$ 38,163,538</u>		

<sup>1</sup> Domestic equities consist of one commingled investment vehicle and one fund for which the System is the only investor. The funds invest primarily in publicly traded domestic equity securities. The investments are valued at the net asset value of units held at the end of the period based upon the fair value of the underlying investments.

<sup>2</sup> International equities consist of six commingled investment vehicles and one fund for which the System is the only investor. The funds invest primarily in publicly traded international equity securities. The investments are valued at the net asset value of units held at the end of the period based upon the fair value of the underlying investments.

<sup>3</sup> Alternative investments include private equity, opportunistic/ARS funds, real assets, credit and real estate through various fund structures. Private equity (13.3 percent\* at March 31, 2023) consists of buyout, growth equity, co-investments, special situations, distressed/turnaround, venture capital, and fund of funds. Opportunistic/ARS (2.3 percent\* at March 31, 2023) consists of investments in strategies including hedged equity, credit, global macro, closed-end funds, and investments that don't fit the mandates of the other asset classes. Real assets (2.8 percent\* at March 31, 2023) consist of commodities, farmland, capital assets, infrastructure, and renewables. Credit (3.4 percent\* at March 31, 2023) consists of non-investment grade public and private credit strategies in direct lending, distressed and special situations, specialty finance, structured credit and real assets credit through closed-end and open-end funds, co-investments, separately managed accounts and fund-of-funds. Real estate (9.0 percent\* at March 31, 2023) consists of investments in separate accounts, joint ventures, co-investments and commingled funds. The fair values of the alternative investments have been determined using the NAV per share (or its equivalent) of the System's ownership interest in partner's capital. NAV is used as a practical expedient to estimate fair value. Private equity, real assets, and real estate are not eligible for redemption. Distributions are received as underlying investments within the funds are liquidated, which on average can occur over a span of 5-10 years.

\* percentages are stated relative to total investments and securities lending collateral invested.

See note 7 for detailed securities lending information and note 6 for detail forward foreign currency information.

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Notes to Basic Financial Statements

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**(9) Net Pension Liability of Participating Employers**

The components of the net pension liability of the employers participating in the System as of March 31, 2023, were as follows:

	<u>Employees' Retirement System</u>	<u>Police and Fire Retirement System</u>	<u>Total</u>
	(Dollars in thousands)		
Employers' total pension liability	\$ 232,627,259	\$ 43,835,333	\$ 276,462,592
Fiduciary net position	<u>211,183,223</u>	<u>38,324,863</u>	<u>249,508,086</u>
Employers' net pension liability	<u>\$ 21,444,036</u>	<u>\$ 5,510,470</u>	<u>\$ 26,954,506</u>
Ratio of fiduciary net position to the employers' total pension liability	90.78 %	87.43 %	90.25 %

**(a) Actuarial Assumptions**

The total pension liability at March 31, 2023 was determined using a roll forward procedure to advance the liability calculated using system assumptions and member demographics from the actuarial valuation completed as of April 1, 2022.

Economic assumptions used in the April 1, 2022 actuarial valuation include:

	<u>ERS</u>	<u>PFRS</u>
Inflation	2.9%	2.9%
Salary increases	4.4%	6.2%
Investment rate of return (net of investment expense, including inflation)	5.9%	5.9%
Cost-of-living adjustments	1.5%	1.5%

To set the long-term expected rate of return on pension plan investments, consideration was given to a building-block method using best-estimate ranges of expected future real rates of return (expected return, net of investment expenses and inflation) 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.

Demographic assumptions used in the April 1, 2022 actuarial valuation are based on the results of an actuarial experience study completed April 1, 2020. Demographic assumptions are primarily based on System experience over the period April 1, 2015 – March 31, 2020. Annuitant mortality rates are adjusted to incorporate mortality improvements under the Society of Actuaries' Scale MP-2021.

**NEW YORK STATE AND LOCAL RETIREMENT SYSTEM**

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March 31, 2023

Best estimates of arithmetic real rates of return for each major asset class included in the target asset allocation as of March 31, 2023 (see Investment policy – note 4(a)) are summarized below:

<u>Asset class</u>	<u>Long-term expected real rate of return</u>
Domestic equity	4.30%
International equity	6.85%
Private equity	7.50%
Real estate	4.60%
Opportunistic/ARS portfolio	5.38%
Credit	5.43%
Real assets	5.84%
Fixed Income	1.50%
Cash	0.00%

The real rate of return is net of the long-term inflation assumption of 2.50 percent.

**(b) Discount Rate**

The discount rate used to calculate the total pension liability was 5.9 percent. The projection of cash flows used to determine the discount rate assumes that contributions from plan members will be made at the current contribution rates and that contributions from employers will be made at statutorily required rates, actuarially. Based upon the assumptions, the System’s fiduciary net position was projected to be available to make all projected future benefit payments of current plan members. Therefore, the long-term expected rate of return on pension plan investments was applied to all periods of projected benefit payments to determine the total pension liability.

**(c) Sensitivity of the Net Pension Liability to the Discount Rate Assumption**

The following presents the current period net pension liability of the employers calculated using the current-period discount rate assumption of 5.9 percent, as well as what the net pension liability would be if it were calculated using a discount rate that is one percentage-point lower (4.9 percent) or one percentage-point higher (6.9 percent) than the current assumption (dollars in thousands):

	<u>One percent decrease (4.9%)</u>	<u>Current assumption (5.9%)</u>	<u>One percent increase (6.9%)</u>
ERS net pension liability (asset)	\$ 51,821,029	\$ 21,444,036	\$ (3,939,482)
PFRS net pension liability	\$ 11,486,837	\$ 5,510,470	\$ 561,683

## NEW YORK STATE AND LOCAL RETIREMENT SYSTEM

### Notes to Basic Financial Statements

March 31, 2023

#### **(10) Federal Income Tax Status**

ERS and PFRS are qualified defined benefit retirement plans under section 401(a) of the Internal Revenue Code (IRC) and are exempt from federal income taxes under section 501(a) of the IRC. ERS and PFRS last received favorable determination letters from the Internal Revenue Service dated August 28, 2014 stating that ERS and PFRS are in compliance with the applicable requirements of the Internal Revenue Code. Therefore, no provision for income taxes has been included in the System's financial statements.

#### **(11) Commitments**

As of March 31, 2023, the System had contractual commitments totaling \$15.0 billion to fund future private equity investments, \$8.5 billion to fund future real estate investments, \$3.8 billion to fund future investments in opportunistic/ARS funds, \$4.9 billion to fund future real asset investments and \$7.5 million to fund future credit investments. When compared to note 8 the variances that exist are due to the above representing total commitments of the investment type inclusive of investments measured at fair value and net asset value. Future commitments will be funded over the commitment period through transaction income including distributions, redemptions, and maturities.

#### **(12) Contingencies**

The System is a defendant in litigation proceedings involving individual benefit payments, participant eligibility, and other issues arising from its normal activities. Management of the System believes there will be no material adverse effect on the basic financial statements as a result of the outcome of these matters.

**REQUIRED SUPPLEMENTARY INFORMATION (UNAUDITED)**

**NEW YORK STATE AND LOCAL RETIREMENT SYSTEM**  
 Schedule of Changes in the Employers' Net Pension Liability (Asset) and Related Ratios  
 (Unaudited)  
 (Dollars in thousands)

	<b>2023</b>	<b>2022</b>	<b>2021</b>	<b>2020</b>	<b>2019</b>	<b>2018</b>	<b>2017</b>	<b>2016</b>	<b>2015</b>
	<b>Employees'</b>								
	<b>Retirement</b>								
	<b>System</b>								
Total pension liability:									
Service cost	\$ 4,208,576	\$ 4,046,170	\$ 4,157,172	\$ 3,365,522	\$ 3,218,553	\$ 3,004,697	\$ 2,951,979	\$ 2,916,374	\$ 2,989,807
Interest	12,826,486	12,656,540	11,133,759	12,529,672	12,463,933	12,063,525	11,723,859	11,198,823	11,581,437
Changes of benefit Terms	543,056	—	—	—	—	—	—	—	—
Difference between expected and actual experience	2,518,585	(1,003,716)	299,922	745,602	704,393	1,235,058	226,737	(2,378,116)	135,177
Changes in assumptions	1,797,644	—	22,441,226	(575,504)	888,656	—	—	5,350,157	—
Benefit payments	(13,035,556)	(12,415,017)	(11,850,537)	(11,207,761)	(10,781,781)	(10,200,205)	(9,740,272)	(9,224,904)	(8,829,751)
Refunds of contributions	(106,420)	(89,246)	(97,646)	(64,699)	(90,915)	(103,071)	(65,261)	(150,294)	(77,388)
Net change in total pension liability	8,752,371	3,194,731	26,083,896	4,792,832	6,402,839	6,000,004	5,097,042	7,712,040	5,799,282
Total pension liability—beginning	223,874,888	220,680,157	194,596,261	189,803,429	183,400,590	177,400,586	172,303,544	164,591,504	158,792,222
Total pension liability—ending (a)	232,627,259	223,874,888	220,680,157	194,596,261	189,803,429	183,400,590	177,400,586	172,303,544	164,591,504
Fiduciary net position:									
Contributions—employer	3,305,845	4,528,207	4,062,302	3,920,360	3,890,215	3,949,873	3,949,710	4,347,619	4,893,110
Contributions—member	565,110	494,802	427,032	395,338	345,846	318,439	306,218	289,332	272,004
Net investment income (loss)	(11,475,648)	18,984,398	59,964,043	(7,470,542)	9,140,487	18,128,993	17,194,267	(327,068)	10,582,102
Benefit payments	(13,035,556)	(12,415,017)	(11,850,537)	(11,207,761)	(10,781,781)	(10,200,205)	(9,740,272)	(9,224,904)	(8,829,751)
Refunds of contributions	(106,420)	(89,246)	(97,646)	(64,699)	(90,915)	(103,071)	(65,261)	(150,294)	(77,388)
Administrative expense	(184,229)	(144,128)	(144,234)	(121,694)	(119,304)	(106,972)	(93,943)	(93,012)	(93,357)
Other additions	64,648	109,874	103,941	(53,444)	160,431	181,725	200,379	198,333	193,176
Net change in fiduciary net position	(20,866,250)	11,468,890	52,464,901	(14,602,442)	2,544,979	12,168,782	11,751,098	(4,959,994)	6,939,896
Fiduciary net position—beginning	232,049,473	220,580,583	168,115,682	182,718,124	180,173,145	168,004,363	156,253,265	161,213,259	154,273,363
Fiduciary net position—ending (b)	211,183,223	232,049,473	220,580,583	168,115,682	182,718,124	180,173,145	168,004,363	156,253,265	161,213,259
Net pension liability (asset)—ending (a) – (b)	\$ 21,444,036	\$ (8,174,585)	\$ 99,574	\$ 26,480,579	\$ 7,085,305	\$ 3,227,445	\$ 9,396,223	\$ 16,050,279	\$ 3,378,245
Ratio of fiduciary net position to total pension liability	90.78%	103.65%	99.95%	86.39%	96.27%	98.24%	94.70%	90.68%	97.95%
Covered payroll	\$ 29,933,841	\$ 28,772,307	\$ 27,976,135	\$ 28,169,321	\$ 27,374,387	\$ 26,686,412	\$ 26,200,001	\$ 25,644,078	\$ 24,480,045
Net pension liability (asset) as a percentage of covered payroll	71.64%	-28.41%	0.36%	94.01%	25.88%	12.09%	35.86%	62.59%	13.80%

Schedule is intended to show information for 10 years. Additional years will be displayed as they become available.

See accompanying independent auditors' report and notes to required supplementary information.

## NEW YORK STATE AND LOCAL RETIREMENT SYSTEM

## Schedule of Changes in the Employers' Net Pension Liability (Asset) and Related Ratios

(Unaudited)

(Dollars in thousands)

	2023	2022	2021	2020	2019	2018	2017	2016	2015
	Police and Fire Retirement System								
Total pension liability:									
Service cost	\$ 990,375	\$ 951,585	970,797	\$ 743,762	\$ 713,480	\$ 674,079	\$ 657,407	\$ 628,863	\$ 625,648
Interest	2,420,655	2,363,162	2,020,024	2,252,536	2,236,527	2,154,117	2,065,752	1,935,222	1,997,215
Changes of benefit Terms	42,038	—	—	—	—	—	—	—	—
Difference between expected and actual experience	417,029	86,530	180,496	76,209	106,384	241,387	302,375	(537,163)	39,833
Changes in assumptions	181,610	—	4,930,229	147,086	118,521	—	—	1,531,662	—
Benefit payments	(2,448,940)	(2,304,619)	(2,172,230)	(2,038,392)	(1,959,831)	(1,827,136)	(1,708,410)	(1,683,580)	(1,606,417)
Refunds of contributions	(4,726)	(96,141)	(1,558)	(284)	(1,404)	1,493	5,632	(1,694)	(158)
Net change in total pension liability	1,598,041	1,000,517	5,927,758	1,180,917	1,213,677	1,243,940	1,322,756	1,873,310	1,056,121
Total pension liability—beginning	42,237,292	41,236,775	35,309,017	34,128,100	32,914,423	31,670,483	30,347,727	28,474,417	27,418,296
Total pension liability—ending (a)	43,835,333	42,237,292	41,236,775	35,309,017	34,128,100	32,914,423	31,670,483	30,347,727	28,474,417
Fiduciary net position:									
Contributions—employer	1,098,241	1,099,539	967,488	862,346	854,094	873,434	837,253	792,585	904,339
Contributions—member	91,654	82,792	65,309	58,360	40,673	30,950	22,609	17,297	12,789
Net investment income (loss)	(2,065,123)	3,389,717	10,685,563	(1,328,229)	1,621,289	3,209,040	3,030,977	(57,765)	1,862,789
Benefit payments	(2,448,940)	(2,304,619)	(2,172,230)	(2,038,392)	(1,959,831)	(1,827,136)	(1,708,410)	(1,683,580)	(1,606,417)
Refunds of contributions	(4,726)	(96,141)	(1,558)	(284)	(1,404)	1,493	5,631	(1,694)	(158)
Administrative expense	(23,766)	(19,372)	(20,863)	(17,356)	(17,173)	(15,834)	(13,191)	(13,608)	(13,794)
Other additions/deductions	8,273	16,834	12,711	(23,402)	9,723	33,889	36,021	134,548	37,623
Net change in fiduciary net position	(3,344,387)	2,168,750	9,536,420	(2,486,957)	547,371	2,305,836	2,210,890	(812,217)	1,197,171
Fiduciary net position—beginning	41,669,250	39,500,500	29,964,080	32,451,037	31,903,666	29,597,830	27,386,940	28,199,157	27,001,986
Fiduciary net position—ending (b)	38,324,863	41,669,250	39,500,500	29,964,080	32,451,037	31,903,666	29,597,830	27,386,940	28,199,157
Net pension liability—ending (a) – (b)	\$ 5,510,470	\$ 568,042	\$ 1,736,275	\$ 5,344,937	\$ 1,677,063	\$ 1,010,757	\$ 2,072,653	\$ 2,960,787	\$ 275,260
Ratio of fiduciary net position to total pension liability	87.43%	98.66%	95.79%	84.86%	95.09%	96.93%	93.46%	90.24%	99.03%
Covered payroll	\$ 4,185,198	\$ 4,043,065	\$ 3,862,735	\$ 4,024,660	\$ 3,730,337	\$ 3,683,960	\$ 3,633,237	\$ 3,526,980	\$ 3,257,100
Net pension liability as a percentage of covered payroll	131.67%	14.05%	44.95%	132.80%	44.96%	27.44%	57.05%	83.95%	8.45%

Schedule is intended to show information for 10 years. Additional years will be displayed as they become available.

See accompanying independent auditors' report and notes to required supplementary information.

**NEW YORK STATE AND LOCAL RETIREMENT SYSTEM**

Schedule of Employer Contributions

(Unaudited)

(Dollars in millions)

	<b>Employees' Retirement System</b>									
	<b>2023</b>	<b>2022</b>	<b>2021</b>	<b>2020</b>	<b>2019</b>	<b>2018</b>	<b>2017</b>	<b>2016</b>	<b>2015</b>	<b>2014</b>
Actuarially determined contribution (1)	\$ 3,273	\$ 4,528	4,062	\$ 3,920	\$ 3,890	\$ 3,950	\$ 3,950	\$ 4,348	\$ 4,893	\$ 5,138
Contributions in relation to the actuarially determined contribution (2)	<u>3,273</u>	<u>4,528</u>	<u>4,062</u>	<u>3,920</u>	<u>3,890</u>	<u>3,950</u>	<u>3,950</u>	<u>4,348</u>	<u>4,893</u>	<u>5,138</u>
Contribution deficiency (excess)	\$ <u>—</u>	\$ <u>—</u>	<u>—</u>	\$ <u>—</u>	\$ <u>—</u>	\$ <u>—</u>	\$ <u>—</u>	\$ <u>—</u>	\$ <u>—</u>	\$ <u>—</u>
Covered payroll	\$ 29,934	\$ 28,772	27,976	\$ 28,169	\$ 27,374	\$ 26,686	\$ 26,200	\$ 25,644	\$ 24,480	\$ 24,361
Contributions as a percentage of covered payroll	10.93%	15.74%	14.52%	13.92%	14.21%	14.80%	15.08%	16.96%	19.99%	21.09%

	<b>Police and Fire Retirement System</b>									
	<b>2023</b>	<b>2022</b>	<b>2021</b>	<b>2020</b>	<b>2019</b>	<b>2018</b>	<b>2017</b>	<b>2016</b>	<b>2015</b>	<b>2014</b>
Actuarially determined contribution (1)	\$ 1,077	\$ 1,100	968	\$ 862	\$ 854	\$ 873	\$ 837	\$ 793	\$ 904	\$ 926
Contributions in relation to the actuarially determined contribution (2)	<u>1,077</u>	<u>1,100</u>	<u>968</u>	<u>862</u>	<u>854</u>	<u>873</u>	<u>837</u>	<u>793</u>	<u>904</u>	<u>926</u>
Contribution deficiency (excess)	\$ <u>—</u>	\$ <u>—</u>	<u>—</u>	\$ <u>—</u>	\$ <u>—</u>	\$ <u>—</u>	\$ <u>—</u>	\$ <u>—</u>	\$ <u>—</u>	\$ <u>—</u>
Covered payroll	\$ 4,185	\$ 4,043	3,863	\$ 4,025	\$ 3,730	\$ 3,684	\$ 3,633	\$ 3,527	\$ 3,257	\$ 3,233
Contributions as a percentage of covered payroll	25.73%	27.21%	25.06%	21.42%	22.90%	23.70%	23.04%	22.48%	27.76%	28.64%

(1) The actuarially determined contribution includes normal costs, the GLIP amounts, adjustments made to record the reconciliation of projected salary to actual salary, and miscellaneous accounting adjustments.

(2) The contributions in relation to the actuarially determined contribution reflects actual payments and installment payment plans.

See accompanying independent auditors' report and notes to required supplementary information.

**NEW YORK STATE AND LOCAL RETIREMENT SYSTEM**

Schedule of Investment Returns  
(Unaudited)

	<u>2023</u>	<u>2022</u>	<u>2021</u>	<u>2020</u>	<u>2019</u>	<u>2018</u>	<u>2017</u>	<u>2016</u>	<u>2015</u>
Annual money-weighted rate of return, net of investment expenses <sup>1</sup>	(4.43)%	9.44%	33.43%	(2.64)%	5.14%	11.29%	11.40%	0.03%	6.98%

*Schedule is intended to show information for 10 years. Additional years will be displayed as they become available.*

<sup>1</sup> Investment expenses include management fees, investment and accounting staff salaries and benefits, and other investment related expenses.

See accompanying independent auditors' report and notes to required supplementary information.

## NEW YORK STATE AND LOCAL RETIREMENT SYSTEM

### Notes to Required Supplementary Information

March 31, 2023

#### Changes in Benefit Terms

The New York State Legislature lowered the vesting requirement for Tier 5 and Tier 6 from ten years to five years (Chapter 56 of the Laws of 2022), prior to the April 1, 2022 actuarial valuation.

#### Changes of Assumptions

2023: For the April 1, 2022 funding valuation, the mortality improvement assumption was updated to Society of Actuaries' Scale MP-2021, the inflation assumption was increased to 2.9% and the cost-of-living assumption was updated to 1.5%. Further, the recognition of unexpected investment returns will occur in equal installments over 8 years. Finally, active member withdrawal rates for Tiers 5 and 6 were revised to reflect the New York State Legislature's change in benefit terms.

2022: For the April 1, 2021 funding valuation, the mortality improvement assumption was updated to Society of Actuaries' Scale MP-2020, the inflation assumption was increased to 2.7% and the cost-of-living assumption was updated to 1.4%, while the salary scale assumption changed to 4.4% in ERS and 6.2% in PFRS and the discount rate assumption was reduced to 5.9%. Further, a market restart was implemented to immediately recognize the market value of assets in the funding valuation.

2021: For the April 1, 2020 funding valuation, the demographic assumptions (pensioner mortality and active member decrements) were updated based on the System's experience from April 1, 2015 through March 31, 2020 and the mortality improvement assumption was updated to Society of Actuaries' Scale MP-2019.

#### Methods and Assumptions Used in Calculations of Actuarially Determined Contributions

The April 1, 2021 actuarial valuation determined the employer rates for contributions payable in fiscal year 2023. The following actuarial methods and assumptions were used:

Actuarial cost method	The System is funded using the Aggregate Cost Method. All unfunded actuarial liabilities are evenly amortized (as a percentage of projected pay) over the remaining worker lifetimes of the valuation cohort.
Asset valuation period	Market restart
Inflation	2.7%
Salary scale	4.4% in ERS, 6.2% in PFRS, indexed by service
Investment rate of return	5.9% compounded annually, net of investment expenses, including inflation.
Cost-of-living adjustments	1.4% annually
Active member decrements	Based upon FY 2016-2020 experience
Pensioner mortality	Gender/Collar specific tables based upon FY 2016-2020 experience
Mortality improvement	Society of Actuaries' Scale MP-2020

## **OTHER SUPPLEMENTARY INFORMATION**

## NEW YORK STATE AND LOCAL RETIREMENT SYSTEM

## Schedule of Administrative Expenses

Year ended March 31, 2023

(Dollars in thousands)

Personal services:	
Salaries	\$ 77,343
Overtime salaries	3,702
Fringe benefits	60,803
Total personal services	<u>141,848</u>
Building occupancy expenses:	
Building, lease and condominium fees	5,348
Utilities and municipal assessments	107
Office supplies and services	150
Telephone	385
Total building occupancy expenses	<u>5,990</u>
Computer expenses:	
IT shared services*	52,750
Total computer expenses	<u>52,750</u>
Personal and operating expenses:	
Training	77
Travel and auto expenses – includes pre-retirement seminars	458
Postage – includes member and retiree communication	1,674
Depreciation expense – Imaging System	1,832
Printing – includes member and retiree communication	118
Subscriptions/memberships	260
Total personal and operating expenses	<u>4,419</u>
Professional expenses:	
Audit services	520
Medical/clinical services	1,921
Miscellaneous consulting services	547
Total professional expenses	<u>2,988</u>
Total	<u>\$ 207,995</u>

\* The System has implemented a shared service, information technology (IT) model within the New York State Office of the State Comptroller, wherein all IT costs, including personal services, will be incorporated into the IT shared services and reflected as nonpersonal service expenditures.

See accompanying independent auditors' report.

## NEW YORK STATE AND LOCAL RETIREMENT SYSTEM

## Schedule of Investment Expenses

Year ended March 31, 2023

(Dollars in thousands)

## Investment expenses:

## Investment management and incentive fees:

Private equity	\$ 218,300
Opportunistic/ARS	181,569
International equity	128,403
Real estate	110,350
Domestic equity	96,275
Real assets	68,230
Credit assets	62,805
Multi-Asset Class	9,258
Fixed income	4,254
	<hr/>
Total investment management and incentive fees	879,444

## Investment-related expenses:

Miscellaneous expenses	20,341
Data processing expenses/licenses	8,308
Custodial fees	5,709
Legal fees	5,652
Mortgage loan servicing fees	2,985
Compliance/Risk monitoring	2,165
Private equity consulting and monitoring	2,097
Administrative expenses	1,229
Research services	997
General consulting	799
Real estate consulting and monitoring	727
Opportunistic consulting and monitoring	600
Real assets consulting and monitoring	468
Fixed income consulting	399
Audit and audit-related fees	250
Emerging manager program consulting and monitoring	110
Domestic equity consulting and monitoring	77
Global equity consulting	35
	<hr/>
Total investment-related expenses	52,948
	<hr/>
Total investment expenses	\$ 932,392

See accompanying independent auditors' report.

## NEW YORK STATE AND LOCAL RETIREMENT SYSTEM

## Schedule of Consulting Fees

Year ended March 31, 2023

Fees in excess of \$50,000 paid to outside professionals other than investment advisors.

	<u>Amount</u>	<u>Nature</u>
JP Morgan Chase Bank	\$ 5,708,996	Custodial Banking Services
FIS Capital Markets US LLC	3,942,880	EDP Expense/Licenses
Bloomberg Finance LP	1,517,893	EDP Expense/Licenses
Morgan Lewis & Bockius LLP	1,090,926	Legal Services
Frank Russell Index Subscriptions US	856,065	EDP Expense/Licenses
Foster Garvey PC	853,634	Legal Services
MSCI BarraOne LLC	808,850	Compliance/Risk Monitoring
Seyfarth Shaw LLP	721,860	Legal Services
Cox, Castle & Nicholson LLP	569,932	Legal Services
Intex Solutions, Inc.	553,150	Compliance/Risk Monitoring
KPMG LLP	518,185	Audit Services
FactSet Research Systems, Inc.	517,397	EDP Expense/Licenses
K&L Gates LLP	458,911	Legal Services
DLA Piper LLP	417,917	Legal Services
Seward & Kissel LLP	412,607	Legal Services
Orrick Herrington & Sutcliffe LLP	404,711	Legal Services
JP Morgan Chase Bank	372,839	Custodial Banking Services
Jurisolutions, Inc.	369,389	Medical/Clinical Services
Moody's Analytics, Inc.	335,815	EDP Expense/Licenses
EFL Associates	292,945	Staff Recruitment Services
Ernst & Young LLP	289,392	Tax Services
National Claim Evaluations, Inc.	288,333	Medical/Clinical Services
D & D Medical Associates PC	277,173	Medical/Clinical Services
Certified Management Consultants	255,490	Medical/Clinical Services
CEO Risk Advisory Services	250,125	Compliance/Risk Monitoring
eFront Financial Solutions, Inc.	239,171	EDP Expense/Licenses
First Choice Evaluations LLC	229,319	Medical/Clinical Services
Verizon Business Network Services LLC	228,933	IT Consulting Services
PitchBook Data, Inc.	210,000	EDP Expense/Licenses
Reinhart Boerner Van Deuren SC	207,305	Legal Services
Strategas Securities, LLC	206,000	Research
Fitch Solutions, Inc	204,000	Research
Arthur J Gallagher Risk Management	201,844	Audit Services
First Advantage Back Track Reports, LLC	184,070	Compliance/Risk Monitoring
Lenox Park Solutions LLC	160,000	Administrative Expen
Brigar X-Press Solutions, Inc.	150,449	Medical/Clinical Services
Institutional Shareholder Services	126,569	Administrative Expen
MSCI ESG Research Inc	123,000	Research
Pillsbury Winthrop Shaw Pittman LLP	123,000	Legal Services
Integral Consulting Services, Inc.	122,583	Medical/Clinical Services
Standard & Poors	122,017	EDP Expense/Licenses
BDO USA LLP	108,570	Compliance/Risk Monitoring
Glass Lewis & Co, LLC	106,232	Administrative Expen
CoStar Group Inc.	105,637	Research
Honeywell International Inc.	102,917	Miscellaneous Consulting Services
Marcum Accountants/Advisors	90,950	Compliance/Risk Monitoring
Chapman and Cutler LLP	86,372	Legal Services
Corporate Resolutions, Inc.	85,500	Compliance/Risk Monitoring
Groom Law Group	80,515	Legal Services
Hirschler Fleischer	76,659	Legal Services
Training The Street LLC	75,625	Training
McKinsey & Company, Inc.	65,000	Miscellaneous Consulting Services
Planetrics Ltd	65,000	Research
Dane Street LLC	60,653	Medical/Clinical Services
Eurasia Group	60,000	Research
Mazzone Hospitality-Compass Group USA Inc	59,220	Administrative Expense
Capital Economics	56,650	Research
BCA Research, Inc.	56,375	Research
Content Critical Solutions Inc.	54,943	Medical/Clinical Services
William E Mccarthy	53,700	Miscellaneous Consulting Services
Nossaman LLP	50,573	Legal Services
Labaton Sucharow LLP	50,000	Legal Monitoring Services
Piper Sandler & Co.	50,000	Research



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**Independent Auditors' 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***

The Trustee  
New York State and Local Retirement System:

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 New York State and Local Retirement System (the System), which comprise the combining basic statement of fiduciary net position as of March 31, 2023, and the related combining basic statement of changes in fiduciary net position for the year then ended, and the related notes to the basic financial statements, and have issued our report thereon dated July 21, 2023.

**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 opinion 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 may exist that have not been identified.

**Compliance and Other Matters**

As part of obtaining reasonable assurance about whether the System's basic 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 System'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 System's internal control and compliance. Accordingly, this communication is not suitable for any other purpose.

KPMG LLP

July 21, 2023