New York City Employees' Retirement System

(A Fiduciary Fund of The City of New York)

Combining Financial Statements and Supplementary Information (Together with Report of Independent Certified Public Accountants)

For the Years Ended June 30, 2021 and June 30, 2020

Contents

GRANT THORNTON LLP
757 Third Ave., 9th Floor
New York, NY 10017-2013

D +1 212 599 0100
F +1 212 370 4520

REPORT OF INDEPENDENT CERTIFIED PUBLIC ACCOUNTANTS

To the Board of Trustees of
New York City Employees' Retirement System

We have audited the accompanying combining financial statements of New York City Employees' Retirement System Qualified Pension Plan, Correction Officers' Variable Supplements Fund, Housing Police Officers' Variable Supplements Fund, Housing Police Superior Officers' Variable Supplements Fund, Transit Police Officers' Variable Supplements Fund, and Transit Police Superior Officers' Variable Supplements Fund, which collectively comprise the New York City Employees' Retirement System (the "System"), which comprise the combining statements of fiduciary net position as of June 30, 2021 and 2020 and the related combining statements of changes in fiduciary net position for the years then ended, and the related notes to combining financial statements, which collectively comprise the System's basic combining financial statements.

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

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

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

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

Grant Thornton

Opinion

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

Other matter

Required supplementary information

Accounting principles generally accepted in the United States of America require that the Management's Discussion and Analysis, Schedule 1 - schedules of changes in the employer's net pension liability and related ratios, Schedule 2 - schedules of employer contributions, and Schedule 3 - schedule of investment returns, as listed in the table of contents, be presented to supplement the basic combining financial statements. Such information, although not a required part of the basic combining financial statements, is required by the Governmental Accounting Standards Board who considers it to be an essential part of the financial reporting for placing the basic combining financial statements in an appropriate operational, economic, or historical context. This required supplementary information is the responsibility of management. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America. These limited procedures 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 combining financial statements, and other knowledge we obtained during our audit of the basic combining 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.

Grant Thornton LLP

New York, New York
October 28, 2021

The New York City Employees' Retirement System's ("NYCERS", the "Funds" or the "Plan") discussion and analysis provides an overview of the Funds' combining financial activities for the Fiscal Years ended June 30, 2021 and 2020. It is designed to assist the reader in understanding NYCERS' combining financial statements by providing a review of financial activities during Fiscal Years 2021 and 2020, the effects of any significant changes, and a comparison versus prior year activity. The discussion and analysis is intended to be read in conjunction with the Funds' combining financial statements.

NYCERS administers the New York City Employees' Retirement System Qualified Pension Plan (the "QPP"), Correction Officers' Variable Supplements Fund ("COVSF"), Housing Police Officers' Variable Supplements Fund ("HPOVSF"), Housing Police Superior Officers' Variable Supplements Fund ("HPSOVSF"), Transit Police Officers' Variable Supplements Fund ("TPOVSF"), and the Transit Police Superior Officers' Variable Supplements Fund ("TPSOVSF") (collectively, the "Funds' or the "Plan").

OVERVIEW OF COMBINING FINANCIAL STATEMENTS

The following discussion and analysis is intended to serve as an introduction to the Funds' combining financial statements. The combining financial statements, which are prepared in accordance with Governmental Accounting Standards Board ("GASB") pronouncements and include the financial statements of each of the Funds, are:

- **The Combining Statements of Fiduciary Net Position -** presents the financial position of the Funds at fiscal year-end. It provides information about the nature and amounts of resources with present service capacity that the Funds presently control (assets), consumption of net assets by the Funds that is applicable to a future reporting period (deferred outflow of resources), present obligations to expend resources, that the Funds have little or no discretion to avoid (liabilities), and acquisition of net assets by the Funds that is applicable to a future reporting period (deferred inflow of resources) with the difference between assets/deferred outflow of resources and liabilities/deferred inflow of resources being reported as net position. Investments are shown at fair value. All other assets and liabilities are determined on an accrual basis.

- **The Combining Statements of Changes in Fiduciary Net Position -** presents the results of activities during the fiscal year. All changes affecting the assets/deferred outflow and liabilities/deferred inflow of the Funds are reflected on an accrual basis when the activity occurred, regardless of the timing of the related cash flows. In that regard, changes in the fair values of investments are included in the year's activity as net appreciation (depreciation) in fair value of investments.

- **The Notes to Combining Financial Statements -** provide additional information that is essential to a full understanding of the data provided in the combining financial statements. The notes present information about the Funds' accounting policies, significant account balances and activities, material risks, obligations, contingencies, and subsequent events, if any.

- **Required Supplementary Information (Unaudited) -** as required by the GASB includes the management discussion and analysis (this section) and information presented after the notes to combining financial statements.

FINANCIAL HIGHLIGHTS

The Funds' combined net position restricted for benefits increased by $16.8 billion (24.0%) from $70.2 billion at June 30, 2020 to $87.1 billion at June 30, 2021. The increase in combined net position was mainly due to favorable performance in the investment portfolio, primarily in equity securities.

The Funds' combined net position restricted for benefits increased by $1.3 billion (1.9%) from $68.9 billion at June 30, 2019 to $70.2 billion at June 30, 2020. The increase in combined net position was mainly due to favorable performance in the investment portfolio, primarily in domestic equities and structured fixed income securities.

Cash and cash equivalents balances totaled $129 million at June 30, 2021. The Funds' practice is to fully invest its day-end cash balances in a pooled short-term investment fund. A typical benefit payment account would show an overdrawn balance, since funds are only deposited as outstanding benefit checks are presented to the banks for payment each day. These overdrawn balances are the main component of accounts payable.

Receivables for investment securities sold amounted to $3.4 billion as of June 30, 2021, an increase of $1.6 billion (94.4%) from $1.7 billion as of June 30, 2020, which was an increase of $0.5 billion (46.5%) from $1.2 billion as of June 30, 2019. Although trades typically do not settle until a few days after trade dates, sales of investment securities are reflected on trade dates. The resulting receivables are caused by these timing differences.

Fiduciary Net Position

June 30, 2021, 2020, and 2019

(In thousands)

	2021	2020	2019
Cash and cash equivalents	$ 128,748	$ 85,110	$ 73,004
Receivables for investment securities sold	3,353,658	1,725,083	1,177,445
Receivables for member loans	1,079,822	1,120,769	1,150,018
Receivables for accrued earnings	393,868	359,866	339,309
Investments, at fair value	88,091,585	70,449,702	68,452,483
Securities lending collateral	10,208,522	6,007,306	6,406,505
Other assets	125,193	137,428	128,259
Total assets	103,381,396	79,885,264	77,727,023
Accounts payable	142,625	126,822	464,116
Payable for investment securities purchased	5,494,894	3,091,164	1,406,303
Accrued benefits payable	451,975	413,284	509,130
Due to other retirement systems	1,785	1,052	617
Payables for securities lending transactions	10,208,522	6,007,306	6,406,505
Total liabilities	16,299,801	9,639,628	8,786,671
Net position restricted for pensions	$ 87,081,595	$ 70,245,636	$ 68,940,352

The receivables for member loans decreased by $41 million (-3.7%) from $1.12 billion at June 30, 2020 to $1.08 billion at June 30, 2021. The main reason for the decrease was that the amount of loans issued was lower than that of Fiscal Year 2020.

The receivables for member loans decreased by $29 million (-2.5%) from $1.15 billion at June 30, 2019 to $1.12 billion at June 30, 2020. The main reason for the decrease was that the amount of loans issued was lower than that of Fiscal Year 2019.

Fair value of investments, including securities lending collateral at June 30, 2021 was $98.3 billion, an increase of $21.8 billion (28.6%) from the June 30, 2020 investment value of $76.5 billion. The increase in fair value of investments was driven by strong investment returns in the equity markets.

Fair value of investments, including securities lending collateral at June 30, 2020 was $76.5 billion, an increase of $1.6 billion (2.1%) from the June 30, 2019 investment value of $74.9 billion. The increase in fair value of investments was driven by strong investment returns in domestic equities and structured fixed income.

Other assets decreased by $12 million (-8.9%) from $137 million at June 30, 2020 to $125 million at June 30, 2021. The decrease was mainly due a reduction in the employer contribution receivables in Fiscal Year 2021.

Other assets increased by $9 million (7.1%) from $128 million at June 30, 2019 to $137 million at June 30, 2020. The increase in the receivable resulted from unpaid employer pension contributions by New York OTB for Fiscal Year 2020.

Payables for investment securities purchased totaled $5.5 billion as of June 30, 2021, an increase of $2.4 billion (77.8%) from $3.1 billion as of June 30, 2020. The increase was due to the fact that the Board of Trustees approved an increase in the asset allocation for mortgages that was starting to be implemented as well as timing differences.

Payables for investment securities purchased totaled $3.1 billion as of June 30, 2020, an increase of $1.7 billion (119.8%) from $1.4 billion as of June 30, 2019. The increase was due to a new strategic asset allocation that was approved to shift assets toward traditional-fixed income products, such as government bonds, mortgages and corporate securities as well as timing differences.

Accrued benefits payable increased by $39 million (9.4%) from $413 million at June 30, 2020 to $452 million at June 30, 2021. The increase in payables was primarily due to an increased number of death claims in Fiscal Year 2021.

Accrued benefits payable decreased by $96 million (-18.8%) from $509 million at June 30, 2019 to $413 million at June 30, 2020. The decrease in payables was primarily due to the resolution of collective bargaining cases, resulting in the receipt of increased benefits by pensioners.

Changes in Fiduciary Net Position

Years Ended June 30, 2021, 2020, and 2019

(In thousands)

	2021	2020	2019
Additions:			
Member contributions	$ 579,560	$ 563,893	$ 547,807
Employer contributions	3,761,532	3,727,558	3,692,711
Investment earnings:			
Interest and dividend income	1,814,598	1,866,537	1,909,986
Net appreciation in fair value of investments	16,741,619	766,682	2,728,030
Net securities lending income	20,644	22,164	40,758
Investment expenses	(313,226)	(245,667)	(240,544)
Net investment income	18,263,635	2,409,716	4,438,230
Other income	3,365	3,317	3,258
Total additions	22,608,092	6,704,484	8,682,006
Deductions:			
Benefit payments and withdrawals	5,679,049	5,312,446	5,258,806
Payments to other retirement systems	5,671	9,087	9,769
Administrative expenses	87,413	77,667	82,073
Total deductions	5,772,133	5,399,200	5,350,648
Net increase in net position	16,835,959	1,305,284	3,331,358
Net position restricted for pensions:			
Beginning of year	70,245,636	68,940,352	65,608,994
End of year	$ 87,081,595	$ 70,245,636	$ 68,940,352

Employer contributions for Fiscal Year 2021 were $3.8 billion, a slight increase of $35.4 million (0.9%) from $3.7 billion for Fiscal Year 2020. The increase is primarily due to the net result of gains and losses including the increase in the amortization payment for the initial unfunded liability and decreases due to changes to the actuarial assumptions and methods.

Employer contributions remained relatively level at $3.7 billion in Fiscal Year 2020, increasing by $35 million (0.9%). The increase is primarily due to an increase in the amortization payment for the initial unfunded liability.

Net investment income for Fiscal Year 2021 totaled $18.3 billion compared to $2.4 billion in Fiscal Year 2020. The increase was mainly due to favorable performance in the investment portfolio, primarily in equity securities.

Net investment income for the Fiscal Year 2020 totaled $2.4 billion, compared to net investment income of $4.4 billion in Fiscal Year 2019. The decrease was the result of weaker relative performance in the investment portfolio. The preponderance of net investment income was attributable to interest and dividends.

Investment expenses for Fiscal Year 2021 were $313 million, increasing by $68 million (27.5%). The increase in fees was primarily due to an increase in fair value of investments.

Investment expenses for Fiscal Year 2020 were $246 million, increasing by $5 million (2.1%). The increase in fees was primarily due to an increase in fair value of investments.

Benefit payments and withdrawals for Fiscal Year 2021 totaled $5.7 billion, a $367 million (6.9%) increase from the $5.3 billion of Fiscal Year 2020. The increase is due to the increasing number of retirees and their corresponding higher average retirement allowances.

Benefit payments and withdrawals for Fiscal Year 2020 remained relatively level at $5.3 billion, increasing by $54 million (1.0%). The increase is due to the increasing number of retirees and their corresponding higher average retirement allowances.

Administrative expenses for Fiscal Year 2021 were $87 million, an increase of $9 million (12.55%) from $78 million in Fiscal Year 2020. The increase was driven by higher costs associated with software licenses and consultant contractual services associated with the technology modernization efforts.

Administrative expenses for Fiscal Year 2020 were $78 million, a decrease of $4 million (-5.4%) from $82 million in Fiscal Year 2019. The decrease in administrative expenses was driven by a reduction in costs associated with software licenses and consultant contractual services, predominantly incurred in Fiscal Year 2019, associated with the technology modernization efforts.

Investments - The table below summarizes the NYCERS investment allocation.

Investment Summary

June 30, 2021

(In thousands)

Investments - at fair value:	QPP	COVSF	Combined
Short-term investments:			
Commercial paper	$ 999,092	$ -	$ 999,092
Short-term investment fund	812,966	297,230	1,110,196
U.S. treasury bills and agencies	1,170,661	-	1,170,661
Debt (fixed income) securities:			
Bank loans	133,414	-	133,414
Corporate and other	10,401,407	-	10,401,407
Mortgage debt securities	5,549,015	-	5,549,015
Treasury inflation-protected securities	3,038,225	-	3,038,225
U.S. government and agency	8,274,897	-	8,274,897
Equity securities:			
Domestic equity	27,082,830	-	27,082,830
International equity	15,206,157	-	15,206,157
Collective trust funds:			
Bank loans	1,104	-	1,104
Domestic equity	1,181	-	1,181
Mortgage debt securities	482,694	-	482,694
Opportunistic-fixed income	257,436	-	257,436
Alternative investments:			
Infrastructure	996,689	-	996,689
Opportunistic-fixed income	2,603,942	-	2,603,942
Private equity	6,421,827	-	6,421,827
Private real estate	4,359,578	-	4,359,578
Hedge fund	1,240	-	1,240
Collateral from securities lending	10,208,522	-	10,208,522
Total	$ 98,002,877	$ 297,230	$ 98,300,107

INVESTMENT PERFORMANCE

Total portfolio performance (net of fees) for Fiscal Year 2021 was 26.63%, more than NYCERS' Policy benchmark, which had a rate of return of 26.34%. Domestic equities returned 45.14%, more than the Russell 3000 benchmark of 44.16%. International equity (non-U.S. equities) holdings returned 39.97%, more than the World EX USA Custom benchmark of 34.82%. International equity (emerging markets) holdings returned 51.24%, more than the NYCERS Custom EM Index benchmark of 49.44%. Fixed income securities returned 5.26%.

Investment Summary

June 30, 2020

(In thousands)

Investments - at fair value:	QPP	COVSF	Combined
Short-term investments:			
Commercial paper	$ 254,826	$ -	$ 254,826
Short-term investment fund	678,945	391,147	1,070,092
U.S. treasury bills and agencies	1,638,571	-	1,638,571
Debt (fixed income) securities:			
Bank loans	408,691	-	408,691
Corporate and other	7,559,129	-	7,559,129
Mortgage debt securities	3,966,276	-	3,966,276
Treasury inflation-protected securities	2,714,217	-	2,714,217
U.S. government and agency	6,474,964	-	6,474,964
Equity securities:			
Domestic equity	21,794,066	-	21,794,066
International equity	11,847,317	-	11,847,317
Collective trust funds:			
Bank loans	624,967	-	624,967
Corporate and other	14,051	-	14,051
Domestic equity	1,253	-	1,253
Mortgage debt securities	464,167	-	464,167
Opportunistic-fixed income	219,577	-	219,577
Alternative investments:			
Infrastructure	785,629	-	785,629
Opportunistic-fixed income	2,145,127	-	2,145,127
Private equity	4,660,981	-	4,660,981
Private real estate	3,802,066	-	3,802,066
Hedge fund	3,735	-	3,735
Collateral from securities lending	6,007,306	-	6,007,306
Total	$ 76,065,861	$ 391,147	$ 76,457,008

INVESTMENT PERFORMANCE

Total portfolio performance (net of fees) for Fiscal Year 2020 was 3.58%, less than NYCERS' Policy benchmark, which had a rate of return of 3.70%. Domestic equities returned 4.25%, less than the Russell 3000 benchmark of 6.53%. International equity (non-U.S. equities) holdings returned 0.49%, more than the World EX USA Custom benchmark of -5.11%. International equity (emerging markets) holdings returned -11.51%, less than the NYCERS Custom EM Index benchmark of -11.27%. Fixed income securities returned 7.61%.

CONTACT INFORMATION

This financial report is designed to provide a general overview of the New York City Employees' Retirement System's finances. Questions concerning any data provided in this report or requests for additional information should be directed to Mario DiSanto, Acting Director, New York City Employees' Retirement System, 335 Adams Street, Suite 2300, Brooklyn, New York 11201-3751.

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New York City Employees' Retirement System

COMBINING STATEMENT OF FIDUCIARY NET POSITION

June 30, 2021
(In thousands)

	QPP	COVSF	HPOVSF	HPSOVSF	TPOVSF	TPSOVSF	Eliminations	Total
ASSETS								
Cash and cash equivalents	$ 122,698	$ 5,411	$ 161	$ 175	$ 139	$ 164	$ -	$ 128,748
Receivables:								
Investments securities sold	3,353,658	-	-	-	-	-	-	3,353,658
Member loans (Note 7)	1,079,822	-	-	-	-	-	-	1,079,822
Accrued interest and dividends	393,851	17	-	-	-	-	-	393,868
Receivables from QPP to:								
VSFs (HPO, HPSO, TPO, TPSO)	-	-	701	1,046	1,561	1,196	(4,504)	-
COVSF	-	925,000	-	-	-	-	(925,000)	-
Total receivables	4,827,331	925,017	701	1,046	1,561	1,196	(929,504)	4,827,348
Investments - at fair value (Notes 2 and 3):								
Short-term investments:								
Commercial paper	999,092	-	-	-	-	-	-	999,092
Short-term investment fund	812,966	297,230	-	-	-	-	-	1,110,196
U.S. treasury bills and agencies	1,170,661	-	-	-	-	-	-	1,170,661
Debt (fixed income) securities:								
Bank loans	133,414	-	-	-	-	-	-	133,414
Corporate and other	10,401,407	-	-	-	-	-	-	10,401,407
Mortgage debt securities	5,549,015	-	-	-	-	-	-	5,549,015
Treasury inflation-protected securities	3,038,225	-	-	-	-	-	-	3,038,225
U.S. government and agency	8,274,897	-	-	-	-	-	-	8,274,897
Equity securities:								
Domestic equity	27,082,830	-	-	-	-	-	-	27,082,830
International equity	15,206,157	-	-	-	-	-	-	15,206,157
Collective trust funds:								
Bank loans	1,104	-	-	-	-	-	-	1,104
Domestic equity	1,181	-	-	-	-	-	-	1,181
Mortgage debt securities	482,694	-	-	-	-	-	-	482,694
Opportunistic-fixed income	257,436	-	-	-	-	-	-	257,436
Alternative investments:								
Infrastructure	996,689	-	-	-	-	-	-	996,689
Opportunistic-fixed income	2,603,942	-	-	-	-	-	-	2,603,942
Private equity	6,421,827	-	-	-	-	-	-	6,421,827
Private real estate	4,359,578	-	-	-	-	-	-	4,359,578
Hedge fund	1,240	-	-	-	-	-	-	1,240
Collateral from securities lending	10,208,522	-	-	-	-	-	-	10,208,522
Total investments	98,002,877	297,230	-	-	-	-	-	98,300,107
OTHER ASSETS	125,193	-	-	-	-	-	-	125,193
Total assets	103,078,099	1,227,658	862	1,221	1,700	1,360	(929,504)	103,381,396
LIABILITIES								
Accounts payable	142,603	-	-	-	22	-	-	142,625
Payable for investment securities purchased	5,494,894	-	-	-	-	-	-	5,494,894
Accrued benefits payable	394,583	52,271	862	1,221	1,678	1,360	-	451,975
Payable from QPP to:								
VSFs (HPO, HPSO, TPO, TPSO)	4,504	-	-	-	-	-	(4,504)	-
COVSF	925,000	-	-	-	-	-	(925,000)	-
Due to other retirement systems	1,785	-	-	-	-	-	-	1,785
Securities lending (Note 2)	10,208,522	-	-	-	-	-	-	10,208,522
Total liabilities	17,171,891	52,271	862	1,221	1,700	1,360	(929,504)	16,299,801
Net position restricted for benefits:								
Benefits to be provided by QPP	85,906,208	-	-	-	-	-	-	85,906,208
Benefits to be provided by VSF	-	1,175,387	-	-	-	-	-	1,175,387
Total net position restricted for benefits	$ 85,906,208	$ 1,175,387	$ -	$ -	$ -	$ -	$ -	$ 87,081,595

The accompanying notes are an integral part of this combining financial statement.

New York City Employees' Retirement System

COMBINING STATEMENT OF FIDUCIARY NET POSITION

June 30, 2020
(In thousands)

	QPP	COVSF	HPOVSF	HPSOVSF	TPOVSF	TPSOVSF	Eliminations	Total
ASSETS								
Cash and cash equivalents	$ 80,415	$ 4,459	$ 37	$ 63	$ 84	$ 52	$ -	$ 85,110
Receivables:								
Investments securities sold	1,725,083	-	-	-	-	-	-	1,725,083
Member loans (Note 7)	1,120,769	-	-	-	-	-	-	1,120,769
Accrued interest and dividends	359,762	104	-	-	-	-	-	359,866
Receivables from QPP to:								
VSFs (HPO, HPSO, TPO, TPSO)	-	-	858	1,186	1,661	1,346	(5,051)	-
COVSF	-	8,000	-	-	-	-	(8,000)	-
Total receivables	3,205,614	8,104	858	1,186	1,661	1,346	(13,051)	3,205,718
Investments - at fair value (Notes 2 and 3):								
Short-term investments:								
Commercial paper	254,826	-	-	-	-	-	-	254,826
Short-term investment fund	678,945	391,147	-	-	-	-	-	1,070,092
U.S. treasury bills and agencies	1,638,571	-	-	-	-	-	-	1,638,571
Debt (fixed income) securities:								
Bank loans	408,691	-	-	-	-	-	-	408,691
Corporate and other	7,559,129	-	-	-	-	-	-	7,559,129
Mortgage debt securities	3,966,276	-	-	-	-	-	-	3,966,276
Treasury inflation-protected securities	2,714,217	-	-	-	-	-	-	2,714,217
U.S. government and agency	6,474,964	-	-	-	-	-	-	6,474,964
Equity securities:								
Domestic equity	21,794,066	-	-	-	-	-	-	21,794,066
International equity	11,847,317	-	-	-	-	-	-	11,847,317
Collective trust funds:								
Bank loans	624,967	-	-	-	-	-	-	624,967
Corporate and other	14,051	-	-	-	-	-	-	14,051
Domestic equity	1,253	-	-	-	-	-	-	1,253
Mortgage debt securities	464,167	-	-	-	-	-	-	464,167
Opportunistic-fixed income	219,577	-	-	-	-	-	-	219,577
Alternative investments:								
Infrastructure	785,629	-	-	-	-	-	-	785,629
Opportunistic-fixed income	2,145,127	-	-	-	-	-	-	2,145,127
Private equity	4,660,981	-	-	-	-	-	-	4,660,981
Private real estate	3,802,066	-	-	-	-	-	-	3,802,066
Hedge fund	3,735	-	-	-	-	-	-	3,735
Collateral from securities lending	6,007,306	-	-	-	-	-	-	6,007,306
Total investments	76,065,861	391,147	-	-	-	-	-	76,457,008
OTHER ASSETS	137,428	-	-	-	-	-	-	137,428
Total assets	79,489,318	403,710	895	1,249	1,745	1,398	(13,051)	79,885,264
LIABILITIES								
Accounts payable	126,800	-	-	-	22	-	-	126,822
Payable for investment securities purchased	3,091,164	-	-	-	-	-	-	3,091,164
Accrued benefits payable	357,557	50,462	895	1,249	1,723	1,398	-	413,284
Payable from QPP to:								
VSFs (HPO, HPSO, TPO, TPSO)	5,051	-	-	-	-	-	(5,051)	-
COVSF	8,000	-	-	-	-	-	(8,000)	-
Due to other retirement systems	1,052	-	-	-	-	-	-	1,052
Securities lending (Note 2)	6,007,306	-	-	-	-	-	-	6,007,306
Total liabilities	9,596,930	50,462	895	1,249	1,745	1,398	(13,051)	9,639,628
Net position restricted for benefits:								
Benefits to be provided by QPP	69,892,388	-	-	-	-	-	-	69,892,388
Benefits to be provided by VSF	-	353,248	-	-	-	-	-	353,248
Total net position restricted for benefits	$ 69,892,388	$ 353,248	$ -	$ -	$ -	$ -	$ -	$ 70,245,636

The accompanying notes are an integral part of this combining financial statement.

New York City Employees' Retirement System

COMBINING STATEMENT OF CHANGES IN FIDUCIARY NET POSITION

Year ended June 30, 2021
(in thousands)

	QPP	COVSF	HPOVSF	HPSOVSF	TPOVSF	TPSOVSF	ELIM	Total
Additions								
Contributions:								
Member contributions	$ 579,560	$ -	$ -	$ -	$ -	$ -	$ -	$ 579,560
Employer contributions	3,761,532	-	-	-	-	-	-	3,761,532
Total contributions	4,341,092	-	-	-	-	-	-	4,341,092
Investment income (Note 2):								
Interest income	913,882	434	-	-	-	-	-	914,316
Dividend income	900,282	-	-	-	-	-	-	900,282
Net appreciation in fair value of investments	16,741,619	-	-	-	-	-	-	16,741,619
Total investment income	18,555,783	434	-	-	-	-	-	18,556,217
Less:								
Investment expenses	313,226	-	-	-	-	-	-	313,226
Net income	18,242,557	434	-	-	-	-	-	18,242,991
Securities lending transactions:								
Gross securities lending income	22,793	-	-	-	-	-	-	22,793
Less - securities lending fees	2,149	-	-	-	-	-	-	2,149
Net securities lending income	20,644	-	-	-	-	-	-	20,644
Net investment income	18,263,201	434	-	-	-	-	-	18,263,635
Other - other income	3,365	-	-	-	-	-	-	3,365
Transfer from QPP to:								
VSFs (HPO, HPSO, TPO, TPSO)	-	-	1,572	2,363	3,208	2,674	(9,817)	-
COVSF	-	924,562	-	-	-	-	(924,562)	-
Total additions	22,607,658	924,996	1,572	2,363	3,208	2,674	(934,379)	22,608,092
Deductions								
Benefit payments and withdrawals (Note 1)	5,566,375	102,857	1,572	2,363	3,208	2,674	-	5,679,049
Payments to other retirement systems	5,671	-	-	-	-	-	-	5,671
Transfer from QPP to:								
VSFs (HPO, HPSO, TPO, TPSO)	9,817	-	-	-	-	-	(9,817)	-
COVSF	924,562	-	-	-	-	-	(924,562)	-
Administrative expenses	87,413	-	-	-	-	-	-	87,413
Total deductions	6,593,838	102,857	1,572	2,363	3,208	2,674	(934,379)	5,772,133
Net increase in net position	16,013,820	822,139	-	-	-	-	-	16,835,959
Net position restricted for benefits								
Beginning of year	69,892,388	353,248	-	-	-	-	-	70,245,636
End of year	$ 85,906,208	$ 1,175,387	$ -	$ -	$ -	$ -	$ -	$ 87,081,595

The accompanying notes are an integral part of this combining financial statement.

New York City Employees' Retirement System

COMBINING STATEMENT OF CHANGES IN FIDUCIARY NET POSITION

Year ended June 30, 2020
(in thousands)

	QPP	COVSF	HPOVSF	HPSOVSF	TPOVSF	TPSOVSF	ELIM	Total
Additions								
Contributions:								
Member contributions	$ 563,893	$ -	$ -	$ -	$ -	$ -	$ -	$ 563,893
Employer contributions	3,727,558	-	-	-	-	-	-	3,727,558
Total contributions	4,291,451	-	-	-	-	-	-	4,291,451
Investment income (Note 2):								
Interest income	904,771	5,400	-	-	-	-	-	910,171
Dividend income	956,366	-	-	-	-	-	-	956,366
Net appreciation in fair value of investments	766,682	-	-	-	-	-	-	766,682
Total investment income	2,627,819	5,400	-	-	-	-	-	2,633,219
Less:								
Investment expenses	245,667	-	-	-	-	-	-	245,667
Net income	2,382,152	5,400	-	-	-	-	-	2,387,552
Securities lending transactions:								
Gross securities lending income	24,500	-	-	-	-	-	-	24,500
Less - securities lending fees	2,336	-	-	-	-	-	-	2,336
Net securities lending income	22,164	-	-	-	-	-	-	22,164
Net investment income	2,404,316	5,400	-	-	-	-	-	2,409,716
Other - other income	3,317	-	-	-	-	-	-	3,317
Transfer from QPP to:								
VSFs (HPO, HPSO, TPO, TPSO)	-	-	1,662	2,428	3,290	2,731	(10,111)	-
COVSF	-	31,704	-	-	-	-	(31,704)	-
Total additions	6,699,084	37,104	1,662	2,428	3,290	2,731	(41,815)	6,704,484
Deductions								
Benefit payments and withdrawals (Note 1)	5,202,251	100,084	1,662	2,428	3,290	2,731	-	5,312,446
Payments to other retirement systems	9,087	-	-	-	-	-	-	9,087
Transfer from QPP to:								
VSFs (HPO, HPSO, TPO, TPSO)	10,111	-	-	-	-	-	(10,111)	-
COVSF	31,704	-	-	-	-	-	(31,704)	-
Administrative expenses	77,667	-	-	-	-	-	-	77,667
Total deductions	5,330,820	100,084	1,662	2,428	3,290	2,731	(41,815)	5,399,200
Net increase in net position	1,368,264	(62,980)	-	-	-	-	-	1,305,284
Net position restricted for benefits								
Beginning of year	68,524,124	416,228	-	-	-	-	-	68,940,352
End of year	$ 69,892,388	$ 353,248	$ -	$ -	$ -	$ -	$ -	$ 70,245,636

The accompanying notes are an integral part of this combining financial statement.

NOTE 1 - PLAN DESCRIPTION

The City of New York ("The City" or "City") maintains a number of pension systems providing benefits for employees of its various agencies (as defined within New York State ("State") statutes and City laws). The City's five major actuarially funded pension systems are the New York City Employees' Retirement System ("NYCERS"), the Teachers' Retirement System of the City of New York ("TRS"), the New York City Board of Education Retirement System ("BERS"), the New York City Police Pension Funds ("POLICE"), and the New York City Fire Pension Funds ("FIRE"). Each pension system is a separate public employee retirement system ("PERS") with a separate oversight body and is financially independent of the others.

NYCERS administers the New York City Employees' Retirement System Qualified Pension Plan (the "QPP"), Correction Officers' Variable Supplements Fund ("COVSF"), Housing Police Officers' Variable Supplements Fund ("HPOVSF"), Housing Police Superior Officers' Variable Supplements Fund ("HPSOVSF"), Transit Police Officers' Variable Supplements Fund ("TPOVSF"), and the Transit Police Superior Officers' Variable Supplements Fund ("TPSOVSF") (collectively the "Funds" or the "Plan"), which are included in the combining financial statements.

The QPP is a cost-sharing, multiple-employer PERS. The QPP provides a pension benefit for employees of The City and various related employers not covered by The City's four other main pension systems. The employers (collectively, the "Employer"), in addition to The City, principally include five authorities, four public benefit corporations, The City University of New York ("CUNY"), and the State. Substantially all employees of The City not covered by one of the other four pension systems are covered by the QPP. Permanent employees become QPP members within six months of their employment and may elect to become members earlier. All other employees may become members at their option.

The QPP functions in accordance with existing State statutes and City laws, which are the basis by which benefit terms and Employer and member contribution requirements are established and amended. The QPP combines features of a defined benefit pension plan with those of a defined contribution pension plan but is considered a defined benefit pension plan for financial reporting purposes.

The COVSF, HPOVSF, HPSOVSF, TPOVSF, and TPSOVSF (collectively, the "VSFs") operate pursuant to the provisions of Title 13, Chapter 1 of the New York City Administrative Code ("ACNY") and provide supplemental benefits as follows:

COVSF: Retired members of the Uniformed Correction Force ("UCF"). To be eligible to receive benefits, members of the UCF must retire on or after July 1, 1999 with 20 or more years of service, and be receiving a service retirement benefit from the QPP.

HPOVSF: QPP retirees who retired for service with 20 or more years of service as Housing Police Officers and who retired on or after July 1, 1987.

HPSOVSF: QPP retirees who retired for service with 20 or more years of service as Housing Police Superior Officers, and who retired on or after July 1, 1987.

TPOVSF: QPP retirees who retired for service with 20 or more years of service as Transit Police Officers, and who retired on or after July 1, 1987.

TPSOVSF: QPP retirees who retired for service with 20 or more years of service as Housing Police Superior Officers, and who retired on or after July 1, 1987.

TPOVSF, TPSOVSF, HPOVSF, and HPSOVSF are closed to new entrants.

In accordance with ACNY, VSFs are not pension funds or retirement systems. Instead, they provide scheduled supplemental payments, in accordance with applicable statutory provisions. While a portion of these payments are guaranteed by The City, the Legislature has reserved to itself and the State, the right and power to amend, modify, or repeal VSFs and the payments they provide. However, any assets transferred to the VSFs are held in trust solely for the benefit of its members.

NYCERS is a fiduciary fund of The City and is included in the Pension and Other Employee Benefit Trust Funds section of The City's Annual Comprehensive Financial Report ("ACFR"). GASB Statement No. 98, The Annual Comprehensive Financial Report, establishes the term annual comprehensive financial report and its acronym ACFR. The new term replaces comprehensive annual financial report and its acronym in generally accepted accounting principles for state and local governments. The System has decided to early implement this pronouncement and has applied the change as of the issuance of this report.

Boards of Trustees

The QPP's Board of Trustees consists of 11 members: the Mayor's representative, who is the Chairperson of the Board of Trustees; the Borough Presidents of Manhattan, the Bronx, Brooklyn, Queens, and Staten Island; the Comptroller of The City of New York; (the "Comptroller") the Public Advocate; and Presidents of the three unions with the largest number of participating employees, which are District Council 37 - American Federation of State, County and Municipal Employees ("AFSCME"), International Brotherhood of Teamsters, Local 237, and the Transport Workers Union Local 100.

The Board of Trustees for the VSFs each have one vote (unless noted otherwise) and consist of the Mayor's representative, the Comptroller, and the Commissioner of Finance. Additional trustees include: for the COVSF, an officer of the New York City Correction Officers' Benevolent Association (1½ vote) and a representative of the Correction Captains employee organization (½ vote). For the HPOVSF, two members of the association, as designated by the HPOVSF Board, are entitled to cast one vote each. For the HPSOVSF, two representatives of the Housing Police Superior Officers recognized employee organization, each of whom are entitled to cast one vote. For the TPOVSF, two members of the association, as designated by the TPOVSF Board, are entitled to cast one vote each. For TPSOVSF, two representatives of the Transit Police Superior Officers recognized employee organization, each of whom are entitled to cast one vote.

At June 30, 2021 (preliminary), June 30, 2020 (preliminary), and June 30, 2019, the QPP's membership consisted of:

	2021	2020	2019
Retirees and beneficiaries receiving benefits	167,934	191,237	157,153
Terminated vested members not yet receiving benefits	25,026	23,034	21,788
Terminated non-vested members/inactives[1]	36,749	32,027	31,273
Active members receiving salary	187,338	159,906	191,501
Total	417,047	406,204	401,715

[1] As of June 30, 2020, members that are on leave with insufficient service for vesting and assumed to not return to active service are classified as terminated non-vested members. Prior to June 30, 2020, represents inactive members who were no longer on payroll but not otherwise classified.

Note that 2019 data is final and supports the most recent actuarial valuation. 2020 and 2021 data are preliminary and may be subject to future adjustments as the data is refined.

At June 30, 2020 and 2019, the dates of the VSF's most recent actuarial valuations, membership consisted of:

	COVSF		HPOVSF		HPSOVSF		TPOVSF		TPSOVSF	
	2020	2019	2020	2019	2020	2019	2020	2019	2020	2019
Retirees currently receiving payments	8,312	8,257	138	141	201	209	267	282	227	229
Active members	8,988	10,022	-	-	-	-	-	-	-	-
Total	17,300	18,279	138	141	201	209	267	282	227	229

The QPP provides three main types of retirement benefits: Service Retirements, Ordinary Disability Retirements (non-job-related disabilities), and Accident Disability Retirements (job-related disabilities) to members who are in different Tiers. The members' Tiers are generally determined by the date of membership in the Plan.

The Service Retirement benefits provided by the QPP for employees who joined before July 1, 1973 (Tier 1), fall into four categories according to the level of benefits provided and the years of service required. Three of the four categories provide annual benefits of 50% to 55% of Final Salary (as defined within State statutes and City laws) after 20 or 25 years of service, with additional benefits equal to a specified percentage per year of service (currently 1.2% to 1.7%) of "final salary" payable for years in excess of the 20-year or 25-year minimum. These benefits are reduced on an actuarial basis for any loans with unpaid balances outstanding at the date of retirement. These benefits are increased, where applicable, by an annuity attributable to member contributions in excess of the required amount and by any benefits attributable to the Increased-Take-Home-Pay ("ITHP") contributions accumulated after the 25th year of member's qualifying service. ITHP represents amounts contributed by The City in lieu of members' own contributions. These amounts reduce the contributions that members would have to make to the QPP during their service and thereby increase their take-home pay. Members have the choice of waiving their ITHP reduction, which would reduce their take-home pay but provide them with additional benefits upon retirement.

The fourth category has no minimum service requirement and instead provides an annual benefit for each year of service equal to a specified percentage (currently 0.7% to 1.53%) of Final Salary.

The New York State Constitution provides that the pension rights of public employees are contractual and shall not be diminished or impaired. In 1973, 1976, 1983, and 2012, significant amendments made to the New York State Retirement and Social Security Law ("RSSL") modified certain benefits for employees joining the Plan on or after the effective date of such amendments.

Members who joined on or after July 1, 1973 and before July 27, 1976 (Tier 2), have provisions similar to Tier 1, except that the eligibility for retirement and the salary base for benefits are different and there is a limitation on the maximum benefit. This maximum benefit limitation was subsequently eliminated under Chapter 574 of the Laws of 2000 for all Tier 2 members who retired after December 8, 2000.

Members who joined the QPP on or after July 27, 1976 and prior to September 1, 1983 (Tier 3), were later mandated into Tier 4, but could retain their Tier 3 rights. Tier 3 requires member contributions on salary for a period not to exceed 30 years, has benefits reduced by one half of the primary Social Security benefit attributable to service with the Employer, and provides for an automatic annual cost-of-living escalator in pension benefits of not more than 3.0%. Effective October 1, 2000, these members are not required to make contributions after the 10th anniversary of their membership date or completion of 10 years of credited service, whichever is earlier.

Members who joined the QPP on or after September 1, 1983 and prior to April 1, 2012 (Tier 4), must make basic contributions of 3.0% of salary until termination of service. Effective October 1, 2000, these members, except for certain Transit Authority employees, are not required to make contributions after the 10th anniversary of their membership date or completion of 10 years of credited service, whichever is earlier. Effective December 2000, certain Transit Authority members make basic contributions of 2.0% of salary in accordance with Chapter 10 of the Laws of 2000. Certain members also make additional member contributions. The annual benefit is 1.67% of Final Average Salary ("FAS") per year of service for members with less than 20 years of service, 2% of Final Average Salary per year of service for members with 20 to 30 years, plus 1.5% of Final Average Salary per year of service for service in excess of 30 years.

The QPP also provides death benefits; and certain retirees also receive supplemental benefits.

Subject to certain conditions, members generally become fully vested as to benefits upon the completion of five years of service.

During the Spring 2000 session, the State Legislature approved and the State Governor ("Governor") signed laws that provide automatic Cost-of-Living Adjustments ("COLA") for certain retirees and beneficiaries (Chapter 125 of the Laws of 2000), additional service credits for certain Tier 1 and Tier 2 members, and reduced member contributions for certain Tier 3 and Tier 4 members (Chapter 126 of the Laws of 2000).

Subsequent legislation, affecting members of Tiers 2, 3, and 4, has created various improved early retirement benefit programs under which eligible employees may elect to pay additional contributions. Members first employed after the effective date of such legislation are generally mandated into these programs.

Tier 6 - During March 2012, the Governor signed Chapter 18 of the Laws of 2012 ("Chapter 18/12") that placed certain limitations on the Tier 3 and Tier 4 benefits available to participants in most New York State PERS who join a system on and after April 1, 2012, including NYCERS. In general, these changes, commonly referred to as Tier 6, increase the age requirement to 63 for most non-uniformed employees to retire and receive a full pension, require member contributions for all years of service for non-uniformed employees, institute progressive member contributions for non-uniformed employees, lengthen the FAS period from three to five years, cap FAS for non-uniformed employees to an amount equal to the Governor's salary, extend and harmonize the Tier 3 benefits for POLICE and FIRE to other uniformed forces and to District Attorney ("DA") Investigators, and offer an optional defined-contribution plan to certain non-represented employees. Note that the 22-year retirement plans for Correction, Sanitation, and DA Investigator members established under Chapter 18/12 are not considered Tier 6 plans.

Certain members of Tier 1 and Tier 2 have the right to make voluntary member contributions ("Voluntary Contributions") in excess of their required member contributions ("Required Contributions"). Both the Voluntary Contributions and the Required Contributions are credited with interest at a statutory rate (currently 8.25% Annual Percentage Rate). At the time of retirement or refund of contributions, a member's aggregate balance of actual Required Contributions and Voluntary Contributions, including statutory interest, less the outstanding balance of any member loans ("Net Actual Contributions"), may exceed ("Excess of Contributions") or fall short of ("Deficiency of Contributions") the member's Expected Balance. The Expected Balance is the sum of the Required Contributions which a member should have made during their credited service, plus statutory earnings thereon. The amount of the member's retirement annuity or the refund of contributions that they are entitled to is increased by any Excess of Contributions or reduced by any Deficiency of Contributions, has not been determined for the years ended June 30, 2021 and 2020, respectively. Actuarial estimates of the impacts of Excesses and Deficiencies are incorporated into calculation of the QPP's net pension liability (see Note 6).

VSFs

COVSF

The COVSF provides supplemental benefits, varying by calendar year according to a schedule and available COVSF assets, for those NYCERS members who retire for service as UCF members with at least 20 or 25 years of service on or after July 1, 1999 depending on the underlying plan. The annual scheduled amount was $8,500 for Calendar Year 2000. The annual scheduled amount increases $500 each year thereafter to a maximum of $12,000 for Calendar Year 2007 and thereafter. In the calendar year of retirement or death, the annual scheduled amount is prorated.

Chapter 255/00 provides that prior to Calendar Year 2020, when COVSF provides for a guaranteed schedule of defined supplemental benefits, benefits are payable in a calendar year only if there are sufficient COVSF assets to pay that year's scheduled amounts to all who are entitled to it unless The City guarantee becomes effective. The City guarantee of benefits payable prior to Calendar Year 2019 comes into effect if the fair value of assets of the COVSF exceeds the actuarial present value of the defined schedule of benefits payable through Calendar Year 2019.

The City's Chief Actuary (the "Actuary") has determined that benefits were payable for Calendar Year 2000 through Calendar Year 2005 and for Calendar Years 2014 and 2015. However, the Actuary determined that no benefits were payable for Calendar Years 2006 through 2013 and 2016. Benefits were payable for Calendar Years 2017 and 2018 due to the application of The City guarantee of benefits payable prior to Calendar Year 2019, and will continue to be guaranteed each year in the future.

In the past, the New York State Legislature, in recognition of inflation, has increased retirement benefits to retirees of its public pension systems. Any increase in the amount of ad-hoc cost-of-living increases (Supplementation) or automatic COLA payable from NYCERS to a retiree of the COVSF under legislation enacted on or after December 29, 1999 will reduce benefits payable from the COVSF to the retiree by an amount equal to such increase until the later of: (a) the first day of the month following the month the retiree attains age 62; or (b) January 1, 2007.

Chapter 125 of the Laws of 2000 (Chapter 125/00), effective September 2000, provided Supplementation benefits from NYCERS for certain retirees who retired before Calendar Year 1997. In addition, Chapter 125/00 provided future COLA increases from NYCERS beginning September 2001 and on each subsequent September to eligible retirees.

HPOVSF

For those Housing Police Officers who became members of NYCERS prior to July 1, 1988, and who retired between July 1, 1987 and December 31, 1991, the annual supplemental benefit was $4,500 for Calendar Year 1992. For those who retired during 1992, the benefit was a proportion of $4,500. The benefit increases $500 each year thereafter to a maximum of $12,000 in Calendar Year 2007 and thereafter.

For those who were members of NYCERS prior to July 1, 1988, and who retire after Calendar Year 1992, the benefit for the first year of retirement is a proportion of the annual scheduled amount as described above for the calendar year of retirement, and the full amount thereafter.

For those Housing Police Officers who became members of NYCERS on or after July 1, 1988, the annual supplemental benefit is $2,500 for the first 12 months of retirement, increasing by $500 each year until a maximum of $12,000 is payable in the 20th and later years of retirement. This was later modified by Chapter 719 of the Laws of 1994 as discussed below.

Chapter 375 of the Laws of 1993 (Chapter 375/93) provided that prior to Calendar Year 2007, the defined schedules of benefits are payable only if there are sufficient assets available in the HPOVSF, or if the City guarantee comes into effect. The City guarantee of benefits comes into effect prior to Calendar Year 2007 if the fair value of assets of the HPOVSF exceeds the actuarial present value of the defined schedules of benefits payable through Calendar Year 2006 plus 15% of the assets of the HPOVSF at that time.

Chapter 719 of the Laws of 1994 (Chapter 719/94), signed on August 2, 1994, made further changes to the HPOVSF. Supplemental benefit payments became guaranteed. In addition, Housing Police Officers who became members on or after July 1, 1988, will receive the maximum $12,000 benefit beginning in Calendar Year 2008.

Based on the calculations of the Actuary, The City guarantee of the defined schedules of benefits prior to Calendar Year 2007 had not yet come into effect as discussed more fully below.

Also, in conjunction with the April 30, 1995 merger of the Housing Police force into the New York City Police Department, The City signed a letter of agreement with affected unions to ensure that the payment of benefits provided under the defined schedules prior to Calendar Year 2007 will be made. Thus, there will be no suspension of benefits prior to Calendar Year 2007 even if assets of the HPOVSF become insufficient to pay these benefits.

Chapter 255 of the Laws of 2000 (Chapter 255/00) provided that if for any calendar year covered by a payment guarantee, the assets of the HPOVSF are not sufficient to pay benefits, an amount sufficient to pay such benefits shall be appropriated from the Contingent Reserve Fund of NYCERS and transferred to the HPOVSF. The law also provided that transfers to the HPOVSF for supplemental benefits could begin as early as Calendar Year 2001, if needed.

In the past, the New York State Legislature, in recognition of inflation, has increased retirement benefits to retirees of its public pension systems. Any increase in the amount of ad-hoc cost-of-living increases (Supplementation) or automatic COLA payable from NYCERS to a retiree of the HPOVSF under legislation enacted on or after January 1, 1993 will reduce benefits payable from the HPOVSF to the retiree by an amount equal to such increase until the following date:

- For a retiree with a date of membership before July 1, 1988, the later of: (a) the first day of the month following the month the retiree attains age 62; or (b) January 1, 2007.
- For a retiree with a date of membership on or after July 1, 1988, the later of: (a) the first day of the month following the month the retiree attains age 62; or (b) the earlier of the first day of the month following the 19th anniversary of the retiree's date of retirement and January 1, 2008.

Chapter 119 of the Laws of 1995 (Chapter 119/95) provided additional benefits for Supplementation payable from NYCERS on and after December 1, 1996, for certain retirees of the HPOVSF, effective as enacted by The City Council on October 25, 1995.

Chapter 390 of the Laws of 1998 (Chapter 390/98) provided additional benefits for Supplementation payable from NYCERS on and after September 1, 1998 (with a second benefit increase commencing September 1, 1999).

Chapter 125 of the Laws of 2000 (Chapter 125/00), effective September 2000, provided Supplementation benefits from NYCERS for certain retirees who retired before Calendar Year 1997. In addition, Chapter 125/00 provided future COLA increases from NYCERS beginning September 2001 and on each subsequent September to eligible retirees.

HPSOVSF

For those Housing Police Superior Officers who became members of NYCERS prior to July 1, 1988 and who retired between July 1, 1987 and December 31, 1992, the annual supplemental benefit was $5,000 in Calendar Year 1993. For those who retired during 1993, the benefit was a proportion of $5,000. The benefit increases $500 each year thereafter to a maximum of $12,000 in Calendar Year 2007 and thereafter.

For those who were members of NYCERS prior to July 1, 1988 and who retired after Calendar Year 1993, the benefit for the first year of retirement is a proportion of the annual scheduled amount as described above for the calendar year of retirement, and the full amount thereafter.

For those Housing Police Superior Officers who became members of NYCERS on or after July 1, 1988, the annual supplemental benefit is $2,500 for the first 12 months of retirement, increasing by $500 each year until a maximum of $12,000 is payable in the 20th and later years of retirement.

Chapter 719 of the Laws of 1994 (Chapter 719/94) provided that after Calendar Year 2006 payments are guaranteed, while prior to Calendar Year 2007, the defined schedules of benefits are payable only if there are sufficient assets available in the HPSOVSF, or if The City guarantee comes into effect. The City guarantee of benefits comes into effect prior to Calendar Year 2007 if the fair value of assets of the HPSOVSF exceeds the actuarial present value of the defined schedules of benefits payable through Calendar Year 2006, plus 15% of the assets of the HPSOVSF at that time.

Chapter 719/94 also provided that, whenever the guarantee of the defined schedules of benefits comes into effect, the HPSOVSF will then transfer 15% of the fair value of its assets to The City's General Fund.

Based on the calculations of the Actuary, The City guarantee of the defined schedules of benefits prior to Calendar Year 2007 had not yet come into effect as discussed more fully below.

Also, in conjunction with the April 30, 1995 merger of the Housing Police force into the New York City Police Department, The City signed a letter of agreement with affected unions to ensure that the payment of benefits provided under the defined schedules prior to Calendar Year 2007 will be made. Thus, there will be no suspension of benefits prior to Calendar Year 2007, even if assets of the HPSOVSF become insufficient to pay these benefits.

Chapter 255 of the Laws of 2000 (Chapter 255/00) provided that in the event that, for any calendar year covered by a payment guarantee, the assets of the HPSOVSF are not sufficient to pay benefits, an amount sufficient to pay such benefits shall be appropriated from the Contingent Reserve Fund of NYCERS and transferred to the HPSOVSF. The law also provided that supplemental benefits become guaranteed, beginning with Calendar Year 2001.

In the past, the New York State Legislature, in recognition of inflation, has increased retirement benefits to retirees of its public pension systems. Any increase in the amount of ad-hoc cost-of-living increases (Supplementation) or automatic COLAs payable from NYCERS to a retiree of the HPSOVSF under legislation enacted on or after January 1, 1994 will reduce benefits payable from the HPSOVSF to the retiree by an amount equal to such increase until the following date:

- For a retiree with a date of membership before July 1, 1988, the later of: (a) the first day of the month following the month the retiree attains age 62; or (b) January 1, 2007.
- For a retiree with a date of membership on or after July 1, 1988, the later of: (a) the first day of the month following the month the retiree attains age 62; or (b) the first day of the month following the 19th anniversary of the retiree's date of retirement.

Chapter 119 of the Laws of 1995 (Chapter 119/95) provided additional benefits for Supplementation from NYCERS payable on and after December 1, 1996 for certain retirees of the HPSOVSF, effective as enacted by The City Council on October 25, 1995.

Chapter 390 of the Laws of 1998 (Chapter 390/98) provided additional benefits for Supplementation payable from NYCERS on and after September 1, 1998 (with a second benefit increase commencing September 1, 1999).

Chapter 125 of the Laws of 2000 (Chapter 125/00), effective September 2000, provided Supplementation benefits from NYCERS for certain retirees who retired before Calendar Year 1997. In addition, Chapter 125/00 provided future COLA increases from NYCERS beginning September 2001 and on each subsequent September to eligible retirees.

TPOVSF

For those Transit Police Officers who became members of NYCERS prior to July 1, 1988 and who retired between July 1, 1987 and December 31, 1991, the annual supplemental benefit was $4,500 in Calendar Year 1992. For those who retired during 1992, the benefit was a proportion of $4,500. The benefit increases $500 each year thereafter to a maximum of $12,000 in Calendar Year 2007 and thereafter.

For those who were members of NYCERS prior to July 1, 1988, and who retired after Calendar Year 1992, the benefit for the first year of retirement is a proportion of the annual scheduled amount as described above for the calendar year of retirement, and the full amount thereafter.

For those Transit Police Officers who became members of NYCERS on or after July 1, 1988, the annual supplemental benefit is $2,500 for the first 12 months of retirement, increasing by $500 each year until a maximum of $12,000 is payable in the 20th and later years of retirement.

Chapter 577 of the Laws of 1992 (Chapter 577/92) also provided that prior to Calendar Year 2007, the defined schedules of benefits are payable only if there are sufficient assets available in the TPOVSF, or if The City guarantee comes into effect. The City guarantee of benefits comes into effect prior to Calendar Year 2007 if the fair value of assets of the TPOVSF exceeds the actuarial present value of the defined schedules of benefits payable through Calendar Year 2006, plus 15% of the assets of the TPOVSF at that time.

Chapter 577/92 also provided that, whenever the guarantee of the defined schedules of benefits comes into effect, the TPOVSF will then transfer 15% of the fair value of its assets to The City's General Fund.

As a result of calculations performed by the Actuary during November 1993, The City guarantee became effective.

Based on the calculations of the Actuary, The City guarantee of the defined schedules of benefits prior to Calendar Year 2007 had not yet come into effect as discussed more fully below.

Also, in conjunction with the April 2, 1995 merger of the Transit Police force into the New York City Police Department, The City signed a letter of agreement with the affected unions to ensure that the payment of benefits provided under the defined schedules prior to Calendar Year 2007 will be made. Thus, there will be no suspension of benefits prior to Calendar Year 2007, even if assets of the TPOVSF become insufficient to pay these benefits.

Chapter 255 of the Laws of 2000 (Chapter 255/00) provided that if for any calendar year covered by a payment guarantee, the assets of the TPOVSF are not sufficient to pay benefits, an amount sufficient to pay such benefits shall be appropriated from the Contingent Reserve Fund of NYCERS and transferred to the TPOVSF. The law also provides that transfers to the TPOVSF for supplemental benefits can begin as early as Calendar Year 2001, if needed.

In the past, the New York State Legislature, in recognition of inflation, has increased retirement benefits to retirees of its public pension systems. Any increase in the amount of ad-hoc cost-of-living increases (Supplementation) or automatic COLAs payable from NYCERS to a retiree of the TPOVSF under legislation enacted on or after January 1, 1992 will reduce benefits payable from the TPOVSF to the retiree by an amount equal to such increase until the following date:

- For a retiree with a date of membership before July 1, 1988, the later of: (a) the first day of the month following the month the retiree attains age 62; or (b) January 1, 2007.

- For a retiree with a date of membership on or after July 1, 1988, the later of: (a) the first day of the month following the month the retiree attains age 62; or (b) the first day of the month following the 19th anniversary of the retiree's date of retirement.

Chapter 119 of the Laws of 1995 (Chapter 119/95) provided additional benefits for Supplementation payable from NYCERS on and after December 1, 1996 for certain retirees of the TPOVSF, effective as enacted by the City Council on October 25, 1995.

Chapter 390 of the Laws of 1998 (Chapter 390/98) provided additional benefits for Supplementation payable from NYCERS on and after September 1, 1998 (with a second benefit increase commencing September 1, 1999).

Chapter 125 of the Laws of 2000 (Chapter 125/00) provided, effective September 2000, Supplementation benefits from NYCERS for certain retirees who retired before Calendar Year 1997. In addition, Chapter 125/00 provided future COLA increases from NYCERS beginning September 2001 and on each subsequent September to eligible retirees.

TPSOVSF

For those Transit Police Superior Officers who became members of NYCERS prior to July 1, 1988, and who retired between July 1, 1987 and December 31, 1992, the annual supplemental benefit was $5,000 in Calendar Year 1993. For those who retired during 1993, the benefit was a proportion of $5,000. The benefit increases $500 each year thereafter to a maximum of $12,000 in Calendar Year 2007 and thereafter.

For those who were members of NYCERS prior to July 1, 1988, and who retired after Calendar Year 1993, the benefit for the first year of retirement is a proportion of the annual scheduled amount as described above for the calendar year of retirement, and the full amount thereafter.

For those Transit Police Superior Officers who became members of NYCERS on or after July 1, 1988, the annual supplemental benefit is $2,500 for the first 12 months of retirement, increasing by $500 each year until a maximum of $12,000 is payable in the 20th and later years of retirement.

Chapter 720 of the Laws of 1994 (Chapter 720/94) also provided that after Calendar Year 2006 payments are guaranteed, while prior to Calendar Year 2007, the defined schedules of benefits are payable only if there are sufficient assets available in the TPSOVSF, or if The City guarantee comes into effect. The City guarantee of benefits comes into effect prior to Calendar Year 2007 if the fair value of assets of the TPSOVSF exceeds the actuarial present value of the defined schedules of benefits payable through Calendar Year 2006 plus 15% of the assets of the TPSOVSF at that time.

Chapter 720/94 also provided that whenever the guarantee of the defined schedules of benefits comes into effect, the TPSOVSF will then transfer 15% of the fair value of its assets to The City's General Fund.

Based on the calculations of the Actuary, The City guarantee of the defined schedules of benefits prior to Calendar Year 2007 had not yet come into effect as discussed more fully below.

Also, in conjunction with the April 2, 1995 merger of the Transit Police force into the New York City Police Department, The City signed a letter of agreement with the affected unions to ensure that the payment of benefits provided under the defined schedules prior to Calendar Year 2007 will be made. Thus, there will be no suspension of benefits prior to Calendar Year 2007, even if assets of the TPSOVSF become insufficient to pay these benefits.

Chapter 255 of the Laws of 2000 (Chapter 255/00) provided that if for any calendar year covered by a payment guarantee, the assets of the TPSOVSF are not sufficient to pay benefits, an amount sufficient to pay such benefits shall be appropriated from the Contingent Reserve Fund of NYCERS and transferred to the TPSOVSF. The law also provided that supplemental benefits become guaranteed, beginning with Calendar Year 2001.

In the past, the New York State Legislature, in recognition of inflation, has increased retirement benefits to retirees of its public pension systems. Any increase in the amount of ad-hoc cost-of-living increases (Supplementation) or automatic COLAs payable from NYCERS to a retiree of the TPSOVSF under legislation enacted on or after January 1, 1994 will reduce benefits payable from the TPSOVSF to the retiree by an amount equal to such increase until the following date:

- For a retiree with a date of membership before July 1, 1988, the later of: (a) the first day of the month following the month the retiree attains age 62; or (b) January 1, 2007.

- For a retiree with a date of membership on or after July 1, 1988, the later of: (a) the first day of the month following the month the retiree attains age 62; or (b) the first day of the month following the 19th anniversary of the retiree's date of retirement.

Chapter 119 of the Laws of 1995 (Chapter 119/95) provided additional benefits for Supplementation from NYCERS payable on and after December 1, 1996, for certain retirees of the TPSOVSF effective as enacted by The City Council on October 25, 1995.

Chapter 390 of the Laws of 1998 (Chapter 390/98) provided additional benefits for Supplementation payable from NYCERS on and after September 1, 1998 (with a second benefit increase commencing September 1, 1999).

Chapter 125 of the Laws of 2000 (Chapter 125/00) provided, effective September 2000, Supplementation benefits from NYCERS for certain retirees who retired before Calendar Year 1997. In addition, Chapter 125/00 provided future COLA increases from NYCERS beginning September 2001 and on each subsequent September to eligible retirees.

NOTE 2 - SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Basis of Accounting - The Funds use the accrual basis of accounting where the measurement focus is on the flow of economic resources. Revenues are recognized in the accounting period in which they are earned and expenses are recognized in the period incurred. Contributions from members are recognized when the employers make payroll deductions from Plan members. Employer contributions are recognized when due and the Employer has a legal obligation to provide the contributions. Benefit payments and withdrawals are recognized when due and payable in accordance with the terms of the Funds.

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

Cash and Cash Equivalents - Cash equivalents consist of financial instruments with original maturity dates of three months or less.

Investment Valuation - Investments are reported at fair value. Fair value is defined as the quoted market price at the end of the last trading day for the specified period, except for alternative investments which are considered long term and illiquid in nature. Alternative investments consist of limited partnership structures invested in privately held investments for which exchange quotations are not readily available and are valued at estimated fair value as determined in good faith by the General Partner ("GP"). These investments are initially valued at cost with subsequent adjustments that reflect third-party transactions, financial operating results and other factors deemed relevant by the GP. Fair value is determined by Funds' management based on information provided by the various GPs after review by an independent consultant and the custodian bank for the fund. They include investments held within Private Equity, Real Estate, Opportunistic-Fixed Income, and Infrastructure.

Purchases and sales of securities are reflected on the trade date. Dividend income is recorded on the ex-dividend date. Interest income is recorded as earned on an accrual basis.

Income Taxes - Income earned by the QPP and VSFs are not subject to federal income tax.

Accounts Payable - Accounts payable is principally comprised of amounts owed to the QPP's banks for overdrawn bank balances. The QPP's practice is to fully invest the cash balances of most bank accounts on a daily basis. Overdrawn balances result primarily from outstanding benefit checks that are presented to the banks for payment on a daily basis. These balances are routinely settled each day.

Accrued Benefits Payable - Accrued benefits payable represent either: (1) benefits due and unpaid by the Funds as of year end; or (2) related to the VSFs, benefits deemed incurred and unpaid (an accrual for a portion of the current calendar year benefit) for the Fiscal Year ended on June 30.

Securities Lending Transactions - State statutes and Board policies permit the Funds to lend its investments to broker-dealers and other entities for collateral, for the same securities in the future with a simultaneous agreement to return the collateral in the form of cash, treasury and U.S. Government securities. The Funds' securities lending agent lends the following types of securities: short-term securities, common stocks, long-term corporate bonds, U.S. Government and U.S. Government agency bonds, asset-backed securities, and international equities and bonds held in collective investment funds.

In return, the Funds receive collateral in the form of cash, U.S. Treasury and U.S. Government agency securities at 100% to 105% of the principal plus accrued interest for reinvestment. At June 30, 2021 and 2020, management believes that the Funds had no credit risk exposure to borrowers because the fair value of collateral held by the Funds equaled or exceeded the fair value of securities lent to the borrowers. The contracts with the Funds' custodian require the Securities Lending Agent (the "Agent") to indemnify the Funds in case of counterparty default. In the situation when a borrower goes into default, the securities lending agent will liquidate the collateral to purchase replacement securities. Any shortfall before the replacement securities cost and the collateral value is covered by the securities lending agent. All securities loans can be terminated on demand within a period specified in each agreement by either the Funds or the borrowers. Cash collateral is invested by the securities lending agent using approved Lender's Investment guidelines. The weighted-average maturity is 60 days. The securities lending program in which the Funds participate only allows pledging or selling securities in the case of borrower default.

GASB Statement No. 28, *Accounting and Financial Reporting for Securities Lending Transactions*, requires that securities loaned as assets and related liabilities be reported in the statements of fiduciary net position. Cash received as collateral on securities lending transactions and investments made with that cash are reported as assets. Securities received as collateral are also reported as assets if the government entity has the ability to pledge or sell them without a borrower default. Accordingly, NYCERS recorded the investments purchased with the cash collateral as collateral from securities lending with a corresponding liability for securities lending.

Securities on loan are carried at fair value and the value as of June 30, 2021 and 2020 was $10.1 billion and $5.9 billion, respectively. Cash collateral received related to securities lending as of June 30, 2021 and 2020 was $10.2 billion and $6.0 billion, respectively. As of the date of the combining statements of fiduciary net position, the maturities of the investments made by the QPP with cash collateral, on average, exceed the maturities of the securities on loans by approximately 53 days.

GASB Statement No. 72, *Fair Value Measurement and Application* ("GASB 72"), requires the Funds to use valuation techniques which are appropriate under the circumstances and are either a market approach, a cost approach, or an income approach. GASB 72 establishes a hierarchy of inputs used to measure fair value consisting of three levels. Level 1 inputs are quoted prices in active markets for identical assets or liabilities. Level 2 inputs are inputs, other than quoted prices included within Level 1, that are observable for the asset or liability, either directly or indirectly. Level 3 inputs are unobservable inputs, and typically reflect management's estimates of assumptions that market participants would use in pricing the asset or liability. GASB 72 also contains note disclosure requirements regarding the hierarchy of valuation inputs and valuation techniques that were used for the fair value measurements.

NOTE 3 - INVESTMENTS AND DEPOSITS

The Comptroller acts as an investment advisor to the Funds administered by NYCERS that have investments (the "QPP and COVSF"). In addition, the QPP employs an independent investment consultant as an investment advisor. The QPP utilizes several investment managers to manage the long-term debt and equity portfolios. The managers are regularly reviewed, with regard to both their investment performance and their adherence to investment guidelines. The COVSF investments are held in a short-term investment fund. The other VSFs do not hold investments. The investment policy is approved by the Board of Trustees of the Funds within NYCERS. The Boards of Trustees of the respective Funds create the overall investment policy under which the system's funds are invested and, in defining the investment objectives, develops a framework under which specific objectives are established with regard to allocating the assets of the Funds among various investment types.

The Funds do not possess an investment risk policy statement, nor do they actively manage QPP assets to specified risk targets. Rather, investment risk management is an inherent function of the Plan's asset allocation process. Assets are diversified over a broad range of asset classes and encompass multiple investment strategies aimed at limiting concentration risk.

The asset allocation targeted for the Funds in Fiscal Years 2021 and 2020 included the securities in the following categories:

	2021	2020
Domestic equities	27.0%	27.0%
International equity fund	17.0	17.0
Debt/fixed income	36.5	36.5
Alternative investments	19.5	19.5
Total	100.0%	100.0%

Concentrations - In accordance with RSSL § 177, no investment in any individual company may represent more than 2% of the Plan's total net assets or 5% of the company's total outstanding shares. Exclusions apply for obligations of the United States, or those for which the faith of the United States is pledged to provide payment of the interest and principal.

Credit Risk - The possibility of loss or default resulting from a borrower's inability to repay a loan or fulfill its contractual debt obligations. Portfolios other than U.S. Government and related portfolios, have credit rating limitations. Investment Grade portfolios are limited to mostly ratings of Baa2 and above, except that they are also permitted a 10% maximum exposure to Ba2 and B2 rated securities. While high yield non-investment grade managers primarily invest in Ba2 and B2 rated securities, they can also invest up to 10% of their portfolio in securities rated Caa2. The quality ratings of the Funds' investments, by percentage of the rated portfolio, as described by nationally recognized rating organizations, at June 30, 2021 and 2020, are as follows:

	Moody's Quality Ratings																		
Investment Type June 30, 2021 (In percent)	Aaa	Aa1	Aa2	Aa3	A1	A2	A3	Baa1	Baa2	Baa3	Ba1	Ba2	Ba3	B1	B2	B3	Caa & Below Caa1	No Rated	Total
Corporate bonds	25.91%	0.19%	0.23%	0.14%	0.95%	2.94%	2.25%	3.19%	4.26%	3.58%	1.55%	1.69%	1.99%	2.04%	1.81%	1.46%	1.76%	6.72%	62.66%
U.S. government	25.22%	0.03%	0.01%	0.01%	0.02%	0.01%	0.00%	0.01%	0.07%	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	1.21%	26.60%
Discount notes and T-bills	-%	-%	-%	-%	-%	-%	-%	-%	-%	-%	-%	-%	-%	-%	-%	-%	-%	3.76%	3.76%
Pooled fund	-%	-%	-%	-%	-%	-%	-%	-%	-%	-%	-%	-%	-%	-%	-%	-%	-%	3.88%	3.88%
Commercial paper	-%	-%	-%	-%	-%	-%	-%	-%	-%	-%	-%	-%	-%	-%	-%	-%	-%	3.10%	3.10%
Percent of rated portfolio	51.13%	0.22%	0.24%	0.15%	0.97%	2.95%	2.25%	3.20%	4.33%	3.59%	1.55%	1.69%	1.99%	2.04%	1.81%	1.46%	1.76%	18.67%	100.00%

	Moody's Quality Ratings																		
Investment Type June 30, 2020 (In percent)	Aaa	Aa1	Aa2	Aa3	A1	A2	A3	Baa1	Baa2	Baa3	Ba1	Ba2	Ba3	B1	B2	B3	Caa & Below Caa1	No Rated	Total
Corporate bonds	40.24%	0.25%	0.27%	0.32%	0.61%	1.91%	2.26%	2.70%	3.61%	3.12%	1.59%	2.05%	2.86%	2.50%	2.58%	1.81%	1.89%	7.81%	78.39%
U.S. government	10.92%	-%	-%	-%	-%	-%	-%	-%	0.01%	-%	-%	-%	-%	-%	-%	-%	-%	0.07%	11.00%
Discount notes and T-bills	-%	-%	-%	-%	-%	-%	-%	-%	-%	-%	-%	-%	-%	-%	-%	-%	-%	6.64%	6.64%
Pooled fund	-%	-%	-%	-%	-%	-%	-%	-%	-%	-%	-%	-%	-%	-%	-%	-%	-%	2.93%	2.93%
Commercial paper	-%	-%	-%	-%	-%	-%	-%	-%	-%	-%	-%	-%	-%	-%	-%	-%	-%	1.03%	1.03%
Percent of rated portfolio	51.16%	0.25%	0.27%	0.32%	0.61%	1.91%	2.26%	2.70%	3.62%	3.12%	1.60%	2.05%	2.86%	2.50%	2.58%	1.81%	1.89%	18.48%	100.00%

The quality ratings of the COVSF investments, by percentage of the rated portfolio, as described by nationally recognized statistical rating organizations, at June 30, 2021 and 2020, are as follows:

COVSF June 30, 2021	Moody's Quality Ratings								
Investment Type (In percent)	Aaa	Aa1	Ba3	B1	B2	B3	Caa & Below Caa 1	Not Related	Total
Pooled funds	-%	-%	-%	-%	-%	-%	-%	100.00%	100.00%
Percent of rated portfolio	-%	-%	-%	-%	-%	-%	-%	100.00%	100.00%

COVSF June 30, 2020	Moody's Quality Ratings								
Investment Type (In percent)	Aaa	Aa1	Ba3	B1	B2	B3	Caa & Below Caa 1	Not Related	Total
Pooled funds	-%	-%	-%	-%	-%	-%	-%	100.00%	100.00%
Percent of rated portfolio	-%	-%	-%	-%	-%	-%	-%	100.00%	100.00%

Custodial Credit Risk - Deposits are exposed to custodial credit risk if they are uninsured and uncollateralized. Custodial credit risk is the risk that, in the event of a failure of the counterparty, NYCERS will not be able to recover the value of its investment or collateral securities that are in the possession of an outside party. Investment securities are exposed to custodial credit risk if the securities are uninsured, are not registered in the name of the QPP or respective VSF, and are held by either the counterparty or the counterparty's trust department or agent but not in the QPP or respective VSF's name.

Consistent with NYCERS' investment policy, the investments are held by the NYCERS custodian and registered in the name of NYCERS or its Funds.

Cash deposits are insured by the Federal Deposit Insurance Corporation ("FDIC") for a maximum of $250,000 per Plan member and are, therefore, fully insured. However, the Funds' cash balances can exceed FDIC insured limits. Non-invested cash is swept into a State Street short-term investment intraday account, which is not FDIC insured.

All of the NYCERS deposits are insured and/or collateralized by securities held by a financial institution separate from NYCERS' depository financial institution.

All of NYCERS' securities are held by NYCERS' custodial bank.

Interest Rate Risk - The risk that the value of debt securities will be affected by fluctuations in market interest rates. Although there is no formal interest rate risk management policy, the duration of the portfolio, relative to the duration of the portfolio's benchmark, is monitored by the Comptroller's Bureau of Asset Management. The lengths of investment maturities (in years) for QPP, as shown by the percent of the rated portfolio, are as follows:

Years to Maturity Investment Type June 30, 2021 (In percent)	Investment Maturities (in Years)				
	Fair Value	Less Than One Year	One to Five Years	Six to Ten Years	More Than Ten Years
Corporate bonds	62.66%	0.56%	19.67%	14.48%	27.94%
U.S. government	26.60	0.02	14.53	5.88	6.17
Discount notes and T-bills	3.76	3.76	-	-	-
Pooled fund	3.88	3.88	-	-	-
Commercial paper	3.10	3.10	-	-	-
Percent of rated portfolio	100.00%	11.32%	34.20%	20.36%	34.11%

Years to Maturity Investment Type June 30, 2020 (In percent)	Investment Maturities (in Years)				
	Fair Value	Less Than One Year	One to Five Years	Six to Ten Years	More Than Ten Years
Corporate bonds	78.39%	0.99%	23.90%	19.84%	33.66%
U.S. government	11.00	0.07	10.93	-	-
Discount notes and T-bills	6.64	6.64	-	-	-
Pooled fund	2.93	2.93	-	-	-
Commercial paper	1.03	1.03	-	-	-
Percent of rated portfolio	100.00%	11.67%	34.83%	19.84%	33.66%

The length of investment maturities (in years) of the COVSF investments, as shown, by the percent of the rated portfolio, at June 30, 2021 and 2020, are as follows:

Years to Maturity Investment Type June 30, 2021 (In percent)	Investment Maturities (in Years) Fair Value	 Less Than One Year	 One to Five Years	 Six to Ten Years	 More Than Ten Years
Short-term pooled funds	100.00%	100.00%	-%	-%	-%
Percent of rated portfolio	100.00%	100.00%	-%	-%	-%

Years to Maturity Investment Type June 30, 2020 (In percent)	Investment Maturities (in Years) Fair Value	 Less Than One Year	 One to Five Years	 Six to Ten Years	 More Than Ten Years
Short-term pooled funds	100.00%	100.00%	-%	-%	-%
Percent of rated portfolio	100.00%	100.00%	-%	-%	-%

Foreign Currency Risk - Foreign currency risk is the risk that changes in the exchange rates will adversely impact the fair value of an investment. Currency risk is present in underlying portfolios that invest in foreign stocks and/or bonds. The currency markets are effective diversifiers in a total portfolio context; therefore, NYCERS has numerous managers that invest globally. In general, currency exposure is viewed as a benefit for its diversification reasons and not as an inherent risk within the portfolio. NYCERS has no formal risk policy.

In addition, the QPP has investments in foreign stocks and/or bonds denominated in foreign currencies. QPP's foreign currency exposures as of June 30, 2021 and 2020, are as follows (amounts in thousands of U.S. dollars):

Trade Currency	2021	2020
Euro Currency	$ 5,072,081	$ 3,747,236
Japanese Yen	1,896,299	1,806,453
Hong Kong Dollar	1,533,666	317,471
Pound Sterling	1,516,684	1,187,635
Swiss Franc	979,757	761,103
South Korean Won	915,570	883,378
New Taiwan Dollar	752,851	836,974
Indian Rupee	692,919	629,708
Canadian Dollar	548,016	367,165
Australian Dollar	478,009	321,880
Danish Krone	419,619	339,878
Swedish Krona	284,905	195,659
Brazilian Real	256,528	286,846
South African Rand	170,265	232,083
Singapore Dollar	167,275	110,233
Norwegian Krone	118,564	81,864
Chinese Yuan Renminbi	106,095	2
Yuan Renminbi	104,090	-
Polish Zloty	76,164	50,268
Indonesian Rupiah	71,803	99,690
Mexican Peso	71,379	107,720
Thailand Baht	67,368	116,391
Malaysian Ringgit	56,014	103,679
Hungarian Forint	38,372	23,108
New Israeli Shekel	26,560	24,174
Russian Ruble	26,205	-
Turkish Lira	22,265	59,092
UAE Dirham	21,377	32,251
Philippine Peso	19,089	38,014
Chilean Peso	17,988	31,205
New Zealand Dollar	13,169	12,828
Qatari Riyal	13,095	29,230
Czech Koruna	11,686	6,062
Kuwaiti Dinar	7,722	-
Colombian Peso	3,851	9,361
Romanian Leu	3,434	-
Egyptian Pound	623	-
Pakistan Rupee	413	-
Moroccan Dirham	1	4,535
Peruvian Nouveau Sol	-	564
Total	$ 16,581,771	$ 12,853,740

Securities Lending Transactions

Credit Risk - The quality ratings of investments held as collateral for Securities Lending of the QPP at June 30, 2021 and 2020, are as follows:

Investment Type and Fair Value of Securities Lending Transactions June 30, 2021 (in thousands)	Moody's Quality Ratings										
	Aaa & Below	Aa & Below	A1	A2	A3	Baa2 & Below	Ba & Below	B & Below	Caa & Below	Ca & Below	Not Rated	Total
Short term:												
Reverse repurchase agreements	$ -	$ -	$ -	$1,380,415	$ 2,935,380	$ 43,096	$ -	$ -	$ -	$ -	$ 3,990,777	$ 8,349,668
Money market	688,769	-	-	-	-	-	-	-	-	-	150,964	839,733
Cash or cash equivalent	-	-	1,021,239	-	-	-	-	-	-	-	-	1,021,239
Uninvested	-	-	-	-	-	-	-	-	-	-	(2,119)	(2,119)
Total	$ 688,769	$ -	$1,021,239	$1,380,415	$ 2,935,380	$ 43,096	$ -	$ -	$ -	$ -	$ 4,139,622	$10,208,521
Percent of securities lending portfolio	6.75%	-%	10.00%	13.52%	28.75%	0.42%	-%	-%	-%	-%	40.55%	100.00%

Investment Type and Fair Value of Securities Lending Transactions June 30, 2020 (in thousands)	Moody's Quality Ratings										
	Aaa & Below	Aa & Below	A1	A2	A3	Baa2 & Below	Ba & Below	B & Below	Caa & Below	Ca & Below	Not Rated	Total
Short term:												
Reverse repurchase agreements	$ -	$ -	$ 150,000	$ 299,054	$ 1,307,562	$ 138,228	$ -	$ -	$ -	$ -	$ 2,905,087	$ 4,799,931
Money market	508,452	-	-	-	-	-	-	-	-	-	73,430	581,882
U.S. agency	-	-	-	-	-	-	-	-	-	-	23,034	23,034
Cash or cash equivalent	-	-	600,708	-	-	-	-	-	-	-	-	600,708
Uninvested	-	-	-	-	-	-	-	-	-	-	1,751	1,751
Total	$ 508,452	$ -	$ 750,708	$ 299,054	$ 1,307,562	$ 138,228	$ -	$ -	$ -	$ -	$ 3,003,302	$ 6,007,306
Percent of securities lending portfolio	8.46%	-%	12.50%	4.98%	21.77%	2.30%	-%	-%	-%	-%	49.99%	100.00%

Interest Rate Risk - The lengths of investment maturities (in years) of the collateral for Securities Lending of the QPP, are as follows:

Years to Maturity Investment Type June 30, 2021 (In thousands)	Fair Value	Investment Maturities (in Years) Less Than One Year	One to Five Years	Six to Ten Years	More Than Ten Years
Short term:					
Reverse repurchase agreement	$ 8,349,668	$ 8,349,668	$ -	$ -	$ -
Money market	839,734	839,734	-	-	-
Cash or cash equivalents	1,021,239	1,021,239	-	-	-
Uninvested	(2,119)	(2,119)	-	-	-
Total	$ 10,208,522	$ 10,208,522	$ -	$ -	$ -
Percent of securities lending portfolio	100.00%	100.00%	-%	-%	-%

Years to Maturity Investment Type June 30, 2020 (In thousands)	Fair Value	Investment Maturities (in Years) Less Than One Year	One to Five Years	Six to Ten Years	More Than Ten Years
Short term:					
Reverse repurchase agreement	$ 4,799,930	$ 4,799,930	$ -	$ -	$ -
Money market	581,882	581,882	-	-	-
U.S. agency	23,034	23,034	-	-	-
Cash or cash equivalents	600,709	600,709	-	-	-
Uninvested	1,751	1,751	-	-	-
Total	$ 6,007,306	$ 6,007,306	$ -	$ -	$ -
Percent of securities lending portfolio	100.00%	100.00%	-%	-%	-%

Rate of Return - For the years ended June 30, 2021 and 2020, the annual money-weighted rate of return on investments, net of investment expense, for the Plan was as follows:

	2021	2020
QPP	26.65%	3.64%
COVSF	0.09%	1.56%

The money-weighted rate of return expresses investment performance, net of investment expense adjusted for the changing amounts actually invested.

In Fiscal Year 2015, the Plan adopted GASB 72, *Fair Value Measurement and Application*. GASB 72 was issued to address accounting and financial reporting issues related to fair value measurements.

The Funds categorizes their fair value measurements within the fair value hierarchy established by generally accepted accounting principles. The hierarchy is based on the valuation inputs used to measure the fair value of the asset. Level 1 inputs are quoted prices in active markets for identical assets; Level 2 inputs are significant other observable inputs; Level 3 inputs are significant unobservable inputs. The Funds have the following recurring fair value measurements as of June 30, 2021 and June 30, 2020:

GASB 72 - Disclosure
Investments - at fair value
(In thousands)

	2021			
	Level 1	Level 2	Level 3	Total
Short-term investments:				
Commercial paper	$ -	$ 999,092	$ -	$ 999,092
Short-term investment fund	-	1,110,196	-	1,110,196
U.S. Treasury bills and agencies	-	1,170,661	-	1,170,661
Debt (fixed income) securities:				
Bank loans	-	132,034	1,380	133,414
Corporate and other	-	10,293,433	107,974	10,401,407
Mortgage debt securities	-	5,548,567	448	5,549,015
Treasury inflation-protected securities	-	3,038,225	-	3,038,225
U.S. government and agency	-	8,274,897	-	8,274,897
Equity securities:				
Domestic equity	27,073,291	5,245	4,294	27,082,830
International equity	15,066,958	-	139,199	15,206,157
Collective trust funds:				
Bank loans	-	1,104	-	1,104
Domestic equity	-	-	1,181	1,181
Mortgage debt securities	-	170,238	312,456	482,694
Opportunistic-fixed income	11,745	238,126	7,565	257,436
Alternative investments:				
Infrastructure	-	-	996,689	996,689
Opportunistic-fixed income	-	-	2,603,942	2,603,942
Private equity	10,985	-	6,410,842	6,421,827
Private real estate	-	-	4,359,578	4,359,578
Hedge fund investment measured at NAV	-	-	-	1,240
Total investments	$ 42,162,979	$ 30,981,818	$ 14,945,548	$ 88,091,585

GASB 72 - Disclosure
Investments - at fair value
(In thousands)

	2020			
	Level 1	Level 2	Level 3	Total
Short-term investments:				
Commercial paper	$ -	$ 254,826	$ -	$ 254,826
Short-term investment fund	-	1,070,092	-	1,070,092
U.S. Treasury bills and agencies	-	1,638,571	-	1,638,571
Debt (fixed income) securities:				
Bank loans	-	396,722	11,969	408,691
Corporate and other	-	7,442,077	117,052	7,559,129
Mortgage debt securities	-	3,965,822	454	3,966,276
Treasury inflation-protected securities	-	2,714,217	-	2,714,217
U.S. government and agency	-	6,474,964	-	6,474,964
Equity securities:				
Domestic equity	21,785,236	-	8,830	21,794,066
International equity	11,846,314	-	1,003	11,847,317
Collective trust funds:				
Bank loans	-	598,684	26,283	624,967
Corporate and other	-	14,051	-	14,051
Domestic equity	-	-	1,253	1,253
Mortgage debt securities	-	167,775	296,392	464,167
Opportunistic-fixed income	6,541	203,678	9,358	219,577
Alternative investments:				
Infrastructure	-	-	785,629	785,629
Opportunistic-fixed income	-	-	2,145,127	2,145,127
Private equity	9,476	-	4,651,505	4,660,981
Private real estate	-	-	3,802,066	3,802,066
Hedge fund investment measured at NAV	-	-	-	3,735
Total investments	$ 33,647,567	$ 24,941,479	$ 11,856,921	$ 70,449,702

Equity and Debt (Fixed Income) Securities

Equity securities classified in Level 1 of the fair value hierarchy are valued using prices quoted in active markets issued by pricing vendors for these securities. Debt and equity securities classified in Level 2 of the fair value hierarchy are valued using prices determined by the use of matrix pricing techniques maintained by the various pricing vendors for these securities. Matrix pricing is used to value securities based on the securities' relationship to benchmark quoted prices. Debt and equity securities classified in Level 3 are securities whose stated market price is unobservable by the marketplace, many of these securities are priced by the issuers or industry groups for these securities. Fair value is defined as the quoted market value on the last trading day of the period. These prices are obtained from various pricing sources by the custodian bank. Debt and equity securities held in collective trust funds are held in those funds on behalf of the pension system and there is no restriction on the use and/or liquidation of those assets for the exclusive benefit of the Funds' participants.

Collective Trust Funds

Collective trust funds are separately managed accounts which are owned 100% by The City's pension systems. The investments underlying the collective trust funds are presented as Level 1, Level 2 or Level 3 based on their respective fair value hierarchy classifications.

Alternative Investments

Alternative investments include private equity, real estate, opportunistic-fixed income, and infrastructure investments. These are investments for which exchange quotations are not readily available and are valued at estimated fair value, as determined in good faith by the GP. These investments are initially valued at cost with subsequent adjustments that reflect third-party transactions, financial operating results and other factors deemed relevant by the GP. The assets in our alternative investment program are classified as Level 3 assets. A more detailed explanation of the Level 3 valuation methodologies follows:

Investments in non-public equity securities are valued by the GP using one or more valuation methodologies outlined in GASB 72, depending upon the availability of data required by each methodology. In some cases, the GP may use multiple approaches to estimate a valuation range. For the immediate time period following a transaction, the determination of fair value for equity securities, in which no liquid trading market exists, can generally be approximated based on the transaction price (absent any significant developments).

Thereafter, or in the interim, if significant developments relating to such portfolio company or industry occur which may suggest a material change in value, the GP should value each investment by applying generally accepted valuation methods including: (1) the market approach (such as market transaction and comparable public company multiples, which are based on a measurement of the company's historical and projected financial performance with typical metrics including enterprise value/latest 12 months earnings before interest, taxes, depreciation, and amortization ("EBITDA") or projected fiscal year EBITDA); or (2) the income or discounted cash flow approach.

In the market approach, valuation multiples that are relevant to the industry and company in the investments held should be considered and relied upon. Valuation multiples should be assessed and may be adjusted on a go-forward basis based on the business risk associated with the subject company in which the investment is held. In addition, the implied entry multiples should be considered as benchmarks in valuing unlisted equity. In circumstances where no financial performance metrics are available, the GP should rely on other non-financial related metrics applicable to relevant progress from the original investment date to the valuation date. In the income or discounted cash flow approach, forecasted cash flows that may be generated by the subject company are discounted to present value at an appropriate discount rate. These methodologies can be utilized to determine an enterprise value (Enterprise Valuation Methodologies) from which net debt is subtracted to estimate equity value.

The determination of fair value using these methodologies should take into consideration a range of factors, including, but not limited to, the price at which the investment was acquired, the nature of the investment, local market conditions, trading values on public exchanges for comparable securities, current and projected operating performance, and financing transactions subsequent to the acquisition of the investment. Because of the subjective nature of estimated fair value of the private investments, such value may differ significantly from the values that would have been used had a ready market existed for these investments. These financial instruments have been classified as Level 3 in the fair value hierarchy.

Alternative investments that are measured at fair value using the net asset value ("NAV") per share (or its equivalent) practical expedient have not been classified in the fair value hierarchy. The fair value quantities presented in the table are intended to permit reconciliation of the fair value hierarchy to the amounts presented in the entity's financial statements.

Alternative investments are not fully funded upon subscribing to the investment. The GP can draw down or call for capital as the fund goes into more investments or when the need arises such as expenses associated with the partnership. The residual balance of uncalled capital is also known as unfunded commitments which are restricted to the maximum amount of the limited partner's total committed amount.

NOTE 4 - TRANSFER TO VARIABLE SUPPLEMENTS FUNDS

ACNY provides that the QPP transfer to the VSFs an amount equal to certain excess earnings on equity investments, limited to the unfunded Actuarial Present Value ("APV") of Accumulated Plan Benefits for each VSF. Excess earnings are defined as the amount by which earnings on equity investments of the QPP exceed what the earnings would have been had such funds been invested at a yield comparable to that available from fixed income securities (Hypothetical Fixed Income Security Earnings or HFISE), less any cumulative deficiencies of prior years' excess earnings that fell below the yield of fixed income investments. The VSFs also receive credit for investment earnings on VSF assets.

The calculation of the HFISE requires the determination of the Hypothetical Interest Rate ("HIR"), which is computed by the Comptroller.

Due to the merging of Housing Police and Transit Police into The City's Police Department, there are no active members of the Housing Police and Transit Police; therefore, excess earnings on equity investments from the QPP, if any, do not produce any transfers to the HPOVSF, HPSOVSF, TPOVSF and TPSOVSF (collectively, the "Housing and Transit Police VSFs").

However, with the passage of Chapter 255/00, the QPP is required to transfer assets to the Housing and Transit Police VSFs whenever the assets of these VSFs are not sufficient to pay benefits. Such funding is provided through The City's annual required contributions to the QPP, which serves as the initial source of funding of VSF benefits. With respect to the benefits payable from HPSOVSF for Fiscal Years 2021 and 2020, the QPP was required to transfer approximately $2.5 million and $2.4 million, respectively. With respect to the benefits payable from TPSOVSF for Fiscal Years 2021 and 2020, the QPP was required to transfer approximately $2.8 million and $2.6 million, respectively. With respect to the benefits payable from HPOVSF for Fiscal Years 2021 and 2020, the QPP was required to transfer approximately $1.7 million and $1.5 million, respectively. With respect to the benefits payable from TPOVSF for Fiscal Years 2021 and 2020, the QPP was required to transfer approximately $3.3 million and $3.1 million, respectively.

With respect to the COVSF, for Fiscal Year 2021, the excess earnings of the QPP, inclusive of prior years' cumulative deficiencies, exceeded zero and a liability and transfer of $925 million is due from the QPP to COVSF as of, and for the year end June 30, 2021. For Fiscal Year 2020, the excess earnings of the QPP, inclusive of prior years' cumulative deficiencies, was estimated to be equal to zero and therefore no transfer was due from the QPP to COVSF as of June 30, 2020.

The amounts shown on the next page for the APV of Accumulated Plan Benefits, are the measures of the present value of scheduled supplemental benefits estimated to be payable in the future as a result of employee service to-date. They are calculated as the actuarial present value of credited projected benefits, prorated on service, and are intended to help users assess the funded status of the Plan on a going-concern basis, assess progress made in accumulating sufficient assets to pay benefits when due, and make a comparison among VSFs.

Actuarial valuations of the VSFs are performed annually as of June 30.

A comparison of the APB as calculated by the Actuary, with the net position restricted for pensions for the COVSF, HPOVSF, HPSOVSF, TPOVSF and TPSOVSF as of June 30, 2020 and June 30, 2019, follows (in millions):

	COVSF		HPOVSF		HPSOVSF		TPOVSF		TPSOVSF		Total	
	2020[1]	2019	2020[1]	2019	2020[1]	2019	2020[1]	2019	2020[1]	2019	2020[1]	2019
Actuarial present value of accumulated plan benefits												
Retirees currently receiving benefits	$ 1,056.3	$ 1,066.4	$ 11.3	$ 12.2	$ 17.0	$ 18.5	$ 22.7	$ 25.0	$ 19.0	$ 20.1	$ 1,126.3	$ 1,142.2
Active members	271.9	276.4	-	-	-	-	-	-	-	-	271.9	276.4
Total actuarial present value of accumulated plan benefits	$ 1,328.2	$ 1,342.8	$ 11.3	$ 12.2	$ 17.0	$ 18.5	$ 22.7	$ 25.0	$ 19.0	$ 20.1	$ 1,398.2	$ 1,418.6
Net position held in trust for benefits	353.2	416.2	-	-	-	-	-	-	-	-	353.2	416.2
Unfunded actuarial present value of accumulated plan benefits	$ 975.0	$ 926.6	$ 11.3	$ 12.2	$ 17.0	$ 18.5	$ 22.7	$ 25.0	$ 19.0	$ 20.1	$ 1,045.0	$ 1,002.4

[1] Preliminary.

For purposes of the June 30, 2020 and June 30, 2019 actuarial valuations of the Funds, Chapter 125/00 has been taken into account in the determination of the unfunded APV of accumulated plan benefits relative to the Supplementation benefit increases that began Fiscal Year 2001, and the automatic COLA that began Fiscal Year 2002 (see Note 1).

Section 13-194 of the ACNY provides that the Board of Trustees of NYCERS shall adopt, upon the recommendation of the Actuary, actuarial assumptions as to interest rate, mortality of retirees, and estimated number of active UCF members of NYCERS as of each June 30 who are expected to retire for service with at least 20 or 25 years of service as UCF members, depending on the Plan for use in making annual valuations of liabilities.

The following actuarial assumptions represent the recommendations of the Actuary and were used in the actuarial calculations to determine the preceding APV of accumulated plan benefits as of June 30, 2020 and June 30, 2019:

	June 30, 2020[1]	June 30, 2019
Investment rate of return	7.00% per annum.[2]	7.00% per annum.[2]
Post-retirement mortality	Tables adopted by NYCERS during Fiscal Year 2019 based on recent experience of UCF members of NYCERS for COVSF and on recent experience of POLICE for HPOVSF, HPSOVSF, TPOVSF and TPSOVSF.	Tables adopted by NYCERS during Fiscal Year 2019 based on recent experience of UCF members of NYCERS for COVSF and on recent experience of POLICE for HPOVSF, HPSOVSF, TPOVSF and TPSOVSF.
Active service: withdrawal, death, and disability	Tables adopted by NYCERS during Fiscal Year 2019 based on recent experience of UCF members of NYCERS for COVSF. NA for HPOVSF, HPSOVSF, TPOVSF and TPSOVSF.	Tables adopted by NYCERS during Fiscal Year 2019 based on recent experience of UCF members of NYCERS for COVSF. NA for HPOVSF, HPSOVSF, TPOVSF and TPSOVSF.
Service retirement	Tables adopted by NYCERS during Fiscal Year 2019 based on recent experience of UCF members of NYCERS for COVSF. Varies from earliest age member is eligible to retire (age at completion of 20 years (25 years) of service) until age 63. Not applicable for HPOVSF, HPSOVSF, TPOVSF and TPSOVSF.	Tables adopted by NYCERS during Fiscal Year 2019 based on recent experience of UCF members of NYCERS for COVSF. Varies from earliest age member is eligible to retire (age at completion of 20 years (25 years) of service) until age 63. Not applicable for HPOVSF, HPSOVSF, TPOVSF and TPSOVSF.
COLA adjustments for future NYCERS' COLA benefits[1]	1.5% per annum for Auto COLA. 2.5% per annum for Escalation.	1.5% per annum for Auto COLA. 2.5% per annum for Escalation.

[1] Preliminary.
[2] Developed assuming a long-term Consumer Price Inflation assumption of 2.5% per year.

NOTE 5 - QPP CONTRIBUTIONS

The financial objective of the QPP is to fund members' retirement benefits during their active service and to establish Employer contribution rates which, expressed as a percentage of annualized covered payroll, will remain approximately level from year to year. The Employer contributes amounts that, together with Member Contributions and investment income, are intended to ultimately be sufficient to accumulate assets to pay benefits when due.

Member Contributions - Members who joined prior to July 27, 1976 contribute by salary deductions based on a normal rate of contribution that is assigned by the Plan at membership. The member normal rate, which is dependent upon age and actuarial tables in effect at the time of membership, is determined to provide approximately one-fourth of the service retirement allowance at the earliest age for service retirement. For age at membership equal to 20, the member normal rate ranges between 5.80% and 9.10%. For age at membership equal to 40, the member normal rate ranges between 4.30% and 4.80%.

Members who joined on or after July 27, 1976 and before April 1, 2012, are mandated to contribute 3.0% of salary during all years of coverage except for Department of Correction members who contribute 3.0% for not more than 30 years. Effective October 1, 2000, certain members are not required to make contributions after the 10th anniversary of their membership date or completion of 10 years of credited service, whichever is earlier. In addition, certain members who are Tier 2 or Tier 3 corrections officers and certain other Tier 2 and Tier 4 members contribute additional amounts ranging from 1.85% to 7.46% for improved early retirement benefits.

Members who join on and after April 1, 2012 (Tier 6) are mandated to contribute Basic Member Contributions ("BMCs") until they separate from City service or until they retire. The BMC rate is dependent on annual wages earned during a plan year and ranges from 3.0% for salaries up to $45,000 and as much as 6.0% for salaries greater than $100,000.

In addition to the BMC, Tier 6 Special Plan members must contribute Additional Member Contributions ("AMCs"). The AMC rate is plan-specific. Tier 6 Special Plan members must contribute AMCs until they attain 30 years of service or retire, whichever comes first, except for TBTA 20/50 Plan members, who must contribute AMCs for 20 years.

Uniformed members of the Department of Correction, uniformed members of the Department of Sanitation, and DA Investigator members employed in a District Attorney office, who became employed in one of these titles on or after April 1, 2012, participate in a 22-year plan. These members are required to contribute 3% of gross wages until the later of 25 years of service or until they retire, except DA Investigator members, who must contribute 3% of gross wages until they retire.

Employer Contributions - Statutorily required contributions ("Statutory Contributions") to the QPP, determined by the Actuary in accordance with State statutes and City laws, are generally funded by the Employer within the appropriate fiscal year. The Statutory Contribution for the year ended June 30, 2021, based on an actuarial valuation as of June 30, 2019, was $3.763 billion, and the Statutory Contribution for the year ended June 30, 2020, based on an actuarial valuation as of June 30, 2018, was $3.727 billion. The Statutory Contributions for Fiscal Years 2021 and 2020 were not equal to the Actuarial Contributions. Refer to the Schedule of Employer Contributions in the accompanying required supplementary information for more information on the actuarial methods and assumptions applied by the Actuary to determine the Statutory Contributions.

NOTE 6 - NET PENSION LIABILITY

The components of the net pension liability of the Employer at June 30, 2021 and 2020, for the Funds, were as follows:

	(In thousands)						
June 30, 2021	QPP	COVSF	HPOVSF	HPSOVSF	TPOVSF	TPSOVSF	Total
Total pension liability	$ 92,078,292	$ 1,403,674	$ 11,541	$ 17,180	$ 22,847	$ 19,108	$ 93,552,642
Fiduciary net position [1]	85,910,712	1,227,658	161	175	139	164	87,139,009
Employers' net pension liability	$ 6,167,580	$ 176,016	$ 11,380	$ 17,005	$ 22,708	$ 18,944	$ 6,413,633
Fiduciary net position as a percentage of the total pension liability	93.30%	87.46%	1.40%	1.02%	0.61%	0.86%	93.14%

	(In thousands)						
June 30, 2020	QPP	COVSF	HPOVSF	HPSOVSF	TPOVSF	TPSOVSF	Total
Total pension liability	$ 89,884,946	$ 1,419,858	$ 12,129	$ 18,552	$ 25,048	$ 20,043	$ 91,380,576
Fiduciary net position [1]	69,897,439	403,710	37	63	84	52	70,301,385
Employers' net pension liability	$ 19,987,507	$ 1,016,148	$ 12,092	$ 18,489	$ 24,964	$ 19,991	$ 21,079,191
Fiduciary net position as a percentage of the total pension liability	77.76%	28.43%	0.31%	0.34%	0.34%	0.26%	76.93%

[1] Such amounts represent the preliminary Funds' fiduciary net position and may differ from the final Funds' fiduciary net position.

Actuarial Methods and Assumptions

The total pension liability as of June 30, 2021 and 2020 were determined by actuarial valuations as of June 30, 2020 (Updated Preliminary) and June 30, 2019 (Preliminary), respectively, that were rolled forward to develop the total pension liability to the respective fiscal year end. The following actuarial assumptions were applied to all periods included in the measurement:

Projected salary increases	In general, merit and promotion increases plus assumed general wage increases of 3.0% per annum.
Investment rate of return	7.0% per annum, net of investment expenses.
COLAs	1.5% per annum for Auto COLA. 2.5% per annum for Escalation.

The above assumptions were developed assuming a long-term Consumer Price Inflation assumption of 2.5% per annum.

The Fiscal Year 2021 results reflect changes in the actuarial assumptions and methods from the prior year. These changes reflect refinements and improvements to the actuarial assumptions and methods under the judgment of the Chief Actuary.

Pursuant to Section 96 of the New York City Charter, studies of the actuarial assumptions used to value liabilities of the five actuarially-funded New York City Retirement System ("NYCRS") are conducted every two years. The most recent of these studies was performed by Bolton, Inc. and included experience through June 30, 2017.

On December 31, 2018, the Actuary issued a Report titled "Proposed Changes in Actuarial Assumptions and Methods for Determining Employer Contributions for Fiscal Years Beginning on and after July 1, 2018 for the New York City Police Pension Fund." The actuarial assumptions and methods described in that report are referred to as the "2019 A&M."

The June 30, 2020 total pension liability was calculated from the Preliminary June 30, 2019 actuarial valuation, which was based on the 2019 A&M.

On July 27, 2021, the Actuary issued a memorandum titled "Proposed Changes to Actuarial Assumptions and Methods." The actuarial assumptions and methods described in that memorandum amend certain assumptions and methods from the 2019 A&M. This revised set of actuarial assumptions and methods are referred to as the "Revised 2021 A&M."

The June 30, 2021 total pension liability was calculated from the Updated Preliminary June 30, 2020 actuarial valuation, which was based on the Revised 2021 A&M.

The Entry Age Normal ("EAN") cost method of funding is utilized by the Funds' Actuary to calculate the contribution required of the Employer.

Under this method, the Present Value ("PV") of Future Benefits ("PVFB") of each individual included in the actuarial valuation is allocated on a level basis over the earnings (or service) of the individual between entry age and assumed exit age(s). The Employer portion of this PVFB allocated to a valuation year is the Normal Cost. The portion of this PVFB not provided for at a valuation date by the PV of Future Normal Costs or future member contributions is the Accrued Liability ("AL").

The excess, if any, of the AL over the Actuarial Value of Asset ("AVA") is the Unfunded Accrued Liability ("UAL").

Under this method, actuarial gains and losses, as they occur, reduce and increase the UAL and are explicitly identified and amortized.

Increases or decreases in obligations due to benefit changes, actuarial assumption changes, and actuarial method changes are also explicitly identified and amortized.

The Fiscal Year 2021 and Fiscal Year 2020 Employer Contributions do not reflect any potential impact related to the bankruptcy filing on December 3, 2009 by the New York City Off-Track Betting Corporation ("OTB") and to its shutdown on December 7, 2010. The results were developed herein assuming OTB is an ongoing concern. Beginning with Fiscal Year 2019, there was a change in the allocation of pension contributions attributable to OTB. OTB's prior unpaid contributions with interest have been amortized over 15 years (14 payments) beginning in Fiscal Year 2019. The Actuary has split this amount evenly between the State of New York, based upon a determination by the NYCERS Board of Trustees that the State is the successor to OTB under Administrative Code Section 13-130, and The City, based upon The City's offer to advance half this amount, subject to appropriations, pending payment by the State. Beginning with Fiscal Year 2021, The City has agreed to pay the full amount attributable to OTB, subject to appropriations, pending payment by the State.

The PV of projected benefits includes the obligations of the Plan to the HPOVSF, the HPSOVSF, the TPOVSF, the TPSOVSF, and the COVSF (referred to collectively as the "NYCERS VSFs"), which are recognized through the Liability Valuation Method.

Under this method, the PV of Future SKIM from the Plan to the NYCERS VSFs is included directly as an actuarial liability of the Plan. SKIM is all or a portion of the excess earnings on equity securities of the Plan which are transferrable to the NYCERS VSFs. The Present Value of Future SKIM is computed as the excess, if any, of the PV of benefits of each individual NYCERS VSF offset by the AVA of that individual NYCERS VSF, respectively. Under the EAN cost method, a portion of the PV of Future SKIM is reflected in the PV of Future Normal Costs and a portion is reflected in the UAL.

Expected Rate of Return on Investments

The long-term expected rate of return on the Plan's investments was determined using a building-block method in which best-estimate ranges of expected real rates of return (i.e., expected returns, net of investment expenses and inflation) are developed for each major asset class. These ranges are combined to produce the long-term expected rate of return by weighting the expected real rates of return by the target asset allocation percentage and by adding expected inflation. The target asset allocation and best estimates of arithmetic real rates of return for each major asset class are summarized in the following table:

Asset Class	Target Asset Allocation	Long-Term Expected Real Rate of Return
Public Markets:		
U.S. public market equities	27.0%	7.1%
Developed public market equities	12.0%	7.2%
Emerging public market equities	5.0%	9.0%
Debt (fixed income)	30.5%	1.8%
Private Markets (Alternative Investments):		
Private equity	8.0%	11.3%
Private real estate	7.5%	6.9%
Infrastructure	4.0%	6.0%
Opportunistic-fixed income	6.0%	7.1%
Total	100.0%	

Discount Rate

The discount rate used to measure the total pension liability as of both June 30, 2020 and 2019 was 7.0% per annum. The projection of cash flows used to determine the discount rate assumed that member contributions will be made at the current contribution rate and that The City's contributions will be made in accordance with the Statutory Contributions determined by the Actuary. Based on those assumptions, the Funds' fiduciary net position was projected to be available to make all projected future benefit payments of current members. Therefore, the long-term expected rate of return on Funds' investments was applied to all periods of projected benefit payments to determine the total pension liability.

The following presents the net pension liability of the Employer for the Plan, calculated using the discount rate of 7.0%, as well as what the Employer's net pension liability would be if it were calculated using a discount rate that is one percentage point lower (6.0%) or one percentage point higher (8.0%) than the current rate.

(In thousands) Employer Net Pension Liability - June 30, 2021	1% Decrease (6.0%)	Discount Rate (7.0%)	1% Increase (8.0%)
QPP	$ 16,426,655	$ 6,167,579	$ (2,537,351)
COVSF	327,780	176,015	48,228
HPOVSF	12,041	11,379	10,785
HPSOVSF	18,033	17,004	16,082
TPOVSF	24,060	22,708	21,492
TPSOVSF	20,067	18,945	17,935
Total	$ 16,828,636	$ 6,413,630	$ (2,422,829)

NOTE 7 - MEMBER LOANS

In general, members are permitted to borrow up to 75% of their own contributions, including accumulated interest. The balance of member loans receivable at June 30, 2021 and 2020 was $1.08 billion and $1.12 billion, respectively.

NOTE 8 - RELATED PARTIES

The Comptroller has been appointed by law as custodian for the assets of NYCERS. Securities are held by certain banks under custodial agreements with the Comptroller. The Comptroller, the Financial Information Services Agency ("FISA"), and the Office of Payroll Administration ("OPA") also provide cash receipt and cash disbursement services to NYCERS. Actuarial services are provided to NYCERS by the Office of the Actuary employed by the Boards of Trustees of The City's main pension systems. The City's Corporation Counsel provides legal services to NYCERS. Other administrative services are also provided by The City. The aforementioned services are provided by employees or officers of The City who may also be participants in NYCERS.

NOTE 9 - ADMINISTRATIVE AND INVESTMENT EXPENSES

Chapter 593 of the Laws of 1996, effective July 1, 1997, authorized the Board of Trustees to draw upon QPP assets to pay the administrative expenses incurred by the QPP. Prior to that year, The City had directly paid all QPP administrative expenses. Under Chapter 593/96, both the administrative and investment expenses were billed to the participating employers in the following year. Under Chapter 152 of the Laws of 2006, those expenses are billed in the second following fiscal year.

In Fiscal Year 2021, total non-investment expenses attributable to the QPP were approximately $98 million, of which $87.4 million was paid from the assets of the QPP and $10.6 million was incurred on behalf of the QPP by other City agencies. In Fiscal Year 2020, total non-investment expenses attributable to the QPP were approximately $88 million, of which $77.7 million was paid from the assets of the QPP and $10.3 million was incurred on behalf of the QPP by other City agencies.

For Fiscal Year 2021, investment expenses, exclusive of fees related to securities lending transactions, were $314.5 million, of which $313.2 million was charged to the investment earnings of the QPP, and $1.3 million was incurred by the Comptroller's Office. For Fiscal Year 2020, investment expenses, exclusive of fees related to securities lending transactions, were $246.5 million, of which $245.7 million was charged to the investment earnings of the QPP, and $0.8 million was incurred by the Comptroller's Office.

During Fiscal Year 2000, the Plan entered into a new lease agreement to rent office space for its headquarters. The original agreement expired in 2020, with options to renew through 2030. During the Fiscal Year ended June 30, 2020, the headquarters office space lease was amended and renewed. The amended lease agreement expires in 2035 and incorporates one option to renew for five additional years into 2040. The future minimum rental payments required under this operating lease are shown in the table below.

Rent expenses under the lease agreement for each of the fiscal years ended June 30, 2021 and 2020 were approximately $4.2 million and $4.5 million, respectively.

During Fiscal Year 2006, the Plan entered into a new lease agreement to rent office space for a business recovery site in case its headquarters was not operational. The agreement expired in 2016, and the Plan exercised the option to renew the agreement through November 2021. The Plan is currently in negotiations to continue at this location, with rent expenses after November 2021 pending final execution.

Rent expenses under the lease agreement for the fiscal years ended June 30, 2021 and 2020 were approximately $1.3 million each.

	Headquarters		Business Recovery Site
Fiscal Years Ending	Minimum Rental Payments	Fiscal Year Ending	Minimum Rental Payments
2022	$ 4,535,336	2022*	$ 549,807
2023	$ 4,535,336		$ -

*Rent payment of $549,807 is from July 2021 to November 2021.

NOTE 10 - CONTINGENT LIABILITIES AND OTHER MATTERS

Contingent Liabilities - The Plan has a number of claims pending against it, and has been named as a defendant in a number of lawsuits and also has certain other contingent liabilities. Management of the Plan, on the advice of legal counsel, believes that such proceedings and contingencies will not have a material effect on the Plan's net position or changes in the Plan's net position. Under the State statutes and City laws that govern the functioning of the Plan, increases in the obligations of the Plan to members and beneficiaries ordinarily result in increases in the obligations of the Employers to the Plan.

Actuarial Audit - Pursuant to Section 96 of the New York City Charter, studies of the actuarial assumptions used to value liabilities of the five actuarially-funded NYCRS are conducted every two years. Refer to Note 6 for a discussion of the most recent actuarial studies for NYCRS.

Revised Actuarial Assumptions and Methods - In accordance with the ACNY and with appropriate practice, the Boards of Trustees of the five major actuarially-funded NYCRS are to periodically review and adopt actuarial assumptions as proposed by the Actuary for use in the determination of Employer Contributions.

The most recently completed study was published by Bolton, Inc. dated June 2019. Bolton analyzed experience for the four- and 10-year periods ended June 30, 2017 and made recommendations with respect to the actuarial assumptions and methods based on their analysis. Based, in part, on these recommendations, the Actuary proposed new assumptions and methods for use in determining Employer Contributions for Fiscal Years beginning on and after July 1, 2018. These assumptions and methods have been adopted by the Board of Trustees during Fiscal Year 2019. Previously, Gabriel, Roeder, Smith & Company (GRS) published their study in October 2015.

OTB Bankruptcy - During December 2009, the New York City OTB filed a petition with the United States Bankruptcy Court of the Southern District of New York under Chapter 9 of the Bankruptcy Code.

The Fiscal Year 2020 and Fiscal Year 2019 Employer contributions do not take into account OTB's filing. The Fiscal Year 2020 and Fiscal Year 2019 Employer contributions, and the allocation to OTB, assumed that OTB was a going concern. Any amounts due but unpaid by OTB for Fiscal Year 2020 and Fiscal Year 2019 are treated as a receivable that is expected to be paid in full.

New York State Legislation (only significant laws since Fiscal Year 2012 included)

Chapter 18 of the Laws of 2012 placed certain limitations on Tier 3 and Tier 4 benefits available to participants hired on and after April 1, 2012 in most New York State PERS, including NYCERS. Some of the provisions in this law are commonly referred to as Tier 6.

Chapter 3 of the Laws of 2013 (Chapter 3/13) implemented changes in the actuarial procedures for determining Employer Contributions beginning Fiscal Year 2012. In particular, Chapter 3/13 continued the One-Year Lag Methodology ("OYLM"), employed the Entry Age Actuarial Cost Method, an Actuarial Interest Rate ("AIR") assumption of 7.0% per annum, net of expenses, and defined the amortization of Unfunded Actuarial Accrued Liabilities.

Chapter 489 of the Laws of 2013 extended the Notice of Participation filing deadline to September 11, 2014 for vested members to file a sworn statement indicating participation in the World Trade Center Rescue, Recovery, and Clean-up Operations.

Chapter 427 of the Laws of 2014 (Chapter 427/14) provides non-contributory retirement service credit for members called to active military duty on or after September 11, 2001 and prior to January 1, 2006 who did not receive their full salary from a participating employer and are otherwise eligible to receive retirement service credit for such service. Such members would not be required to make member contributions to receive such credit.

Chapter 510 of the Laws of 2015 clarifies for Tier 6, the definition of multiple employers for the purpose of exclusion of wages, and changes the Plan year for contributions from April 1 to March 31 to January 1 to December 31.

Chapter 41 of the Laws of 2016 removes the specified periods of time, medal requirements, and theaters of operation in which military service would had to have been rendered for a service purchase pursuant to RSSL § 1000. Accordingly, for a member to be eligible to purchase service credit pursuant to RSSL § 1000 for pre-membership military service, the member need only have been honorably discharged from the military; all other requirements of RSSL § 1000 remain the same. This law is not retroactive and does not permit retired members to purchase service credit.

Petition for Retirement Benefit Enhancement, dated August 15, 2016 and signed by the Mayor on August 30, 2016, provides enhanced disability benefits for Accidental Disability Retirement and Ordinary Disability Retirement benefits for Sanitation Workers. Sanitation Workers who become 22-Year Plan members before January 1, 2017 have the option to elect participation in the Enhanced Disability Benefits. Sanitation Workers who become 22-Year Plan members on and after January 1, 2017 are mandated into the Enhanced Disability Benefits. Members electing or mandated into this benefit will pay an extra 1.3% of wages.

Petition for Retirement Benefit Enhancement, dated November 2, 2016 and signed by the Mayor on November 29, 2016, provides enhanced disability benefits for Accidental Disability Retirement and Ordinary Disability Retirement benefits for Correction Officers. Correction Officers who become 22-Year Plan members before January 1, 2017 have the option to elect participation in the Enhanced Disability Benefits. Correction Officers who become 22-Year Plan members on and after January 1, 2017 are mandated into the Enhanced Disability Benefits. Members electing or mandated into this benefit will pay an extra 0.8% of wages.

Petition for Retirement Benefit Enhancement, dated November 21, 2016 and signed by the Mayor on November 29, 2016, provides enhanced disability benefits for Accidental Disability Retirement and Ordinary Disability Retirement benefits for Wardens, including Assistant Deputy Wardens, Deputy Wardens and Deputy Wardens in Command (collectively, "ADW/DWs"). ADW/DWs who become 22-Year Plan members before January 1, 2017 have the option to elect participation in the Enhanced Disability Benefits. ADW/DWs who become 22-Year Plan members on and after January 1, 2017 are mandated into the Enhanced Disability Benefits. Members electing or mandated into this benefit will pay an extra 0.8% of wages.

Petition for Retirement Benefit Enhancement, dated November 25, 2016 and signed by the Mayor on November 29, 2016, provides enhanced disability benefits for Accidental Disability Retirement and Ordinary Disability Retirement benefits for Correction Captains. Correction Captains who become 22-Year Plan members before January 1, 2017 have the option to elect participation in the Enhanced Disability Benefits. Correction Captains who become 22-Year Plan members on and after January 1, 2017 are mandated into the Enhanced Disability Benefits. Members electing or mandated into this benefit will pay an extra 0.8% of wages.

Chapter 61 of the Laws of 2017 permits NYCERS Uniformed Correction/Sanitation revised plan members and Investigator revised plan members ("Eligible Members"), who would be ineligible for disability retirement benefits solely on account of being eligible for a normal service retirement benefit, to be eligible for disability benefits. It also relaxed the safeguards provisions regarding restrictions on post-retirement employment for Eligible Members who are awarded ADR and modified the process for reducing or eliminating an ADR benefit based on post-retirement earnings, making that process more difficult.

The following outlines the changes for the New York City Uniformed Correction/Sanitation revised plan members ("22-Year Plan member").

1. Member Contributions

- Tier 3 Enhanced Members contribute 3% of pensionable earnings plus an additional contribution rate to help fund the enhanced disability benefit. Currently, the additional contribution rate is 1.3% for Sanitation Workers and 0.8% for Correction Officers, ADW/DWs, and Correction Captains, which can be raised to 3% based on a financial analysis by the Office of the Actuary every three years. At no time can the total contribution rate exceed 6%.

- Taxability
    - Base Member Contributions
        - Pre-tax
    - Increased Member Contributions for Enhanced Disability Provisions
        - Pre-tax for Sanitation Workers appointed September 1, 2016 and later and for Correction Officers, ADW/DWs, and Correction Captains appointed January 1, 2017 and later (i.e., the dates the respective new members are mandated into the Plan).
        - Post-tax for those who were eligible to elect the Enhanced Disability Plan provisions and elected such provisions.

2. Accidental Disability Retirement ("ADR")

- The ADR benefit for Tier 3 Enhanced Members is 75% of their Five-Year Final Average Salary ("FAS5").

- Tier 3 Enhanced Members have statutory presumptions (i.e., Heart).

3. Ordinary Disability Retirement ("ODR")

- The ODR benefit for Tier 3 Enhanced Members is the greater of:
  - 33 1/3% of FAS5; or
  - FAS5 multiplied by years of credited service (not greater than 22 years).

4. Escalation

- Tier 3 Enhanced Members who retire for ODR or ADR are not subject to escalation. Tier 3 Enhanced Members are subject to COLA, the same as Tier 1 and Tier 2 members.

5. Social Security Offset

- Tier 3 Enhanced Members who retire for ODR or ADR are not subject to the Social Security offset.

- Tier 3 Enhanced Members who retire for a Service or Vested Retirement are subject to the Social Security offset.

6. Final Average Salary

- Tier 3 Enhanced Members are subject to a FAS5 calculation for ODR, ADR, Service and Vested Retirement.

The following changes apply to Eligible Members:

1. Eligibility for ADR

- Eligible for ADR was extended beyond 22 years; members can apply at any time as long as they are active.

2. Safeguards

- RSSL § 507(d) no longer applies to ADR retirees. The safeguards in effect prior to April 1, 2012 apply to Uniformed Correction/Sanitation Revised Plan members, and those in effect prior to July 1, 2009 apply to retired Investigator Revised Plan Members. The safeguards include earnings limitations and re-employment.

- Safeguards remain unchanged for ODR retirees. Thus, they must continue to be in receipt of Social Security Disability benefits to maintain their receipt of pension benefits.

Chapter 89 of the Laws of 2020 provides death benefits to statutory beneficiaries of members whose death was a result of or was contributed to by the coronavirus disease ("COVID-19"). This law provides an Accidental Death Benefit to the Eligible Beneficiaries of a Member who died on or before December 31, 2020, or a Retiree who retired between March 1, 2020 and June 30, 2020 and died prior to September 29, 2020, where the Member/Retiree reported for work outside their home and contracted COVID-19 within 45 days after their last day of work, and whose death was caused by COVID-19 or where COVID-19 contributed to the Member/Retiree's death. Amounts payable are reduced by payments of any Ordinary Death Benefits or option benefit paid to another statutory beneficiary.

COVID-19 - The outbreak of the COVID-19, has been declared a pandemic by the World Health Organization. The Governor declared a state of emergency in the State on March 7, 2020 and the Mayor declared a state of emergency in The City on March 12, 2020. While the Governor ended the state of emergency in New York State on June 24, 2021, the state of emergency in The City remains in effect. The ultimate impact of the COVID-19 pandemic on the Plan cannot be determined at this time.

Chapter 78 of the Laws of 2021 establishes a COVID-19 public employee death benefit for individuals who reported to their usual place of employment or an alternate worksite at the direction of their employer on or after March 1, 2020 and the employee contracted COVID-19 within 45 days of reporting to such workplace as confirmed by a laboratory test or by a licensed physician and the employee died on or before December 31, 2022.

The CARES Act, signed into law on March 27, 2020, is a major piece of federal legislation providing relief to individuals, as well as state and local governments, in connection with the impact of the COVID-19 outbreak. The CARES Act impacted the operations of NYCERS during Fiscal Year 2021 and 2020 in the following ways:

a) qualified individuals who were entitled to receive a QPP refund (other than a refund of a deduction in error) were permitted to classify such a refund as a coronavirus-related distribution, not subject to the 10% penalty for individuals younger than 59½ years of age (subject to the limitation that the sum of all coronavirus-related distributions cannot exceed $100,000), until December 30, 2020;

b) qualified individuals were permitted to apply for coronavirus-related loans, with a higher aggregate maximum amount than ordinary loans (for QPP/AMC loans, the expanded limit was the lesser of $100,000 or 75% of the account balance, until September 23, 2020;

c) qualified individuals with outstanding loans of any type were permitted to apply for extension of any loan payments due between March 27, 2020 and December 31, 2020 by up to one year; and

For the purposes of the above provisions, the CARES Act defined a "qualified individual" as an individual who:

1. is diagnosed with COVID-19 by a test approved by the Centers for Disease Control and Prevention; or

2. has a spouse or dependent diagnosed with COVID-19 by a test approved by the Centers for Disease Control and Prevention; or

3. experiences adverse financial consequences as a result of (i) being quarantined, furloughed or laid off or having work hours reduced due to COVID-19, (ii) being unable to work due to lack of childcare due to COVID-19, (iii) being unable to work due to closing or reducing hours of a business owned or operated by the individual due to COVID-19, or (iv) other factors as determined by the Secretary of the Treasury.

SCHEDULE 1

New York City Employees' Retirement System

REQUIRED SUPPLEMENTARY INFORMATION (UNAUDITED)
SCHEDULES OF CHANGES IN THE EMPLOYER'S NET PENSION LIABILITY AND RELATED RATIOS

June 30, 2021
(In thousands)

	QPP*	COVSF	HPOVSF	HPSOVSF	TPOVSF	TPSOVSF	TOTAL
Total pension liability:							
Service cost	$ 2,025,553	$ 19,347	$ -	$ -	$ -	$ -	$ 2,044,900
Interest	6,242,176	97,268	799	1,221	1,645	1,315	6,344,424
Differences between expected and actual experience	(125,634)	(26,709)	213	(129)	(400)	561	(152,098)
Changes of assumptions	(381,827)	(5,042)	(152)	(213)	(293)	(249)	(387,776)
Changes of benefit terms	-	-	-	-	-	-	-
Benefit payments and withdrawals	(5,566,922)	(101,048)	(1,448)	(2,251)	(3,153)	(2,562)	(5,677,384)
Net change in total pension liability	2,193,346	(16,184)	(588)	(1,372)	(2,201)	(935)	2,172,066
Total pension liability – beginning	89,884,946	1,419,858	12,129	18,552	25,048	20,043	91,380,576
Total pension liability – ending (a)	92,078,292	1,403,674	11,541	17,180	22,847	19,108	93,552,642
Plan fiduciary net position:							
Employer contributions	3,761,532	-	-	-	-	-	3,761,532
Member contributions	579,560	-	-	-	-	-	579,560
Net investment income	18,263,201	434	-	-	-	-	18,263,635
Benefit payments and withdrawals	(5,566,922)	(101,048)	(1,448)	(2,251)	(3,153)	(2,562)	(5,677,384)
Payments to other retirement systems	(5,671)	-	-	-	-	-	(5,671)
Transfers to VSFs	(9,817)	-	1,572	2,363	3,208	2,674	-
Administrative expenses	(87,413)	-	-	-	-	-	(87,413)
Other	3,365	-	-	-	-	-	3,365
Net change in plan fiduciary net position	16,937,835	(100,614)	124	112	55	112	16,837,624
Accrued transfers to/from VSFs	(924,562)	924,562	-	-	-	-	-
Plan fiduciary net position - beginning	69,897,439	403,710	37	63	84	52	70,301,385
Plan fiduciary net position - ending (b) *	85,910,712	1,227,658	161	175	139	164	87,139,009
Employer's net pension liability - ending (a)-(b)	$ 6,167,580	$ 176,016	$ 11,380	$ 17,005	$ 22,708	$ 18,944	$ 6,413,633
Plan fiduciary net position as a percentage of the total pension liability	93.30%	87.46%	1.40%	1.02%	0.61%	0.86%	93.14%
Covered payroll	$ 15,289,347	N/A	N/A	N/A	N/A	N/A	$ 15,289,347
Employer's net pension liability as a percentage of covered payroll	40.34%	N/A	N/A	N/A	N/A	N/A	41.95%

*Such amounts represent the preliminary Funds' fiduciary net position and may differ from the final Funds' fiduciary net position.

Note: In accordance with paragraph 50 of GASB No. 67, this schedule should present information for 10 years, if available. The information presented here pertains to periods beginning with the June 30, 2014 fiscal year, the Plan's adoption year of GASB No. 67. Additional years will be added until the 10-year requirement is met.

See Report of Independent Certified Public Accountants.

New York City Employees’ Retirement System

REQUIRED SUPPLEMENTARY INFORMATION (UNAUDITED)
SCHEDULES OF CHANGES IN THE EMPLOYER’S NET PENSION LIABILITY AND RELATED RATIOS

June 30, 2020
(In thousands)

	QPP*	COVSF	HPOVSF	HPSOVSF	TPOVSF	TPSOVSF	TOTAL
Total pension liability:							
Service cost	$ 2,017,384	$ 20,315	$ -	$ -	$ -	$ -	$ 2,037,699
Interest	5,984,643	96,043	886	1,278	1,776	1,418	6,086,044
Differences between expected and actual experience	1,050,131	1,822	(471)	312	(346)	(177)	1,051,271
Changes of assumptions	-	-	-	-	-	-	-
Changes of benefit terms	-	-	-	-	-	-	-
Benefit payments and withdrawals	(5,201,781)	(98,421)	(1,840)	(2,543)	(3,459)	(2,869)	(5,310,913)
Net change in total pension liability	3,850,377	19,759	(1,425)	(953)	(2,029)	(1,628)	3,864,101
Total pension liability – beginning	86,034,569	1,400,099	13,554	19,505	27,077	21,671	87,516,475
Total pension liability – ending (a)	89,884,946	1,419,858	12,129	18,552	25,048	20,043	91,380,576
Plan fiduciary net position:							
Employer contributions	3,727,558	-	-	-	-	-	3,727,558
Member contributions	563,893	-	-	-	-	-	563,893
Net investment income	2,404,316	5,400	-	-	-	-	2,409,716
Benefit payments and withdrawals	(5,201,781)	(98,421)	(1,840)	(2,543)	(3,459)	(2,869)	(5,310,913)
Payments to other retirement systems	(9,087)	-	-	-	-	-	(9,087)
Transfers to VSFs	(10,111)	-	1,662	2,428	3,290	2,731	-
Administrative expenses	(77,667)	-	-	-	-	-	(77,667)
Other	3,317	-	-	-	-	-	3,317
Net change in plan fiduciary net position	1,400,438	(93,021)	(178)	(115)	(169)	(138)	1,306,817
Accrued transfers to/from VSFs	(31,704)	31,704	-	-	-	-	-
Plan fiduciary net position - beginning	68,528,705	465,027	215	178	253	190	68,994,568
Plan fiduciary net position - ending (b) *	69,897,439	403,710	37	63	84	52	70,301,385
Employer’s net pension liability - ending (a)-(b)	$ 19,987,507	$ 1,016,148	$ 12,092	$ 18,489	$ 24,964	$ 19,991	$ 21,079,191
Plan fiduciary net position as a percentage of the total pension liability	77.76%	28.43%	0.31%	0.34%	0.34%	0.26%	76.93%
Covered payroll	$ 14,981,461	N/A	N/A	N/A	N/A	N/A	$ 14,981,461
Employer’s net pension liability as a percentage of covered payroll	133.41%	N/A	N/A	N/A	N/A	N/A	140.70%

*Such amounts represent the preliminary Funds’ fiduciary net position and may differ from the final Funds’ fiduciary net position.

Note: In accordance with paragraph 50 of GASB No. 67, this schedule should present information for 10 years, if available. The information presented here pertains to periods beginning with the June 30, 2014 fiscal year, the Plan’s adoption year of GASB No. 67. Additional years will be added until the 10-year requirement is met.

See Report of Independent Certified Public Accountants.

New York City Employees' Retirement System

REQUIRED SUPPLEMENTARY INFORMATION (UNAUDITED)
SCHEDULES OF CHANGES IN THE EMPLOYER'S NET PENSION LIABILITY AND RELATED RATIOS

June 30, 2019
(In thousands)

	QPP*	COVSF	HPOVSF	HPSOVSF	TPOVSF	TPSOVSF	TOTAL
Total pension liability:							
Service cost	$ 2,009,186	$ 21,807	$ -	$ -	$ -	$ -	$ 2,030,993
Interest	5,737,834	96,304	956	1,321	1,956	1,466	5,839,837
Differences between expected and actual experience	1,880,980	(27,412)	(388)	344	(1,441)	392	1,852,475
Changes of assumptions	(933,377)	3,457	170	227	328	266	(928,929)
Changes of benefit terms	-	-	-	-	-	-	-
Benefit payments and withdrawals	(5,153,002)	(94,459)	(1,641)	(2,465)	(3,364)	(2,748)	(5,257,679)
Net change in total pension liability	3,541,621	(303)	(903)	(573)	(2,521)	(624)	3,536,697
Total pension liability - beginning	82,492,948	1,400,402	14,457	20,078	29,598	22,295	83,979,778
Total pension liability - ending (a)	86,034,569	1,400,099	13,554	19,505	27,077	21,671	87,516,475
Plan fiduciary net position:							
Employer contributions	3,692,711	-	-	-	-	-	3,692,711
Member contributions	547,807	-	-	-	-	-	547,807
Net investment income	4,431,926	6,304	-	-	-	-	4,438,230
Benefit payments and withdrawals	(5,153,002)	(94,459)	(1,641)	(2,465)	(3,364)	(2,748)	(5,257,679)
Payments to other retirement systems	(9,769)	-	-	-	-	-	(9,769)
Transfers to VSFs	(10,489)	-	1,722	2,522	3,446	2,799	-
Administrative expenses	(82,073)	-	-	-	-	-	(82,073)
Other	3,258	-	-	-	-	-	3,258
Net change in plan fiduciary net position	3,420,369	(88,155)	81	57	82	51	3,332,485
Accrued transfers to/from VSFs	(103,411)	103,411	-	-	-	-	-
Plan fiduciary net position - beginning	65,211,747	449,771	134	121	171	139	65,662,083
Plan fiduciary net position - ending (b) *	68,528,705	465,027	215	178	253	190	68,994,568
Employer's net pension liability - ending (a)-(b)	$ 17,505,864	$ 935,072	$ 13,339	$ 19,327	$ 26,824	$ 21,481	$ 18,521,907
Plan fiduciary net position as a percentage of the total pension liability	79.65%	33.21%	1.59%	0.91%	0.93%	0.88%	78.84%
Covered payroll	$ 14,459,118	N/A	N/A	N/A	N/A	N/A	$ 14,459,118
Employer's net pension liability as a percentage of covered payroll	121.07%	N/A	N/A	N/A	N/A	N/A	128.10%

*Such amounts represent the preliminary Funds' fiduciary net position and may differ from the final Funds' fiduciary net position.

The June 30, 2019 beginning pension liability does not agree to the June 30, 2018 ending total pension liability due to a census data correction.

Note: In accordance with paragraph 50 of GASB No. 67, this schedule should present information for 10 years, if available. The information presented here pertains to periods beginning with the June 30, 2014 fiscal year, the Plan's adoption year of GASB No. 67. Additional years will be added until the 10-year requirement is met.

See Report of Independent Certified Public Accountants.

New York City Employees' Retirement System

REQUIRED SUPPLEMENTARY INFORMATION (UNAUDITED)
SCHEDULES OF CHANGES IN THE EMPLOYER'S NET PENSION LIABILITY AND RELATED RATIOS

June 30, 2018
(In thousands)

	QPP*	COVSF	HPOVSF	HPSOVSF	TPOVSF	TPSOVSF	TOTAL
Total pension liability:							
Service cost	$ 1,923,683	$ 24,029	$ -	$ -	$ -	$ -	$ 1,947,712
Interest	5,514,669	94,615	1,004	1,397	2,052	1,552	5,615,289
Differences between expected and actual experience	(1,700,346)	(61,728)	(472)	131	83	(216)	(1,762,548)
Changes of assumptions	17,939	(206)	-	-	-	-	17,733
Changes of benefit terms	42,501	1,498	-	-	-	-	43,999
Benefit payments and withdrawals	(4,883,110)	(90,190)	(1,760)	(2,510)	(3,486)	(2,818)	(4,983,874)
Net change in total pension liability	915,336	(31,982)	(1,228)	(982)	(1,351)	(1,482)	878,311
Total pension liability - beginning	80,897,611	1,432,384	15,685	21,061	30,950	23,777	82,421,468
Total pension liability - ending (a)	81,812,947	1,400,402	14,457	20,079	29,599	22,295	83,299,779
Plan fiduciary net position:							
Employer contributions	3,377,024	-	-	-	-	-	3,377,024
Member contributions	523,535	-	-	-	-	-	523,535
Net investment income	5,153,254	2,265	-	-	-	-	5,155,519
Benefit payments and withdrawals	(4,883,110)	(90,190)	(1,760)	(2,510)	(3,486)	(2,818)	(4,983,874)
Payments to other retirement systems	(9,055)	-	-	-	-	-	(9,055)
Transfers to VSFs	(10,897)	-	1,825	2,573	3,612	2,887	-
Administrative expenses	(59,689)	-	-	-	-	-	(59,689)
Other	3,410	12	-	-	-	-	3,422
Net change in plan fiduciary net position	4,094,472	(87,913)	65	63	126	69	4,006,882
Accrued transfers to/from VSFs	(205,000)	205,000	-	-	-	-	-
Plan fiduciary net position - beginning	61,322,275	332,684	69	58	45	70	61,655,201
Plan fiduciary net position - ending (b) *	65,211,747	449,771	134	121	171	139	65,662,083
Employer's net pension liability - ending (a)-(b)	$ 16,601,200	$ 950,631	$ 14,323	$ 19,958	$ 29,428	$ 22,156	$ 17,637,696
Plan fiduciary net position as a percentage of the total pension liability	79.71%	32.12%	0.93%	0.60%	0.58%	0.62%	78.83%
Covered payroll	$ 12,834,130	N/A	N/A	N/A	N/A	N/A	$ 12,834,130
Employer's net pension liability as a percentage of covered payroll	129.35%	N/A	N/A	N/A	N/A	N/A	137.43%

*Such amounts represent the preliminary Funds' fiduciary net position and may differ from the final Funds' fiduciary net position.

Note: In accordance with paragraph 50 of GASB No. 67, this schedule should present information for 10 years, if available. The information presented here pertains to periods beginning with the June 30, 2014 fiscal year, the Plan's adoption year of GASB No. 67. Additional years will be added until the 10-year requirement is met.

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New York City Employees' Retirement System

REQUIRED SUPPLEMENTARY INFORMATION (UNAUDITED)
SCHEDULES OF CHANGES IN THE EMPLOYER'S NET PENSION LIABILITY AND RELATED RATIOS

June 30, 2017
(In thousands)

	QPP*	COVSF	HPOVSF	HPSOVSF	TPOVSF	TPSOVSF	TOTAL
Total pension liability:							
Service cost	$ 1,897,067	$ 23,391	$ -	$ -	$ -	$ -	$ 1,920,458
Interest	5,446,543	93,708	1,088	1,464	2,151	1,654	5,546,608
Changes of benefit terms	-	-	-	-	-	-	-
Differences between expected and actual experience	(221,856)	(16,615)	(51)	(216)	198	286	(238,254)
Changes of assumptions	-	-	-	-	-	-	-
Benefit payments and withdrawals	(4,635,251)	(30)	(1,850)	(2,581)	(3,814)	(2,953)	(4,646,479)
Net change in total pension liability	2,486,503	100,454	(813)	(1,333)	(1,465)	(1,013)	2,582,333
Total pension liability - beginning	78,411,108	1,331,930	16,498	22,394	32,415	24,790	79,839,135
Total pension liability - ending (a)	80,897,611	1,432,384	15,685	21,061	30,950	23,777	82,421,468
Plan fiduciary net position:							
Employer contributions	3,328,193	-	-	-	-	-	3,328,193
Member contributions	513,514	-	-	-	-	-	513,514
Net investment income	6,982,304	(152)	-	-	-	-	6,982,152
Benefit payments and withdrawals	(4,635,251)	(30)	(1,850)	(2,581)	(3,814)	(2,953)	(4,646,479)
Payments to other retirement systems	(8,087)	-	-	-	-	-	(8,087)
Transfers to VSFs	(11,297)	-	1,889	2,595	3,830	2,983	-
Administrative expenses	(59,671)	-	-	-	-	-	(59,671)
Other	3,266	-	-	-	-	-	3,266
Net change in plan fiduciary net position	6,112,971	(182)	39	14	16	30	6,112,888
Accrued transfers to/from VSFs	(285,924)	285,924	-	-	-	-	-
Plan fiduciary net position - beginning	55,495,228	46,942	30	44	29	40	55,542,313
Plan fiduciary net position - ending (b) *	61,322,275	332,684	69	58	45	70	61,655,201
Employer's net pension liability - ending (a)-(b)	$ 19,575,336	$ 1,099,700	$ 15,616	$ 21,003	$ 30,905	$ 23,707	$ 20,766,267
Plan fiduciary net position as a percentage of the total pension liability	75.80%	23.23%	0.44%	0.28%	0.15%	0.29%	74.80%
Covered payroll	$ 12,555,242	N/A	N/A	N/A	N/A	N/A	$ 12,555,242
Employer's net pension liability as a percentage of covered payroll	155.91%	N/A	N/A	N/A	N/A	N/A	165.40%

*Such amounts represent the preliminary Funds' fiduciary net position and may differ from the final Funds' fiduciary net position.

Note: In accordance with paragraph 50 of GASB No. 67, this schedule should present information for 10 years, if available. The information presented here pertains to periods beginning with the June 30, 2014 fiscal year, the Plan's adoption year of GASB No. 67. Additional years will be added until the 10-year requirement is met.

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SCHEDULES OF CHANGES IN THE EMPLOYER'S NET PENSION LIABILITY AND RELATED RATIOS

June 30, 2016
(In thousands)

	QPP*	COVSF	HPOVSF	HPSOVSF	TPOVSF	TPSOVSF	TOTAL
Total pension liability:							
Service cost	$ 1,875,969	$ 24,025	$ -	$ -	$ -	$ -	$ 1,899,994
Interest	5,276,141	89,794	1,145	1,553	2,251	1,720	5,372,604
Differences between expected and actual experience	(793,016)	(25,259)	(195)	(57)	273	283	(817,971)
Changes of assumptions	2,539,112	21,269	479	625	915	692	2,563,092
Benefit payments and withdrawals	(4,402,729)	(79,917)	(1,968)	(2,643)	(3,932)	(2,957)	(4,494,146)
Net change in total pension liability	4,495,477	29,912	(539)	(522)	(493)	(262)	4,523,573
Total pension liability - beginning	73,915,631	1,302,018	17,037	22,916	32,908	25,052	75,315,562
Total pension liability - ending (a)	78,411,108	1,331,930	16,498	22,394	32,415	24,790	79,839,135
Plan fiduciary net position:							
Employer contributions	3,365,454	-	-	-	-	-	3,365,454
Member contributions	485,508	-	-	-	-	-	485,508
Net investment income	1,171,720	184	-	-	-	-	1,171,904
Benefit payments and withdrawals	(4,402,729)	(79,917)	(1,968)	(2,643)	(3,932)	(2,957)	(4,494,146)
Payments to other retirement systems	(7,440)	-	-	-	-	-	(7,440)
Transfers to VSFs	(11,525)	-	1,968	2,648	3,945	2,964	-
Administrative expenses	(56,683)	-	-	-	-	-	(56,683)
Other	2,928	-	-	-	-	-	2,928
Net change in plan fiduciary net position	547,233	(79,733)	-	5	13	7	467,525
Accrued transfers to/from VSFs	52,724	(52,724)	-	-	-	-	-
Plan fiduciary net position - beginning	54,895,271	179,399	30	39	16	33	55,074,788
Plan fiduciary net position - ending (b) *	55,495,228	46,942	30	44	29	40	55,542,313
Employer's net pension liability - ending (a)-(b)	$ 22,915,880	$ 1,284,988	$ 16,468	$ 22,350	$ 32,386	$ 24,750	$ 24,296,822
Plan fiduciary net position as a percentage of the total pension liability	70.77%	3.52%	0.18%	0.20%	0.09%	0.16%	69.57%
Covered payroll	$ 12,336,979	N/A	N/A	N/A	N/A	N/A	$ 12,336,979
Employer's net pension liability as a percentage of covered payroll	185.75%	N/A	N/A	N/A	N/A	N/A	196.94%

*Such amounts represent the preliminary Funds' fiduciary net position and may differ from the final Funds' fiduciary net position.

Note: In accordance with paragraph 50 of GASB No. 67, this schedule should present information for 10 years, if available. The information presented here pertains to periods beginning with the June 30, 2014 fiscal year, the Plan's adoption year of GASB No. 67. Additional years will be added until the 10-year requirement is met.

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New York City Employees' Retirement System

REQUIRED SUPPLEMENTARY INFORMATION (UNAUDITED)
SCHEDULES OF CHANGES IN THE EMPLOYER'S NET PENSION LIABILITY AND RELATED RATIOS

June 30, 2015
(In thousands)

	QPP*	COVSF	HPOVSF	HPSOVSF	TPOVSF	TPSOVSF	TOTAL
Total pension liability:							
Service cost	$ 1,808,955	$ 23,532	$ -	$ -	$ -	$ -	$ 1,832,487
Interest	4,976,487	87,727	1,184	1,588	2,288	1,741	5,071,015
Differences between expected and actual experience	(372,645)	84,301	(312)	131	(203)	129	(288,599)
Changes of assumptions	-	-	-	-	-	-	-
Benefit payments and withdrawals	(4,235,644)	(76,606)	(2,083)	(2,682)	(4,047)	(3,073)	(4,324,135)
Net change in total pension liability	2,177,153	118,954	(1,211)	(963)	(1,962)	(1,203)	2,290,768
Total pension liability - beginning	71,738,478	1,183,064	18,248	23,879	34,870	26,255	73,024,794
Total pension liability - ending (a)	73,915,631	1,302,018	17,037	22,916	32,908	25,052	75,315,562
Plan fiduciary net position:							
Employer contributions	3,160,258	-	-	-	-	-	3,160,258
Member contributions	467,129	-	-	-	-	-	467,129
Net investment income	1,175,099	10	-	-	-	-	1,175,109
Benefit payments and withdrawals	(4,235,644)	(76,606)	(2,083)	(2,682)	(4,047)	(3,073)	(4,324,135)
Payments to other retirement systems	(7,142)	-	-	-	-	-	(7,142)
Transfers to VSFs	(11,918)	12	2,100	2,686	4,040	3,080	-
Administrative expenses	(54,635)	-	-	-	-	-	(54,635)
Other	4,140	-	-	-	-	-	4,140
Net change in plan fiduciary net position	497,287	(76,584)	17	4	(7)	7	420,724
Accrued transfers to/from VSFs	(30,000)	30,000	-	-	-	-	-
Plan fiduciary net position - beginning*	54,427,984	225,983	13	35	23	26	54,654,064
Plan fiduciary net position - ending (b) **	54,895,271	179,399	30	39	16	33	55,074,788
Employer's net pension liability - ending (a)-(b)	$ 19,020,360	$ 1,122,619	$ 17,007	$ 22,877	$ 32,892	$ 25,019	$ 20,240,774
Plan fiduciary net position as a percentage of the total pension liability	74.27%	13.78%	0.18%	0.17%	0.05%	0.13%	73.13%
Covered payroll	$ 12,314,958	N/A	N/A	N/A	N/A	N/A	$ 12,314,958
Employer's net pension liability as a percentage of covered payroll	154.45%	N/A	N/A	N/A	N/A	N/A	164.36%

* Includes an adjustment of $(351,463).
**Such amounts represent the preliminary Funds' fiduciary net position and may differ from the final Funds' fiduciary net position.

Note: In accordance with paragraph 50 of GASB No. 67, this schedule should present information for 10 years, if available. The information presented here pertains to periods beginning with the June 30, 2014 fiscal year, the Plan's adoption year of GASB No. 67. Additional years will be added until the 10-year requirement is met.

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New York City Employees' Retirement System

REQUIRED SUPPLEMENTARY INFORMATION (UNAUDITED)
SCHEDULES OF CHANGES IN THE EMPLOYER'S NET PENSION LIABILITY AND RELATED RATIOS

June 30, 2014
(In thousands)

	QPP*	COVSF	HPOVSF	HPSOVSF	TPOVSF	TPSOVSF	TOTAL
Total pension liability:							
Service cost	$ 1,783,734	$ 23,329	$ -	$ -	$ -	$ -	$ 1,807,063
Interest	4,825,904	77,397	1,267	1,655	2,416	1,820	4,910,459
Changes of benefit terms	-	-	-	-	-	-	-
Differences between expected and actual experience	-	-	-	-	-	-	-
Changes of assumptions	-	-	-	-	-	-	-
Benefit payments and withdrawals	(3,990,569)	-	(2,187)	(2,782)	(4,054)	(3,089)	(4,002,681)
Net change in total pension liability	2,619,069	100,726	(920)	(1,127)	(1,638)	(1,269)	2,714,841
Total pension liability - beginning	69,119,408	1,082,338	19,169	25,006	36,508	27,524	70,309,953
Total pension liability - ending (a)	71,738,477	1,183,064	18,249	23,879	34,870	26,255	73,024,794
Plan fiduciary net position:							
Employer contributions	3,114,068	-	-	-	-	-	3,114,068
Member contributions	447,689	-	-	-	-	-	447,689
Net investment income	8,262,467	20	-	-	-	-	8,262,487
Benefit payments and withdrawals	(3,990,569)	-	(2,187)	(2,782)	(4,054)	(3,089)	(4,002,681)
Payments to other retirement systems	(7,228)	-	-	-	-	-	(7,228)
Transfers to VSFs	(12,125)	-	2,168	2,797	4,070	3,090	-
Administrative expenses	(50,431)	-	-	-	-	-	(50,431)
Other	4,881	-	-	-	-	-	4,881
Net change in plan fiduciary net position	7,768,752	20	(19)	15	16	1	7,768,785
Accrued transfers to/from VSFs	(190,000)	190,000	-	-	-	-	-
Plan fiduciary net position - beginning	47,200,695	35,963	32	20	7	25	47,236,742
Plan fiduciary net position - ending (b) *	54,779,447	225,983	13	35	23	26	55,005,527
Employer's net pension liability - ending (a)-(b)	$ 16,959,030	$ 957,081	$ 18,236	$ 23,844	$ 34,847	$ 26,229	$ 18,019,267
Plan fiduciary net position as a percentage of the total pension liability	76.36%	19.10%	0.07%	0.15%	0.07%	0.10%	75.32%
Covered payroll	$ 12,183,011	N/A	N/A	N/A	N/A	N/A	$ 12,183,011
Employer's net pension liability as a percentage of covered payroll	139.20%	N/A	N/A	N/A	N/A	N/A	147.90%

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New York City Employees' Retirement System

REQUIRED SUPPLEMENTARY INFORMATION (UNAUDITED)
QUALIFIED PENSION PLAN
SCHEDULES OF EMPLOYER CONTRIBUTIONS

Years ended June 30,
(In thousands)

	2021	2020	2019	2018	2017	2016	2015	2014	2013	2012
1. Actuarially determined contribution	$ 3,762,898	$ 3,726,701	$ 3,694,365	$ 3,377,024	$ 3,328,193	$ 3,365,454	$ 3,160,258	$ 3,114,068	$ 3,046,845	$ 3,017,004
2. Actual/funding contributions made	3,762,898	3,713,825	3,681,747	3,377,024	3,328,193	3,365,454	3,160,258	3,114,068	3,046,845	3,017,004
3. Contribution deficiency (excess) Actual/funding contributions made basis (1.- 2.)	-	12,876	12,618	-	-	-	-	-	-	-
4. Contributions as a percentage of Covered employee payroll[1] Actual/funding contributions made basis	24.611%	24.789%	25.463%	26.313%	26.508%	27.279%	25.662%	25.561%	25.486%	25.540%
5. Receivable contributions	(1,366)	13,733	10,964	-	-	-	-	-	-	-
6. Accounting contributions (2. + 5.)	$ 3,761,532	$ 3,727,568	$ 3,692,711	$ 3,377,024	$ 3,328,193	$ 3,365,454	$ 3,160,258	$ 3,114,068	$ 3,046,845	$ 3,017,004
7. Contribution deficiency (excess) Accounting contributions basis (1. - 6.)	1,366	(857)	1,654	-	-	-	-	-	-	-
8. Contributions as a percentage of covered employee payroll[1] accounting contributions basis	24.611%	24.881%	25.539%	26.313%	26.508%	27.279%	25.662%	25.561%	25.486%	25.540%

[1] Projected employee payroll at time 1.0 under previous roll-forward methodology through 2018. Actual employee payroll at valuation date (time = 0) beginning in 2019.

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New York City Employees' Retirement System

REQUIRED SUPPLEMENTARY INFORMATION (UNAUDITED)
QUALIFIED PENSION PLAN
SCHEDULES OF EMPLOYERS' CONTRIBUTIONS

Note to Schedule:

The above actuarially determined contributions were developed using a One-Year Lag Methodology, under which the actuarial valuation determines the Employer contribution for the second following Fiscal Year (e.g., Fiscal Year 2019 contributions were determined using an actuarial valuation as of June 30, 2017). The methods and assumptions used to determine the actuarially determined contributions are as follows:

Valuation Dates	**June 30, 2019**	**June 30, 2018**	**June 30, 2017**	**June 30, 2016**	**June 30, 2015**
Actuarial cost method	Entry age	Entry age	Entry age	Entry age	Entry age
Amortization method for unfunded actuarial accrued liabilities:					
Initial unfunded	Increasing dollar	Increasing dollar	Increasing dollar	Increasing dollar	Increasing dollar
Post-2010 unfundeds	Level dollar	Level dollar	Level dollar	Level dollar	Level dollar
Remaining amortization period:					
Initial unfunded	13 years (closed)	14 years (closed)	15 years (closed)	16 years (closed)	17 years (closed)
2010 ERI	NA	NA	NA	NA	1 year (closed)
2011 actuarial gain/losses	7 years (closed)	8 years (closed)	9 years (closed)	10 years (closed)	11 years (closed)
2012 actuarial gain/losses	8 years (closed)	9 years (closed)	10 years (closed)	11 years (closed)	12 years (closed)
2013 actuarial gain/losses	9 years (closed)	10 years (closed)	11 years (closed)	12 years (closed)	13 years (closed)
2014 actuarial gain/losses	10 years (closed)	11 years (closed)	12 years (closed)	13 years (closed)	14 years (closed)
2015 actuarial gain/losses	11 years (closed)	12 years (closed)	13 years (closed)	14 years (closed)	15 years (closed)
2016 actuarial gain/losses	12 years (closed)	13 years (closed)	14 years (closed)	15 years (closed)	NA
2017 actuarial gain/losses	13 years (closed)	14 years (closed)	15 years (closed)	NA	NA
2017 method change	18 years (closed)	19 years (closed)	20 years (closed)	NA	NA
2017 assumption change	18 years (closed)	19 years (closed)	20 years (closed)	NA	NA
2017 census data update	3 years (closed)	4 years (closed)	5 years (closed)	NA	NA
2017 OTB payments	13 years (closed)	14 years (closed)	15 years (closed)	NA	NA
2018 actuarial gains/losses	14 years (closed)	15 years (closed)			
2019 actuarial gains/losses	15 years (closed)				
2019 method change	20 years (closed)				
2019 assumption change	20 years (closed)				
Actuarial asset valuation method[3]	Five-year moving average of market values with a "Market Value Restart" as of June 30, 2019.	Modified six-year moving average of market values with a "Market Value Restart" as of June 30, 2011. The June 30, 2010 AVA is defined to recognize Fiscal Year 2011 investment performance.	Modified six-year moving average of market values with a "Market Value Restart" as of June 30, 2011. The June 30, 2010 AVA is defined to recognize Fiscal Year 2011 investment performance.	Modified six-year moving average of market values with a "Market Value Restart" as of June 30, 2011. The June 30, 2010 AVA is defined to recognize Fiscal Year 2011 investment performance.	Modified six-year moving average of market values with a "Market Value Restart" as of June 30, 2011. The June 30, 2010 AVA is defined to recognize Fiscal Year 2011 investment performance.

[3]As of June 30, 2014 (Lag) valuation, the AVA is constrained to be no more than 20% of Market Value.

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New York City Employees' Retirement System

REQUIRED SUPPLEMENTARY INFORMATION (UNAUDITED)
QUALIFIED PENSION PLAN
SCHEDULES OF EMPLOYERS' CONTRIBUTIONS

Note to Schedule:

The above actuarially determined contributions were developed using a One-Year Lag Methodology, under which the actuarial valuation determines the Employer contribution for the second following Fiscal Year (e.g., Fiscal Year 2019 contributions were determined using an actuarial valuation as of June 30, 2017). The methods and assumptions used to determine the actuarially determined contributions are as follows:

Valuation Dates	**June 30, 2014**	**June 30, 2013**	**June 30, 2012**	**June 30, 2011**
Actuarial cost method	Entry age	Entry age	Entry age	Entry age
Amortization method for unfunded actuarial accrued liabilities:				
Initial unfunded	Increasing dollar	Increasing dollar	Increasing dollar	Increasing dollar
Post-2010 unfundeds	Level dollar	Level dollar	Level dollar	Level dollar
Remaining amortization period:				
Initial unfunded	18 years (closed)	19 years (closed)	20 years (closed)	21 years (closed)
2010 ERI	2 years (closed)	3 years (closed)	4 years (closed)	5 years (closed)
2011 Actuarial gain/losses	12 years (closed)	13 years (closed)	14 years (closed)	15 years (closed)
2012 Actuarial gain/losses	13 years (closed)	14 years (closed)	15 years (closed)	NA
2013 Actuarial gain/losses	14 years (closed)	15 years (closed)	NA	NA
2014 Actuarial gain/losses	15 years (closed)	NA	NA	NA
2015 Actuarial gain/losses	NA	NA	NA	NA
2016 Actuarial gain/losses	NA	NA	NA	NA
2017 Actuarial gain/losses	NA	NA	NA	NA
2017 method change	NA	NA	NA	NA
2017 assumption change	NA	NA	NA	NA
2017 census data update	NA	NA	NA	NA
2017 OTB Payments	NA	NA	NA	NA
2018 Actuarial gains/losses	NA	NA	NA	NA
2019 Actuarial gains/losses	NA	NA	NA	NA
2019 method change	NA	NA	NA	NA
2019 assumption change	NA	NA	NA	NA
Actuarial asset valuation method[3]	Modified six-year moving average of market values with a "Market Value Restart" as of June 30, 2011. The June 30, 2010 AVA is defined to recognize Fiscal Year 2011 investment performance.	Modified six-year moving average of market values with a "Market Value Restart" as of June 30, 2011. The June 30, 2010 AVA is defined to recognize Fiscal Year 2011 investment performance.	Modified six-year moving average of market values with a "Market Value Restart" as of June 30, 2011. The June 30, 2010 AVA is defined to recognize Fiscal Year 2011 investment performance.	Modified six-year moving average of market values with a "Market Value Restart" as of June 30, 2011. The June 30, 2010 AVA is defined to recognize Fiscal Year 2011 investment performance.

[3]As of June 30, 2014 (Lag) valuation, the AVA is constrained to be no more than 20% of Market Value.

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New York City Employees' Retirement System

REQUIRED SUPPLEMENTARY INFORMATION (UNAUDITED)
QUALIFIED PENSION PLAN
SCHEDULES OF EMPLOYERS' CONTRIBUTIONS

Valuation Dates	June 30, 2019	June 30, 2018	June 30, 2017	June 30, 2016	June 30, 2015
Actuarial assumptions: Assumed rate of return[4]	7.0% per annum, net of investment expenses.	7.0% per annum, net of investment expenses.	7.0% per annum, net of investment expenses.	7.0% per annum, net of investment expenses.	7.0% per annum, net of investment expenses.
Post-retirement mortality[5]	Tables adopted by Board of Trustees during Fiscal Year 2019. Applies mortality improvement scale MP-2020 published by the Society of Actuaries	Tables adopted by Board of Trustees during Fiscal Year 2019	Tables adopted by Board of Trustees during Fiscal Year 2019	Tables adopted by Board of Trustees during Fiscal Year 2016	Tables adopted by Board of Trustees during Fiscal Year 2016
Active service: withdrawal, death, disability, service retirement[5]	Tables adopted by Board of Trustees during Fiscal Year 2019. Applies mortality improvement scale MP-2020 published by the Society of Actuaries to active ordinary death mortality rates and pre-commencement mortality rates for terminated vesteds	Tables adopted by Board of Trustees during Fiscal Year 2019	Tables adopted by Board of Trustees during Fiscal Year 2019	Tables adopted by Board of Trustees during Fiscal Year 2012	Tables adopted by Board of Trustees during Fiscal Year 2012
Salary increases[4]	In general, merit and promotion increases plus assumed General Wage Increases of 3.0% per year.	In general, merit and promotion increases plus assumed General Wage Increases of 3.0% per year.	In general, merit and promotion increases plus assumed General Wage Increases of 3.0% per year.	In general, merit and promotion increases plus assumed General Wage Increases of 3.0% per year.	In general, merit and promotion increases plus assumed General Wage Increases of 3.0% per year.
Cost-of-living adjustments[4]	1.5% per annum for Auto COLA. 2.5% per annum for Escalation.	1.5% per annum for Auto COLA. 2.5% per annum for Escalation.	1.5% per annum for Auto COLA. 2.5% per annum for Escalation.	1.5% per annum for Auto COLA. 2.5% per annum for Escalation.	1.5% per annum for Auto COLA. 2.5% per annum for Escalation.

[4]Developed using a long-term Consumer Price Inflation assumption of 2.5% per year.

[5] *As of June 30, 2019, applies mortality improvement scale MP-2020 published by the Society of Actuaries to post-retirement mortality, active ordinary death mortality rates, and pre-commencement mortality rates for terminated vesteds. Prior to June 30, 2019, MP-2018 was applied to post-retirement mortality. Prior to June 30, 2017, MP-2015 was applied to post-retirement mortality. Prior to June 30, 2014, Scale AA was applied to post-retirement mortality.*

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New York City Employees' Retirement System

REQUIRED SUPPLEMENTARY INFORMATION (UNAUDITED)
QUALIFIED PENSION PLAN
SCHEDULES OF EMPLOYERS' CONTRIBUTIONS

Valuation Dates	June 30, 2014	June 30, 2013	June 30, 2012	June 30, 2011
Actuarial assumptions: Assumed rate of return[4]	7.0% per annum, net of investment expenses.	7.0% per annum, net of investment expenses.	7.0% per annum, net of investment expenses.	7.0% per annum, net of investment expenses.
Post-retirement mortality[5]	Tables adopted by Board of Trustees during Fiscal Year 2016	Tables adopted by Board of Trustees during Fiscal Year 2012	Tables adopted by Board of Trustees during Fiscal Year 2012	Tables adopted by Board of Trustees during Fiscal Year 2012
Active service: withdrawal, death, disability, service retirement[5]	Tables adopted by Board of Trustees during Fiscal Year 2012	Tables adopted by Board of Trustees during Fiscal Year 2012	Tables adopted by Board of Trustees during Fiscal Year 2012	Tables adopted by Board of Trustees during Fiscal Year 2012
Salary increases[4]	In general, merit and promotion increases plus assumed General Wage Increases of 3.0% per year.	In general, merit and promotion increases plus assumed General Wage Increases of 3.0% per year.	In general, merit and promotion increases plus assumed General Wage Increases of 3.0% per year.	In general, merit and promotion increases plus assumed General Wage Increases of 3.0% per year.
Cost-of-living adjustments[4]	1.5% per annum for Auto COLA. 2.5% per annum for Escalation.	1.5% per annum for Auto COLA. 2.5% per annum for Escalation.	1.5% per annum for Auto COLA. 2.5% per annum for Escalation.	1.5% per annum for Auto COLA. 2.5% per annum for Escalation.

[4]Developed using a long-term Consumer Price Inflation assumption of 2.5% per year.

[5] *As of June 30, 2019, applies mortality improvement scale MP-2020 published by the Society of Actuaries to post-retirement mortality, active ordinary death mortality rates, and pre-commencement mortality rates for terminated vesteds. Prior to June 30, 2019, MP-2018 was applied to post-retirement mortality. Prior to June 30, 2017, MP-2015 was applied to post-retirement mortality. Prior to June 30, 2014, Scale AA was applied to post-retirement mortality.*

See Report of Independent Certified Public Accountants.

New York City Employees' Retirement System

REQUIRED SUPPLEMENTARY INFORMATION (UNAUDITED)
QUALIFIED PENSION PLAN
SCHEDULE OF INVESTMENT RETURNS

June 30, 2021, 2020, 2019, 2018, 2017, 2016, 2015 and 2014

The following table displays annual money-weighted rate of return, net of investment expense, for the Funds for each of the past eight fiscal years:

Fiscal Years Ended	QPP	COVSF
June 30, 2021	26.65%	0.09%
June 30, 2020	3.64%	1.56%
June 30, 2019	7.07%	2.41%
June 30, 2018	8.61%	1.63%
June 30, 2017	12.99%	0.64%
June 30, 2016	1.45%	0.19%
June 30, 2015	3.10%	0.03%
June 30, 2014	17.01%	0.06%

Note: In accordance with paragraph 50 of GASB Statement No. 67, *Financial Reporting for Pension Plans* ("GASB 67"), this schedule should present information for 10 years, if available. The information presented here pertains to periods beginning with the June 30, 2014 fiscal year, the Plan's adoption year of GASB 67. Additional years will be added until the 10-year requirement is met.

See Report of Independent Certified Public Accountants.