New York City Fire Pension Funds

(A Fiduciary Fund of The City of New York)

Combining Financial Statements and
Supplementary Information
(Together with Independent Auditors' Report)

For the Years Ended June 30, 2018 and 2017

MARKS PANETH

ACCOUNTANTS & ADVISORS

NEW YORK CITY FIRE PENSION FUNDS

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MARKS PANETH
ACCOUNTANTS & ADVISORS

INDEPENDENT AUDITORS' REPORT

To the Board of Trustees of the
New York City Fire Pension Funds:

Report on the Combining Financial Statements

We have audited the accompanying combining statements of fiduciary net position of the New York City Fire Pension Fund, New York City Firefighters' Variable Supplements Fund, and New York City Fire Officers' Variable Supplements Fund, which collectively comprise the New York City Fire Pension Funds (the "Funds"), a fiduciary component unit of the City of New York, as of June 30, 2018 and 2017, and the related combining statements of changes in fiduciary net position for the years then ended, and the related notes to the combining financial statements, which collectively comprise the Funds' basic combining financial statements as listed in the table of contents.

Management's Responsibility for the Combining 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 the combining financial statements that are free from material misstatement, whether due to fraud or error.

Auditors' Responsibility

Our responsibility is to express opinions 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 audits 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 Funds' 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 Funds' 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 opinions.

Opinions

In our opinion, the combining financial statements referred to above present fairly, in all material respects, the combining fiduciary net position of the Funds as of June 30, 2018 and 2017, and the changes in combining fiduciary net position for the years then ended in accordance with accounting principles generally accepted in the United States of America.

Other Matters

Required Supplementary Information

Accounting principles generally accepted in the United States of America require that the Management's Discussion and Analysis, Schedule 1, Schedule 2, and Schedule 3, as listed in the table of contents, be presented to supplement the basic combining financial statements. Such information, although not a 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. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic 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.

Marks Paneth LLP

October 26, 2018

This narrative discussion and analysis of the New York City Fire Pension Funds' ("FIRE" or the "Funds") financial performance provides an overview of the Funds' combining financial activities for the Fiscal Years ended June 30, 2018 and 2017. It is meant to assist the reader in understanding the Funds' combining financial statements by providing an overall review of the combining financial activities during the years and the effects of significant changes, as well as a comparison with the prior years' activity and results. This discussion and analysis is intended to be read in conjunction with the Funds' combining financial statements.

FIRE administers the New York City Fire Pension Fund, which is generally referred to as the New York Fire Department Pension Fund - Qualified Pension Plan ("QPP") - as set forth in the Administrative Code of The City of New York ("ACNY") Section 13-313.1. FIRE also administers the New York City Firefighters' Variable Supplements Fund ("FFVSF") and the New York City Fire Officers' Variable Supplements Fund ("FOVSF").

OVERVIEW OF BASIC COMBINING FINANCIAL STATEMENTS

The following discussion and analysis is intended to serve as an introduction to the Funds' basic combining financial statements. The basic 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 each 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 sacrifice 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 —** as required by the GASB includes the management discussion and analysis and information presented after the Notes to the Combining Financial Statements.

FINANCIAL HIGHLIGHTS

For Fiscal Year ended June 30, 2018, the Funds' net position restricted for benefits exceeded $14.1 billion. This amount reflects an increase of approximately $1,182.4 million (9.1%) over the Funds' net position restricted for benefits in Fiscal Year 2017. The growth for Fiscal Year 2018 can be attributed to the excess of total contributions, net investment income and other receipts over pension benefits paid. In addition, a significant net appreciation of invested assets served to increase net investment income reported for the period.

For Fiscal Year ended June 30, 2017, the Funds' net position restricted for benefits exceeded $12.9 billion. This amount reflects an increase of approximately $1,253.7 million (10.7%) over the Funds' net position restricted for benefits in Fiscal Year 2016. The growth for Fiscal Year 2017 can be attributed to the fact that total contributions, net investment income and other receipts greatly exceeded pension benefits paid. Additionally, a net appreciation in the fair value of the Funds' investment portfolio resulted in a significant increase in the amount of net investment income reported for the period.

Changes in Fiduciary Net Position
Years Ended June 30, 2018, 2017 and 2016
(In thousands)

	2018	2017	2016
Additions:			
Member contributions	$ 108,338	$ 108,368	$ 116,619
Employer contributions	1,200,417	1,061,170	1,054,478
Net investment income	1,249,731	1,371,721	203,104
Other	9,411	47,284	43,673
Total	2,567,897	2,588,543	1,417,874
Deductions:			
Benefit payments and withdrawals	1,385,499	1,334,807	1,358,431
Net increase in net position	1,182,398	1,253,736	59,443
Net position restricted for benefits			
Beginning of year	12,961,358	11,707,622	11,648,179
End of year	$14,143,756	$12,961,358	$11,707,622

For Fiscal Year ended June 30, 2018, member contributions of approximately $108.3 million was slightly lower compared to member contributions for Fiscal Year 2017. For Fiscal Year ended June 30, 2017, member contributions were approximately $108.4 million or a decrease of $8.2 million (7.0%) compared to member contributions for Fiscal Year 2016. Generally, increases or decreases in member contributions are primarily due to changes in the number of active Fund members making voluntary contributions in addition to their required contributions and changes in the average annual pay of Plan members.

Employer contributions are made on a statutory basis determined by the actuarial valuations performed as of June 30, 2016 and 2015 under the One-Year Lag Methodology ("OYLM"). Employer contributions for Fiscal Year 2018 totaled approximately $1,200.4 million, an increase of $139.2 million (13.1%) compared to employer contributions for Fiscal Year 2017. Employer contributions for Fiscal Year 2017 totaled approximately $1,061.2 million, an increase of $6.7 million (.6%) compared to employer contributions for Fiscal Year 2016.

For Fiscal Year ended June 30, 2018, the Funds had a net investment gain of $1,249.7 million; this amount was 8.9% lower than to the net investment gain of $1,371.7 million recorded for Fiscal Year 2017. The net investment gain for Fiscal year 2018 can be attributed to the overall net appreciation of invested assets in the combined investment portfolio of the Funds.

For Fiscal Year ended June 30, 2017, the Funds had a net investment gain of $1,371.7 million; this amount was an increase of 575.4% compared to the net investment gain of $203.1 million recorded for Fiscal Year 2016. The net investment gain for Fiscal year 2017 can be attributed to the overall net appreciation in fair value of the combined investment portfolio of the Funds, primarily the increase in value of equity investments.

Benefit payments and withdrawals recorded were $1,385.5 million for the Fiscal Year ended June 30, 2018; this was an increase of 3.8% compared to benefit payments and withdrawals recorded for Fiscal Year 2017. During Fiscal Year 2017, the Funds recorded benefit payments and withdrawals totaled $1,334.8 million, this was a slight decrease of 1.7% compared to benefit payments and withdrawals for Fiscal Year 2016. Increases in benefit payments and withdrawals are primarily due to changes in the number of new retirees and the amount of payments made to beneficiaries. Members are also able to withdraw their excess or voluntary contributions made to the fund. In addition, legislatively enacted cost of living increases for certain retirees and beneficiaries also serve to increase benefit payments each year.

FIDUCIARY NET POSITION

For Fiscal Year 2018, the Funds' net position restricted for benefits increased by 9.1% to $14.1 billion, compared to the net position restricted for benefits of $12.9 billion in Fiscal Year 2017. The overall growth for Fiscal Year 2018 can be attributed to the excess of total contributions and net investment income over pension benefits paid. In addition, a significant net appreciation of invested assets served to increase net investment income reported for the period.

For Fiscal Year 2017, the Funds' net position restricted for benefits increased by 10.7% to $12.9 billion, compared to the net position restricted for benefits of $11.7 billion in Fiscal Year 2016. The overall growth for Fiscal Year 2017 can be attributed to the excess of total contributions and net investment income over pension benefits paid. Additionally, a net appreciation in the fair value of the Funds' investment portfolio contributed to the significant increase in net investment income reported for the period.

Outstanding member loans for Fiscal Year 2018 totaled $25.2 million; this amount is 6.3% less than member loans reported in Fiscal Year 2017. Outstanding member loans for Fiscal Year 2017 totaled $26.9 million; this amount was essentially unchanged from member loans reported in FY 2016. Changes in member loans can be attributed to changes in the number and amounts of new loans disbursed and the amount of repayments received. Members are permitted to borrow up to 75% (for certain members up to 90%) of their required contributions, including accumulated interest.

Fiduciary Net Position
June 30, 2018, 2017 and 2016
(In thousands)

	2018	2017	2016
Cash	$ 5,435	$ 39,332	$ 48,755
Receivables	195,552	247,937	226,755
Investments — at fair value	14,361,915	13,070,975	11,802,778
Collateral from securities lending	1,169,286	1,110,853	922,481
Other assets	2,899	2,508	6,176
Total assets	15,735,087	14,471,605	13,006,945
Accounts payable	177,634	148,167	92,147
Payables for investments purchased	204,073	205,595	235,314
Accrued benefits payable	40,338	45,632	49,381
Payables for securities lending transactions	1,169,286	1,110,853	922,481
Total liabilities	1,591,331	1,510,247	1,299,323
Net position restricted for benefits	$ 14,143,756	$ 12,961,358	$ 11,707,622

The Funds' receivables and payables are primarily generated through the timing difference between the trade and settlement dates for investment securities purchased or sold.

Investment Summary
June 30, 2018
(In thousands)

Investments - At fair value:	**QPP**	**FFVSF**	**FOVSF**	**Combined**
Short term investments:				
U.S. treasury bills and agency	$ 53,484	$ -	$ -	$ 53,484
Commercial paper	189,200	503	1,903	191,606
Short-term investment fund	97,891	21	118	98,030
Discount notes	2,498	-	-	2,498
Debt securities:				
U.S. government and agency	1,767,633	-	-	1,767,633
Corporate and other	900,285	-	-	900,285
Mortgage debt securities	353,129	-	-	353,129
Bank loans	8,044	-	-	8,044
Equity securities	3,848,728	-	111,494	3,960,222
Alternative investments:				
Infrastructure	70,510	-	-	70,510
Opportunistic Fixed Income	392,612	-	-	392,612
Private Equity	1,596,436	-	-	1,596,436
Private Real Estate	548,159	-	-	548,159
Collective trust funds:				
Bank Loans	200,689	-	-	200,689
Corporate and other	363,336	-	-	363,336
International equity	2,264,395	156,502	106,597	2,527,494
Domestic equity	88,801	179,243	10,050	278,094
Mortgage debt securities	99,102	-	-	99,102
Treasury inflation protected securities	590,072	-	124,324	714,396
U.S. Government and agency	52,540	183,616	-	236,156
Collateral from securities lending	1,140,436	16,842	12,008	1,169,286
	$ 14,627,980	$ 536,727	$ 366,494	$ 15,531,201

Investment Summary
June 30, 2017
(In thousands)

Investments - At fair value:	**QPP**	**FFVSF**	**FOVSF**	**Combined**
Short term investments:				
U.S. treasury bills and agency	$ -	$ -	$ -	$ -
Commercial paper	136,416	-	-	136,416
Short-term investment fund	91,493	6,971	2,637	101,101
Discount notes	-	-	-	-
Debt securities:				
U.S. government and agency	1,273,214	-	1,263	1,274,477
Corporate and other	946,424	-	-	946,424
Equity securities	1,878,641	-	-	1,878,641
Alternative investments	2,391,376	-	-	2,391,376
Collective trust funds:				
International equity	2,209,426	142,644	93,185	2,445,255
Domestic equity	2,149,785	156,098	102,508	2,408,391
Mortgage debt security	89,229	-	-	89,229
Treasury inflation protected securities	543,317	1,316	1,544	546,177
Fixed income	598,070	154,461	100,957	853,488
Collateral from securities lending	1,080,020	18,539	12,294	1,110,853
	$ 13,387,411	$ 480,029	$ 314,388	$ 14,181,828

The tables above summarize the Funds' investment portfolio including collateralized securities lending. Due to the long-term nature of the Funds' benefit obligations, the Funds' assets are invested with a long-term investment horizon. Assets are invested in a diversified portfolio of capital market securities. Investments in these assets are expected to produce higher returns, but are also subject to greater volatility and may produce negative returns. For example, the Russell 3000 index, a broad measure of the United States stock market posted gains of 14.8% in Fiscal Year 2018, compared to gains posted of 18.5% in Fiscal Year 2017. Investment results for Fiscal Year 2018 were generally consistent with related benchmarks, within asset classes. FIRE QPP's investment portfolio posted gains of 9.3% for Fiscal Year 2018 compared to the gain of 12.8% for Fiscal Year 2017. For the three-year period ended June 30, 2018, the overall rate of return on the QPP's investment portfolio was 7.7 %.

The FFVSF's investment portfolio posted gains of 7.3% for Fiscal Year 2018 compared to the gain of 13.5% for Fiscal Year 2017. For the three-year period ended June 30, 2018, the overall rate of return on the Plan's investment portfolio was 7.1%.

Similarly, the FOVSF's investment portfolio posted gains of 7.8% for Fiscal Year 2018 compared to the gain of 14.5% for Fiscal Year 2017. For the five-year period ended June 30, 2018, the overall rate of return on the Plan's investment portfolio was 7.5. %.

OTHER MATTERS

Chapter 298 of the laws of 2016 provides corpus funding of administrative expense for the Plan commencing September 8, 2016. This means that the administrative expense will be paid for out of the assets on the Plan instead of being paid for by the City of New York. Chapter 298 also allows for the appointment of an executive director of the Plan.

CONTACT INFORMATION

This financial report is designed to provide a general overview of the New York City Fire Pension Funds' finances. Questions concerning any data provided in this report or requests for additional information should be directed to Chief Accountant, New York City Fire Pension Funds, 9 Metrotech Center, 6W- 03-K, Brooklyn, NY 11201-3751.

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NEW YORK CITY FIRE PENSION FUNDS
COMBINING STATEMENTS OF FIDUCIARY NET POSITION
JUNE 30, 2018
(In thousands)

	QPP	FFVSF	FOVSF	Eliminations	Combined Funds
ASSETS:					
Cash	$ 2,883	$ 1,467	$ 1,085	$ -	$ 5,435
Receivables:					
Investment securities sold	143,921	-	-	-	143,921
Member loans (Note 7)	25,248	-	-	-	25,248
Accrued interest and dividends	25,777	199	245	-	26,221
Accounts receivables	129	-	33	-	162
Transferrable earnings due from QPP to Variable Supplements Funds	-	29,000	-	(29,000)	-
Total receivables	195,075	29,199	278	(29,000)	195,552
INVESTMENTS — At fair value (Notes 2 and 3):					
Short-term investments:					
Commercial paper	189,200	503	1,903	-	191,606
Short-term investment fund	97,891	21	118	-	98,030
U.S. treasury bills and agencies	53,484	-	-	-	53,484
Discount notes	2,498	-	-	-	2,498
Debt securities:					
U.S. government and agency	1,767,633	-	-	-	1,767,633
Corporate and other	900,285	-	-	-	900,285
Mortgage debt securities	353,129	-	-	-	353,129
Bank loans	8,044	-	-	-	8,044
Equity securities	3,848,728	-	111,494	-	3,960,222
Alternative investments:					
Infrastructure	70,510	-	-	-	70,510
Opportunistic fixed income	392,612	-	-	-	392,612
Private equity	1,596,436	-	-	-	1,596,436
Private real estate	548,159	-	-	-	548,159
Collective trust funds:					
Bank loans	200,689	-	-	-	200,689
Corporate and other	363,336	-	-	-	363,336
International equity	2,264,395	156,502	106,597	-	2,527,494
Domestic equity	88,801	179,243	10,050	-	278,094
Mortgage debt securities	99,102	-	-	-	99,102
Treasury inflation protected securities	590,072	-	124,324	-	714,396
U.S. Government and agency	52,540	183,616	-	-	236,156
Collateral from securities lending (Note 2)	1,140,436	16,842	12,008	-	1,169,286
Total investments	14,627,980	536,727	366,494	-	15,531,201
OTHER ASSETS	2,899	-	-	-	2,899
Total assets	14,828,837	567,393	367,857	(29,000)	15,735,087
LIABILITIES:					
Accounts payable	177,540	44	50	-	177,634
Payables for investment securities purchased	203,986	-	87	-	204,073
Accrued benefits payable (Note 1)	10,832	20,427	9,079	-	40,338
Transferrable earnings due from QPP to Variable Supplements Funds	29,000			(29,000)	-
Securities lending (Note 2)	1,140,436	16,842	12,008	-	1,169,286
Total liabilities	1,561,794	37,313	21,224	(29,000)	1,591,331
NET POSITION RESTRICTED FOR BENEFITS:					
Benefits to be provided by QPP	13,267,043	-	-	-	13,267,043
Benefits to be provided by VSF	-	530,080	346,633	-	876,713
Total net position restricted for benefits	$ 13,267,043	$ 530,080	$ 346,633	$ -	$ 14,143,756

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

NEW YORK CITY FIRE PENSION FUNDS
COMBINING STATEMENTS OF FIDUCIARY NET POSITION
JUNE 30, 2017
(In thousands)

	QPP	FFVSF	FOVSF	Eliminations	Combined Funds
Assets:					
Cash	$ 37,035	$ 1,391	$ 906	$ -	$ 39,332
Receivables:					
Investment securities sold	138,400	33,517	24,791	-	196,708
Member loans (Note 7)	26,951	-		-	26,951
Accrued interest and dividends	23,004	631	432	-	24,067
Accounts Receivables	178	-	33		211
Transferrable earnings due from QPP to Variable Supplements Funds	-	83,653	50,963	(134,616)	-
Total receivables	188,533	117,801	76,219	(134,616)	247,937
INVESTMENTS — At fair value (Notes 2 and 3):					
Short-term investments:					
Commercial paper	136,416	-	-	-	136,416
Short-term investment fund	91,493	6,971	2,637	-	101,101
U.S. treasury bills and agencies	-	-	-	-	-
Discount notes	-	-	-	-	-
Debt securities:					
U.S. government and agencies	1,273,214	-	1,263	-	1,274,477
Corporate and other	946,424	-	-	-	946,424
Equity securities	1,878,641	-	-	-	1,878,641
Alternative investments	2,391,376	-	-	-	2,391,376
Collective trust funds:					
International equity	2,209,426	142,644	93,185	-	2,445,255
Fixed income	598,070	154,461	100,957	-	853,488
Domestic equity	2,149,785	156,098	102,508	-	2,408,391
Mortgage debt security	89,229	-	-	-	89,229
Treasury inflation protected securities	543,317	1,316	1,544	-	546,177
Collateral from securities lending (Note 2)	1,080,020	18,539	12,294	-	1,110,853
Total investments	13,387,411	480,029	314,388	-	14,181,828
OTHER ASSETS	2,508	-	-	-	2,508
Total assets	13,615,487	599,221	391,513	(134,616)	14,471,605
LIABILITIES:					
Accounts payable	147,979	96	92	-	148,167
Payables for investment securities purchased	147,296	33,509	24,790	-	205,595
Accrued benefits payable (Note 1)	15,680	20,831	9,121	-	45,632
Transferrable earnings due from QPP to Variable Supplements Funds	134,616	-	-	(134,616)	-
Securities lending (Note 2)	1,080,020	18,539	12,294	-	1,110,853
Total liabilities	1,525,591	72,975	46,297	(134,616)	1,510,247
NET POSITION RESTRICTED FOR BENEFITS:					
Benefits to be provided by QPP	12,089,896	-	-	-	12,089,896
Benefits to be provided by VSF	-	526,246	345,216	-	871,462
Total net position restricted for benefits	$ 12,089,896	$ 526,246	$ 345,216	$ -	$ 12,961,358

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

NEW YORK CITY FIRE PENSION FUNDS
COMBINING STATEMENTS OF CHANGES IN FIDUCIARY NET POSITION
YEAR ENDED JUNE 30, 2018
(In thousands)

	QPP	FFVSF	FOVSF	Eliminations	Total
ADDITIONS:					
Contributions:					
Member contributions	$ 108,338	$ -	$ -	$ -	$ 108,338
Employer contributions	1,200,417	-	-	-	1,200,417
Total contributions	1,308,755	-	-	-	1,308,755
Investment income (Note 3):					
Interest income	168,451	4,584	3,103	-	176,138
Dividend income	159,918	8,123	5,448	-	173,489
Net appreciation in fair value of investments	952,687	22,865	17,000	-	992,552
Total investment income	1,281,056	35,572	25,551	-	1,342,179
Less investment expenses	96,936	404	248	-	97,588
Net income	1,184,120	35,168	25,303	-	1,244,591
Securities lending transactions:					
Securities lending income	5,267	265	180	-	5,712
Securities lending fees	(527)	(27)	(18)	-	(572)
Net securities lending income	4,740	238	162	-	5,140
Net investment income	1,188,860	35,406	25,465	-	1,249,731
Net receipts from other retirement systems	8,697	-	-	-	8,697
Transferrable earnings from QPP to Variable Supplements Funds	-	15,000	-	(15,000)	-
Litigation income	714	-	-	-	714
Total additions	2,507,026	50,406	25,465	(15,000)	2,567,897
DEDUCTIONS:					
Benefit payments and withdrawals (Note 1)	1,308,467	46,572	24,048	-	1,379,087
Administrative expenses	6,412	-	-	-	6,412
Transferrable earnings from QPP to Variable Supplements Funds	15,000	-	-	(15,000)	-
Total deductions	1,329,879	46,572	24,048	(15,000)	1,385,499
NET INCREASE IN NET POSITION	1,177,147	3,834	1,417	-	1,182,398
NET POSITION RESTRICTED FOR BENEFITS					
					-
Beginning of year	12,089,896	526,246	345,216	-	12,961,358
End of year	$ 13,267,043	$ 530,080	$ 346,633	$	$ 14,143,756

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

NEW YORK CITY FIRE PENSION FUNDS
COMBINING STATEMENTS OF CHANGES IN FIDUCIARY NET POSITION
YEAR ENDED JUNE 30, 2017
(In thousands)

	QPP	FFVSF	FOVSF	Eliminations	Total
ADDITIONS:					
Contributions:					
Member contributions	$ 108,368	$ -	$ -	$ -	$ 108,368
Employer contributions	1,061,170	-	-	-	1,061,170
Total contributions	1,169,538	-	-	-	1,169,538
Investment income (Note 3):					
Interest income	135,642	4,600	3,107	-	143,349
Dividend income	159,972	7,504	4,135	-	171,611
Net appreciation in fair value of investments	1,067,973	34,802	32,860	-	1,135,635
Total investment income	1,363,587	46,906	40,102	-	1,450,595
Less investment expenses	84,438	439	247	-	85,124
Net income	1,279,149	46,467	39,855	-	1,365,471
Securities lending transactions:					
Securities lending income	6,150	309	257	-	6,716
Securities lending fees	(428)	(21)	(17)	-	(466)
Net securities lending income	5,722	288	240	-	6,250
Net investment income	1,284,871	46,755	40,095	-	1,371,721
Net receipts from other retirement systems	44,999	-	-	-	44,999
Transferrable earnings from QPP to Variable Supplements Funds	-	23,914	21,829	(45,743)	-
Litigation income	2,285	-	-	-	2,285
Total additions	2,501,693	70,669	61,924	(45,743)	2,588,543
DEDUCTIONS:					
Benefit payments and withdrawals (Note 1)	1,265,817	47,273	21,717	-	1,334,807
Transferrable earnings from QPP to Variable Supplements Funds	45,743	-	-	(45,743)	-
Total deductions	1,311,560	47,273	21,717	(45,743)	1,334,807
NET INCREASE IN NET POSITION	1,190,133	23,396	40,207	-	1,253,736
NET POSITION RESTRICTED FOR BENEFITS					
Beginning of year	10,899,763	502,850	305,009	-	11,707,622
End of year	$ 12,089,896	$ 526,246	$ 345,216	$ -	$ 12,961,358

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

1. PLAN DESCRIPTION

The City of New York ("The 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 Fire Pension Funds ("FIRE"), 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"), and the New York City Police Pension Funds ("POLICE"). Each pension system is a separate Public Employee Retirement System ("PERS") with a separate oversight body and is financially independent of the others.

FIRE administers the New York City Fire Subchapter Two Pension Fund, which is generally referred to as the New York City Fire Pension Fund ("QPP") as set forth in the Administrative Code of The City of New York ("ACNY") Section 13-313.1. FIRE also administers the New York City Firefighters' Variable Supplements Fund ("FFVSF") and the New York City Fire Officers' Variable Supplements Fund ("FOVSF").

The QPP is a single-employer pension plan. The QPP provides pension benefits for full-time uniformed employees of the New York City Fire Pension Fund (the "Employer"). All full-time uniformed employees of the New York City Fire Department become members of the QPP upon appointment. 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 FFVSF and the FOVSF (collectively, the "VSFs") operate pursuant to the provisions of Title 13, Chapter 3 of the ACNY and provide supplemental benefits to retired Firefighters and Wipers, and Fire Officers, respectively. To be eligible to receive benefits from the VSFs, Firefighters and Wipers, and Fire Officers must retire, on or after October 1, 1968, with 20 or more years of uniformed services and be receiving a service retirement benefit from the QPP. Under current law, the VSFs are not to be construed as constituting a pension or retirement system. Instead, they provide defined supplemental payments, other than pension or retirement system allowances, in accordance with applicable statutory provisions. While The City guarantees these payments, the New York State Legislature has reserved to itself and the State the right and power to amend, modify, or repeal the VSFs and the payments they provide. For financial reporting purposes, however, the VSFs are considered single-employer defined benefit pension plans.

FIRE is a fiduciary fund of The City and is included in the Pension and Other Employee Benefit Trust Funds section of The City's Comprehensive Annual Financial Report ("CAFR").

Boards of Trustees

The QPP's Board of Trustees consists of twelve members. The Trustees and their voting rights are as follows: the City Fire Commissioner, Mayor, Comptroller, and Commissioner of Finance (three votes each); the President, the Vice President, Treasurer, and Chairperson of the Board of Trustees of the Uniformed Firefighters Association of Greater New York ("UFA") (two votes each); the President of the Uniformed Fire Officers' Association of Greater New York ("UFOA") and three elected members of the Executive Board of the UFOA, one of whom shall be an officer with rank above that of captain (one vote), one of whom shall be a captain (one vote) and one of whom shall be a lieutenant (one and one-half votes); and a representative of the Uniformed Pilots' and Marine Engineers' Association of Greater New York (one-half vote).

The FFVSF's Board of Trustees consists of five members. The Trustees are as follows: the City Mayor, Comptroller, Commissioner of Finance, and two representatives of the UFA who are members of the QPP Board of Trustees with one vote each.

The FOVSF's Board of Trustees consists of five members. The Trustees are as follows: the City Mayor, Comptroller, Commissioner of Finance, and two of the representatives of the UFOA who are members of the QPP Board of Trustees with one vote each.

Membership Data

At June 30, 2018, June 30, 2017, and June 30, 2016, the QPP's membership consisted of:

	2018*	2017	2016
Retirees and beneficiaries receiving benefits	17,226	16,636	16,647
Terminated vested members not yet receiving benefits	61	58	58
Other inactives **	19	15	21
Active members receiving salary	11,244	11,091	10,951
Total	28,550	27,800	27,677

* Estimated headcount

** Represents members who are no longer on payroll but not otherwise classified.

At June 30, 2018, June 30, 2017, and June 30, 2016 the FFVSF and FOVSF membership consisted of:

	FFVSF			FOVSF		
	2018*	2017	2016	2018*	2017	2016
Retirees currently receiving payments	3,430	3,474	3,535	1,521	1,536	1,553
Active members**	8,512	8,431	8,399	2,732	2,660	2,552
Total	11,942	11,905	11,934	4,253	4,196	4,105

* Estimated headcount

** Represents the number of actively employed Firefighters and Fire Officers, respectively, as of the June 30 valuation dates.

Summary of Benefits

QPP

The New York State Constitution provides that the pension rights of public employees are contractual and shall not be diminished or impaired. In 1973, amendments were made to the New York State Retirement and Social Security Law ("RSSL") to modify certain benefits for employees joining the QPP on or after the effective date of such amendments. These amendments, which affect employees who joined the QPP on and after July 1, 1973, established certain benefit limitations relating to eligibility for retirement, the salary base for benefits and maximum benefits. Recent laws, including but not limited to Chapter 372 of the Laws of 2000 which provides a revised definition of salary base to be used in the computation of certain benefits for Tier 2 members of the QPP and Chapter 589 of the Laws of 2001 which eliminated the Tier 2 maximum 30 years of service limitation, have lessened these limitations.

The QPP currently administers the following pension tiers: Tier 1, Tier 2, Tier 3, and Tier 6 (Tier 3 Modified).

The QPP provides four main types of retirement benefits for all tiers: Vested Retirement benefits, Service Retirements, Ordinary Disability Retirements (non-job-related disabilities), and Accident Disability Retirements (job-related disabilities). Additionally, the QPP provides death benefits for all tiers.

Tier 1 is applicable to members appointed to the FDNY prior to July 1, 1973. Tier 2 is applicable to members appointed between July 1, 1973 and June 30, 2009. Benefits are generally the same for Tier 1 and Tier 2.

For Tier 1 and Tier 2 members, the QPP generally provides the following:

- A Vested retirement benefit is payable to Tier 1 and 2 members with at least five years of uniformed service. Tier 1 and 2 members who commenced their membership with the QPP prior to February 4, 2000 must have 15 years of uniformed service to be eligible for a vested retirement benefit. This benefit is generally comprised of a pension equal to 1/40 of their final average salary for every year of uniformed service and is reduced or increased based on the actuarial value of an account shortage or excess. The benefit can also be increased for any purchased non-uniformed service.

- A Service retirement benefit, in both tiers, provides an allowance of one-half of "final salary" after 20 years or 25 years of uniformed service (as elected), with additional benefits equal to a specified percentage per year of service (currently approximately 1.67%) of "average salary" times the number of years of credited service in excess of the 20-year or 25-year minimum. Under the new program, these additional benefits are increased, where applicable, by an annuity attributable to employee contributions accumulated with interest with respect to service over the 20-year or 25-year minimum and an annuity attributable to the Increased-Take-Home-Pay ("ITHP") contributions accumulated after required member qualifying service. ITHP represents amounts contributed by The City in lieu of members' own contributions. These amounts reduce the contributions that the 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 and increase pension contributions made to the plan.

- An Ordinary Disability Retirement ("ODR") benefit generally provides a pension equal to 1/40 of "final salary" times the number of years of service but not less than one-half of "final salary" if 10 or more years of service were completed, or one-third of "final salary" if less than 10 years of service were completed. Members of the Improved Benefits Plan with years of service in excess of 20 years receive the actuarial equivalent of their Annuity Savings Fund balance.

- An Accident Disability Retirement ("ADR") benefit provides a pension of three-fourths of "final salary" plus an increment, as described above based on years of credited service in excess of the 20-years or 25-years minimum plus: (i) under the Original Plan, accumulated employee contributions without interest as a lump sum or an actuarially equivalent annuity, (ii) under the Improved Benefits Plan, an annuity based on the member's contributions and ITHP contributions both of which are accumulated with interest.

- Tier 1 and Tier 2 members 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% APR). At the time of retirement or refund of contributions, a member's aggregate balance of actual Required Contributions and Voluntary Contributions, including statutory interest ("Actual Balance"), 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 Required Amount. The Required Amount is the sum of the Required Contributions which a member should have made during his or her first 20 years of credited service, plus statutory interest earnings thereon. The amount of the member's retirement annuity or the refund of contributions that he or she is entitled to is increased by the actuarial value of any Excess of Contributions or reduced by any Deficiency of Contributions. The collective value of Required Amount, Actual Balance, and outstanding member loans, as of June 30, 2018, is as follows:

	Tier 1	**Tier 2**	**Total**
Required amount	$ 95,139	$ 487,349,124	$ 487,444,263
Actual balance	508,535	1,803,696,762	1,804,205,297
Outstanding loans	-	25,247,862	25,247,862

Annuities attributable to member contributions are reduced on an actuarial basis for any loans with unpaid balances outstanding at the date of retirement.

Cost of living adjustments ("COLA") are automatically payable to members who are either: (1) at least age 62 and have been retired for at least 5 years or (2) at least age 55 and have been retired for at least 10 years. Additionally, COLA are payable to members who retired for disability after being retired for 5 or more years and to beneficiaries receiving accidental death benefits who have been receiving them for at least 5 years. Beginning September 2001, COLA benefits equal 50% of the increase in the CPI-U based on the year ending March 31, rounded to the next higher .1% not less than 1% nor greater than 3% of the first $18,000 of the sum of maximum pension allowance and prior COLA.

In June of 2009, the Governor vetoed legislation that would have extended Tier 2 to members hired after June 30, 2009. As a result of the Governor's veto, QPP members hired on and after July 1, 2009 are covered under Tier 3, as governed by Article 14 of the New York State Retirement and Social Security Law ("RSSL"). As a result of Chapter 18 of the Laws of 2012, there are certain limitations on Tier 3 benefits available to participants hired on and after April 1, 2012. In most New York State PERS, including the QPP, these changes are sometimes referred to as Tier 6 or Tier 3 Modified.

For Tier 3/Tier 3 Modified members, the QPP generally provides the following:

- A Normal Service Retirement benefit is payable after completion of 22 years of uniformed service.
- An Early Service Retirement is payable upon completion of 20 years or age 62 for Tier 3 or upon completion of 20 years for Tier 3 Modified and is payable as a pension equal to 2.1% of Final Average Salary plus 1/3% of Final Average Salary for each month in excess of 20 years of uniformed service, such benefit not to exceed 50% of Final Average Salary.
- A Vested benefit is payable to members with at least five years of uniformed service. The benefit is equal to 2.1% of final average salary for every year of uniformed service payable upon attainment of eligibility for early age, or 55.
- An ODR retirement allowance is payable to a Non-Enhanced Member who has at least 5 years of service and is in receipt of Social Security Disability Benefits. An ODR benefit is 1/3 of Final Average Salary or 2% of Final Average Salary for each year of credited service, whichever is greater and does not exceed 50% of Final Average Salary. The ODR retirement allowance for Enhanced Members is described on page 42.
- An ADR retirement allowance is payable to a Non-Enhanced Member who was disabled as the result of a line-of-duty accident not attributable to his own willful negligence. An ADR pension is 50% of a member's Final Average Salary. The ADR retirement allowance for Enhanced Members is described on page 42.

The Normal Service, Early Service and Vested retirement allowances are reduced by one-half of the member's Social Security Benefit attributable to New York State public earnings, at age 62, regardless of eligibility for Social Security.

Tier 3/Tier 3 Modified members are also eligible for annual escalation on the retirement allowance: (1) in full, if they have retired for Service after completing 25 or more years of uniformed service (or elected to defer commencement of their benefit to that 25-year date) or on a reduced basis, by 1/36 for each month that their retirement precedes 25 years or (2) in full, if they have retired for disability and are Non-Enhanced Members or (3) in full, to their beneficiary for accidental death benefits. Escalation is determined from the change in the CPI-U based on the prior year ending December 31, not greater than 3%.nor less than – 3% in the event of a decrease. Tier 3/Tier 3 Modified members, when eligible, receive the greater of the applicable increase from COLA or escalation.

VSFs

The FFVSF provides a guaranteed schedule of supplemental benefits for Firefighters who retire (or have retired) as Firefighters on Service retirement with at least 20 years of credited service as follows:

- For those Firefighters who retired from service as Firefighters before July 1, 1988, the annual supplemental benefit was $2,500 in Calendar Year 1988. For those who retired during Calendar Year 1988, the annual $2,500 benefit payment was prorated. The annual benefit increases $500 each year thereafter to a maximum of $12,000 in Calendar Year 2007. The 1988 benefits included any payments made under the prior program.

  For those Firefighters hired before July 1, 1988 and who retire after Calendar Year 1988, the annual benefit payment is the scheduled amount as described above, prorated in the year of retirement and the full amount thereafter.

- For those who become members of QPP on or after July 1, 1988, the annual supplemental benefit is $2,500 for the first 12 months of retirement, which increases by $500 each year until a maximum of $12,000 is payable in the twentieth and later years of retirement. This was later modified by Chapter 500 of the Laws of 1995 ("Chapter 500/95") such that these members will receive the maximum $12,000 benefit beginning Calendar Year 2008 and thereafter.

The FOVSF provides a guaranteed schedule of supplemental benefits for Fire Officers who retire (or have retired) as Fire Officers on Service retirement with at least 20 years of credited uniformed service as follows:

- A Fire Officer hired before July 1, 1988, who retired from service as a Fire Officer on or after October 1, 1988, and prior to Calendar Year 1993 receives a defined schedule of benefits starting at $5,000 payable in January 1994 for the Calendar Year 1993 payment. For those who retired during Calendar Year 1993, the annual $5,000 benefit payment was prorated. The annual benefit increases $500 each year thereafter to a maximum of $12,000 for Calendar Year 2007 (payable by January 31, 2008) and thereafter.

  For those who were members of QPP prior to July 1, 1988, and who retire after Calendar Year 1993, the annual benefit payment is the scheduled amount as described above, prorated in the year of retirement and the full amount thereafter.

- For those who become members of the QPP on or after July 1, 1988, the annual supplemental benefit is $2,500 for the first twelve months of retirement, which increases by $500 each year until a maximum of $12,000 is payable in the twentieth and later years of retirement. This was later modified by Chapter 500 of the Laws of 1998 ("Chapter 500/98") such that these members will receive the maximum $12,000 benefit beginning Calendar Year 2008 and thereafter.

Chapter 500/95 permitted certain active employees with prior service credit before entering the QPP to utilize their original dates of hire for determining eligibility for benefits from the FFVSF and the FOVSF. In addition, this law permitted certain active employees with prior service credit before entering the QPP to utilize their original dates of hire for determining eligibility for benefits from the FFVSF and the FOVSF.

Additionally, Chapter 216 of the Laws of 2002 ("Chapter 216/02") provides that participants of the VSFs who retire from the QPP on and after January 1, 2002 with more than 20 years of credited service are entitled to an additional one-time special lump sum payment, the Deferred Retirement Option Plan ("DROP"). The DROP also known as "Banked Variable" represents the amount the member would have received had he/she retired for Service upon reaching eligibility. The DROP payment is an eligible distribution that may be rolled over pursuant to IRS regulations. Members who retired for a disability or die in active service are not eligible for the VSF DROP. Accumulated VSF DROP balances for Fiscal Year 2018 were $58.7 million for FFVSF and $112.0 million for FOVSF. Similarly, for Fiscal Year 2017 the balances were $58.1 million for FFVSF and $110.1 million for FOVSF.

Any increase in the amount of ad hoc cost-of-living increases ("Supplementation") or automatic Cost-of-Living Adjustments ("COLA") payable from the QPP to a retiree of the FFVSF under legislation enacted on or after July 1, 1988 or to a retiree of the FOVSF under legislation enacted on or after January 1, 1993, will reduce benefits payable from the FFVSF or FOVSF to such 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 such retiree attains age 62 and (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 such retiree attains age 62 and (b) the earlier of: (1) the first day of the month following the 19th anniversary of such retiree's date of retirement and (2) January 1, 2008.

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 by the QPP when the Employer makes payroll deductions from QPP members. Employer contributions are recognized when due and the Employer has a legal obligation to provide the contributions. Benefits and refunds are recognized when due and payable in accordance with the terms of the Funds.

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

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

Investment Valuation – Investments are reported at fair value. Securities purchased pursuant to agreements to resell are carried at the contract price, exclusive of interest, at which the securities will be resold. Fair value is defined as the quoted market value on the last trading day of the period, except for the Short-Term Investment Fund ("STIF") (a money market fund), International Investment funds ("IIF") and Alternative Investment funds ("ALTINVF"). The IIF are private funds of publicly traded securities which are managed by various investment managers on behalf of the Funds. Fair value is determined by FIRE management based on information provided by the various investment managers. The investment managers determine fair value using the last available quoted price for each security owned adjusted by any contributions to or withdrawals from the fund during the period. The ALTINVF are 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 FIRE management based on information provided by the various GP's after review by an independent consultant and the custodian bank for the fund.

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 Funds is not subject to Federal income tax.

Accounts Payable – Accounts payable is principally comprised of amounts owed to the Funds' banks for overdrawn bank balances. The Funds' practice is to fully invest cash balances in most bank accounts daily. Overdrawn balances result primarily from outstanding benefit checks that are presented to the banks for payment on a daily basis, and 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 end of 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' 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, 2018 and 2017, management believes that the Funds had no credit risk exposure to borrowers because the amounts the Funds owed the borrowers equaled or exceeded the amounts the borrowers owed the Funds. The contracts with the Fund's Custodian require the Securities Lending Agent to Indemnify the Funds.

In the situation when a borrower goes into default, the Agent will liquidate the collateral to purchase replacement securities. Any shortfall before the replacement securities cost and the collateral value is covered by the 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 30.46 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, the Funds 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, 2018 and 2017 was $1,131.3 million and $1,056.9 million, respectively for the QPP, $18.0 million and $18.2 million, respectively for the FFVSF, and $12.8 million and $12.1 million, respectively for the FOVSF. Cash collateral received related to securities lending as of June 30, 2018 and 2017 was $1,140.4 million and $1,080.0 million, respectively for the QPP, $16.8 million and $18.5 million, respectively for the FFVSF, and $12.0 million and $12.3 million, respectively for the FOVSF. As of the date of the statements of fiduciary net position, the maturities of the investments made with cash collateral on average exceed the maturities of the securities loans by approximately 30 days.

GASB Statement No. 72, *Fair Value Measurement and Application* requires the Funds to use valuation techniques which are appropriate under the circumstances and are either a market approach, a cost approach or 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 was used for the fair value measurements.

3. INVESTMENTS AND DEPOSITS

The City Comptroller (the "Comptroller") acts as an investment advisor to the Funds. In addition, the Funds employ an independent investment consultant as an investment advisor. The Funds utilize 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 Boards of Trustees of the respective Funds set investment objectives to assure adequate accumulation of reserves and to protect the long-term value of the assets. The Boards' investment policy is implemented using a strategic allocation of assets that meet the objectives of the Funds, while working within the confines of the legislative guidelines. The guidelines dictate that fixed income, equity and other investments may be made permitted by the New York State Retirement and Social Security Laws ("RSSL") and State Banking Law, the ACNY, and the Legal Investments for New York Savings Banks list as published by The New York State Banking Department. The Funds' asset allocation policy is constructed to meet both short-term funding requirements and long-term pension obligations. Investments up to 25% of assets of the Funds may be made in instruments not expressly permitted by the State RSSL.

The Funds do not possess an investment risk policy statement, nor does it actively manage assets to specific risk targets. Rather, investment risk management is an inherent function of our 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 year 2018 and 2017. Includes securities in the following categories:

	2018	2017
U.S. Equity	31.0 %	31.0 %
Core U.S. Fixed	11.0	11.0
EAFE Markets	9.0	9.0
Private Equities	7.0	7.0
Emerging Markets	6.0	6.0
Enhanced Yield Bonds	7.0	7.0
Real Estate	8.0	8.0
Private Real Estate	2.0	2.0
Hedge Funds	6.0	6.0
REITS	0.0	0.0
TIPS	4.0	4.0
Opportunistic Fixed	5.0	5.0
Cash	0.0	0.0
Bank Loans	2.0	2.0
ETI	2.0	2.0
Convertible Bonds	0.0	0.0
Total	100.0 %	100.0 %

State Street Bank is the primary custodian for substantially all of the securities of the Funds.

Concentrations — None of the Funds have any investments in any one entity that represent 5% or more of their fiduciary net position.

Credit Risk — Portfolios other than U.S. Government and related portfolios have credit rating limitations. Investment Grade portfolios are limited to mostly ratings of BBB and above except that they are also permitted a 10% maximum exposure to BB & B rated securities. While non-investment grade managers are primarily invested in BB & B rated securities, they can also invest up to 7% of their portfolio in securities rated CCC. Non-rated securities are considered to be non-investment grade. The quality ratings of Funds' investments, by percentage of the rated portfolio, as described by nationally recognized statistical rating organizations, at June 30, 2018 are as follows:

	Moody's Quality Ratings																		
June 30, 2018																	**Caa & Below**	**Not**	**Total**
Investment Type	**Aaa**	**Aa1**	**Aa2**	**Aa3**	**A1**	**A2**	**A3**	**Baa1**	**Baa2**	**Baa3**	**Ba1**	**Ba2**	**Ba3**	**B1**	**B2**	**B3**	**Caa1**	**Rated**	
(in percent)																			
U.S. Government	56.74%	0.02%	0.05%	0.01%	0.02%	0.02%	0.09%	0.00%	0.10%	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	2.64%	59.70%
Corporate bonds	0.86%	0.14%	0.13%	0.27%	0.57%	0.66%	1.72%	1.92%	2.37%	2.28%	1.45%	1.57%	2.53%	2.58%	2.60%	2.64%	1.95%	6.70%	32.94%
Commercial Paper	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	3.88%	3.88%
Stif	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	3.48%	3.48%
Discount Notes & T-Bills	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Percent of Rated Portfolio	57.60%	0.16%	0.18%	0.28%	0.59%	0.68%	1.81%	1.92%	2.47%	2.29%	1.45%	1.57%	2.53%	2.58%	2.60%	2.64%	1.95%	16.70%	100.00%

U.S. Treasury Bonds, Notes, and Tips are obligations of the U.S. government or explicitly guaranteed by the U.S. Government and therefore are not considered to have credit risk and are not included above.

Credit Risk — Portfolios other than U.S. Government and related portfolios have credit rating limitations. Investment Grade portfolios are limited to mostly ratings of BBB and above except that they are also permitted a 10% maximum exposure to BB & B rated securities. While non-investment grade managers are primarily invested in BB & B rated securities, they can also invest up to 7% of their portfolio in securities rated CCC. Non-rated securities are considered to be non-investment grade. The quality ratings of Funds' investments, by percentage of the rated portfolio, as described by nationally recognized statistical rating organizations, at June 30, 2017 are as follows:

June 30, 2017	Moody's Quality Ratings																Caa & Below	Not	Total
Investment Type (in percent)	Aaa	Aa1	Aa2	Aa3	A1	A2	A3	Baa1	Baa2	Baa3	Ba1	Ba2	Ba3	B1	B2	B3	Caa1	Rated	
U.S. Government	37.54%	0.02%	0.02%	0.01%	0.00%	0.03%	0.11%	0.00%	0.15%	0.13%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	14.70%	52.71%
Corporate bonds	0.53%	0.33%	0.36%	0.58%	1.68%	1.17%	3.29%	5.19%	5.38%	5.91%	2.44%	1.12%	1.94%	1.28%	1.31%	1.80%	0.89%	4.03%	39.23%
Commercial Paper	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	5.65%	5.65%
Pooled Fund	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	2.41%	2.41%
Discount Notes & T-Bills	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Percent of Rated Portfolio	38.07%	0.35%	0.38%	0.59%	1.68%	1.20%	3.40%	5.19%	5.53%	6.04%	2.44%	1.12%	1.94%	1.28%	1.31%	1.80%	0.89%	26.79%	100.00%

U.S. Treasury Bonds, Notes, and Tips are obligations of the U.S. government or explicitly guaranteed by the U.S. Government and therefore are not considered to have credit risk and are not included above.

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, the Funds will not be able to recover the value of their 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 Funds and are held by either the counterparty or the counterparty's trust department or agent but not in the name of the Funds.

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

All of the Funds' deposits are insured by the Federal Deposit Insurance Corporation and collateralized by securities held by a financial institution separate from the Funds' depository financial institution.

Interest Rate Risk — Interest rate risk is the risk that the fair value of investments could be adversely affected by the change in interest rates. Duration limits are used to control the portfolios exposure to interest rate changes. In the investment grade core Fixed Income portfolios duration is limited to a range of one year shorter than the benchmark duration to 0.75 years longer than the duration of the benchmark indices. Duration range is a measure of the overall portfolio, while statements of the stated maturity reflect the specific maturities of the individual securities held. The Funds have no formal risk policy. The lengths of investment maturities (in years) of the Funds' investments, as shown by the percent of the rated portfolio, at June 30, 2018 and 2017 are as follows:

		Investment Maturities			
Years to Maturity June 30, 2018	**Fair Value**	**Less Than One Year**	**One to Five Years**	**Six to Ten Rated**	**More Than Ten Years**
U.S. Government	59.7 %	1.68 %	22.09 %	11.08 %	24.85 %
Corporate bonds	32.94	0.85	12.13	14.10	5.86
Yankee bonds	-	-	-	-	-
Short-term:					
Commercial Paper	3.88	3.88	-	-	-
Stif	3.48	3.48	-	-	-
U.S. Treasuries & Agencies	-	-	-	-	-
Discount Notes	-	-	-	-	-
Percent of rated portfolio	100 %	9.89 %	34.22 %	25.18 %	30.71 %

		Investment Maturities			
Years to Maturity June 30, 2017	**Fair Value**	**Less Than One Year**	**One to Five Years**	**Six to Ten Rated**	**More Than Ten Years**
U.S. Government	52.73 %	0.18 %	13.20 %	7.89 %	31.46 %
Corporate bonds	39.21	1.37	17.17	11.02	9.65
Yankee bonds	-	-	-	-	-
Short-term:					
Commercial Paper	5.65	5.65	-	-	-
Pooled fund	2.41	2.41	-	-	-
U.S. Treasuries & Agencies	-	-	-	-	-
Discount Notes	-	-	-	-	-
Percent of rated portfolio	100 %	9.61 %	30.37 %	18.91 %	41.11 %

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 have proven to be good diversifiers in a total portfolio context; therefore, the Funds have 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. The Funds' combined foreign currency holdings as of June 30, 2018 and 2017 are as follows:

Trade Currency	Fair Value	Fair Value
AUSTRALIAN DOLLAR	$ 45,737	$ 47,333
BOTSWANA PULA	378	413
BRAZILIAN REAL	47,957	48,858
CANADIAN DOLLAR	61,987	47,315
CHILEAN PESO	9,478	8,609
COLOMBIAN PESO	4,770	4,412
CROATIAN KUNA	1,173	900
CZECH KORUNA	2,389	2,178
DANISH KRONE	37,778	33,476
EGYPTIAN POUND	1,704	1,840
EURO CURRENCY	510,273	475,686
GHANA CEDI	310	236
HONG KONG DOLLAR	274,438	267,466
HUNGARIAN FORINT	2,798	3,037
INDIAN RUPEE	98,099	98,060
INDONESIAN RUPIAH	22,662	23,726
JAPANESE YEN	284,564	281,714
JORDANIAN DINAR	1,187	934
KENYAN SHILLING	1,461	1,152
KUWAITI DINAR	3,051	2,618
MALAYSIAN RINGGIT	21,476	21,018
MAURITIUS RUPEE	1,057	960
MEXICAN PESO (NEW)	24,907	28,661
MOROCCAN DIRHAM	1,125	913
NEW ISRAELI SHEQEL	3,793	4,736
NEW TAIWAN DOLLAR	99,901	111,920
NEW ZEALAND DOLLAR	1,105	2,539
NIGERIAN NAIRA	1,076	506
NORWEGIAN KRONE	16,193	13,014
OMANI RIAL	1,197	857
PAKISTAN RUPEE	2,500	2,342
PERUVIAN NOUVEAU SOL	914	674
PHILIPPINE PESO	10,472	12,042
POLISH ZLOTY	15,163	14,505
POUND STERLING	259,676	241,118
QATARI RIAL	7,074	5,146
ROMANIAN LEU	1,336	1,113
RUSSIAN RUBLE	953	568
SINGAPORE DOLLAR	20,472	19,853
SOUTH AFRICAN RAND	56,476	55,112
SOUTH KOREAN WON	136,375	146,243
SWEDISH KRONA	29,019	42,659
SWISS FRANC	112,299	122,901
THAILAND BAHT	28,542	26,938
TUNISIAN DINAR	472	383
TURKISH LIRA	17,066	19,131
UAE DIRHAM	4,696	4,864
YUAN RENMINBI	3,326	36
Total	$ 2,290,855	$ 2,249,811

Securities Lending Transactions

Credit Risk — The quality ratings of investments held as collateral for securities lending by the Funds' at June 30, 2018 and 2017 are as follows:

Investment Type and Fair Value of Securities Lending Transactions (In thousands)	S&P Quality Ratings											
	AAA+ & Below	AA+ & AA	AA-	A+	A	A-	BBB+ & Below	BB+ & Below	B+ & Below	CCC+ & Below	Not Rated	Total
June 30, 2018												
U.S. Government	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Corporate	-	-	-	-	-	-	-	-	-	-	-	-
Short Term:												
Repurchase Agreements	-	-	-	-	-	-	-	-	-	-	-	-
Reverse Repurchase Agreements	-	-	50,000	289,655	155,087	123,647	17,630	-	-	-	414,233	1,050,252
Money Market	3,274	-	-	520	-	-	4,885	-	-	-	85	8,764
Bank Notes	-	-	-	-	-	-	-	-	-	-	2,598	2,598
Cash or Cash Equivalent	-	-	-	101,733	-	-	-	-	-	-	-	101,733
Payable/Receivable	-	-	-	-	-	-	-	-	-	-	-	-
Uninvested	-	-	-	-	-	-	-	-	-	-	5,939	5,939
Total	$ 3,274	$ -	$ 50,000	$ 391,908	$ 155,087	$ 123,647	$ 22,515	$ -	$ -	$ -	$ 422,855	$ 1,169,286
Percent of securities lending portfolio	0.28%	0.00%	4.28%	33.52%	13.26%	10.57%	1.93%	0.00%	0.00%	0.00%	36.16%	100.00%

Investment Type and Fair Value
of Securities Lending Transactions
(In thousands)

	S&P Quality Ratings											
	AAA+ & Below	AA+ & AA	AA-	A+	A	A-	BBB+ & Below	BB+ & Below	B+ & Below	CCC+ & Below	Not Rated	Total
June 30,2017												
U.S. Government	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Corporate	-	-	-	-	-	-	-	-	-	-	-	-
Short Term:												
Repurchase Agreements	-	-	-	-	-	-	-	-	-	-	-	-
Reverse Repurchase Agreements	-	-	298,283	247,803	158,081	120,000	10,000	-	-	-	165,112	999,279
Money Market	-	-	-	-	-	-	-	-	-	-	-	-
Bank Notes	-	-	-	-	-	-	-	-	-	-	-	-
Cash or Cash Equivalent	-	-	-	110,400	-	-	-	-	-	-	-	110,400
Payable/Receivable	-	-	-	-	-	-	-	-	-	-	705	705
Uninvested	-	-	-	-	-	-	-	-	-	-	469	469
Total	$ -	$ -	$ 298,283	$ 358,203	$ 158,081	$ 120,000	$ 10,000	$ -	$ -	$ -	$ 166,286	$ 1,110,853
Percent of securities lending portfolio	0.00%	0.00%	26.85%	32.25%	14.23%	10.80%	0.90%	0.00%	0.00%	0.00%	14.97%	100.00%

Interest Rate Risk — The lengths of investment maturities (in years) of the collateral for securities lending held by the Funds' are as follows:

Years to Maturity
Investment Type
(In Thousands)

		Investment Maturities (in years)			
June 30, 2018	Fair Value	Less Than One Year	One To Five Years	Six to Ten Years	More Than Ten Years
Government	$ -	$ -	$ -	$ -	$ -
Corporate	-	-	-	-	-
Yankee	-	-	-	-	-
Short Term:					
Repurchase Agreements	-	-	-	-	-
Reverse Repurchase Agreements	1,050,252	1,050,252	-	-	-
Certificate of Deposits	-	-	-	-	-
Commercial Paper	-	-	-	-	-
Money Market	8,764	8,764	-	-	-
Bank Notes	2,598	2,598	-	-	-
Cash or Cash Equivalent	101,733	101,733	-	-	-
Uninvested	5,939	5,939	-	-	-
Total	$ 1,169,286	$ 1,169,286	$ -	$ -	$ -
Percent of Securities lending portfolio	100.00%	100.00%	0.00%	0.00%	0.00%

Years to Maturity
Investment Type
(In Thousands)

		Investment Maturities (in years)			
June 30, 2017	Fair Value	Less Than One Year	One To Five Years	Six to Ten Years	More Than Ten Years
Government	$ -	$ -	$ -	$ -	$ -
Corporate	-	-	-	-	-
Yankee	-	-	-	-	-
Short Term:					
Reverse Repurchase Agreements	999,279	999,279	-	-	-
Certificate of Deposits	-	-	-	-	-
Commercial Paper	-	-	-	-	-
Cash or Cash Equivalent	110,400	110,400	-	-	-
Uninvested	1,174	1,174	-	-	-
Total	$ 1,110,853	$ 1,110,853	$ -	$ -	$ -
Percent of Securities lending portfolio	100.00%	100.00%	0.00%	0.00%	0.00%

Rate of return — For the years ended June 30, 2018 and 2017, the annual money weighted rate of return on investments, net of investment expense, for the Funds was as follows:

	2018	2017
QPP	9.34%	12.82%
FFVSF	7.28%	13.48%
FOVSF	7.75%	14.53%

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 Funds adopted GASB Statement No. 72 ("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 categorize 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, 2018 and June 30, 2017:

GASB 72 Disclosure	2018			
(in thousands)	**Level**	**Level**	**Level**	
INVESTMENTS – At fair value	**One**	**Two**	**Three**	**Total**
Short-term investments:				
Commercial paper	$ -	$ 191,606	$ -	$ 191,606
Short-term investment fund	-	98,030	-	98,030
U.S. treasury bills and agencies	53,484	-	-	53,484
Discount notes	-	2,498	-	2,498
Debt securities:				
U.S. government and agency	-	1,767,633	-	1,767,633
Corporate and other	-	900,285	-	900,285
Mortgage debt security	-	353,129	-	353,129
Bank loans	-	8,044	-	8,044
Equity securities:				
Domestic equity	3,959,523	350	349	3,960,222
Alternative investments:				
Infrastructure	-	-	70,510	70,510
Opportunistic fixed income	-	-	392,612	392,612
Private equity	3,267	-	899,664	902,931
Private real estate	-	-	548,159	548,159
Collective trust funds:	-	-	-	-
Bank loans	-	200,689	-	200,689
Corporate and other	-	363,329	6	363,335
Domestic equity	277,093	-	1,001	278,094
International equity	2,527,227	-	267	2,527,494
Mortgage debt security	-	27,149	71,953	99,102
Treasury inflation protected securities	-	590,072	-	590,072
U.S. government and agency	-	360,480	-	360,480
Total investments	$ 6,820,594	$ 4,863,294	$ 1,984,521	13,668,409
Alternative investments valued at net asset value				693,506
Total				$ 14,361,915

	2017			
	Level One	Level Two	Level Three	Total
GASB 72 Disclosure (in thousands)				
INVESTMENTS – At fair value				
Short-term investments:				
Commercial paper	$ -	$ 136,416	$ -	$ 136,416
Short-term investment fund	-	101,101	-	101,101
Debt securities:				
U.S. government and agency	-	1,274,477	-	1,274,477
Corporate and other	-	941,855	4,569	946,424
Equity securities	1,878,265	347	29	1,878,641
Alternative investments	1,103	25,975	1,698,138	1,725,216
Collective trusts funds:				
International equity	2,405,030	39,804	421	2,445,255
Fixed income	2,067	663,571	187,850	853,488
Domestic equity	2,408,391	-	-	2,408,391
Mortgage debt security	-	17,393	71,836	89,229
Treasury inflation protected securities	-	544,633	1,544	546,177
Total investments	$ 6,694,856	$ 3,745,572	$ 1,964,387	12,404,815
Alternative Investments valued at net asset value				666,160
Total				$ 13,070,975

Equity and 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 of the fair value are securities whose stated market price is unobservable by the market place; 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 our custodian bank.

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 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. 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 should be valued by the GP using one or more valuation methodologies outlined in ASC 820, 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 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.

In accordance within the scope of paragraphs 820-10-15-4, alternative investments that are measured at fair value using the net asset value per share (or its equivalent) practical expedient in paragraph 820-10-35-59 have not been classified in the fair value hierarchy. The fair value quantities presented in this table are intended to permit reconciliation of the fair value hierarchy to the amounts presented in the entity's financial statements.

4. TRANSFER TO VARIABLE SUPPLEMENTS FUNDS

The ACNY provides that the QPP transfer to the VSFs an amount equal to certain excess earnings on equity investments limited to the unfunded Accumulated Benefit Obligation ("ABO") of the 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"), less any cumulative deficiencies. The VSFs also receive credit for investment earnings on their respective assets.

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

For Fiscal Year 2018, the excess earnings of the QPP, inclusive of prior year's cumulative deficiencies, are estimated to be equal to $788 million. After application of the ABO Gate, a liability and transfer of $15 million to FFVSF and a liability and transfer of $0 million to FOVSF have been reported by the QPP as of and for the year ended June 30, 2018, respectively.

For Fiscal Year 2017, the excess earnings of the QPP, inclusive of prior year's cumulative deficiencies, are estimated to be equal to $971 million. After application of the ABO Gate, a liability and transfer of $14 million to FFVSF and a liability and transfer of $0 million to FOVSF have been reported by the QPP as of and for the year ended June 30, 2017, respectively.

In addition, Chapter 583 of the Laws of 1989 states that if the assets of the FFVSF or FOVSF are less than the amount required to pay the retirees' guaranteed scheduled annual supplemental benefit payments, then

The City is required by law to fund the difference.

The amount shown below as the ABO is the measure of the present value of scheduled supplemental benefits estimated to be payable in the future as a result of employee service-to-date. The ABO is calculated as the actuarial present value of credited projected benefits, prorated on service and is intended to help users assess the funded status of the VSFs on a going-concern basis, assess progress made in accumulating sufficient assets to pay benefits when due and make comparisons among Variable Supplements Funds.

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

A comparison of the ABO as calculated by the Funds' Chief Actuary (the "Actuary") with the net position restricted for benefits for the FFVSF and the FOVSF as of June 30, 2017 and June 30, 2016, follows:

	FFVSF		**FOVSF**	
	2017	**2016**	**2017**	**2016**
	(in millions)		(in millions)	
Accumulated benefit obligation[1] for:				
Retirees currently receiving benefits	$ 340.6	$ 348.9	$ 146.7	$ 148.9
Active employees	184.6	178.6	189.7	181.4
Total accumulated benefit obligation[2,3]	525.2	527.5	336.4	330.3
Plan net position held in trust for benefits[4]	526.2	502.9	345.2	305.0
Unfunded accumulated benefit obligation	$ (1.0)	$ 24.6	$ (8.8)	$ 25.3

[1]Based on actuarial assumptions adopted by the Board of Trustees of the QPP during Fiscal Year 2012 with revisions adopted during Fiscal Year 2016.

[2]The June 30, 2017 and the June 30, 2016 ABOs for FFVSF decreased by approximately $1.6 million and decreased by approximately $1.9 million, respectively, and the June 30, 2017 and the June 30, 2016 ABOs for FOVSF decreased by approximately $0.6 million and $0.7 million, respectively, compared to those projected prior to the enactment of Chapters 119/95, 390/98 and 125/00.

[3]These total ABOs have been reduced by accrued benefits payable. This basis of reporting the total ABO is consistent with that used to report net position restricted for benefits in these financial statements, but may differ from the bases used for other purposes.

[4]See Note 2 for valuation of investments in the calculation of net position restricted for benefits.

For purposes of the June 30, 2017 and the June 30, 2016 actuarial valuations of the VSFs, Chapter 125/00 has been taken into account in the determination of the unfunded ABO relative to the Supplementation benefit increases that began Fiscal Year 2001 and to the automatic COLA benefits provided for Fiscal Year 2002 and each future year.

Sections 13-384 and 13-394 of the ACNY provide that the Boards of Trustees of the FFVSF and the FOVSF shall adopt, upon the recommendation of the Actuary, actuarial assumptions as to interest rate, mortality of retirees and estimated number of active members of the QPP in service as of each June 30 who will retire

for service with 20 or more years of service as Firefighters and Fire Officers, 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 ABOs as of June 30, 2017 and June 30, 2016, respectively:

	June 30, 2017	June 30, 2016
Investment rate of return	7.0% per annum. [1,2]	7.0% per annum. [1,2]
Post-retirement mortality	Tables adopted by the Board of Trustees during Fiscal Year 2016.	Tables adopted by the Board of Trustees during Fiscal Year 2016.
Active service: withdrawal, death, disabilitiy	Tables adopted by the Board of Trustees during Fiscal Year 2012.	Tables adopted by the Board of Trustees during Fiscal Year 2012.
Service retirement	Tables adopted by the Board of Trustees during Fiscal Year 2012.	Tables adopted by the Board of Trustees during Fiscal Year 2012.
Percentage of all active Fire members estimated to retire for service with 20 or more years of service as Firefighters	68%	68%
Percentage of all active Fire Officers estimated to retire for service with 20 or more years of service as Fire Officers	100%	100%
Cost-of-Living Adjustments[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] Developed assuming a long-term Consumer Price Inflation assumption of 2.5% per year.
[2] Net of Investment Expenses.

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 — Tier 1 and Tier 2 members contribute by salary deductions on the basis of a normal rate of contribution which is assigned by the QPP at membership. A member's normal rate is dependent upon age and actuarial tables in effect at the time of membership. These member contributions are reduced by 5.0% under the ITHP program.

Members may voluntarily increase their rates of contribution by 50% for the purpose of purchasing an additional annuity. Members are permitted to borrow up to 90% of their own contributions including accumulated interest.

Tier 3 and Tier 3 Modified members contribute 3.0% of salary until they have 25 years of credited service.

Employer 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, 2018, based on an actuarial valuation as of June 30, 2016 was $1,200.4 million and the Statutory Contribution for the year ended June 30, 2017, based on an actuarial valuation as of June 30, 2015 was $1,061.2 million. The Statutory Contributions for Fiscal Years 2018 and 2017 were 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.

6. NET PENSION LIABILITY

The components of net pension liability of the Employer at June 30, 2018 and 2017 for the Funds were as follows:

	(in thousands)			
June 30, 2018	**QPP**	**FFVSF**	**FOVSF**	**TOTAL**
Total Pension liability*	$ 21,073,770	$ 545,063	$ 373,079	$ 21,991,912
Fiduciary net position**	13,267,043	550,507	355,712	14,173,262
Employers' net pension liability	$ 7,806,727	$ (5,444)	$ 17,367	$ 7,818,650
Fiduciary net position as a percentage of the total	62.96%	101.00%	95.34%	64.45%

	(in thousands)			
June 30, 2017	**QPP**	**FFVSF**	**FOVSF**	**TOTAL**
Total Pension liability*	$ 20,384,622	$ 557,073	$ 372,535	$ 21,314,230
Fiduciary net position**	12,089,896	547,077	354,337	12,991,310
Employers' net pension liability	$ 8,294,726	$ 9,996	$ 18,198	$ 8,322,920
Fiduciary net position as a percentage of the total	59.31%	98.21%	95.12%	60.95%

*Includes Liabilities from Special Accidental Death Benefits pursuant to Section 208-f of the General Municipal Law.

**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, 2018 and 2017 was determined by actuarial valuations as of June 30, 2016 and June 30, 2015 respectively, that were rolled forwarded 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. 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 mortality tables for Service and Disability pensioners were developed from an experience study of the QPP's and the predecessor QPP's pensioners. The mortality tables for beneficiaries were also developed from an experience review.

Pursuant to Section 96 of the New York City Charter, a study of the actuarial assumptions used to value liabilities of the Funds is conducted every two years.

The obligations of the QPP to the FFVSF and the FOVSF are recognized through the Liability Valuation Method. Under this method the actuarial present value ("APV") of Future SKIM from the QPP to the FFVSF and FOVSF is included directly as an actuarial liability to the QPP. SKIM is all or a portion of the excess earnings on equity securities of the QPP which are transferable to the FFVSF and FOVSF. The APV of Future SKIM is computed as the excess, if any, of the APV of benefits of the FFVSF and FOVSF offset by the AAV of the FFVSF and FOVSF, respectively.

Expected Rate of Return on Investments

The long-term expected rate of return on the Funds' investments was determined using a building-block method in which best-estimate ranges of expected future real rates of return (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**
U.S Public Market Equities	31 %	6.3 %
International Public Market Equities	9	7.0
Emerging Public Market Equities	6	9.5
Private Market Equities	7	10.4
Fixed Income	31	2.2
Alternative Investments	16	5.5
Total	100 %	

Discount Rate

The discount rate used to measure the total pension liability was 7.0%. The projection of cash flows used to determine the discount rate assumes that employee contributions will be made at the rates applicable to the current tier for each member and that Employer contributions will be made at rates as 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 active and non-active members. Therefore, the long-term expected rate of return on the 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 Funds as of June 30, 2018, 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 1-percentage-point lower (6.0%) or 1-percentage-point higher (8.0%) than the current rate:

	(in thousands)		
	1% Decrease (6.0%)	Discount Rate (7.0%)	1% Increase (8.0%)
QPP	$ 9,926,984	$ 7,806,727	$ 5,986,228
FFVSF	42,807	(5,444)	(45,418)
FOVSF	51,574	17,367	(10,674)
Total	$ 10,021,365	$ 7,818,650	$ 5,930,136

7. MEMBER LOANS

Tier 1 and Tier 2 members are permitted to borrow up to 90% of their own accumulated contributions including accumulated interest. The balance of QPP member loans receivable at June 30, 2018 and 2017 was $25.2 million and $26.9 million, respectively. Members repay their loans at the statutory rate of 4% per annum. Upon termination of employment before retirement, certain members are entitled to refunds of their own contributions including, for new program members, accumulated interest less any loans outstanding. Certain prior year loans to retirees were removed from member loans receivables. Such balances should be reduced at the effective date of retirement as a result of payoff or future benefit reductions.

8. RELATED PARTIES

The Comptroller of The City of New York has been appointed by law as custodian for Fixed Annuity Program assets with revocable discretionary authority. Securities are held by certain banks under custodial agreements with the Comptroller. The Comptroller also provides cash receipt and cash disbursement services to the Funds. Actuarial services are provided to the Funds 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 the Funds. Other administrative services are also provided by The City. The cost of providing such services amounted to $2.3 million and $2.1 million in Fiscal Years 2018 and 2017, respectively.

9. ADMINISTRATIVE AND INVESTMENT EXPENSES

During fiscal year 2018, in accordance with Chapter 298 of the New York State Laws of 2016, the QPP Plan provided corpus funding for administrative expenses in the amount of $6.4 million. Additionally, services, as set out in Note 8 on "Related Parties" are provided by various City Agencies. The City defrayed the cost associated with these services. In fiscal year 2017, there were no administrative expenses paid out of the corpus of the Fund. Investment expenses charged to the investment earnings of the QPP, exclusive of expenses relating to securities-lending transactions amounted to approximately $96.9 million and $84.4 million in 2018 and 2017, respectively.

In March 2018, the Fund entered into a lease agreement for office space. The agreement is for a term of 15 years and 4 months and requires a total commitment of approximately $17,474,000 over the term of the lease.

10. CONTINGENT LIABILITIES AND OTHER MATTERS

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

Other Matters — During Fiscal Years 2016 and 2015, certain events described below took place which, in the opinion of FIRE management, could have the effect of increasing benefits to members and/or their beneficiaries. The effect of such events has not been fully quantified. However, it is the opinion of FIRE management that such developments would not have a material effect on the Funds' net position restricted for benefits or cause changes in Funds' net position restricted for benefits.

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 New York City Retirement Systems ("NYCRS") are conducted every two years. Refer to Note 6 for the results of the most recent actuarial studies for FIRE.

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

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

Chapter 18 of the Laws of 2012 placed certain limitations on the Tier 3 and Tier 4 benefits available to participants hired on and after April 1, 2012 in most New York State PERS, including FIRE.

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

Chapter 489 of the Laws of 2013 ("Chapter 489/13") 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 the New York City Fire Department and are otherwise eligible to receive retirement service credit for such service. Such member would not be required to make member contributions to receive such credit.

Chapter 41 of the Laws of 2016 ("Chapter 427/14") 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 New York State Retirement and Social Security Law ("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.

Chapter 326 of the Laws of 2016 ("Chapter 326/16") extended the deadline to file a Notice of Participation in the World Trade Center Rescue, Recovery, and Clean-up Operations to September 11, 2018.

Chapter 298 of the Laws of 2016 ("Chapter 298/16") amended the Accidental Disability Retirement and Ordinary Disability Retirement benefits for Tier 3 and Tier 3 Modified members with dates of membership prior to June 15, 2016 who elect to participate in the Enhanced Disability Benefits. Tier 3 Modified members with dates of membership June 15, 2016 and later are mandated into the Enhanced Disability Benefits. Members electing or mandated into this benefit will pay an extra 2% of wages.

The following outlines the changes to Tier 3 and Tier 3 Modified provisions with the Enhanced Disability legislation:

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 2% that 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 members appointed June 15, 2016 and later (i.e., the date 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/HHAT/Lung)

3. Ordinary Disability Retirement (ODR)

- The ODR benefit for Tier3 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 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 have a FAS5 calculation.
- The Tier 3 Original Members who opt into the Tier 3 Enhanced benefit have their FAS5 applied for ODR or ADR, but their Three-Year Final Average Salary (FAS3) applied for Service or Vested Retirements.

Additionally, Chapter 298/16 allows the Board of Trustees of FIRE to establish a budget for the administration of FIRE and authorized payment from the assets of FIRE to cover such Administrative Expenses. The Administrative Expenses will be charged against FIRE in the first instance and then reimbursed with interest by the City of New York as an Employer Contribution in the following fiscal year. This structure is commonly referred to as a “corpus-funded entity.” Accordingly, starting in Fiscal Year 2019, Administrative Expenses will be reflected in the Employer Contribution and the UAAL Payments.

Chapter 61 of the Laws of 2017 permits FIRE members subject to Retirement and Social Security Law ("RSSL") Article 14 ("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 Accidental Disability Retirement ("ADR") and modified the process for reducing or eliminating an ADR benefit based on post-retirement earnings.

The following changes apply to **all** Tier 3 members (Original, Revised and Enhanced):

1. **Eligibility for ADR**

   - Members no longer cease to be eligible for ADR at 22 years and can apply at any time as long as they are active.

2. **Safeguards**

   - RSSL § 507(d) no longer applies to Tier 3 ADR retirees; the Tier 2 safeguard provisions contained in New York City Administrative Code § 13-254 apply. Therefore, **all** Tier 3 ADR retirees will be treated identically to Tier 2 ADR retirees for Safeguards purposes. This includes 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.

* * * * * *

NEW YORK CITY FIRE PENSION FUNDS
REQUIRED SUPPLEMENTAL INFORMATION (UNAUDITED)
SCHEDULE OF CHANGES IN THE EMPLOYER'S NET PENSION LIABILITY AND RELATED RATIOS
(In thousands)

June 30, 2018	**QPP***	**FFVSF**	**FOVSF**	**TOTAL**
Total pension liability:				
Service cost	$ 419,209	$ 12,234	$ 4,926	$ 436,369
Interest	1,422,180	37,221	25,208	1,484,609
Changes of benefit terms	14,335	(2,416)	(317)	11,602
Differences between expected and actual experience	141,892	(12,073)	(5,183)	124,636
Changes of assumptions	-	-	-	-
Benefit payments and withdrawals	(1,308,467)	(46,976)	(24,090)	(1,379,533)
Net change in total pension liability	689,149	(12,010)	544	677,683
Total pension liability – beginning	20,384,622	557,073	372,535	21,314,230
Total pension liability – ending (a)	21,073,771	545,063	373,079	21,991,913
Plan fiduciary net position:				
Employer contributions	1,200,417	-	-	1,200,417
Member contributions	108,338	-	-	108,338
Net investment income	1,188,860	35,406	25,465	1,249,731
Benefit payments and withdrawals	(1,308,467)	(46,976)	(24,090)	(1,379,533)
Administrative expenses	(6,412)	-	-	(6,412)
Other changes	9,411	-	-	9,411
Net change in plan fiduciary net position	1,192,147	(11,570)	1,375	1,181,952
Accrued transfers To/From VSF's	(15,000)	15,000	-	-
Plan fiduciary net position – beginning	12,089,896	547,077	354,337	12,991,310
Plan fiduciary net position – ending (b) **	13,267,043	550,507	355,712	14,173,262
Employer's net pension liability – ending (a)-(b)	$ 7,806,728	$ (5,444)	$ 17,367	$ 7,818,651
Plan fiduciary net position as a percentage of the total pension liability	62.96%	101.00%	95.34%	64.45%
Covered payroll	$ 1,164,528	N/A	N/A	$ 1,164,528
Employer's net pension liability as a percentage of covered payroll	670.38%	N/A	N/A	671.40%

Additionally, in accordance with GASB No. 67 paragraph 50, such information was not readily available for periods prior to 2014.

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

** Includes liabilities from Special Accidental Death Benefits pursuant to Section 208-F of the General Municipal Law.

NEW YORK CITY FIRE PENSION FUNDS
REQUIRED SUPPLEMENTAL INFORMATION (UNAUDITED)
SCHEDULE OF CHANGES IN THE EMPLOYER'S NET PENSION LIABILITY AND RELATED RATIOS
(In thousands)

June 30, 2017	QPP*	FFVSF	FOVSF	TOTAL
Total pension liability:				
Service cost	$ 415,221	$ 12,180	$ 5,081	$ 432,482
Interest	1,375,677	38,029	25,099	1,438,805
Changes of benefit terms	-	-	-	-
Differences between expected and actual experience	148,046	(13,683)	115	134,478
Changes of assumptions	-	-	-	-
Benefit payments and withdrawals	(1,265,817)	(47,667)	(21,859)	(1,335,343)
Net change in total pension liability	673,127	(11,141)	8,436	670,422
Total pension liability – beginning	19,711,495	568,214	364,099	20,643,808
Total pension liability – ending (a)	20,384,622	557,073	372,535	21,314,230
Plan fiduciary net position:				
Employer contributions	1,061,170	-	-	1,061,170
Member contributions	108,368	-	-	108,368
Net investment income	1,284,871	46,755	40,095	1,371,721
Benefit payments and withdrawals	(1,265,817)	(47,667)	(21,859)	(1,335,343)
Administrative expenses	-	-	-	-
Other changes	47,284	-	-	47,284
Net change in plan fiduciary net position	1,235,876	(912)	18,236	1,253,200
Accrued transfers to/from VSF's	(45,743)	23,914	21,829	-
Plan fiduciary net position – beginning	10,899,763	524,075	314,272	11,738,110
Plan fiduciary net position – ending (b) **	12,089,896	547,077	354,337	12,991,310
Employer's net pension liability – ending (a)-(b)	$ 8,294,726	$ 9,996	$ 18,198	$ 8,322,920
Plan fiduciary net position as a percentage of the total pension liability	59.31%	98.21%	95.12%	60.95%
Covered payroll	$ 1,145,919	N/A	N/A	$ 1,145,919
Employer's net pension liability as a percentage of covered payroll	723.85%	N/A	N/A	726.31%

Additionally, in accordance with GASB No. 67 paragraph 50, such information was not readily available for periods prior to 2014.

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

** Includes liabilities from Special Accidental Death Benefits pursuant to Section 208-F of the General Municipal Law.

NEW YORK CITY FIRE PENSION FUNDS
REQUIRED SUPPLEMENTAL INFORMATION (UNAUDITED)
SCHEDULE OF CHANGES IN THE EMPLOYER'S NET PENSION LIABILITY AND RELATED RATIOS
(In thousands)

June 30, 2016	QPP*	FFVSF	FOVSF	TOTAL
Total pension liability:				
Service cost	$ 414,614	$ 11,652	$ 5,002	$ 431,268
Interest	1,332,473	38,716	24,546	1,395,735
Changes of benefit terms	-	-	-	-
Differences between expected and actual experience	324,429	3,728	(4,548)	323,609
Changes of assumptions	386,534	12,421	6,544	405,499
Benefit payments and withdrawals	(1,290,862)	(46,407)	(21,826)	(1,359,095)
Net change in total pension liability	1,167,188	20,110	9,718	1,197,016
Total pension liability – beginning	18,544,307	548,104	354,381	19,446,792
Total pension liability – ending (a)	19,711,495	568,214	364,099	20,643,808
Plan fiduciary net position:				
Employer contributions	1,054,478	-	-	1,054,478
Member contributions	116,619	-	-	116,619
Net investment income	197,398	4,669	1,037	203,104
Benefit payments and withdrawals	(1,290,862)	(46,407)	(21,826)	(1,359,095)
Administrative expenses	-	-	-	-
Other changes	43,673	-	-	43,673
Net change in plan fiduciary net position	121,306	(41,738)	(20,789)	58,779
Accrued transfers to/from VSF's	(36,873)	18,739	18,134	
Plan fiduciary net position – beginning	10,815,330	547,074	316,927	11,679,331
Plan fiduciary net position – ending (b) **	10,899,763	524,075	314,272	11,738,110
Employer's net pension liability – ending (a)-(b)	$ 8,811,732	$ 44,139	$ 49,827	$ 8,905,698
Plan fiduciary net position as a percentage of the total pension liability	55.30%	92.23%	86.31%	56.86%
Covered payroll	$ 1,129,470	N/A	N/A	$ 1,129,470
Employer's net pension liability as a percentage of covered payroll	780.2%	N/A	N/A	788.5%

Additionally, in accordance with GASB No. 67, paragraph 50, such information was not readily available for periods prior to 2014.

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

** Includes liabilities from Special Accidental Death Benefits pursuant to Section 208-F of the General Municipal Law.

NEW YORK CITY FIRE PENSION FUNDS
REQUIRED SUPPLEMENTAL INFORMATION (UNAUDITED)
SCHEDULE OF CHANGES IN THE EMPLOYER'S NET PENSION LIABILITY AND RELATED RATIOS
(In thousands)

June 30, 2015	QPP*	FFVSF	FOVSF	TOTAL
Total pension liability:				
Service cost	$ 403,514	$ 11,500	$ 4,561	$ 419,575
Interest	1,251,448	37,447	23,920	1,312,815
Changes of benefit terms	-	-	-	-
Differences between expected and actual experience	180,533	(4,324)	(4,862)	171,347
Changes of assumptions				
Benefit payments and withdrawals	(1,150,505)	(47,819)	(22,117)	(1,220,441)
Net change in total pension liability	684,990	(3,196)	1,502	683,296
Total pension liability – beginning	17,859,317	551,300	352,879	18,763,496
Total pension liability – ending (a)	18,544,307	548,104	354,381	19,446,792
Plan fiduciary net position:				
Employer contributions	988,784	-	-	988,784
Member contributions	108,582	-	-	108,582
Net investment income	271,430	18,888	12,249	302,567
Benefit payments and withdrawals	(1,150,505)	(47,819)	(22,117)	(1,220,441)
Administrative expenses	-	-	-	-
Other changes	41,201	-	-	41,201
Net change in plan fiduciary net position	259,492	(28,931)	(9,868)	220,693
Accrued transfers to/from VSF's	(40,000)	30,000	10,000	-
Plan fiduciary net position – beginning	10,595,838	546,005	316,795	11,458,638
Plan fiduciary net position – ending (b) **	10,815,330	547,074	316,927	11,679,331
Employer's net pension liability – ending (a)-(b)	$ 7,728,977	$ 1,030	$ 37,454	$ 7,767,461
Plan fiduciary net position as a percentage of the total pension liability	71.46%	0.19%	11.82%	66.51%
Covered payroll	$ 1,111,744	N/A	N/A	$ 1,111,744
Employer's net pension liability as a percentage of covered payroll	619.2%	N/A	N/A	622.7%

Additionally, in accordance with GASB No. 67 paragraph 50, such information was not readily available for periods prior to 2014.

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

** Includes liabilities from Special Accidental Death Benefits pursuant to Section 208-F of the General Municipal Law.

NEW YORK CITY FIRE PENSION FUNDS
REQUIRED SUPPLEMENTAL INFORMATION (UNAUDITED)
SCHEDULE OF CHANGES IN THE EMPLOYER'S NET PENSION LIABILITY AND RELATED RATIOS
(In thousands)

June 30, 2014	**QPP***	**FFVSF**	**FOVSF**	**TOTAL**
Total pension liability:				
Service cost	$ 397,037	$ 11,403	$ 4,471	$ 412,911
Interest	1,153,702	37,757	23,818	1,215,277
Changes of benefit terms	-	-	-	-
Differences between expected and actual experience	-	-	-	-
Changes of assumptions	-	-	-	-
Benefit payments and withdrawals	(1,099,162)	(50,822)	(22,014)	(1,171,998)
Net change in total pension liability	451,577	(1,662)	6,275	456,190
Total pension liability – beginning	16,624,736	552,962	346,604	17,524,302
Total pension liability – ending (a)	17,076,313	551,300	352,879	17,980,492
Plan fiduciary net position:				
Employer contributions	969,956	-	-	969,956
Member contributions	108,859	-	-	108,859
Net investment income	1,569,013	69,027	51,445	1,689,485
Benefit payments and withdrawals	(1,099,162)	(50,822)	(22,014)	(1,171,998)
Administrative expenses	-	-	-	-
Other changes	39,980	-	-	39,980
Net change in plan fiduciary net position	1,588,646	18,205	29,431	1,636,282
Accrued transfers to/from VSF's	(120,000)	110,000	10,000	-
Plan fiduciary net position – beginning	9,127,192	417,800	277,364	9,822,356
Plan fiduciary net position – ending (b) **	10,595,838	546,005	316,795	11,458,638
Employer's net pension liability – ending (a)-(b)	$ 6,480,475	$ 5,295	$ 36,084	$ 6,521,854
Plan fiduciary net position as a percentage of the total pension liability	62.05%	99.04%	89.77%	63.73%
Covered payroll	$ 1,102,396	N/A	N/A	$ 1,102,396
Employer's net pension liability as a percentage of covered payroll	587.85%	N/A	N/A	591.61%

Additionally, in accordance with GASB No. 67 paragraph 50, such information was not readily available for periods prior to 2014.

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

** Includes liabilities from Special Accidental death Benefits pursuant to Section 208-F of the General Municipal Law.

Schedule 2

NEW YORK CITY FIRE PENSION FUNDS

REQUIRED SUPPLEMENTARY INFORMATION (UNAUDITED)
SCHEDULE OF EMPLOYER CONTRIBUTIONS
(In thousands)

	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009
Actuarially determined contribution	$ 1,200,417	$1,061,170	$ 1,054,478	$ 988,784	$ 969,956	$ 962,173	$ 976,895	$ 890,706	$ 874,331	$ 843,751
Contributions in relation to the actuarially determined contribution	1,200,417	1,061,170	1,054,478	988,784	969,956	962,173	976,895	890,706	874,331	843,751
Contribution deficiency (excess)	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Covered payroll	$ 1,164,528	$ 1,145,919	$ 1,129,470	$ 1,111,744	$ 1,102,396	$ 1,129,921	$ 1,149,423	$ 1,057,243	$ 1,059,911	$ 1,013,661
Contributions as a percentage of covered payroll	103.08%	92.60%	93.36%	88.94%	87.99%	85.15%	84.99%	84.25%	82.49%	83.24%

SCHEDULE 2 (CONTINUED)
NEW YORK CITY FIRE PENSION FUNDS
REQUIRED SUPPLEMENTARY INFORMATION (UNAUDITED)
NOTES TO SCHEDULE OF EMPLOYER 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 2018 contributions were determined using an actuarial valuation as of June 30, 2016). The methods and assumptions used to determine the actuarially determined contributions are as follows:

Valuation Dates	June 30, 2016	June 30, 2015	June 30, 2014	June 30, 2013	June 30, 2012	June 30, 2011	June 30, 2010	June 30, 2009- June 30, 2006 (lag)
Actuarial cost method	Entry Age	Entry Age	Entry Age	Entry Age	Entry Age	Entry Age	Entry Age	Frozen Initial Liability[1]
Amortization method for Unfunded Actuarial Accrued Liabiliites:								
Initial Unfunded	Increasing Dollar	Increasing Dollar	Increasing Dollar	Increasing Dollar	Increasing Dollar	Increasing Dollar	Increasing Dollar	Increasing dollar[2]
Post-2010 Unfundeds	Level Dollar	Level Dollar	Level Dollar	Level Dollar	Level Dollar	Level Dollar	Level Dollar	NA
Remaining amortization period:								All-Outstanding components of reestablished UAAL are being amortized over an 11-year closed period beginning in Fiscal Year 2000[2]
Initial Unfunded	16 years (closed	17 years (closed)	18 years (closed)	19 years (closed)	20 years (closed)	21 years (closed)	22 years (closed)	NA
2011 Actuarial Gain/Loss	10 years (closed)	11 years (closed)	12 years (closed)	13 years (closed)	14 years (closed)	15 years (closed)	NA	NA
2012 Actuarial Gain/Loss	11 years (closed)	12 years (closed)	13 years (closed)	14 years (closed)	15 years (closed)	NA	NA	NA
2013 Actuarial Gain/Loss	12 years (closed)	13 years (closed)	14 years (closed)	15 years (closed)	NA	NA	NA	NA
2014 Actuarial Gain/Loss	13 years (closed)	14 years (closed)	15 years (closed)	NA	NA	NA	NA	NA
2015 Actuarial Gain/Loss	14 years (closed)	15 years (closed)	NA	NA	NA	NA	NA	NA
2016 Actuarial Gain/Loss	15 years (closed)	NA	NA	NA	NA	NA	NA	NA
Actuarial Asset Valuation (AAV) Method	Modified six-year moving average of market values with a "Market Value Restart" as of June 30, 2011. The June 30, 2010 AAV 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 AAV 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 AAV 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 AAV 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 AAV 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 AAV 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 AAV is defined to recognize Fiscal Year 2011 investment performance.	Modified six-year moving average of market values with "Market Value Restart" as of June 30, 1999.
Actuarial assumptions:								
Assumed rate of return[3]	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	7.0% per annum, net of investment expenses	7.0% per annum, net of investment expenses	6.0% per annum
Post-retirement mortality	Tables adopted by Board of Trustees during Fiscal Year 2016	Tables adopted by Board of Trustees during Fiscal Year 2016	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	Tables adopted by Board of Trustees during Fiscal Year 2012	Tables adopted by Board of Trustees during Fiscal
Active service: withdrawal, death, disability, service retirement	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	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 2006
Salary increases[3]	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.	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
Cost-of-Living Adjustments[3]	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.	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.	6.33% per annum

[1] Under this actuarial cost method, the Initial Liability was reestablished as of June 30, 1999, by the Entry Age Actuarial Cost Method but with the unfunded actuarial accrued liability (UAAL) not less than $0. The financial results using this Frozen Initial Liability Actuarial Cost Method are the same as those that would be produced using the Frozen Entry Age Cost Method.

[2] In conjunction with Chapter 85 of the Laws of 2000, there is an amortization method. It reestablished UAAL and eliminated BSL as of June 30, 1999. The schedule of payments toward the reestablished UAAL (referred to in the ACNY as the Fire Pension Fund (“FPF”) 1999 UAAL and elsewhere as the UAAL) provided that the UAAL be amortized over a period of 11 years beginning Fiscal Year 2000, where each annual payment after the first equals 103% of its preceding annual payment.

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

NEW YORK CITY FIRE PENSION FUNDS
REQUIRED SUPPLEMENTARY INFORMATION (UNAUDITED)
SCHEDULE OF INVESTMENT RETURNS

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

Fiscal year ended	QPP	FFVSF	FOVSF
June 30, 2018	9.34 %	7.28 %	7.75 %
June 30, 2017	12.82	13.48	14.53
June 30, 2016	1.37	0.88	0.24
June 30, 2015	3.28	4.13	4.02
June 30, 2014	17.51	18.03	19.57

Note: In accordance with GASB No. 67, paragraph 50, such information was not readily available for periods prior to 2014.