
New York City Fire Pension Funds



**Comprehensive Annual Financial Report
A Pension Trust Fund of The City of New York
For The Fiscal Years Ended
June 30, 2020 and June 30, 2019**

New York City Fire Pension Funds

One Battery Park Plaza, 9th Floor, New York, N.Y. 10004
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Comprehensive Annual Financial Report A Pension Trust Fund of The City of New York For Fiscal Years Ended

June 30, 2020 and June 30, 2019

Prepared under the
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New York City Fire Pension Funds
Comprehensive Annual Financial Report
A Pension Trust Fund of The City of New York



Introductory Section

Part I

Fiscal Year Ended June 30, 2020

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Government Finance Officers Association

Certificate of
Achievement
for Excellence
in Financial
Reporting

Presented to

**New York Fire Department
Pension Funds**

For its Comprehensive Annual
Financial Report
For the Fiscal Year Ended

June 30, 2019

Christopher P. Morill

Executive Director/CEO

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NEW YORK CITY FIRE PENSION FUND
ONE BATTERY PARK PLAZA, 9TH FLOOR
NEW YORK, NY 10004
(929) 436-0099

Patrick M. Dunn
Executive Director

December 22, 2020

TO: The Board of Trustees
New York City Fire Pension Funds

I hereby submit the Comprehensive Annual Financial Report (“CAFR”) of the New York City Fire Pension Funds (“Fire” or the “Funds”) for the Fiscal Year ended June 30, 2020. Our CAFR contains combined financial statements and disclosures for the New York City Fire Pension Fund qualified pension plan (“QPP”) and two additional funds administered by Fire: the New York City Firefighters’ Variable Supplements Fund (“FFVSF”) and the New York City Fire Officers’ Variable Supplements Fund (“FOVSF”). Management is responsible for the preparation, accuracy and completeness of this presentation. We believe that the data in this report is a fair representation of the financial position and results of operations of the Funds, and to the best of our knowledge, the information is accurate and includes all required disclosures. Our report is organized into the Introductory, Financial, Investment, Actuarial and Statistical sections. Users of the financial statements are encouraged to review the Management Discussion and Analysis (MD&A) presented in the financial section.

Profile of the Funds

The New York City Fire Pension Fund, formerly known as the New York Fire Department Subchapter Two Pension Fund (formerly Article 1-B), was established pursuant to Local Law No. 53, enacted July 14, 1941. On that date, all participants covered under Article 1-A, and subsequent appointees to the Fire Department, were granted the option of membership in either Article 1-A or Subchapter Two, in accordance with the legislation. At that time, all members of the Article 1-A Fund became participants in the Fund established under Subchapter Two and, with one exception, all new appointees elected membership in the Subchapter Two Pension Fund.

Effective July 1, 1980, the Article 1-A Fund was terminated, and its assets transferred to the Subchapter Two Pension Fund. Prior to July 1, 1980, each member contributed, by salary deduction, an amount determined to provide approximately 25% of the cost of their benefits, while the City contributed the remaining 75%. The total contributions under this arrangement proved inadequate to finance benefits, and the Pension Fund became actuarially unsound.

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New York City Fire Pension Funds

Effective July 1, 1980, July 1, 1981, and July 1, 1982, new state laws amended the benefit provisions of the Fund by establishing a new Plan known as the Improved Benefits Plan (“IBP”). The IBP provides increased benefits supported by higher member and City contributions. The Original Plan (“OP”) was closed to new entrants on July 1, 1981 and membership in the IBP became mandatory for employees hired on or after that date. Members of the OP have the option, during specified periods each year, to transfer to the IBP.

The new laws were expected to correct previous under-funding of the Pension Fund. The provisions of these laws increased City contributions, annually, to provide an amount deemed sufficient to cover benefits, excluding annuities and refunds from member contribution accounts. These contributions cover the normal costs of operation each year.

The Firefighters’ Variable Supplements Fund (“FFVSF”) and the Fire Officers’ Variable Supplements Fund (“FOVSF”) (collectively the “VSFs”) operate pursuant to the provisions of Title 13, Chapter 3 of the New York City Administrative Code and provide supplemental benefits to retired Firefighters, Fire Marshals, Marine Titles, Fire Officers and Supervising Fire Marshals, respectively. To receive benefits from the VSFs, eligible participants must retire on or after October 1, 1968, and be receiving a service retirement benefit from the QPP. The VSFs are not considered pension plans; they provide defined supplemental payments other than pension or retirement system benefits.

Effective September 8, 2016, the New York City Fire Pension Fund, formerly known as the New York Fire Department Pension Fund, was granted corpus funding, pursuant to Chapter 298 of the Laws of 2016. Under the new law, the Pension Fund ceased to be part of the Fire Department and became a separate agency. The law mandates budgetary approval by the offices of the Mayor and Comptroller, and a majority of the Board of Trustees. This authorizes the Fund to pay for operational expenses from Fund assets. The City later reimburses the Fund for expenses incurred.

Current Initiatives & Events

The Fund completed relocation of all activities to our new headquarters at One Battery Park Plaza, 9th Floor, New York, NY 10004 and opened for business effective February 4, 2019; we were joined by the Subchapter II (1B) Medical Board at this location on July 1, 2019. This initiative has improved member services and efficiency by consolidating all Fund activities at one location in a bifurcated setting.

Top of mind this Fiscal Year is the COVID-19 pandemic, which continues to devastate countries and communities worldwide. The United States has not been spared, with millions infected and thousands of lives lost. In March of 2020, the City of New York imposed lockdowns and other measures to control the spread of the virus. Our efforts over the last couple of years to modernize our operations, including an entire redesign of our IT systems, have proven crucial in enabling our services to continue, uninterrupted, through this crisis, as all personnel were provided with the tools and resources to work remotely.

Management’s goal is to administer the Fund in a manner that will ensure accurate and timely payment of benefits to retirees and beneficiaries and to provide members with the best information available, so that they may plan for a secure retirement. During this period of challenges, we continue to honor our commitment by conducting business using virtual technology, telephones, and hosting socially distanced meetings at our headquarters.

Self Service Portal

Our pension information system's ("e-UPS") self-service portal has become an integral part of our customer service delivery. E-UPS is available through the Fire Department's intranet and may be accessed from computers at all firehouses. Each year, the number of members accessing the portal has increased. Also, members may download Annual Pension Statements, manuals and forms, view updated account details and obtain current estimates of retirement benefits.

New Member Applications

During Fiscal Year 2020, the pension managers and key personnel of the Fund successfully completed the processing of approximately 330 new membership applications. The Fund conducted one class for probationary firefighters, hired by the Fire Department during that period. These firefighters have since become members of the Fund under the new Tier 3 Enhanced legislation.

Retirement Processing

The Retirement Counseling Unit consulted with thousands of prospective retirees and processed retirement applications for over 470 members during Fiscal Year 2020. These applicants are now receiving 90% of their expected retirement benefit, pending finalization of calculations.

Communication & Information

In an effort to improve education and communication with members of the Fund, we have been conducting rank specific retirement seminars, two times monthly, at the Fund's new headquarters. These seminars are temporarily taking place virtually. Additionally, the Fund is in the beginning stages of developing an independent website to provide forms, information and assistance to the membership.

Financial Information**Economic Conditions in Fiscal Year 2020 and Outlook for Fiscal Year 2021**

Economic conditions, at both the national and the local level, greatly influence financial markets and investment earnings. Revenue generated from investment activity is a major source in the financing of our pension benefits. The second half of Fiscal Year 2020 ushered in an unprecedented pandemic attack on the global community. The COVID-19 virus has caused human tragedy, economic crisis and great uncertainty. By close of the second half of Fiscal Year 2020, the Bureau of Economic Analysis (BEA) reported that the U.S. economy contracted at an annual rate of 31.7%, as measured by real Gross Domestic Product (GDP). The decline in growth rate of the economy was accompanied by a sharp fall in employment, with millions of jobs lost nationwide. As published by the Bureau of Labor Statistics ("BLS"), the unemployment rate had risen to 11.1% by the end of June 2020. A Federal Reserve Bank ("FRB") press release during September 2020 reiterated full commitment to support the economy during these challenging times. The FRB Open Market Committee ("OMC") will continue to monitor and adjust monetary policy in keeping with current economic activity and conditions in the labor market. The Committee's goal is to foster maximum employment and price stability and keep inflation levels near the stated 2% level, over the long

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New York City Fire Pension Funds

term. Additionally, the OMC lowered the target range for the federal funds rate, to keep pace with the current state of economic activity. The target range for the federal funds short-term interest rate now stands between 0.0% and 0.25%.

New York City was the hardest hit city in the United States at the onset of the global pandemic. The financial crisis accompanying the pandemic has adversely impacted financial sector profits and growth in the City's economy. By close of Fiscal Year 2020, employment in New York City had fallen by 20%, a loss of almost 910,050 jobs. Some sources of revenue for the City, such as tourism and the small business sector, have experienced devastating declines.

The effects of COVID-19 and the emerging financial crisis in the economy continued to be severe during the early half of Fiscal Year 2021, and the news is dominated by reports of a possible economic recession. The outlook for Fiscal Year 2021 remains uncertain, even as economic activity and employment has showed signs of improvement. The BLS reported that the unemployment rate was down to 7.9% by the end of September 2020. In October 2020, the BEA reported that GDP increased at an annual rate of 31.4% for third quarter 2020 (advance estimates). According to the FRB, these improvements partly reflect policy measures to bolster the economy. Anxiety therefore remains that the COVID-19 pandemic will continue to pose considerable risk to the economy. The NYC Comptroller's Office anticipates that the City's vulnerable economy will continue to contract at a faster pace and recovery will be slower than the national economy during Fiscal Year 2021.

Investments

The Comptroller of the City of New York is the designated custodian of the Funds' investment portfolio, subject to the direction, control and approval of the Boards of Trustees. The investment policy adopted by the Funds' Boards of Trustees is one that promotes growth through increasing returns. The strategy used to implement this policy is the allocation of assets, diversified into a wide range of instruments to minimize overall risk, maintain liquidity and generate competitive returns.

The Funds' portfolio is comprised largely of holdings in domestic, international and private equities, as well as fixed income securities. For Fiscal Year 2020, Fire's QPP investment portfolio of approximately \$15.1 billion under management, posted gains of 4.8%, while the corresponding Policy Index posted gains of 4.7%. The FFVSF's investment portfolio of approximately \$491.8 million gained 4.1%, while the corresponding Policy Index gained 4.3%. The FOVSF's investment portfolio of approximately \$347.6 million gained 4.3% and the Policy Index gained 4.3%. A detailed discussion of our investment policy, activities and results is presented in the Investment section of our report.

Funding

Adequate funding is essential to ensure the financial soundness of a pension plan. Therefore, when funding levels are adequate, the total amount of accumulated assets will be comparable to the total amount of benefit obligations of the Funds. The City's funding policy is to contribute statutorily required contributions which, combined with member contributions and investment returns, meet current and future obligations. A well-funded plan gives Fund participants the confidence that their pension benefits are secure.

Fire's Fiduciary Net Position as a Percentage of Total Pension Liability, formerly "funded ratio," is calculated in accordance with newly adopted Governmental Accounting Standards Board Statements Numbers 67 and 68. This ratio stands at 66.1% for Fiscal Year 2020, an increase from 65.4% in the previous period (Net Pension Liability - Note 6 of Notes to Financial Statements). Funding is further addressed in the Actuarial section of our report.

Accounting and Reporting

This report was prepared to conform to principles of governmental accounting and reporting, as promulgated by the Governmental Accounting Standards Board (“GASB”), and according to guidelines adopted and published by the Government Finance Officers Association of the United States and Canada (“GFOA”). The requirements of GASB Statement No. 67, “Financial Reporting for Pension Plans,” have been adhered to in determining the information in the financial statements.

The accrual basis of accounting is used to record all transactions executed by the Pension Funds. Under this method, revenues are recognized when earned, and expenses are recognized when the Funds incur an unconditional obligation to pay. The accrual basis of accounting provides a realistic picture of the financial activity and performance of the Pension Funds for each period.

Internal Control

The management of New York City Fire Pension Funds is responsible for establishing and maintaining an internal control structure, designed to ensure that the assets of the Funds are adequately safeguarded. Additionally, the control structure should ensure that all transactions are properly recorded to allow for the preparation of financial statements in conformity with generally accepted accounting principles. The objective of internal control is to provide reasonable, rather than absolute, assurance that the financial statements are free of material misstatements. The concept of reasonable assurance recognizes that the cost of a control should not exceed the benefits likely to be derived, and additionally, that the evaluation of costs and benefits requires estimates and judgments to be made by management.

Procedures that reinforce established controls are periodically reviewed and evaluated by management, as well as the New York City Comptroller’s Office, through its assessment of the Funds’ Financial Integrity Compliance statement. In addition, independent certified public accountants audit the financial statements each year.

Professional Services

The Comptroller of the City of New York is the custodian of the Funds’ assets and provides investment services through independent advisors and consultants. These advisors and consultants are disclosed in the Investment section of the CAFR in the schedule of Management Fees and Expenses on pages 119 through 132 and the schedules of Administrative Expenses and Payments to Consultants on pages 103 and 104. We also include a listing of brokerage firms and the amounts paid to each firm in the Investment section of the CAFR in the schedule of Broker’s Commissions and Fees on pages 133 through 140. Additionally, the Chief Actuary of the City’s pension systems provides actuarial services, while the Corporation Counsel provides legal services to the Funds. The City of New York defrays the expenses associated with these services.

Independent Audit

The New York City Fire Pension Funds are required to undergo an annual audit by independent certified public accountants in accordance with generally accepted auditing standards. The accounting firm of Grant Thornton LLP was selected to perform the annual audits for the Fiscal Years ended June 30, 2020 through June 30, 2023. The Independent Auditor's Report for the Fiscal Years ended June 30, 2020 and 2019 on

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the general-purpose financial statements and schedules of historical information, required by the Governmental Accounting Standard Board (“GASB”), is presented in the Financial section of this report. The Financial section also contains Management Discussion and Analysis (MD&A) with comparative data for Fiscal Years 2020, 2019 and 2018. The contents of this letter should be considered along with additional information contained in the MD&A.

Other Information

Awards

The Government Finance Officers’ Association of the United States and Canada (“GFOA”) awarded a Certificate of Achievement for Excellence in Financial Reporting to the New York City Fire Pension Funds for its Comprehensive Annual Financial Report for the Fiscal Year ended June 30, 2019. In order to be awarded a Certificate of Achievement, a government must publish an easily readable and efficiently organized comprehensive annual financial report. This report must satisfy both generally accepted accounting principles and applicable legal requirements.

A Certificate of Achievement is valid for a period of one year only. We believe that our current comprehensive annual financial report continues to conform to the Certificate of Achievement program's requirements, and we are submitting it to the GFOA to determine its eligibility for Fiscal Year 2020.

Acknowledgments

The compilation of this annual report represents the combined efforts of the Pension Administration management and staff, whom I commend for their consistent hard work and dedication. Our report presents complete and reliable information to provide a basis for making management decisions, to comply with legal provisions, and to determine responsible stewardship of the assets of the Funds.

I wish to thank the Office of the Mayor, the Office of the Actuary and the Office of the Comptroller, for the wide range of valuable actuarial and statistical data that is an integral part of this report. I am also very grateful to the Board of Trustees for the leadership and support they have provided during this period.

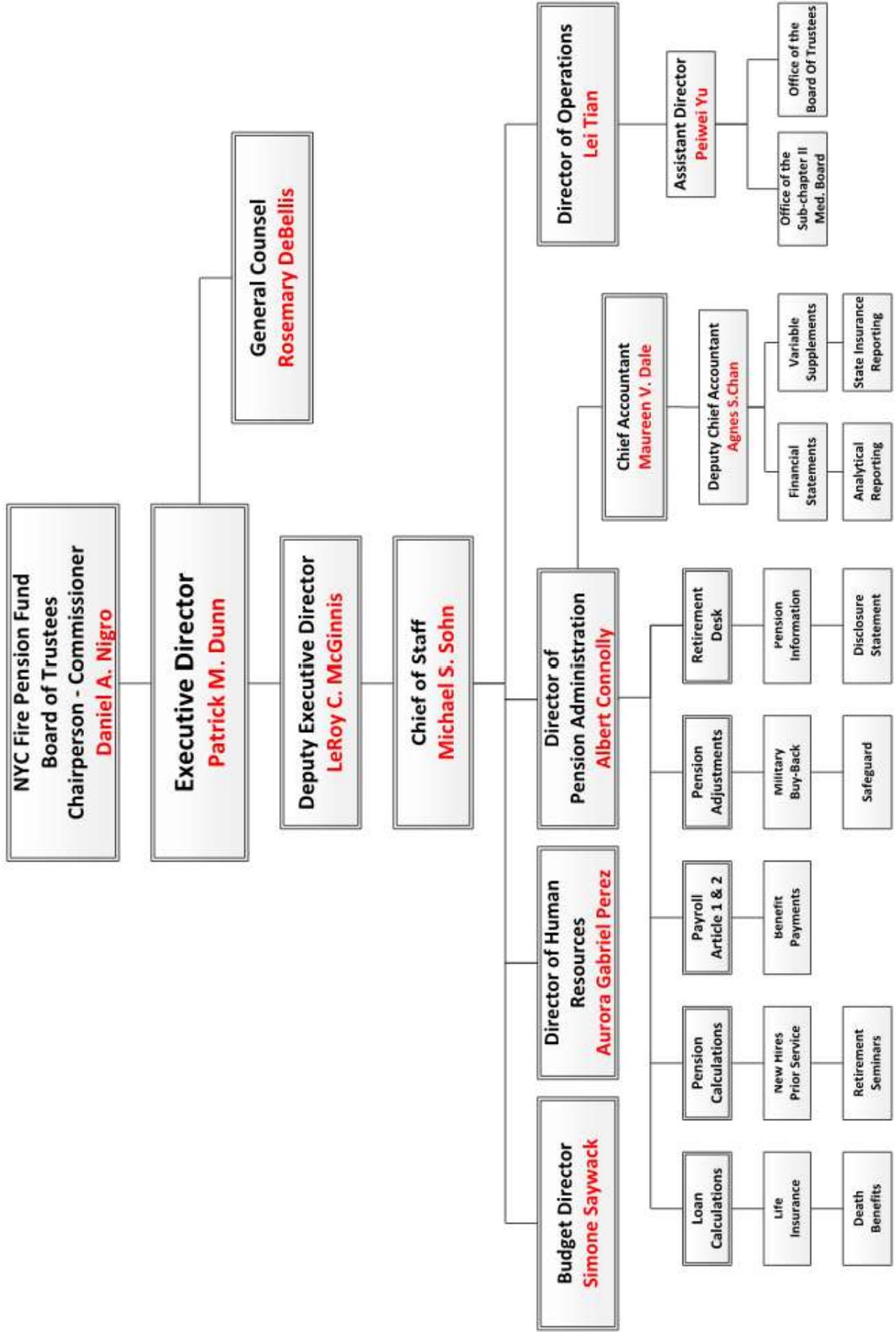
In closing, I wish to express my sincere gratitude to the managers and staff of the Fund, who have worked diligently to enhance the delivery of member services and to assure the success of our operations during these challenging times.

Respectfully submitted,



Patrick M. Dunn
Executive Director

ADMINISTRATIVE ORGANIZATION



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MEMBERS OF THE BOARD OF TRUSTEES

As of June 30, 2020

Bill de Blasio	Mayor, City of New York
Daniel A. Nigro	Fire Commissioner and Chairperson
Scott M. Stringer	Comptroller, City of New York
Jacques Jiha	Commissioner, Department of Finance
Paul Mannix	Chiefs' Representative of the Uniformed Fire Officers' Association of Greater New York
Liam Guilfoyle	Captains' Representative of the Uniformed Fire Officers' Association of Greater New York
Jack Kielty	Lieutenants' Representative of the Uniformed Fire Officers' Association of Greater New York
Gerard Fitzgerald	President of the Uniformed Firefighters' Association of Greater New York
Robert Eustace	Vice President of the Uniformed Firefighters' Association of Greater New York
Edward Brown	Treasurer of the Uniform Firefighters' Association of Greater New York
John Kelly	Vice Chairman of the Uniformed Firefighters' Association of Greater New York
Peter De Vita	Representative of the Uniformed Pilots' and Marine Engineers' Association of Greater New York

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New York City Fire Pension Funds

Summary of Funds Benefits



Tier I - Tier II & Tier III

Fiscal Year Ended June 30, 2020

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Summary Funds and Options Benefits

TIERS I & II

The Fire Department Pension Fund, Subchapter II, (the “Fund”) is a corporation, separate from the Fire Department of The City of New York, your employer. All uniformed employees of the Department become members of the Fund upon appointment.

MEMBERSHIP

TIERS

Firefighters who became members of the Fund before July 1, 1973 are Tier 1 members. Firefighters who became members of the Fund on or after July 1, 1973 are Tier II members.

ORIGINAL PLAN – PRE-JULY 1, 1981 MEMBERS

Prior to July 1, 1981, all members of the Fund were enrolled in the “Original Plan”. After the Fund was financially restructured in 1981, the “Original Plan” was closed to new entrants, and the “Improved Benefits Plan,” which covers all firefighters hired on or after July 1, 1981, was adopted. It provides some increases in benefits, along with somewhat higher member and City contributions.

Although closed to new entrants, the “Original Plan” covered pre-7/1/81 members who had not elected to transfer to the “Improved Benefits Plan.” Legislation enacted in 1986 permitted such transfers in June, July, and August of every year.

IMPROVED BENEFITS PLAN (IBP) – POST-JUNE 30, 1981 MEMBERS

All firefighters who become members of the Fire Department Pension Fund on or after July 1, 1981 are covered only by the “Improved Benefits Plan.” Unless specifically stated otherwise, all information in this Summary Plan Description refers to members of the IBP only.

SUMMARY

<u>Date of Membership</u>	<u>Tier</u>	<u>Applicable Plan</u>
Pre-7/1/73	1	Original of Improved Benefits Plan
7/1/73-6/30/81	2	Original of Improved Benefits Plan
Post-6/30/81	2	Improved Benefits Plan

If your membership date or equated date is between June 17, 1971 and June 30, 1973, you are subject to the limitations on final salary imposed by the Kingston Law.

KINGSTON LAW LIMITATIONS

For all members of the Fund appointed between June 17, 1971 and June 30, 1973, the pensionable compensation for the final year of service is limited to 120% of the pensionable compensation for the year immediately preceding the final year. For example, a member's final year of service is July 6, 2009 through July 5, 2010. If between July 6, 2008 and July 5, 2009 the member earned \$90,000.00 in pensionable salary, holiday pay, night-shift differential, and overtime, the final year pensionable compensation cannot exceed \$108,000 (\$90,000 X 120%).

CONTRIBUTIONS

REQUIRED EMPLOYEE CONTRIBUTIONS

Tier I and Tier II members contribute a percentage of all earnings through payroll deductions to a 20-year plan. Contribution rate is based on age at appointment. Member contributions earn interest, currently 8 ¼% per year. Contributions are required for the first twenty (20) years of allowable fire service. After 20 years, contributions will continue unless the member submits a written request to the Pension Bureau to discontinue the contributions.

Contributions and any interest earned are referred to as "accumulated deductions". The amount of accumulated deductions required to be in the member's account at any given time is referred to as the "minimum required contribution." The total minimum required contribution is determined on the member's 20th anniversary. Contributions made above the minimum required are referred to as "excess" contributions.

TAXATION

Contributions made before December 1989 were federally taxed. Regular contributions made since December 1989 are federally tax-deferred as per section 414(h) of the Internal Revenue Code, but are subject to state and local income taxation. Thus, upon retirement or termination, withdrawal of these contributions and interest earnings will be subject to federal taxation only. Members who are under the age 50 may be subject to an additional 10% Federal tax penalty and should consult a tax advisor before withdrawing excess contributions at retirement. Minimum required contributions may not be withdrawn except upon separation from service before retirement (i.e. resignation or termination).

VOLUNTARY EMPLOYEE CONTRIBUTIONS 50% INDICATOR

Members may make additional contributions equal to 50% of their required employee contributions on a voluntary basis. Since these contributions are not covered by section 414(h) of the Internal Revenue Code, they are subject to immediate federal, state and city income taxation. These additional contributions will also increase a member's excess contributions, which will provide an additional annuity, or may be withdrawn as a lump sum, at retirement.

ITHP WAIVER

The City of New York makes employer contributions to the Fund. The City of New York also pays a portion of employee contributions. These contributions are called "Increased-Take-Home-Pay" (ITHP) and currently equal 5% of gross salary. For example, assume an employee contribution rate of 7.3% of pay. With ITHP, the member contributes 2.3% (the "minimum required contribution") and the City contributes 5%.

Members may waive the ITHP and contribute at the full employee rate. These additional contributions are covered by section 414(h) of the Internal Revenue Code, and are therefore federally tax-deferred. Although this lowers take-home pay during employment, it results in either a greater annuity at retirement or a lump-sum return of any excess. For example, assume a contribution rate of 7.3% of pay, and the employee waives the ITHP. While the employee contributes 7.3% of pay, the City of New York continues to make ITHP contributions equal to 5%. Excess tax-deferred 414(h) contributions are taxable in the year withdrawn.

NOTE: From March 27, 1976 through September 30, 2000, the ITHP rate was 2.5%.

HOW TO REDUCE PAYROLL DEDUCTIONS (138-b REGULATIONS)

To increase take-home pay, required employee contributions may be reduced up to the amount of Social Security (FICA) contributions. If required contributions are less than FICA contributions, the member will not be making any pension contributions, thereby creating a deficit in his/her retirement account. For example, assume a member has a pension contribution rate of 7.5%. The required contribution rate is 2.5%, and the ITHP is 5%. Under the 138-B election, the member will not be making any pension contributions since his/her required contribution rate of 2.5% is less than the current Social Security rate of 6.2%. If the percentages change and the required contribution rate becomes greater than the FICA rate, the member would contribute the difference into the retirement account.

If the 138-B option is elected, Social Security benefits will not be affected. However, the value of the retirement allowance will be reduced because it is based in part on required employee contributions and the interest earned thereon. After maximum Social Security contributions have been reached during any calendar year, pension contributions will resume.

EXCESS CONTRIBUTIONS

At retirement, Service and Accidental Disability retirees can choose to take any excess contributions as either a lump-sum payment or as an additional annuity. Members retiring for Ordinary Disability are required to take a lump-sum payment of any excess. Members considering requesting a refund of excess contributions are reminded that withdrawal of 414(h) contributions and interest is subject to federal tax in the year withdrawn. In addition, members who are under age 50 at retirement may also be subject to an additional 10% Federal tax penalty and should consult a tax advisor prior to withdrawal. Retiring members may request a direct rollover of any taxable excess into a qualified plan such as the NYC Deferred Compensation/401K plans, or an IRA in order to defer payment of federal tax.

CREDITED SERVICE

Credited service is classified as uniformed service or non-uniformed service.

ALLOWABLE FIRE SERVICE

Twenty (20) years of allowable fire service are required for Service Retirement. Such service includes:

All member service rendered as a uniformed member of The New York City Fire Department in the competitive class of the civil service.

Credit for service rendered in the uniformed force of The New York City Police Department immediately preceding service in the uniformed force of the New York City Fire Department, provided application for such credited service is made within prescribed time limits and such credited service is transferred to the Fund.

New York City Employees' Retirement System (NYCERS) uniformed force service rendered immediately before appointment as a uniformed member of The New York City Fire Department, provided application for such credited service is made within prescribed time limits and such credited service is transferred to the Fund. Uniformed service from NYCERS includes uniformed service in the Department of Correction, Sanitation as well as service as an Emergency Medical Technician (EMT) of Fire Alarm Dispatcher.

It also includes all allowable Peace Officer service (as defined in Section 2.10 of the Criminal Procedure Law), service as Sheriff, Marshal, or D.A. Investigator, and any position specified in Appendix A of the agreement dated October 27, 2005 among The City of New York, the Uniformed Firefighters' Association and the Uniformed Fire Officers' Association.

Credit for any service rendered while a member of The New York State Policemen's and Firemen's Retirement System or the New York State & Local Retirement System, provided application for such credited service is made within prescribed time limits and such credited service is transferred to the Fund.

Credit for up to five (5) years of military service provided you were a member of a City retirement system at the time you entered military service and you immediately returned to City service upon discharge from the military.

Uniformed Services Employment & Reemployment Rights Act (USERRA) credit for members called off a Military Preferred List.

BUYBACK CREDIT

Chapter 548 of the Laws of 2000 allows members to purchase pension credit for up to three (3) years of certain wartime military service rendered prior to the commencement of the public employment. A member must have at least five (5) years of credited service to be eligible to receive credit under this law.

Chapter 646 of the Laws of 1999 – Tier Reinstatement: This law amends §645 of the RSSL and permits a member, who was previously a member of any New York public retirement system, to be deemed to have become a member of the current retirement system as of the original date of such previous ceased membership. If membership in the prior retirement system is based on certain designated law enforcement service, such service will be credited as “allowable” up-front service, towards the required 20-year period. For this purpose, such service shall include:

- a) Uniformed service in the police department, fire department or sanitation department of The City of New York or the State of New York or any agency or political subdivision thereof;
- b) Service as a peace officer as specified in §2.10 of the Criminal Procedure law (CPL); or
- c) Service in the title of sheriff, deputy sheriff, marshal district attorney investigator, or other State law enforcement positions. This benefit is available only where the member restores his or her refunded contribution balance with interest. In some cases, this may provide for a reinstatement of Tier status.

- * Chapter 552 of the Laws of 2000 – Prior Service Credit: This law allows members who were eligible for membership in any of the New York State or New York City retirement systems, but did not become members of such system, to buy pension credit for the time that was eligible for membership. If membership in the prior retirement system is based on certain designated law enforcement service, such service will be credited as “allowable” up-front service. For this purpose, such service shall include:
- a) Uniformed service in the police department, fire department or sanitation department of the City of New York or the State of New York or any agency or political subdivision thereof;
 - b) Service as a peace officer as specified in §2.10 of the Criminal Procedure Law (CPL); or
 - c) Service in the title of sheriff, deputy sheriff, marshal, district attorney investigator, or other State law enforcement positions. Except for the service indicated above, all other service will be “Other Credited Service,” which counts as additional service credit after the completion of twenty (20) years in the fire pension system.

OTHER CREDITED SERVICE

Other Credited Service is any New York City service (except Teachers’ Retirement System service) which is not considered allowable credited service. It counts as additional service credit after completing the required twenty (20) years and includes service rendered while a member in a non-uniformed position with the New York City Employees’ Retirement System and membership in the Board of Education Retirement System.

However, there is no credit for prior non-uniformed service for members who are granted an accidental disability pension. Uniformed service credit that does not immediately precede uniformed service in the New York City Fire Department is Other Credited Service. Time not transferred can be purchased as a buyback under Chapter 646 or Chapter 552. All such Other Credited Service must be applied for within the time limits prescribed by law and transferred to the Fire Department Pension Fund.

RETIREMENT PROCESS

SERVICE RETIREMENT

Members may retire for service (non-disability) after completing 20 years of uniformed service. To initiate Service Retirement, Form BP-165 must be submitted through the chain of command. The Retirement Counseling Unit must receive the form at least (30) days before the date on which the member wishes to retire and at least ten (10) days before the date on which usage of accrued and terminal leave begins.

WITHDRAWAL OF SERVICE RETIREMENT APPLICATION

If a member has begun to utilize terminal leave and decides to withdraw the application for retirement, the FDNY Medical Board must evaluate the member for a duty determination before he/she can return to full duty.

DISABILITY RETIREMENT

A member may apply either for ordinary disability (non-service connected) retirement or accidental disability (service connected) retirement, or both. Applications for service or non-service incurred disability retirement shall be submitted to the Fire Commissioner on Form BP-409 (2 copies). The following steps are necessary before disability retirement is considered.

STEP I: SUBMISSION OF APPLICATION***Member's Application for Disability Retirement:***

A member may initiate the disability retirement process by submitting Form BP-409, whether or not there has been an examination by a Bureau of Health Services (BHS) physician or by the BHS Medical Board. However, the BHS Medical Board is required to make a determination of the member's fitness for duty status prior to or during the disability pension application process. When any officer submits an application for disability retirement, vacation leaves, accrued and terminal leaves must begin immediately.

Depending upon the results of an initial examination by a medical officer at the Fire Department's Bureau of Health Services, the member will be referred to the BHS Medical Board, which is comprised of three or more FDNY medical officers. The BHS Medical Board makes fitness for duty determinations. The BHS Medical Board examines the member and may make one of the following determinations:

- a) Temporarily unfit for full duty. In this case, the member is placed on light duty or medical leave with an expectation of being returned to full duty.
- b) Permanently unfit for full duty. This category is also known as REC/LSS (Recommended Limited Service Squad or Long -Term Light Duty). Pursuant to Mayoral Directive 78-14, the member may remain on Light Duty for up to one year.
- c) Undetermined. This requires examination by the full BHS Medical Board at the monthly meeting of all medical officers.
- d) Full Duty.

Fire Commissioner's Application for Disability Retirement:

Pursuant to Mayoral Executive Order No. 78-14, the Fire Commissioner must apply for the disability retirement of any member found permanently unfit for full firefighting duty by the BHS Medical Board. Within thirty days of the BHS Medical Board's determination that a member is permanently unfit for full firefighting duty (REC/LSS), the transcript or minutes from the BHS Medical Board are forwarded to the Pension Bureau Retirement Desk. The Pension Bureau Retirement Desk is then required to file a Fire Commissioner's Application for Disability Retirement with the 1-B Medical Board.

STEP II: REVIEW OF APPLICATION BY THE 1-B MEDICAL BOARD

The 1-B Medical Board is composed of three physicians and is independent of both the Fire Department and the Pension Board of Trustees. The 1-B Medical Board meets weekly and is the sole authority in determining whether a member is disabled for retirement/pension purposes. In reviewing an application, the 1-B Medical Board addresses the following questions:

- a) Is the member disabled for retirement purposes?
- b) If the member is disabled for retirement purposes, is the disability due to a line-of-duty accident? (a.k.a. the *Causation* question). Please note that while the 1-B Medical Board's disability determination is binding upon the Pension Board of Trustees, it may only make recommendations with respect to the causation component.

The applicant has the right to submit any and all evidence in support of a disability retirement and the 1-B Medical Board must evaluate all of the evidence and report its conclusions and recommendations to the Pension Board of Trustees.

The 1-B Medical Board's recommendation on the cause of a disability for retirement purposes is based on a review of the relevant medical records contained in the member's medical chart (from the Bureau of Health Services) and any additional documents submitted by the member, including relevant CD-72s.

Often, during its initial review of a case, the 1-B Medical Board may request that one of its impartial medical consultants evaluate the member.

The medical consultant will be a specialist that deals with the member's specific medical condition. After its initial review, the 1-B Medical Board reaches one of the following conclusions:

- a) Disabled due to line-of-duty accident (Accidental Disability)
- b) Disabled due to non-line-of-duty condition (Ordinary Disability)
- c) Not Disabled for retirement purposes (Denied)
- d) Decision deferred until the 1-B Medical Board has evaluated the consultant's report or other additional evidence.

The 1-B Medical Board's certification of each is forwarded to the Board of Trustees for a final determination of the disability application.

STEP III: REVIEW BY THE BOARD OF TRUSTEES

The Board of Trustees consists of City and Union representatives, each with an equal number of votes. During its monthly meetings, the Board reviews the reports of the 1-B Medical Board, the relevant medical records and the relevant CD-72s. Although the Board of Trustees cannot change the 1-B Medical Board's decision on whether a member is permanently disabled from full duty, it can overrule the 1-B Medical Board's recommendation on causation. When the Board of Trustees cannot reach the vote necessary to pass a motion (7/12 or 14 votes) on the cause of the disability, the member will be retired for ordinary disability. This is based on a court case known as the "Schoeck Decision."

WITHDRAWAL OF DISABILITY RETIREMENT APPLICATION

If the Fire Commissioner applied for a member's disability retirement, only the Fire Commissioner can stop the process. If a member has applied for disability retirement, the member may stop the process by withdrawing the application. If the 1-B Medical Board's doctors have found the member disabled for retirement purposes, the member may not return to full duty. However, members found to be disabled by the 1-B Medical Board will be afforded the opportunity to request a reasonable accommodation as outlined in PAID 1/2000.

A request to withdraw a disability retirement application by the member shall be made on a letter-head report to the Fire Commissioner and processed through the chain of command. The report shall include:

NAME, RANK, UNIT, SOCIAL SECURITY NUMBER, REASON MEMBER SUBMITTED RETIREMENT APPLICATION, REASON FOR REQUESTING WITHDRAWAL, DATE(S) OF PREVIOUS RETIREMENT APPLICATIONS AND WITHDRAWAL REQUEST

Upon receipt of the request, the Bureau of Human Resources shall direct the member to the Bureau of Health Services for examination. The Fire Commissioner may elect to either withdraw or keep in effect the Fire Commissioner's application for retirement.

An application to withdraw shall be denied for either of the following reasons:

The member is found unfit for any duty by the Fire Department BHS Medical Board or the member has had disability certified by the Board of Trustees prior to receipt of his/her withdrawal application.

If the application to withdraw is approved, member will be notified to report to the Bureau of Human Resources for clarification of duty status and suitable assignment.

RETIREMENT PROCEDURES FOR ALL RETIREES

During the retirement process, retirees will be advised regarding health insurance, pension options, post-retirement employment restrictions, withholding tax, and related issues. At this time, the member's projected retirement date will be determined, and an estimate of the final pension allowable, as well as the amount of the partial allowance, will be determined. NOTE: Health insurance is not provided for members with less than ten (10) years of service, retiring on an ordinary disability.

Members are generally entitled to take all vacation leave, accrued and terminal leave (normally one (1) day per four (4) completed months of service) after their last day on duty, and remain on the active payroll during this time. Terminal leave is not granted for vested separations. Under limited circumstances, service retirees and vested separations may submit a request for withdrawal of their retirement application before going off the payroll. To do so, the Retirement Counseling Unit must be notified at least ten (10) business days before the date on which the member is requesting a return to active status. (Note: Service retirees who have begun to utilize terminal leave must be evaluated by the FDNY Medical Board prior to return to full duty).

Upon retirement, a member must return all Department property and obtain a Property Release Form (BP-71) from the Bureau of Personnel. The retiree must forward a copy of the Property Release Form to the Pension Bureau before any pension checks are issued. In addition, a copy of the Property Release Form must also be forwarded to Uniformed Payroll for release of the final active paycheck.

TIERS I and II: SERVICE RETIREMENT ALLOWANCE

Members will be eligible to receive a retirement allowance after completing 20 years of allowable fire service.

The Service retirement allowance is calculated as follows:

50% of final salary
plus
1/60th x total earnings after your 20th anniversary

plus
1/80th x average annual earnings of the last 5 years x the years and days of other credited
service, if applicable

plus
a pension based on the actuarial value of the ITHP contributions made after completion
of 20 years of allowable fire service, together with the interest earned on those
contributions

plus
an annuity based on any accumulations in excess of minimum required contributions
remaining in the member's account at retirement, including interest earned on those
contributions

less
the annuity value of any shortage in the member's account (shortages result from a
contribution rate deficiency, prior loans, unpaid loans, and/or nonpayment of
contributions).

TIERS I and II: DISABILITY RETIREMENT ALLOWANCE**ORDINARY DISABILITY RETIREMENT**

A member is eligible to receive an ordinary disability retirement allowance, regardless of age or years of credited service, provided the 1-B Medical Board and the Board of Trustees have found the member physically or mentally unable to perform his/her regular job duties.

An Ordinary Disability retirement allowance is calculated as follows:

years and days of all service, (uniformed and other credited service)
divided by 40 and multiplied by final salary
less
the annuity value of any shortages in the member's account (shortages result from prior
loans, unpaid loans, and/or nonpayment of contributions)
plus
a lump-sum return of any accumulated deductions in excess of the minimum required
contributions remaining in the account at retirement, including interest earned on these
contributions.

ACCIDENTAL DISABILITY RETIREMENT

There is no minimum service requirement for accidental disability retirement. The 1-B Medical Board must find a member physically (includes the presumptive Lung Law and the Heart/Cancer/Infectious Diseases/WTC Bills) or mentally unable to perform his/her regular job duties because of an accidental injury received in the line-of-duty. Such disability must not be the result of a member's own negligence.

An Accidental Disability retirement allowance is calculated as follows:

a pension equal to 75% of final salary
plus
1/60th x total earnings after the member's 20th anniversary
plus
an additional pension based on the actuarial value of the ITHP reserve account as of the
effective date or retirement
plus
an annuity based on the actuarial value of accumulated deductions as of the effective date
of retirement
less
a deduction for the annuity value of any loan outstanding at time of retirement.

Notes:

For members retiring on or after January 1, 2009, accidental disability pensions are federally taxed on the 1/60th portion, ITHP over 20 years, and the annuity based on contributions attributed to 414H and interest. The balance of an accidental disability pension is Federally tax-free. However, the entire accidental disability is exempt from New York State and New York City Income Tax.

There is no credit for prior non-uniformed City service for IBP members granted an accidental disability pension.

TIERS I and II: OPTIONS**MAXIMUM RETIREMENT ALLOWANCE (NO OPTION)**

At retirement, a member may elect to receive the maximum retirement allowance. The maximum retirement allowance is the largest benefit that can be received. Payments are made throughout the retiree's lifetime and cease upon death. There are no survivor benefits under the maximum retirement allowance.

OPTIONS

An option is an election that provides a continued pension benefit or lump-sum payment to a beneficiary. When electing an option, the member accepts a reduced retirement allowance during his/her lifetime. The reduction is based on the option selected, age, and sometimes the age of the beneficiary. After certification by the Office of the Actuary, the pension is finalized. Once the member receives his/her full pension check, the option selected cannot be changed. There are four options available to Tier I members.

OPTION 1

Option 1 is available only to Tier 1 members appointed prior to July 1, 1973.

This option sets up an initial pension reserve. If the retiree dies before receiving payments equal to this total pension reserve (the reserve set aside to pay benefits over a retiree's lifetime), the difference between the total pension reserve and all payments received will be awarded to the beneficiary. This option may be selected for the annuity reserve, the pension reserve, or both. More than one beneficiary may be named, and the beneficiary (ies) may be changed at any time.

OPTION 2

Joint and 100% Survivor: The retiree receives a reduced monthly lifetime allowance. Upon the death of the retiree, this option allows the named beneficiary to receive 100% of the reduced pension allowance for life. Only one beneficiary may be named, and the designated beneficiary may not be changed once the option is in effect.

OPTION 3

Joint and 50% Survivor: The retiree receives a reduced monthly lifetime allowance. Upon the death of the retiree, this option allows the named beneficiary to receive 50% of the reduced pension allowance for life. Only one beneficiary may be named, and the designated beneficiary may not be changed once this option is in effect.

OPTION 4

Lump Sum: The retiree receives a reduced annual pension allowance for life with the provision that upon the death of the retiree, the beneficiary(ies) will receive a limited lump-sum payment specified by the retiree at the time the option is chosen. More than one beneficiary may be named and the beneficiary(ies) may be changed at any time;

Annuity: The retiree receives a reduced annual pension allowance for life with the provision that upon the death of the retiree, the beneficiary will receive a specified annual annuity, as pre-determined by the retiree. Only one beneficiary may be named, and the designated beneficiary may not be changed once the option is in effect.

“POP-UP” OPTION MODIFICATION

Under this option modification, if the named beneficiary predeceases the retiree, the retirement allowance reverts back to the maximum retirement allowance. The “Pop-up” may ONLY be applied to Option 2, Option 3, and Option 4 annuities. There is an extra cost for this option.

FIVE YEAR OR TEN-YEAR CERTAIN

The Five-Year or Ten-Year Certain Options are available only to Tier 2 members appointed after July 1, 1973.

FIVE-YEAR CERTAIN: The Retiree receives a reduced monthly lifetime allowance. If the retiree dies within five years of his /her retirement, the benefit is paid to the retiree’s beneficiary either in a lump sum or in monthly payments for the remainder of the five years.

TEN-YEAR CERTAIN: The Retiree receives a reduced monthly lifetime allowance. If the retiree dies within ten years of his /her retirement, the benefit is paid to the retiree’s beneficiary either in a lump sum or in monthly payments for the remainder of the ten years.

Should the beneficiary predecease the retiree, upon the death of the retiree, a lump sum will be paid to the estate of said retiree. The beneficiary may be changed at any time with this option.

Notes:

Fifty percent (50%) of any cost-of-living adjustments (COLAs) are paid to a spouse under Options 2 and 3, under Option 4 Annuity, and any “Pop-up” option, whose deceased spouse, if alive, would be eligible for a COLA benefit increase.

Under current tax laws, for the beneficiary(ies) of line-of-duty (accidental) disability retirees, all options are federally taxed on a portion of the pension that was taxable to the retiree, however, the total pension received under an option is exempt from New York State and New York City taxation.

TIERS I and II: SURVIVOR BENEFITS

Tier I survivor benefits are paid if a member dies before retirement, whether death occurs on or off the job.

There are two types of death benefits:

Death Gamble Benefit – for ordinary (non-line-of-duty) deaths.
Accidental Death Benefit (Line-of-Duty)

DEATH GAMBLE BENEFIT

For non-line-of-duty deaths, the benefit is computed as though the member had retired the day before his/her death. The designated beneficiary(ies) will be eligible to receive an amount equal to the reserve for the service retirement allowance that would have been payable had the member retired on the day before his/her death. If the beneficiary predeceases the member, this death benefit is paid to the member’s estate.

ACCIDENTAL (LINE –OF-DUTY) DEATH BENEFIT

If the 1-B Medical Board determines that death is the result of an accidental injury received in the line of duty, an accidental death benefit will be paid as follows:

a pension equal to 50% of final compensation will be paid to a surviving spouse, to
continue for life;
or

if there is no surviving spouse or if a surviving spouse dies before any eligible child attains 18 years of age (or, if a student, 23 years of age), then to such child or children under such age, until every such child dies or attains such age;

or

if there is no surviving spouse or eligible child under the age of 18 years (or 23 years, if a student), then to the member's dependent parent(s) to continue for life;

plus

a lump sum equal to the balance of the member's ITHP reserve account

plus

a lump sum equal to the member's accumulated deductions/contributions will be paid to the designated beneficiary(ies)

plus

a Special Accidental Death benefit under Section 208-f of the General Municipal Law (State portion)

This Special Accidental Death benefit, when added to the 50% of final compensation pension paid by the City, and any Social Security Death benefits payable to a surviving spouse, equal to 100% of the member's final salary (final salary is defined as the last 12 months of earnings, and is never less than the full salary of a first-grade Firefighter). The Special Accidental Death benefit is increased from time to time by act of the New York State Legislature and is not payable to dependent parents. Effective September 1, 2000, any COLA (Cost of Living Adjustment) received on the 50% pension payable from the Fund shall be subtracted from the Special Accidental Death Benefit (State's portion).

BENEFICIARY DESIGNATION

Upon membership in the Fund, a beneficiary(ies) for the Life Insurance benefit and for Death Benefits is (are) elected. A member may change beneficiary(ies) at any time by filing the appropriate form(s) with the Pension Bureau. Please note that the beneficiary(ies) designated on the Death Benefits beneficiary form will receive this benefit in the event of the member's non-line-of-duty death. In the event of Accidental Death (Line-of-Duty), benefits will be paid to the appropriate beneficiary(ies) in accordance with the Administrative Code of the City of New York and other applicable sections of the law.

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Summary Funds Benefits**TIER III**

This Summary Plan Description (SPD) summarizes the benefits provided by the New York City Fire Department Pension Fund, Subchapter II (the “Fire Pension Fund”), for Tier 3 members. Anyone who became a member of the Fire Pension Fund between July 1, 2009 and March 31, 2012 is a Tier 3 member. Those who become members of the Fire Pension Fund on or after April 1, 2012 are “modified Tier 3” members, also known as Tier 6. The primary difference is that “Modified Tier 3” members have a 5 year Final Average Salary (FAS) calculation upon retirement. Unless otherwise noted, the information presented in this SPD is applicable to both Tier 3 and Modified Tier 3 members, and will be collectively referred to as “Tier 3.” On September 8, 2016 Governor Andrew Cuomo signed into law Chapter 298 of the Laws of 2016, granting “Enhanced Plan” benefits to current Tier 3 members of the New York City Fire Department Pension Fund (FDNY Pension) who opt into the Enhanced Plan. All Tier 3 members with the exception of two joined the enhanced Benefit plan. All new employees appointed after 09/08/2016 will become enhanced benefit members. The new law grants these members of the Fire Pension Fund $\frac{3}{4}$ Disability Benefits, and Presumptive Benefits for certain illnesses covered under the Heart, Lung, Cancer and Infectious Diseases Bills. Enhanced members who join will be required to pay an additional 2% contribution, which could eventually rise to a maximum of 3%, after a three year look-back period, based on actuarial assumptions made by the City of New York.

This summary is as accurate as possible. However, in the event of conflict between this summary and any applicable law, including but not limited to, the Administrative Code of the City of New York (ACNY), the Retirement and Social Security Law (RSSL), and the rules of the Fire Pension Fund, the applicable Law or Rule will govern.

MEMBERSHIP

Uniformed members of the FDNY appointed on or after July 1, 2009 are subject to Article 14 of the RSSL, also known as Tier 3.

CONTRIBUTIONS

The Enhanced Plan members are required to contribute the basic 3% and an additional 2 % of pensionable salary for the first 25 years of credited service (RSSL § 517). Member contributions are federally tax-deferred as per section 414(h) of the Internal Revenue Code, but are subject to state and local income taxation. In the future, the additional contributions may range from 2% to 3% depending on specified future cost calculations. For members appointed before 09/08/2016 who opted to join the enhanced benefit plan, the additional contributions are taxable under Federal, State and Local regulations, and will continue until the 25th year of credited service.

MINIMUM REQUIRED AND INTEREST

Member contributions and any interest earned are referred to as “accumulated contributions.” The Tier 3 rate of interest on member contributions is currently 5%. The amount of accumulated contributions required to be in a member’s account at any given time is referred to as the “minimum required.” In order to be eligible for a benefit at retirement, a member must have the “minimum required” of accumulated contributions, which is equal to the 3% contribution rate, the Enhanced Plan 2% contribution rate plus the statutory interest earned.

DEFICITS

A deficit occurs when a member’s pension account balance falls below the minimum required. Deficits may occur because of delays in contract settlements. Pension contributions on retroactive pay from a contract settlement do not include the interest that would have been earned on those contributions. Since interest earned on contributions is part of a member’s minimum required, a deficit can occur.

Members are not permitted to retire with a deficit, and are responsible for any account shortages. Members may opt to make a lump sum payment or bi-weekly payroll deductions to reduce and eliminate any deficit.

REFUNDS

Upon separation from the Fire Pension Fund for reasons other than retirement, such as resignation or termination, a written request for a refund of accumulated contributions plus interest may be made. If contributions are not withdrawn, the money will continue to earn interest for a maximum of five years from the date of separation.

WITHDRAWAL OF CONTRIBUTIONS

In the event of a resignation or termination, a member who is not vested or entitled to any other benefit under Tier 3 may withdraw accumulated contributions, and thereby terminate his or her Fire Pension Fund membership. A member, who separates from service as a vested member, but with less than 10 years of credited service, may also withdraw his or her accumulated contributions. A withdrawal of contributions by such a vested member, however, will terminate all membership rights, include the right to receive a vested retirement benefit in the future. After 10 years of service, contributions may not be withdrawn and members will receive a vested retirement benefit.

LOANS

There is no provision in Tier 3 that allows a member to take loans.

CREDITED SERVICE

Unless otherwise stated, “credited service” is defined as allowable Uniformed service. Participation in the Fire Pension Fund is mandatory for Uniformed employees hired on or after July 1, 2009. Members receive credit for all Uniformed service time while on active payroll, up to a maximum, of 22 years.

ALLOWABLE UNIFORMED SERVICE

Twenty-two (22) years of allowable Uniformed service are required for Normal Service Retirement, or twenty (20) years for Early Service Retirement. Such service includes:

All member service rendered as a Uniformed member of the New York City Fire Department in the competitive class of the civil service.

Credit for service rendered in the Uniformed force of the New York City Police Department acquired pursuant to applicable law.

Credit for any service rendered while a member of the New York State and Local Police and Fire Retirement System as a Police Officer or Firefighter.

Credit for military service acquired pursuant to applicable law.

PRIOR SERVICE CREDIT

A member may obtain prior credited service for any New York State Police or Fire Time, or for Uniformed service with the New York City Police Department, by filing for transfer or buy-back. This prior credit service counts toward the requirements for vesting and retirement.

MILITARY SERVICE CREDIT

Military service with the federal government may be credited pursuant to New York State Military Law 243, the federal Uniformed Services Employment and Reemployment Right Act (USERRA), and RSSL 1000. Members who join the Fire Pension Fund on or after April 1, 2012, and who wish to purchase credit for military service under RSSL 1000, pay an amount for such credit equal to the number of years of military credit being purchased multiplied by 6% of the compensation earned by the member during the 12 months of credited service immediately preceding the member's application to purchase such credit. Members who joined the Fire Pension Fund prior to April 1, 2012 and who wish to purchase credit for military service under RSSL 1000, pay an amount for such credit equal to the number of years of military credit being purchased multiplied by 3% of the compensation earned by the member during the 12 months of credited service immediately preceding the member's application to purchase such credit.

TRANSFER TO THE FIRE PENSION FUND

A member may transfer to the Fire Pension Fund from another public retirement system within the State of New York. In Tier 3, transferring prior City or State service, other than Uniformed Police of Fire service, does not provide any additional monetary benefit, nor does it change your Service Retirement eligibility date. However, members with a membership in a New York public pension fund that began prior to July 1, 2009 will become Tier 2 members of the Fire Pension Fund upon completion of a proper transfer. Before deciding whether to transfer service from another pension system, eligible members should contact the Fire Pension Fund Administration Office at (929) 436-0099.

New York City Fire Pension Funds
Comprehensive Annual Financial Report
A Pension Trust Fund of The City of New York



Financial Section

Part II

Fiscal Years Ended June 30, 2020 and June 30, 2019

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GRANT THORNTON LLP757 Third Ave., 9th Floor
New York, NY 10017-2013**D** +1 212 599 0100**F** +1 212 370 4520**REPORT OF INDEPENDENT CERTIFIED PUBLIC ACCOUNTANTS**To the Board of Trustees of
New York City Fire Pension Funds

We have audited the accompanying combining financial statements of New York City Fire Pension Fund, New York City Firefighters' Variable Supplements Fund, and New York City Fire Officers' Variable Supplements Fund, (collectively, the "System"), which comprise the combining statement of fiduciary net position as of June 30, 2020 and the related combining statement of changes in fiduciary net position for the year then ended, and the related notes to combining financial statements ("2020 combining financial statements").

Management's responsibility for the 2020 combining financial statements

Management is responsible for the preparation and fair presentation of these 2020 combining financial statements in accordance with accounting principles generally accepted in the United States of America; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of combining financial statements that are free from material misstatement, whether due to fraud or error.

Auditor's responsibility

Our responsibility is to express an opinion on these 2020 combining financial statements based on our audit. We conducted our audit in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the 2020 combining financial statements are free from material misstatement.

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

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

Opinion

In our opinion, the 2020 combining financial statements referred to above present fairly, in all material respects, the combining fiduciary net position of the System as of June 30, 2020, and the changes in the combining fiduciary net position for the year 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 - Schedules of Changes in the Employers' Net Pension Liability and Related Ratios, Schedule 2 - Schedules of City

Contributions, and Schedule 3 - Schedule of Investment Returns, as listed in the table of contents, be presented to supplement the basic 2020 combining financial statements. Such information, although not a required part of the basic 2020 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 2020 combining financial statements in an appropriate operational, economic, or historical context. This required supplementary information is the responsibility of management. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America. These limited procedures consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic 2020 combining financial statements, and other knowledge we obtained during our audit of the basic 2020 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.

Other information

Our audit was conducted for the purpose of forming an opinion on the basic combining financial statements. The Introductory Section, Additional Supplementary Information, Investment Section, Actuarial Section, and Statistical Section, as listed in the foregoing table of contents, are presented for the purpose of additional analysis and are not a required part of the basic combining financial statements.

The Additional Supplementary Information (Schedule 4 - Schedule of Investment Expenses, Schedule 5 - Schedule of Administrative Expenses and Schedule 6 - Schedule of Payments to Consultants) for the year ended June 30, 2020, is the responsibility of management and was derived from and relates directly to the underlying accounting and other records used to prepare the basic combining financial statements. Such information has been subjected to the auditing procedures, applied in the audit of the basic combining financial statements and certain additional procedures, applied in the audit of the basic combining financial statements or to the basic combining financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America. In our opinion, the Additional Supplementary Information is fairly stated, in all material respects, in relation to the basic combining financial statements taken as a whole.

The Introductory Section, Investment Section, Actuarial Section and Statistical Section have not been subjected to the auditing procedures applied in the audit of the basic combining financial statements and, accordingly, we do not express an opinion or provide any assurance on them.

Report on 2019 combining financial statements

The combining financial statements of the System as of and for the year ended June 30, 2019 ("2019 combining financial statements") were audited by other auditors. Those auditors expressed an unmodified opinion on those 2019 combining financial statements in their report dated October 24, 2019.



New York, New York
October 28, 2020
(except for the Additional Supplementary Information,
as to which the date is December 18, 2020)

**NEW YORK CITY FIRE PENSION FUNDS
MANAGEMENT'S DISCUSSION AND ANALYSIS (UNAUDITED)
JUNE 30, 2020 AND 2019**

This narrative discussion and analysis of the New York City Fire Pension Funds' ("FIRE", "Funds" or the "Plan") financial performance provides an overview of the Funds' combining financial activities for the Fiscal Years ended June 30, 2020 and 2019. 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 (Unaudited)** — as required by the GASB includes the management discussion and analysis and information presented after the notes to combining financial statements.

**NEW YORK CITY FIRE PENSION FUNDS
MANAGEMENT'S DISCUSSION AND ANALYSIS (UNAUDITED)
JUNE 30, 2020 AND 2019**

FINANCIAL HIGHLIGHTS

For Fiscal Year ended June 30, 2020, the Funds' fiduciary net position restricted for benefits was approximately \$15.9 billion. This amount reflects an increase of \$721.4 million (4.8%) over the Funds' fiduciary net position restricted for benefits in the prior Fiscal Year. The growth for Fiscal Year 2020 can be attributed to the excess of total contributions, net investment income and other receipts over pension benefits and administrative expenses paid. Additionally, net appreciation in fair value of the Funds' investment portfolio served to increase the amount of net investment income reported for the period.

For Fiscal Year ended June 30, 2019, the Funds' net position restricted for benefits stood at approximately \$15.2 billion. This amount reflects an increase of \$1,035.6 million (7.3%) over the Funds' net position restricted for benefits in Fiscal Year 2018. The growth for Fiscal Year 2019 can be attributed to the fact that total contributions, net investment income and other receipts exceeded pension benefits and administrative expenses paid. Additionally, net appreciation in fair value of the Funds' investment portfolio served to increase the amount of net investment income reported for the period.

**Changes in Fiduciary Net Position
Years Ended June 30, 2020, 2019 and 2018 (In
thousands)**

	<u>2020</u>	<u>2019</u>	<u>2018</u>
Additions:			
Member contributions	\$ 106,821	\$ 108,015	\$ 108,338
Employer contributions	1,419,270	1,398,565	1,200,417
Net investment income	718,739	982,348	1,249,731
Other	<u>2,842</u>	<u>2,057</u>	<u>9,411</u>
Total additions	<u>2,247,672</u>	<u>2,490,985</u>	<u>2,567,897</u>
Deductions:			
Benefit payments and withdrawals	<u>1,526,276</u>	<u>1,455,430</u>	<u>1,385,499</u>
Net increase in net position	721,396	1,035,555	1,182,398
Net position restricted for benefits			
Beginning of year	<u>15,179,311</u>	<u>14,143,756</u>	<u>12,961,358</u>
End of year	<u>\$ 15,900,707</u>	<u>\$ 15,179,311</u>	<u>\$ 14,143,756</u>

For Fiscal Year 2020 member contributions of approximately \$106.8 million was 1.1% lower compared to member contributions for Fiscal Year 2019. For Fiscal Year 2019, member contributions of approximately \$108 million was 0.3% lower compared to member contributions for Fiscal Year 2018. 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, 2018 and 2017, under the One-Year Lag Methodology ("OYLM"). Employer contributions for Fiscal Year 2020 totaled \$1,419.3 million, an increase of \$20.7 million (1.5%) compared to employer contributions for Fiscal Year 2019. Employer contributions for Fiscal Year 2019 was \$1,398.6 million, an increase of \$198.2 million (16.5%) compared to employer contributions for Fiscal Year 2018.

**NEW YORK CITY FIRE PENSION FUNDS
MANAGEMENT'S DISCUSSION AND ANALYSIS (UNAUDITED)
JUNE 30, 2020 AND 2019**

For Fiscal Year 2020, the Funds had a net investment gain of \$718.7 million; which was 26.8% lower compared to the net investment gain of \$982.3 million reported for Fiscal Year 2019. The net investment gain for Fiscal Year 2020 can be attributed to the overall net appreciation in fair values of invested assets in the combined investment portfolio of the Funds.

For Fiscal Year 2019, the Funds had a net investment gain of \$982.3 million; this amount was 21.4% lower compared to the net investment gain of \$1,249.7 million recorded for Fiscal Year 2018. The net investment gain for Fiscal Year 2019 can be attributed to the overall net appreciation in fair values of the invested assets in the combined investment portfolio of the Funds.

Benefit payments, withdrawals and administrative expenses totaled \$1,526.3 million for the Fiscal Year 2020; an increase of 4.9% compared to benefit payments, withdrawals and administrative expenses paid in the previous Fiscal Year. During Fiscal Year 2019, the Funds recorded benefit payments, withdrawals and administrative expenses of \$1,455.4 million, this was an increase of 5.0% compared to Fiscal Year 2018. 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 excess or voluntary contributions made to the pension 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 2020, the Funds' combined net position restricted for benefits increased by 4.8% to \$15.9 billion, compared to the net position restricted for benefits of \$15.2 billion in Fiscal Year 2019. The overall growth for the current fiscal year can be attributed to the excess of total contributions and net investment income over pension benefits and withdrawals disbursed. Additionally, net appreciation in fair value of the Funds' investment portfolio served to increase the amount of net investment income reported for the period.

For Fiscal Year 2019, the Funds' combined net position restricted for benefits increased by 7.3% to \$15.2 billion, compared to the net position restricted for benefits of \$14.1 billion in Fiscal Year 2018. The overall growth for the current fiscal year can be attributed to the excess of total contributions and net investment income over pension benefits and withdrawals disbursed. Additionally, a net appreciation in fair values of the Funds' investment portfolio served to increase the amount of net investment income reported for the period.

**NEW YORK CITY FIRE PENSION FUNDS
MANAGEMENT'S DISCUSSION AND ANALYSIS (UNAUDITED)
JUNE 30, 2020 AND 2019**

Outstanding member loans for Fiscal Year 2020 totaled \$20.6 million; this amount is 10.4% lower than member loans reported in the prior fiscal year. Outstanding member loans for Fiscal Year 2019 totaled \$23.0 million; this amount is 8.7% less than member loans reported in the prior fiscal year. 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.

	<u>2020</u>	<u>2019</u>	<u>2018</u>
Cash	\$ 5,952	\$ 9,405	\$ 5,435
Receivables	431,483	331,567	195,552
Investments — at fair value	16,150,586	15,335,153	14,361,915
Collateral from securities lending	941,705	792,150	1,169,286
Other assets	<u>2,970</u>	<u>2,573</u>	<u>2,899</u>
Total assets	<u>17,532,696</u>	<u>16,470,848</u>	<u>15,735,087</u>
Accounts payable	65,993	167,532	177,634
Payables for investments purchased	580,490	294,342	204,073
Accrued benefits payable	43,801	37,513	40,338
Payables for securities lending transactions	<u>941,705</u>	<u>792,150</u>	<u>1,169,286</u>
Total liabilities	<u>1,631,989</u>	<u>1,291,537</u>	<u>1,591,331</u>
Net position restricted for benefits	<u>\$ 15,900,707</u>	<u>\$ 15,179,311</u>	<u>\$ 14,143,756</u>

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

**NEW YORK CITY FIRE PENSION FUNDS
MANAGEMENT'S DISCUSSION AND ANALYSIS (UNAUDITED)
JUNE 30, 2020 AND 2019**

**June 30, 2020
(In thousands)**

Investments • At fair value:	QPP	FFVSF	FOVSF	Combined
Short-term investments:				
U.S. treasury bills and agencies	\$ 470,090	\$ 2,350	\$ 1,299	\$ 473,739
Commercial paper	115,094	-	-	115,094
Short-term investment fund	156,248	222	160	156,630
Debt securities:				
U.S. government and agency	1,383,806	-	-	1,383,806
Corporate and other	1,341,212	-	-	1,341,212
Mortgage debt securities	696,105	-	-	696,105
Bank loans	61,355	-	-	61,355
Treasury inflation protected securities	667,049	-	-	667,049
Equity securities				
International equity	4,895,777	160,922	112,697	5,169,396
	1,186,338	-	-	1,186,338
Alternative investments:				
Infrastructure	152,853	-	-	152,853
Opportunistic fixed income	448,031	-	-	448,031
Private equity	919,869	-	-	919,869
Private real estate	699,376	-	-	699,376
Hedge funds	954,573	-	-	954,573
Collective trust funds:				
Bank loans	101,784	-	-	101,784
Corporate and other	624	56,289	40,014	96,927
International equity	877,623	127,362	90,792	1,095,777
Domestic equity	80,603	18,543	13,039	112,185
Mortgage debt securities	52,601	52,968	37,653	143,222
Opportunistic fixed income	50,189	-	-	50,189
U.S. Government and agency	-	73,107	51,969	125,076
Collateral from securities lending	914,986	15,856	10,863	941,705
	<u>\$ 16,226,186</u>	<u>\$ 507,619</u>	<u>\$ 358,486</u>	<u>\$ 17,092,291</u>

**NEW YORK CITY FIRE PENSION FUNDS
MANAGEMENT'S DISCUSSION AND ANALYSIS (UNAUDITED)
JUNE 30, 2020 AND 2019**

June 30, 2019
(In thousands)

Investments • At fair value:	<u>QPP</u>	<u>FFVSF</u>	<u>FOVSF</u>	<u>Combined</u>
Short-term investments:				
U.S. treasury bills and agencies	\$ 7,208	\$ -	\$ -	\$ 7,208
Commercial paper	264,720	-	-	264,720
Short-term investment fund	71,823	218	128	72,169
Discount notes	103,390	3,589	2,401	109,380
Debt securities:				
U.S. government and agency	1,537,673	-	-	1,537,673
Corporate and other	1,367,788	-	-	1,367,788
Mortgage debt securities	382,897	-	-	382,897
Bank loans	122,249	-	-	122,249
Treasury inflation protected securities	479,548	-	-	479,548
Equity securities	4,436,047	167,231	122,675	4,725,953
International equity	154,311	-	-	154,311
Alternative investments:				
Infrastructure	125,285	-	-	125,285
Opportunistic fixed income	405,346	-	-	405,346
Private equity	939,362	-	-	939,362
Private real estate	609,421	-	-	609,421
Hedge funds	868,419	-	-	868,419
Collective trust funds:				
Bank loans	105,615	-	-	105,615
Corporate and other	32,300	49,380	31,406	113,086
International equity	2,059,022	145,185	105,202	2,309,409
Domestic equity	156,999	13,624	9,587	180,210
Mortgage debt securities	46,399	51,407	32,696	130,502
Opportunistic fixed income	48,113	-	-	48,113
Treasury inflation protected securities	158,200	-	-	158,200
U.S. Government and agency	-	72,303	45,986	118,289
Collateral from securities lending	774,084	10,296	7,770	792,150
	<u>\$ 15,256,219</u>	<u>\$ 513,233</u>	<u>\$ 357,851</u>	<u>\$ 16,127,303</u>

**NEW YORK CITY FIRE PENSION FUNDS
MANAGEMENT'S DISCUSSION AND ANALYSIS (UNAUDITED)
JUNE 30, 2020 AND 2019**

The tables above summarize the Funds' investment portfolio including collateralized securities lending. To meet the Funds' long-term benefit obligations, 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. For example, the Russell 3000 index, a broad measure of the United States stock market posted gains of 6.5% in Fiscal Year 2020, compared to gains posted of 9.0% in Fiscal Year 2019. The QPP's investment portfolio posted gains of 4.8% for Fiscal Year 2020 compared to the gain of 7.1% for Fiscal Year 2019. For the three-year period ended June 30, 2020, the overall rate of return on the QPP's investment portfolio was 7.1%.

The FFVSF's investment portfolio posted gains of 4.1% for Fiscal Year 2020 compared to the gain of 6.2% for Fiscal Year 2019. For the three-year period ended June 30, 2020, the overall rate of return on the Plan's investment portfolio was 5.9%.

Similarly, the FOVSF's investment portfolio posted gains of 4.3% for Fiscal Year 2020 compared to the gain of 6.2% for Fiscal Year 2019. For the three-year period ended June 30, 2020, the overall rate of return on the Plan's investment portfolio was 6.1%.

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 expenses are paid for out of the assets of 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, One Battery Park Plaza, 9th Floor, New York, NY 10004.

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NEW YORK CITY FIRE PENSION FUNDS
COMBINING STATEMENTS OF FIDUCIARY NET POSITION
JUNE 30, 2020
(In thousands)

	QPP	FFVSF	FOVSF	Eliminations	Combined Funds
ASSETS:					
Cash	\$ 3,118	\$ 1,887	\$ 947	\$ -	\$ 5,952
Receivables:					
Investment securities sold	372,313	16	5	-	372,334
Member loans (Note 7)	20,559	-	-	-	20,559
Accrued interest and dividends	37,900	108	308	-	38,316
Accounts Receivable	91	147	36	-	274
Transferrable earnings due from QPP to Variable Supplements Funds	-	-	-	-	-
Total receivables	<u>430,863</u>	<u>271</u>	<u>349</u>	<u>-</u>	<u>431,483</u>
INVESTMENTS — At fair value (Notes 2 and 3):					
Short-term investments:					
Commercial paper	115,094	-	-	-	115,094
Short-term investment fund	156,248	222	160	-	156,630
U.S. treasury bills and agencies	470,090	2,350	1,299	-	473,739
Discount notes	-	-	-	-	-
Debt securities:					
U.S. government and agencies	1,383,806	-	-	-	1,383,806
Mortgage debt security	696,105	-	-	-	696,105
Corporate and other	1,341,212	-	-	-	1,341,212
Treasury inflation protected securities	667,049	-	-	-	667,049
Bank loans	61,355	-	-	-	61,355
Equity securities	4,895,777	160,922	112,697	-	5,169,396
International equity	1,186,338	-	-	-	1,186,338
Alternative investments:					
Infrastructure	152,853	-	-	-	152,853
Opportunistic fixed income	448,031	-	-	-	448,031
Private equity	919,869	-	-	-	919,869
Private real estate	699,376	-	-	-	699,376
Hedge funds	954,573	-	-	-	954,573
Collective trust funds:					
Bank loans	101,784	-	-	-	101,784
Corporate and other	624	56,289	40,014	-	96,927
International equity	877,623	127,362	90,792	-	1,095,777
Domestic equity	80,603	18,543	13,039	-	112,185
Mortgage debt security	52,601	52,968	37,653	-	143,222
Treasury inflation protected securities	-	-	-	-	-
Opportunistic fixed income	50,189	-	-	-	50,189
U.S. Government and Agency	-	73,107	51,969	-	125,076
Collateral from securities lending (Note 2)	<u>914,986</u>	<u>15,856</u>	<u>10,863</u>	<u>-</u>	<u>941,705</u>
Total investments	<u>16,226,186</u>	<u>507,619</u>	<u>358,486</u>	<u>-</u>	<u>17,092,291</u>
OTHER ASSETS					
	<u>2,970</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>2,970</u>
Total assets	<u>16,663,137</u>	<u>509,777</u>	<u>359,782</u>	<u>-</u>	<u>17,532,696</u>
LIABILITIES:					
Accounts payable	65,828	100	65	-	65,993
Payables for investment securities purchased	580,330	94	66	-	580,490
Accrued benefits payable (Note 2)	15,418	19,451	8,932	-	43,801
Transferrable earnings due from QPP to Variable Supplements Funds	-	-	-	-	-
Securities lending (Note 2)	<u>914,986</u>	<u>15,856</u>	<u>10,863</u>	<u>-</u>	<u>941,705</u>
Total liabilities	<u>1,576,562</u>	<u>35,501</u>	<u>19,926</u>	<u>-</u>	<u>1,631,989</u>
NET POSITION RESTRICTED FOR BENEFITS:					
Benefits to be provided by QPP	15,086,575	-	-	-	15,086,575
Benefits to be provided by VSF	<u>-</u>	<u>474,276</u>	<u>339,856</u>	<u>-</u>	<u>814,132</u>
Total net position restricted for benefits	<u>\$ 15,086,575</u>	<u>\$ 474,276</u>	<u>\$ 339,856</u>	<u>\$ -</u>	<u>\$ 15,900,707</u>

NEW YORK CITY FIRE PENSION FUNDS
COMBINING STATEMENTS OF FIDUCIARY NET POSITION
JUNE 30, 2019
(In thousands)

	QPP	FFVSF	FOVSF	Eliminations	Combined Funds
ASSETS:					
Cash	\$ 6,770	\$ 1,454	\$ 1,181	\$ -	\$ 9,405
Receivables:					
Investment securities sold	269,966	-	1,801	-	271,767
Member loans (Note 7)	23,052	-	-	-	23,052
Accrued interest and dividends	36,211	2	309	-	36,522
Accounts Receivable	225	-	1	-	226
Transferrable earnings due from QPP to Variable Supplements Funds	-	15,000	-	(15,000)	-
Total receivables	<u>329,454</u>	<u>15,002</u>	<u>2,111</u>	<u>(15,000)</u>	<u>331,567</u>
INVESTMENTS — At fair value (Notes 2 and 3):					
Short-term investments:					
Commercial paper	264,720	-	-	-	264,720
Short-term investment fund	71,823	218	128	-	72,169
U.S. treasury bills and agencies	7,208	-	-	-	7,208
Discount notes	103,390	3,589	2,401	-	109,380
Debt securities:					
U.S. government and agencies	1,537,673	-	-	-	1,537,673
Mortgage debt security	382,897	-	-	-	382,897
Corporate and other	1,367,788	-	-	-	1,367,788
Treasury inflation protected securities	479,548	-	-	-	479,548
Bank loans	122,249	-	-	-	122,249
Equity securities	4,436,047	167,231	122,675	-	4,725,953
International equity	154,311	-	-	-	154,311
Alternative investments:					
Infrastructure	125,285	-	-	-	125,285
Opportunistic fixed income	405,346	-	-	-	405,346
Private equity	939,362	-	-	-	939,362
Private real estate	609,421	-	-	-	609,421
Hedge funds	868,419	-	-	-	868,419
Collective trust funds:					
Bank loans	105,615	-	-	-	105,615
Corporate and other	32,300	49,380	31,406	-	113,086
International equity	2,059,022	145,185	105,202	-	2,309,409
Domestic equity	156,999	13,624	9,587	-	180,210
Mortgage debt security	46,399	51,407	32,696	-	130,502
Treasury inflation protected securities	158,200	-	-	-	158,200
Opportunistic fixed income	48,113	-	-	-	48,113
U.S. Government and Agency	-	72,303	45,986	-	118,289
Collateral from securities lending (Note 2)	<u>774,084</u>	<u>10,296</u>	<u>7,770</u>	-	<u>792,150</u>
Total investments	<u>15,256,219</u>	<u>513,233</u>	<u>357,851</u>	-	<u>16,127,303</u>
OTHER ASSETS					
	<u>2,573</u>	-	-	-	<u>2,573</u>
Total assets	<u>15,595,016</u>	<u>529,689</u>	<u>361,143</u>	<u>(15,000)</u>	<u>16,470,848</u>
LIABILITIES:					
Accounts payable	167,302	125	105	-	167,532
Payables for investment securities purchased	292,460	-	1,882	-	294,342
Accrued benefits payable (Note 2)	8,552	19,953	9,008	-	37,513
Transferrable earnings due from QPP to Variable Supplements Funds	15,000	-	-	(15,000)	-
Securities lending (Note 2)	<u>774,084</u>	<u>10,296</u>	<u>7,770</u>	-	<u>792,150</u>
Total liabilities	<u>1,257,398</u>	<u>30,374</u>	<u>18,765</u>	<u>(15,000)</u>	<u>1,291,537</u>
NET POSITION RESTRICTED FOR BENEFITS:					
Benefits to be provided by QPP	14,337,618	-	-	-	14,337,618
Benefits to be provided by VSF	-	499,315	342,378	-	841,693
Total net position restricted for benefits	<u>\$ 14,337,618</u>	<u>\$ 499,315</u>	<u>\$ 342,378</u>	<u>\$ -</u>	<u>\$ 15,179,311</u>

NEW YORK CITY FIRE PENSION FUNDS
COMBINING STATEMENTS OF CHANGES IN FIDUCIARY NET POSITION
FOR THE YEAR ENDED JUNE 30, 2020
(In thousands)

	QPP	FFVSF	FOVSF	Eliminations	Total
ADDITIONS:					
Contributions:					
Member contributions	\$ 106,821	\$ -	\$ -	\$ -	\$ 106,821
Employer contributions	1,419,270	-	-	-	1,419,270
Total contributions	<u>1,526,091</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>1,526,091</u>
Investment income (Note 3):					
Interest income	172,679	5,115	3,476	-	181,270
Dividend income	174,436	7,480	5,339	-	187,255
Net appreciation in fair value of investments	411,582	9,012	7,087	-	427,681
Total investment income	<u>758,697</u>	<u>21,607</u>	<u>15,902</u>	<u>-</u>	<u>796,206</u>
Less: investment expenses	<u>80,078</u>	<u>220</u>	<u>154</u>	<u>-</u>	<u>80,452</u>
Net income	<u>678,619</u>	<u>21,387</u>	<u>15,748</u>	<u>-</u>	<u>715,754</u>
Securities lending transactions:					
Securities lending income	3,047	142	99	-	3,288
Securities lending fees	(283)	(12)	(8)	-	(303)
Net securities lending income	<u>2,764</u>	<u>130</u>	<u>91</u>	<u>-</u>	<u>2,985</u>
Net investment income	<u>681,383</u>	<u>21,517</u>	<u>15,839</u>	<u>-</u>	<u>718,739</u>
Net receipts from other retirement systems	1,337	-	-	-	1,337
Transferrable earnings refunded to QPP from Variable					
Supplements Funds	15,000	(15,000)	-	-	-
Payments from QPP interest on Skim	-	12,792	7,365	(20,157)	-
Litigation income	1,505	-	-	-	1,505
Total additions	<u>2,225,316</u>	<u>19,309</u>	<u>23,204</u>	<u>(20,157)</u>	<u>2,247,672</u>
DEDUCTIONS:					
Benefit payments and withdrawals (Note 1)	1,447,071	44,348	25,726	-	1,517,145
Administrative expenses	9,131	-	-	-	9,131
Payments - Interest on Skim	20,157	-	-	(20,157)	-
To Variable Supplements Funds	<u>20,157</u>	<u>-</u>	<u>-</u>	<u>(20,157)</u>	<u>-</u>
Total deductions	<u>1,476,359</u>	<u>44,348</u>	<u>25,726</u>	<u>(20,157)</u>	<u>1,526,276</u>
NET INCREASE (DECREASE) IN NET POSITION	748,957	(25,039)	(2,522)	-	721,396
NET POSITION RESTRICTED FOR BENEFITS					
Beginning of year	<u>14,337,618</u>	<u>499,315</u>	<u>342,378</u>	<u>-</u>	<u>15,179,311</u>
End of year	<u>\$ 15,086,575</u>	<u>\$ 474,276</u>	<u>\$ 339,856</u>	<u>\$ -</u>	<u>\$ 15,900,707</u>

NEW YORK CITY FIRE PENSION FUNDS
COMBINING STATEMENTS OF CHANGES IN FIDUCIARY NET POSITION
FOR THE YEAR ENDED JUNE 30, 2019
(In thousands)

	QPP	FFVSF	FOVSF	Eliminations	Total
ADDITIONS:					
Contributions:					
Member contributions	\$ 108,015	\$ -	\$ -	\$ -	\$ 108,015
Employer contributions	<u>1,398,565</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>1,398,565</u>
Total contributions	<u>1,506,580</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>1,506,580</u>
Investment income (Note 3):					
Interest income	181,067	5,301	3,604	-	189,972
Dividend income	170,140	8,470	5,973	-	184,583
Net appreciation in fair value of investments	<u>667,697</u>	<u>14,347</u>	<u>11,023</u>	<u>-</u>	<u>693,067</u>
Total investment income	1,018,904	28,118	20,600	-	1,067,622
Less: investment expenses	<u>89,976</u>	<u>280</u>	<u>219</u>	<u>-</u>	<u>90,475</u>
Net income	<u>928,928</u>	<u>27,838</u>	<u>20,381</u>	<u>-</u>	<u>977,147</u>
Securities lending transactions:					
Securities lending income	5,498	155	109	-	5,762
Securities lending fees	<u>(537)</u>	<u>(14)</u>	<u>(10)</u>	<u>-</u>	<u>(561)</u>
Net securities lending income	<u>4,961</u>	<u>141</u>	<u>99</u>	<u>-</u>	<u>5,201</u>
Net investment income	<u>933,889</u>	<u>27,979</u>	<u>20,480</u>	<u>-</u>	<u>982,348</u>
Net receipts from other retirement systems	1,565	-	-	-	1,565
Transferrable earnings refunded to QPP from Variable Supplements Funds	14,000	(14,000)	-	-	-
Litigation income	<u>492</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>492</u>
Total additions	<u>2,456,526</u>	<u>13,979</u>	<u>20,480</u>	<u>-</u>	<u>2,490,985</u>
DEDUCTIONS:					
Benefit payments and withdrawals (Note 1)	1,376,090	44,744	24,735	-	1,445,569
Administrative expenses	<u>9,861</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>9,861</u>
Total deductions	<u>1,385,951</u>	<u>44,744</u>	<u>24,735</u>	<u>-</u>	<u>1,455,430</u>
NET INCREASE (DECREASE) IN NET POSITION	1,070,575	(30,765)	(4,255)	-	1,035,555
NET POSITION RESTRICTED FOR BENEFITS					
Beginning of year	<u>13,267,043</u>	<u>530,080</u>	<u>346,633</u>	<u>-</u>	<u>14,143,756</u>
End of year	<u>\$ 14,337,618</u>	<u>\$ 499,315</u>	<u>\$ 342,378</u>	<u>\$ -</u>	<u>\$ 15,179,311</u>

**NEW YORK CITY FIRE PENSION FUNDS
NOTES TO COMBINING FINANCIAL STATEMENTS
JUNE 30, 2020 AND 2019**

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”, “Funds” or the “Plan”), 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 service 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.

**NEW YORK CITY FIRE PENSION FUNDS
NOTES TO COMBINING FINANCIAL STATEMENTS
JUNE 30, 2020 AND 2019**

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

Membership Data

At June 30, 2020, June 30, 2019, and June 30, 2018, the QPP's membership consisted of:

	<u>2020*</u>	<u>2019</u>	<u>2018</u>
Retirees and beneficiaries receiving benefits	17,317	16,628	16,593
Terminated vested members not yet receiving benefits	62	67	68
Active Off Payroll**	28	28	35
Active members receiving salary	<u>11,047</u>	<u>11,244</u>	<u>11,237</u>
Total	<u><u>28,454</u></u>	<u><u>27,967</u></u>	<u><u>27,933</u></u>

* Estimated headcount

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

At June 30, 2020, June 30, 2019, and June 30, 2018 the FFVSF and FOVSF membership consisted of:

	<u>FFVSF</u>			<u>FOVSF</u>		
	<u>2020*</u>	<u>2019</u>	<u>2018</u>	<u>2020*</u>	<u>2019</u>	<u>2018</u>
Retirees currently receiving payments	3,261	3,305	3,386	1,495	1,522	1,532
Active members**	<u>8,221</u>	<u>8,621</u>	<u>8,627</u>	<u>2,826</u>	<u>2,623</u>	<u>2,610</u>
Total	<u><u>11,482</u></u>	<u><u>11,926</u></u>	<u><u>12,013</u></u>	<u><u>4,321</u></u>	<u><u>4,145</u></u>	<u><u>4,142</u></u>

* Estimated headcount

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

**NEW YORK CITY FIRE PENSION FUNDS
NOTES TO COMBINING FINANCIAL STATEMENTS
JUNE 30, 2020 AND 2019**

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, Tier 3 Modified, and Tier 3 Enhanced.

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 QPP.

**NEW YORK CITY FIRE PENSION FUNDS
NOTES TO COMBINING FINANCIAL STATEMENTS
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- 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, 2020, is as follows:

	Tier 1	Tier 2	Total
Required amount	\$ 95,139	\$ 479,916,312	\$ 480,011,451
Actual balance	624,151	1,947,519,115	1,948,143,266
Outstanding loans	-	20,559,454	20,559,454

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 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. These changes are generally referred to as Tier 3 Modified.

**NEW YORK CITY FIRE PENSION FUNDS
NOTES TO COMBINING FINANCIAL STATEMENTS
JUNE 30, 2020 AND 2019**

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 member who has at least 5 years of service and is in receipt of Social Security Disability Benefits (non-Enhanced members only). 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 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, Vested, and non-Enhanced disability 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.

**NEW YORK CITY FIRE PENSION FUNDS
NOTES TO COMBINING FINANCIAL STATEMENTS
JUNE 30, 2020 AND 2019**

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 Internal Revenue Service ("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 2020 were \$55.7 million for FFVSF and \$109.6 million for FOVSF. Similarly, for Fiscal Year 2019 the balances were \$58.1 million for FFVSF and \$110.9 million for FOVSF.

Any increase in the amount of ad hoc cost-of-living increases ("Supplementation") or automatic 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.

**NEW YORK CITY FIRE PENSION FUNDS
NOTES TO COMBINING FINANCIAL STATEMENTS
JUNE 30, 2020 AND 2019**

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

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

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

Income Taxes – Income earned by the 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 ended on June 30.

Securities Lending Transactions – State statutes and Board policies permit the Funds to lend its investments to broker-dealers and other entities for collateral, for the same securities in the future with a simultaneous agreement to return the collateral in the form of cash, treasury and U.S. Government securities. The Funds' 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.

**NEW YORK CITY FIRE PENSION FUNDS
NOTES TO COMBINING FINANCIAL STATEMENTS
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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, 2020 and 2019 management believes that the Funds had no credit risk exposure because the fair value of collateral held by the Funds equaled or exceeded the fair value of securities lent to the borrowers. The contracts with the Funds' Securities Lending Agent (the "Agent") require the 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 31.81 days for collateral investments. 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 loans at fair value as of June 30, 2020 and 2019 was \$903.1 million and \$767.4 million, respectively for the QPP, \$16.3 million and \$10.9 million, respectively for the FFVSF, and \$11.2 million and \$8.2 million, respectively for the FOVSF. Cash collateral received related to securities lending as of June 30, 2020 and 2019 was \$915.0 million and \$774.1 million, respectively for the QPP, \$15.8 million and \$10.3 million, respectively for the FFVSF, and \$10.9 million and \$7.8 million, respectively for the FOVSF. As of the date of the combining 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* ("GASB 72") requires the Funds to use valuation techniques which are appropriate under the circumstances and are either a market approach, a cost approach or 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.

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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, regarding 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 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 2020 and 2019 includes securities in the following categories:

	<u>2020</u>	<u>2019</u>
U.S. Equity	27.0 %	31.0 %
Core U.S. Fixed	19.0	11.0
EAFE Markets	9.0	9.0
Private Equities	8.0	7.0
Emerging Markets	6.0	6.0
Enhanced Yield Bonds	6.0	7.0
Real Estate	7.0	8.0
Infrastructure	3.0	2.0
Hedge Funds	5.0	6.0
TIPS	4.0	4.0
Opportunistic Fixed	4.0	5.0
Cash	0.0	0.0
Bank Loans	0.0	2.0
ETI	2.0	2.0
Total	<u>100.0 %</u>	<u>100.0 %</u>

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

Concentrations — No investment in any individual company may represent more than either 2% of the Plan’s total net assets or 5% of the company’s total outstanding shares.

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

Investment Type	June 30, 2020													Total						
	Aaa	Aa1	Aa2	Aa3	A1	A2	A3	Baa1	Baa2	Baa3	Ba1	Ba2	Ba3		B1	B2	B3	Caa1	Rated	Not
(in percent)																				
U.S. Government	52.38%	0.03%	0.04%	0.01%	0.03%	0.01%	0.01%	0.08%	0.14%	0.01%	0.01%	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	9.58%	62.32%
Corporate bonds	0.49%	0.16%	0.22%	0.27%	0.55%	1.37%	1.72%	1.73%	2.59%	2.53%	1.81%	2.30%	3.10%	2.62%	2.73%	2.25%	2.68%	2.55%	2.55%	31.67%
Short term																				
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%	0.00%	2.20%	2.20%
STF	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%	3.81%	3.81%
Percent of Rated Portfolio	52.87%	0.19%	0.26%	0.28%	0.58%	1.39%	1.73%	1.81%	2.73%	2.53%	1.82%	2.30%	3.10%	2.62%	2.73%	2.25%	2.68%	2.55%	18.14%	100.00%

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Credit Risk — the possibility of a loss or default resulting from a borrower's inability to repay a loan or fulfill its contractual debt obligations. Portfolios other than U.S. Government and related portfolios, have credit rating limitations. Investment Grade portfolios are limited to mostly ratings of BBB/Baa2 and above, except that they are also permitted a 10% maximum exposure to BB & B / Ba2 & B2 rated securities. While High Yield non-investment grade managers primarily invest in BB & B / Ba2 & B2 rated securities, they can also invest up to 10% of their portfolio in securities rated CCC/Caa2. The quality ratings of the Funds' investments, by percentage of the rated portfolio, as described by nationally recognized statistical rating organizations, at June 30, 2019 are as follows:

June 30, 2019 Investment Type (in percent)	Moody's Quality Ratings											Caa & Below		Not Rated	Total					
	Aaa	Aa1	Aa2	Aa3	A1	A2	A3	Baa1	Baa2	Baa3	Ba1	Ba2	Ba3			B1	B2	B3		
U.S. Government	52.50%	0.02%	0.06%	0.02%	0.04%	0.02%	0.06%	0.02%	0.10%	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	3.40%	56.26%
Corporate Bonds	0.53%	0.13%	0.14%	0.22%	0.47%	1.04%	1.29%	1.57%	1.82%	2.22%	1.42%	2.22%	3.74%	2.98%	3.71%	3.48%	2.42%	6.61%	36.00%	
Short-Term																				
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%	0.00%	5.43%	5.43%
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%	0.00%	2.31%	2.31%
Percent of Rated Portfolio	53.03%	0.15%	0.20%	0.24%	0.51%	1.06%	1.35%	1.59%	1.92%	2.23%	1.42%	2.22%	3.74%	2.98%	3.71%	3.48%	2.42%	6.61%	17.75%	100.00%

NEW YORK CITY FIRE PENSION FUNDS
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Custodial Credit Risk — Deposits are exposed to custodial credit risk if they are uninsured and uncollateralized. In the event of a failure of the counterparty or depository financial institution, the Funds will not be able to recover the value of its investment or collateral securities that are in the possession of an outside party. Investment securities are exposed to custodial credit risk if the securities are 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 the Funds' deposits are insured by the Federal Deposit Insurance Corporation ("FDIC") and collateralized by securities held by a financial institution separate from the Funds' depository financial institution. However, the Funds' cash balances can exceed FDIC insured limits. Non-invested cash is swept into a State Street Short-term investment intraday account, which is not FDIC insured.

Interest Rate Risk — The risk that the value of debt securities will be affected by fluctuations in market interest rates. Although there is no formal interest rate risk management policy, the duration of the portfolio, relative to the duration of the portfolio's benchmark, is monitored by the Bureau of Asset Management. The lengths of investment maturities (in years) of the Funds' investments, as shown by the percent of the rated portfolio, at June 30, 2020 and 2019 are as follows:

Investment Maturities					
Years to Maturity June 30, 2020	Fair Value	Less Than One Year	One to Five Years	Six to Ten Rated	More Than Ten Years
U.S. Government	62.32 %	8.73 %	14.42 %	8.72 %	30.45 %
Corporate bonds	31.66	0.36	10.30	14.52	6.48
Short-term:					
Commercial Paper	2.21	2.21	-	-	-
STIF	3.81	3.81	-	-	-
Percent of rated portfolio	<u>100.00 %</u>	<u>15.11 %</u>	<u>24.72 %</u>	<u>23.24 %</u>	<u>36.93 %</u>

Investment Maturities					
Years to Maturity June 30, 2019	Fair Value	Less Than One Year	One to Five Years	Six to Ten Rated	More Than Ten Years
U.S. Government	56.26 %	2.57 %	8.92 %	16.86 %	27.91 %
Corporate bonds	36.00	0.49	13.90	16.17	5.44
Short-term:					
Commercial Paper	5.43	5.43	-	-	-
STIF	2.31	2.31	-	-	-
Percent of rated portfolio	<u>100.00 %</u>	<u>10.80 %</u>	<u>22.82 %</u>	<u>33.03 %</u>	<u>33.35 %</u>

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.

NEW YORK CITY FIRE PENSION FUNDS
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The currency markets are 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, 2020 and 2019 are as follows:

Trade Currency (In thousands)	6/30/2020 Market Value	6/30/2019 Market Value
EURO CURRENCY	\$ 642,472	\$ 563,078
HONG KONG DOLLAR	320,644	283,223
JAPANESE YEN	296,378	283,979
POUND STERLING	210,670	263,180
SOUTH KOREAN WON	138,675	125,050
SWISS FRANC	134,651	129,000
NEW TAIWAN DOLLAR	115,975	93,619
INDIAN RUPEE	98,750	97,617
CANADIAN DOLLAR	61,087	74,938
DANISH KRONE	57,906	38,362
AUSTRALIAN DOLLAR	53,312	51,510
BRAZILIAN REAL	36,310	61,095
SWEDISH KRONA	30,555	27,646
SOUTH AFRICAN RAND	28,543	49,524
CHINESE YUAN RENMINBI	23,633	11,454
SINGAPORE DOLLAR	22,507	22,675
THAILAND BAHT	20,821	33,289
CHINESE YUAN (OFFSHORE)	20,503	12
INDONESIAN RUPIAH	19,643	24,776
TURKISH LIRA	13,801	15,077
MEXICAN PESO (NEW)	12,808	23,053
NORWEGIAN KRONE	12,780	15,856
MALAYSIAN RINGGIT	11,403	18,535
POLISH ZLOTY	10,257	16,564
HUNGARIAN FORINT	8,221	3,969
UAE DIRHAM	6,719	5,361
CZECH KORUNA	4,569	1,963
PHILIPPINE PESO	4,175	11,030
NEW ISRAELI SHEQEL	4,085	4,268
QATARI RIAL	3,550	6,633
CHILEAN PESO	3,538	9,096
NEW ZEALAND DOLLAR	2,219	1,924
ROMANIAN LEU	2,032	1,533
COLOMBIAN PESO	1,313	4,176
EGYPTIAN POUND	589	1,640
KUWAITI DINAR	444	3,928
RUSSIAN RUBLE	367	1,144
PAKISTAN RUPEE	350	1,101
NIGERIAN NAIRA	218	962
KENYAN SHILLING	164	1,315
JORDANIAN DINAR	160	1,137
MOROCCAN DIRHAM	158	1,071
CROATIAN KUNA	156	1,255
MAURITIUS RUPEE	147	1,019
PERUVIAN NOUVEAU SOL	147	798
OMANI RIAL	138	1,089
BOTSWANA PULA	79	420
TUNISIAN DINAR	58	440
GHANA CEDI	34	244
Total	<u>\$ 2,437,714</u>	<u>\$ 2,390,628</u>

**NEW YORK CITY FIRE PENSION FUNDS
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Securities Lending Transactions

Credit Risk — The quality ratings of investments held as collateral for securities lending by the Funds at June 30, 2020 and 2019 are as follows:

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

	Moody's Quality Ratings										Total	
	Aaa & Below	Aa	A1	A2	A3	Baa2 & Below	Ba & Below	B & Below	Caa & Below	Ca & Below		Not Rated
Short Term:												
Reverse Repurchase Agreements	\$ -	\$ -	\$ 25,000	\$ 16,951	\$ 165,766	\$ 11,883	\$ -	\$ -	\$ -	\$ -	\$ 445,619	\$ 665,219
Money Market	114,534	-	-	-	-	-	-	-	-	-	61,809	176,343
U.S. Agency	-	-	-	-	-	-	-	-	-	-	5,273	5,273
Cash or Cash Equivalent	-	-	94,165	-	-	-	-	-	-	-	-	94,165
Uninvested	-	-	-	-	-	-	-	-	-	-	705	705
Total	\$ 114,534	\$ -	\$ 119,165	\$ 16,951	\$ 165,766	\$ 11,883	\$ -	\$ -	\$ -	\$ -	\$ 513,406	\$ 941,705
Percent of securities lending portfolio	12.16%	0.00%	12.65%	1.80%	17.61%	1.26%	0.00%	0.00%	0.00%	0.00%	54.52%	100.00%

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

	Moody's Quality Ratings								Total			
	Aaa & Below	Aa	A1	A2	A3	Baa2 & Below	Ba & Below	B & Below		Ca & Below	Not Rated	
Reverse Repurchase Agreements	\$ -	\$ -	25,000	\$ 29,728	\$ 265,099	\$ 12,055	\$ -	\$ -	\$ -	\$ -	\$ 361,184	\$ 693,066
Money Market	11,426	-	-	-	-	-	-	-	-	-	2,959	14,385
U.S. Agency	-	-	-	-	-	-	-	-	-	-	6,841	6,841
Cash or Cash Equivalent	-	-	77,153	-	-	-	-	-	-	-	-	77,153
Uninvested	-	-	-	-	-	-	-	-	-	-	705	705
Total	\$ 11,426	\$ -	\$ 102,153	\$ 29,728	\$ 265,099	\$ 12,055	\$ -	\$ -	\$ -	\$ -	\$ 371,689	\$ 792,150
Percent of securities lending portfolio	1.44%	0.00%	12.90%	3.75%	33.47%	1.52%	0.00%	0.00%	0.00%	0.00%	46.92%	100.00%

June 30, 2019

Short Term:

NEW YORK CITY FIRE PENSION FUNDS
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Interest Rate Risk — The lengths of investment maturities of the collateral for securities lending held by the Funds are as follows:

Years to Maturity
Investment Type
(In Thousands)

	Investment Maturities (in years)				
	Fair Value	Less Than One Year	One to Five Years	Six to Ten Years	More Than Ten Years
June 30, 2020					
Short-Term:					
Reverse Repurchase Agreements	\$ 665,219	\$ 665,219	\$ -	\$ -	\$ -
Money Market	176,343	176,343	-	-	-
U.S. Agency	5,273	5,273	-	-	-
Cash or Cash Equivalent	94,165	94,165	-	-	-
Uninvested	705	705	-	-	-
Total	<u>\$ 941,705</u>	<u>\$ 941,705</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>
Percent of securities lending portfolio	<u>100.00%</u>	<u>100.00%</u>	<u>0.00%</u>	<u>0.00%</u>	<u>0.00%</u>

Years to Maturity
Investment Type
(In Thousands)

	Investment Maturities (in years)				
	Fair Value	Less Than One Year	One to Five Years	Six to Ten Years	More Than Ten Years
June 30, 2019					
Short-Term:					
Reverse Repurchase Agreements	\$ 693,066	\$ 693,066	\$ -	\$ -	\$ -
Money Market	14,385	14,385	-	-	-
U.S. Agency	6,841	6,841	-	-	-
Cash or Cash Equivalent	77,153	77,153	-	-	-
Uninvested	705	705	-	-	-
Total	<u>\$ 792,150</u>	<u>\$ 792,150</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>
Percent of securities lending portfolio	<u>100.00%</u>	<u>100.00%</u>	<u>0.00%</u>	<u>0.00%</u>	<u>0.00%</u>

**NEW YORK CITY FIRE PENSION FUNDS
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Rate of return — For the years ended June 30, 2020 and 2019, the annual money-weighted rate of return on investments, net of investment expense, for the Funds was as follows:

	<u>2020</u>	<u>2019</u>
QPP	4.80%	7.11%
FFVSF	4.35%	5.70%
FOVSF	4.54%	5.93%

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

In Fiscal Year 2015, the Funds adopted GASB 72. GASB 72 was issued to address accounting and financial reporting issues related to fair value measurements.

NEW YORK CITY FIRE PENSION FUNDS
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GASB 72 - Level Inputs - 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, 2020 and June 30, 2019:

GASB 72 Disclosure (in thousands)	2020			
	Level One	Level Two	Level Three	Total
INVESTMENTS – At fair value				
Short-term investments:				
Commercial paper	\$ -	\$ 115,094	\$ -	\$ 115,094
Short-term investment fund	-	156,630	-	156,630
U.S. treasury bills and agencies	-	473,739	-	473,739
Debt securities:				
Bank loans	-	60,004	1,351	61,355
Corporate and other	-	1,337,615	3,597	1,341,212
Mortgage debt security	-	696,105	-	696,105
Treasury Inflation Protected Securities	-	667,049	-	667,049
U.S. Government and Agency	-	1,383,806	-	1,383,806
Equity securities:				
Domestic equity	5,165,942	-	3,454	5,169,396
International equity	1,186,064	-	274	1,186,338
Alternative investments:				
Infrastructure	-	-	152,853	152,853
Opportunistic fixed income	-	-	448,031	448,031
Private equity	915	-	918,954	919,869
Private real estate	-	-	699,376	699,376
Collective Pooled funds:				
Bank loans	-	98,960	2,824	101,784
Corporate and other	-	96,927	-	96,927
Domestic equity	111,779	-	406	112,185
International equity	1,094,843	-	934	1,095,777
Mortgage debt security	-	119,121	24,101	143,222
Opportunistic fixed income	1,495	46,555	2,139	50,189
U.S. Government and Agency	-	125,076	-	125,076
Total investments	<u>\$ 7,561,038</u>	<u>\$ 5,376,681</u>	<u>\$ 2,258,294</u>	<u>15,196,013</u>
Alternative investments (Hedge Funds*) valued at net asset value				<u>954,573</u>
Total				<u>\$ 16,150,586</u>

NEW YORK CITY FIRE PENSION FUNDS
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GASB 72 Disclosure (in thousands) INVESTMENTS – At fair value	2019			
	Level One	Level Two	Level Three	Total
Short-term investments:				
Commercial Paper	\$ -	\$ 264,720	\$ -	\$ 264,720
Discount Notes	-	109,380	-	109,380
Short-Term Investment Fund	-	72,169	-	72,169
U.S. Treasury bills and Agencies	-	7,208	-	7,208
Debt securities:				
Bank Loans	-	122,000	249	122,249
Corporate and Other	-	1,367,788	-	1,367,788
Mortgage Debt Securities	-	322,175	60,722	382,897
Treasury Inflation Protected Securities	-	479,548	-	479,548
U.S. Government and Agency	-	1,537,673	-	1,537,673
Equity securities:				
Domestic Equity	4,724,623	-	1,330	4,725,953
International Equity	154,216	-	95	154,311
Collective Pooled funds:				
Bank loans	-	105,106	509	105,615
Corporate and Other	-	113,086	-	113,086
Domestic Equity	179,501	-	709	180,210
International Equity	2,309,211	-	198	2,309,409
Mortgage Debt Securities	-	113,348	17,154	130,502
Opportunistic Fixed Income	-	47,220	893	48,113
Treasury Inflation Protected Securities	-	158,200	-	158,200
U.S. Government and Agency	-	118,289	-	118,289
Alternative investments:				
Infrastructure	-	-	125,285	125,285
Opportunistic Fixed Income	-	-	405,346	405,346
Private Equity	-	-	939,362	939,362
Private Real Estate	-	-	609,421	609,421
Total investments	<u>\$ 7,367,551</u>	<u>\$ 4,937,910</u>	<u>\$ 2,161,273</u>	<u>14,466,734</u>
Alternative investments (Hedge Funds*) valued at net asset value				<u>868,419</u>
Total				<u>\$ 15,335,153</u>

*Hedge Funds that do not have a readily determinable fair value and are measured at fair value using the net asset value per share (or its equivalent) practical expedient (NAV Practical Expedient), have not been classified in the fair value hierarchy.

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 using 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 marketplace; many of these securities are priced by the issuers or industry groups for these securities. Fair Value is defined as the quoted market value on the last trading day of the period. These prices are obtained from various pricing sources by our custodian bank.

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Debt and equity securities held in Collective Trust Funds are held in those funds on behalf of the pension system and there is no restriction on the use and or liquidation of those assets for the exclusive benefit of the Funds' participants.

Collective Trust Funds

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

Alternative Investments

Alternative investments include Private Equity, Real Estate, Opportunistic Fixed Income and Infrastructure Investments. These are investments for which exchange quotations are not readily available and are valued at Net Assets Value calculated by the general partner's valuation policy. Alternative investments are mainly illiquid and typically not sold or redeemed. The assets in our Alternative Investment program are classified as mainly 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 or the fund administrator using one or more valuation methodologies outlined in Accounting Standards Codification (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 to measure fair value.

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

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

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

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 combining financial statements. The following table below displays details the fair value, redemption terms, redemption notice periods, gates and redemption holdback amounts.

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NAV Practical Expedient (Dollars in Thousands)

June 30, 2020 Fair Value	Redemption Terms	Redemption notice period	Gate	Redemption Holdback
\$ 60,503	Monthly redeeming on Last Business Day (Shares can be redeemed and any time other than the last B.day of the month but are subject to 1.5% fee)	3 Calendar days notice	No	5%
25,327	Semester Calendar redeeming on Last Business Day Of Month	60 Calendar days notice	No	10%
118,724	Quarterly redeeming on First Business Day Of Month	153 Calendar days notice	10% master fund level and 25% investor level Yes This fund imposes a 25% Investor level gate with slower liquidation schedule.	N/A
65,740	Quarterly redeeming on Last Business Day Of Month	90 Calendar days		10%
90,456	Quarterly Calendar redeeming on Last Business Day Of Month	75 Calendar days notice	This fund may impose a 8.3% Fund level gate with slower liquidation schedule	10%
39,428	Quarterly Calendar redeeming on Last Business Day Of Month	44 Calendar days notice	Fund level Gate 25% at manager's discretion	10%
266	Illiquid - periodic distributions	Illiquid - periodic distributions	No	10%
38,348	Monthly redeeming on First Business Day	30 Calendar days notice	No	5%
11,043	Monthly redeeming on Last Business Day Of Month	15 Calendar days notice	No	3%
20,483	Monthly redeeming on Last Business Day	30 Calendar days notice	20% Firm level gate	5%
57,366	Daily redeeming	2 Calendar days notice	No	N/A
23,937	Monthly redeeming on First Business Day Of Month	30 Calendar days notice	No	3%
54,507	Quarterly Calendar redeeming on Last Business Day Of Month	65 Calendar days notice	25% investor level	5%
26,815	Monthly redeeming on Last Business Day Of Month	90 Calendar days notice	No	10%
64,112	Quarterly Calendar redeeming on Last Business Day Of Month	90 Calendar days notice	No	5%
488	Illiquid - periodic distributions	Illiquid - periodic distributions	No	N/A
61,743	Quarterly Calendar redeeming on Last Business Day Of Month	90 Calendar days notice	25% Fund level gate	5%
42,915	Quarterly Calendar redeeming on Last Business Day Of Month	30 Calendar days notice	No Yes	5%
44,238	Quarterly Calendar redeeming on Last Business Day Of Month	60 Calendar days notice	This fund imposes a 33.3% Investor level gate with slower liquidation schedule. Yes	5%
12,426	Quarterly Calendar redeeming on Last Business Day Of Month	90 Calendar days notice	This fund imposes a 25% Investor level gate with slower liquidation schedule.	5%
45,190	Quarterly Calendar redeeming on Last Business Day Of Month	45 Calendar days notice	This fund imposes a 12.5% Investor level gate with slower liquidation schedule. This fund may impose a 25% Fund level gate with slower liquidation schedule.	5%
14,303	Monthly redeeming on First Business Day Of Month	30 Calendar days notice	No	1%
36,135	Monthly redeeming on First Business Day Of Month	90 Calendar days notice	No	5%
80	N/A	N/A	N/A	N/A
<u>\$ 954,573</u>	TOTAL HEDGE FUNDS			

NEW YORK CITY FIRE PENSION FUNDS
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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 actuarial present value (APV) of accumulated plan benefits for each VSF. Excess earnings are defined as the amount by which earnings on equity investments of the QPP

exceed what those 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 VSF 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 2020, the preliminary excess earnings of the QPP are reported on the combined financial statements for the year ending June 30, 2020 to be equal to \$0 million (after limiting to the unfunded APV of accumulated plan benefits), where \$0 million was reported as a liability from the QPP to the FFVSF and \$0 million was reported as a liability from the QPP to the FOVSF.

For Fiscal Year 2019, the preliminary excess earnings of the QPP are reported on the combined financial statements for the year ending June 30, 2019 to be equal to \$0 million (after limiting to the unfunded APV of accumulated plan benefits), where \$0 million was reported as a liability from the QPP to the FFVSF and \$0 million was reported as a liability from the QPP to the FOVSF.

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 supplemental benefit payments, then an amount sufficient to pay such benefits shall be appropriated from the Contingent Reserve Fund of the QPP.

The amounts shown for the APV of accumulated plan benefits, are 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. It 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.

**NEW YORK CITY FIRE PENSION FUNDS
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A comparison of the APV of accumulated plan benefits 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, 2019 and June 30, 2018, follows:

	FFVSF		FOVSF	
	2019 ³	2018	2019 ³	2018
	(In millions)			
APV of accumulated plan benefits ¹ for:				
Retirees currently receiving benefits	\$ 338.6	\$ 354.7	\$ 150.0	\$ 157.4
Active members	124.0	111.4	123.5	119.0
Total APV of accumulated plan benefits	462.6	466.1	273.5	276.4
Net position held in trust for benefits ²	519.3	535.5	351.4	355.7
Unfunded APV of accumulated plan benefits	<u>\$ (56.7)</u>	<u>\$ (69.4)</u>	<u>\$ (77.9)</u>	<u>\$ (79.3)</u>

¹ Based on actuarial assumptions adopted by the Board of Trustees of the QPP during Fiscal Year 2019.

² See Note 2 for valuation of investments in the calculation of net position restricted for benefits. Reflects net position not inclusive of the SKIM amounts payable for the respective year and includes an adjustment made for accrued benefits payable for the respective year.

³ Preliminary.

For purposes of the June 30, 2019 and the June 30, 2018 actuarial valuations of the VSFs, Chapter 125/00 has been taken into account in the determination of the unfunded APV of accumulated plan benefits relative to the Supplementation benefit increases that began Fiscal Year 2001 and 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.

NEW YORK CITY FIRE PENSION FUNDS
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The following actuarial assumptions were used in the actuarial calculations to determine the preceding APV of accumulated plan benefits as of June 30, 2019 and June 30, 2018, respectively:

	<u>June 30, 2019</u>	<u>June 30, 2018</u>
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 2019.	Tables adopted by the Board of Trustees during Fiscal Year 2019.
Active service: withdrawal, death, disability	Tables adopted by the Board of Trustees during Fiscal Year 2019.	Tables adopted by the Board of Trustees during Fiscal Year 2019.
Service retirement	Tables adopted by the Board of Trustees during Fiscal Year 2019.	Tables adopted by the Board of Trustees during Fiscal Year 2019.
Percentage of all active Fire members estimated to retire for service with 20 or more years of service as Firefighters	70%	70%
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 enough 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.

**NEW YORK CITY FIRE PENSION FUNDS
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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, 2020, based on an actuarial valuation as of June 30, 2018 was \$1,419.3 million and the Statutory Contribution for the year ended June 30, 2019, based on an actuarial valuation as of June 30, 2017 was \$1,398.6 million. The Statutory Contributions for Fiscal Years 2020 and 2019 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 the net pension liability of the Employer at June 30, 2020 and 2019 for the Funds were as follows:

	(in thousands)			
	QPP	FFVSF	FOVSF	TOTAL
June 30, 2020				
Total Pension liability*	\$ 23,302,435	\$ 484,604	\$ 294,939	\$ 24,081,978
Fiduciary net position**	15,086,575	493,727	348,788	15,929,090
Employers' net pension liability	<u>\$ 8,215,860</u>	<u>\$ (9,123)</u>	<u>\$ (53,849)</u>	<u>\$ 8,152,888</u>
Fiduciary net position as a percentage of the total pension liability	64.74%	101.88%	118.26%	66.15%
June 30, 2019				
Total Pension liability*	\$ 22,477,031	\$ 490,809	\$ 298,944	\$ 23,266,784
Fiduciary net position**	14,337,618	519,268	351,386	15,208,272
Employers' net pension liability	<u>\$ 8,139,413</u>	<u>\$ (28,459)</u>	<u>\$ (52,442)</u>	<u>\$ 8,058,512</u>
Fiduciary net position as a percentage of the total pension liability	63.79%	105.80%	117.54%	65.36%

* 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.

NEW YORK CITY FIRE PENSION FUNDS
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Actuarial Methods and Assumptions

The total pension liability as of June 30, 2020 and 2019 was determined by actuarial valuations as of June 30, 2019 and June 30, 2018 respectively, that were rolled forward to develop the total pension liability to the respective fiscal year end. The following actuarial assumptions were applied to all periods included in the measurement.

Projected Salary Increases	In general, merit and promotion increases plus assumed General Wage Increases of 3.0% per annum.
Investment Rate of Return	7.0% per annum, net of Investment Expenses. 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.

Mortality tables for Service and Disability pensioners and beneficiaries were developed from an experience study of the QPP. There were no changes in actuarial assumptions and methods from the prior actuarial valuation.

The Fiscal Year 2019 results reflect changes in the actuarial assumptions and methods since the prior year. The changes are primarily the result of an experience study performed by Bolton, Inc., which compared actual experience of the Systems for the four and ten-year periods ending June 30, 2017 to that expected based on the prior set of actuarial assumptions and methods. These new actuarial assumptions and methods were adopted by the FIRE Retirement Board during Fiscal Year 2019.

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 Entry Age Normal (“EAN”) cost method of funding is utilized by the Plan’s Actuary to calculate the contribution required of the Employer.

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

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

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

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

The obligations of the QPP to the FFVSF and the FOVSF are recognized through the Liability Valuation Method. Under this method the 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 AVA of the FFVSF and FOVSF, respectively.

**NEW YORK CITY FIRE PENSION FUNDS
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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 (i.e., expected returns, net of investment expenses and inflation) are developed for each major asset class. These ranges are combined to produce the long-term expected rate of return by weighting the expected real rates of return by the target asset allocation percentage and by adding expected inflation. The target asset allocation and best estimates of arithmetic real rates of return for each major asset class are summarized in the following table:

Asset Class	Target Asset Allocation	Long-Term Expected Real Rate of Return
U.S. Public Market Equities	27 %	5.4
Developed Public Market Equities	9	6.1
Emerging Public Market Equities	6	9.6
Fixed Income	31	1.6
Private Equity	8	8.8
Private Real Estate	7	5.2
Infrascture	3	4.7
Hedge Funds	5	3.5
Opportunistic Fixed Income	4	3.0
Total	<u>100 %</u>	

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, 2020, 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:

	1% Decrease (6.0%)	Discount Rate (7.0%)	1% Increase (8.0%)
QPP	\$ 10,801,809	\$ 8,215,860	\$ 6,044,201
FFVSF	34,886	(9,123)	(47,022)
FOVSF	(29,251)	(53,849)	(75,144)
Total	<u>\$ 10,807,444</u>	<u>\$ 8,152,888</u>	<u>\$ 5,922,035</u>

**NEW YORK CITY FIRE PENSION FUNDS
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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, 2020 and 2019 was \$20.6 million and \$23.0 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 \$3.4 million and \$2.4 million in Fiscal Years 2020 and 2019, respectively.

9. ADMINISTRATIVE AND INVESTMENT EXPENSES

During Fiscal Year 2020, 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 \$9.1 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 2019, there were \$9.9 million in 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 \$80.0 million and \$90.0 million in 2020 and 2019, respectively.

In March 2018, the Funds entered into a lease agreement for office space. The agreement is for a term of 15 years and 4 months. Future minimum rental payments for the next five years and thereafter is approximately:

Fiscal Years Ending June 30,	Amount
2021	\$ 1,034,000
2022	1,075,000
2023	1,096,000
2024	1,179,000
Thereafter	11,022,000
	\$ 15,406,000

Rent expense for the years ended June 30, 2020 and 2019 was \$1,050,006 and \$900,620 respectively.

NEW YORK CITY FIRE PENSION FUNDS
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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 2020 and 2019, 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.

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

Previously, Gabriel, Roeder, Smith & Company (GRS) published their study in October 2015.

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.

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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 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.

Chapter 89 of the Laws of 2020 (“Chapter 89/20”) provides death benefits to statutory beneficiaries of members whose death was a result of or was contributed to by COVID-19. This law provides an Accidental Death Benefit to the eligible beneficiaries of a member or a retiree who retired after March 1, 2020, where such member reported for work outside their home and contracted COVID-19 within 45 days after reporting for work, and whose death was caused by COVID-19 or where COVID-19 contributed to such member’s death. Amounts payable are reduced by payments of any ordinary death benefits or option benefit paid to another statutory beneficiary.

COVID-19 — The outbreak of the coronavirus disease (COVID-19), has been declared a pandemic by the World Health Organization. The Governor declared a state of emergency in the State on March 7, 2020 and the Mayor declared a state of emergency in the City on March 12, 2020, each of which is still in effect. The ultimate impact of the COVID-19 pandemic on the Plan cannot be determined at this time.

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.

**NEW YORK CITY FIRE PENSION FUNDS
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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 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 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.

**NEW YORK CITY FIRE PENSION FUNDS
NOTES TO COMBINING FINANCIAL STATEMENTS
JUNE 30, 2020 AND 2019**

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 SUPPLEMENTARY INFORMATION (UNAUDITED)
SCHEDULE OF CHANGES IN THE EMPLOYER'S NET PENSION LIABILITY AND RELATED RATIOS
(In thousands)**

June 30, 2020	QPP*	FFVSF	FOVSF	TOTAL
Total pension liability:				
Service cost	\$ 559,171	\$ 8,526	\$ 4,958	\$ 572,655
Interest	1,562,741	33,410	20,386	1,616,537
Differences between expected and actual experience	150,563	(3,291)	(3,547)	143,725
Benefit payments and withdrawals	(1,447,071)	(44,850)	(25,802)	(1,517,723)
Net change in total pension liability	825,404	(6,205)	(4,005)	815,194
Total pension liability – beginning	22,477,031	490,809	298,944	23,266,784
Total pension liability – ending (a)	23,302,435	484,604	294,939	24,081,978
Plan fiduciary net position:				
Employer contributions	1,419,270	-	-	1,419,270
Member contributions	106,821	-	-	106,821
Net investment income	681,383	21,517	15,839	718,739
Benefit payments and withdrawals	(1,447,071)	(44,850)	(25,802)	(1,517,723)
Administrative expenses	(9,131)	-	-	(9,131)
Other changes	(17,315)	12,792	7,365	2,842
Net change in plan fiduciary net position	733,957	(10,541)	(2,598)	720,818
Accrued transfers To/From VSF's	15,000	(15,000)	-	-
Plan fiduciary net position – beginning	14,337,618	519,268	351,386	15,208,272
Plan fiduciary net position – ending (b) **	15,086,575	493,727	348,788	15,929,090
Employer's net pension liability – ending (a)-(b)	\$ 8,215,860	\$ (9,123)	\$ (53,849)	\$ 8,152,888
Plan fiduciary net position as a percentage of the total pension liability	64.74%	101.88%	118.26%	66.15%
Covered payroll	\$ 1,336,843	N/A	N/A	\$ 1,336,843
Employer's net pension liability as a percentage of covered payroll	614.57%	N/A	N/A	609.86%

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 SUPPLEMENTARY INFORMATION (UNAUDITED)
SCHEDULE OF CHANGES IN THE EMPLOYER'S NET PENSION LIABILITY AND RELATED RATIOS
(In thousands)**

June 30, 2019	QPP*	FFVSF	FOVSF	TOTAL
Total pension liability:				
Service cost	\$ 467,493	\$ 10,961	\$ 6,373	\$ 484,827
Interest	1,460,537	37,366	25,708	1,523,611
Differences between expected and actual experience	154,208	6,872	(20,300)	140,780
Changes of assumptions	697,113	(64,235)	(61,110)	571,768
Benefit payments and withdrawals	(1,376,090)	(45,218)	(24,806)	(1,446,114)
Net change in total pension liability	1,403,261	(54,254)	(74,135)	1,274,872
Total pension liability – beginning	21,073,770	545,063	373,079	21,991,912
Total pension liability – ending (a)	22,477,031	490,809	298,944	23,266,784
Plan fiduciary net position:				
Employer contributions	1,398,565	-	-	1,398,565
Member contributions	108,015	-	-	108,015
Net investment income	933,889	27,979	20,480	982,348
Benefit payments and withdrawals	(1,376,090)	(45,218)	(24,806)	(1,446,114)
Administrative expenses	(9,861)	-	-	(9,861)
Other changes	2,057	-	-	2,057
Net change in plan fiduciary net position	1,056,575	(17,239)	(4,326)	1,035,010
Accrued transfers To/From VSF's	14,000	(14,000)	-	-
Plan fiduciary net position – beginning	13,267,043	550,507	355,712	14,173,262
Plan fiduciary net position – ending (b) **	14,337,618	519,268	351,386	15,208,272
Employer's net pension liability – ending (a)-(b)	\$ 8,139,413	\$ (28,459)	\$ (52,442)	\$ 8,058,512
Plan fiduciary net position as a percentage of the total pension liability	63.79%	105.80%	117.54%	65.36%
Covered payroll	\$ 1,302,872	N/A	N/A	\$ 1,302,872
Employer's net pension liability as a percentage of covered payroll	624.73%	N/A	N/A	618.52%

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 SUPPLEMENTARY 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
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 SUPPLEMENTARY 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
Differences between expected and actual experience	148,046	(13,683)	115	134,478
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 represents 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 SUPPLEMENTARY 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
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)
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	780.17%	N/A	N/A	788.48%

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

* Such amounts represents 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 SUPPLEMENTARY 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
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)
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	695.21%	N/A	N/A	698.67%

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

* Such amounts represents 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.

*** The beginning total pension liability does not agree to the prior year ending total pension liability because amounts were revised to include costs and liabilities associated with the Special Accidental Death Benefits payable under Section 208-f of the General Municipal Law.

See Report of Independent Certified Public Accountants.

NEW YORK CITY FIRE PENSION FUNDS
REQUIRED SUPPLEMENTARY 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
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)
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 represents 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 SUPPLEMENTARY INFORMATION (UNAUDITED)
SCHEDULE OF EMPLOYER CONTRIBUTIONS
(In thousands)**

	2020	2019	2018	2017	2016	2015	2014	2013	2012	2011
Actuarially determined contribution	\$ 1,419,270	\$ 1,398,565	\$ 1,200,417	\$ 1,061,170	\$ 1,054,478	\$ 988,784	\$ 969,956	\$ 962,173	\$ 976,895	\$ 890,706
Contributions in relation to the actuarially determined contribution	1,419,270	1,398,565	1,200,417	1,061,170	1,054,478	988,784	969,956	962,173	976,895	890,706
Contribution deficiency (excess)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Covered payroll*	\$ 1,336,843	\$ 1,302,872	\$ 1,164,528	\$ 1,145,919	\$ 1,129,470	\$ 1,111,744	\$ 1,102,396	\$ 1,129,921	\$ 1,149,423	\$ 1,057,243
Contributions as a percentage of covered payroll*	106.17%	107.34%	103.08%	92.60%	93.36%	88.94%	87.99%	85.15%	84.99%	84.25%

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

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 2020 contributions were determined using an actuarial valuation as of June 30, 2018). The methods and assumptions used to determine the actuarially determined contributions are as follows:

Valuation Dates	June 30, 2018	June 30, 2017	June 30, 2016	June 30, 2015	June 30, 2014	June 30, 2013	June 30, 2012	June 30, 2011	June 30, 2010
Actuarial cost method	Entry Age								
Amortization method for Unfunded Actuarial Accrued Liabilities:									
Initial Unfunded Post-2010 Unfunded	Increasing Dollar Level Dollar								
Initial Unfunded	14 years (closed)	15 years (closed)	16 years (closed)	17 years (closed)	18 years (closed)	19 years (closed)	20 years (closed)	21 years (closed)	22 years (closed)
2011 Actuarial Gain/Loss	9 years (closed)	10 years (closed)	11 years (closed)	12 years (closed)	13 years (closed)	14 years (closed)	15 years (closed)	NA	NA
2012 Actuarial Gain/Loss	10 years (closed)	11 years (closed)	12 years (closed)	13 years (closed)	14 years (closed)	15 years (closed)	NA	NA	NA
2013 Actuarial Gain/Loss	11 years (closed)	12 years (closed)	13 years (closed)	14 years (closed)	15 years (closed)	NA	NA	NA	NA
2014 Actuarial Gain/Loss	12 years (closed)	13 years (closed)	14 years (closed)	15 years (closed)	NA	NA	NA	NA	NA
2015 Actuarial Gain/Loss	13 years (closed)	14 years (closed)	15 years (closed)	NA	NA	NA	NA	NA	NA
2016 Actuarial Gain/Loss	14 years (closed)	15 years (closed)	NA						
2017 Actuarial Gain/Loss	15 years (closed)	NA							
2018 Assumptions/Methods	19 years (closed)	20 years (closed)	NA						
2019 Actuarial Gain/Loss	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 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.
Actuarial assumptions:	7.0% per annum, net of investment expenses								
Assumed rate of return ¹	Tables adopted by Board of Trustees during Fiscal Year 2019	Tables adopted by Board of Trustees during Fiscal Year 2019	Tables adopted by Board of Trustees during Fiscal Year 2016	Tables adopted by Board of Trustees during Fiscal Year 2016	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
Post-retirement mortality	Tables adopted by Board of Trustees during Fiscal Year 2019	Tables adopted by Board of Trustees during Fiscal Year 2019	Tables adopted by Board of Trustees during Fiscal Year 2016	Tables adopted by Board of Trustees during Fiscal Year 2016	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
Active service: withdrawal, death, disability, service retirement	Tables adopted by Board of Trustees during Fiscal Year 2019	Tables adopted by Board of Trustees during Fiscal Year 2019	Tables adopted by Board of Trustees during Fiscal Year 2016	Tables adopted by Board of Trustees during Fiscal Year 2016	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
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 year.	In general, merit and promotion increases plus assumed General Wage Increases of 3.0% per year.
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.	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 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 65 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.

See Report of Independent Certified Public Accountants.

**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 seven fiscal years:

Fiscal year ended	<u>QPP</u>	<u>FFVSF</u>	<u>FOVSF</u>
June 30, 2020	4.80%	4.35%	4.54%
June 30, 2019	7.11	5.70	5.93
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 paragraph 50 of GASB No. 67, this schedule should present information for 10 years, if available. The information presented here pertains to periods beginning with the June 30, 2014 fiscal year, the Plan's adoption year of GASB No. 67. Additional years will be added until the 10 year requirement is met.

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**New York City Fire Pension Funds
Additional Supplementary Information
Schedule of Investment Expenses
For Fiscal Year Ended June 30, 2020**

Schedule 4

	TOTAL FEES
US EQUITIES	4,153,117
NON-US EQUITIES	6,901,957
FIXED INCOME	6,084,817
OPPORTUNISTIC FIXED INCOME	4,693,607
HEDGE FUNDS	12,725,407
PRIVATE EQUITIES	25,226,113
PRIVATE REAL ESTATE	10,789,431
REAL ESTATE EQUITY SECURITIES	714,413
INFRASTRUCTURE	3,430,012
TOTAL MANAGEMENT EXPENSES	74,718,874
 CONSULTANT EXPENSES:	
AKSIA LLC	99,811
ERNST & YOUNG US LLP	3,249
ERNST AND YOUNG LLP	849
MSCI - ESG RESEARCH LLC	5,244
MSCI - RISKMETRICS GROUP	35,929
MSCI BARRA LLC	57,580
MSCI-INVESTMENT PROPERTY DATABANK LTD	10,445
NEW ENGLAND PENSION CONSULTANT	367,500
PRICEWATERHOUSECOOPERS TAIWAN	2,510
STEPSTONE GROUP LLC	141,167
STEPSTONE GROUP, LP - CONSULTING FEES	444,167
THE BURGESS GROUP	11,592
TOWNSEND HOLDINGS LLC	134,320
TOTAL CONSULTANT EXPENSES	1,314,363
 LEGAL EXPENSES:	
COX CASTLE NICHOLSON LLP	23,374
DAY PITNEY LLP	10,268
FOLEY AND LARDNER LLC	11,693
FOLEY AND LARDNER LLP	717
FOSTER GARVEY PC	9,447
FOSTER PEPPER PLLC	27,494
HITCHCOCK LAW FIRM PLLC	262
MORGAN LEWIS BOCKIUS LLP	33,583
NIXON PEABODY LLP	12
PILLSBURY WINTHROP SHAW PITTMAN LLP	27,947
REFUND OF DUPLICATE PAYMENT FOLEY & LARDNER	(3,796)

See Report of Independent Certified Public Accountants

**New York City Fire Pension Funds
Additional Supplementary Information
Schedule of Investment Expenses
For Fiscal Year Ended June 30, 2020**

Schedule 4

REINHART BOERNER VAN DUEREN	31,230
REVERSAL	(717)
SEWARD KISSEL LLP	13,775
SQUIRE PATTON BOGGS (US) LLP	1,129
TOTAL LEGAL EXPENSES	186,418
TOTAL CONSULTANT & LEGAL EXPENSES	1,500,781
OTHER MISCELANEOUS EXPENSES	3,858,837
TOTAL INVESTMENT EXPENSES	\$ 80,078,492

See Report of Independent Certified Public Accountants

**New York City Fire Pension Funds
Additional Supplementary Information
Schedule of Administrative Expenses
For Fiscal Year Ended June 30, 2020**

Schedule 5

EXPENSE TYPE:

PERSONNEL SERVICES

Salaries and fringe Benefits paid to Personnel	\$ 4,526,478
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TOTAL PERSONNEL SERVICES	<u>4,526,478</u>
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PROFESSIONAL SERVICES

Consultants ¹	1,266,004
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Medical Board and Medical Consultants	755,563
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Trading & Investment Services	<u>1,005,256</u>
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TOTAL PROFESSIONAL SERVICES	<u>3,026,823</u>
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RENTALS

Office Space & Equipment	<u>1,050,006</u>
--------------------------	------------------

TOTAL RENTALS	<u>1,050,006</u>
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COMMUNICATION & GENERAL SERVICES

Communication & Utilities	201,499
---------------------------	---------

Office Supplies and Materials	79,771
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Relocation Expenses	83,378
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Postage & General	<u>163,247</u>
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TOTAL COMMUNICATION	<u>527,895</u>
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FIRE DIRECT EXPENSES FY 2020	<u>\$ 9,131,202</u>
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**EXPENSES INCURRED BY OTHER CITY AGENCIES:
ON BEHALF OF FIRE PENSION FUND:**

Financial Information Services	\$ 567,552
--------------------------------	------------

Office of the Actuary	1,471,691
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Law Department	99,441
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Office of the Comptroller	1,160,792
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Office of Payroll Administration	51,192
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Office of Management and Budget	<u>85,187</u>
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TOTAL OTHER EXPENSES	<u>\$ 3,435,855</u>
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TOTAL ADMINISTRATIVE EXPENSES :	<u>\$ 12,567,057</u>
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1) For details see Schedule of Payments to Consultants
Schedule 6

**New York City Fire Pension Funds
Additional Supplementary Information
Schedule of Payments to Consultants
Fire Qualified Pension Fund
Fiscal Year Ended June 30, 2020**

Schedule 6

<u>Nature of Services</u>	<u>Firm Name</u>	<u>Total Fees</u>
Consultant Services		
	Blue Diamond Solutions Inc.	\$ 96,077
	Comtel Communications	70,941
	GRM Document Management Services	57,594
	FDNY Support Services	716,032
	Net '@ work Inc	7,260
	PBI, LLC	7,055
	NYSID	65,880
	NYS Department of Financial Services	181,979
	PKF O'CONNOR	16,036
	Knowledge Builders, Inc	27,946
	TSCTI	17,561
	All Others	1,643
	Total Payments to Consultants	\$ 1,266,004

New York Fire Department Pension Funds
Comprehensive Annual Financial Report
A Pension Trust Fund of The City of New York



Investment Section

Part III

Fiscal Year Ended June 30, 2020

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INVESTMENT REPORT

This report is prepared by management based on data provided by the investment managers of the New York City Fire Pension Funds and the Comptroller of the City of New York through the Bureau of Asset Management. The Bureau of Asset Management in overseeing the Funds' investment portfolio provides investment advice, implements Board decisions and reports on investment performance. The Boards of Trustees of the respective funds are responsible for ensuring that assets of the Funds are managed efficiently and prudently, in full compliance with the Administrative code of the City of New York (ACNY) and the State Retirement and Social Security Laws, for the benefit of the Funds' membership.

Investment Policy

The Qualified Pension Fund's primary purpose is to provide retirement benefits for members and beneficiaries, while the Variable Supplements' Funds provide supplemental payments other than pension benefits for eligible members. These benefits and payments are financed through accumulated employer contributions, member contributions and investment earnings. The Boards of Trustees therefore set investment objectives to assure adequate accumulation of reserves and to protect the long-term value of assets. The Boards' overall philosophy on strategic factors, i.e. risk tolerance, returns, diversification and liquidity requirements determine the objectives of the investment policy adopted. Listed below are key objectives of the Boards' philosophy:

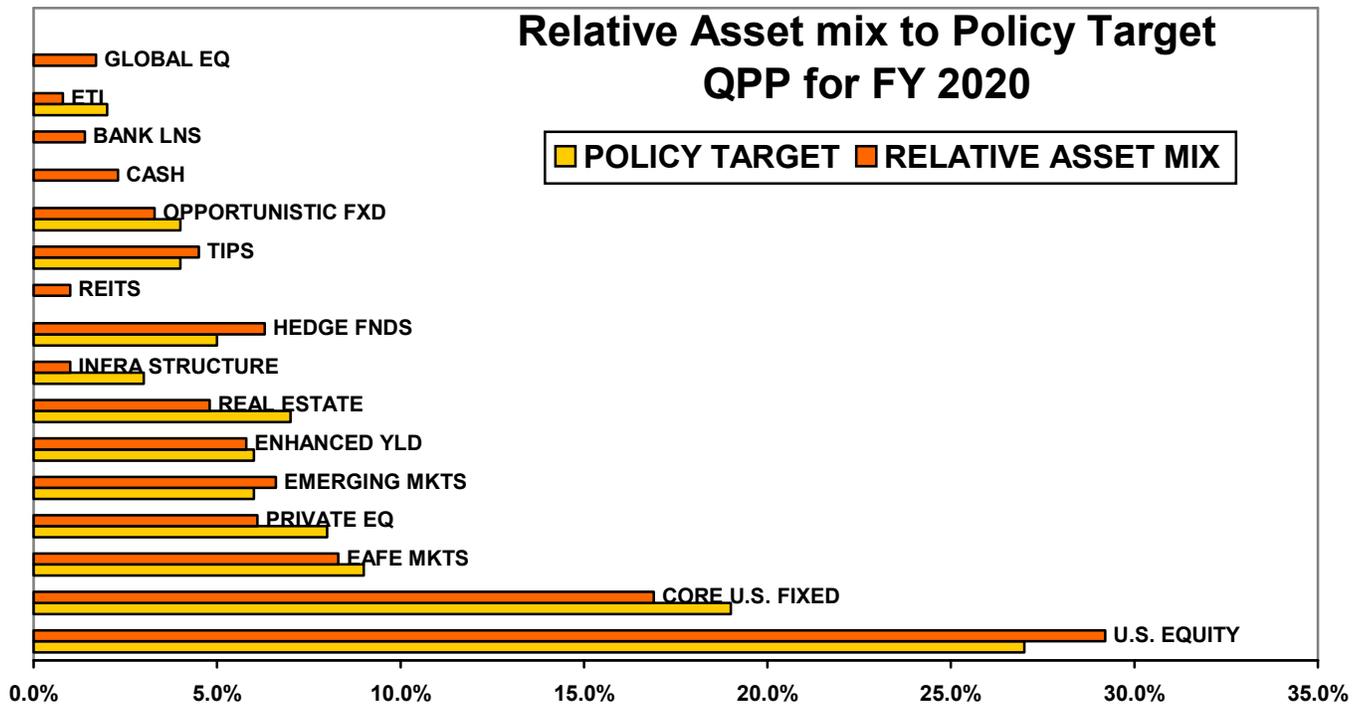
- To assure that members and beneficiaries receive benefits now and, in the future, the level of investment risk in the portfolio will be prudent and not exceed levels that may jeopardize objectives.
- To enhance portfolio returns moderate risk levels are assumed, since over the long term there is a relationship between the level of risk taken and the rate of return realized.
- To reduce portfolio risk by investing in a broad array of investments and by allocating funds among many asset categories, industries and geographic locations.
- To maintain liquidity requirements through the structuring of cash flows from contributions, investment income and short-term investments; thereby assuring timely payment of benefits.

The Funds utilize several investment managers to manage the long-term debt and equity portfolio. In addition, the Funds employ independent investment consultants as advisers. The Funds' managers are periodically reviewed for performance and adherence to investment guidelines.

Investment Criteria and Asset Allocation

The Boards' investment policies are 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 as permitted by The New York State Retirement and Social Security Laws (RSSL) §§ 176-178(a) and State Banking Law § 235, the New York City Administrative Code, and the Legal Investments for New York Savings Banks list published by The New York State Banking Department, subject to Note 3, of Notes to the financial statements. Additionally, investments of up to 25% of the Funds' total assets may be invested in instruments not specifically covered by RSSL.

Each Fund’s asset allocation policy is constructed to meet both short-term funding requirements and long-term benefit obligations. The Funds’ portfolio is largely invested in publicly traded securities with additional allocations to private equity, real estate, infrastructure, hedge funds and opportunistic fixed income investments. The percentages assigned each category of assets held in the Funds are based in part on the results of an analytical study, which indicates the expected rates of return, levels of risk and correlations for various allocations. These allocations are reviewed periodically to address fluctuating market events and new investment opportunities.



The chart above shows a comparison of relative asset mix to policy targets for the QPP as at June 30, 2020. The current targeted policy allocations include investments in the following major categories: U.S equity, Core U.S. fixed income, International equity (EAFE Markets), Private equity, Emerging markets, Enhanced yield bonds, Real Estate investments, Infrastructure investments, Hedge Funds, Treasury inflation protected securities (TIPS), Opportunistic Fixed, Economically Targeted Investments (ETI). The Funds’ assets are periodically re-balanced to keep in line with long term asset allocation objectives, and actual allocation may vary from policy weights as market values shift and investments are added or terminated. As indicated in the chart, the Fund exceeded targeted allocations of U.S equity, Emerging Markets, Hedge funds and TIPS while U.S Fixed, EAFE, Private equity, Enhanced yield, Real estate, Infrastructure, Opportunistic fixed, and ETI fell below current targeted allocation levels.

Actual asset allocation in effect on 6/30/2020 for the QPP and the VSF’s are presented in the chart titled "Asset Allocation" (Exhibit 1a -1b). Changes in actual asset allocation for the QPP over the ten years from June 2011 through June 2020 are presented in bar charts showing the major categories and amount of assets held at the end of each fiscal period (Exhibit 1a).

Summary of Investment Results for fiscal year 2020

The Qualified Pension Fund's portfolio of approximately \$15.1 billion returned 4.8 %¹ on a net basis, for the fiscal year ended June 2020. This return was slightly above the gain of 4.7% posted by the Fund's policy benchmark but well below the actuarial assumed rate of return at 7.0%, for the period. The QPP closed fiscal year 2020 with a net position restricted for pension benefits totaling \$15.1 billion.

For the fiscal period ended June 30, 2020, performance across asset classes was mixed. The fixed income composite as a group performed well, returning approximately 8.5% for the period. The largest segment within this category, the structured fixed income group was among the best performers, closing at 15.7%, although well below its benchmark the New York City Custom structured index, which gained 18.6%. The Treasury Inflation Protected securities group also among the better performers, gained 8.3%, close to its benchmark the Barclays Global inflation linked TIPS index at 8.3% for the period. The High yield group, among the lower performers in this category, posted gains of 0.7 compared to its custom benchmark at 0%. Overall, the fixed income sector returned approximately 3.5% for the quarter ended June 30, 2020.

The equities portfolio, the largest composite among the asset classes returned 2.7% as a group, for the period. Global equities were the best performers within the equity portfolio. The group returned approximately 16.0% for the period, well ahead of its benchmark the MSC AC World, which gained 2.1%. US Equities, the largest segment within equity portfolio and among the better performers, gained overall 4.6%, well below its benchmark, the Russell 3000 Index which gained 6.5% for the fiscal period. The Hedge Funds group returned 6.7%, well above its benchmark the HFRI Fund of Funds composite+1% at 1.5%. The Emerging markets group, among the lower performers in this category, lost 7.8%, as compared to its benchmark, the MSCI emerging markets index, which lost 3.4% over the same period. For the quarter ended June 30, 2020, U S Equities, posted gains averaging 13.9%.

For the five-year period ended June 30, 2020, the QPP's portfolio annualized returns remained positive at 7.0% slightly below the portfolio policy benchmark return at 7.1%.

Investment returns for the Variable Supplements funds were similar to the returns posted by the QPP. The Fire Fighters' Variable Supplements Fund, with assets under management of \$491.8 million posted overall gains of 4.1% for the period; slightly below the gain of 4.3% posted by the policy benchmark. The Fire Officers Variable Supplements Fund with assets under management of \$347.6 million posted returns of approximately 4.3% for the period, closely matching the policy benchmark with gains of 4.3%.

For the five- year period ended June 30, 2020, the FFVSF's and the FOVSF 's annualized returns stood at 6.3 % and 6.6% respectively, while the corresponding policy benchmarks returned 6.5%.

Schedule 1A-1B presents our Consolidated Performance Reports, displaying the percentage of portfolio market values and returns for the QPP and the Variable Supplements Funds'. The schedules include returns for each major investment asset class along with the returns for corresponding benchmarks as at June 30, 2020.

¹ Calculations on the rate of return for investments were prepared using a time -weighted rate of return, based on the market rate of return consistent with Global Investment Performance Standards (GIPS).

Investment Section

New York City Fire Pension Funds

The Funds' combined investments including Collateral from securities lending rose from \$16,127.3 million to \$17,092.3 million, by the close of fiscal year 2020. This change is depicted in **Exhibit 2**, a chart showing changes in total investment at market value over the ten fiscal periods between 2011 and 2020.

The Funds' Portfolio assets invested during fiscal year 2020 returned net gains of \$ 718.7 million. The gains were due mainly to the overall performances of the invested assets. Exhibit 3 shows a summary of the changes in investment income over the ten-year period 2011 through 2020.

Listings of the Fund's largest bonds and stocks holdings are presented in Schedule 2A & 3A respectively.

Fees and Brokers' commissions are calculated based on total assets under management for the period. Summaries of Brokers' commissions for investments traded are presented in schedule 4A.

The Summary of investments presented in Schedule 5A shows the overall market values of each major investment asset class in the Funds' portfolio, including short-term holdings and collateral from securities lending. The schedule also shows the percentage value of each category in relation to total investments in the Funds for fiscal year 2020.

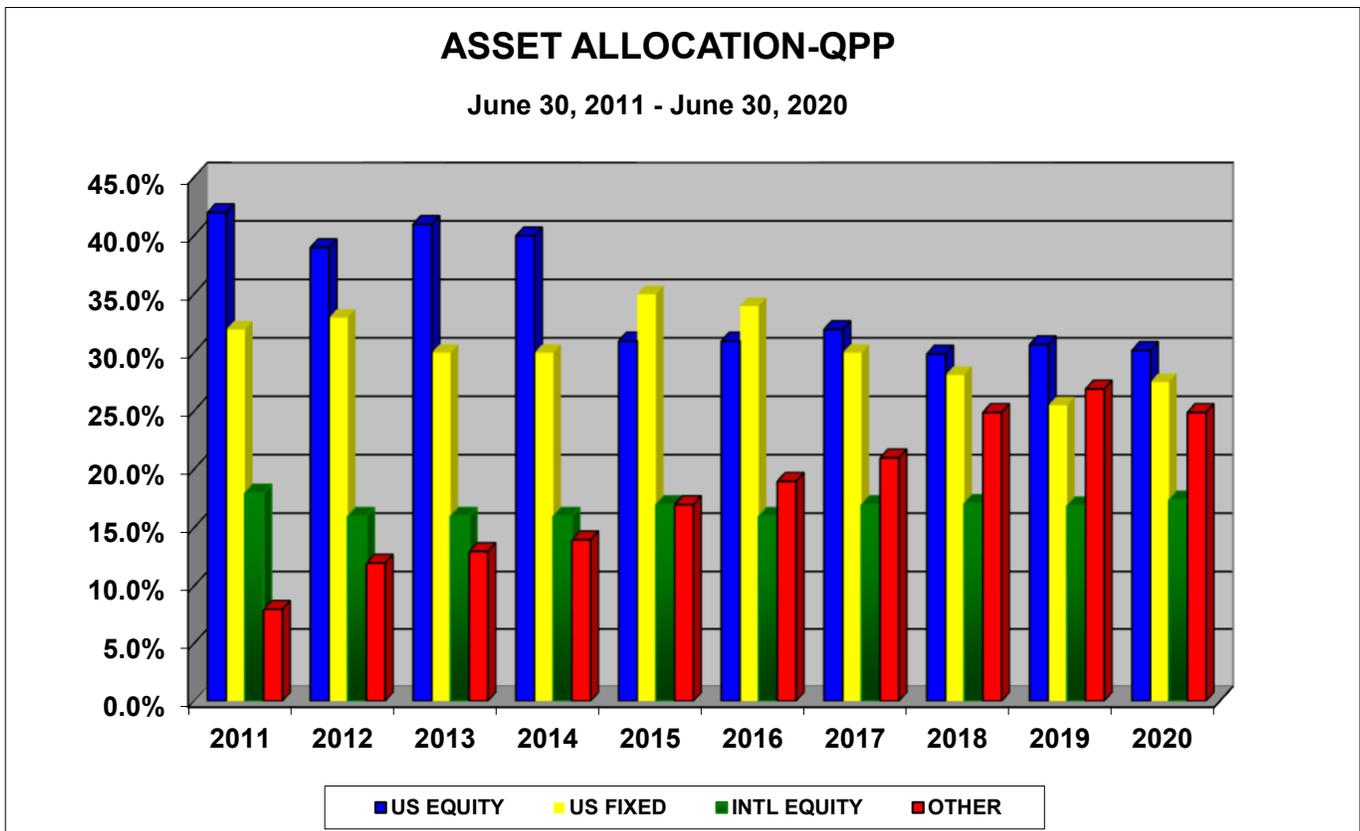
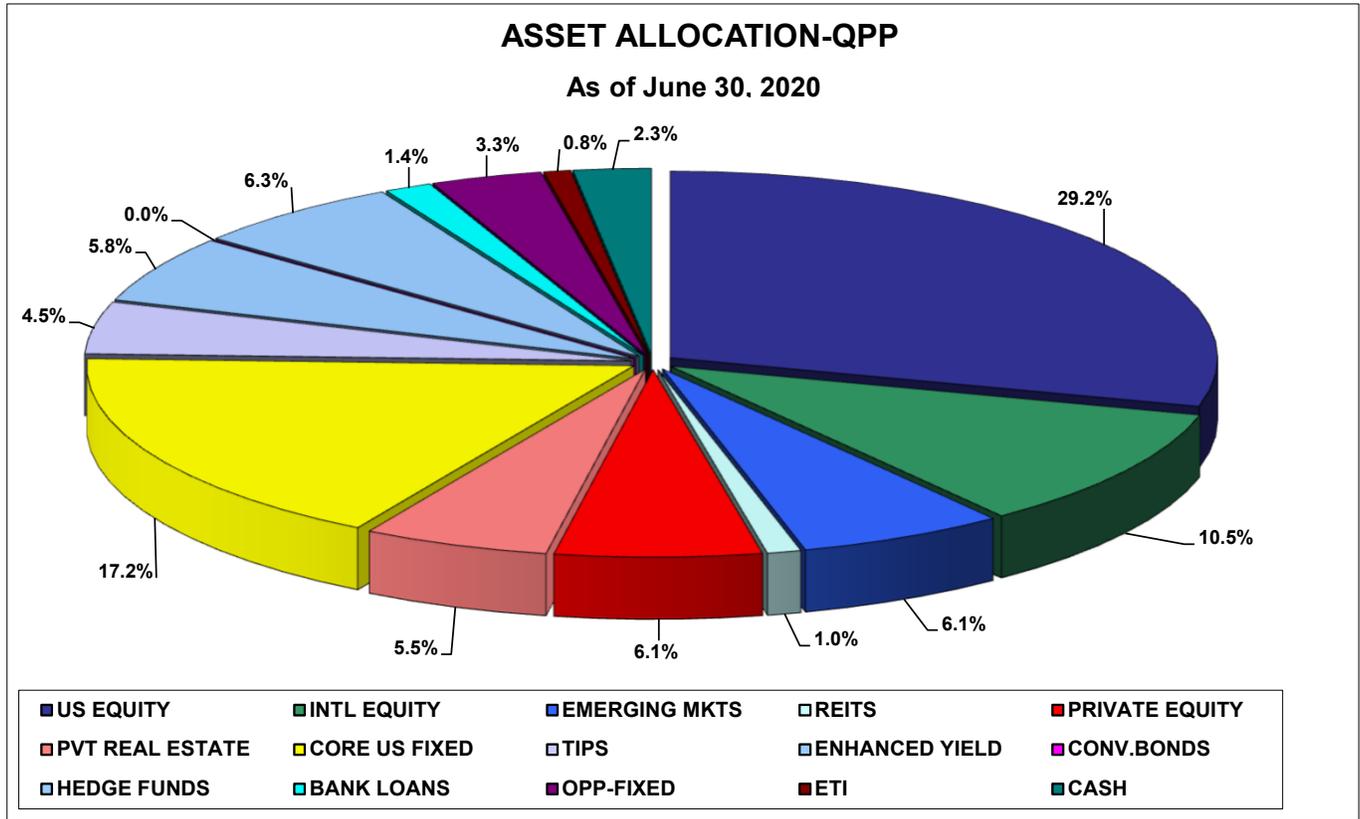


Exhibit 1B

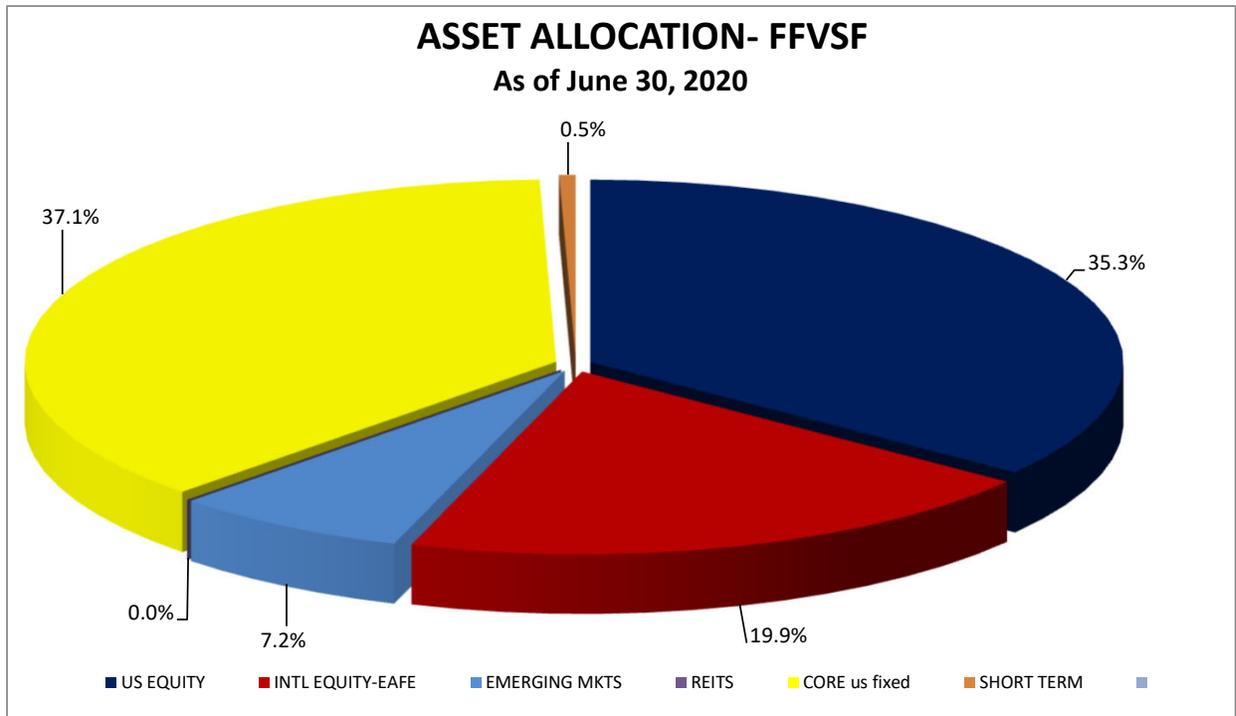
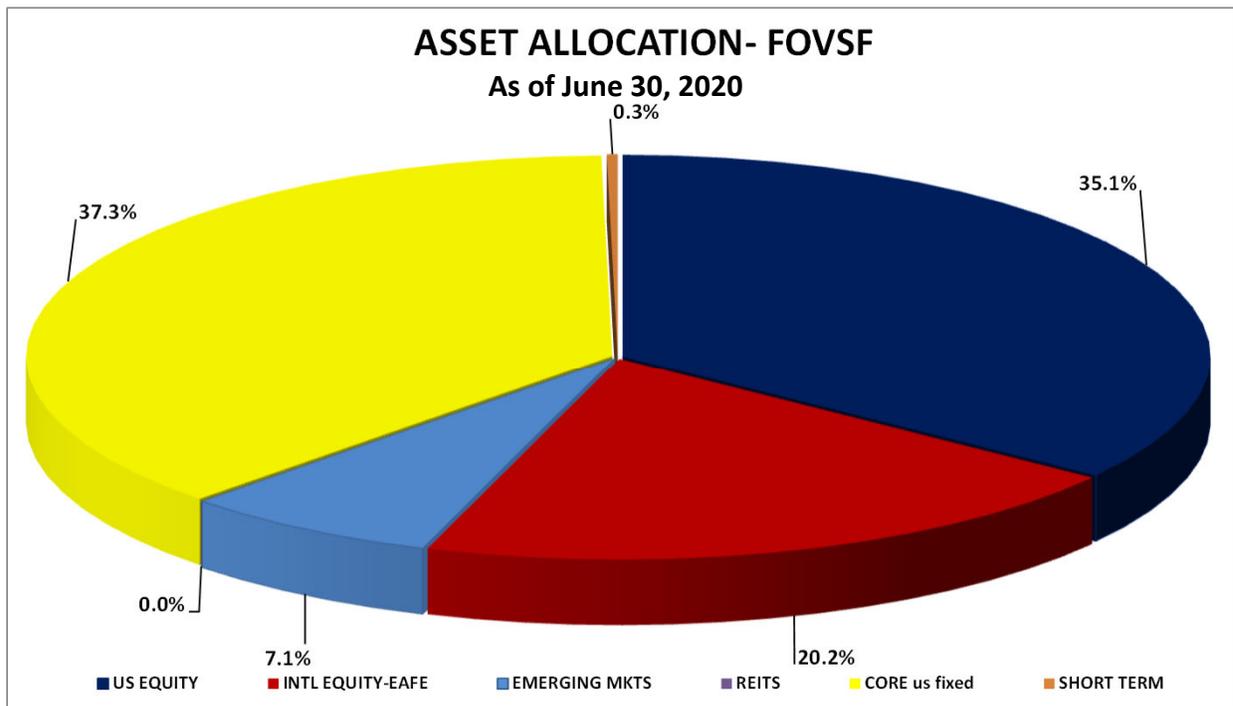


Exhibit 1C

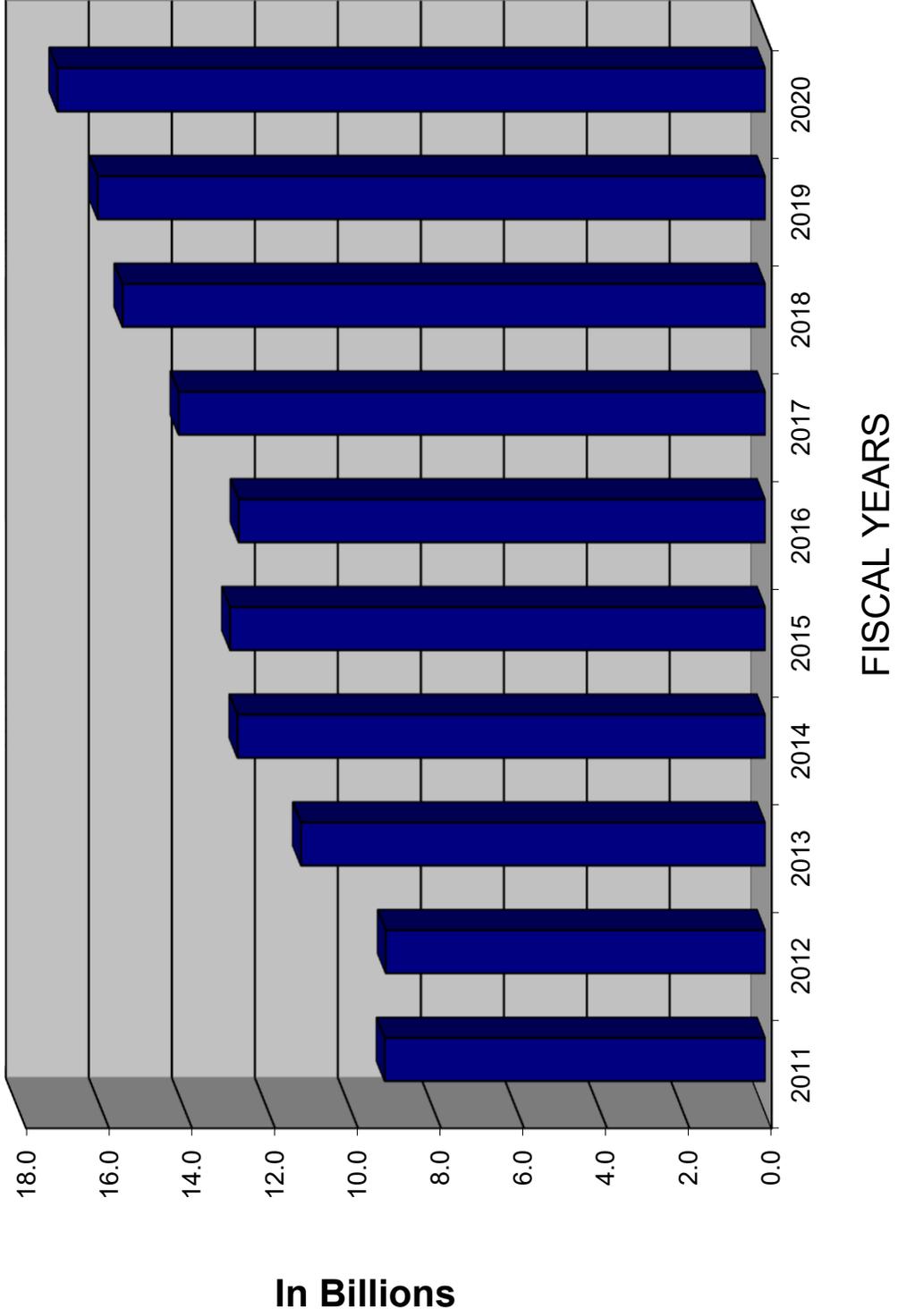


TOTAL INVESTMENTS

Fire Funds Combined

(At Market - Value)

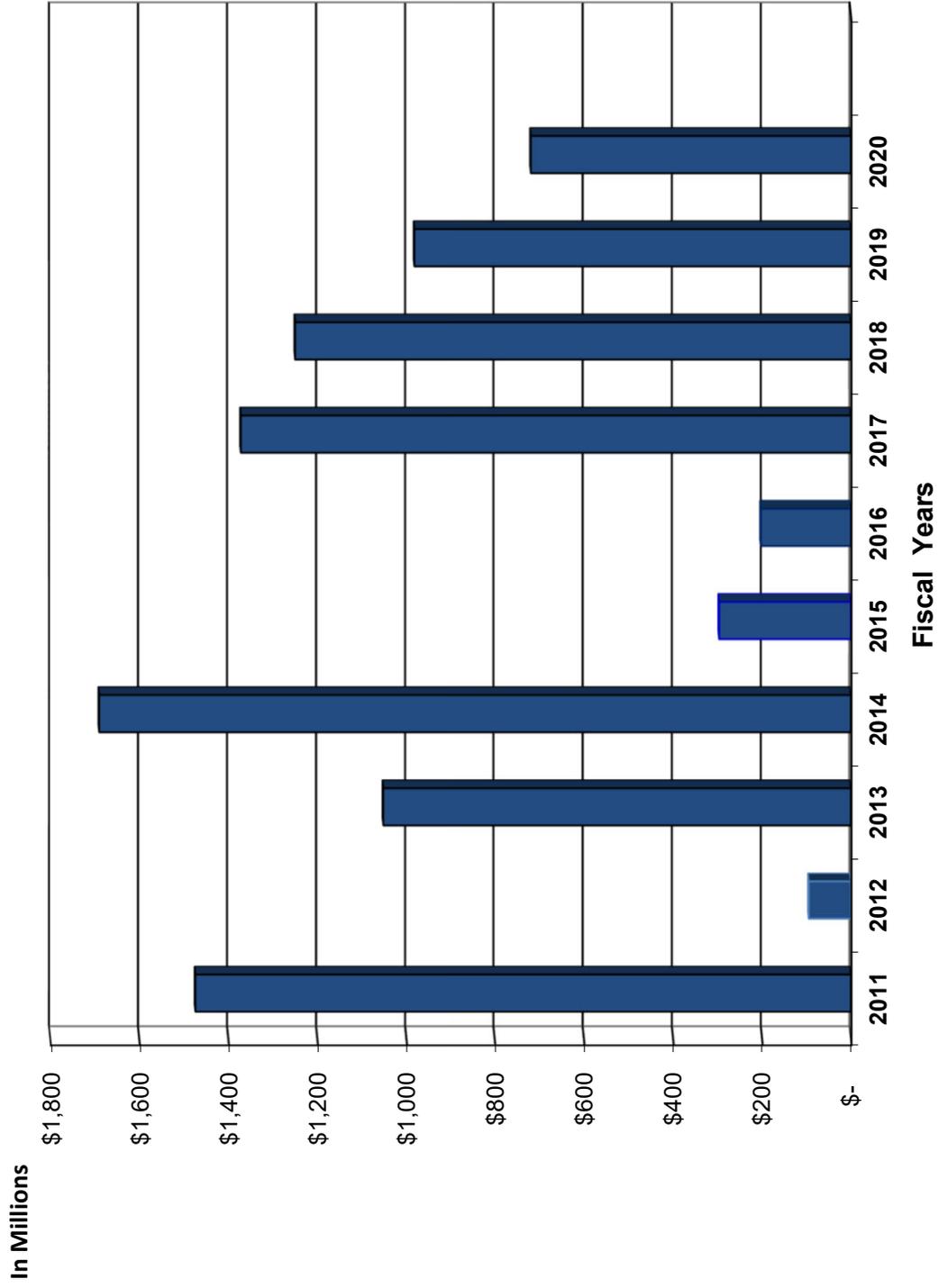
Exhibit 2



INVESTMENT INCOME

Fire Funds Combined

Exhibit 3



New York City Fire Pension Funds

Investment Section

Schedule 1A

Schedule of Portfolio Returns* Fire QPP
June 30, 2020

Assets (\$MM)	% Total	Asset Class	3 Mos	YTD	1 YR	3 YRS	5 YRS	10 YRS
			Apr-20 Jun-20	Jan-20 Jun-20	Jan-00 Jun-20	Jul-17 Jun-20	Jul-15 Jun-20	Jul-10 Jun-20
4,416.00	28.78	U.S. Equities Russell 3000	21.63 22.03	-4.73 -3.48	4.57 6.53	9.16 10.04	9.29 10.03	13.37 13.72
1,253.00	8.17	Total International - World ex-USA World ex-USA Custom BM	20.24 16.21	-6.44 -11.68	1.09 -5.11	4.38 0.82	5.05 2.32	7.40 6.03
924.00	6.02	Total Emerging mkt MSCI Emerging mkt index	18.58 18.08	-13.02 -9.78	-7.85 -3.39	0.45 1.90	2.44 2.86	3.58 3.27
71.60	0.47	Total International Fund of Funds MSCI ACWI EX USA IMI Net	18.15 16.96	-8.54 -11.24	-2.43 -4.74	2.14 0.96	n/a n/a	n/a n/a
254.28	1.66	Total Goba Equity MSC AC World (Daily Const)	24.70 19.22	6.62 -6.25	15.96 2.11	n/a n/a	n/a n/a	n/a n/a
954.39	6.22	Total Hedge Funds HFRI Fund of Funds Composite Index + 1%	2.44 8.17	7.23 -1.08	6.68 1.50	6.79 3.28	4.86 2.51	n/a n/a
158.00	1.03	Total Real Estate Sec.(REITS) DJ US Select Real Estate Securities Index	10.49 9.11	-19.43 -22.01	-14.79 -17.71	-0.86 -1.99	2.09 2.42	8.52 8.24
924.00	6.02	Total Private Equity NYC R3000+3% Lagged	-8.74 -20.26	-5.54 -12.38	1.35 -6.37	11.62 7.12	11.57 8.93	12.95 13.70
700.40	4.56	Total Private Real Estate NCREIF NFI-ODCE NET+100BP	-3.20 -1.51	-1.03 -0.52	2.54 2.34	7.21 5.76	8.86 7.40	12.44 n/a
153.00	1.00	Total Infrastructure CPI+ 4%	-2.01 0.70	-1.04 1.50	5.69 4.74	11.13 5.82	11.26 5.66	n/a n/a
		Total Equity Segment	13.93	-4.46	2.69	7.52	7.87	11.06
2,522.00	16.44	Total Structured Program NYC Custom Structured Index-Fire	2.04 1.86	12.42 14.65	15.69 18.61	8.12 9.50	6.29 n/a	5.46 n/a
85.00	0.55	Total Core FI-Developing MGRS BBG BARC AGG (DLY)	4.81 2.90	5.22 6.14	8.03 8.74	4.97 5.32	4.35 4.30	4.45 3.82
-	-	Total Core FI-Emerging MGRS BBG BARC AGG (DLY)	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a
674.35	4.40	Total Tips Managers BBG BARC GBL INF-LK: US TIPS (DLY)	4.21 4.24	6.06 6.01	8.32 8.28	5.07 5.05	3.75 3.75	3.56 3.52
-	-	Total Convertible Bonds ICE BofA ALL US Conv Ex Mandatory	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a	n/a n/a
119.00	0.78	Total Targeted Investments (No Cash) Fire Custom Benchmark (No Cash)	1.57 1.84	5.37 5.17	7.91 7.65	5.25 4.91	4.55 4.01	3.93 3.60
880.19	5.74	Total High Yield High Yield Custom Benchmark	9.97 10.14	-3.53 -3.83	0.68 0.00	3.11 3.25	4.26 4.35	6.43 6.34
206.00	1.34	Total Bank Loans CSFB Leveraged Loan Index	7.37 9.71	-5.22 -4.76	-2.50 -2.27	1.67 2.13	2.50 2.94	n/a n/a
498.00	3.25	Total Opportunistic Fixed JPM GHY/CSFB 50/50 BLEND PLUS 300	-4.60 11.06	-4.21 -3.82	-1.88 0.88	3.60 5.56	4.09 6.89	6.63 8.66
		Total Fixed Income Segment	3.45	5.42	8.52	5.77	4.93	5.07
343.00	2.27	State Street Short Term	0.04	0.38	1.38	1.76	1.34	0.83
-	-	Cash Account	n/a	n/a	n/a	n/a	n/a	n/a
15,136.21	100.00	Total Portfolio Policy Benchmark	9.94 10.08	-1.06 -1.74	4.81 4.74	7.06 7.01	7.02 7.12	9.17 9.51

*Calculations on the rate of return for Investments were prepared using a time weighted rate of return, based on the market rate of return consistent with Global Investment Performance Standards (GIPS).

New York City Fire Pension Funds

Investment Section

Schedule of Portfolio Returns FFVSF*
June 30, 2020

Schedule 1B

Assets (\$MM)	% Total	Asset Class	3 Mos Apr-20 Jun-20	YTD Jan-20 Jun-20	1 YR Jul-19 Jun-20	3 YRS Jul-17 Jun-20	5 YRS Jul-15 Jun-20	10 YRS Jul-10 Jun-20
173.89	35.36	U.S. Equities Russell 3000 Daily	22.05 22.03	-3.61 -3.48	6.21 6.53	9.95 10.04	10.03 10.03	13.70 13.72
97.86	19.90	Total WORLD ex-USA World EX-USA Custom Benchmark	16.30 16.21	-11.45 -11.68	-4.80 -5.11	1.13 0.82	1.80 2.32	5.05 6.03
35.31	7.18	Total Emerging Markets MSCI Emerging Markets	17.64 18.08	-10.16 -9.78	-3.72 -3.39	1.81 1.90	2.82 2.86	2.61 3.27
182.35	37.08	Total structured Fixed Income BBG BARC AGG (DLY)	2.83 2.90	6.32 6.14	8.83 8.74	5.27 5.32	4.52 4.30	4.49 3.82
2.41	0.49	Fire Fighters short term	0.03	0.41	1.33	n/a	n/a	n/a
-	-	Securities Lending	n/a	n/a	n/a	n/a	n/a	n/a
491.82	100.00	Total Portfolio Policy Benchmark	12.71 13.51	-2.37 -2.26	4.11 4.30	5.85 5.95	6.33 6.48	9.12 9.28

*Calculations on the rate of return for Investments were prepared using a time weighted rate of return, based on the market rate of return consistent with Global Investment Performance Standards (GIPS).

Investment Section

Schedule of Portfolio Returns FOVSF*
June 30, 2020

Schedule 1C

Assets (\$MM)	% Total	Asset Class	3 Mos Apr-20 Jun-20	YTD Jan-20 Jun-20	1 YR Jul-19 Jun-20	3 YRS Jul-17 Jun-20	5 YRS Jul-15 Jun-20	10 YRS Jul-10 Jun-20
121.84	35.05	U.S. Equities Russell 3000/S&P500	22.07 22.03	-3.60 -3.48	6.36 6.53	10.04 10.04	10.10 10.03	13.78 13.72
70.29	20.22	Total WORLD ex-USA World EX-USA Custom Benchmark	16.31 16.21	-11.46 -11.68	-4.94 -5.11	1.11 0.82	3.06 2.32	5.77 6.03
24.54	7.06	Total Emerging Markets MSCI Emerging Markets	17.64 18.08	-10.16 -9.78	-3.76 -3.39	1.80 1.90	2.81 2.86	2.61 3.27
129.63	37.29	Total Structured Fixed Income BBG BARC AGG (DLY)	2.83 2.90	6.32 6.14	8.85 8.74	5.28 5.32	4.44 4.30	4.72 3.82
1.32	0.38	Fire Officers' short term	0.03	0.29	1.17	n/a	n/a	n/a
-	-	Securities Lending	n/a	n/a	n/a	n/a	n/a	n/a
347.62	100.00	Total Portfolio Policy Benchmark	12.69 13.51	-2.31 -2.26	4.32 4.30	6.08 5.95	6.60 6.48	9.39 9.28

*Calculations on the rate of return for Investments were prepared using a time weighted rate of return, based on the market rate of return consistent with Global Investment Performance Standards (GIPS).

Investment Section

New York City Fire Pension Funds

List of Largest Bonds Holdings as of June 30, 2020

Schedule 2A

Cusip Number	Security Description	Maturity Date	Interest Rate	Par Value	Fair Value
9128284V9	US TREASURY N/B	8/15/2028	2.9%	29,750,000	35,232,925
912810RD2	US TREASURY N/B	11/15/2043	3.8%	22,650,000	33,708,636
912810RH3	US TREASURY N/B	8/15/2044	3.1%	24,450,000	33,339,042
912828R36	US TREASURY N/B	5/15/2026	1.6%	30,000,000	32,150,400
912810SL3	US TREASURY N/B	2/15/2050	2.0%	20,700,000	23,706,261
912810SE9	US TREASURY N/B	11/15/2048	3.4%	16,000,000	23,511,200
912810SD1	US TREASURY N/B	8/15/2048	3.0%	17,000,000	23,378,910
912810SF6	US TREASURY N/B	2/15/2049	3.0%	16,700,000	23,056,521
912810SJ8	US TREASURY N/B	8/15/2049	2.3%	18,400,000	22,128,208
912810SD1	US TREASURY N/B	8/15/2048	3.0%	14,800,000	20,353,404
912810SC3	US TREASURY N/B	5/15/2048	3.1%	14,400,000	20,181,312
912810SH2	US TREASURY N/B	5/15/2049	2.9%	14,500,000	19,616,905
912828P46	US TREASURY N/B	2/15/2026	1.6%	18,250,000	19,523,303
912810SK5	US TREASURY N/B	11/15/2049	2.4%	15,300,000	18,897,948
912810RG5	US TREASURY N/B	5/15/2044	3.4%	13,150,000	18,599,097
912810RU4	US TREASURY N/B	11/15/2046	2.9%	13,235,000	17,600,432
912810RV2	US TREASURY N/B	2/15/2047	3.0%	12,885,000	17,552,849
912810RH3	US TREASURY N/B	8/15/2044	3.1%	12,800,000	17,453,568
912810RJ9	US TREASURY N/B	11/15/2044	3.0%	12,800,000	17,137,024
912810RX8	US TREASURY N/B	5/15/2047	3.0%	12,550,000	17,106,278
912810RE0	US TREASURY N/B	2/15/2044	3.6%	11,680,000	17,097,067
912810RZ3	US TREASURY N/B	11/15/2047	2.8%	12,875,000	16,845,135
912810RS9	US TREASURY N/B	5/15/2046	2.5%	13,400,000	16,619,618
912810RM2	US TREASURY N/B	5/15/2045	3.0%	12,300,000	16,514,718
912810RK6	US TREASURY N/B	2/15/2045	2.5%	13,200,000	16,282,464
912810SA7	US TREASURY N/B	2/15/2048	3.0%	11,750,000	16,085,163
912810RB6	US TREASURY N/B	5/15/2043	2.9%	12,300,000	16,068,351
912810RC4	US TREASURY N/B	8/15/2043	3.6%	11,000,000	16,066,930
912810RY6	US TREASURY N/B	8/15/2047	2.8%	12,200,000	15,940,520
912810RN0	US TREASURY N/B	8/15/2045	2.9%	11,700,000	15,422,121
912810SF6	US TREASURY N/B	2/15/2049	3.0%	10,650,000	14,703,710
912810RT7	US TREASURY N/B	8/15/2046	2.3%	12,250,000	14,529,235
912810RQ3	US TREASURY N/B	2/15/2046	2.5%	10,250,000	12,694,420
912810QZ4	US TREASURY N/B	2/15/2043	3.1%	9,150,000	12,406,119
912828TY6	US TREASURY N/B	11/15/2022	1.6%	11,500,000	11,895,370
912828N30	US TREASURY N/B	12/31/2022	2.1%	10,650,000	11,168,762
912810RP5	US TREASURY N/B	11/15/2045	3.0%	8,000,000	10,783,120
912810QX9	US TREASURY N/B	8/15/2042	2.8%	8,200,000	10,512,646
912828YJ3	US TREASURY N/B	9/30/2021	1.5%	10,250,000	10,418,920
912828RR3	US TREASURY N/B	11/15/2021	2.0%	10,000,000	10,250,000
912828RC6	US TREASURY N/B	8/15/2021	2.1%	10,000,000	10,217,200
912828YT1	US TREASURY N/B	11/30/2021	1.5%	9,500,000	9,678,125
9128285M8	US TREASURY N/B	11/15/2028	3.1%	8,000,000	9,672,160
912828Z86	US TREASURY N/B	2/15/2023	1.4%	9,000,000	9,283,050
912828U81	US TREASURY N/B	12/31/2021	2.0%	9,000,000	9,245,430
912828D72	US TREASURY N/B	8/31/2021	2.0%	9,000,000	9,190,890
9128286U9	US TREASURY N/B	5/15/2022	2.1%	8,500,000	8,809,825
912828XR6	US TREASURY N/B	5/31/2022	1.8%	8,500,000	8,756,020
912828G87	US TREASURY N/B	12/31/2021	2.1%	8,500,000	8,747,350
912828XQ8	US TREASURY N/B	7/31/2022	2.0%	8,000,000	8,305,040
9128285R7	US TREASURY N/B	12/15/2021	2.6%	8,000,000	8,285,040
912810SN9	US TREASURY N/B	5/15/2050	1.2%	8,600,000	8,263,052
912828XD7	US TREASURY N/B	5/31/2022	1.9%	8,000,000	8,260,640
912828X47	US TREASURY N/B	4/30/2022	1.9%	8,000,000	8,248,480

A complete listing of our portfolio holdings is available from our office upon request

Investment Section

New York City Fire Pension Funds

List of Largest Stocks Holding as of June 30, 2020

Schedule 3A

<u>Cusip Number</u>	<u>Security Name</u>	<u>Share/Par Value</u>	<u>Fair Value</u>
594918104	MICROSOFT CORP COMMON STOCK USD.00000625	628,060	127,816,491
37833100	APPLE INC COMMON STOCK USD.00001	343,028	125,136,614
23135106	AMAZON.COM INC COMMON STOCK USD.01	35,563	98,111,916
594918104	MICROSOFT CORP COMMON STOCK USD.00000625	261,186	53,153,963
37833100	APPLE INC COMMON STOCK USD.00001	142,645	52,036,896
30303M102	FACEBOOK INC CLASS A COMMON STOCK USD.000006	201,395	45,730,763
23135106	AMAZON.COM INC COMMON STOCK USD.01	14,756	40,709,148
02079K305	ALPHABET INC CL A COMMON STOCK USD.001	25,177	35,702,245
02079K107	ALPHABET INC CL C COMMON STOCK USD.001	24,852	35,131,036
478160104	JOHNSON + JOHNSON COMMON STOCK USD1.0	221,159	31,101,590
84670702	BERKSHIRE HATHAWAY INC CL B COM STOCK USD.0033	163,514	29,188,884
92826C839	VISA INC CLASS A SHARES COMMON STOCK USD.0001	141,608	27,354,417
742718109	PROCTER + GAMBLE CO/THE COMMON STOCK	204,387	24,438,554
46625H100	JPMORGAN CHASE + CO COMMON STOCK USD1.0	254,041	23,895,096
91324P102	UNITEDHEALTH GROUP INC COMMON STOCK USD.01	79,175	23,352,666
437076102	HOME DEPOT INC COMMON STOCK USD.05	90,095	22,569,698
57636Q104	MASTERCARD INC A COMMON STOCK USD.0001	73,991	21,879,139
458140100	INTEL CORP COMMON STOCK USD.001	355,504	21,269,804
37833100	APPLE INC COMMON STOCK USD.00001	55,109	20,103,763
92343V104	VERIZON COMMUNICATIONS INC COMMON STOCK USD.1	347,519	19,158,722
30303M102	FACEBOOK INC CLASS A COMMON STOCK USD.000006	83,721	19,010,527
67066G104	NVIDIA CORP COMMON STOCK USD.001	49,484	18,799,466
00206R102	AT+T INC COMMON STOCK USD1.0	598,066	18,079,535
00724F101	ADOBE INC COMMON STOCK USD.0001	40,345	17,562,582
70450Y103	PAYPAL HOLDINGS INC COMMON STOCK USD.0001	98,495	17,160,784
254687106	WALT DISNEY CO/THE COMMON STOCK USD.01	151,578	16,902,463
17275R102	CISCO SYSTEMS INC COMMON STOCK USD.001	356,142	16,610,463
58933Y105	MERCK + CO. INC. COMMON STOCK USD.5	211,879	16,384,603
64110L106	NETFLIX INC COMMON STOCK USD.001	35,618	16,207,615
30231G102	EXXON MOBIL CORP COMMON STOCK	354,960	15,873,811
60505104	BANK OF AMERICA CORP COMMON STOCK USD.01	648,719	15,407,076
713448108	PEPSICO INC COMMON STOCK USD.017	116,409	15,396,254
717081103	PFIZER INC COMMON STOCK USD.05	466,395	15,251,117
02079K305	ALPHABET INC CL A COMMON STOCK USD.001	10,497	14,885,271
20030N101	COMCAST CORP CLASS A COMMON STOCK USD.01	380,049	14,814,310
02079K107	ALPHABET INC CL C COMMON STOCK USD.001	10,293	14,550,288
00287Y109	ABBVIE INC COMMON STOCK USD.01	147,749	14,505,997
191216100	COCA COLA CO/THE COMMON STOCK USD.25	324,070	14,479,448
931142103	WALMART INC COMMON STOCK USD.1	116,872	13,998,928
166764100	CHEVRON CORP COMMON STOCK USD.75	156,792	13,990,550
79466L302	SALESFORCE.COM INC COMMON STOCK USD.001	72,636	13,606,902
88160R101	TESLA INC COMMON STOCK USD.001	12,402	13,391,804
2824100	ABBOTT LABORATORIES COMMON STOCK	144,967	13,254,333
478160104	JOHNSON + JOHNSON COMMON STOCK USD1.0	91,974	12,934,304
84670702	BERKSHIRE HATHAWAY INC CL B COMMON STOCK USD.0033	68,013	12,141,001
29444U700	EQUINIX INC REIT USD.001	17,259	12,120,996
883556102	THERMO FISHER SCIENTIFIC INC COMMON STOCK USD1.0	33,123	12,001,788
31162100	AMGEN INC COMMON STOCK USD.0001	49,367	11,643,701
532457108	ELI LILLY + CO COMMON STOCK	70,644	11,598,332
580135101	MCDONALD S CORP COMMON STOCK USD.01	62,436	11,517,569
G1151C101	ACCENTURE PLC CL A COMMON STOCK USD.0000225	53,458	11,478,502

A complete listing of our portfolio holdings is available from our office upon request

Schedule of Management Fees and Expenses QPP
For Fiscal Year Ended June 30, 2020

Schedule 4A

Investment Manager	Average Assets Under Management (\$MM)	Total Fees
US Equities		
Brown Asset Mgmt US SCG	\$ 74.83	\$ 737,608
Wasatch US SCG	46.04	63,046
Ceredex US SCV	43.69	258,175
Cooke & Bieler US SCV	44.35	49,199
Dalton US SCV	26.55	164,018
Pzena US SCV	47.86	195,015
Panagora - US SCC	61.31	105,666
Blackrock R2000 Growth	34.15	1,453
Blackrock R2000 Value	1.72	70
Iridian	0.01	-
Wellington Mgmt MCC	171.48	1,635,513
RAFI Enhanced Large Co.	395.83	460,706
Legal General US LMCE	395.99	295,439
BlackRock US LMC R1000 Core	2,418.14	48,067
LEGATO-ALTRAVUE SCV	2.84	14,112
LEGATO-BOWLING SCV	2.73	13,498
LEGATO-BRIDGE CITY SCG	4.68	23,558
LEGATO-DEAN SCV	3.52	17,633
LEGATO-ESSEX SCG	3.60	18,049
LEGATO-LISANTI-SCG	2.82	13,653
SSGA Russell Top 200 Core	708.38	38,639
Total US Equities	4,490.52	4,153,117
NON-US Equities		
Acadian EM	130.15	431,855
Acadian WorldxUS SCC	75.60	248,483
Algert EAFE SCC	18.50	64,823
Baillie Gifford EM	212.23	849,351
Baillie Gifford WorldxUS LMCG	275.68	545,411
BlackRock Passive MSCI EM Core	258.75	71,761
Causeway WorldxUS LMCV	286.98	774,071
DFA EM	116.33	483,689
Fidelity WorldxUS SCC	11.95	74,300
Fiera Capital 0 Global	115.10	662,335
FIS0ATIVO EAFE	10.50	35,691
FIS0AUBREY EM	10.50	35,572
FIS0CHANGE GLOBAL EM	7.31	25,117
FIS0DENALI EAFE	6.16	21,116
FIS0DUNDAS EAFE	11.38	38,538
FIS0MARTIN0EAFE	5.84	19,771
FIS0METIS EAFE	3.21	10,948

Investment Section

New York City Fire Pension Funds

Schedule of Management Fees and Expenses QPP

For Fiscal Year Ended June 30, 2020

Schedule 4A

Investment Manager	Average Assets Under Management (\$MM)	Total Fees
FIS0OSMOSIS EAFE	\$ 10.08	\$ 34,238
FIS0REDWOOD INVESTMENTS	6.60	22,364
FIS0TRANSITION	-	9
Morgan Stanley 0 Global	112.77	590,554
Parametric EM	121.33	367,168
Pzena0EM ACV	181.29	128,340
Sprucegrove WorldxUS LMCV	224.15	472,429
SSGA WorldxUS LMC Passive Core	128.59	15,202
SSGA WorldxUS SC Passive	64.14	20,701
Transition US Global	0.01	-
UBS0EM ACC	119.68	71,391
Walter Scott WorldxUS LMCG	395.84	786,729
Total NON-US Equities	2,920.65	6,901,957
Fixed Income		
Advent Convertible Bonds	223.12	1,103,588
AFL0CIO Housing Investment Trust	61.07	194,174
Bain Capital Bank Loans	106.95	441,804
Barings Bank Loans	103.74	331,573
Blackrock 0 Mortgage	314.33	127,722
Blackrock 0 Credit	122.31	50,660
Blackrock TIPS	186.64	89,806
BOA PPAR FNMA	3.19	-
Brigade High Yield	57.03	223,349
CFSB PPAR GNMA	0.38	-
Citibank PPAR FNMA	3.64	-
Citibank PPAR GNMA	0.93	-
CPC Construction Facility	3.99	-
CPC PPAR FNMA	2.62	-
Eaton Vance High Yield	88.99	284,256
ECLF PPAR FNMA	1.70	-
GIA0Core Plus	26.34	60,765
Guggenheim Bank Loans	0.88	-
JPMC PPAR FNMA	6.23	-
LIIF PPAR FNMA	3.08	-
LIIF PPAR GNMA	0.41	-
LISC PPAR FNMA	0.89	-
LM Capital0Core Plus	26.74	38,897
Mackay Shields High Yield	86.14	247,649
NCBCI PPAR FNMA	0.02	-
NCBCI PPAR GNMA	0.24	-
Neuberger Berman 0 Mortgage	112.12	65,590
Nomura High Yield	55.91	192,439

Investment Section

New York City Fire Pension Funds

Schedule of Management Fees and Expenses QPP

For Fiscal Year Ended June 30, 2020

Schedule 4A

Investment Manager	Average Assets Under Management (\$MM)	Total Fees
PIM 0 Integrity Core0Core Plus	\$ 2.18	\$ 8,190
PIM 0 New Century Core0Core Plus	6.53	24,561
PIM 0 Optimum Quantvest (fka Hillswick)	2.44	9,022
PIM 0 Pugh Capital Mgmt 0Core	8.29	33,214
PIM 0 Ramirez Core0Core Plus	6.28	21,252
Prudential 0 Credit	79.46	58,998
Pugh0CorePlus	16.03	1,184
RBC Access MBS	28.29	50,230
Shenkman 0 High Yield	157.70	550,957
SSGA IT Treasury 1010Y	6.62	659
SSGA LI Treasury	754.87	318,318
SSGA LT Treasury FTSE	589.42	58,009
SSGA ST Treasury 103Y	215.05	20,574
SSGA TIPS Passive	482.42	24,004
T. Rowe Price 0 Credit	186.43	215,103
T. Rowe Price 0 High Yield	389.93	1,190,962
Taplin Canida 0 Credit	50.64	47,308
Wells Fargo PPAR FNMA	0.42	-
Total Fixed Income	4,582.63	6,084,817
Opportunistic Fixed Income		
Angelo Gordon Ptnrs LP	\$ 32.36	\$ 304,309
Apollo Centre Street Partnership LP	54.73	361,435
Ares Centre Street Partnership, L.P.	40.85	280,387
Avenue Special Situations Fund VI	1.05	1,412
Brightwood Capital Fund III, LP	4.59	38,213
Brightwood Capital Fund IV	17.48	312,231
Contrarian Centre Street Partnership, L.P.	14.76	102,328
Fortress Ptnrs LP	33.05	756,876
Fortress Ptnrs LP II	8.71	23,903
Goldentree OD MTA	48.64	378,334
ICG Centre St Partnership	16.88	178,176
KKR SPOOFI (KKRONYC Credit)	31.08	185,908
Maranon Centre Street Partnership	14.55	188,282
Marathon Centre Street Partnership, L.P.	64.34	382,151
Oak Hill Ptnrs LP	55.34	542,627
Oaktree Opportunities Fund IX, L.P.	20.89	292,220
Torchlight Debt Opp V	7.86	127,297
Torchlight Debt Opp VI	9.72	237,518
Torchlight Debt Opportunity Fund III	0.02	-
Total Opportunistic Fixed Income	476.90	4,693,607

Investment Section

New York City Fire Pension Funds

Schedule of Management Fees and Expenses QPP
For Fiscal Year Ended June 30, 2020

Schedule 4A

Investment Manager	Average Assets Under Management (\$MM)	Total Fees
Hedge Funds		
AlphaQuest Partners	\$ 58.32	\$ 1,307,304
Altimeter Partners Fund LP	27.37	1,612,927
Brevan Howard AH Fund	73.08	314,597
Caspian Select Credit Fund, L.P.	31.52	190,943
D.E. Shaw Composite Fund, L.L.C.	88.21	4,756,263
DL Partners Opportunities Fund LP	38.65	397,550
Fir Tree Value Fund, L.P.	2.82	-
Florin Court Capital Fund	38.48	1,077,598
Gotham Targeted Neutral, LP	11.72	150,935
Gresham Quant ACAR Fund	19.89	102,483
GSA Trend Fund LP	59.74	261,204
Jefferies Structured Alpha Fund B	24.32	-
Key Square Partners LP	58.26	787,434
Lansdowne Euro Abs Opp	28.83	257,806
Luxor Capital Partners, LP	54.97	433,013
Permal Asset Management LLC	0.26	-
Perry Capital	0.76	-
Pharo Gaia Fd Ltd	60.95	-
Pharo Macro Fd Ltd	42.55	-
SRS Investment Management	47.89	540,927
Standard General	13.88	105,020
Turiya Fund LP	42.79	54,711
Voloridge Aggressive Fund, LP	13.75	113,456
Voloridge Fund, LP	33.91	261,236
Total Hedge Funds	872.92	12,725,407
Private Equity		
ACON Equity Partners III, L.P.	0.45	5,847
Aisling Capital II, LP	0.05	432
Aisling Capital III, L.P.	0.32	6,870
Altaris Health Partners III, L.P.	1.63	46,943
American Securities Partners VI, L.P.	9.66	-
American Securities Partners VII, L.P.	8.98	151,501
Ampersand 2011 L.P.	6.75	26,591
Apax Partners IX	23.71	439,578
Apax Partners X	-	239,030
Apollo Investment Fund V, L.P.	0.13	3,785
Apollo Investment Fund VI, L.P.	0.38	3,079
Apollo Investment Fund VII, L.P.	3.29	40,308
Apollo Investment Fund VIII	33.02	978,455

Investment Section

New York City Fire Pension Funds

Schedule of Management Fees and Expenses QPP

For Fiscal Year Ended June 30, 2020

Schedule 4A

Investment Manager	Average Assets Under Management (\$MM)	Total Fees
Apollo Investment Fund IX, L.P.	\$ 6.78	\$ 569,962
Ares Corporate Opportunities Fund, L.P.	0.11	17,728
Ares Corporate Opportunities Fund II, L.P.	0.06	6,170
Ares Corporate Opportunities Fund III, L.P.	3.40	771,095
Ares Corporate Opportunities Fund IV, L.P.	16.39	(423,507)
Ares Corporate Opportunities Fund V, L.P.	13.68	271,171
ASF VI B	12.87	143,451
ASF VI B NYC Co-Invest L.P.	3.95	13,726
ASF VII B, L.P.	8.11	137,672
ASF VII B NYC Co-Invest L.P.	7.13	(1,692)
ASF VIII B, L.P.	3.97	391,506
ASF VIII B NYC Co-Invest L.P.	1.18	1,898
Arlington Capital Partners II, L.P.	0.02	166
Atlantic Equity Partners IV, L.P.	2.07	7,701
Arsenal Capital Partners II	0.73	(296,291)
Aurora Equity Partners III, L.P.	0.01	480
Avista Capital Partners, L.P.	0.10	1,854
Avista Capital Partners II, L.P.	1.46	2,830
AXA Secondary Fund V B L.P.	2.12	893,546
BC European Capital IX	14.06	127,746
BC European Capital X	12.06	106,171
BC European Capital X Co-Investment	6.53	10,059
BDCM Opportunity Fund III, L.P.	13.04	119,958
Blackstone Capital Partners IV, L.P.	0.37	531
Blackstone Capital Partners V, L.P.	0.34	(576)
Blackstone Capital Partners VI, L.P.	7.10	107,709
Blackstone Mezzanine Partners II L.P.	0.03	-
Blue Wolf Capital Fund II, L.P.	0.93	12,222
Bridgepoint Europe IV	1.57	(146,781)
Bridgepoint Europe V L.P.	11.39	109,276
Bridgepoint Europe V Co-Investment	4.58	518
Bridgepoint Europe VI L.P.	3.51	285,295
Bridgepoint Europe VI Co-Investment	1.18	36,585
Capital Partners Private Equity Income Fund, L.P.	0.05	1,040
Capital Partners Private Equity Income Fund II, L.P.	1.00	17,809
Capital Partners Private Equity Income Fund III, L.P.	0.82	44,756
Princeton Capital Corp. (fka Capital Point)	1.06	48,610
Carlyle Partners IV, L.P.	0.07	31,516
Carlyle Partners V, L.P.	1.30	1,503
Carlyle Partners VI, L.P.	18.06	126,544
Carlyle Partners VI, L.P. (Side Car)	1.43	2,060
Catterton Partners VI, L.P.	1.88	13,356
CCMP Capital Investors II, L.P.	-	1,344

**Schedule of Management Fees and Expenses QPP
For Fiscal Year Ended June 30, 2020**

Schedule 4A

Investment Manager	Average Assets Under Management (\$MM)	Total Fees
Clearlake Capital Partners VI	\$ 1.01	\$ 63,147
Centerbridge Capital Partners III, L.P.	2.99	150,976
Coller International Partners V, L.P.	0.37	42,901
ComVest Investment Partners IV, L.P.	4.04	349,779
Constellation Venture Capital III, L.P.	1.51	3,101
Crestview Partners II, L.P.	3.30	54,856
Crestview Partners III, L.P.	15.21	1,024,110
Crestview Partners III (Co-Investment B), L.P.	8.74	7,465
Crestview Partners IV	0.02	21,033
Crestview Partners IV Co-Investment	0.01	7,011
CVC Capital Partners VI	34.77	228,190
CVC Capital Partners VII	12.23	382,487
CVC European Equity Partners III, L.P.	0.67	1,531
CVC European Equity Partners V, L.P.	1.69	421,534
Cypress Merchant Banking Partners II, L.P.	0.01	-
EQT VI, L.P.	6.03	48,074
EQT VII, L.P.	26.44	309,002
EQT VIII	9.27	408,767
EQT VIII Co-Investment	4.09	14,818
NB New York City Growth Fund IA	0.16	-
New York/Fairview Emerging Managers Fund, L.P.-Tranche 1	0.33	2,620
New York/Fairview Emerging Managers Fund, L.P.-Tranche 2	4.47	16,458
Falconhead Capital Partners II, L.P.	1.16	6,220
FdG Capital Partners, L.P.	0.01	-
FdG Capital Partners II LP	0.28	6,305
Fenway Partners Capital Fund III, L.P.	0.32	-
FirstMark Capital I, L.P. (fka FirstMark IV)	5.63	-
First Reserve Fund XI, L.P.	0.20	1,104
First Reserve Fund XII, L.P.	0.79	2,370
FS Equity Partners V, L.P.	0.70	421
FS Equity Partners VI, L.P.	7.83	532,572
FTVentures III, L.P.	0.75	34,086
FTV IV, LP	3.40	31,976
FTV V, LP	3.89	48,841
FTV VI, LP	0.37	28,786
GF Capital Private Equity Fund, L.P.	1.36	3,883
GI Partners Fund III	0.11	-
Gleacher Mezzanine Fund II, LP	0.02	433
Grain Communications Opportunities Fund II	1.11	49,475
Green Equity Investors VI	27.00	148,563
Green Equity Investors VII	14.64	249,617
Grey Mountain Partners Fund III, LP	0.61	12,830
GCM Grosvenor Emerging Manager Fund, L.P.	5.75	112,998

Investment Section

New York City Fire Pension Funds

**Schedule of Management Fees and Expenses QPP
For Fiscal Year Ended June 30, 2020**

Schedule 4A

Investment Manager	Average Assets Under Management (\$MM)		Total Fees
GSO Capital Opportunities Fund, L.P.	\$	0.10	\$ 2,600
Highland Consumer Fund I		0.43	6,234
ICV Partners III, L.P.		2.23	6,282
ICV Partners IV, L.P.		0.55	51,324
Incline Equity Partners III, L.P.		1.05	127,822
Intermedia Partners VII, L.P.		1.10	296
JP Morgan Fleming (Tranche A)		0.75	709
KKR Americas Fund XII L.P.		14.29	241,301
KKR Europe V		2.24	67,640
Landmark Equity Partners XI, L.P.		0.01	236
Landmark Equity Partners XIV, L.P.		2.17	24,786
Landmark Equity Partners XV		10.38	274,739
Landmark NYC Fund I		5.58	6,567
Levine Leichtman Capital Partners IV LP		0.48	703
Lexington Capital Partners VII, L.P.		2.33	68,208
Lexington Capital Partners VIII, L.P.		28.59	454,649
Lexington Capital Partners IX L.P.		1.98	239,948
Lincolnshire Equity Fund II, L.P.		0.20	337
Lincolnshire Equity Fund III, L.P.		1.93	21,029
Lincolnshire Equity Fund IV, L.P.		1.05	9,978
Lindsay Goldberg V		0.84	30,830
Euro Choice III L.P.		0.33	4,368
Euro Choice IV L.P.		2.51	32,208
Markstone Capital Partners, L.P.		0.02	-
Medica III Investments (Intl) L.P.		0.74	-
MidOcean Partners III, L.P.		1.59	19,220
Milestone Partners III, LP		0.37	9,574
Mill City Capital II		0.67	20,378
Montreux Equity Partners IV L.P.		4.02	41,720
NorthBound Emerging Manager Custom Fd LP		1.29	20,882
New MainStream Capital II		1.06	51,824
New MainStream Capital III		0.46	36,748
New Mountain Partners II, L.P.		0.03	132
New Mountain Partners III, L.P.		7.33	130,794
NGN BioMed Opportunity II, L.P.		2.50	16,022
Olympus Capital Asia III		1.37	34,886
Olympus Growth Fund VI, L.P.		11.42	110,261
Onex Partners III LP		1.70	21,477
Paladin Homeland Security Fund L.P.		0.01	-
Paladin III, L.P.		11.60	525,720
Palladium Equity Partners III, L.P.		0.47	24,594
Palladium Equity Partners IV		8.35	91,358
Palladium Equity Partners V, L.P.		1.39	151,510

Investment Section

New York City Fire Pension Funds

Schedule of Management Fees and Expenses QPP
For Fiscal Year Ended June 30, 2020

Schedule 4A

Investment Manager	Average Assets Under Management (\$MM)	Total Fees
Patriot Financial Partners II	\$ 1.17	\$ 16,628
Patriot Financial Partners III	1.37	39,894
NB PCG Clean Energy Tech Fund East, L.P.	1.11	7,928
Pegasus Partners IV, L.P.	1.57	10,612
Pegasus Partners V, L.P.	5.77	75,089
Permira IV	0.69	16,746
Pine Brook Capital Partners	0.63	1,840
Platinum Equity Capital Partners III, LP	10.06	416,460
Platinum Equity Partners Small Cap I	0.90	315,735
Platinum Equity Capital Partners IV, LP	16.04	185,312
Platinum Equity Capital Partners IV - SC	2.28	889
Platinum Equity Capital Partners V, LP	3.12	209,137
Post Capital Equity Partners II LP	0.47	1,307
Prism Venture Partners V, L.P.	0.01	-
Psilos Group Partners III, L.P.	1.37	(3,378)
Raine Partners II	3.09	31,608
Raine Partners III	0.63	83,622
Reverence Capital Partners Opportunities Fund II, L.P.	1.12	127,535
Reverence Capital Partners Opportunities Fund II (Paral)	0.56	4,006
Riverstone/Carlyle Global Energy & Power Fund IV, L.P.	1.43	(297,231)
RRE Ventures IV, L.P.	2.23	1,718
Scale Venture Partners III, LP	1.25	8,431
SCP Private Equity Partners II, L.P.	1.72	24,080
SCP Vitalife Partners II, L.P.	2.50	37,525
Siris Partners III	3.97	48,305
Siris Partners IV	7.15	246,440
Snow Phipps Group, L.P.	2.45	2,021
Snow Phipps II, L.P.	4.73	65,419
Stellex Capital Management LP	2.57	82,816
Summit Partners Growth Equity VIII-A	16.33	1,809,672
Terra Firma Capital Partners III, L.P.	0.37	5,780
Thomas, McNerney & Partners II, L.P.	0.32	324
Trident V, L.P.	8.88	61,813
Trilantic Capital Partners IV L.P.	0.72	135,052
Trilantic Capital Partners V L.P.	6.04	206,696
Trilantic Capital Partners VI L.P.	4.24	617,816
USPF II Institutional Fund, L.P.	0.73	9,164
United States Power Fund III, L.P.	1.25	11,856
Valor Equity III	2.19	42,612
Valor Equity Partners IV	4.77	72,450
Vista Equity Partners Fund III, L.P.	0.72	6,717
Vista Equity Partners Fund IV, L.P.	20.55	105,933
Vista Equity Partners Fund V, L.P.	42.93	3,002,228

Investment Section

New York City Fire Pension Funds

Schedule of Management Fees and Expenses QPP

For Fiscal Year Ended June 30, 2020

Schedule 4A

Investment Manager	Average Assets Under Management (\$MM)	Total Fees
Vista Equity Partners Fund VI, L.P.	\$ 34.02	\$ 699,001
Vista Equity Partners VII	7.71	429,988
Vista Foundation Fund II, L.P.	2.61	34,249
Vistria Fund III, LP	-	34,196
Welsh, Carson, Anderson & Stowe XII, L.P.	12.94	342,089
Welsh, Carson, Anderson & Stowe XIII, L.P.	0.49	304,565
Warburg Pincus Financial Sector Fund	10.37	81,954
Warburg Pincus Private Equity XI, LP	24.85	1,156,557
Warburg Pincus Private Equity XII, LP	37.91	345,877
Warburg Pincus Global Growth, L.P.	3.23	468,156
Webster Capital III	3.08	21,453
Wellspring Capital Partners V, L.P.	3.42	7,413
Welsh, Carson, Anderson & Stowe XI, L.P.	2.51	14,086
Yucaipa American Alliance Fund I, L.P.	0.44	65,109
Yucaipa American Alliance Fund II, LP	13.75	20,847
Yucaipa Corporate Initiatives Fund II LP	1.64	34,596
Total Private Equity	976.64	25,226,113
Private Real Estate		
Aermont Capital Real Estate Fund IV	1.12	83,721
AG Realty Fund VII L.P.	0.33	48,835
Almanac Realty Securities VIII, L.P.	0.84	132,879
Almanac Realty Securities VIII Sidecar	0.69	4,611
American Value Partners Fund I	0.44	6,090
Ares European Real Estate Fund III, L.P.	0.24	6,197
Artemis Income & Growth	1.79	130,452
Artemis Co-Investment (Artemis Mach II, LLC)	10.07	84,703
Avanath Affordable Housing II	2.86	35,507
BIG Real Estate Fund I	2.08	32,340
Blackstone Real Estate Partners Europe III L.P.	0.77	20,058
Blackstone Real Estate Partners Europe IV, L.P.	11.26	538,840
Blackstone Real Estate Partners Europe VI	1.27	-
Blackstone Real Estate Ptnrs IV	0.21	504
Blackstone Real Estate Ptnrs VI	0.70	66,244
Blackstone Real Estate Ptnrs VII	15.24	617,507
Blackstone Real Estate Ptnrs VIII	30.47	626,498
Blackstone Real Estate Ptnrs IX	5.70	325,550
Brookfield Strategic Real Estate	9.65	1,203,774
Brookfield Strategic Real Estate Partners III	8.63	264,400
Brookfield Premier Real Estate Partners	25.48	678,841
Canyon Johnson Urban Fd II	0.03	1,042
Canyon Johnson Urban Fd III	-	(6,041)
Carlyle Property Investors, LP	22.27	119,995

Investment Section

New York City Fire Pension Funds

Schedule of Management Fees and Expenses QPP

For Fiscal Year Ended June 30, 2020

Schedule 4A

Investment Manager	Average Assets Under Management (\$MM)	Total Fees
Carlyle Realty Partners V, L.P.	\$ 1.03	\$ 3,998
Carlyle Realty Partners VI, L.P.	2.17	81,617
Carlyle Realty Partners VII	7.50	464,404
Colony Investors VIII	0.40	1,321
Colony Realty Ptnrs II	-	(1,505)
Cortland Growth and Income	3.13	-
DivcoWest Fund III REIT LLC	0.23	231,698
DivcoWest Fund IV	4.62	287,559
DivcoWest Fund V	8.06	214,559
DRA Growth and Income Fund IX	6.96	184,684
DRA Growth and Income Fund X	2.08	21,644
NYC Vanbarton Interborough Fund LLC (NYC Asset Investor	4.34	149,193
Exeter Core Industrial Club Fund II, L.P.	6.07	38,976
Exeter Core Fund III	2.27	7,094
Exeter Industrial Value Fund IV LP	8.78	95,423
GreenOak Asia USD III	3.48	-
Harrison Street Core Property Fund, L.P.	6.85	53,073
Harrison Street (HSRE) Core Co-investment, L.P.	1.87	4,564
H/2 Special Opportunities II L.P.	0.66	132,870
H/2 Special Opportunities III L.P.	6.93	136,720
H/2 Special Opportunities IV L.P.	8.86	100,775
Heitman America Real Estate Trust, L.P.	20.06	129,832
Heitman Credit	8.49	62,655
Hudson Superstorm Sandy Rebuilding Fund (NYC Asset)	4.28	33,757
Jamestown Premier Fund	7.94	66,133
JP Morgan Strategic Property Fund	43.13	399,884
JP Morgan Special Situation Property	7.34	117,226
Kayne Anderson Core Real Estate	10.00	-
KKR Real Estate Credit Opp Prtnrs Agg I	22.43	190,237
KKR Real Estate Partners Americas II LP	10.68	193,175
Lasalle US Property Fd	56.24	216,263
Clarion Lion Industrial Trust	51.79	439,735
Lone Star RE Fd III	2.97	42,788
Lone Star Real Estate Fund V (U.S.), LP	3.02	69,835
MetLife Core Property	40.58	184,327
Metropolitan Workforce Housing Fund, LLC	0.06	125
Pramerica Real Estate VI, LP	5.16	53,482
Prudential PRISA	10.09	66,091
Prudential PRISA II	31.13	238,132
Prologis Targeted US Logistics Fd	10.19	65,424
PW Real Estate Fund III LP	8.12	56,103
RFM NYCRS Sandy LLC (NYC Asset Investors #2)	7.28	65,629
RREEF America REIT II	10.35	73,262

Investment Section

New York City Fire Pension Funds

Schedule of Management Fees and Expenses QPP

For Fiscal Year Ended June 30, 2020

Schedule 4A

Investment Manager	Average Assets Under Management (\$MM)	Total Fees
Silverpeak Legacy Partners III	\$ 0.36	\$ 8,572
Stockbridge Real Estate Fund III A LP	7.36	19,604
Taconic New York City Investment Fund, L.P.	1.28	49,064
The City Investment Fd	0.06	1,084
Thor Urban Property Fd II	1.55	2,099
Tristan European Property Investors Special Opps 4	8.63	139,148
UBS Trumbull Property Fd	21.40	158,061
USAA Eagle Real Estate Fund	32.04	255,111
Walton Street Real Estate Fund VI	1.78	13,987
Westbrook Real Estate Fund VIII	0.94	12,808
Westbrook Real Estate Fund X Co-Investment	4.54	134,584
Total Private Real Estate	689.70	10,789,431
Real Estate Equity Securities		
Adelante Capital Management 0 REITS	111.99	337,872
Morgan Stanley REITS	72.42	376,541
Total Real Estate Equity Securities	184.41	714,413
Infrastructure		
Actis Energy 4	9.34	266,285
Ardian Infrastructure Fund V	1.18	100,940
ASF VII Infrastructure B LP	5.84	148,317
AxInfra US II L.P.	5.92	64,449
Axium Infrastructure Canada II (Intl) L.P.	9.37	20,314
Brookfield Infrastructure Fund II	14.53	96,498
Brookfield Infrastructure Fund III	10.97	208,053
Brookfield Infrastructure Fund III CoInvest	2.23	218
Brookfield Infrastructure Fund IV CoInvest	2.01	1,274
Brookfield Infrastructure Fund IV0B	6.00	254,438
EIG Energy Partners	3.70	10,791
EQT Infrastructure III	11.35	175,873
EQT Infrastructure IV (No.2) USD SCSp	5.40	457,290
EQT Infrastructure IV CoInvestment	1.80	-
Global Energy & Power Infrastructure Fund II	7.23	124,627
Global Energy & Power Infrastructure Fund III	2.57	243,683
Global Infrastructure Partners III	17.85	399,717
Global Infrastructure Partners IV0A/B, L.P.	-	327,394
IFM Global Infrastructure	14.85	384,259
KKR Global Infrastructure Investors II, L.P.	12.52	60,214
KKR Global Infrastructure Investors III	4.52	85,378
Total Infrastructure	149.18	3,430,012
Total Management Expenses	\$ 15,343.55	\$ 74,718,874

Schedule of Management Fees and Expenses QPP
For Fiscal Year Ended June 30, 2020

Schedule 4A

Investment Manager	Average Assets Under Management (\$MM)	Total Fees
Consultant Expenses		
AKSIA LLC		\$ 99,811
ERNST & YOUNG US LLP		3,249
ERNST AND YOUNG LLP		849
MSCI - ESG RESEARCH LLC		5,244
MSCI - RISKMETRICS GROUP		35,929
MSCI BARRA LLC		57,580
MSCI-INVESTMENT PROPERTY DATABANK LTD		10,445
NEW ENGLAND PENSION CONSULTANT		367,500
PRICEWATERHOUSECOOPERS TAIWAN		2,510
STEPSTONE GROUP LLC		141,167
STEPSTONE GROUP, LP - CONSULTING FEES		444,167
THE BURGISS GROUP		11,592
TOWNSEND HOLDINGS LLC		134,320
Total Consultant Expenses		1,314,363
Legal Expenses		
COX CASTLE NICHOLSON LLP		23,374
DAY PITNEY LLP		10,268
FOLEY AND LARDNER LLC		11,693
FOLEY AND LARDNER LLP		717
FOSTER GARVEY PC		9,447
FOSTER PEPPER PLLC		27,494
HITCHCOCK LAW FIRM PLLC		262
MORGAN LEWIS BOCKIUS LLP		33,583
NIXON PEABODY LLP		12
PILLSBURY WINTHROP SHAW PITTMAN LLP		27,947
REFUND OF DUPLICATE PAYMENT FOLEY & LARDNER		(3,796)
REINHART BOERNER VAN DUEREN		31,230
REVERSAL		(717)
SEWARD KISSEL LLP		13,775
SQUIRE PATTON BOGGS (US) LLP		1,129
Total Legal Expenses		186,418
Total Consultant & Legal Expenses		\$ 1,500,781
Other Miscellaneous Expenses		
Tax expense equity dom		3,217
Tax expense equity dom ctf		114
Tax expense Intl -eq ctf		2,897,248

Schedule of Management Fees and Expenses QPP

For Fiscal Year Ended June 30, 2020

Schedule 4A

Investment Manager	Average Assets Under Management (\$MM)	Total Fees
Tax expense eq intl -		\$ 716,300
Tax expense opp fixed income ctf		(16,979)
Tax expense fixed income other		324
Misc expense fixed income othr ctf		755
Misc exp equity dom ctf		1
Misc exp fixed inc mortgage		1,547
Misc exp eq Intl ctf		12,948
Misc exp Intl-		1,972
Misc exp opportunistic fi ctf		3,465
Misc exp Alt. equity		(13)
Misc exp fixed inc other		592
other exp fi cash		32,542
custody fees fi cash		2
custody fees equity dom		9,568
custody fees fixed inc othr ctf		292
custody fees eq dom ctf		1,284
custody fees fi mortgage		8,418
custody fees fi tips		1,030
custody fees fi tips ctf		136
custody fees eq intl ctf		76,272
custody fees eq intl		20,766
custody fees opp fi ctf		2
custody fees fi other		16,590
custody fees pvt eq real est		151
custody fees hedge funds		11
FX Service Fees fi cash		4,534
FX Service Fees Intl		23,815
FX Service Fees equity Intl-		16,655
FX Service fees Alt Equity		11,818
FX Service fees Alt infrastructure		341
FX Service fees Alt Real Est		1,650
Hard Dollar Compensation Bank Chg s eq		1,498
Hard Dollar Compensation Chgs fx in other-ctf		82
Hard Dollar Compensation Chgs fx mtg -ctf		31
Hard Dollar Compensation Chgs eq dom ctf		1
Hard Dollar Compensation Chgs fi mtg		1,796
Hard Dollar Compensation Chgs fi tips ctf		26
Hard Dollar Compensation Chgs eq intl-ctf		(96)
Hard Dollar Compensation chgs eq intl		1,613
Hard Dollar Compensation chgs oppor fi ctf		66
Hard Dollar Compensation Chgs pvt eq		205

**Schedule of Management Fees and Expenses QPP
For Fiscal Year Ended June 30, 2020**

Schedule 4A

Investment Manager	Average Assets Under Management (\$MM)	Total Fees
Hard Dollar Compensation Chgs fxd inc othr		\$ 5,854
Hard Dollar Compensation Chgs oppor fxd inc		393
Total Other Miscellaneous Expenses		3,858,837
Total Investment Expenses	\$ 15,343.55	\$ 80,078,492

**Schedule of Broker's Commissions
For Fiscal Year Ended June 30, 2020**

Schedule 4B

Broker Name	Number of Shares Traded	Commission Paid	Average Cost Per Share
ABEL NOSER	73,047.00	\$ 3,637.00	\$ 0.05
ABEL NOSER CORP	56,970.00	2,848.50	0.05
ABG SECURITIES LIMITED	0.44	-	-
ACTINVER CASA DE BOLSA SA DE CV	17,000.00	64.71	0.00
ALLEN & COMPANY LLC	58,178.00	1,870.33	0.03
AQEEL KARIM DHEDHI	610,070.09	237.40	0.00
ARQAAM CAPITAL LIMITED	441,990.83	734.37	0.00
ARQAAM CAPITAL SOUTH AFRICA (PTY)	3,597.00	89.47	0.02
AS LHV PANK	56,436.96	113.74	0.00
ATTIJARIWAFI BANK	1,177.56	117.96	0.10
AUTREPAT-DIV RE	47.19	12.23	0.26
B.RILEY & CO., LLC	22,323.00	580.41	0.03
BANCO BICE	21,988.00	67.79	0.00
BANCO ITAU SA	453,600.00	3,343.33	0.01
BANCO MODAL S.A.	25,500.00	41.90	0.00
BANCO PACTUAL S.A.	75,235.86	348.64	0.00
BANCO SANTANDER CENTRAL HISPANO	318,563.25	833.33	0.00
BANCO SANTANDER CHILE	830,920.75	192.73	0.00
BANK J.VONTOBEL UND CO. AG	10,349.56	1,148.49	0.11
BANK OF AMERICA CORPORATION	381,815.50	2,541.16	0.01
BANK OF AMERICA MERRILL LYNCH SECUR INC	1,756,455.85	4,877.87	0.00
BANK OF NOVA SCOTIA - SCUSA	5,379.12	5.23	0.00
BARCLAYS BANK OF BOTSWANA LTD	4,293.17	68.71	0.02
BARCLAYS CAPITAL	1,393,935.14	7,728.45	0.01
BARCLAYS CAPITAL INC./LE	215,367.22	1,891.52	0.01
BARCLAYS CAPITAL LE	316,599.00	6,285.64	0.02
BCS PRIME BROKERAGE LTD	13,963.52	100.57	0.01
BMO CAPITAL MARKETS	39,022.03	1,143.64	0.03
BNP PARIBAS SECURITIES SERVICES	1,912,627.34	9,731.99	0.01
BNP PARIBAS SECURITIES SERVICES AUSTR BR	95,794.92	33.15	0.00
BNP PARIBAS SECURITIES SERVICES SA	7,715,786.55	4,040.44	0.00
BOFA SECURITIES, INC	26,826.03	129.08	0.00
BOFA SECURITIES, INC.	4,311,833.07	38,873.55	0.01
BRADESCO S.A. CTVM	711,496.45	1,883.83	0.00
BROADCORT CAPITAL (THRU ML)	9,406.00	164.61	0.02
BTG PACTUAL CASA DE BOLSA	6,162.83	6.35	0.00
BTG PACTUAL CHILE S.A. CORREDORES DE BOL	3,956,984.95	441.10	0.00
BTIG HONG KONG LIMITED	12,460.95	450.37	0.04
BTIG, LLC	267,703.00	6,589.86	0.02
CABRERA CAPITAL MARKETS	6,314.95	47.36	0.01
CABRERA CAPITAL MARKETS LLC	20,050.00	87.19	0.00
CANACCORD ADAMS INC.	4,400.00	22.97	0.01
CANACCORD GENUITY INC.	47,731.00	1,644.32	0.03
CANADIAN IMPERIAL BANK OF COMMERCE	188,811.00	1,014.14	0.01

**Schedule of Broker's Commissions
For Fiscal Year Ended June 30, 2020**

Schedule 4B

Broker Name	Number of Shares Traded	Commission Paid	Average Cost Per Share
CANTOR CLEARING SERVICES	2,092.00	\$ 41.84	\$ 0.02
CANTOR FITZGERALD + CO.	242,358.00	2,638.74	0.01
CANTOR FITZGERALD EUROPE	255,260.00	642.10	0.00
CAPITAL MARKETS BROKERS LIMITED	239,931.04	300.32	0.00
CARNEGIE A S	3,778.57	352.72	0.09
CARNEGIE SECURITIES FINLAND	41,789.09	1,725.55	0.04
CASABLANCA FINANCE MARKETS	3,121.33	275.76	0.09
CHINA INTERNATIONAL CAPITAL CO	290,056.55	1,649.42	0.01
CHINA INTERNATIONAL CAPITAL CORPORATION	845,833.39	3,755.57	0.00
CIMB-GK SECURITIES PTE.LTD.	189,300.00	210.91	0.00
CITADEL SECURITIES INSTITUTIONAL LLC	84,921.00	434.60	0.01
CITIBANK CANADA	1,375.00	30.08	0.02
CITIBANK N.A	12,800.00	325.24	0.03
CITIBANK N.A.	30.92	-	-
CITIBANK N.A. SPAIN	12,098.00	44.22	0.00
CITIBANK OF COLOMBIA	238,675.86	425.92	0.00
CITIBANK SOUTH AFRICA	1,940.00	2.06	0.00
CITIGROUP GLBL MARKET KOERA SECS LTD	65,324.31	848.97	0.01
CITIGROUP GLOBAL MARKETS AUSTRALIA PTY	60,322.07	39.18	0.00
CITIGROUP GLOBAL MARKETS INC	747,770.55	14,959.02	0.02
CITIGROUP GLOBAL MARKETS INC.	7,972,219.61	6,248.14	0.00
CITIGROUP GLOBAL MARKETS INDIA	22,988.95	220.72	0.01
CITIGROUP GLOBAL MARKETS LIMITED	4,730,364.43	17,386.29	0.00
CITIGROUP GLOBAL MARKETS TAIWAN	1,862,884.64	780.57	0.00
CL SECURITIES TAIWAN COMPANY LIMITED	2,838,811.07	3,614.73	0.00
CLSA AUSTRALIA PTY LTD	1,347,729.53	1,371.57	0.00
CLSA SECURITIES KOREA LTD.	402,903.71	10,018.39	0.02
CLSA SECURITIES MALAYSIA SDN BHD	234,877.22	163.84	0.00
CLSA SINGAPORE PTE LTD.	6,837,209.40	9,906.79	0.00
COL FINANCIAL GROUP, INC.	215,300.00	235.13	0.00
COMMERCIAL BANK OF QATAR, LTD.	20,559.00	169.27	0.01
CORNERSTONE MACRO LLC	127,410.00	2,713.80	0.02
COWEN AND COMPANY, LLC	2,309,171.12	68,218.82	0.03
COWEN EXECUTION SERVICES LLC	7,123,481.77	26,418.28	0.00
CRAIG - HALLUM	935.00	46.75	0.05
CRAIG-HALLUM	6,229.00	262.92	0.04
CREDIBOLSA SOCIEDAD AGENTE	94,918.07	391.55	0.00
CREDICORP CAPITAL COLOMBIA S.A.	107,584.23	336.52	0.00
CREDIT AGRICOLE CIB	2,297.00	17.37	0.01
CREDIT LYONNAIS SECURITIES INDIA	1,274,983.19	7,446.43	0.01
CREDIT LYONNAIS SECURITIES(ASIA)	45,903,639.71	31,401.23	0.00
CREDIT SUISSE FIRST BOSTON	1,112,477.31	1,442.65	0.00
CREDIT SUISSE FIRST BOSTON (EUROPE)	39,555.60	2,205.27	0.06
CREDIT SUISSE FIRST BOSTON SA CTVM	85,600.00	342.01	0.00

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Schedule 4B

Broker Name	Number of Shares Traded	Commission Paid	Average Cost Per Share
CREDIT SUISSE SECS INDIA PRIVATE LTD	610,094.39	\$ 1,687.98	\$ 0.00
CREDIT SUISSE SECURITIES (EUROPE) LTD	4,182,591.59	9,854.57	0.00
CREDIT SUISSE SECURITIES (USA) LLC	9,601,577.08	29,720.42	0.00
CREDIT SUISSE SECURITIES CANADA INC	14,763.00	442.15	0.03
CS FIRST BOSTON (HONG KONG) LIMITED	5,557.22	187.05	0.03
CSFB AUSTRALIA EQUITIES LTD	37,826.34	27.80	0.00
CSL STOCKBROKERS LIMITED	1,082,148.04	340.36	0.00
CUSIP CHANGE NON CASH	-	-	-
CUTTONE & CO. INC.	2,624.00	26.24	0.01
DAIWA SBCM EUROPE	28,229.51	337.64	0.01
DAIWA SECURITIES (HK) LTD.	4.17	0.04	0.01
DAIWA SECURITIES AMERICA INC	301,630.95	9,575.49	0.03
DANARESKA SECURITIES, PT	152,500.00	171.69	0.00
DANSKE BANK A.S.	2,382.00	130.82	0.05
DAVIDSON D.A. + COMPANY INC.	16,332.00	349.70	0.02
DAVY STOCKBROKERS	33,418.86	587.45	0.02
DBS VICKERS (HONG KONG) LIMITED	125,177.65	371.44	0.00
DBS VICKERS SECURITIES (SINGAPORE)	430,748.55	2,330.00	0.01
DEUTSCHE BANK SECURITIES INC	352,562.00	1,763.32	0.01
DREXEL HAMILTONLLC	45,630.00	912.60	0.02
DSP MERRILL LYNCH LTD	1,171,372.47	13,783.17	-
ERSTE AND STEIERMAERKISCHE BANK	2,261.32	548.10	0.24
ERSTE BANK BEFEKTETESI RT.	1,544.00	101.10	0.07
EUROCLEAR BANK S.A / N.V	106,030.09	600.58	0.01
EVERCORE GROUP L.L.C.	13,020.00	280.12	0.02
EVERCORE ISI	442,896.00	11,520.17	0.03
EXANE S.A.	215,931.87	3,079.70	0.01
FIDELITY CAPITAL MARKETS	5,046.39	94.38	0.02
FIDELITY CLEARING CANADA ULC	964,413.18	4,634.08	0.00
FINANCIAL BROKERAGE GROUP (FBG)	1,221,398.78	2,562.24	0.00
FIRST NATIONAL BANK OF BOTSWANA	51,998.92	128.95	0.00
FLOW CORRETORA DE MERCADORIAS LTDA.	814,162.55	2,330.59	0.00
GOLDMAN SACHS (ASIA) L.L.C.	412,183.83	225.24	0.00
GOLDMAN SACHS (ASIA) LLC	43,584.38	254.27	0.01
GOLDMAN SACHS (INDIA)	892,506.48	3,077.83	0.00
GOLDMAN SACHS + CO INTL.	42,782.00	158.80	0.00
GOLDMAN SACHS + CO LLC	12,136,377.24	64,216.91	0.01
GOLDMAN SACHS AUSTRALIA PTY LTD	204,874.43	88.30	0.00
GOLDMAN SACHS DO BRASIL CORRETORA	73,402.50	166.25	0.00
GOLDMAN SACHS INTERNATIONAL	33,715,472.93	5,877.40	0.00
GOLDMAN SACHS(ASIA)L.L.C.	2,412,265.12	580.29	0.00
GOODBODY STOCKBROKERS	22.13	0.02	0.00
GREEN STREET TRADING, LLC	64,911.00	2,553.41	0.04
GUGGENHEIM CAPITAL MARKETS LLC	3,880.00	121.23	0.03

**Schedule of Broker's Commissions
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Schedule 4B

Broker Name	Number of Shares Traded	Commission Paid	Average Cost Per Share
GUZMAN + CO	3,910.39	\$ 3.65	\$ 0.00
GUZMAN AND COMPANY	130,809.00	811.87	0.01
HAITONG INTL SECS COMPANY LTD	2,239,165.63	3,944.28	0.00
HANWHA SECURITIES SEOUL	666,582.00	8,261.50	0.01
HILLTOP SECURITIES INC	2,552.00	121.48	0.05
HONGKONG AND SHANGHAI BANKING CORP LTD	169.25	0.03	0.00
HONGKONG AND SHANGHAI BANKING CORPORA'	3,603,472.73	10,437.81	0.00
HSBC BANK PLC	6,823,315.16	14,865.49	0.00
HSBC BANK USA	221.60	1.38	0.01
HSBC SECURITIES	29,116.42	62.71	0.00
HSBC SECURITIES (USA) INC.	11,500,905.44	6,442.16	0.00
HSBC SECURITIES (USA), INC.	17,965.69	89.84	0.01
HSBC SECURITIES INDIA HOLDINGS	50,399.23	72.20	0.00
IC SECURITIES (GH) LIMITED	17,920.12	103.49	0.01
ICICI BROKERAGE SERVICES	1,442,739.90	5,973.86	0.00
IM TRUST S.A. CORREDORES DE BOLSA	2,432,671.14	1,074.63	0.00
INDIA INFOLINE LTD	49,743.02	950.78	0.02
INDUSTRIAL&COMMERCIAL BNK OF CHNA FS LLC	4,976.00	99.52	0.02
INSTINET	673,106.88	8,486.89	0.01
INSTINET AUSTRALIA CLEARING SRVC PTY LTD	1,272,569.79	1,460.03	0.00
INSTINET CANADA LIMITED	2,190.00	43.01	0.02
INSTINET LLC	2,128,720.78	3,968.22	0.00
INSTINET PACIFIC LIMITED	27,356,761.41	31,892.57	0.00
INSTINET SINGAPORE SERVICES PT	629,121.08	804.46	0.00
INSTINET U.K. LTD	7,279,736.43	30,462.45	0.00
INTERCAPITAL SECURITIES LTD.	2,970.65	235.20	0.08
INTERNAL SWAP	-	-	-
INVESTEC BANK PLC	21.11	0.04	0.00
INVESTEC MARKETS(PROPRIETARY)LIMITED	459,115.57	951.01	0.00
INVESTEC SECURITIES LTD	26,329.00	64.86	0.00
INVESTMENT TECHNOLOGY GROUP INC.	1,692,897.63	20,828.57	0.01
INVESTMENT TECHNOLOGY GROUP LTD	1,350,034.32	7,851.47	0.01
IS YATIRIM MENKUL DEGERLER AS	14,937.00	337.46	0.02
ITG AUSTRALIA LTD.	4,408,040.09	1,892.74	0.00
ITG CANADA	19,089.65	64.47	0.00
ITG INC	39,944.85	114.22	0.00
ITG INC.	23,181.00	313.16	0.01
IVY SECURITIES, INC.	474,350.56	15,764.09	0.03
J P MORGAN INDIA PRIVATE LTD	77,759.96	448.56	0.01
J P MORGAN SECURITIES INC	2,134,667.09	3,172.71	0.00
J.P MORGAN SECURITIES	52,544.37	25.23	0.00
J.P. MORGAN CLEARING CORP.	5,653,721.65	31,318.24	0.01
J.P. MORGAN SECURITIES (TAIWAN) LTD	1,942,686.34	1,203.23	0.00
J.P. MORGAN SECURITIES LIMITED	18,513.75	719.28	0.04

**Schedule of Broker's Commissions
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Schedule 4B

Broker Name	Number of Shares Traded	Commission Paid	Average Cost Per Share
J.P. MORGAN SECURITIES LLC	427,975.46	\$ 8,592.93	\$ 0.02
J.P. MORGAN SECURITIES PLC	5,731,267.23	30,305.25	0.01
J.P.MORGAN SECURITIES(FAR EAST)LTD SEOUL	101,671.56	1,199.94	0.01
JANNEY MONTGOMERY, SCOTT INC	8,549.00	170.98	0.02
JEFFERIES + COMPANY INC	1,581,925.16	20,712.42	0.01
JEFFERIES HONG KONG LIMITED	25,967.00	120.02	0.00
JEFFERIES INDIA PRIVATE LIMITED	396,011.75	1,233.13	0.00
JEFFERIES INTERNATIONAL LTD	11,039,082.85	8,572.61	0.00
JM FINANCIAL INSTITUTIONAL SECURITIES PR	598,198.75	5,624.17	0.01
JMP SECURITIES	40,327.00	1,202.90	0.03
JOH. BERENBERG, GOSSLER & CO. KG	466,441.38	3,898.88	0.01
JONESTRADING INSTITUTIONAL SERVICES LLC	477,088.63	9,219.78	0.02
JONESTRADING INSTITUTIONAL SERVICES, LLC	67,884.00	351.13	0.01
JP MORGAN SECURITIES AUSTRALIA LTD	705,433.74	621.70	0.00
JP MORGAN SECURITIES SINGAPORE	280.74	0.04	0.00
JPMORGAN SECURITIES(ASIA PACIFIC)LTD	15,715,647.06	8,803.05	0.00
JUPITER SECURITIES SDN BHD	896,427.30	491.03	0.00
KBC SECURITIES ROMANIA SSIF SA	725,595.76	1,044.58	0.00
KEEFE BRUYETTE + WOODS INC	163,921.00	3,111.99	0.02
KEMPEN + CO N.V.	13.79	0.08	0.01
KEPLER EQUITIES PARIS	2,933.47	389.51	0.13
KESTREL CAPITAL EAST AFRICA LTD	406,078.91	1,031.00	0.00
KEYBANC CAPITAL MARKETS INC	262,168.00	5,395.79	0.02
KGI SECURITIES CO. LTD	184,000.00	456.88	0.00
KIM ENG SECURITIES (HK) LTD.	72,494.82	0.05	0.00
KOREA INVESTMENT AND SECURITIES CO., LTD	8.28	0.03	0.00
KOTAK SECURITIES LTD	194,019.23	2,638.12	0.01
LARRAIN VIAL	349,024.69	155.68	0.00
LEERINK PARTNERS LLC	7,470.00	203.14	0.03
LIBERUM CAPITAL LIMITED	1.37	-	-
LIQUIDNET CANADA INC	10,750.20	51.07	0.00
LIQUIDNET EUROPE LIMITED	246,647.52	1,472.48	0.01
LIQUIDNET INC	783,461.44	13,899.50	0.02
LOOP CAPITAL MARKETS	4,378,364.48	98,675.63	0.02
LOOP CAPITAL MARKETS LLC	239,882.10	1,115.43	0.00
LUMINEX TRADING AND ANALYTICS	627.00	3.13	0.00
LUMINEX TRADING AND ANALYTICS LLC	177,529.00	1,777.71	0.01
MACQUARIE BANK LIMITED	15,858,006.71	19,850.43	0.00
MACQUARIE CAPITAL (EUROPE) LTD	9,988.75	8.80	0.00
MACQUARIE CAPITAL (USA) INC	13,837.36	275.33	0.02
MACQUARIE SEC NZ LTD	54,533.15	39.01	0.00
MACQUARIE SECURITIES (INDIA) PVT LTD	104,606.40	243.68	0.00
MACQUARIE SECURITIES (USA) INC	13,926.00	331.45	0.02
MACQUARIE SECURITIES KOREA LIMITED	50,195.38	497.64	0.01

**Schedule of Broker's Commissions
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Schedule 4B

Broker Name	Number of Shares Traded	Commission Paid	Average Cost Per Share
MAINFIRST BANK DE	0.05	\$ -	\$ -
MANDARIN SECURITIES CORP	853.18	14.30	0.02
MEDIOBANCA SPA	5,210.00	23.49	0.00
MERRILL LYNCH	57,474.00	2,873.70	0.05
MERRILL LYNCH CANADA INC	8,236.00	247.08	0.03
MERRILL LYNCH EQUITIES (AUSTRALIA)	304,000.00	430.75	0.00
MERRILL LYNCH INTERNATIONAL	12,815,343.09	45,636.43	0.00
MERRILL LYNCH PIERCE FENNER AND S	46,486.01	352.79	0.01
MERRILL LYNCH, PIERCE FENNER AND SMITH	4,822,000.00	4,798.11	0.00
MIRABAUD SECURITIES LLP	1,608.00	422.19	0.26
MIRAE ASSET DAEWOO CO., LTD.	18,634.83	638.00	0.03
MIRAE ASSET SEC USA	14,273.00	518.56	0.04
MISCHLER FINANCIAL GROUP, INC-EQUITIES	9,464.00	273.04	0.03
MIZUHO INTERNATIONAL PLC	9,098.74	581.36	0.06
MIZUHO SECURITIES USA INC	46,246.93	2,370.44	0.05
MIZUHO SECURITIES USA INC.	7,190.00	182.68	0.03
MKM PARTNERS LLC	96,339.00	3,841.28	0.04
MORGAN STANLEY AND CO INTERNATIONAL	70,586.89	2,320.71	0.03
MORGAN STANLEY AND CO. INTERNATIONAL	7,184,290.99	7,800.92	0.00
MORGAN STANLEY CO INCORPORATED	15,629,606.66	61,543.52	0.00
MORGAN STANLEY DEAN WITTER AUSTRALIA	85,545.88	72.10	0.00
MORGAN STANLEY INDIA COMPANY PVT LTD	272,616.49	1,977.76	0.01
MORGAN STANLEY TAIWAN LIMITED	3,706,735.56	2,359.44	0.00
MOTILAL OSWAL SECURITIES LIMITED	7,250.00	566.86	0.08
NATIONAL FINANCIAL SERVICES CORPORATION	202,132.34	2,851.91	0.01
NEEDHAM AND COMPANY LLC	73,353.00	2,729.54	0.04
NESBITT BURNS	31,048.00	931.44	0.03
NH INVESTMENT AND SECURITIES CO.,LTD.	0.34	-	-
NIGERIAN STOCK EXCHANGE,THE	605,631.56	280.83	0.00
NOMURA FINANCIAL ADVISORY + SEC INDIA	1,657,121.27	4,751.57	0.00
NORDEA BANK AB (PUBL), FINNISH BRANCH	2,541.60	110.02	0.04
NORTH SOUTH CAPITAL LLC	57,824.00	907.73	0.02
NORTHCOAST RESEARCH PARTNERS LLC	4,900.00	171.50	0.04
NORTHLAND SECURITIES INC.	8,125.00	296.33	0.04
NUMIS SECURITIES LIMITED	0.51	-	-
ODDO ET CIE	11.71	0.10	0.01
OLIVETREE USA LLC	1,095.00	27.85	0.03
OPPENHEIMER + CO. INC.	14,559.00	413.64	0.03
PAREL	44,568.47	701.22	0.02
PAVILION GLOBAL MARKETS LTD	195,864.57	2,829.67	0.01
PEEL HUNT LLP	68.77	0.02	0.00
PENSERRA	1,685.00	4.74	0.00
PENSERRA SECURITIES	914,763.00	17,027.61	0.02
PENSERRA SECURITIES LLC	224,675.70	404.60	0.00

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Schedule 4B

Broker Name	Number of Shares Traded	Commission Paid	Average Cost Per Share
PERSHING LLC	6,553,635.43	\$ 34,637.38	0.01
PERSHING SECURITIES LIMITED	275,148.30	3,833.15	0.01
PICKERING ENERGY PARTNERS, INC	7,986.00	159.72	0.02
PIPER JAFFRAY	14,820.00	53.56	0.00
PIPER JAFFRAY & CO.	3,840,711.00	45,492.55	0.01
PIPER JAFFRAY & HOPWOOD	130,862.92	1,020.90	0.01
PIPER JAFFRAY PIPR-MUNI	2,000.00	64.00	0.03
PIPER JAFFREY	1,100.00	52.35	0.05
PT OSK NUSADANA SECURITIES INDONESIA	1,964,000.00	51.91	0.00
R.B.C. DOMINION SECURITIES CORPORATION	22,607.00	678.21	0.03
RAIFFEISEN ZENTRALBANK OESTERREICH AG	7,576.06	150.73	0.02
RAYMOND JAMES AND ASSOCIATES INC	254,138.00	9,128.35	0.04
RAYMOND JAMES LTD	27,226.00	816.78	0.03
RBC CAPITAL MARKETS, LLC	381,619.05	6,626.68	0.02
RBC DOMINION SECURITIES INC.	136,455.73	1,915.14	0.01
REDBURN (EUROPE) LIMITED	305,644.81	7,765.78	0.03
REGION BROKER COMPANY LLC	203,140.00	643.36	0.00
RENAISSANCE CAPITAL (KENYA) LIMITED	264,426.52	980.54	0.00
RHB INVESTMENT BANK BERHAD	172,100.00	303.60	0.00
ROBERT W. BAIRD CO. INCORPORATED	469,211.00	12,952.46	0.03
ROSENBLATT SECURITIES	1,328.37	7.70	0.01
ROTH CAPITAL PARTNERS LLC	78.00	1.56	0.02
ROYAL BANK OF CANADA	-	-	-
ROYAL BANK OF CANADA EUROPE LTD	394,581.03	3,581.54	0.01
SAMSUNG SECURITIES CO LTD	202,000.38	16,461.22	0.08
SANFORD C BERNSTEIN CO LLC	3,873,646.49	25,257.12	0.01
SANFORD C. BERNSTEIN (INDIA) PRIVATE LIM	340,819.00	8,665.34	0.03
SANFORD C. BERNSTEIN AND CO. LLC	11,433,132.23	9,918.40	0.00
SANFORD C. BERNSTEIN LTD	7,723,921.21	20,145.34	0.00
SBICAP SECURITIES LIMITED	15,750.00	312.06	0.02
SCOTIA CAPITAL (USA) INC	5,529,000.48	53.28	0.00
SCOTIA CAPITAL INC	258,887.29	1,492.87	0.01
SEAPORT GROUP SECURITIES, LLC	36,845.00	727.52	0.02
SG AMERICAS SECURITIES LLC	1,380,157.48	1,107.07	0.00
SG ASIA SECURITIES (INOIA) PVT LTD	502,883.14	1,377.42	0.00
SG SECURITIES (LONDON) LTD.	2,910,476.43	904.14	0.00
SG SECURITIES HK	7,251,349.36	2,922.12	0.00
SHENYIN AND WANGUO SECURITIES CO. LTD	3,491.08	31.25	0.01
SHENYIN WANGUO SECURITIES (HK) LTD	394,447.39	1,069.66	0.00
SIDOTI + COMPANY LLC	14,786.00	485.52	0.03
SINOPAC SECURITIES CORPORATION	36,000.00	306.90	0.01
SKANDINAVISKA ENSKILDA BANKEN	1,300.24	39.68	0.03
SMBC NIKKO CAPITAL MARKETS LIMITED	19,434.45	938.21	0.05
SMBC NIKKO SECURITIES (HONK KONG) LTD	25.04	0.11	0.00

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Schedule 4B

Broker Name	Number of Shares Traded	Commission Paid	Average Cost Per Share
SMBC SECURITIES INC	100.00	\$ 2.08	\$ 0.02
SOCIETE GENERALE	764,370.36	1,036.16	0.00
SOCIETE GENERALE LONDON BRANCH	639,755.98	6,732.70	0.01
STATE STREET GLOBAL MARKETS, LLC	6,716.00	235.26	0.04
STEPHENS INC	30,038.00	1,086.56	0.04
STEPHENS, INC.	9,748.00	428.96	0.04
STIFEL NICOLAUS + CO INC	1,224,749.00	25,620.94	0.02
STRATEGAS SECURITIES LLC	16,409.00	619.03	0.04
STUART FRANKEL + CO INC	1,300.00	13.00	0.01
STURDIVANT AND CO., INC.	52,090.00	2,083.60	0.04
SUNTRUST CAPITAL MARKETS, INC.	33,914.00	892.27	0.03
TELSEY ADVISORY GROUP	6,432.00	209.46	0.03
THE FIG GROUP, LLC	28,400.00	159.11	0.01
THE HONGKONG AND SHANGHAI BANK	386.16	8.90	0.02
TOPLINE SECURITIES PVT LTD.	210,070.65	400.50	0.00
TORONTO DOMINION SECURITIES INC	43,905.99	247.50	0.01
TOURMALINE PARTNERS	2,591,950.00	34,619.33	0.01
TUNISIE VALEURS	38,689.31	366.31	0.01
UBS AG	23,019,855.01	31,996.89	0.00
UBS AG (FORMERLY SWISS BANK CO) ZURICH	90,699.42	372.50	0.00
UBS AG LONDON BRANCH	148,387.36	3,435.27	0.02
UBS SECURITIES ASIA LTD	7,721,043.28	7,064.12	0.00
UBS SECURITIES CANADA INC	490,996.44	3,438.96	0.01
UBS SECURITIES INDIA PRIVATE LTD	166,569.00	859.01	0.01
UBS SECURITIES LLC	1,034,078.25	6,791.14	0.01
UBS SECURITIES PTE.LTD	933,899.88	1,525.58	0.00
UBS SECURITIES PTE.LTD., SEOUL	48,234.16	842.89	0.02
UBS WARBURG AUSTRALIA EQUITIES	142,537.52	97.13	0.00
UNITED FINANCIAL INVESTMENTS PLC	34,904.88	373.52	0.01
VIRTU AMERICAS LLC	238,210.82	4,591.42	0.02
WALL STREET ACCESS	123,456.00	939.56	0.01
WEDBUSH MORGAN SECURITIES INC	1,407.00	28.14	0.02
WEEDEN + CO.	108,297.96	1,258.47	0.01
WELLS FARGO SECURITIES LLC	49,651.68	349.78	0.01
WELLS FARGO SECURITIES, LLC	132,746.00	4,949.11	0.04
WILLIAM BLAIR & COMPANY L.L.C	115,870.00	5,466.20	0.05
WILLIAMS CAPITAL GROUP LP (THE)	541,363.29	14,973.50	0.03
WINTERFLOOD SECURITIES LTD	16.16	0.02	0.00
WOLFE TRAHAN SECURITIES	5,109.00	204.36	0.04
WOOD AND COMPANY	69,238.39	176.20	0.00
XP INVESTIMENTOS CCTVM SA	1,759,900.00	2,240.85	0.00
GRAND TOTAL	485,182,468.38	\$ 1,535,628.83	\$ 0.00

Investment Summary

Fire Combined Funds

Year Ended June 30, 2020

(Dollar amount in thousands)

	<u>Market Value</u>	<u>Percent of Total Market Value</u>
Type of Investment:		
Short Term Investments:		
Commercial paper	\$ 115,094	0.67%
Short Term Investments	156,630	0.92%
U.S. Treasury Bills	473,739	2.77%
Total Short-Term	745,463	4.36%
Debt securities:		
U.S. Govt Securities and Agency	1,383,806	8.10%
Mortgage debt security	696,105	4.07%
Corporate and Other	1,341,212	7.85%
Treasury Inflation -protected securities	667,049	3.90%
Bank Loans	61,355	0.36%
Total debt securities	4,149,527	24.28%
Equities Securities:	5,169,396	30.24%
International equity	1,186,338	6.94%
Alternative investments:		
Infrastructure	152,853	0.89%
Opportunistic fixed income	448,031	2.62%
Private equity	919,869	5.38%
Private real estate	699,376	4.09%
Hedge Funds	954,573	5.58%
Total Alternative investments	3,174,702	18.57%
Collective trust funds:		
Bank Loans	101,784	0.60%
Corporate and other	96,927	0.57%
International equity	1,095,777	6.41%
Domestic equity	112,185	0.66%
Mortgage debt security	143,222	0.84%
Opportunistic Fixed income	50,189	0.29%
U.S. Government and agency	125,076	0.73%
Total collective trust funds:	1,725,160	10.09%
Collateral from Securities Lending	941,705	5.51%
Total Market Value	\$ 17,092,291	100%

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New York City Fire Pension Funds
Comprehensive Annual Financial Report
A Pension Trust Fund of The City of New York



Actuarial Section

Part IV

Fiscal Year Ended June 30, 2020

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OFFICE OF THE ACTUARY

255 GREENWICH STREET • 9TH FLOOR
NEW YORK, NY 10007
(212) 442-5775 • FAX: (212) 442-5777

SHERRY S. CHAN
CHIEF ACTUARY

December 4, 2020

Board of Trustees
New York City Fire Pension Fund
1 Battery Park Plaza 9th Floor
New York, NY 10004

Re: Actuarial Information for the Comprehensive Annual Financial Report (CAFR) for the Fiscal Year Ended June 30, 2020

Dear Members of the Board of Trustees:

The financial objective of the New York City Fire Pension Fund (FIRE or the Plan) is to fund members' retirement benefits during their active service by establishing employer normal contribution rates that, expressed as a percentage of active member annualized covered payroll, would remain approximately level over the future working lifetimes of those active members and, together with member contributions and investment income, are intended to ultimately be sufficient to accumulate assets to pay benefits when due.

An actuarial valuation of the Plan is performed annually as of the second June 30 preceding each fiscal year to determine the Employer Contributions to be paid for that fiscal year (i.e. the June 30, 2018 (Lag) actuarial valuation is used to determine the Fiscal Year 2020 Employer Contributions (Actuarial Contributions)).

The funding policy of the City of New York (the City) is to contribute statutorily-required contributions (Statutory Contributions) and these contributions are generally funded by the City within the appropriate fiscal year.

For Fiscal Year 2020, the Actuarial Contributions to FIRE, are equal to those recommended by the Actuary of the New York City Retirement Systems and Pension Funds (the Actuary) and represent the Statutory Contributions.

Pursuant to the Governmental Accounting Standards Board (GASB) Statement No. 67 (GASB67) and Statement No. 68 (GASB68), on September 25, 2020, the Actuary published the "GASB67/68 Report for the City of New York and the New York City Retirement Systems for Fiscal Year Ended June 30, 2020" (the Fiscal Year 2020 GASB67/68 Report). Appendix E of the Fiscal Year 2020 GASB67/68 Report contains information developed in accordance with the GASB67 for FIRE.

Actuarial Assumptions and Methods

The assumptions and methods used for the June 30, 2018 valuation were presented in the report titled “Proposed Changes in Actuarial Assumptions and Methods Used in Determining Employer Contributions for Fiscal Years Beginning on and After July 1, 2018 for the New York City Fire Pension Fund,” dated January 23, 2019 which was adopted by the Board of Trustees at the February 27, 2019 Board meeting. There have been no changes since the prior year. These actuarial assumptions and methods meet the parameters set forth by the Actuarial Standards of Practice (ASOPs).

Benefits, Financial Information, and Census Data

The June 30, 2018 (Lag) and June 30, 2017 (Lag) actuarial valuations are based upon the census data as of those dates submitted by the Plan’s administrative staff and the employer’s payroll facilities. A summary of the census data used in the June 30, 2018 (Lag) actuarial valuation is included in this CAFR. A summary of the census data used in the June 30, 2017 (Lag) actuarial valuation of the Plan is available in the Fiscal Year 2019 CAFR.

Consistent with the Actuarial Standards of Practice, the Office of the Actuary has reviewed the census data and financial information for consistency and reasonability but has not audited it. The accuracy of the results and calculations presented are dependent on the accuracy of this census data and financial information. To the extent any such data or information provided is materially inaccurate or incomplete, the results contained herein will require revision.

A summary of the benefits available under the terms of the Plan is shown in the Introductory Section of this CAFR. The benefits under the Plan are unchanged from the prior valuation.

Funded Status

The funded status of the Plan is usually expressed by the relationship of assets to liabilities.

With respect to the funded status of the Plan, included in the Actuarial Section of the CAFR is a schedule of funded status based on the Entry Age Normal cost method (Table 13).

Also included in the Actuarial Section of the CAFR is a Solvency Test (i.e. Comparative Summary of Accrued Liabilities Funded by Actuarial Value of Assets) (Table 14), as prescribed by the Government Finance Officers Association (GFOA). This Solvency Test represents an alternative approach to describing progress toward funding objectives.

Presentation Style and Sources of Information

The actuarial information herein is believed to be presented in a manner consistent with the requirements of the GFOA and, where applicable, with GASB67.

The following items in the Actuarial Section of the CAFR were prepared by the OA:

- Summary of Actuarial Assumptions and Methods in Effect for the June 30, 2018 (Lag) Actuarial Valuation.
- Summary of Active Member Valuation Data.
- Summary of Plan Membership Data.
- Schedule of Retirees and Beneficiaries Added to and Removed from Rolls.
- Actuarial and Statutory Contribution History.
- Funded Status Based on Entry Age Normal Cost Method.
- Comparative Summary of Accrued Liabilities Funded by Actuarial Value of Assets – Solvency Test.
- Contributions.

The following items in the Financial Section of the CAFR were also prepared by the OA:

- Membership Data.
- Net Pension Liability.
- Actuarial Assumptions and Methods.
- Schedule of Changes in Employers' Net Pension Liability and Related Ratios.
- Schedule of Employer Contributions.

If you have any questions about the information in this Actuarial Section or the actuarial information presented elsewhere in this CAFR, please do not hesitate to contact Mr. Michael J. Samet, Mr. Edward Hue, or me.

Acknowledgement of Qualification

I, Sherry S. Chan, am the Chief Actuary for, and independent of, the New York City Retirement Systems and Pension Funds. I am a Fellow of the Society of Actuaries, an Enrolled Actuary under the Employee Retirement Income and Security Act of 1974, a Member of the American Academy of Actuaries, and a Fellow of the Conference of Consulting Actuaries. I meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein. To the best of my knowledge, the results contained herein have been prepared in accordance with generally accepted actuarial principles and procedures and with the Actuarial Standards of Practice issued by the Actuarial Standards Board.

Respectfully submitted,



Sherry S. Chan, FSA, EA, MAAA, FCA
Chief Actuary

SSC/eh

Att.

cc: Mr. Craig Chu – New York City Office of the Actuary
Mr. Albert Connolly – New York City Fire Pension Fund
Ms. Maureen Dale – New York City Fire Pension Fund
Mr. Patrick Dunn – New York City Fire Pension Fund
Mr. Edward Hue – New York City Office of the Actuary
Mr. Anderson Huynh – New York City Office of the Actuary
Mr. Michael Samet – New York City Office of the Actuary
Keith Snow, Esq. – New York City Office of the Actuary
Ms. Lei Tian – New York City Fire Pension Fund

NEW YORK CITY FIRE PENSION FUND

SUMMARY OF ACTUARIAL ASSUMPTIONS AND METHODS IN EFFECT FOR THE JUNE 30, 2018 (LAG) ACTUARIAL VALUATION

1. 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.

Also, in accordance with the Administrative Code of the City of New York (ACCNy), 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.

Based on the most recent actuarial experience study and recommendations prepared by Bolton, Inc. in their 10-year experience study ending on June 30, 2017, the Actuary issued a Report entitled, "Proposed Changes in Actuarial Assumptions and Methods Used in Determining Employer Contributions for Fiscal Years Beginning on and After July 1, 2018 for the New York City Fire Pension Fund," dated January 23, 2019. The actuarial assumptions and methods described in that report were adopted by the Board of Trustees at the February 27, 2019 Board meeting and are referred to as the "2019 A&M." These actuarial assumptions and methods are effective beginning with Fiscal Year 2019.

2. The Actuarial Interest Rate (AIR) assumption is 7.0% per annum, net of investment expenses.
3. Active service tables are used to estimate various withdrawals from active service. Probabilities are shown in Tables 1 and 2 for members withdrawing from active service for service retirement, Table 3 for members terminating from active service, and Tables 4 and 5 for members withdrawing from active service due to disability or death, respectively.
4. The service retiree mortality, disabled retiree mortality, and beneficiary mortality base tables are projected from 2012 using mortality improvement scale MP-2018. The base tables are also multiplied by adjustment factors to convert from lives-weighted to amounts-weighted tables to reflect socioeconomic effects on mortality. Base table probabilities for service and disability pensioners are shown in Tables 6a and 6b, respectively, and for beneficiaries in Table 6c.
5. A salary scale is used to estimate salaries at termination, retirement, or death. Percentage increases are shown in Table 7. The salary scale includes a General Wage Increase (GWI) assumption of 3.0% per annum.

NEW YORK CITY FIRE PENSION FUND

SUMMARY OF ACTUARIAL ASSUMPTIONS AND METHODS IN EFFECT FOR THE JUNE 30, 2018 (LAG) ACTUARIAL VALUATION (Cont'd)

6. The salary data was adjusted to reflect overtime earnings. A Baseline Overtime assumption is applied to most years and a separate overtime assumption, known as a Dual Overtime assumption, is applied to the years included in the calculation of Final Salary or Final Average Salary. Baseline Overtime and Dual Overtime percentages are shown in Table 8.
7. The economic assumptions (i.e. the assumed investment return rate, GWI rate, and Cost-of-Living Adjustments (COLA)) were developed assuming a long-term Consumer Price Inflation (CPI) assumption of 2.5% per annum. The assumption is 1.5% per annum for Auto COLA and 2.5% per annum for escalation.
8. The valuation assumes a closed group of members.
9. Beginning with the June 30, 2012 (Lag) actuarial valuation, the Actuarial Asset Valuation Method (AAVM) recognizes investment returns greater or less than expected over a period of six years.

In accordance with this AAVM, the Unexpected Investment Returns (UIR) are phased into the Actuarial Value of Assets (AVA) at rates of 15%, 15%, 15%, 15%, 20%, and 20% per year (i.e. cumulative rates of 15%, 30%, 45%, 60%, 80%, and 100% over a period of six years).

The AVA is further constrained to be within a corridor of 80% to 120% of the Market Value of Assets.

10. The Entry Age Normal (EAN) cost method of funding is used by the Actuary to calculate the Employer Contribution.

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

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

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

NEW YORK CITY FIRE PENSION FUND

SUMMARY OF ACTUARIAL ASSUMPTIONS AND METHODS IN EFFECT FOR THE JUNE 30, 2018 (LAG) ACTUARIAL VALUATION (Cont'd)

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

The explicit UALs that are developed each year under EAN are generally financed over fixed periods. Ideally, these periods are reasonably consistent with the expected future working lifetimes of all active participants.

Under EAN, the Normal Cost as a percentage of pay remains constant by individual and changes gradually over time for the entire plan as the characteristics of the group changes (e.g. more Tier 3 Enhanced active members decrease the average Normal Cost as a percentage of pay).

11. The Employer Contribution for a fiscal year is increased by the interest-adjusted amount of administrative expenses paid from FIRE during the second prior fiscal year.
12. Obligations attributable to the WTC Disability Benefits Law and to the WTC Death Benefits Law are determined through the use of explicit assumptions in the 2019 A&M, and through estimation techniques for post-retirement reclassifications.
13. One-Year Lag methodology uses a June 30, XX-2 valuation date to determine Fiscal Year XX employer contributions.

This methodology requires adjustments to certain components used to determine Fiscal Year XX employer contributions as follows:

- a. Normal Cost

The normal cost as of June 30, XX-2 is rolled forward with the assumed AIR of 7.0% to derive the normal cost as of December 31, XX-1.

- b. UAL Payments

For determining the UAL payments for Fiscal Year XX, and to be consistent with the OYLM, the UAL as of June 30, XX-2 is adjusted by the discounted value of the employer normal cost and UAL payments paid during Fiscal Year XX-1 and the discounted value of Administrative Expenses reimbursed during Fiscal Years XX-1 and XX.

NEW YORKCITY FIRE PENSION FUND

SUMMARY OF ACTUARIAL ASSUMPTIONS AND METHODS IN EFFECT FOR THE JUNE 30, 2018 (LAG) ACTUARIAL VALUATION (Cont'd)

14. The obligations of FIRE to the FFVSF and the FOVSF are recognized through a methodology where the PV of future VSF transfers from FIRE to the FFVSF and FOVSF is included directly as an actuarial liability of FIRE. This amount is computed as the excess, if any, of the PV of benefits of the FFVSF and FOVSF over the AVA of the FFVSF and FOVSF, respectively. Under EAN, a portion of the PV of future VSF transfers is reflected in the PV of future normal costs and a portion is reflected in the UAL.

NEW YORK CITY FIRE PENSION FUND

SUMMARY OF ACTUARIAL ASSUMPTIONS AND METHODS IN EFFECT FOR THE JUNE 30, 2018 (LAG) ACTUARIAL VALUATION (Cont'd)

Table 1		
PROBABILITIES OF SERVICE RETIREMENT RETIREMENT WITH FULL COLA/ESCALATION FOR THOSE ELIGIBLE FOR UNREDUCED		
Age	Years of Service Since First Eligible	
	Year 1	Ultimate
19	0.00%	0.00%
20	0.00%	0.00%
21	0.00%	0.00%
22	0.00%	0.00%
23	0.00%	0.00%
24	0.00%	0.00%
25	0.00%	0.00%
26	0.00%	0.00%
27	0.00%	0.00%
28	0.00%	0.00%
29	0.00%	0.00%
30	0.00%	0.00%
31	0.00%	0.00%
32	0.00%	0.00%
33	0.00%	0.00%
34	0.00%	0.00%
35	0.00%	0.00%
36	5.00%	0.00%
37	5.00%	0.00%
38	5.00%	1.50%
39	5.00%	1.50%
40	5.00%	1.50%
41	5.00%	1.50%
42	5.00%	1.50%
43	5.00%	1.50%
44	5.00%	1.50%
45	5.00%	1.50%
46	5.50%	1.50%
47	6.00%	1.50%
48	6.50%	1.50%
49	7.00%	1.50%
50	7.50%	1.50%
51	8.00%	1.50%
52	8.50%	2.25%
53	9.00%	3.00%
54	9.50%	3.75%
55	10.00%	4.50%
56	10.00%	5.25%
57	10.00%	6.00%
58	10.00%	6.75%
59	10.00%	7.50%
60	10.00%	9.00%
61	15.00%	11.25%
62	20.00% ¹	15.00% ¹
63	25.00% ¹	25.00% ¹
64	25.00% ¹	25.00% ¹
65	100.00%	100.00%

¹100% for Tier 3, Tier 3 Modified, and Tier 3 Enhanced members.

NEW YORK CITY FIRE PENSION FUND

SUMMARY OF ACTUARIAL ASSUMPTIONS AND METHODS IN EFFECT FOR THE JUNE 30, 2018 (LAG) ACTUARIAL VALUATION (Cont'd)

Table 2 PROBABILITIES OF EARLY SERVICE RETIREMENT FOR TIER 3, TIER 3 MODIFIED, AND TIER 3 ENHANCED MEMBERS		
Years of Service	Reduced Service Retirement	Unreduced Before Full Escalation
20	5.00%	N/A
21	2.00%	N/A
22	N/A	5.00%
23	N/A	2.00%
24	N/A	2.00%

NEW YORK CITY FIRE PENSION FUND

SUMMARY OF ACTUARIAL ASSUMPTIONS AND METHODS IN EFFECT FOR THE JUNE 30, 2018 (LAG) ACTUARIAL VALUATION (Cont'd)

Table 3	
PROBABILITIES OF TERMINATION	
Years Of Service	Probability of Termination
0	2.00%
1	0.80%
2	0.40%
3	0.40%
4	0.40%
5	0.40%
6	0.36%
7	0.32%
8	0.28%
9	0.24%
10	0.20%
11	0.18%
12	0.16%
13	0.14%
14	0.12%
15	0.10%
16	0.10%
17	0.10%
18	0.10%
19	0.10%
20	N/A

NEW YORK CITY FIRE PENSION FUND

SUMMARY OF ACTUARIAL ASSUMPTIONS AND METHODS IN EFFECT FOR THE JUNE 30, 2018 (LAG) ACTUARIAL VALUATION (Cont'd)

Table 4 PROBABILITIES OF DISABILITY RETIREMENT				
		Accidental Disability		
Age	Ordinary Disability	Tier 1 & Tier 2 Eligible for WTC Benefits	Tier 1 & Tier 2 Not Eligible for WTC AND Tier 3 Enhanced Plan	Tier 3 & Tier 3 Modified Non- Enhanced Plan
15	0.0025%	0.050%	0.035%	0.030%
16	0.0025%	0.050%	0.035%	0.030%
17	0.0025%	0.050%	0.035%	0.030%
18	0.0025%	0.050%	0.035%	0.030%
19	0.0025%	0.050%	0.035%	0.030%
20	0.0025%	0.050%	0.035%	0.030%
21	0.0025%	0.050%	0.035%	0.030%
22	0.0025%	0.050%	0.035%	0.030%
23	0.0025%	0.050%	0.035%	0.030%
24	0.0025%	0.050%	0.035%	0.030%
25	0.0025%	0.050%	0.035%	0.030%
26	0.0025%	0.090%	0.045%	0.040%
27	0.0050%	0.130%	0.055%	0.050%
28	0.0075%	0.170%	0.075%	0.070%
29	0.0100%	0.210%	0.115%	0.100%
30	0.0125%	0.250%	0.175%	0.150%
31	0.0150%	0.400%	0.275%	0.240%
32	0.0175%	0.550%	0.375%	0.330%
33	0.0200%	0.700%	0.475%	0.420%
34	0.0225%	0.850%	0.575%	0.510%
35	0.0250%	1.000%	0.700%	0.600%
36	0.0275%	1.200%	0.850%	0.720%
37	0.0300%	1.400%	1.000%	0.840%
38	0.0325%	1.600%	1.150%	0.960%
39	0.0350%	1.800%	1.300%	1.080%
40	0.0375%	2.000%	1.500%	1.200%
41	0.0400%	2.200%	1.650%	1.320%
42	0.0425%	2.400%	1.800%	1.440%
43	0.0450%	2.600%	1.950%	1.560%
44	0.0475%	2.800%	2.100%	1.680%
45	0.0500%	3.000%	2.300%	1.800%
46	0.0550%	3.400%	2.650%	1.920%
47	0.0600%	3.800%	3.000%	2.040%
48	0.0650%	4.200%	3.350%	2.160%
49	0.0700%	4.600%	3.700%	2.280%
50	0.0750%	5.000%	4.050%	2.400%
51	0.1100%	5.600%	4.400%	2.520%
52	0.1450%	6.200%	4.750%	2.640%
53	0.1800%	6.800%	5.100%	2.760%
54	0.2150%	7.400%	5.450%	2.880%
55	0.2500%	8.000%	5.800%	3.000%
56	0.5000%	10.000%	8.000%	4.000%
57	0.7500%	12.000%	10.000%	5.000%
58	1.0000%	15.000%	12.500%	6.000%
59	1.2500%	18.000%	15.000%	7.000%
60	1.5000%	21.000%	17.500%	8.000%
61	2.0000%	25.000%	20.000%	9.000%
62	2.5000% ¹	30.000%	22.000% ¹	N/A
63	2.5000% ¹	30.000%	22.000% ¹	N/A
64	2.5000% ¹	30.000%	22.000% ¹	N/A
65	N/A	N/A	N/A	N/A

¹N/A for Tier 3, Tier 3 Modified, and Tier 3 Enhanced members.

NEW YORK CITY FIRE PENSION FUND

SUMMARY OF ACTUARIAL ASSUMPTIONS AND METHODS IN EFFECT FOR THE JUNE 30, 2018 (LAG) ACTUARIAL VALUATION (Cont'd)

Table 5			
PROBABILITIES OF ACTIVE MEMBER MORTALITY			
Age	Ordinary Death		Accidental Death
	Males	Females	All
15	0.020%	0.015%	0.010%
16	0.020%	0.015%	0.010%
17	0.020%	0.015%	0.010%
18	0.020%	0.015%	0.010%
19	0.020%	0.015%	0.010%
20	0.020%	0.015%	0.010%
21	0.020%	0.015%	0.010%
22	0.020%	0.015%	0.010%
23	0.020%	0.015%	0.010%
24	0.020%	0.015%	0.010%
25	0.020%	0.015%	0.010%
26	0.020%	0.015%	0.010%
27	0.020%	0.015%	0.010%
28	0.020%	0.015%	0.010%
29	0.020%	0.015%	0.010%
30	0.020%	0.015%	0.010%
31	0.020%	0.015%	0.010%
32	0.020%	0.015%	0.010%
33	0.020%	0.015%	0.010%
34	0.020%	0.015%	0.010%
35	0.020%	0.015%	0.010%
36	0.021%	0.016%	0.010%
37	0.022%	0.017%	0.010%
38	0.023%	0.018%	0.010%
39	0.024%	0.019%	0.010%
40	0.025%	0.020%	0.010%
41	0.030%	0.023%	0.013%
42	0.035%	0.026%	0.016%
43	0.040%	0.029%	0.019%
44	0.045%	0.032%	0.022%
45	0.050%	0.035%	0.025%
46	0.055%	0.038%	0.030%
47	0.060%	0.041%	0.035%
48	0.065%	0.044%	0.040%
49	0.070%	0.047%	0.045%
50	0.075%	0.050%	0.050%
51	0.080%	0.055%	0.060%
52	0.085%	0.060%	0.070%
53	0.090%	0.065%	0.080%
54	0.095%	0.070%	0.090%
55	0.100%	0.075%	0.100%
56	0.110%	0.080%	0.110%
57	0.120%	0.085%	0.120%
58	0.130%	0.090%	0.130%
59	0.140%	0.095%	0.140%
60	0.150%	0.100%	0.150%
61	0.160%	0.110%	0.200%
62	0.170% ¹	0.120% ¹	0.250% ¹
63	0.180% ¹	0.130% ¹	0.300% ¹
64	0.190% ¹	0.140% ¹	0.350% ¹
65	N/A	N/A	N/A

¹Probabilities are N/A for Tier 3, Tier 3 Modified, and Tier 3 Enhanced members.

NEW YORK CITY FIRE PENSION FUND

SUMMARY OF ACTUARIAL ASSUMPTIONS AND METHODS IN EFFECT FOR THE JUNE 30, 2018 (LAG) ACTUARIAL VALUATION (Cont'd)

Table 6a					
PROBABILITIES OF MORTALITY FOR SERVICE RETIREES					
BASE TABLE					
Age	Males	Females	Age	Males	Females
15	0.0100%	0.0084%	68	1.2063%	0.7604%
16	0.0135%	0.0103%	69	1.2653%	0.8243%
17	0.0181%	0.0112%	70	1.4084%	0.9061%
18	0.0217%	0.0131%	71	1.5806%	0.9954%
19	0.0240%	0.0140%	72	1.7538%	1.0940%
20	0.0251%	0.0142%	73	1.9842%	1.2060%
21	0.0268%	0.0150%	74	2.2163%	1.3283%
22	0.0284%	0.0158%	75	2.4510%	1.4362%
23	0.0301%	0.0168%	76	2.6879%	1.6455%
24	0.0315%	0.0179%	77	2.9280%	1.8563%
25	0.0327%	0.0191%	78	3.3690%	2.0670%
26	0.0342%	0.0204%	79	3.8155%	2.3446%
27	0.0354%	0.0217%	80	4.2660%	2.6218%
28	0.0371%	0.0231%	81	4.7728%	2.8997%
29	0.0394%	0.0247%	82	5.2958%	3.1772%
30	0.0427%	0.0265%	83	6.2483%	3.4554%
31	0.0503%	0.0323%	84	7.2266%	3.9664%
32	0.0581%	0.0372%	85	8.2335%	4.4805%
33	0.0655%	0.0415%	86	9.2715%	4.9967%
34	0.0725%	0.0448%	87	10.3365%	5.5147%
35	0.0799%	0.0478%	88	11.2397%	6.0388%
36	0.0851%	0.0505%	89	12.1663%	7.0317%
37	0.0901%	0.0532%	90	13.1242%	8.0312%
38	0.0961%	0.0561%	91	14.6163%	9.4265%
39	0.1037%	0.0595%	92	16.2757%	10.8698%
40	0.1138%	0.0634%	93	18.9667%	12.3822%
41	0.1230%	0.0688%	94	21.5036%	13.7895%
42	0.1327%	0.0725%	95	23.9289%	15.2575%
43	0.1430%	0.0775%	96	25.8261%	16.7330%
44	0.1542%	0.0843%	97	27.5777%	18.2626%
45	0.1666%	0.0931%	98	29.2887%	19.6947%
46	0.1798%	0.1041%	99	30.8020%	21.1460%
47	0.1941%	0.1166%	100	32.1584%	22.1859%
48	0.2093%	0.1295%	101	33.7521%	23.0680%
49	0.2250%	0.1425%	102	35.1259%	24.0803%
50	0.2412%	0.1555%	103	36.3671%	25.2770%
51	0.2975%	0.1681%	104	37.3834%	26.6309%
52	0.3514%	0.1797%	105	38.1051%	28.0912%
53	0.4018%	0.1902%	106	38.4698%	29.6244%
54	0.4483%	0.1996%	107	38.6325%	31.1943%
55	0.4895%	0.2075%	108	38.8076%	32.7579%
56	0.5352%	0.2144%	109	38.9794%	34.2712%
57	0.5757%	0.2629%	110	50.0000%	50.0000%
58	0.6104%	0.3090%	111	50.0000%	50.0000%
59	0.6391%	0.3530%	112	50.0000%	50.0000%
60	0.6625%	0.3957%	113	50.0000%	50.0000%
61	0.7126%	0.4377%	114	50.0000%	50.0000%
62	0.7621%	0.4800%	115	50.0000%	50.0000%
63	0.8255%	0.5231%	116	50.0000%	50.0000%
64	0.9079%	0.5675%	117	50.0000%	50.0000%
65	0.9997%	0.6138%	118	50.0000%	50.0000%
66	1.0607%	0.6613%	119	50.0000%	50.0000%
67	1.1308%	0.7103%	120	100.0000%	100.0000%

NEW YORK CITY FIRE PENSION FUND

SUMMARY OF ACTUARIAL ASSUMPTIONS AND METHODS IN EFFECT FOR THE JUNE 30, 2018 (LAG) ACTUARIAL VALUATION (Cont'd)

Table 6b					
PROBABILITIES OF MORTALITY FOR DISABLED RETIREES					
BASE TABLE					
Age	Males	Females	Age	Males	Females
15	0.0238%	0.0098%	68	1.5909%	1.2517%
16	0.0321%	0.0120%	69	1.7622%	1.4342%
17	0.0433%	0.0131%	70	1.9120%	1.6327%
18	0.0517%	0.0153%	71	2.1153%	1.8400%
19	0.0573%	0.0164%	72	2.3101%	2.0561%
20	0.0608%	0.0173%	73	2.4968%	2.2946%
21	0.0660%	0.0191%	74	2.6752%	2.5649%
22	0.0716%	0.0211%	75	2.8786%	2.8625%
23	0.0772%	0.0234%	76	3.2717%	3.1737%
24	0.0831%	0.0259%	77	3.6597%	3.4562%
25	0.0886%	0.0282%	78	4.0420%	3.7889%
26	0.0936%	0.0307%	79	4.4200%	4.3087%
27	0.1008%	0.0332%	80	4.8490%	4.8485%
28	0.1089%	0.0359%	81	5.6563%	5.4107%
29	0.1170%	0.0386%	82	6.4729%	5.8954%
30	0.1254%	0.0412%	83	7.2988%	6.3864%
31	0.1342%	0.0438%	84	8.1300%	7.2278%
32	0.1426%	0.0464%	85	8.9696%	8.0743%
33	0.1544%	0.0491%	86	9.7646%	8.8707%
34	0.1602%	0.0506%	87	10.5803%	9.6600%
35	0.1670%	0.0528%	88	11.4245%	10.5768%
36	0.1696%	0.0551%	89	12.3269%	11.9527%
37	0.1721%	0.0580%	90	13.2834%	13.2782%
38	0.1754%	0.0608%	91	15.7515%	14.7506%
39	0.1792%	0.0648%	92	18.1410%	15.8458%
40	0.1836%	0.0709%	93	20.4240%	16.9974%
41	0.1891%	0.0790%	94	22.5700%	18.2075%
42	0.1957%	0.0892%	95	24.6643%	19.3408%
43	0.2038%	0.1023%	96	26.5127%	20.3502%
44	0.2134%	0.1184%	97	28.2029%	21.2709%
45	0.2247%	0.1371%	98	29.5441%	21.9254%
46	0.2374%	0.1586%	99	30.9728%	22.3227%
47	0.2518%	0.1824%	100	32.1584%	22.4341%
48	0.2672%	0.2079%	101	33.7521%	23.0680%
49	0.2837%	0.2388%	102	35.1259%	24.0803%
50	0.3022%	0.2719%	103	36.3671%	25.2770%
51	0.3597%	0.2959%	104	37.3834%	26.6309%
52	0.4188%	0.3426%	105	38.1051%	28.0912%
53	0.4788%	0.3791%	106	38.4698%	29.6244%
54	0.5392%	0.4326%	107	38.6325%	31.1943%
55	0.5986%	0.4868%	108	38.8076%	32.7579%
56	0.6556%	0.5294%	109	38.9794%	34.2712%
57	0.7090%	0.5421%	110	50.0000%	50.0000%
58	0.7577%	0.5621%	111	50.0000%	50.0000%
59	0.8017%	0.6003%	112	50.0000%	50.0000%
60	0.8498%	0.6343%	113	50.0000%	50.0000%
61	0.9095%	0.6687%	114	50.0000%	50.0000%
62	0.9862%	0.7391%	115	50.0000%	50.0000%
63	1.0698%	0.8094%	116	50.0000%	50.0000%
64	1.1631%	0.8897%	117	50.0000%	50.0000%
65	1.2477%	0.9710%	118	50.0000%	50.0000%
66	1.3403%	1.0569%	119	50.0000%	50.0000%
67	1.4168%	1.1551%	120	100.0000%	100.0000%

NEW YORK CITY FIRE PENSION FUND

SUMMARY OF ACTUARIAL ASSUMPTIONS AND METHODS IN EFFECT FOR THE JUNE 30, 2018 (LAG) ACTUARIAL VALUATION (Cont'd)

Table 6c					
PROBABILITIES OF BENEFICIARY MORTALITY					
BASE TABLE					
Age	Males	Females	Age	Males	Females
15	0.0105%	0.0092%	68	1.8256%	1.3605%
16	0.0142%	0.0112%	69	1.9386%	1.4332%
17	0.0191%	0.0122%	70	2.0542%	1.5007%
18	0.0222%	0.0133%	71	2.2359%	1.6745%
19	0.0240%	0.0143%	72	2.4230%	1.8463%
20	0.0251%	0.0145%	73	2.6165%	2.0157%
21	0.0268%	0.0153%	74	2.8157%	2.1838%
22	0.0284%	0.0161%	75	3.0220%	2.3492%
23	0.0301%	0.0171%	76	3.4928%	2.6652%
24	0.0315%	0.0183%	77	3.9787%	2.9831%
25	0.0327%	0.0195%	78	4.4792%	3.3011%
26	0.0342%	0.0208%	79	4.9963%	3.6207%
27	0.0354%	0.0221%	80	5.5282%	3.9391%
28	0.0371%	0.0236%	81	6.1051%	4.4386%
29	0.0394%	0.0252%	82	6.6894%	4.9473%
30	0.0427%	0.0270%	83	7.2805%	5.4665%
31	0.0495%	0.0330%	84	7.8749%	5.9942%
32	0.0562%	0.0384%	85	8.4753%	6.5354%
33	0.0625%	0.0431%	86	9.6136%	7.4659%
34	0.0682%	0.0471%	87	10.8005%	8.3995%
35	0.0743%	0.0511%	88	12.0443%	9.3428%
36	0.0780%	0.0542%	89	13.3397%	10.2918%
37	0.0818%	0.0579%	90	14.6958%	11.2477%
38	0.0861%	0.0618%	91	16.4185%	12.8868%
39	0.0917%	0.0666%	92	18.1416%	14.4887%
40	0.0997%	0.0719%	93	19.8574%	16.0801%
41	0.1394%	0.0775%	94	21.6187%	17.5854%
42	0.1774%	0.0859%	95	23.5884%	19.0626%
43	0.2143%	0.0968%	96	25.4266%	20.2474%
44	0.2507%	0.1111%	97	27.2119%	21.2937%
45	0.2875%	0.1287%	98	29.0202%	22.0663%
46	0.3207%	0.1501%	99	30.6654%	22.5443%
47	0.3534%	0.1748%	100	32.1584%	22.6473%
48	0.3849%	0.2022%	101	33.7521%	23.5294%
49	0.4150%	0.2319%	102	35.1259%	24.5619%
50	0.4431%	0.2633%	103	36.3671%	25.7825%
51	0.5156%	0.2999%	104	37.3834%	27.1635%
52	0.5928%	0.3376%	105	38.1051%	28.6530%
53	0.6740%	0.3762%	106	38.4698%	30.2169%
54	0.7583%	0.4151%	107	38.6325%	31.8182%
55	0.8440%	0.4540%	108	38.8076%	33.4131%
56	0.9048%	0.5132%	109	38.9794%	34.9566%
57	0.9604%	0.5735%	110	50.0000%	50.0000%
58	1.0101%	0.6353%	111	50.0000%	50.0000%
59	1.0536%	0.6981%	112	50.0000%	50.0000%
60	1.0919%	0.7631%	113	50.0000%	50.0000%
61	1.1835%	0.8329%	114	50.0000%	50.0000%
62	1.2676%	0.8908%	115	50.0000%	50.0000%
63	1.3473%	0.9493%	116	50.0000%	50.0000%
64	1.4238%	1.0146%	117	50.0000%	50.0000%
65	1.4985%	1.0876%	118	50.0000%	50.0000%
66	1.6059%	1.1681%	119	50.0000%	50.0000%
67	1.7146%	1.2609%	120	100.0000%	100.0000%

NEW YORK CITY FIRE PENSION FUND

SUMMARY OF ACTUARIAL ASSUMPTIONS AND METHODS IN EFFECT FOR THE JUNE 30, 2018 (LAG) ACTUARIAL VALUATION (Cont'd)

Table 7		
ANNUAL RATES OF MERIT AND SALARY INCREASE		
Years of Service	Merit Increase	Salary Increase ¹
0	20.00%	23.00%
1	12.00%	15.00%
2	12.00%	15.00%
3	12.00%	15.00%
4	27.00%	30.00%
5	16.00%	19.00%
6	1.65%	4.65%
7	1.80%	4.80%
8	1.95%	4.95%
9	4.05%	7.05%
10	2.25%	5.25%
11	2.40%	5.40%
12	2.55%	5.55%
13	2.70%	5.70%
14	4.65%	7.65%
15	3.00%	6.00%
16	2.85%	5.85%
17	2.70%	5.70%
18	2.55%	5.55%
19	4.20%	7.20%
20	2.25%	5.25%
21	2.10%	5.10%
22	1.95%	4.95%
23	1.80%	4.80%
24	1.65%	4.65%
25	1.50%	4.50%
26	1.35%	4.35%
27	1.20%	4.20%
28	1.05%	4.05%
29	0.90%	3.90%
30+	0.75%	3.75%

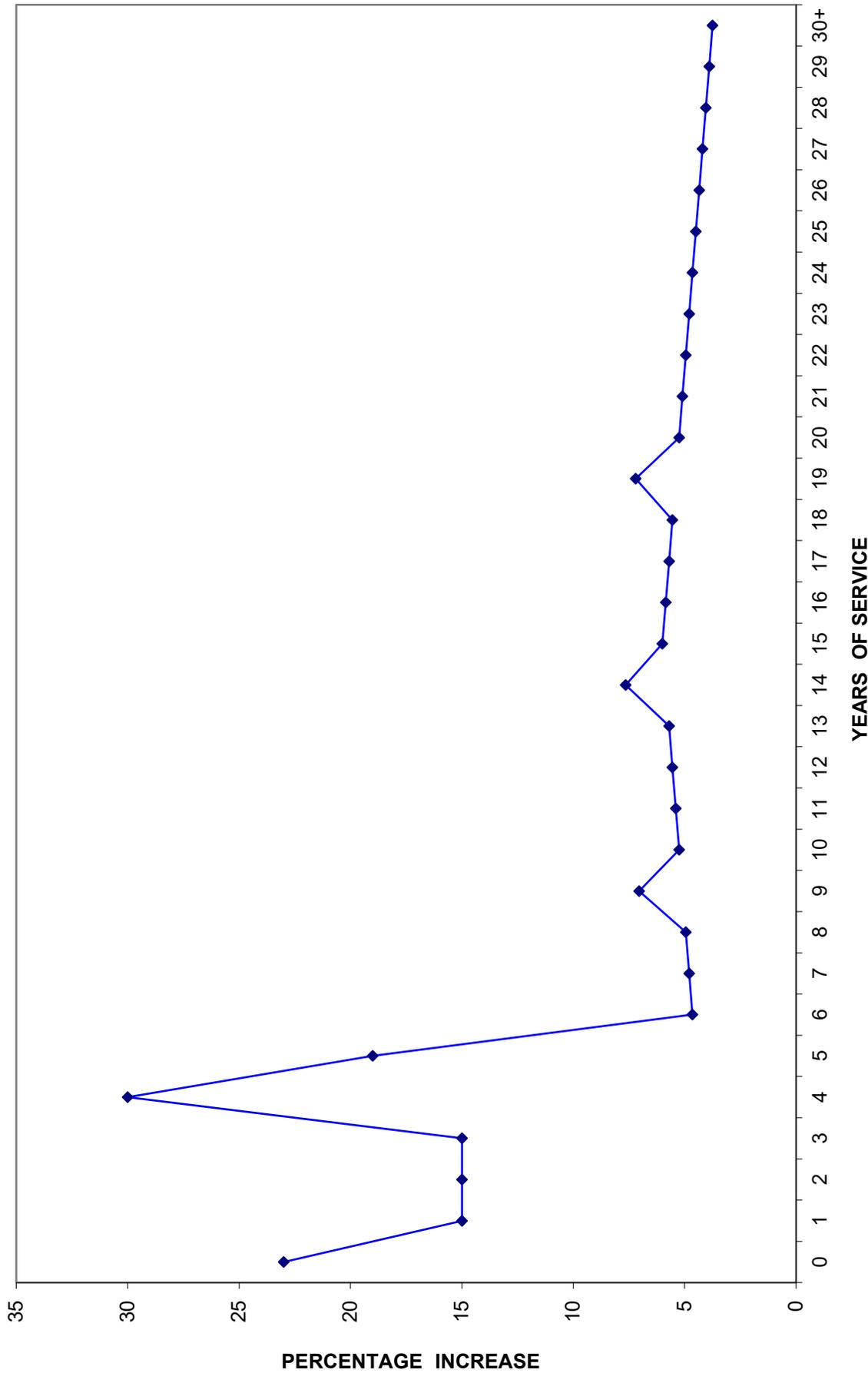
¹Salary Increase is the General Wage Increase of 3.00% plus the Merit Increase.

New York City Fire Pension Fund

SALARY SCALE

(From Table 7 Data)

Actuarial Section



NEW YORK CITY FIRE PENSION FUND

SUMMARY OF ACTUARIAL ASSUMPTIONS AND METHODS IN EFFECT FOR THE JUNE 30, 2018 (LAG) ACTUARIAL VALUATION (Cont'd)

Table 8				
OVERTIME ASSUMPTION				
Years of Service	All Tiers Baseline	Tier 1 & Tier 2 Dual Service	Tier 3, Tier 3 Modified, & Enhanced Dual Service	All Tiers Dual Disability
0-13	20.00%	21.00%	21.00%	20.00%
14	20.00%	22.00%	21.00%	20.00%
15	20.00%	24.00%	21.00%	20.00%
16	20.00%	25.00%	22.00%	21.00%
17	20.00%	26.00%	24.00%	22.00%
18	21.00%	28.00%	25.00%	24.00%
19	22.00%	29.00%	26.00%	25.00%
20	24.00%	30.00%	28.00%	26.00%
21	22.00%	29.00%	26.00%	25.00%
22	21.00%	28.00%	25.00%	24.00%
23	20.00%	26.00%	24.00%	22.00%
24	19.00%	25.00%	22.00%	21.00%
25	17.00%	24.00%	21.00%	20.00%
26	16.00%	21.00%	19.00%	17.00%
27	15.00%	19.00%	18.00%	15.00%
28	13.00%	16.00%	15.00%	13.00%
29	12.00%	15.00%	13.00%	12.00%
30	11.00%	13.00%	12.00%	11.00%
31	9.00%	12.00%	11.00%	10.00%
32	8.00%	11.00%	9.00%	8.00%
33	7.00%	9.00%	8.00%	7.00%
34+	7.00%	8.00%	8.00%	7.00%

NEW YORK CITY FIRE PENSION FUND

SUMMARY OF ACTIVE MEMBER VALUATION DATA

Table 9				
ACTIVE MEMBER VALUATION DATA				
June 30 (Lag) Actuarial Valuation	Number	Annual Salary	Average Annual Salary	Percentage Increase/ (Decrease) In Avg. Salary
2009	11,460	1,079,682,340	94,213	3.7%
2010	11,080	1,138,187,795	102,725	9.0%
2011	10,650	1,125,459,668	105,677	2.9%
2012	10,267	1,106,113,386	107,735	1.9%
2013	10,182	1,129,706,314	110,951	3.0%
2014	10,319	1,150,389,645	111,483	0.5%
2015	10,780	1,164,994,036	108,070	(3.1%)
2016	10,951	1,180,226,281	107,773	(0.3%)
2017	11,091	1,256,001,332	113,245	5.1%
2018	11,237	1,305,960,137	116,220	2.6%

Salaries shown are base salaries plus assumed overtime paid and reflect the impact of recent labor contract settlements and certain non-union salary increases with retroactive effective dates, if any.

NEW YORK CITY FIRE PENSION FUND

SUMMARY OF PLAN MEMBERSHIP DATA

As of the June 30, 2018 (Lag) and June 30, 2017 (Lag) actuarial valuations, the Plan's membership consisted of:

Table 10		
SUMMARY OF PLAN MEMBERSHIP		
Group	June 30, 2018 (Lag)	June 30, 2017 (Lag)
Active members	11,237	11,091
Active off payroll ¹	35	15
Terminated vested members not yet receiving benefits	68	58
Retirees and beneficiaries currently receiving benefits	<u>16,593</u>	<u>16,636</u>
Total	27,933	27,800

¹Represents members who are no longer on payroll but not otherwise classified.

NEW YORK CITY FIRE PENSION FUND

SCHEDULE OF RETIREES AND BENEFICIARIES ADDED TO AND REMOVED FROM THE ROLLS

Table 11
SCHEDULE OF RETIREES AND BENEFICIARIES ADDED TO AND REMOVED FROM THE ROLLS

June 30 (Lag) Actuarial Valuation	Added to Rolls		Removed from Rolls		End of Year Rolls		% Increase In Annual Allowances	Average Annual Allowances
	Number	Annual Allowances ¹	Number	Annual Allowances	Number	Annual Allowances ²		
2009	476	49,098,185	617	20,247,862	17,263	862,197,482	3.5%	49,945
2010	556	54,883,701	679	25,161,316	17,140	891,919,867	3.4%	52,037
2011	653	64,843,804	776	35,553,289	17,017	921,210,382	3.3%	54,135
2012	538	58,288,645	638	26,379,782	16,917	953,119,245	3.5%	56,341
2013	453	54,522,199	563	23,448,369	16,807	984,193,075	3.3%	58,559
2014	490	54,256,974	534	23,299,539	16,763	1,015,150,510	3.1%	60,559
2015	500	59,578,951	553	22,526,507	16,710	1,052,202,954	3.6%	62,968
2016 ³	498	110,481,515	561	22,667,718	16,647	1,140,016,751	8.3%	68,482
2017	497	77,245,492	508	21,127,518	16,636	1,196,134,725	4.9%	71,900
2018	456	65,902,484	499	21,226,999	16,593	1,240,810,210	3.7%	74,779

¹Amounts shown include changes due to benefit finalization, changes in benefit type (e.g. Service to Accident Disability), COLA increases, and other changes.

²Allowances shown are those used in the actuarial valuation as of the Year End date and are not adjusted for anticipated changes due to finalization of benefit calculations or contract settlements.

³Beginning in 2016, SADB payments to beneficiaries are included.

NEW YORK CITY FIRE PENSION FUND

ACTUARIAL AND STATUTORY CONTRIBUTION HISTORY

Table 12			
ACTUARIAL AND STATUTORY CONTRIBUTION HISTORY			
Fiscal Year Ended June 30	Actuarial Contribution Certified	Statutory Contribution Contributed ¹	Employer Rate of Contribution ²
2011	\$ 890,706,067	\$ 890,706,067	82.2%
2012	976,895,415	976,895,415	85.0%
2013	962,173,241	962,173,241	85.2%
2014	969,955,923	969,955,923	88.0%
2015	988,783,932	988,783,932	88.9%
2016	1,054,477,631	1,054,477,631	93.4%
2017	1,061,169,993	1,061,169,993	92.6%
2018	1,200,417,052	1,200,417,052	103.1%
2019	1,398,565,399	1,398,565,399	109.9%
2020	1,419,269,763	1,419,269,763	107.0%

¹ Represents total employer contributions accrued for fiscal year.

² The Employer Rate of Contribution equals the Statutory Contribution as a percentage of the salaries of members who were on payroll or projected to be on payroll (under One-Year Lag Methodology) as of the preceding June 30 increased to reflect overtime earnings and adjusted, where applicable, to be consistent with collective bargaining agreements estimated to be achieved.

NEW YORK CITY FIRE PENSION FUND

FUNDED STATUS BASED ON ENTRY AGE NORMAL COST METHOD

Prior to the June 30, 2010 (Lag) Actuarial Valuation, the Frozen Initial Liability (FIL) cost method was used to develop the funding requirements for the Plan. Under this method, following establishment of any Initial UAL, actuarial gains and losses are financed over the working lifetimes of active participants and are not identified as separate UAL.

The funding status and funding progress information provided in the schedule below has been prepared using the Entry Age Normal (EAN) cost method where the Present Value (PV) of any obligations of the Plan not provided by the PV of Future Contributions (Employer and Employee), as determined under the EAN cost method, equals the Accrued Liability (AL). Under the EAN cost method, the UAL equals the AL minus the Actuarial Value of Assets.

Table 13						
FUNDED STATUS BASED ON ENTRY AGE NORMAL COST METHOD						
(\$ Thousands)						
June 30 (Lag) Valuation Date	(1) Actuarial Value of Assets (AVA)	(2) Accrued Liability (AL) ¹	(3) Unfunded AL (UAL) (2) - (1)	(4) Funded Ratio (1) / (2)	(5) Covered Payroll	(6) UAL as a % of Covered Payroll (3) / (5)
2009	7,304,758	12,864,974	5,560,216	56.8%	1,079,682	515.0%
2010	7,392,656	15,349,598	7,956,942	48.2%	1,138,188	699.1%
2011	7,955,668	15,808,930	7,853,262	50.3%	1,125,460	697.8%
2012	8,520,769	16,358,108	7,837,339	52.1%	1,106,113	708.5%
2013	9,144,587	17,003,722	7,859,135	53.8%	1,129,706	695.7%
2014	9,808,854	18,028,695	8,219,841	54.4%	1,150,390	714.5%
2015	10,504,728	18,688,642	8,183,914	56.2%	1,164,994	702.5%
2016	11,082,451	20,125,429	9,042,978	55.1%	1,180,226	766.2%
2017	11,814,576	20,942,655	9,128,079	56.4%	1,256,001	726.8%
2018	12,876,671	21,787,888	8,911,217	59.1%	1,305,960	682.3%

¹ AL includes the accrued liabilities attributable to the Variable Supplements Funds, net of their AVA, if any.

Effective June 30, 2010, AL is based on the Entry Age Normal cost method. Previously, the Frozen Initial Liability cost method was used. Salaries shown are base salaries plus assumed overtime paid and reflect the impact of recent labor contract settlements and certain non-union salary increases with retroactive effective dates, if any.

NEW YORK CITY FIRE PENSION FUND

COMPARATIVE SUMMARY OF ACCRUED LIABILITIES FUNDED BY ACTUARIAL VALUE OF ASSETS

Table 14							
COMPARATIVE SUMMARY OF ACCRUED LIABILITIES FUNDED BY ACTUARIAL VALUE OF ASSETS SOLVENCY TEST (\$ Thousands)							
June 30 (Lag) Valuation Date	Accrued Liabilities for			(D) Actuarial Value of Assets	Percentage of Accrued Liabilities Funded by Actuarial Value of Assets		
	(A) Accumulated Member Contribution	(B) Current Retirees and Beneficiaries	(C) Active Members' Employer-Financed Portion		(A)	(B)	(C)
2009	\$864,004	\$8,188,720	\$3,525,921	\$7,304,758	100%	79%	0%
2010	948,223	9,695,971	4,831,637	7,392,656	100	66	0
2011	1,037,070	9,949,809	4,872,536	7,955,668	100	70	0
2012	1,106,357	10,270,585	4,972,364	8,520,769	100	72	0
2013	1,182,541	10,535,634	5,180,594	9,144,587	100	76	0
2014	1,281,357	11,147,573	5,486,998	9,808,854	100	76	0
2015	1,555,635	11,602,492	5,385,217	10,504,728	100	77	0
2016	1,609,720	12,822,895	5,560,855	11,082,451	100	74	0
2017	1,732,512	13,442,139	8,324,377	11,814,576	100	75	0
2018	1,850,370	13,951,781	8,612,880	12,876,671	100	79	0

See following "SOLVENCY TEST - NOTES."

NEW YORK CITY FIRE PENSION FUND

COMPARATIVE SUMMARY OF ACCRUED LIABILITIES FUNDED BY ACTUARIAL VALUE OF ASSETS

SOLVENCY TEST - NOTES

The ultimate test of financial soundness in a pension fund is its ability to pay all of its promised benefits when due. The pension fund's progress in accumulating assets to pay all promised benefits can be measured by comparing the Actuarial Value of Assets of the pension fund with the Accrued Liabilities for:

- a. Accumulated Member Contributions;
- b. Current Retirees and Beneficiaries; and
- c. Active Members' Employer-Financed Portion.

The Accrued Liabilities are the PV of projected benefits produced by the projected benefit attribution approach prorated on service. The Accrued Liabilities were calculated in accordance with Governmental Accounting Standards Board Statement No. 5 (GASB5).

This comparative summary allocated assets as if they were priority groups, somewhat similar (but not identical) to the priority categories of Section 4044 of the Employee Retirement Income Security Act of 1974.

The values in the table are dependent upon census data, benefit levels (which have changed over the past years), and the actuarial assumptions and methods employed at each valuation date.

To fully evaluate trends in financial soundness, changes in assumptions need to be evaluated. Beginning with the June 30, 2010 (Lag) actuarial valuation, the Actuarial Interest Rate assumption equals 7.0% per annum, net of investment expenses, and the General Wage Increase assumption equals 3.0% per annum. Prior to the June 30, 2010 (Lag) actuarial valuation, the Actuarial Interest Rate assumption was 8.0% per annum, gross of expenses. The two most recent changes in assumptions and methods occurred in the June 30, 2017 (Lag) valuation used to compute the Employer Contributions for Fiscal Year 2019 and in the June 30, 2014 (Lag) valuation used to compute the Employer Contributions for Fiscal Year 2016.

NEW YORK CITY FIRE PENSION FUND

CONTRIBUTIONS

The benefits of the Fund are financed by the member and employer contributions and from investment earnings of the Fund.

A. MEMBER CONTRIBUTIONS

Tier 1 and Tier 2: Required Member Contributions - Based upon age at entry and elected retirement age, credited with regular and special interest. Contributions are required for the first 20 years.

Voluntary Member Contributions - Additional contributions to the Annuity Savings Fund credited with regular and special interest.

Contributions from members are recorded when the employer makes payroll deductions from Plan members. Tier 1 and Tier 2 members are permitted to borrow up to 90% of their own contributions including accumulated interest. These loans are accounted for as reductions in such member's contribution accounts.

Tier 3, Tier 3 Modified, and Tier 3 Enhanced: Basic Member Contributions - Members contribute 3.0% of salary for a maximum of 25 years.

Additional Member Contributions - Enhanced Plan Members are required to contribute an additional 2.0% of salary for a maximum of 25 years.

Loans are not permitted for Tier 3, Tier 3 Modified, and Tier 3 Enhanced Plan members.

B. EMPLOYER CONTRIBUTIONS

The Entry Age Normal cost method of funding is utilized by the Plan's Actuary to calculate the contributions required of the employer.

Employer contributions are accrued by the Plan and are funded by the employer on a current basis.

NEW YORK CITY FIRE PENSION FUND

Table 15

AVERAGE ANNUAL BENEFIT PAYMENT AMOUNTS

June 30 (Lag) Valuation Date	Service Retirement Benefits		Accidental (Line-of-Duty) Disability Benefits		Ordinary (Non-Line-of-Duty) Disability Benefits		Survivor Benefits	
	Number	Average Annual Allowance	Number	Average Annual Allowance	Number	Average Annual Allowance	Number	Average Annual Allowance
2009	6,194	39,908	8,331	63,286	1,217	47,398	1,521	19,782
2010	5,957	40,347	8,593	65,741	1,167	48,219	1,423	21,354
2011	5,830	41,390	8,740	68,105	1,110	48,767	1,337	22,844
2012	5,646	42,116	8,943	70,653	1,057	49,511	1,271	24,505
2013	5,487	43,289	9,094	73,041	1,012	49,840	1,214	26,354
2014	5,427	44,659	9,223	75,043	959	50,722	1,154	27,752
2015	5,305	45,932	9,390	77,701	904	51,059	1,111	29,485
2016	5,174	47,341	9,560	81,136	853	52,007	1,060	70,802
2017	5,086	49,543	9,738	84,713	787	52,899	1,025	75,701
2018	4,993	51,564	9,870	87,380	731	54,139	999	81,421

New York City Fire Pension Funds
Comprehensive Annual Financial Report
A Pension Trust Fund of The City of New York



Statistical Section

Part V

Fiscal Year Ended June 30, 2020

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The Statistical Section Narrative

The Statistical section of the New York City Fire Pension Fund's Comprehensive Annual Financial Report presents detailed information related to the financial statements, as well as highlights of the actuarial valuations. The data provided is a useful source in determining the fund's economic condition. The schedules are organized into four categories: Operating information, Demographic and Economic information, Financial trends and Revenue capacity.

Operating information

The operating information gives users an indication of how the information in the financial statements relate to the activities of the fund. The schedules show data on benefit ranges, years of credited service, types of retirement and options selected and the amount of monthly, annual or average benefit paid to each group of retirees and beneficiaries. The data is presented for the fiscal period or over a ten year period.

Demographic and economic information

The demographic and economic categories present data to give users an understanding of the environment in which the pension plan operates. This is done mainly through the breakdown of the population groups in the plan membership. The schedules present the number of members and beneficiaries grouped according to several indicators including average monthly or annual salaries or age participating in the pension the plan, for the fiscal period or over a ten-year period.

Financial Trends

The schedules of trend data provide financial and actuarial data for the most current ten-year period. This data shows the changes in benefit types and changes in the plan's performance over time, as relates to revenues received benefits and expenses paid and net assets.

Revenue Capacity

Revenue capacity information helps users evaluate the different sources of revenues for the plan. The schedules show the sources and the changes in the level of revenues over time. The main sources of revenues for the plan are investment income and employer contributions.

TABLE OF BENEFIT EXPENSES BY TYPE

(In thousands)

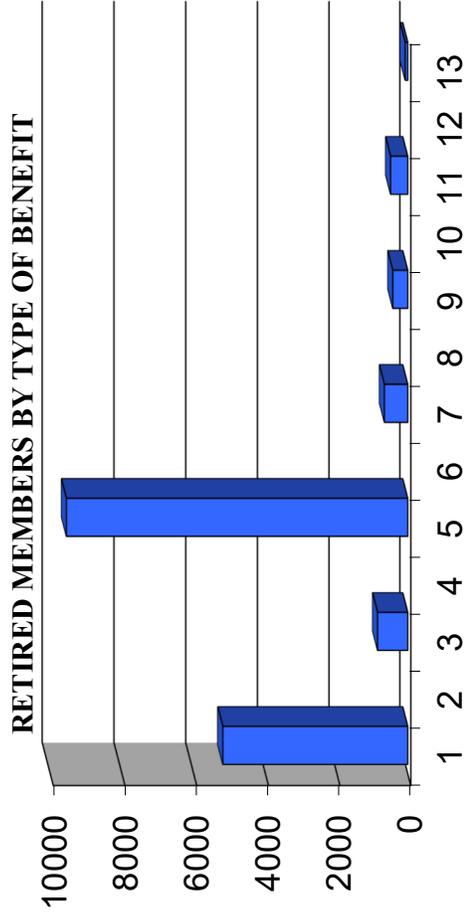
FISCAL YEAR	Service Retirement Payments	Ordinary Disability Payments	Accidental Disability Payments	Payments for Death in Duty	Payments of Deceased Service and Disability		Death Benefits Lump Sum Payments	Other Benefits *	Total
					Deceased Service and Disability	Disability			
2011	240,312	55,019	587,885	55,488	13,723	1,279	29,768	983,474	
2012	239,786	53,002	621,698	57,614	13,923	1,353	50,213	1,037,589	
2013	237,294	51,273	659,243	59,888	14,646	1,371	112,289	1,136,004	
2014	239,234	49,456	681,196	61,951	5,592	11,354	122,546	1,171,329	
2015	241,393	47,378	709,488	63,918	5,652	12,038	140,023	1,219,890	
2016	244,561	44,938	764,129	66,417	5,384	14,301	218,701	1,358,431	
2017	251,909	43,145	825,388	68,766	5,812	12,550	127,237	1,334,807	
2018	254,855	40,537	848,665	72,357	5,831	13,267	143,575	1,379,087	
2019	260,359	38,378	880,075	75,533	6,142	14,415	170,667	1,445,569	
2020	263,018	36,059	923,597	79,908	6,129	15,361	193,073	1,517,145	

* This represents VSF payments to firefighters, fire officers and other payments.

TABLE OF RETIRED MEMBERS AND BENEFICIARIES BY TYPE OF BENEFIT

FISCAL YEAR 2020

TOTAL NUMBERS RETIREES AND BENEFICIARIES	SERVICE RETIREES (1)	ORDINARY DISABILITY RETIREES (1)	ACCIDENTAL DISABILITY RETIREES (1)	LINE OF DUTY BENEFITS	SERVICE BENEFICIARIES	ACCIDENTAL BENEFICIARIES	ORDINARY BENEFICIARIES	OTHER BENEFITS {2}
17,317	4,793	639	10,217	693	314	601	60	-
ANNUAL PAYROLL AMOUNT (in thousands)								
1,517,145 \$	263,018 \$	36,059 \$	923,597 \$	79,908 \$	6,129 \$	14,123 \$	1,238 \$	193,073



SEE RETIREMENT BENEFIT BELOW

Type of Retirement

- 1 - Service retirement (20 yrs or over)
- 2 - Ordinary Disability (Non - Line of Duty)
- 3 - Accidental Disability (Line of Duty)
- 4 - Line of Duty benefits for surviving spouse
- 5 - Survivors of Service Retirees
- 6 - Survivors of Accidental Disability retirees
- 7 - Survivors of Ordinary Disability retirees

(1) Includes Maximum Allowance and Options.

(2) Includes City Supplements, Return of Contributions Vouchers and payments to FF, FO Variable Supplements Funds.

New York Fire Department Pension Funds
Retired Members by Type of Benefit
As of June 30, 2020

Amount of Monthly Benefits	Number of Retired Members	Type of Retirement					Option Selected				POP - UPS		
		1	2	3	4	5	Unmodified	1	2	3		4	
\$ 68,580	9	-	-	-	4	5	9	-	-	-	-	-	-
49,373	7	-	1	3	1	2	7	-	-	-	-	-	-
847,792	107	-	1	101	2	3	(290)	-	-	-	-	-	-
2,771,947	345	7	7	318	12	1	83	3	87	123	43	397	6
6,237,708	812	46	6	662	97	1	464	-	45	34	262	7	7
11,640,225	1,402	163	14	1,135	82	8	1,305	5	41	45	5	1	1
17,791,079	2,508	381	15	1,985	112	15	2,476	1	2	13	13	3	3
21,588,319	2,909	726	50	2,021	89	23	2,879	-	4	19	7	-	-
11,887,259	1,794	599	33	1,073	66	23	1,492	-	11	75	216	-	-
8,875,045	1,439	472	60	810	65	32	1,321	-	71	28	19	-	-
8,961,764	1,884	872	55	852	67	38	1,849	-	27	1	7	-	-
7,404,774	1,885	811	188	788	48	50	1,880	-	5	-	-	-	-
3,550,711	992	461	138	328	28	37	991	-	1	-	-	-	-
1,726,276	1,224	255	71	141	19	738	1,224	-	-	-	-	-	-
Total	17,317	4,793	639	10,217	693	975	15,690	9	294	338	969	17	17

a Type of retirement:

- 1 - Service retirement
- 2 - Ordinary Disability
- 3 - Accidental Disability
- 4 - Line of Duty (Accidental Death)
- 5 - Beneficiaries (All)

b

The following options reduce the retired member's monthly benefits

- Option 1** - Provides a member with a retirement allowance payable for life which is less than the Maximum Allowance.
- Option 2** - Provides a member with a reduced retirement allowance with the provision that upon his or her death the same allowance will continue to be paid to his or her beneficiary for life.
- Option 3** - Provides a member with a retirement allowance reduce from the Maximum Allowance, with the provision that one half of the allowance will continue to be paid to the member's beneficiary for life.
- Option 4** - This option provides, upon the member's death, payment of a specified benefit or benefits actuarially-sound and approved by the Actuary and the Board of Trustees.

POP - UP - (refer to Option 4-2 and Option 4-3) These are called the "POP - UPS" because they are variations of Option 2 and 3 and provide that if the beneficiary predeceases the retiree, then the retirement allowance will "Pop - Up" to the level of the Maximum Retirement Allowance.

New York Fire Department Pension Funds
Average Benefit Payments
Last Ten Years

Exhibit 5

Retirement Effective Dates	Age Credited Service													
	<u>Under 30</u>	<u>30-34</u>	<u>35-39</u>	<u>40-44</u>	<u>45-49</u>	<u>50-54</u>	<u>55-59</u>	<u>60-64</u>	<u>65-69</u>	<u>70-74</u>	<u>75-79</u>	<u>80-84</u>	<u>85-89</u>	<u>90 & Up</u>
Period 7/1/10 to 6/30/11														
Average monthly benefit	3,570	4,613	4,923	5,415	5,764	5,663	5,576	4,958	4,355	3,754	3,316	3,003	2,562	1,424
Average final salary	42,838	55,350	59,071	64,974	69,172	67,956	66,907	59,497	52,262	45,042	39,791	36,036	30,744	17,090
Number of retired members	11	32	197	517	1,162	2,254	1,916	1,674	2,014	2,602	1,994	1,220	799	748
Period 7/1/11 to 6/30/12														
Average monthly benefit	3,570	4,613	4,923	5,415	5,764	5,663	5,576	4,958	4,355	3,754	3,316	3,003	2,562	1,424
Average final salary	42,838	55,350	59,071	64,974	69,172	67,956	66,907	59,497	52,262	45,042	39,791	36,036	30,744	17,090
Number of retired members	11	52	206	527	1,180	2,002	2,315	1,694	2,033	2,448	2,001	1,364	854	717
Period 7/1/12 to 6/30/13														
Average monthly benefit	3,880	5,217	5,070	5,597	5,949	5,922	5,798	5,120	4,547	3,868	3,393	3,136	2,677	1,554
Average final salary	46,557	62,607	60,835	67,165	71,384	71,061	69,575	61,443	54,564	46,410	40,720	37,635	32,129	18,647
Number of retired members	17	50	187	522	1,291	2,167	2,074	1,750	1,908	2,361	2,085	1,369	763	720
Period 7/1/13 to 6/30/14														
Average monthly benefit	4,339	5,345	5,390	5,891	6,164	6,247	5,985	5,389	4,707	4,047	3,477	2,504	2,848	1,665
Average final salary	52,071	64,141	64,676	70,690	73,963	74,966	71,820	64,663	56,485	48,563	41,721	30,051	34,179	19,983
Number of retired members	10	28	153	506	1,092	1,955	2,366	1,633	1,861	2,361	2,161	1,302	828	661
Period 7/1/14 to 6/30/15														
Average monthly benefit	3,784	6,265	5,642	6,154	6,412	6,483	6,250	5,630	4,934	4,160	3,647	3,319	2,909	1,796
Average final salary	45,403	75,176	67,703	73,851	76,940	77,791	75,001	67,562	59,212	49,922	43,759	39,829	34,909	21,546
Number of retired members	11	31	130	486	1,021	1,792	2,575	1,722	1,726	2,210	2,269	1,391	818	625
Period 7/1/15 to 6/30/16														
Average monthly benefit	3,697	6,148	6,172	6,280	6,525	6,707	6,446	5,919	5,120	4,306	3,764	3,366	3,022	1,958
Average final salary	44,368	73,776	74,066	75,361	78,296	80,481	77,355	71,026	61,435	51,672	45,170	40,633	36,269	23,493
Number of retired members	10	21	136	448	943	1,689	2,733	1,816	1,705	2,069	2,288	1,483	821	601
Period 7/1/16 to 6/30/17														
Average monthly benefit	3,426	6,515	6,518	6,366	6,716	6,959	6,677	6,295	5,302	4,491	3,873	3,440	3,099	2,206
Average final salary	41,117	78,179	78,217	76,386	80,588	83,508	80,121	75,542	63,626	53,892	46,477	41,275	37,193	26,466
Number of retired members	9	23	144	429	865	1,632	2,624	2,069	1,644	1,890	2,283	1,595	794	583
Period 7/1/17 to 6/30/18														
Average monthly benefit	5,538	6,546	7,086	7,219	7,396	7,724	7,319	6,782	5,745	4,849	4,101	3,613	3,323	2,407
Average final salary	66,458	78,548	85,031	86,630	88,757	92,688	87,832	81,378	66,943	58,190	49,206	43,355	39,876	28,879
Number of retired members	7	21	142	392	865	1,632	2,624	2,304	1,649	1,782	2,154	1,704	820	551
Period 7/1/18 to 6/30/19														
Average monthly benefit	5,487	7,444	7,787	7,680	7,877	8,054	7,785	7,073	6,176	5,021	4,305	3,713	3,443	2,655
Average final salary	65,844	89,327	93,445	92,165	94,520	96,645	93,420	84,877	74,114	60,254	51,658	44,551	41,319	31,864
Number of retired members	7	16	143	376	868	1,602	2,397	2,584	1,648	1,757	2,081	1,729	854	574
Period 7/1/19 to 6/30/20														
Average monthly benefit	7,620	7,053	7,923	8,035	8,165	8,303	8,233	7,419	6,626	5,415	4,535	3,928	3,579	2,868
Average final salary	91,440	84,639	95,079	96,416	97,974	99,631	98,794	89,024	79,513	64,979	54,424	47,139	42,952	34,411
Number of retired members	9	7	107	345	764	1,402	2,161	2,910	1,794	1,639	1,976	1,885	992	602

Source: Office of the Actuary City of New York.
Lag 2018 for determining Final Fiscal Year 2020 Employer Contributions

New York Fire Department Pension Funds
Benefit and Refund Deductions from Net Position by Type
Last Ten Fiscal Years
(In thousands)

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Type of Benefit:										
Age and service benefits:										
Retirees	240,312	239,786	308,667	239,234	241,393	244,561	251,909	254,855	260,359	263,018
Survivors	5,990	5,847	5,776	5,592	5,652	5,384	5,812	5,831	6,142	6,129
Death in service benefits	55,488	57,614	59,888	61,951	63,918	66,417	68,766	72,357	75,533	79,908
Disability benefits:										
Retirees - duty	587,885	621,698	659,243	681,196	709,488	764,129	825,388	848,665	880,075	923,597
Retirees - nonduty	55,019	53,002	51,273	49,456	47,378	44,938	43,145	40,537	38,378	36,059
Survivors	1,279	1,353	1,371	1,716	1,793	1,794	1,420	1,331	1,335	1,238
Total benefits	\$ 945,973	\$ 979,300	\$ 1,086,218	\$ 1,039,145	\$ 1,069,622	\$ 1,127,223	\$ 1,196,440	\$ 1,223,576	\$ 1,261,822	\$ 1,309,949
Type of Refunds										
Death	7,733	8,076	8,870	9,638	10,245	12,507	11,130	11,936	13,080	14,123
Other benefits	29,768	50,213	40,916	122,546	140,023	218,701	127,237	143,575	170,667	193,073
Total refunds	\$ 37,501	\$ 58,289	\$ 49,786	\$ 132,184	\$ 150,268	\$ 231,208	\$ 138,367	\$ 155,511	\$ 183,747	\$ 207,196
Total Benefits and Refunds	\$ 983,474	\$ 1,037,589	\$ 1,136,004	\$ 1,171,329	\$ 1,219,890	\$ 1,358,431	\$ 1,334,807	\$ 1,379,087	\$ 1,445,569	\$ 1,517,145

Source Fire Dept. Pension Fund

Statistical Section

New York City Fire Pension Funds

SCHEDULE OF AVERAGE ANNUAL BENEFIT PAYMENT AMOUNTS

Fiscal Year	Service Retirement Benefits		Accidental (Duty) Disability Benefits		Ordinary (Non Duty) Disability Benefits		Survivor's Benefits *	
	Numbers	Average Annual Allowance	Number	Average Annual Allowance	Number	Average Annual Allowance	Number	Average Annual Allowance
2011	5,837	41,170	8,712	67,480	1,110	49,557	1,414	49,144
2012	5,667	41,080	8,912	69,760	1,058	50,096	1,767	41,251
2013	5,487	43,247	9,064	72,723	1,010	50,765	1,703	44,571
2014	5,433	44,033	9,194	63,215	958	51,624	1,695	46,370
2015	5,312	45,443	9,366	75,751	905	52,351	1,678	48,632
2016	5,188	44,659	9,548	75,043	853	50,722	1,641	53,748
2017	5,089	45,932	9,723	77,701	792	51,059	1,623	56,153
2018	5,001	47,341	9,860	81,136	735	52,007	1,630	125,148
2019	4,924	49,543	10,037	84,713	691	52,899	1,644	129,344
2020	4,793	51,564	10,217	87,380	639	54,139	1,668	137,687

* Includes World Trade Center Benefits

NEW YORK CITY FIRE PENSION FUNDS QPP

Schedule of Changes in Net Positions

(In thousands)

Year Ended	Additions to Funds Net Position					Deductions from Funds Net Position					Change in Net Position
	Member Contributions	Employer Contributions	Net Investment Income/(Loss)	Other Income	Total Additions	Benefit Payments	Refunds	Administrative Expenses	City Supplement and Parity	Total Deductions	
2011	94,893	890,706	1,472,892	41,887	2,500,378	982,962	276	236	-	983,474	1,516,904
2012	98,494	976,895	93,548	37,661	1,206,598	1,036,806	443	340	-	1,037,589	169,009
2013	104,816	962,173	961,192	38,965	2,067,146	1,063,349	816	445	21	1,064,631	1,002,515
2014	108,859	969,956	1,569,013	39,980	2,687,808	1,218,415	184	477	86	1,219,162	1,468,646
2015	108,582	988,784	271,430	41,201	1,409,997	1,189,926	186	313	80	1,190,505	219,492
2016	116,619	1,054,478	197,398	43,673	1,412,168	1,325,938	939	786	72	1,327,735	84,433
2017	108,368	1,061,170	1,284,871	47,284	2,501,693	1,309,624	1,190	685	61	1,311,560	1,190,133
2018	108,338	1,200,417	1,188,860	9,411	2,507,026	1,321,565	1,850	6,412	52	1,329,879	1,177,147
2019	108,015	1,398,565	933,889	16,057	2,456,526	1,374,365	1,680	9,861	45	1,385,951	1,070,575
2020	106,821	1,419,270	681,383	17,842	2,225,316	1,464,264	2,928	9,131	36	1,476,359	748,957

Statistical Section

New York City Fire Pension Funds

FIRE FIGHTER'S VARIABLE SUPPLEMENTS FUND

Schedule of Changes in Net Positions

(In thousands)

Year Ended	Additions to Funds Net Position					Deductions from Funds Net Position			Change in Net Position
	Net Investment Income/(Loss)	Other Income	Transfer Skim Earning	Payment from QPP-Int. on skim	Total Additions	Benefit Payments	Total Deductions		
2011	100,709	313			101,022	47,793	47,793	53,229	
2012	6,965	309			7,274	48,613	48,613	(41,339)	
2013	46,267	290			46,557	48,539	48,539	(1,982)	
2014	68,971	56	110,000		179,027	50,425	50,425	128,602	
2015	18,661	227	30,000		48,888	47,415	47,415	1,473	
2016	4,325	344	18,739		23,408	46,002	46,002	(22,594)	
2017	46,467	288	23,914		70,669	47,273	47,273	23,396	
2018	35,168	238	15,000		50,406	46,572	46,572	3,834	
2019	27,838	141	(14,000)		13,979	44,744	44,744	(30,765)	
2020	21,387	130	(15,000)	12,792	19,309	44,348	44,348	(25,039)	

FIRE OFFICERS' VARIABLE SUPPLEMENTS FUND

Schedule of Changes in Net Positions

(In thousands)

Year Ended	Additions to Funds Net Position					Deductions from Funds Net Position			Change in Net Position
	Net Investment Income/(Loss)	Other Income	Transfer Skim Earning	Payment from QPP-Int. on skim	Total Additions	Benefit Payments	Total Deductions		
2010	35,286	132			35,418	22,897	22,897	12,521	
2011	58,800	180			58,980	21,014	21,014	37,966	
2012	4,723	193			4,916	21,986	21,986	(17,070)	
2013	34,492	190			34,682	22,834	22,834	11,848	
2014	51,265	180	10,000		61,445	21,742	21,742	39,703	
2015	12,056	193	10,000		22,249	21,970	21,970	279	
2016	758	279	18,134		19,171	21,567	21,567	(2,396)	
2017	39,855	240	21,829		61,924	21,717	21,717	40,207	
2018	25,303	162	-		25,465	24,048	24,048	1,417	
2019	20,381	99	-		20,480	24,735	24,735	(4,255)	
2020	15,748	91	-	7,365	23,204	25,726	25,726	(2,522)	

NEW YORK CITY FIRE PENSION FUNDS

SCHEDULE OF REVENUES BY SOURCE

(In thousands)

Fiscal Year Ended June 30	Member Contributions	Employer Contributions	Other Income/(Loss)	Interest and Dividends	Appreciation (Depreciation) In fair value of investments	Total	% of Annual Covered Payroll
2011	94,893	890,706	17,668	192,667	1,304,444	2,500,378	N/A
2012	98,494	976,895	9,756	220,373	(98,920)	1,206,598	N/A
2013	104,816	962,173	6,469	255,805	819,122	2,148,385	N/A
2014	108,859	969,956	(3,557) *	277,940	1,455,082	2,808,280	N/A
2015	108,582	988,784	(21,420)	361,802	3,386	1,441,134	N/A
2016	116,619	1,054,478	3,768	302,881	(59,872)	1,417,874	N/A
2017	108,368	1,061,170	(31,590)	314,960	1,135,635	2,588,543	N/A
2018	108,338	1,200,417	(83,037)	349,627	992,552	2,567,897	N/A
2019	108,015	1,398,565	(83,217)	374,555	693,067	2,490,985	N/A
2020	106,821	1,419,270	(74,625)	368,525	427,681	2,247,672	N/A

* Other Income/(loss) Included.

Source: Combined Statement of Changes in Fiduciary Net Position

NEW YORK CITY FIRE PENSION FUNDS

SCHEDULE OF EXPENSES BY TYPE

(In thousands)

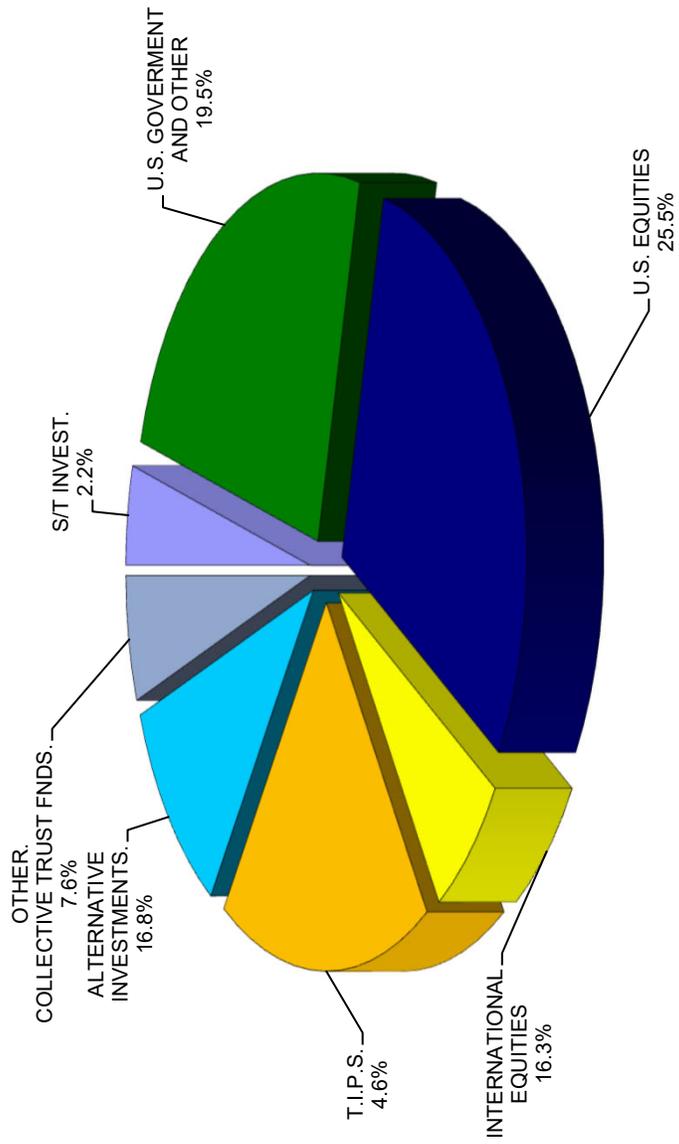
Fiscal Year Ended June 30	Benefit Payments	Refunds	Administrative Expenses	Other Payments	Total
2010	953,990	510	237	36	954,773
2011	982,962	276	236	-	983,474
2012	1,036,806	443	340	-	1,037,589
2013	1,134,722	816	445	21	1,136,004
2014	1,170,582	184	477	86	1,171,329
2015	1,219,311	186	313	80	1,219,890
2016	1,356,634	939	786	72	1,358,431
2017	1,332,871	1,190	685	61	1,334,807
2018	1,377,185 **	1,850	6,412	52	1,385,499
2019	1,443,844	1,680	9,861	45	1,455,430
2020	1,514,181	2,928	9,131	36	1,526,276

** includes additional expenses related to Corpus funding effective September 2016

TOTAL INVESTMENTS FISCAL YEAR 2020

Fire Funds Combined

(At Market Value)



INVESTMENT INCOME

Fire Funds Combined

Fiscal Year 2020

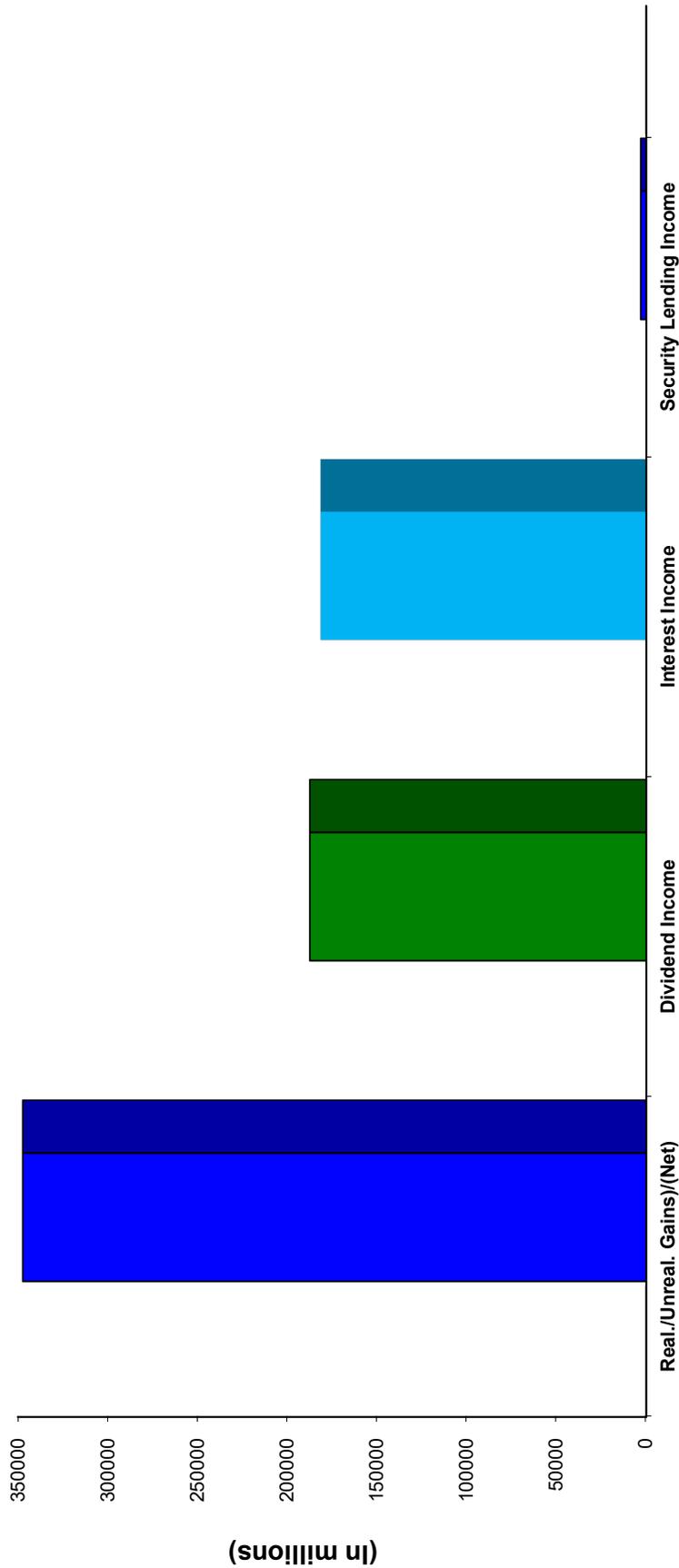


Table of Compensation to Administrative Officials & Commissions & Payments
To Brokers and Consultants
Fiscal Year ended June 30, 2020

<u>Official Plan Position</u>	<u>Salary or Allowance Paid</u>
Pension Fund Administrative Expenses	\$ 9,131,202 *
Comptroller's Office Executive Management Costs	17,504
First Deputy Personal Service Costs	83,479
Financial Information Service Agency (FISA)	567,552
Office of Payroll Administration (OPA)	51,192
Deputy Comptroller Asset Management (Personal Service Costs)	474,163
Deputy Comptroller Asset Management (Outside Service Costs)	581,517
Administrative Support Cost	4,129
Office of Management and Budget	85,187
Legal Advisors	99,441
Office of the Actuary	1,471,691
Investment Advisors	80,452,000 *
Securities Lending Fees	303,000 *
Total	\$ 93,322,057

*Except for Administrative Expenses, Investment advisors and Securities Lending fees these expenses were charged to other City Agencies on behalf of the New York City Fire Pension Funds

New York City Fire Pension Funds
Comprehensive Annual Financial Report
A Pension Trust Fund of The City of New York



Appendix A
Census Data for Active Members
As of June 30, 2020

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NEW YORK CITY FIRE PENSION FUND
 DATA USED IN THE JUNE 30, 2018 (LAG) ACTUARIAL VALUATION
 FOR FINAL PRELIMINARY FISCAL YEAR 2020 EMPLOYER CONTRIBUTIONS

MALES

AGE \ SVC	UNDER 5	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40 & UP	ALL YEARS
NUMBER:										
UNDER 20	0	0	0	0	0	0	0	0	0	0
20 TO 24	56	0	0	0	0	0	0	0	0	56
25 TO 29	1,162	76	4	0	0	0	0	0	0	1,242
30 TO 34	1,146	299	366	5	0	0	0	0	0	1,816
35 TO 39	283	59	1,385	447	3	0	0	0	0	2,177
40 TO 44	27	6	741	1,190	201	0	0	0	0	2,165
45 TO 49	1	1	114	810	606	156	0	0	0	1,688
50 TO 54	0	0	4	201	455	344	97	1	0	1,102
55 TO 59	0	0	0	20	101	219	215	56	0	611
60 TO 64	1	0	0	2	3	29	54	151	17	257
65 TO 69	0	0	1	1	1	1	1	5	4	14
70 & UP	0	0	0	0	0	0	0	1	0	1
TOTAL	2,676	441	2,615	2,676	1,370	749	367	214	21	11,129

SALARIES (IN THOUSANDS):

UNDER 20	0	0	0	0	0	0	0	0	0	0
20 TO 24	3,135	0	0	0	0	0	0	0	0	3,135
25 TO 29	72,320	6,862	419	0	0	0	0	0	0	79,601
30 TO 34	75,590	28,305	43,542	667	0	0	0	0	0	148,105
35 TO 39	19,160	5,435	171,369	58,791	383	0	0	0	0	255,137
40 TO 44	1,871	597	92,398	156,997	28,477	0	0	0	0	280,342
45 TO 49	185	165	14,124	107,006	89,680	23,105	0	0	0	234,265
50 TO 54	0	0	530	27,012	65,640	52,108	15,105	111	0	160,505
55 TO 59	0	0	0	2,686	14,038	32,514	33,674	9,246	0	92,157
60 TO 64	123	0	0	346	384	3,929	7,894	24,291	2,866	39,833
65 TO 69	0	0	165	165	167	167	229	928	644	2,466
70 & UP	0	0	0	0	0	0	0	140	0	140
TOTAL *	172,384	41,364	322,548	353,671	198,769	111,823	56,902	34,715	3,511	1,295,685

AVERAGE SALARIES: **

UNDER 20	0	0	0	0	0	0	0	0	0	0
20 TO 24	55,976	0	0	0	0	0	0	0	0	55,976
25 TO 29	62,237	90,290	104,724	0	0	0	0	0	0	64,091
30 TO 34	65,960	94,666	118,968	133,438	0	0	0	0	0	81,555
35 TO 39	67,702	92,120	123,732	131,523	127,566	0	0	0	0	117,197
40 TO 44	69,314	99,525	124,694	131,930	141,679	0	0	0	0	129,488
45 TO 49	184,918	164,747	123,897	132,107	147,987	148,106	0	0	0	138,782
50 TO 54	0	0	132,569	134,387	144,265	151,476	155,717	110,561	0	145,649
55 TO 59	0	0	0	134,280	138,988	148,464	156,625	165,101	0	150,830
60 TO 64	123,368	0	0	173,178	127,867	135,493	146,184	160,865	168,600	154,994
65 TO 69	0	0	165,145	165,227	167,285	167,285	228,945	185,618	161,080	176,164
70 & UP	0	0	0	0	0	0	0	139,786	0	139,786
TOTAL	64,418	93,796	123,345	132,164	145,087	149,296	155,046	162,218	167,168	116,424

Note: Age is last birthday. Service is completed years.

* Total may not add up due to rounding.

** Average based on unrounded salary.

NEW YORK CITY FIRE PENSION FUND
 DATA USED IN THE JUNE 30, 2018 (LAG) ACTUARIAL VALUATION
 FOR FINAL PRELIMINARY FISCAL YEAR 2020 EMPLOYER CONTRIBUTIONS

FEMALES

AGE \ SVC	UNDER 5	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40 & UP	ALL YEARS
NUMBER:										
UNDER 20	0	0	0	0	0	0	0	0	0	0
20 TO 24	1	0	0	0	0	0	0	0	0	1
25 TO 29	27	1	0	0	0	0	0	0	0	28
30 TO 34	20	2	2	0	0	0	0	0	0	24
35 TO 39	9	1	6	2	0	0	0	0	0	18
40 TO 44	0	0	10	8	2	0	0	0	0	20
45 TO 49	0	2	1	7	1	0	0	0	0	11
50 TO 54	2	0	0	0	2	0	0	0	0	4
55 TO 59	0	1	0	0	0	0	0	0	0	1
60 TO 64	0	0	0	0	0	0	0	0	0	0
65 TO 69	0	0	0	0	0	0	0	0	0	0
70 & UP	0	0	0	1	0	0	0	0	0	1
TOTAL	59	7	19	18	5	0	0	0	0	108

SALARIES (IN THOUSANDS):

UNDER 20	0	0	0	0	0	0	0	0	0	0
20 TO 24	59	0	0	0	0	0	0	0	0	59
25 TO 29	1,627	78	0	0	0	0	0	0	0	1,705
30 TO 34	1,331	192	228	0	0	0	0	0	0	1,751
35 TO 39	679	114	663	241	0	0	0	0	0	1,697
40 TO 44	0	0	1,271	990	251	0	0	0	0	2,512
45 TO 49	0	329	121	994	138	0	0	0	0	1,582
50 TO 54	303	0	0	0	335	0	0	0	0	638
55 TO 59	0	164	0	0	0	0	0	0	0	164
60 TO 64	0	0	0	0	0	0	0	0	0	0
65 TO 69	0	0	0	0	0	0	0	0	0	0
70 & UP	0	0	0	166	0	0	0	0	0	166
TOTAL *	4,000	877	2,283	2,391	724	0	0	0	0	10,275

AVERAGE SALARIES: **

UNDER 20	0	0	0	0	0	0	0	0	0	0
20 TO 24	59,184	0	0	0	0	0	0	0	0	59,184
25 TO 29	60,256	78,407	0	0	0	0	0	0	0	60,905
30 TO 34	66,561	95,874	113,770	0	0	0	0	0	0	72,938
35 TO 39	75,491	113,557	110,536	120,411	0	0	0	0	0	94,278
40 TO 44	0	0	127,091	123,778	125,528	0	0	0	0	125,609
45 TO 49	0	164,641	120,990	141,938	138,017	0	0	0	0	143,805
50 TO 54	151,576	0	0	0	167,615	0	0	0	0	159,595
55 TO 59	0	164,075	0	0	0	0	0	0	0	164,075
60 TO 64	0	0	0	0	0	0	0	0	0	0
65 TO 69	0	0	0	0	0	0	0	0	0	0
70 & UP	0	0	0	166,216	0	0	0	0	0	166,216
TOTAL	67,795	125,295	120,140	132,824	144,860	0	0	0	0	95,137

Note: Age is last birthday. Service is completed years.

* Total may not add up due to rounding.

** Average based on unrounded salary.

NEW YORK CITY FIRE PENSION FUND
 DATA USED IN THE JUNE 30, 2018 (LAG) ACTUARIAL VALUATION
 FOR FINAL PRELIMINARY FISCAL YEAR 2020 EMPLOYER CONTRIBUTIONS

MALES AND FEMALES

AGE \ SVC	UNDER 5	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40 & UP	ALL YEARS
NUMBER:										
UNDER 20	0	0	0	0	0	0	0	0	0	0
20 TO 24	57	0	0	0	0	0	0	0	0	57
25 TO 29	1,189	77	4	0	0	0	0	0	0	1,270
30 TO 34	1,166	301	368	5	0	0	0	0	0	1,840
35 TO 39	292	60	1,391	449	3	0	0	0	0	2,195
40 TO 44	27	6	751	1,198	203	0	0	0	0	2,185
45 TO 49	1	3	115	817	607	156	0	0	0	1,699
50 TO 54	2	0	4	201	457	344	97	1	0	1,106
55 TO 59	0	1	0	20	101	219	215	56	0	612
60 TO 64	1	0	0	2	3	29	54	151	17	257
65 TO 69	0	0	1	1	1	1	1	5	4	14
70 & UP	0	0	0	1	0	0	0	1	0	2
TOTAL	2,735	448	2,634	2,694	1,375	749	367	214	21	11,237

SALARIES (IN THOUSANDS):

UNDER 20	0	0	0	0	0	0	0	0	0	0
20 TO 24	3,194	0	0	0	0	0	0	0	0	3,194
25 TO 29	73,947	6,940	419	0	0	0	0	0	0	81,306
30 TO 34	76,921	28,497	43,770	667	0	0	0	0	0	149,855
35 TO 39	19,839	5,549	172,032	59,032	383	0	0	0	0	256,834
40 TO 44	1,871	597	93,669	157,987	28,729	0	0	0	0	282,854
45 TO 49	185	494	14,245	108,000	89,818	23,105	0	0	0	235,847
50 TO 54	303	0	530	27,012	65,976	52,108	15,105	111	0	161,144
55 TO 59	0	164	0	2,686	14,038	32,514	33,674	9,246	0	92,321
60 TO 64	123	0	0	346	384	3,929	7,894	24,291	2,866	39,833
65 TO 69	0	0	165	165	167	167	229	928	644	2,466
70 & UP	0	0	0	166	0	0	0	140	0	306
TOTAL *	176,384	42,241	324,831	356,061	199,494	111,823	56,902	34,715	3,511	1,305,960

AVERAGE SALARIES: **

UNDER 20	0	0	0	0	0	0	0	0	0	0
20 TO 24	56,032	0	0	0	0	0	0	0	0	56,032
25 TO 29	62,192	90,136	104,724	0	0	0	0	0	0	64,021
30 TO 34	65,970	94,674	118,940	133,438	0	0	0	0	0	81,443
35 TO 39	67,942	92,477	123,675	131,474	127,566	0	0	0	0	117,009
40 TO 44	69,314	99,525	124,726	131,876	141,520	0	0	0	0	129,453
45 TO 49	184,918	164,676	123,871	132,191	147,970	148,106	0	0	0	138,815
50 TO 54	151,576	0	132,569	134,387	144,367	151,476	155,717	110,561	0	145,700
55 TO 59	0	164,075	0	134,280	138,988	148,464	156,625	165,101	0	150,851
60 TO 64	123,368	0	0	173,178	127,867	135,493	146,184	160,865	168,600	154,994
65 TO 69	0	0	165,145	165,227	167,285	167,285	228,945	185,618	161,080	176,164
70 & UP	0	0	0	166,216	0	0	0	139,786	0	153,001
TOTAL	64,491	94,288	123,322	132,168	145,086	149,296	155,046	162,218	167,168	116,220

Note: Age is last birthday. Service is completed years.

* Total may not add up due to rounding.

** Average based on unrounded salary.

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New York City Fire Pension Funds
Comprehensive Annual Financial Report
A Pension Trust Fund of The City of New York



Appendix B
Census Data for Pensioners
As of June 30, 2020

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NEW YORK CITY FIRE PENSION FUND
 DATA USED IN THE JUNE 30, 2018 (LAG) ACTUARIAL VALUATION
 FOR DETERMINING FINAL FISCAL YEAR 2020 EMPLOYER CONTRIBUTIONS
 SUMMARY OF PENSIONERS BY CAUSE AND GENDER

ALL FILES (ALL BENEFITS)

AGE	MALE			FEMALE			BOTH MALE & FEMALE		
	NUMBER	BENEFITS	AVERAGE	NUMBER	BENEFITS	AVERAGE	NUMBER	BENEFITS	AVERAGE
SERVICE RETIREMENT:									
UNDER 30	0	0	0	0	0	0	0	0	0
30 TO 34	0	0	0	0	0	0	0	0	0
35 TO 39	0	0	0	0	0	0	0	0	0
40 TO 44	7	451,657	64,522	0	0	0	7	451,657	64,522
45 TO 49	45	3,290,366	73,119	1	83,543	83,543	46	3,373,909	73,346
50 TO 54	163	12,470,172	76,504	0	0	0	163	12,470,172	76,504
55 TO 59	380	28,899,865	76,052	1	109,056	109,056	381	29,008,921	76,139
60 TO 64	722	47,366,364	65,604	4	185,638	46,410	726	47,552,002	65,499
65 TO 69	596	36,181,716	60,708	3	257,863	85,954	599	36,439,579	60,834
70 TO 74	672	33,850,583	50,373	0	0	0	672	33,850,583	50,373
75 TO 79	872	37,952,232	43,523	0	0	0	872	37,952,232	43,523
80 TO 84	810	31,205,720	38,526	1	35,156	35,156	811	31,240,876	38,521
85 TO 89	461	16,529,353	35,855	0	0	0	461	16,529,353	35,855
90 & UP	255	8,587,687	33,677	0	0	0	255	8,587,687	33,677
TOTAL	4,983	256,785,715	51,532	10	671,256	67,126	4,993	257,456,971	51,564
ORDINARY DISABILITY:									
UNDER 30	0	0	0	0	0	0	0	0	0
30 TO 34	1	61,466	61,466	0	0	0	1	61,466	61,466
35 TO 39	1	55,089	55,089	0	0	0	1	55,089	55,089
40 TO 44	7	287,976	41,139	0	0	0	7	287,976	41,139
45 TO 49	6	237,938	39,656	0	0	0	6	237,938	39,656
50 TO 54	14	548,731	39,195	0	0	0	14	548,731	39,195
55 TO 59	15	434,535	28,969	0	0	0	15	434,535	28,969
60 TO 64	49	1,267,447	25,866	1	29,364	29,364	50	1,296,811	25,936
65 TO 69	33	978,882	29,663	0	0	0	33	978,882	29,663
70 TO 74	60	3,948,748	65,812	0	0	0	60	3,948,748	65,812
75 TO 79	147	9,019,051	61,354	0	0	0	147	9,019,051	61,354
80 TO 84	188	11,471,960	61,021	0	0	0	188	11,471,960	61,021
85 TO 89	138	7,600,750	55,078	0	0	0	138	7,600,750	55,078
90 & UP	71	3,633,903	51,182	0	0	0	71	3,633,903	51,182
TOTAL	730	39,546,476	54,173	1	29,364	29,364	731	39,575,840	54,139
ACCIDENTAL DISABILITY:									
UNDER 30	0	0	0	0	0	0	0	0	0
30 TO 34	3	231,048	77,016	0	0	0	3	231,048	77,016
35 TO 39	99	9,473,558	95,693	2	204,950	102,475	101	9,678,508	95,827
40 TO 44	318	31,062,143	97,680	0	0	0	318	31,062,143	97,680
45 TO 49	660	65,249,079	98,862	2	166,287	83,144	662	65,415,366	98,815
50 TO 54	1,135	116,592,687	102,725	0	0	0	1,135	116,592,687	102,725
55 TO 59	1,635	168,800,061	103,242	3	228,297	76,099	1,638	169,028,358	103,192
60 TO 64	2,015	197,000,813	97,767	6	596,646	99,441	2,021	197,597,459	97,772
65 TO 69	1,065	95,876,544	90,025	8	694,192	86,774	1,073	96,570,736	90,001
70 TO 74	810	60,405,565	74,575	0	0	0	810	60,405,565	74,575
75 TO 79	852	52,834,777	62,013	0	0	0	852	52,834,777	62,013
80 TO 84	787	40,645,029	51,646	1	66,910	66,910	788	40,711,939	51,665
85 TO 89	328	15,713,075	47,906	0	0	0	328	15,713,075	47,906
90 & UP	141	6,596,312	46,782	0	0	0	141	6,596,312	46,782
TOTAL	9,848	860,480,691	87,376	22	1,957,282	88,967	9,870	862,437,973	87,380

NEW YORK CITY FIRE PENSION FUND
 DATA USED IN THE JUNE 30, 2018 (LAG) ACTUARIAL VALUATION
 FOR DETERMINING FINAL FISCAL YEAR 2020 EMPLOYER CONTRIBUTIONS
 SUMMARY OF PENSIONERS BY CAUSE AND GENDER

ALL FILES (ALL BENEFITS)

AGE	MALE			FEMALE			BOTH MALE & FEMALE		
	NUMBER	BENEFITS	AVERAGE	NUMBER	BENEFITS	AVERAGE	NUMBER	BENEFITS	AVERAGE
ACCIDENTAL DEATH:									
UNDER 30	0	0	0	5	570,094	114,019	5	570,094	114,019
30 TO 34	0	0	0	1	191,206	191,206	1	191,206	191,206
35 TO 39	0	0	0	2	275,974	137,987	2	275,974	137,987
40 TO 44	0	0	0	12	1,360,040	113,337	12	1,360,040	113,337
45 TO 49	0	0	0	49	5,702,413	116,376	49	5,702,413	116,376
50 TO 54	0	0	0	82	9,581,190	116,844	82	9,581,190	116,844
55 TO 59	0	0	0	112	14,252,112	127,251	112	14,252,112	127,251
60 TO 64	0	0	0	89	11,512,939	129,359	89	11,512,939	129,359
65 TO 69	3	194,322	64,774	63	7,543,165	119,733	66	7,737,487	117,235
70 TO 74	0	0	0	65	7,099,566	109,224	65	7,099,566	109,224
75 TO 79	0	0	0	67	6,668,716	99,533	67	6,668,716	99,533
80 TO 84	1	73,531	73,531	47	4,142,237	88,133	48	4,215,768	87,829
85 TO 89	0	0	0	28	2,092,874	74,746	28	2,092,874	74,746
90 & UP	0	0	0	19	993,311	52,280	19	993,311	52,280
TOTAL	4	267,853	66,963	641	71,985,837	112,302	645	72,253,690	112,021
OTHER BENEFICIARIES:									
UNDER 30	0	0	0	4	252,863	63,216	4	252,863	63,216
30 TO 34	0	0	0	2	108,755	54,378	2	108,755	54,378
35 TO 39	0	0	0	3	163,932	54,644	3	163,932	54,644
40 TO 44	0	0	0	1	101,543	101,543	1	101,543	101,543
45 TO 49	1	122,869	122,869	0	0	0	1	122,869	122,869
50 TO 54	1	93,217	93,217	7	396,705	56,672	8	489,922	61,240
55 TO 59	1	23,535	23,535	14	745,485	53,249	15	769,020	51,268
60 TO 64	0	0	0	23	1,060,862	46,124	23	1,060,862	46,124
65 TO 69	0	0	0	23	920,418	40,018	23	920,418	40,018
70 TO 74	0	0	0	32	1,196,082	37,378	32	1,196,082	37,378
75 TO 79	0	0	0	38	1,066,396	28,063	38	1,066,396	28,063
80 TO 84	0	0	0	50	1,216,742	24,335	50	1,216,742	24,335
85 TO 89	0	0	0	37	672,483	18,175	37	672,483	18,175
90 & UP	0	0	0	117	943,849	8,067	117	943,849	8,067
TOTAL	3	239,621	79,874	351	8,846,115	25,203	354	9,085,736	25,666
ALL PENSIONERS AND BENEFICIARIES:									
UNDER 30	0	0	0	9	822,957	91,440	9	822,957	91,440
30 TO 34	4	292,514	73,129	3	299,961	99,987	7	592,475	84,639
35 TO 39	100	9,528,647	95,286	7	644,856	92,122	107	10,173,503	95,079
40 TO 44	332	31,801,776	95,788	13	1,461,583	112,429	345	33,263,359	96,416
45 TO 49	712	68,900,252	96,770	52	5,952,243	114,466	764	74,852,495	97,974
50 TO 54	1,313	129,704,807	98,785	89	9,977,895	112,111	1,402	139,682,702	99,631
55 TO 59	2,031	198,157,996	97,567	130	15,334,950	117,961	2,161	213,492,946	98,794
60 TO 64	2,787	245,674,374	88,150	123	13,385,449	108,825	2,910	259,059,823	89,024
65 TO 69	1,697	133,231,464	78,510	97	9,415,638	97,068	1,794	142,647,102	79,513
70 TO 74	1,542	98,204,896	63,687	97	8,295,648	85,522	1,639	106,500,544	64,979
75 TO 79	1,871	99,806,060	53,344	105	7,735,112	73,668	1,976	107,541,172	54,424
80 TO 84	1,786	83,396,240	46,694	99	5,461,045	55,162	1,885	88,857,285	47,139
85 TO 89	927	39,843,178	42,981	65	2,765,357	42,544	992	42,608,535	42,952
90 & UP	466	18,778,152	40,296	136	1,937,160	14,244	602	20,715,312	34,411
TOTAL	15,568	1,157,320,356	74,340	1,025	83,489,854	81,454	16,593	1,240,810,210	74,779

NEW YORK CITY FIREFIGHTERS' VARIABLE SUPPLEMENTS FUND
DATA USED IN THE JUNE 30, 2018 (LAG) ACTUARIAL VALUATION
FOR DETERMINING FINAL FISCAL YEAR 2020 EMPLOYER CONTRIBUTIONS
SUMMARY OF PENSIONERS BY GENDER

AGE	MALE			FEMALE			BOTH MALE & FEMALE		
	NUMBER	BENEFITS	AVERAGE	NUMBER	BENEFITS	AVERAGE	NUMBER	BENEFITS	AVERAGE
SERVICE RETIREMENT:									
UNDER 30	0	0	0	0	0	0	0	0	0
30 TO 34	0	0	0	0	0	0	0	0	0
35 TO 39	0	0	0	0	0	0	0	0	0
40 TO 44	4	48,000	12,000	0	0	0	4	48,000	12,000
45 TO 49	34	408,000	12,000	1	12,000	12,000	35	420,000	12,000
50 TO 54	111	1,332,000	12,000	0	0	0	111	1,332,000	12,000
55 TO 59	269	3,228,000	12,000	0	0	0	269	3,228,000	12,000
60 TO 64	502	6,024,000	12,000	3	36,000	12,000	505	6,060,000	12,000
65 TO 69	400	4,812,000	12,000	2	24,000	12,000	402	4,836,000	12,000
70 TO 74	434	5,208,000	12,000	0	0	0	434	5,208,000	12,000
75 TO 79	592	7,104,000	12,000	0	0	0	592	7,104,000	12,000
80 TO 84	589	7,068,000	12,000	1	12,000	12,000	590	7,080,000	12,000
85 TO 89	310	3,720,000	12,000	0	0	0	310	3,720,000	12,000
90 & UP	134	1,608,000	12,000	0	0	0	134	1,608,000	12,000
TOTAL	3,379	40,560,000	12,000	7	84,000	12,000	3,386	40,644,000	12,000

NEW YORK CITY FIRE OFFICERS' VARIABLE SUPPLEMENTS FUND
DATA USED IN THE JUNE 30, 2018 (LAG) ACTUARIAL VALUATION
FOR DETERMINING FINAL FISCAL YEAR 2020 EMPLOYER CONTRIBUTIONS
SUMMARY OF PENSIONERS BY GENDER

AGE	MALE			FEMALE			BOTH MALE & FEMALE		
	NUMBER	BENEFITS	AVERAGE	NUMBER	BENEFITS	AVERAGE	NUMBER	BENEFITS	AVERAGE
SERVICE RETIREMENT:									
UNDER 30	0	0	0	0	0	0	0	0	0
30 TO 34	0	0	0	0	0	0	0	0	0
35 TO 39	0	0	0	0	0	0	0	0	0
40 TO 44	2	24,000	12,000	0	0	0	2	24,000	12,000
45 TO 49	7	84,000	12,000	0	0	0	7	84,000	12,000
50 TO 54	40	480,000	12,000	0	0	0	40	480,000	12,000
55 TO 59	104	1,248,000	12,000	1	12,000	12,000	105	1,260,000	12,000
60 TO 64	218	2,616,000	12,000	1	12,000	12,000	219	2,628,000	12,000
65 TO 69	190	2,280,000	12,000	1	12,000	12,000	191	2,292,000	12,000
70 TO 74	231	2,772,000	12,000	0	0	0	231	2,772,000	12,000
75 TO 79	269	3,228,000	12,000	0	0	0	269	3,228,000	12,000
80 TO 84	218	2,616,000	12,000	0	0	0	218	2,616,000	12,000
85 TO 89	149	1,788,000	12,000	0	0	0	149	1,788,000	12,000
90 & UP	101	1,212,000	12,000	0	0	0	101	1,212,000	12,000
TOTAL	1,529	18,348,000	12,000	3	36,000	12,000	1,532	18,384,000	12,000

