"Annual Report
Fiscal Year Ended
June 30, 2008

Teachers' Retirement System of the City of New York

## trsnyc

# Teachers' Retirement System of the City of New York 

55 Water Street<br>New York, NY 10041<br>1 (888) 8-NYC-TRS<br>www.trs.nyc.ny.us

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# Introduction 

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TEACHERS' RETIREMENT BOARD TEACHERS' RETIREMENT SYSTEM
55 WATER STREET, NEW YORK, N.Y. 10041

December 31, 2008

Board of Trustees<br>Teachers' Retirement System of the City of New York (TRS)<br>55 Water Street<br>New York, NY 10041

The stock and bond markets experienced dramatic levels of volatility, and confidence in some of the country's largest financial institutions was shaken in Fiscal Year 2008. Despite this uncertainty, TRS members could rest assured that their pensions under our Qualified Pension Plan (QPP) remained secure. The foundation of that security is our adherence to sound investment principles-during both periods of stability and of turbulence.

Our members have the opportunity to supplement their defined-benefit pensions by participating in our optional Tax-Deferred Annuity (TDA) Program. This defined-contribution plan continued to attract nearly two-thirds of our in-service membership. As noted below, we renamed our existing investment options to better reflect their objectives and announced that three new investment options would be available on July 1. (In most places in this Report, the new names of our investment options will be shown.)

Throughout this challenging year, we also remained focused on improving operational efficiency and delivering superior service to more than 182,000 in-service members, retirees, and beneficiaries. Below is a summary of significant developments that affected TRS and our members in Fiscal Year 2008.

## Financial and Investment Overview

TRS' investment programs reflected the struggling domestic and global economies; however, our ability to fund retirement benefits remained undiminished.

Total assets in the QPP were $\$ 39.17$ billion in Fiscal Year 2008, compared with $\$ 46.09$ billion in Fiscal Year 2007. Total assets in the TDA Program grew from $\$ 18.48$ billion in the previous year to $\$ 18.58$ billion this fiscal year. The Pension Fund and Diversified Equity Fund (formerly the Variable A Annuity Program) yielded annual returns of $-6.21 \%$ and $-11.73 \%$, respectively, decreases from the previous year's returns of $17.46 \%$ and $20.16 \%$. The Stable-Value Fund (formerly the Variable B Annuity Program) exhibited strength with a $4.36 \%$ return, compared with the previous year's yield of $4.12 \%$.

## Major Initiatives and Objectives

During Fiscal Year 2008, we made significant strides in meeting key operational and strategic initiatives:

- New Investment Lineup - Our existing investment options were renamed: Fixed Return Fund (Fixed Annuity Program); Diversified Equity Fund (Variable A Annuity Program); and Stable-Value Fund (Variable B Annuity Program). We also announced three new variable annuity programs as of

July 1, 2008-the International Equity Fund, Inflation Protection Fund, and Socially Responsive Equity Fund. Our new investment lineup is collectively known as the Passport Funds. In addition to doubling the investment options available to our members, we introduced features that provide them with more investment control and flexibility. The six Passport Funds are available to in-service members and retirees under our TDA Program and Tiers I/II in-service members and retirees under the QPP.

- Major Legislation - We implemented the Age 55 Retirement Program following the enactment of Chapter 19 of the Laws of 2008 by New York State. The program, established in late February 2008 and affecting the majority of our membership, allows eligible members to retire with unreduced benefits as early as age 55 , provided they meet applicable service credit requirements.
- Website Enhancements - We upgraded our website with expanded functionalities, including a new Retirement Allowance Calculator for in-service members, and access for retirees to their payment histories. These efforts were accompanied by enhancements to data security, which TRS continues to view as a top priority.
- Streamlined Processing - Building on momentum from the prior fiscal year, we increased automation of service-credit processing. As a result, we can address members' service credit issues in a timelier manner.
- Business Continuity - We continued to strengthen our capability to perform critical business operations in the event of a disaster or emergency.
- Process Improvement - We established "Continuous Quality Improvement" teams that are working to examine, improve, and monitor many of our core business processes. Our goal is to establish high-quality processes that can evolve to accommodate new challenges over time.


## Acknowledgements

Once again, we thank the Trustees of the Teachers' Retirement Board for their support and dedication, and we thank the entire staff of TRS for its commitment and diligence. We also thank the Office of the Comptroller for its investment services, the Office of the Actuary for its actuarial services, and the City's Corporation Counsel for its legal services.

We are pleased to present you with this 91st Annual Report. On the next several pages, we have summarized the fiscal year's most important financial and membership data. In other sections of the book, you will find detailed statistical, financial, and actuarial information. We hope that you find it informative.


Nelson Serrano
Executive Director


Paul J. Raucci
Chief Accountant

## CHIEF ACCOUNTANT'S CERTIFICATION

The management of the Teachers' Retirement System of the City of New York (TRS) is responsible for establishing and maintaining an internal control structure designed to provide reasonable assurance that TRS' assets are protected from loss, theft, or misuse, and that adequate accounting data are compiled to allow for the preparation of financial statements in conformity with generally accepted accounting principles. The concept of reasonable assurance recognizes that:

- the cost of a control should not exceed the benefits likely to be derived from it; and
- the valuation of costs and benefits requires estimates and judgment by management.

I hereby certify that the following consolidated financial statements and attached schedules of the Qualified Pension Plan and the Tax-Deferred Annuity Program were prepared under the direction and supervision of the Chief Accountant, that they give a complete and correct exhibit of TRS' financial operations from July 1, 2007 to June 30, 2008, and that on June 30, 2008, the assets and liabilities were as enumerated to the best of my knowledge and belief.


Paul J. Raucci
Chief Accountant
Teachers' Retirement System of the City of New York

## PRINCIPAL ADVISORS

TEACHERS' RETIREMENT BOARD
Martha E. Stark, Chairperson
Melvyn Aaronson
Kathleen Grimm
Joseph Haslip
Sandra March
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Alan David, M.D.
Walter F. Pizzi, M.D.
CHIEF ACTUARY
Robert C. North, Jr.

## PRINCIPAL OFFICIALS



# FINANCIAL HICHLICHIS 

(In Thousands)

## QUALIFIED PENSION PLAN (QPP)

Total Assets (As of June 30)
Total Investments
Total Receivables, Cash, and Other Assets
Total Liabilities (As of June 30)
Net Assets Held in Trust for Pension Benefits (As of June 30)
Total Revenue (For the Fiscal Year)

| \$ | $39,170,094$ | $\$$ | $46,088,856$ |
| :--- | ---: | ---: | ---: |
| $\$$ | $38,072,605$ | $\$$ | $44,671,784$ |
| \$ | $1,097,489$ | $\$$ | $1,417,072$ |
| $\$$ | $6,872,230$ | $\$$ | $8,946,065$ |
| \$ | $32,297,864$ | $\$$ | $37,142,791$ |
| \$ | $(974,793)$ | $\$$ | $8,618,452$ |

## TAX-DEFERRED ANNUITY (TDA) PROGRAM

Total Assets (As of June 30)
Total Investments
Total Receivables and Cash
Total Liabilities (As of June 30)
Net Assets Held in Trust for Benefits (As of June 30)
Total Revenue (For the Fiscal Year)

| \$ | $18,579,574$ | $\$$ | $18,475,528$ |
| :--- | ---: | ---: | ---: |
| $\$$ | $18,227,212$ | $\$$ | $18,132,081$ |
| $\$$ | 352,362 | $\$$ | 343,448 |
| $\$$ | $2,311,702$ | $\$$ | $2,095,531$ |
| $\$$ | $16,267,873$ | $\$$ | $16,379,997$ |
| $\$$ | 338,539 | $\$$ | $2,640,847$ |

## TOTAL REVENUE (In Thousands)



## Providing Retirement Benefits

The Teachers' Retirement System of the City of New York (TRS) was established on August 1, 1917 and has since grown into one of the 30 largest pension funds in the U.S. Our programs impact more than 182,000 in-service members, retirees, and beneficiaries. Our mission is to "provide retirement, disability, and death benefit services to our members, including the efficient collection of contributions, the prudent investment of retirement funds, the responsible disbursement of member benefits, and the delivery of exceptional levels of member service."

Among the many services we provide our membership, TRS' primary responsibility remains managing and distributing our members' retirement benefits. In order to receive a retirement allowance, all TRS members participate in the Qualified Pension Plan (QPP), a retirement plan administered under Section 401(a) of the Internal Revenue Code. The QPP combines features of a defined-benefit pension plan with those of a defined-contribution pension plan.

Contributions to the QPP totaled $\$ 2,086.405$ million during the 2008 Fiscal Year. Employer contributions represented $\$ 1,944.097$ million, while the remaining $\$ 142.308$ million came from member contributions. As of the end of the fiscal year, 112,472 members were on payroll. Accordingly, the average employer contribution was $\$ 17,285$ per member and the average member contribution was $\$ 1,265$.

## TOTAL CONTRIBUTIONS-QPP <br> 2008 Fiscal Year-\$2,086.405 Million



At the end of the 2008 Fiscal Year, 69,775 members and beneficiaries were receiving QPP retirement allowances totaling $\$ 3.07$ billion. The chart below organizes this information by members' type of retirement.
RETIREMENT ALLOWANCES UNDER THE QPP
As of June 30, 2008

TRS' ability to fund QPP retirement benefits remained strong, with $\$ 32.30$ billion of net assets held in trust for pension benefits as of June 30, 2008.

NET ASSETS HELD IN TRUST FOR PENSION BENEFITS-QPP
(In Billions)


## Introduction

While members are required to make QPP contributions, their participation in the Tax-Deferred Annuity (TDA) Program is optional. A defined-contribution plan under Section 403(b) of the Internal Revenue Code, the TDA Program allows in-service members to defer taxes on the portion of their salary that they invest. The TDA Program is funded exclusively through members' contributions, interest earned, and investment returns. As of the end of the fiscal year, 72,898 members were contributing to the TDA Program through salary deductions.

## MEMBER PARTICIPATION IN THE TDA PROGRAM As of June 30, 2008



* This total includes members who have made TDA contributions but were not contributing as of June 30, 2008.

This year's figure, representing $65 \%$ of TRS' in-service membership, indicates that our members continue to understand the importance of actively planning for their financial future.

MEMBERS MAKING TDA CONTRIBUTIONS


At retirement, TDA participants may elect to receive their TDA funds as an annuity separate from their QPP retirement allowance. At the end of the 2008 Fiscal Year, 3,857 members and beneficiaries (or $5.53 \%$ of those receiving QPP allowances) were receiving TDA annuities; these annuities totaled $\$ 36.1$ million. The chart below organizes this TDA information by members' type of retirement under the QPP.

| ANNUITIES UNDER THE TDA PROGRAM <br> As of June 30, 2008 |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Service | Ordinary Disability | Accident Disability | Beneficiary |
| Retirees and Beneficiaries Receiving TDA Annuities | 2,908 | 230 | 31 | 688 |
| Total Annual Annuities Paid | \$ 29,086,594 | \$ 1,538,731 | \$ 154,084 | \$ 5,292,261 |
| Average Annual Annuity | \$ 10,002 | \$6,690 | \$ 4,970 | \$ 7,692 |

TRS' ability to fund TDA benefits also remained extremely strong, with $\$ 16.27$ billion of net assets held in trust for TDA benefits as of June 30, 2008.

> NET ASSETS AVAILABLE FOR BENEFITS-TDA PROGRAM (In Billions)


## Offering Investment Choices

Through the Qualified Pension Plan (QPP), TRS provides retirement allowances to our members. Through the Tax-Deferred Annuity (TDA) Program, we enable members to build additional personal savings for retirement. Through June 30, 2008, three investment options were available under these plans: the Fixed Return Fund (formerly the Fixed Annuity Program), the Diversified Equity Fund (formerly the Variable A Annuity Program), and the Stable-Value Fund (formerly the Variable B Annuity Program).

The portfolios are structured differently (see pages 15-19 for descriptions) to allow members to diversify and customize their investments.

## PENSION FUND DIVERSIFIED EQUITY FUND STABLE-VALUE FUND

(Member Contributions, Pension Reserve Funds \& ITHP Contributions)
Tiers I/II QPP funds
in the

Fixed Return Fund
+
All Tiers III/IV QPP Funds
+
All Tiers' TDA funds
in the
Fixed Return Fund
(Member Contributions \&
ITHP Contributions)

| Tiers I/II QPP funds |  |
| :---: | :---: |
| in the |  |
| Diversified Equity Fund | Tiers I/II QPP funds <br> in the <br> Stable-Value Fund |

$+$

All Tiers' TDA funds in the Diversified Equity Fund
(Member Contributions \& ITHP Contributions) Tiers I/II QPP funds Stable-Value Fund
$+$

All Tiers' TDA funds in the Stable-Value Fund

Note: Members' QPP accounts receive additional contributions from their employer: "Pension Reserve" funds, which are invested in the Pension Fund, are provided to all members on a statutory basis consistent with generally accepted actuarial principles; actuarial variations are performed annually as of June 30. "Increased-Take-Home Pay" (ITHP) funds, provided by the City of New York to Tier I and Tier II members only, are invested according to member designation in any combination of the three investment programs.

ANNUALIZED INVESTMENT PERFORMANCE


- The Pension Fund yielded a $-6.21 \%$ return; participants in the Fixed Return Fund continued to receive a guaranteed $8.25 \%$ return.
- The Diversified Equity Fund yielded a $-11.73 \%$ return, and the Fund's unit value decreased from $\$ 74.093$ in July 2007 to $\$ 62.888$ in July 2008.
- The Stable-Value Fund yielded a $4.36 \%$ return, and the Fund's unit value increased from \$19.456 in July 2007 to \$19.525 in July 2008.

Note: The July unit values were based on the portfolios' returns as of June 30.

The table below compares accumulations as of June 30, 2008, based on assumed contributions of $\$ 100.00$ per month into each of the Fixed Return, Diversified Equity, and Stable-Value Funds.

## 10-YEAR COMPARISON OF ACCUMULATIONS IN TRS' INVESTMENT PROGRAMS <br> As of June 30, 2008



## Pension Fund

Performance Highlights
Return: -6.21\%
Total Investments: \$36.665 Billion

During Fiscal Year 2008, the Pension Fund's portfolio, consisting primarily of equities and fixed-income instruments, yielded a return of $-6.21 \%$ after fees and expenses. This was a decrease from the $17.46 \%$ return for Fiscal Year 2007.

The Pension Fund includes all Tiers III/IV QPP funds, as well as QPP and TDA Funds invested by members in the Fixed Return Fund. The Fixed Return Fund offers a guaranteed rate of return of $8.25 \%$ set by the New York State Legislature, in accordance with applicable laws. This rate is guaranteed through June 30, 2009; the rate is guaranteed not to fall below $7 \%$.

The Comptroller of the City of New York invests the Pension Fund's holdings in a diversified portfolio, as authorized by the Teachers' Retirement Board. This portfolio consists of U.S. and international equities and fixed-income instruments with smaller allocations to private equity and real estate investments.

A percentage breakdown of the Pension Fund by asset class appears on page 19.

## PENSION FUND ANNUAL RATE OF RETURN* Fiscal Year Ended June 30



Diversified Equity Fund<br>Performance Highlights<br>Return: -11.73\%<br>Total Investments: \$12.508 Billion

For the fiscal year ended June 30, 2008, the Diversified Equity Fund returned -11.73\% after fees and expenses. The Diversified Equity Fund is invested in a diversified blend of investments that historically has made it less volatile than the overall U.S. equity market. The Diversified Equity Fund slightly underperformed the hybrid benchmark's return of $-11.01 \%$. The hybrid benchmark, which includes no fees, provides a passive reflection of the Diversified Equity Fund's actual asset allocation among major asset categories, such as domestic stocks, domestic fixed-income securities, and international equities.

- The Passive Core sector returned $-12.70 \%$, slightly underperforming the Russell 3000 Index's return of $-12.69 \%$.
- The Active Domestic Equity sector returned $-12.31 \%$, overperforming the Russell 3000 Index by 38 basis points ( $0.38 \%$ ). This sector is predominantly allocated to the risk-controlled composite, which returned -13.28\%. A smaller allocation to the eclectic composite returned -9.36\%.
- The Defensive Strategies sector earned $-8.77 \%$, underperforming the sector's benchmark ( $60 \%$ S\&P 500/40\% Lehman Brothers Long Treasury Bond Index), which returned -4.11\%.
- The International Equity sector earned - $10.45 \%$, underperforming its Morgan Stanley Capital International Europe-Australasia-Far East (MSCI EAFE) benchmark, which returned $-10.15 \%$. International equity is included in the portfolio to diversify the overall mix within the Diversified Equity Fund. A percentage breakdown of the Diversified Equity Fund by asset class appears on page 19.


# DIVERSIFIED EQUITY FUND ANNUAL RATE OF RETURN* <br> Fiscal Year Ended June 30 



Stable-Value Fund<br>Performance Highlights<br>Return: 4.36\%<br>Total Investments: \$0.384 Billion

The Stable-Value Fund's portfolio earned $4.36 \%$ after fees and expenses for the fiscal year ended June 30, 2008. The Stable-Value Fund's return underperformed the Ryan Three-Year GIC Index, which yielded a return of $4.73 \%$. This index measures the return of the ten highest-yielding three-year Guaranteed Investment Contracts (GICs) issued by insurance companies. The Stable-Value Fund underperformed a market-valued benchmark, the Merrill Lynch 1-3 Year Treasury Index; this index had a $7.30 \%$ annual return.

Consistent with its objectives, the Stable-Value Fund's assets are invested in Guaranteed Investment Contracts (GICs), wrapped fixed-income securities, and other stable-value investment vehicles. Conventional GICs are securities, issued by high-quality life insurance companies, which usually carry a fixed rate of interest for a stated time.

Synthetic GICs are also stable-value investments, but they consist of a single high-quality bond, or a portfolio of high-quality bonds, combined with a "wrap." A portfolio is "wrapped" when an insurance company or bank issues a form of investment contract (or "wrapper agreement") providing a guarantee that member withdrawals from the portfolio will not be adjusted for changes in market conditions. A percentage breakdown of the Stable-Value Fund by asset class appears on page 19 .

## STABLE-VALUE FUND ANNUAL RATE OF RETURN* <br> Fiscal Year Ended June 30



FUND ALLOCATION BY ASSET CLASS
As of June 30, 2008


DIVERSIFIED EQUITY FUND


STABLE-VALUE FUND


## A Portrait of Our Members

Our membership includes individuals of varying ages, tiers, and employment status. And although many TRS members are currently in active service, approximately one-third of them are retired. The following demographic data provide a snapshot of our membership as of June 30, 2008.

## In-Service Members

As of June 30, 2008, there were 112,472 in-service members. Following is some basic information about these active members receiving salaries.

## Average Age of In-Service Members: 44.3 years



* Tiers are classifications that determine the benefits for which members may be eligible. Tier status generally depends on when an individual last became a TRS member.


## IN-SERVICE MEMBERSHIP BY TITLE



[^0]
## Retired Members

As of June 30, 2008, there were 65,959 retired TRS members. Some statistics related to these members are below.

## Average Age of Members at Retirement Date: 60.4 years

## Retirement Payment Options Chosen by TRS Retirees

When TRS members retire, they receive a lifetime allowance under the QPP. Members may choose to receive a reduced allowance in order to provide for one or more beneficiaries. TRS offers a variety of retirement payment options to meet our members' needs. The categories of payment options chosen by TRS members retiring during Fiscal Year 2008 are displayed below, followed by a brief description.

## OPTIONS CHOSEN BY TIERS I/I MEMBERS



OPTIONS CHOSEN BY TIERS IIIV MEMBERS


## Categories of Retirement Payment Options

Maximum Payment-Member receives highest monthly payments, but does not provide for beneficiary. Lump-Sum Payment (Tiers I/II only)—Member's beneficiary receives payment in a lump sum.
Guaranteed Number of Payments-A specific number of retirement allowance payments is assured.
Continuing Payments-Lifetime monthly payments are made to beneficiary.
Pop-Up Payments-Member's payments increase to maximum allowed if beneficiary predeceases member.

# Statistical Section 

Membership Information 25<br>Investment and Expense Information 29

In the Introduction to this Annual Report, we highlighted some of TRS' key membership and investment information for Fiscal Year 2008. This Statistical Section supplements that information and provides more detailed data not presented as part of the financial statements.

## IN-SERVICE MEMBERS ON PAYROLL—DISTRIBUTION BY AGE As of June 30, 2008



## IN-SERVICE MEMBERSHIP

In-Service Membership as of June 30, 2007 ..... 109,868
Contributors Registered in Fiscal Year 2008 ..... 12,376
Contributors Withdrawn in Fiscal Year 2008 ..... (9,772)
IN-SERVICE MEMBERSHIP AS OF JUNE 30, 2008 ..... 112,472
Note: These figures include only current in-service members receiving salaries as of each June 30.
RETIRED MEMBERSHIP
Retired Membership as of June 30, 2007 ..... 64,773
Members Registered in Fiscal Year 2008 for Retirement ..... 2,835
Members Withdrawn in Fiscal Year 2008 from Retirement ..... $(1,649)$
RETIRED MEMBERSHIP AS OF JUNE 30, 2008 ..... 65,959

Note: These figures do not include the following: 3,816 beneficiaries who are receiving retirement allowances as of June 30, 2008; and retirees who are no longer receiving benefits, but have not yet been canceled from the retirement registers.

| SERVICE RETIREMENT ALLOWANCES <br> As of June 30, 2008 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| MEN |  |  | WOMEN |  |  |
| Age | Number of Retirees | Average Annual Allowance | Age | Number of Retirees | Average Annual Allowance |
| under 30 | 0 | - | under 30 | 0 | - |
| 30-34 | 0 | - | 30-34 | 0 | - |
| 35-39 | 0 | - | 35-39 | 0 | - |
| 40-44 | 0 | - | 40-44 | 0 | - |
| 45-49 | 0 | - | 45-49 | 0 | - |
| 50-54 | 0 | - | 50-54 | 0 | - |
| 55-59 | 1,396 | \$ 63,003 | 55-59 | 3,426 | \$ 58,145 |
| 60-64 | 5,790 | 63,730 | 60-64 | 8,787 | 54,067 |
| 65-69 | 3,982 | 54,106 | 65-69 | 8,566 | 42,057 |
| 70-74 | 3,061 | 49,917 | 70-74 | 6,655 | 36,070 |
| 75-79 | 2,688 | 48,396 | 75-79 | 5,760 | 33,827 |
| 80-84 | 1,975 | 44,943 | 80-84 | 4,789 | 32,341 |
| 85-89 | 1,011 | 44,138 | 85-89 | 2,874 | 29,793 |
| 90 \& over | 486 | 47,334 | 90 \& over | 2,091 | 32,007 |
| TOTAL | 20,389 | \$ 54,523 | TOTAL | 42,948 | \$ 41,373 |
| TOTAL ANNU | OWANCES PA | \$ 1,111,674,393 | TOTAL ANN | OWANCES PAI | \$ 1,776,877,675 |

## ORDINARY DISABILITY RETIREMENT ALLOWANCES <br> As of June 30, 2008

| MEN |  |  | WOMEN |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Number of Retirees | Average Annual Allowance | Age | Number of Retirees | Average Annual Allowance |
| under 30 | 1 | \$16,254 | under 30 | 5 | \$ 20,406 |
| 30-34 | 0 | - | 30-34 | 0 | - |
| 35-39 | 1 | 23,866 | 35-39 | 7 | 20,780 |
| 40-44 | 7 | 22,258 | 40-44 | 26 | 17,924 |
| 45-49 | 16 | 17,738 | 45-49 | 59 | 17,662 |
| 50-54 | 41 | 20,395 | 50-54 | 140 | 19,357 |
| 55-59 | 99 | 24,581 | 55-59 | 308 | 22,491 |
| 60-64 | 120 | 24,106 | 60-64 | 333 | 19,732 |
| 65-69 | 72 | 22,453 | 65-69 | 237 | 16,795 |
| 70-74 | 43 | 23,234 | 70-74 | 120 | 16,311 |
| 75-79 | 30 | 24,112 | 75-79 | 84 | 16,341 |
| 80-84 | 20 | 26,857 | 80-84 | 70 | 20,836 |
| 85-89 | 18 | 40,044 | 85-89 | 74 | 22,039 |
| 90 \& over | 14 | 36,811 | 90 \& over | 98 | 25,972 |
| TOTAL | 482 | \$ 24,387 | TOTAL | 1,561 | \$ 19,800 |
| total annu | OWANCES PAID | \$ 11,754,499 | TOTAL ANN | LOWANCES PAID | \$ 30,908,559 |

## ACCIDENT DISABILITY RETIREMENT ALLOWANCES

As of June 30, 2008

| MEN |  |  | WOMEN |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Number of Retirees | Average Annual Allowance | Age | Number of Retirees | Average Annual Allowance |
| under 30 | 0 | - | under 30 | 0 | - |
| 30-34 | 0 | - | 30-34 | 1 | \$ 26,446 |
| 35-39 | 1 | \$ 39,529 | 35-39 | 1 | 39,143 |
| 40-44 | 0 | - | 40-44 | 6 | 30,659 |
| 45-49 | 5 | 28,662 | 45-49 | 12 | 33,097 |
| 50-54 | 10 | 40,189 | 50-54 | 22 | 30,188 |
| 55-59 | 21 | 39,313 | 55-59 | 76 | 37,786 |
| 60-64 | 66 | 44,766 | 60-64 | 94 | 36,232 |
| 65-69 | 32 | 50,100 | 65-69 | 50 | 43,874 |
| 70-74 | 19 | 47,374 | 70-74 | 48 | 32,377 |
| 75-79 | 12 | 44,300 | 75-79 | 35 | 34,597 |
| 80-84 | 10 | 45,216 | 80-84 | 20 | 43,917 |
| 85-89 | 3 | 40,912 | 85-89 | 18 | 42,270 |
| 90 \& over | 3 | 52,048 | 90 \& over | 8 | 37,935 |
| TOTAL | 182 | \$ 44,675 | TOTAL | 391 | \$ 37,058 |
| TOTAL ANN | OWANCES PA | \$8,130,841 | TOTAL ANN | LOWANCES | \$ 14,489,831 |

## SURVIVORS' BENEFITS-QPP <br> As of June 30, 2008

| MEN |  |  | WOMEN |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Number of Beneficiaries | Average Annual Benefit | Age | Number of Beneficiaries | Average Annual Benefit |
| under 30 | 8 | \$ 25,124 | under 30 | 9 | \$ 29,219 |
| 30-34 | 3 | 23,551 | 30-34 | 5 | 18,913 |
| 35-39 | 7 | 14,127 | 35-39 | 10 | 21,260 |
| 40-44 | 13 | 9,461 | 40-44 | 18 | 17,456 |
| 45-49 | 13 | 14,764 | 45-49 | 40 | 16,263 |
| 50-54 | 19 | 14,646 | 50-54 | 40 | 15,448 |
| 55-59 | 62 | 20,313 | 55-59 | 90 | 35,604 |
| 60-64 | 87 | 27,942 | 60-64 | 198 | 36,171 |
| 65-69 | 86 | 27,737 | 65-69 | 242 | 34,322 |
| 70-74 | 107 | 22,462 | 70-74 | 274 | 35,817 |
| 75-79 | 139 | 24,689 | 75-79 | 411 | 34,243 |
| 80-84 | 179 | 23,242 | 80-84 | 517 | 30,002 |
| 85-89 | 176 | 24,012 | 85-89 | 477 | 29,811 |
| 90 \& over | 184 | 21,633 | 90 \& over | 408 | 28,475 |
| TOTAL | 1,083 | \$ 23,263 | TOTAL | 2,739 | \$ 31,421 |
| TOTAL ANNU | BENEFITS PAID | \$ 25,194,329 | TOTAL ANN | BENEFITS PAID | \$ 86,061,706 |

## TRS' TOTAL INVESTMENTS* (BY PLAN) <br> As of June 30, 2008-\$49,557 Billion



TRS' TOTAL INVESTMENTS* (BY ASSET ALLOCATION)
As of June 30, 2008-\$49,557 Billion


# LIST OF LARGEST BOND ASSETS HELD (BY MARKET VALUE) <br> As of June 30, 2008 

| Par Value |  | Interest Rate | Due Date | Market Value |
| :---: | :--- | :---: | :---: | :---: |
| $\$ 190,940,000.00$ | Federal Home Ln Mtg Corp Gold SFM \#T/B/A | $5.000 \%$ | $07 / 01 / 35$ | $\$ 182,944,387.50$ |
| $124,865,000.00$ | Federal Home Ln Mtg Corp Gold SFM \#T/B/A | 5.500 | $07 / 01 / 34$ | $122,992,025.00$ |
| $117,405,000.00$ | Federal Home Ln Mtg Corp Gold \#T/B/A | 6.000 | $07 / 01 / 34$ | $118,579,050.00$ |
| $104,150,000.00$ | Federal Nat Mtg Assn \#T/B/A | 6.000 | $07 / 01 / 34$ | $105,061,312.50$ |
| $78,250,000.00$ | Federal Nat Mtg Assn \#T/B/A | 5.000 | $07 / 01 / 34$ | $74,997,734.38$ |
| $65,564,807.01$ | Federal Nat Mtg Assn Pool \#745275 | 5.000 | $02 / 01 / 36$ | $63,066,787.87$ |
| $59,245,000.00$ | United States Treasury Notes | 4.250 | $11 / 15 / 14$ | $61,855,482.81$ |
| $42,085,000.00$ | United States Treasury Bonds | 8.125 | $08 / 15 / 19$ | $56,209,778.13$ |
| $55,250,000.00$ | Federal Home Ln Mtg Corp Gold SFM \#T/B/A | 5.000 | $07 / 01 / 18$ | $54,559,375.00$ |
| $54,670,000.00$ | Federal Nat Mtg Assn \#T/B/A | 5.500 | $07 / 01 / 37$ | $53,884,118.75$ |


|  | LIST OF LARGEST EQUITY ASSETS HELD <br> (BY MARKET VALUE) <br> As of June 30, 2008 |  |
| :---: | :--- | :---: |
| Shares | Equity |  |

Note: The above tables reflect assets of both the Qualified Pension Plan (QPP) and Tax-Deferred Annuity (TDA) Program. The complete list of the assets held by TRS' three investment programs is included in the publication Investment Portfolios.

| INVESTMENT SUMMARY—QPP <br> As of June 30, 2008 |  |  |  |
| :---: | :---: | :---: | :---: |
| Type of Investment |  | ket Value housands | Percent of Total Market Value |
| Fixed Income: Government Bonds Corporate Bonds Foreign Bonds |  | $\begin{array}{r} 3,504,983 \\ 3,491,688 \\ 387,278 \end{array}$ | $\begin{aligned} & 10.52 \% \\ & 10.48 \\ & 1.17 \end{aligned}$ |
| TOTAL FIXED INCOME | \$ | 7,383,949 | 22.17\% |
| Common Stock: Financial \& Utility Basic Industry Consumer \& Service Technological | \$ | $\begin{aligned} & 4,907,293 \\ & 6,391,315 \\ & 3,524,060 \\ & 2,693,185 \end{aligned}$ | $\begin{aligned} & 14.73 \% \\ & 19.19 \\ & 10.58 \\ & 8.08 \end{aligned}$ |
| TOTAL COMMON STOCK |  | 17,515,853 | 52.58\% |
| Alternative Investments: Guaranteed Investment Contracts Managed Investment Contracts International Investments Mutual Fund |  | $\begin{array}{r} 3,903 \\ 74,549 \\ 4,602,162 \\ 2,653,046 \end{array}$ | $\begin{gathered} 0.01 \% \\ 0.22 \\ 13.82 \\ 7.96 \end{gathered}$ |
| TOTAL ALTERNATIVE INVESTMENTS | \$ | 7,333,660 | 22.01\% |
| Short-Term Investments: Short-Term Investment Commercial Paper | \$ | $\begin{array}{r} 1,062,511 \\ 15,103 \end{array}$ | $\begin{aligned} & 3.19 \% \\ & 0.05 \end{aligned}$ |
| TOTAL SHORT-TERM INVESTMENTS | \$ | 1,077,614 | 3.24\% |
| TOTAL* |  | 33,311,076 | 100.00\% |

## TOTAL ASSET ALLOCATION*-QPP <br> As of June 30, 2008-\$33.311 Billion



[^1]| INVESTMENT EXPENSES-QPP <br> Year Ended June 30, 2008 |  |  |  |
| :---: | :---: | :---: | :---: |
| INVESTMENT MANAGERS | Service |  | Share of Fees mmissions Paid |
| PENSION FUND-FIXED INCOME |  |  |  |
| Advent Conv. Bonds | Investment Manager | \$ | 10,500 |
| Blackrock-Corp. | Investment Manager |  | 258,651 |
| Blackrock-Mortgage | Investment Manager |  | 383,070 |
| Fisher, Francis-Govt. | Investment Manager |  | 305,625 |
| Fisher, Francis-Int'l. | Investment Manager |  | 366,352 |
| Lehman Brothers-Govt. | Investment Manager |  | 87,400 |
| Lehman Brothers-Mortgage | Investment Manager |  | 241,913 |
| Lord Abbett Conv. Bonds | Investment Manager |  | 10,500 |
| Mackay Shields L.L.C. | Investment Manager |  | 1,908,830 |
| Morgan Stanley Mortgage | Investment Manager |  | 681,478 |
| PIMCO Advisor Govt. | Investment Manager |  | 201,874 |
| PIMCO Advisor-Mortgage | Investment Manager |  | 541,669 |
| Seix Investments | Investment Manager |  | 697,685 |
| Shenkman Capital | Investment Manager |  | 1,373,655 |
| Stone Harbor Investment Partners | Investment Manager |  | 864,482 |
| T. Rowe Price Associates Inc. | Investment Manager |  | 1,517,287 |
| Taplin, Canida \& Habacht | Investment Manager |  | 395,259 |
| Victory Conv. Bonds | Investment Manager |  | 10,500 |
| PENSION FUND-DOMESTIC EQUITY |  |  |  |
| Aeltus Investment Mgmt. Inc. | Investment Manager | \$ | 930,489 |
| Ariel Capital Management Inc. | Investment Manager |  | 965,780 |
| Attucks Asset Management-AF | Investment Manager |  | 137,506 |
| Barclays Global Investors N.A. | Investment Manager |  | 376,418 |
| Bivium Capital - BC | Investment Manager |  | 124,903 |
| Capital Guardian Trust Co. | Investment Manager |  | 244,464 |
| Capital Prospects - CP | Investment Manager |  | 244,032 |
| Chicago Equity Partners | Investment Manager |  | 556,110 |
| FIS Equity Russell 3000 | Investment Manager |  | 275,874 |
| Mellon Capital Management | Investment Manager |  | 127,174 |
| Relational Investors | Investment Manager |  | 399,823 |
| Walden Asset Management | Investment Manager |  | 30,614 |
| Westpeak Investment Advisors L.P | Investment Manager |  | 450,977 |
| PENSION FUND-REITs |  |  |  |
| Adelante Capital Management | Investment Manager | \$ | 1,517,301 |
| Morgan Stanley | Investment Manager |  | 2,391,568 |
| Security Capital | Investment Manager |  | 1,324,796 |
| PENSION FUND-INTERNATIONAL |  |  |  |
| Alliance MTA | Investment Manager | \$ | 2,910,411 |
| Baillie MTA | Investment Manager |  | 1,244,536 |
| BZW Barclays Global Invest. | Investment Manager |  | 469,059 |
| Capital Guardian Trust Co. (Int'I.) | Investment Manager |  | 2,415,689 |
| Cony EAFE | Investment Manager |  | 330,550 |
| Cony GTM EAFE | Investment Manager |  | 2,588,866 |
| G.E. Investment Management, Inc. | Investment Manager |  | 474,136 |
|  |  |  | tinued on page |


| INVESTMENT EXPENSES——PP (Continued) <br> Year Ended June 30, 2008 |  |  |
| :---: | :---: | :---: |
| Investment managers |  | TRS' Share of Fees |
|  | Service | and Commissions Paid |
| Martin Currie MTA | Investment Manager | 950,084 |
| Mondrian MTA | Investment Manager | 2,041,428 |
| Philadelphia MTA | Investment Manager | 180,948 |
| Rowe Price Fleming International Inc. | Investment Manager | 699,396 |
| Sprucegrove MTA | Investment Manager | 1,729,769 |
| Thornburg MTA | Investment Manager | 975,797 |
| Walter Scott MTA | Investment Manager | 1,372,245 |
| PENSION FUND-TIPS MTA |  |  |
| BlackRock TIPS MTA | Investment Manager | \$ 177,486 |
| PIMCO TIPS MTA | Investment Manager | 859,456 |
| State Street TIPS MTA | Investment Manager | 18,608 |
| PENSION FUND-ENHANCED YIELD/ALTERNATIVE |  |  |
| AFL-CIO Housing Investment | Investment Manager | \$ 389,639 |
| ACS (CONY ETI) | Investment Manager | 78,365 |
| Aisling Capital Partners II, L.P. | Investment Manager | 41,027 |
| Allegra Capital Partners IV, L.P. | Investment Manager | 145,434 |
| AMB Institutional Alliance Fund, Inc. | Investment Manager | 87,899 |
| Amer. Value Partners I, L.P. | Investment Manager | 680,539 |
| Ampersand 2006 | Investment Manager | 299,980 |
| Apollo Investment Fund | Investment Manager | 621,862 |
| ARES Corp. OPP Fund | Investment Manager | 695,951 |
| Arsenal Capital Partners, II | Investment Manager | 311,828 |
| Aurora Equity Capital Partners III | Investment Manager | 320,499 |
| Avenue Europe Special Situations Fund (Global) | Investment Manager | 557,316 |
| Avista Capital Partners, L.P. | Investment Manager | 120,000 |
| BDCM OPP Fund | Investment Manager | 824,302 |
| Blackstone Group | Investment Manager | 2,255,771 |
| Blackstone Mezz Partners | Investment Manager | 84,182 |
| Bridgepoint Europe III, L.P. | Investment Manager | 311,298 |
| Canyon Johnson Realty Advisors | Investment Manager | 686,923 |
| Carlyle Group | Investment Manager | 1,228,371 |
| Carpenter Community Bancfund | Investment Manager | 257,773 |
| Catterton Partners VI, L.P. | Investment Manager | 407,737 |
| CCMP Capital Investors II | Investment Manager | 274,097 |
| CD \& R Fund VII, L.P. | Investment Manager | 240,851 |
| Celtic Pharmaceutical Holding L.P. | Investment Manager | 165,657 |
| City Investment Fund | Investment Manager | 851,851 |
| Coller Investment Management, Ltd. | Investment Manager | 380,691 |
| Colony Realty Partners GP II, L.P. | Investment Manager | 230,902 |
| Craton Equity Investors | Investment Manager | 760,559 |
| Cypress Mech BK Partners II | Investment Manager | 238,117 |
| Erasmus NYC Growth Fund L.P. | Investment Manager | 727,287 |
| Ethos Private Equity Fund | Investment Manager | 387,910 |
| Fairview Capital Partners | Investment Manager | 221,009 |
| FdG Capital Partners L.L.C. | Investment Manager | 732,034 |
| First Reserve Fund XI | Investment Manager | 222,539 |
|  |  | Continued on page 34 |


| INVESTMENT EXPENSES-QPP (Continued) <br> Year Ended June 30, 2008 |  |  |
| :---: | :---: | :---: |
| INVESTMENT MANAGERS | Service | TRS' Share of Fees and Commissions Paid |
| Freeman Spogli \& Co., Inc. | Investment Manager | 367,312 |
| Fourth Cinven Fund | Investment Manager | 298,040 |
| FT Ventures Fund III | Investment Manager | 270,000 |
| GF Capital Private Equity FD, L.P. | Investment Manager | 368,075 |
| GI Partners Fund II L.P. | Investment Manager | 76,711 |
| Halyard Capital II | Investment Manager | 377,881 |
| Heitman America RE Trust | Investment Manager | 116,796 |
| HM 2006 Sector Performance Fund | Investment Manager | 515,609 |
| InterMedia Partners VII, L.P. | Investment Manager | 460,028 |
| J.P. Morgan Inversment Management Inc. | Investment Manager | 48,919 |
| JPMC Special Situations Fund | Investment Manager | 221,192 |
| JPMC Strategic Property Fund | Investment Manager | 761,144 |
| Landmark Equity Partners | Investment Manager | 321,822 |
| Lee Equity Partners | Investment Manager | 224,996 |
| Leeds Weld Equity Partners IV | Investment Manager | 123,811 |
| Lehman Brothers | Investment Manager | 1,332,347 |
| Lincolnshire Management, Inc. | Investment Manager | 612,241 |
| Markstone Capital Partners | Investment Manager | 730,070 |
| Metro Workforce Housing Fund | Investment Manager | 337,708 |
| Midocean Partners III | Investment Manager | 613,124 |
| Montreux Equity Partners IV | Investment Manager | 265,692 |
| New Mountain Investments | Investment Manager | 1,034,395 |
| New Spring Ventures II, L.P. | Investment Manager | 421,315 |
| Oaktree Capital Management | Investment Manager | 99,102 |
| Paladin Homeland Security | Investment Manager | 497,361 |
| Palladium Equity Partners III | Investment Manager | 72,739 |
| PCGAM Clean Energy \& Tech Fund | Investment Manager | 555,777 |
| Pegasus Partners IV | Investment Manager | 113,372 |
| Perseus Partners VII | Investment Manager | 723,144 |
| Pine Brook CAP Partners | Investment Manager | 374,527 |
| PRE/Urban America II | Investment Manager | 365,711 |
| Prisa | Investment Manager | 331,904 |
| Prism Venture Partners | Investment Manager | 415,929 |
| Psilos Group Partners III | Investment Manager | 1,624,059 |
| Quadrangle Capital Partners II | Investment Manager | 551,204 |
| Quaker BioVentures II | Investment Manager | 374,188 |
| Relativity Fund | Investment Manager | 198,338 |
| Ripplewood Holdings, L.L.C. | Investment Manager | 29,347 |
| RRE Ventures | Investment Manager | 1,220,239 |
| RREEF America II, Inc. | Investment Manager | 151,039 |
| RREEF America III, Inc. | Investment Manager | 132,292 |
| SCP Private Equity Partners | Investment Manager | 291,533 |
| SCP Vitalife Partners II | Investment Manager | 342,386 |
| Silver Lake Partners II | Investment Manager | 617,744 |
| Shamrock Capital | Investment Manager | 1,071,442 |
| Snow Phipps \& Guggenheim | Investment Manager | 697,730 |
| Solera Capital, L.L.C. | Investment Manager | 303,395 |
| Tailwind Capital Partners | Investment Manager | 515,883 |


| INVESTMENT EXPENSES——PPP (Continued) <br> Year Ended June 30, 2008 |  |  |
| :---: | :---: | :---: |
| INVESTMENT MANAGERS | Service | TRS' Share of Fees and Commissions Paid |
| Terra Firma Cap. III | Investment Manager | 635,783 |
| Thomas H Lee Equity Fund VI | Investment Manager | 91,748 |
| UBS Real Estate Separate Account | Investment Manager | 453,290 |
| U.S. Power Fund II, L.P. | Investment Manager | 1,262,816 |
| Vista Equity Partners III | Investment Manager | 568,538 |
| VSS Communication Partners IV | Investment Manager | 217,675 |
| Vitruvian Partners | Investment Manager | 267,089 |
| Yucaipa American Alliance Fund | Investment Manager | 831,105 |
| State Street Bank | Investment Manager | 4,104 |
| Investment Legal Fees |  | 70,926 |
| Consultant Fees |  | 3,332,846 |
| DIVERSIFIED EQUITY FUND |  |  |
| Advent Conv. Bond | Investment Manager | \$ 408,468 |
| Alliance-Lrg. Cap. Gr. | Investment Manager | 200,696 |
| Amalgamated-S\&P 1500 | Investment Manager | 21,144 |
| Axa Rosenberg-Intl. | Investment Manager | 307,773 |
| Barclays Global Investors-Intl. Alpha Tilts | Investment Manager | 1,397,280 |
| Bernstein-Intl\|. | Investment Manager | 250,981 |
| Brinson Non-U.S. | Investment Manager | 348,528 |
| Cap. Guardian-Core | Investment Manager | 286,685 |
| Cap. Guardian-Int'l. | Investment Manager | 181,945 |
| Cardinal Small Cap. Val | Investment Manager | 149,269 |
| CRM-Mid Value | Investment Manager | 112,665 |
| Goldman-Enhanced Core | Investment Manager | 846,382 |
| High Pointe Lrg. Cap. Val. | Investment Manager | 20,677 |
| Intech-Super Fund | Investment Manager | 632,937 |
| Lord Abbett Conv. Bond | Investment Manager | 251,181 |
| Lynmar Lrg. Cap. Gr. | Investment Manager | 95,484 |
| Mellon Capital Management-Enhanced Asset Alloc. | Investment Manager | 473,306 |
| Mellon Capital Management-Russell 3000 | Investment Manager | 109,411 |
| Profit Lrg. Cap. Core. | Investment Manager | 101,783 |
| Rainer-Small/Mid | Investment Manager | 371,893 |
| Shapiro-Small Cap. | Investment Manager | 113,942 |
| Short-Term Annuity QPP \& TDA | Investment Manager | 119,142 |
| Sound Shore-Value | Investment Manager | 240,801 |
| Walter Scott-Int'l. | Investment Manager | 530,856 |
| Wellington - Lrg. Cap. Core. | Investment Manager | 539,207 |
| Zazove Conv. Bond | Investment Manager | 587,297 |
| Bank of New York Mellon | Custodian | 288,413 |
| Interactive Data Corp. | Investment Services | 29,745 |
| Stable-value fund |  |  |
| Standish Mellon Asset Mgmt. | Funding Advisor | \$ 123,220 |
| Bank of New York Mellon | Custodian | 4,898 |
| Total Investment Expenses* |  | \$ 93,685,513 |

[^2]

## INVESTMENT SUMMARY-TDA PROGRAM <br> As of June 30, 2008

| Type of Investment | Market Value <br> In Thousands | Percent of Total Market Value |
| :---: | :---: | :---: |
| Fixed Income: |  |  |
| Government Bonds | \$ 1,095,328 | 6.74\% |
| Corporate Bonds | 1,091,173 | 6.72 |
| Foreign Bonds | 416,060 | 2.56 |
| TOTAL FIXED INCOME | \$ 2,602,561 | 16.02\% |
| Common Stock: |  |  |
| Financial \& Utility | \$ 2,708,446 | 16.67\% |
| Basic Industry | 3,626,390 | 22.32 |
| Consumer \& Service | 2,373,226 | 14.61 |
| Technological | 1,698,991 | 10.46 |
| TOTAL COMMON STOCK | \$ 10,407,053 | 64.06\% |
| Alternative Investments: |  |  |
|  | $\$ \quad 6,097$ | 0.04\% |
| Managed Investment Contracts | 116,451 | 0.72 |
| International | 1,728,179 | 10.64 |
| Mutual Fund | 829,092 | 5.10 |
| TOTAL ALTERNATIVE INVESTMENTS | \$ 2,679,819 | 16.50\% |
| Short-Term Investments: |  |  |
| Short-Term Investments | \$ 551,721 | 3.39\% |
| Commercial Paper | 4,720 | 0.03 |
| TOTAL SHORT-TERM INVESTMENTS | \$ 556,441 | 3.42\% |
| TOTAL* | \$ 16,245,874 | 100.00\% |

## TOTAL ASSET ALLOCATION*-TDA PROGRAM As of June 30, 2008-\$16.246 Billion



[^3]
## INVESTMENT EXPENSES—TDA PROGRAM

Year Ended June 30, 2008

INVESTMENT EXPENSES
Investment Agent Service TRS' Share of Expenses
DIVERSIFIED EQUITY FUND

Advent Capital Management
Alliance Bernstein, L.P.
Alliance Capital Management, L.P.
Amalgamated Bank of New York
Axa Rosenberg Group LLC
Barclays Global Investors, N.A. - Int'l. Alpha Tilts
Capital Guardian Trust
Cardinal Capital Management
CRM-Mid. Value
Enhanced Investment Technologies, Inc. (INTECH)
Goldman Sachs Asset Management
High Pointe Capital Management
Lord Abbett \& Co., LLC
Lynmar Capital Group
Mellon Capital Management Corp. - Enhanced Asset Allocation
Mellon Capital Management Corp. - Russell 3000
Profit Investment Management
Rainier - Small/Mid.
Shapiro - Small Cap.
Sound Shore Management, Inc.
UBS Brinson - Non.U.S.
Walter Scott \& Partners, Ltd.
Wellington - Lrg. Cap. Core
Zazove Associates
Mellon Trust Co.
Interactive Data

| Investment Manager | \$ |
| :--- | ---: |
| Investment Manager | 47656 |
| Investment Manager | 292,879 |
| Investment Manager | 234,199 |
| Investment Manager | 24,674 |
| Investment Manager | 359,151 |
| Investment Manager | $1,630,534$ |
|  | 546,862 |

Investment Manager 174,186
Investment Manager 131,473
Investment Manager 738,596
Investment Manager 987,672
Investment Manager 24,128

Investment Manager 293,578
Investment Manager 111,424
Investment Manager 552,318
Investment Manager 127,675
Investment Manager 118,774
Investment Manager 433,974
Investment Manager 132,962

Investment Manager 280,998
Investment Manager 406,710
Investment Manager 619,474
Investment Manager 629,219
Investment Manager 685,337
Custodial Bank $\quad 475,590$
Investment Services 34,710
STABLE-VALUE FUND
Certus Asset Advisors
Mellon Global Securities Services

Funding Advisor
192,478 Custodial Bank 7,650

TOTAL INVESTMENT EXPENSES*

[^4]
## ADMINISTRATIVE EXPENSES-TDA PROGRAM <br> Year Ended June 30, 2008



## trsnyc

## Financial Section (QPP)



## Deloitte.

# Independent Auditors' Report 

To the Board of Trustees of the<br>Teachers' Retirement System of The City of New York

We have audited the accompanying statements of plan net assets of the Teachers' Retirement System of The City of New York (the Plan) as of June 30, 2008 and 2007, and the related statements of changes in plan net assets for the years then ended. These financial statements are the responsibility of the Plan's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes consideration of internal control over financial reporting as a basis for designing audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Plan's internal control over financial reporting. Accordingly, we express no such opinion. An audit also includes examining, on a test basis, evidence supporting the amounts and disclosures in the respective financial statements, assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, such financial statements present fairly, in all material respects, the net assets of the Plan as of June 30, 2008 and 2007, and the changes in plan net assets for the years then ended in conformity with accounting principles generally accepted in the United States of America.

Management's Discussion and Analysis is not a required part of the financial statements, but is supplementary information required by the Governmental Accounting Standards Board (GASB). This supplementary information is the responsibility of Plan management. We have applied certain limited procedures, which consisted principally of inquiries of management regarding the methods of measurement and presentation of such required supplementary information. However, we did not audit this information and express no opinion on it.

Our audits were conducted for the purpose of forming an opinion on the basic financial statements taken as a whole. The supplemental schedules, Schedule 1, Schedule 2, and Schedule 3, listed in the table of contents are required by the GASB. The required supplemental information is the responsibility of the management of the Plan. Such information has been subjected to the auditing procedures applied in our audits of the basic financial statements and, in our opinion, is fairly stated in all material respects when considered in relation to the basic financial statements taken as a whole.

The Introductory, Investment, Actuarial, Statistical Sections, and Schedule 4 - Funded Status Based on Entry Age Actuarial Cost Method within the Financial Section are presented for the purpose of additional analysis and are not a required part of the basic financial statements of the Plan. This supplementary information is the responsibility of Plan management. The Introductory, Investment, Actuarial, Statistical Sections, and Schedule 4 - Funded Status Based on Entry Age Actuarial Cost Method have not been subjected to the auditing procedures applied in our audits of the basic financial statements and, accordingly, we express no opinion on it.

## Debitte 4 Touche LLA

October 28, 2008

# Management's Discussion and Analysis (Unaudited) 

This narrative discussion and analysis of the Teachers' Retirement System of the City of New York's (TRS or the Plan) financial performance provides an overview of the Plan's financial activities for the fiscal years ended June 30, 2008 and 2007. It is meant to assist the reader in understanding TRS' financial statements by providing an overall review of the financial activities during the two years and the effects of significant changes, as well as a comparison with prior years' activity and results. This discussion and analysis is intended to be read in conjunction with the Plan's financial statements, which begin on page 49.

## Overview of Basic Financial Statements

The following discussion and analysis is intended to serve as an introduction to the Plan's basic financial statements. The basic financial statements are as follows:

- The Statement of Plan Net Assets presents the financial position of the Plan at fiscal year-end. It indicates the assets available for payment of future benefits and any current liabilities that are owed as of the statement date. Investments are shown at fair value. All other assets and liabilities are determined on an accrual basis.
- The Statement of Changes in Plan Net Assets presents the results of activities during the fiscal year. All changes affecting the assets and liabilities of the Plan 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 Financial Statements provide additional information that is essential to a full understanding of the data provided in the financial statements. The notes present information about the Plan's accounting policies, significant account balances and activities, material risks, obligations, contingencies, and subsequent events, if any.
Required Supplementary Information, as required by the Governmental Accounting Standards Board (GASB), is presented after the Notes to Financial Statements.

The financial statements are prepared in accordance with GASB Pronouncements.

## Financial Highlights

Net assets of TRS are held in trust for the payment of future benefits to members and pensioners. The Plan's net assets were $\$ 32.3$ billion, $\$ 37.1$ billion, and $\$ 32.2$ billion as of June 30, 2008, 2007 and 2006, respectively. The Plan's employer contributions amounted to $\$ 1.9$ billion, $\$ 1.6$ billion and $\$ 1.3$ billion for Fiscal Years 2008, 2007 and 2006, respectively. The Plan's benefit payments and withdrawals totaled $\$ 3.8$ billion, $\$ 3.6$ billion, and $\$ 3.3$ billion for Fiscal Years 2008, 2007 and 2006, respectively.

Receivables for investment securities sold amounted to $\$ 706.2$ million at June 30, 2008, a decrease of $\$ 398.3$ million ( $36.1 \%$ ) from June 30, 2007, and a decrease of $\$ 459.8$ million (39.4\%) from June 30, 2006. This balance is principally composed of receivables for securities that have been sold but have not yet settled (i.e., the cash has not been collected). This decrease resulted primarily from timing differences in settlement dates. Trades typically do not settle until a few days after the trade date.

Receivables for accrued earnings amounted to $\$ 158.8$ million as of June 30,2008 , an increase of $\$ 6.1$ million (4.0\%) from June 30, 2007, and an increase of $\$ 24.8$ million ( $18.5 \%$ ) from June 30, 2006.

At June 30, 2008 member loan receivables amounted to $\$ 137.9$ million, an increase of $\$ 6.1$ million ( $4.7 \%$ ) from the previous year, and an increase of $\$ 7.1$ million (5.4\%) from June 30, 2006.

## Financial Analysis

## STATEMENT OF PLAN NET ASSETS

|  | (In Thousands) |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2008 |  | As of June 30 |  |  |  |
|  |  |  |  | 2007 |  | 2006 |
| Cash | \$ | 58 | \$ | 43 | \$ | 37 |
| Receivables for investments sold |  | 706,209 |  | 1,104,536 |  | 1,166,009 |
| Receivables for accrued interest and dividends |  | 158,788 |  | 152,695 |  | 133,991 |
| Member loan receivables |  | 137,853 |  | 131,722 |  | 130,782 |
| Investments, at fair value |  | 38,072,605 |  | 44,671,784 |  | 38,573,430 |
| Other assets |  | 94,851 |  | 28,076 |  | 17,944 |
| TOTAL ASSETS | \$ | 39,170,094 | \$ | 46,088,856 | \$ | 40,022,193 |
| Accounts payable |  | 344,649 |  | 470,755 |  | 252,755 |
| Payables for investments purchased |  | 1,747,216 |  | 2,370,738 |  | 2,569,678 |
| Accrued benefits payable |  | 10,410 |  | 13,095 |  | 14,441 |
| Payables for securities lending |  | 4,769,955 |  | 6,091,477 |  | 4,978,602 |
| TOTAL LIABILITIES | \$ | 6,872,230 | \$ | 8,946,065 | \$ | 7,815,476 |
| NET ASSETS HELD IN TRUST FOR BENEFITS | \$ | 32,297,864 | \$ | 37,142,791 | \$ | 32,206,717 |

Investments at June 30, 2008 were $\$ 38.1$ billion in comparison to $\$ 44.7$ billion at June 30, 2007 and $\$ 38.6$ billion at June 30, 2006. The investment asset balances represent decreases of $\$ 6.6$ billion ( $14.8 \%$ ) from June 30, 2007 and $\$ 500.8$ million ( $1.3 \%$ ) from June 30, 2006. Investments, excluding securities lending collateral, were $\$ 33.3$ billion at June 30,2008 , $\$ 38.6$ billion at June 30 , 2007, and $\$ 33.6$ billion at June 30, 2006. Excluding securities lending collateral, the investment asset balances represent decreases of $\$ 5.3$ billion ( $13.7 \%$ ) from June 30, 2007 and $\$ 299.8$ million ( $0.09 \%$ ) from June 20, 2006. The decline in TRS investment balances from Fiscal year 2007 mirrored the declines of U.S. and International Equity markets. For the twelve-month period, the Russell 3000 Index, a broad measure of U.S. equity markets, returned $-12.7 \%$. The MSCI EAFE (Morgan Stanley Capital International Index for Europe, Australia, and Far East) Small Cap Index declined - $18.3 \%$.

Accounts payable at June 30, 2008 amounted to $\$ 344.6$ million, a decrease of $\$ 126.1$ million ( $26.8 \%$ ) from June 30, 2007 and an increase of $\$ 91.9$ million ( $36.4 \%$ ) from June 30, 2006. The Plan's practice is to fully invest the cash balances in most of its bank accounts on a daily basis. Overdrawn balances result primarily from outstanding benefit checks that are presented to the banks for payment on a daily basis, and these balances are routinely settled each day.

Payables for investments purchased at June 30, 2008 amounted to $\$ 1.7$ billion, a decrease of $\$ 623.5$ million ( $26.3 \%$ ) from the previous year ended June 30,2007 and a decrease of $\$ 822.5$ million (32.0\%) from June 30, 2006. Investments purchased are accounted for on a trade-date basis. This decrease resulted from timing differences in settlement dates, similar to receivables for investments sold discussed earlier. Accrued benefits payable at June 30, 2008 amounted to $\$ 10.4$ million, a decrease of $\$ 2.7$ million (20.5\%) from June 30, 2007 and a decrease of $\$ 4.0$ million ( $\$ 27.9 \%$ ) from June 30, 2006. The $\$ 2.7$ million accrued benefit decrease from the period ending June 30, 2007 to June 30, 2008 is attributed to a decline in the year-end benefits payable to beneficiaries.

| STATEMENT OF CHANGES IN PLAN NET ASSETS (In Thousands) |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Year Ended June 30 |  |  |  |  |  |
|  |  | 2008 |  | 2007 |  | 2006 |
| Additions: |  |  |  |  |  |  |
| Member contributions | \$ | 142,308 | \$ | 143,786 | \$ | 141,056 |
| Employer contributions |  | 1,944,097 |  | 1,622,743 |  | 1,338,338 |
| Net receipts from (payments to) other retirement systems |  | 799 |  | (453) |  | (401) |
| Securities-lending income |  | 48,087 |  | 17,333 |  | 21,786 |
| Net investment (loss) income |  | $(3,157,851)$ |  | 6,770,235 |  | 3,587,983 |
| TOTAL |  | $(1,002,560)$ | \$ | 8,553,644 | \$ | 5,088,762 |
| Deductions: |  |  |  |  |  |  |
| Administrative expenses |  | 40,389 |  | 37,565 |  | 33,938 |
| Benefits payments and withdrawals |  | 3,781,978 |  | 3,580,005 |  | 3,340,277 |
| TOTAL DEDUCTIONS | \$ | 3,822,367 | \$ | 3,617,570 | \$ | 3,374,215 |
| NET (DECREASE) INCREASE |  | $(4,844,927)$ | \$ | 4,936,074 | \$ | 1,714,547 |

## Changes in Plan Net Assets

TRS received $\$ 142.3$ million in member contributions during Fiscal Year 2008, $\$ 143.8$ million in Fiscal Year 2007 and $\$ 141.1$ million in Fiscal Year 2006. The $\$ 142.3$ million in member contributions represents a $\$ 1.5$ million ( $1.0 \%$ ) decrease from Fiscal Year 2007 and a $\$ 1.3$ million ( $0.9 \%$ ) increase from Fiscal Year 2006. The decrease in 2008 is attributable to decreases in Tiers III and IV service contributions. Changes in contributions also reflect salary increases adopted in the current Teachers' contract. The 2007-2009 Teachers' contract provided incumbent salary increases of $2 \%$ effective October 13, 2007 and $5 \%$ effective May 19, 2008. Fiscal Year 2009 member contributions are expected to increase both due to May 19th incumbent salary increase as well as the additional contributions required as part of the Age 55 Retirement Program. Employer contributions for the fiscal year ended June 30, 2008 totaled $\$ 1.9$ billion, an increase of $19.8 \%$ and $45.3 \%$ over fiscal years 2007 and 2006, respectively.

The Plan experienced a $\$ 3.2$ billion net investment loss for Fiscal year 2008. Net investment income decreased by $\$ 9.9$ billion (loss) from Fiscal Year 2007 and decreased by $\$ 6.7$ billion (loss) from Fiscal Year 2006. The net investment loss, due to the economic slowdown beginning in December 2007, reflects the Plan's loss on net investment holdings, including both realized and unrealized losses. The loss on net investment holdings for the Pension Fund and Diversified Equity (Variable A) Fund totaled $\$ 3.6$ billion and $\$ 805.0$ million, respectively. The economic conditions have further worsened in the beginning of Fiscal Year 2009, as a severe weakness in global credit markets impacts the global economy.

Administrative expenses for the fiscal year ended June 30, 2008 totaled $\$ 40.4$ million, an increase of $7.5 \%$ over Fiscal Year 2007 and an increase of $19.0 \%$ over Fiscal Year 2006. The $7.5 \%$ increase in Administrative expenses from the prior fiscal year is primarily attributed to increases in professional and data processing support services.

Benefits payments and withdrawals for the fiscal year ended June 30, 2008 totaled $\$ 3.8$ billion, an increase of $5.6 \%$ from Fiscal Year 2007 and $13.2 \%$ from Fiscal Year 2006. Benefits payments and withdrawals for Fiscal Year 2008 are composed of retirement benefits ( $79.9 \%$ ), interest that is accumulated on behalf of and transferred to the TDA Program (17.1\%), and refunds, death benefits and loan
repayment withdrawals (3.0\%). Retirement benefits continued to increase incrementally, increasing 3.5\% from Fiscal Year 2007 and $9.2 \%$ from Fiscal Year 2006. Interest accumulated on behalf of and transferred monthly to the TDA Program increased $18.4 \%$ from Fiscal Year 2007 and $43.5 \%$ from Fiscal Year 2006, reflecting the continued growth of the TDA Fixed Return Fund (Fixed Annuity Program). Also, benefits payments and withdrawals account for the funds disbursed from the Plan's Variable-Return Funds (Variable Annuity Programs). Fiscal Year 2008 benefits payments and withdrawals were composed of $78.8 \%$ from the Fixed Return Fund (Fixed Annuity Program), 20.4\% from the Diversified Equity (Variable A) Fund and $0.8 \%$ from the Stable-Value (Variable B) Fund .

## Investments

TRS uses the S\&P 500 and Russell 3000 indices to provide benchmarks for domestic and private equity investment returns and the MSCI EAFE index for international equity returns. The Citigroup BB \& B Rated and NYC indices are used to provide benchmarks for debt securities. The Wilshire Real Estate and NCREIF NPI indices and Solomon's two-year US treasury fund are used to provide benchmarks for mortgage investments and investment contracts, respectively. TRS does not use benchmarks for short-term investments.

TRS earns additional investment income by lending its investment securities. The borrowers provide collateral to TRS that is valued in excess of the securities loaned. For the Fiscal Year ended June 30, 2008, net securities lending income amounted to $\$ 48.1$ million compared with $\$ 17.3$ million for Fiscal Year 2007 and $\$ 21.8$ million for Fiscal Year 2006.

Investments held by TRS, including collateral from securities lending transactions, are listed according to their investment classification in the following table:

INVESTMENT SUMMARY
(In Thousands)

| Type of Investment | 2008 |  | 2007 |  |
| :---: | :---: | :---: | :---: | :---: |
| Shor-term investments | \$ | 967,833 | \$ | 1,327,528 |
| Debt securities |  | 7,651,227 |  | 7,786,845 |
| Equity securities-Domestic |  | 17,640,566 |  | 22,144,145 |
| Private equity |  | 1,335,293 |  | 907,991 |
| Mutual Funds-International equity |  | 4,335,052 |  | 5,214,722 |
| Mutual Funds-TIPS |  | 1,190,941 |  | 1,018,517 |
| Mortgages |  | 98,905 |  | 75,967 |
| Promissory notes |  | 12,807 |  | 9,857 |
| Managed investment contracts |  | 74,549 |  | 89,908 |
| Guaranteed investment contracts |  | 3,903 |  | 18,642 |
| Collateral from securities lending |  | 4,761,529 |  | 6,077,662 |
| TOTAL | \$ | 38,072,605 | \$ | 44,671,784 |

## Contact Information

This financial report is designed to provide a general overview of the Teachers' Retirement System's finances. Questions concerning any data provided in this report or requests for additional information should be directed to Paul J. Raucci, Chief Accountant, Teachers' Retirement System of the City of New York, 55 Water Street, New York, NY 10041.

| STATEMENT OF PLAN NET ASSETS-QPP (In Thousands) |  |  |
| :---: | :---: | :---: |
|  | As of June 30 |  |
|  | 2008 | 2007 |
| ASSETS |  |  |
| Cash | 58 | \$ 43 |
| Receivables: |  |  |
| Investment securities sold | 706,209 | 1,104,536 |
| Accrued interest and dividends | 158,788 | 152,695 |
| Member loans (Note 5) | 137,853 | 131,722 |
| TOTAL RECEIVABLES | \$ 1,002,850 | \$ 1,388,953 |
| Investments, at Fair Value (Notes 2 and 3): Fixed funds: |  |  |
| Short-term investment fund | 850,615 | 1,129,234 |
| Debt securities: |  |  |
| U.S. Government | 3,504,983 | 3,758,304 |
| Corporate | 3,491,687 | 3,629,248 |
| Foreign | 115,509 | 70,775 |
| Equity securities: |  |  |
| Domestic | 12,971,628 | 15,986,293 |
| Private equity | 1,335,293 | 907,991 |
| Mutual funds: |  |  |
| Domestic equity | 27,908 | 41,171 |
| International equity | 4,335,052 | 5,214,722 |
| Treasury inflation-protected securities | 1,190,941 | 1,018,517 |
| Mortgages | 98,905 | 75,967 |
| Promissory notes | 12,807 | 9,857 |
| Variable A funds: |  |  |
| Short-term investments | 46,465 | 128,040 |
| Equity securities | 4,641,030 | 6,116,681 |
| Corporate bonds | 539,048 | 328,518 |
| Variable $B$ funds: |  |  |
| Short-term investments | 70,753 | 70,254 |
| Managed investment contracts | 74,549 | 89,908 |
| Guaranteed investment contracts | 3,903 | 18,642 |
| Collateral from securities lending | 4,761,529 | 6,077,662 |
| TOTAL INVESTMENTS | \$ 38,072,605 | \$ 44,671,784 |
| Other Assets | 94,581 | 28,076 |
| TOTAL ASSETS | \$ 39,170,094 | \$ 46,088,856 |
| LIABILITIES |  |  |
| Accounts payable | 344,649 | 470,755 |
| Payables for investment securities purchased | 1,747,216 | 2,370,738 |
| Accrued benefits payable | 10,410 | 13,095 |
| Securities lending (Note 2) | 4,769,955 | 6,091,477 |
| TOTAL LIABILITIES | \$ 6,872,230 | \$ 8,946,065 |
| PLAN NET ASSETS HELD IN TRUST FOR PENSION BENEFITS* | \$ 32,297,864 | \$ 37,142,791 |

[^5]| STATEMENT OF CHANGES IN PLAN NET ASSETS——PP (In Thousands) |  |  |  |
| :---: | :---: | :---: | :---: |
|  | Year Ended June 30 |  |  |
|  | 20082007 |  |  |
| ADDITIONS: CONTRIBUTIONS: |  |  |  |
|  |  |  |  |
| Member contributions | \$ 142,308 | \$ | 143,786 |
| Employer contributions (Note 4) | 1,916,520 |  | 1,600,904 |
| Other employer contributions | 27,577 |  | 21,839 |
| TOTAL CONTRIBUTIONS | \$ 2,086,405 | \$ | 1,766,529 |
| INVESTMENT INCOME (Note 2): |  |  |  |
| Interest income | 640,261 |  | 618,991 |
| Dividend income | 664,439 |  | 533,097 |
| Recovered investment losses | 390 |  | 2,316 |
| Net (depreciation) appreciation in fair value of investments | $(4,366,288)$ |  | 5,697,519 |
| TOTAL INVESTMENT (LOSS) INCOME | \$ $(3,061,198)$ | \$ | 6,851,923 |
| Less: |  |  |  |
| Investment expenses | 96,653 |  | 81,688 |
| NET (LOSS) INCOME | \$ (3,157,851) | \$ | 6,770,235 |
| SECURITIES-LENDING TRANSACTIONS: |  |  |  |
| Securities-lending income | 313,153 |  | 421,923 |
| Securities-lending fees | $(265,066)$ |  | $(404,590)$ |
| Net securities-lending income | 48,087 |  | 17,333 |
| NET INVESTMENT (LOSS) INCOME | \$ (3,109,764) | \$ | 6,787,568 |
| Other: |  |  |  |
| Net receipts from (payments) to other retirement systems | 799 |  | (453) |
| TOTAL ADDITIONS | \$ (1,022,560) | \$ | 8,553,644 |
| DEDUCTIONS: |  |  |  |
| Benefits payments and withdrawals (Notes 1 and 2) | 3,781,978 |  | 3,580,005 |
| Administrative expenses | 40,389 |  | 37,565 |
| TOTAL DEDUCTIONS | \$ 3,822,367 | \$ | 3,617,570 |
| (DECREASE) INCREASE IN PLAN NET ASSETS <br> PLAN NET ASSETS HELD IN TRUST FOR BENEFITS AT BEGINNING OF YEAR | $\begin{gathered} (4,844,927) \\ 37,142,791 \end{gathered}$ |  | $\begin{array}{r} 4,936,074 \\ 32,206,717 \end{array}$ |
| PLAN NET ASSETS HELD IN TRUST FOR BENEFITS AT END OF YEAR | \$ 32,297,864 |  | 37,142,791 |

[^6]
## Notes to Financial Statements-Qualified Pension Plan

## 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 Teachers' Retirement System of the City of New York-Qualified Pension Plan (the Plan), the New York City Employees' Retirement System (NYCERS), the New York City Board of Education Retirement System—Qualified Pension Plan (BERS), the New York City Police Pension Fund (POLICE) and the New York City Fire Pension Fund (FIRE). Each pension system is a separate Public Employee Retirement System (PERS) with a separate oversight body and is financially independent of the others.

The Plan is a cost-sharing, multiple-employer PERS. The Plan provides pension benefits for certain City public school teachers and certain other school and college teachers. The primary employers, in addition to the City, are the City University of New York and certain other specific schools (collectively, the Employer). Substantially, all teachers in the public schools of the City become members of the Plan and certain other specified school and college personnel may become members on the first day of permanent employment.

The Plan functions in accordance with existing State statutes and certain City laws. It combines features of a defined-benefit pension plan with those of a defined-contribution pension plan. Contributions are made by the Employer and the members.

In June 1991, the Governmental Accounting Standards Board (GASB) issued Statement No. 14, The Financial Reporting Entity. The definition of the reporting entity is based primarily on the notion of financial accountability. In determining financial accountability for legally separate organizations, the Plan considered whether its officials appoint a voting majority of an organization's governing body and is either able to impose its will on that organization or if there is a potential for the organization to provide specific financial benefits to, or to impose specific financial burdens on, the Plan. The Plan also considered whether there are organizations that are fiscally dependent on it. It was determined that there are no component units of the Plan.

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

Members of the Plan have the option to participate in a Tax-Deferred Annuity (TDA) Program, which provides members a means of deferring income tax payments on their voluntary tax-deferred contributions until the period after retirement or upon withdrawal of contributions. The TDA Program was created pursuant to Internal Revenue Code Section 403(b). Contributions to the TDA Program are made by the members only. The TDA Program is maintained as a separate plan and is not included in these financial statements.

At June 30, 2006 and June 30, 2005, the dates of the Plan's most recent actuarial valuations, the Plan's membership consisted of:

| PLAN MEMBERSHIP |  |  |
| :--- | ---: | ---: |
|  | As of June 30 |  |
|  | $\mathbf{2 0 0 6}$ | $\mathbf{2 0 0 5}$ |
| Retirees and beneficiaries receiving benefits | 67,576 | 65,168 |
| Terminated vested members not yet receiving benefits | 5,801 | 5,172 |
| Other Inactives* | 10,604 | 12,638 |
| Active members receiving salaries | 109,992 | 104,850 |
| TOTAL | $\mathbf{1 9 3 , 9 7 3}$ | $\mathbf{1 8 7 , 8 2 8}$ |

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

Under the One-Year Lag Methodology (OYLM) in effect for fiscal years beginning 2006, the actuarial valuation determines the Employer Contribution for the second following fiscal year. June 30, 2006 and June 30, 2005 are the dates used for calculating Fiscal Year 2008 and Fiscal Year 2007 Employer Contributions, respectively.

The State Constitution provides that the pension rights of public employees are contractual and shall not be diminished or impaired. In 1973, 1976 and 1983, amendments made to the State Retirement and Social Security Law (RSSL) modified certain benefits for employees joining the Plan on or after the effective date of such amendments. As such, benefits under the Plan fall into various categories based on the year when an employee joined the Plan. The service retirement benefits under the Plan are as follows:

- Members who joined prior to July 1, 1973 (Tier I) are entitled to service retirement benefits of $50 \%$ of "final salary" (as defined within State statutes and City laws) after 20 years of service; a portion is provided from member contributions, plus additional benefits equal to specified percentages (as defined within State statutes and City laws) per year of service of "final salary" for years in excess of the 20 -year minimum. These additional benefits are increased, where applicable, by an annuity attributable to accumulated member contributions in excess of the minimum required balance and by any benefits attributable to the Increased-Take-Home-Pay (ITHP) contributions accumulated after the twentieth year of member qualifying service. ITHP represents amounts contributed by the City in lieu of members' own contributions. These amounts reduce the contributions that members would have to make to the Plan during their service and thereby increase their take-home pay. Members have the choice of waiving their ITHP reduction, which would reduce their take-home pay, but provide them with increased benefits upon retirement.
In addition, these same members could elect a service retirement benefit with no minimum service requirement that provides an annual benefit for each year of service equal to a specified percentage (as described within State statutes and City laws) of "final salary" payable on attainment of age 55 . This benefit is increased, where applicable, by an annuity attributable to the member's contributions and by any benefits attributable to the Employer's contributions with respect to such service under the ITHP contributions.
■ Members who joined the Plan after June 30, 1973 and before July 27, 1976 (Tier II) have provisions similar to Tier I, except that the eligibility for retirement and the salary base for benefits are different and there is a limitation on the maximum benefit. This maximum limitation was subsequently eliminated under Chapter 574 of the Laws of 2000 for all Tier II members who retired after December 8, 2000. Members retiring prior to the age of 62 without 30 years of credited service experience an age-reduction factor in their retirement allowance. Effective February 27, 2008, active members were eligible to enroll in a 55 retirement age minimum and

25 credited years of service retirement option (" $55 / 25$ retirement option") enabling them to eliminate any age-reduction factor in their retirement allowance (Chapter 19 of Laws of 2008). Those choosing the 55/25 retirement option are required to make additional contributions of $1.85 \%$ of salary from February 28, 2008 until June 29, 2008 or until they have accumulated 25 years of credited service, whichever is later.
For members enrolled in the Plan prior to July 27, 1976, ITHP contributions made on their behalf, as well as their own contributions, are invested, at their election, in either the Fixed Return Fund (Fixed Annuity Program) or Variable-Return Funds (Variable Annuity Programs). Members can elect to invest in multiples of $5 \%$ and change their elections on a quarterly basis. The Plan guaranteed a $7.5 \%$ return on member contributions or ITHP contributions to the Fixed Return Fund (Fixed Annuity Program) until June 30, 1982, increased the guaranteed return to $8.0 \%$ as of July 1, 1982 and to $8.25 \%$ as of July 1, 1988 for members who enrolled in the Plan prior to July 27, 1976. (Members enrolled on or after July 27, 1976 receive a guaranteed return of $5.0 \%$ on member contributions.) The Variable-Return Funds (Variable Annuity Programs) include only member contributions and ITHP contributions made on their behalf, as described above, and are expressed in terms of units that are valued monthly based on investment experience. At retirement, monthly annuities attributable to member contributions and ITHP contributions can be paid in both fixed and variable amounts, based on the member's election, which can be changed quarterly on an annual, semi-annual or quarterly basis. Other benefits are paid only in fixed amounts. Variable annuities are not fixed in amount, but are based on investment experience through the preceding month.

- Members who joined the Plan on or after July 27, 1976 and prior to September 1, 1983 (Tier III) were mandated into Tier IV. However, these members could elect to remain in Tier III which requires member contributions of $3.0 \%$ of salary for a ten-year period (Chapter 126 of Laws of 2000), reduces benefits by one half of the primary Social Security benefit attributable to service with the Employer and provides an annual cost of living escalator in pension benefits of not more than $3.0 \%$. Members retiring prior to the age of 62 without 30 years of credited service experience an age-reduction factor in their retirement allowance. Effective February 27, 2008, active members were eligible to enroll in the 55 retirement age minimum and 25 credited years of service retirement option ("55/25 retirement option") enabling them to eliminate any age-reduction factor in their retirement allowance. Those choosing the $55 / 25$ retirement option are required to make additional contributions of 1.85\% of salary from February 28, 2008 until June 29, 2008 or until they have accumulated 25 years of credited service, whichever is later.
- Members who joined the Plan on or after September 1, 1983 (Tier IV) were required to make contributions of $3 \%$ of salary until termination of service. As of October 1, 2000, these members are not required to make contributions after the tenth anniversary of their membership date or completion of ten years of credited service, whichever is earlier (Chapter 126 of Laws of 2000). The annual benefit is $1.67 \%$ of "final average salary" per year of service for members with less than 20 years of service and $2 \%$ of "final average salary" per year of service for members with 20 to 30 years of service, plus a $1.5 \%$ addition of "final average salary" per year of service for service in excess of 30 years of service. Members retiring prior to the age of 62 without 30 years of credited service experience an age-reduction factor in their retirement allowance. Effective February 27, 2008, active members were eligible to enroll in a 55 retirement age minimum and 25 credited years of service retirement option enabling them to eliminate any age-reduction factor in their retirement allowance. Those choosing the age 55 retirement option are required to make additional contributions of $1.85 \%$ of salary from February 28, 2008 until June 29, 2008 or until they have accumulated 25 years of credited service, whichever is later. Members joining after February 27, 2008 are automatically enrolled in a 55 retirement age minimum and 27 credited years of service retirement option (" $55 / 27$ retirement option"). These members are required to make additional plan contributions of $1.85 \%$ of salary until they have accumulated 27 years of credited service.

Under all service retirement categories, annuities attributable to member contributions are reduced on an actuarial basis for any loans with unpaid balances outstanding at the date of retirement.

Subject to certain conditions, members become fully vested and eligible for benefits upon the completion of five years of service.

In addition, the Plan provides death benefits and retirement benefits on the occurrence of accidental or ordinary disability.

During the Spring 2000 session, the State Legislature approved and the State Governor (Governor) signed laws that provide automatic Cost-of-Living Adjustments (COLA) for certain retirees and beneficiaries (Chapter 125 of the Laws of 2000), additional service credit for certain Tier I and Tier II members, and reduced member contributions for certain Tier III and Tier IV members (Chapter 126 of the Laws of 2000).

## 2. Summary of Significant Accounting Policies and Plan Asset Matters

## (a) Basis of Accounting

The Plan uses the accrual basis of accounting where the measurement focus is on the flow of economic resources. Revenues are recognized in the accounting period in which they are earned and expenses are recognized in the period incurred. Contributions from members are recognized when the Employer makes payroll deductions from Plan members' salary. Employer contributions are recognized when due and the Employer has made a formal commitment to provide the contributions. Benefits and refunds are recognized when due and payable in accordance with the terms of the Plan.

## (b) Investment Valuation

Investments are reported at fair value. Securities purchased pursuant to agreements to resell are carried at the contract price, exclusive of interest, at which the securities will be resold. Fair value is defined as the quoted market value on the last trading day of the period, except for the Short-Term Investment Fund (STIF) (a money market fund), International Investment funds (the IIF) and Alternative Investment funds (the ALTINVF). The IIF are private funds or publicly traded securities which are managed by various investment managers on behalf of the Plan. Fair value is determined by Plan management based on information provided by the various investment managers. The investment managers determine fair value using the last available quoted price for each security owned adjusted by any contributions to or withdrawals from the fund during the period. The ALTINVF are investments for which exchange quotations are not readily available and are valued at estimated fair value as determined in good faith by the General Partner (GP). These investments are initially valued at cost with subsequent adjustments that reflect third party transactions, financial operating results and other factors deemed relevant by the GP. Fair value is determined by plan management based on information provided by the various GP's after review by an independent consultant and the custodian bank for the fund.

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

No investment in any one organization represents 5\% or more of the Plan net assets held in trust for pension benefits.

## (c) Investment Programs

The Plan's investments are composed of the assets of three investment programs. These are the New York City Pension Fund (which includes a component, the Fixed Return Fund-previously referred to as the Fixed Annuity Program) and two Variable Annuity Programs: the Diversified Equity Fund (formerly Variable A Annuity Program), which consists primarily of equity securities and the Stable-Value Fund (formerly Variable B Annuity Program), which consists primarily of managed investment contracts. As of

July 1, 2008, the Plan's investment programs were expanded to include three new programs: the International Equity Fund, the Inflation Protection Fund, and the Socially Responsive Equity Fund. The six investment programs are collectively referred to as the TRS Passport funds.

Assets of the Fixed Annuity Program of the Plan are co-invested with certain assets of the TDA Program. The TDA Program is funded by voluntary member contributions. Assets of the Variable Annuity Programs of the Plan are co-invested with certain assets of the TDA Program and BERS. These financial statements reflect the Plan's proportionate share of the investments and the related activity of each of these programs.

## (d) Income Taxes

Income earned by the Plan is not subject to Federal income tax.

## (e) Accounts Payable

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

## (f) Benefits Payments and Withdrawals

Plan deductions are primarily due to benefits payments and withdrawals. Included in withdrawals is the interest fixed income ( $8.25 \% \mathrm{APR}$ ) owed and transferred to the TDA program. TDA interest payments of $\$ 648$ million and $\$ 547$ million were classified as part of the benefit payments and withdrawals for Fiscal Year 2008 and Fiscal Year 2007.

## (g) Securities-Lending Transactions

State statutes and Board policies permit the Plan to lend its investments to broker-dealers and other entities for collateral with a simultaneous agreement to return the collateral for the same securities in the future. The Plan's custodian lends the following types of securities: short-term securities, common stock, long-term corporate bonds, U. S. Government and U. S. Government agency bonds, asset-backed securities and international equities and bonds held in collective investment funds. In return, it receives collateral in the form of cash and U.S. Treasury and U.S. Government agency securities at $100 \%$ to $105 \%$ of the principal plus accrued interest for reinvestment. Management believes the Plan has limited credit risk exposure to borrowers because the amounts the Plan owed the borrowers equaled or exceeded the amounts the borrowers owed the Plan. In addition, the contracts with the Plan's custodian require borrowers to indemnify the Plan if the borrowers fail to return the securities and if the collateral is inadequate to replace the securities loaned or fail to pay the Plan for income distributions by the securities' issuers while the securities are on loan. All securities loans can be terminated on demand within a period specified in each agreement by either the Plan or the borrowers. Cash collateral is invested in the lending agents' short-term investment pools, which have a weighted average maturity of 90 days. Underlying fixed income securities have an average maturity of ten years.

During Fiscal Year 2003, the value of certain underlying securities became impaired because of the credit failure of the issuer. Accordingly, the carrying amount of the collateral reported in the Plan's Statements of Plan Net Assets for Fiscal Year 2003 was reduced by $\$ 25$ million to reflect this impairment and reflect the net realizable value of the securities purchased with collateral from securities-lending transactions. In May 2004, the Plan received $\$ 1.8$ million from a distribution in bankruptcy proceeds from the defaulted issuer. Also, in Fiscal Years 2004, 2006, 2007, and 2008 the Plan received $\$ 5.7$ million, $\$ 1.5$ million, $\$ 2.2$ million and $\$ 5.4$ million as partial settlements from parties involved in the initial purchase of the impaired security.

The securities-lending program in which the Plan participates 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 Plan Net Assets. Cash received as collateral on securities-lending transactions and investments made with that cash are reported as assets. As of the balance sheet date, the maturities of the investments made with cash collateral on average exceed the maturities of the securities loans by approximately 30 days. Securities received as collateral are also reported as assets if the government entity has the ability to pledge or sell them with a borrower default. Accordingly, the Plan recorded the investments purchased with the cash collateral from securities lending with a corresponding liability for securities lending. Securities on loan are carried at market value; the value as of June 30, 2008 is $\$ 4.642$ billion.

## (h) Recently Implemented Accounting Pronouncements

GASB issued Statement No. 50 Pension Disclosures, an amendment of GASB Statements No. 25 and No. 27. The Statement establishes and modifies requirements related to financial reporting by pension plans and by employers that provide defined-benefit and defined-contribution pensions. The Statement more closely aligns the financial reporting requirements for pensions with those for Other Postemployment Benefits (OPEB) and consequently, enhances information disclosed in notes to financial statements or presented as required supplementary information (RSI) by pension plans and by employers that provide pension benefits. The reporting changes required by Statement No. 50 amend applicable note disclosure and RSI requirements of Statements No. 25, Financial Reporting for Defined Benefit Plans and Note Disclosures for Defined Contribution Plans, and No. 27, Accounting for Pensions by State and Local Governmental Employers, to conform with requirements of Statements No. 43, Financial Reporting for Postemployment Benefit Plans Other Than Pension Plans, and No. 45, Accounting and Financial by Employers for Postemployment Benefits Other Than Pensions. The Statement is intended to improve the transparency and decision usefulness of reported information about pensions by state and local governmental plans and employers. The Plan has adopted the requirements of Statement No. 50 effective for their fiscal year ended June 30, 2008.

## 3. Investments and Deposits

The Comptroller of The City of New York (the Comptroller) acts as an investment advisor to the Plan. In addition, the Plan employs an independent investment consultant as an investment advisor. The Plan utilizes several investment managers to manage the long-term debt and equity portfolios. The managers are regularly reviewed, with regard to both their investment performance and their adherence to investment guidelines.

## (a) Concentration of Credit Risk

The Plan does not have any investments in any one entity that represent 5\% or more of Plan net assets.
The legal requirements for Plan investments are as follows:
(i) Fixed income, equity and other investments may be made as permitted by New York State RSSL $\$ \$$ 176-178(a) and Banking Law $\$ 235$, the New York City Administrative Code, and the Legal Investments for New York Savings Banks list as published by The New York State Banking Department, subject to Note 3(b).
(ii) Investments up to $25 \%$ of total pension fund assets may be made in instruments not expressly permitted by the State RSSL.
The Bank of New York Mellon Corporation is the primary custodian for significantly all securities of the Plan.

Cash deposits are insured by the Federal Deposit Insurance Corporation for up to $\$ 100,000$ ( $\$ 250,000$ as of October 10,2008 ) per Plan member and are, therefore, fully insured.

The information reflected in the Credit Ratings and in the Years to Maturity is derived from the Custodian's Risk and Performance Analytics Reporting System.

## (b) Credit Risk

Portfolios other than U.S. Government and related portfolios have credit rating limitations. Investment Grade portfolios are limited to mostly ratings of BBB and above except that they are also permitted a $10 \%$ maximum exposure to BB \& B rated securities. While non-investment grade managers are primarily invested in $\mathrm{BB} \& \mathrm{~B}$ rated securities, they can also invest up to $7 \%$ of their portfolio in securities rated CCC or lower. Not rated securities are considered to be non-investment grade. The quality ratings of investments, by percentage of the rated portfolio, as described by nationally recognized statistical rating organizations, are as follows:

## Investment Type*

| June 30, 2008 | AAA | AA | A | BBB | BB | B |  <br> Below | Short <br> Term | Not <br> Rated | Total |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | U.S. Government | - | - | - | - | - | - | - | - | - |
| Corporate Bonds | $14.03 \%$ | $5.81 \%$ | $12.16 \%$ | $13.27 \%$ | $13.28 \%$ | $15.59 \%$ | $2.41 \%$ | $0.03 \%$ | $2.22 \%$ | $78.80 \%$ |
| Yankee Bonds | $0.15 \%$ | $0.49 \%$ | $1.37 \%$ | $0.58 \%$ | $0.06 \%$ | $0.01 \%$ | - | - | $0.02 \%$ | $2.68 \%$ |

Short Term

| Commercial Paper | $6.53 \%$ | - | - | - | - | - | - | - | - | $6.53 \%$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Pooled Funds | - | - | - | - | - | - | - | - | $11.93 \%$ | $11.93 \%$ |
| Certificates of Deposit | - | - | $0.06 \%$ | - | - | - | - | - | - | $0.06 \%$ |
| U.S. Treasuries | - | - | - | - | - | - | - | - | - | - |
| U.S. Agencies | - | - | - | - | - | - | - | - | - | - |
| Percent of Rated Portfolio | $20.71 \%$ | $6.30 \%$ | $13.59 \%$ | $13.85 \%$ | $13.34 \%$ | $15.60 \%$ | $2.41 \%$ | $0.03 \%$ | $14.17 \%$ | $100.00 \%$ |


| June 30, 2007 | AAA | AA | A | BBB | BB | B | CCC \& Below | Short Term | Not Rated | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| U.S. Government | 13.73\% | - | - | - | 0.04\% | - | - |  |  | 13.77\% |
| Corporate Bonds | 11.56\% | 6.06\% | 11.41\% | 12.00\% | 9.78\% | 16.99\% | 3.65\% | - | 1.06\% | 72.51\% |
| Yankee Bonds |  |  | 0.66\% | 0.73\% | 0.05\% | 0.01\% | - |  |  | 1.45\% |

Short Term

| Commercial Paper | - | - | $2.35 \%$ | - | - | - | - | - | $0.25 \%$ | $2.60 \%$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Pooled Funds | - | - | - | - | - | - | - | $9.52 \%$ | - | $9.52 \%$ |
| Certificates of Deposit | - | - | - | - | - | - | - | - | - | - |
| U.S. Treasuries | - | - | - | - | - | - | - | - | $0.15 \%$ | $0.15 \%$ |
| U.S. Agencies |  |  |  |  |  |  |  |  |  |  |

## (c) Custodial Credit Risk

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

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

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

All of the Plan's securities are held by the Plan's custodial bank in the Plan's name.

## (d) Interest Rate Risk

Interest rate risk is the risk that the fair value of investments could be adversely affected by the change in interest rates. Duration limits, in relation to a relevant benchmark, are used to control the portfolios' exposure to interest rate changes. Duration is limited to a range of -1 to 0.75 years. Duration range is a measure of the overall portfolio, while statements of the stated maturity reflect the specific maturities of the individual securities held. The lengths of investment maturities (in years), as shown by the percent of the rated portfolio, are as follows:

## Years to Maturity

Investment Type
June 30, 2008

|  | Investment Maturities |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Fair Value | Less than one year | One to five years | Six to ten years | More than ten years |
| U.S. Government | 44.35\% | 0.62\% | 1.37\% | 6.37\% | 35.99\% |
| Corporate Bonds | 43.47\% | 0.82\% | 15.63\% | 14.33\% | 12.69\% |
| Yankee Bonds | 1.48\% | 0.05\% | 0.23\% | 0.50\% | 0.70\% |
| Short Term |  |  |  |  |  |
| Commercial Paper | 3.60\% | 3.60\% | - | - | - |
| Pooled Funds | 6.59\% | 6.59\% | - | - | - |
| Certificates of Deposit | 0.03\% | - | - | - | 0.03\% |
| U.S. Treasuries | - | - | - | - | - |
| U.S. Agencies | 0.48\% | 0.48\% | - | - | - |
| Percent of Rated Portfolio | 100.00\% | 12.16\% | 17.23\% | 21.20\% | 49.41\% |


| June 30, 2007 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Fair Value | Less than one year | One to five years | Six to ten years | More than ten years |
| U.S. Government | 45.40\% | 2.81\% | 6.24\% | - | 36.35\% |
| Corporate Bonds | 45.89\% | 0.87\% | 14.81\% | 17.19\% | 13.02\% |
| Yankee Bonds | 0.92\% | - | 0.37\% | 0.19\% | 0.36\% |
| Short Term |  |  |  |  |  |
| Commercial Paper | 1.63\% | 1.63\% | - | - | - |
| Pooled Funds | 6.06\% | 6.06\% | - | - | - |
| Certificates of Deposit | - | - | - | - | - |
| U.S. Treasuries | 0.10\% | 0.10\% | - | - | - |
| U.S. Agencies | - | - | - | - | - |
| Percent of Rated Portfolio | 100.00\% | 11.47\% | 21.42\% | 17.38\% | 49.73\%\% |
| 58 | 91 ${ }^{\text {st }}$ Annual Report |  |  |  |  |

(e) Securities-Lending Transactions
Credit Risk—The quality ratings of investments held as collateral for Securities Lending are as follows:
Investment Type and Fair Value of Securities-Lending Transactions
S\&P Quality Ratings

|  | AAA | AA | A |  | BBB |  | BB |  | B |  | CCC \& Below |  | Short Term |  | Not Rated |  | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| U.S. Government | \$ 38,107 | \$ - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ 38,107 |
| Corporate Bonds | 813,893 | 820,064 |  | 126,999 |  | - |  | - |  | - |  | - |  | 455,783 |  | 5,477 | 2,2२2,216 |
| Yankee Bonds | - | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - | - |
| Short Term |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Bank Notes | 73,860 | 561,236 |  | 179,292 |  | - |  | - |  | - |  | - |  | 321,603 |  | 16,513 | 1,152,504 |
| Commercial Paper | - | - |  | 5,680 |  | - |  | - |  | - |  | - |  | - |  | - | 5,680 |
| Cerrificates of Deposit | - | 636 |  | - |  | - |  | - |  | - |  | - |  | 23,871 |  | - | 24,507 |
| Certificates of DepositFloaters | - | 137,661 |  | 9,700 |  | - |  | - |  | - |  | - |  | 509,117 |  | - | 656,478 |
| Funding Agreements | - | 132 |  | - |  | - |  | - |  | - |  | - |  | - |  | - | 132 |
| Mutual Funds | 360,956 | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - | 360,956 |
| Master Notes | 821 | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - | 821 |
| Money Market Funds | - | 2,491 |  | - |  | - |  | - |  | - |  | - |  | - |  | - | 2,491 |
| Repurchase Agreements | S - | - |  | 7,367 |  | - |  | - |  | - |  | - |  | - |  | 133,697 | 141,064 |
| Reversal Purchase Agreements | - | - |  | - |  | - |  | - |  | - |  | - |  | - |  | 153,700 | 153,700 |
| Time Deposit | - | - |  | - |  | - |  | - |  | - |  | - |  | 2,873 |  | - | 2,873 |
| Total | \$1,287,637 | \$1,522,220 | \$ | 329,038 | \$ | - | \$ | - | \$ | - | \$ | - |  | 1,313,247 |  | 309,387 | \$4,761,529 |
| Percent of SecuritiesLending Portfolio | 27.04\% | 31.97\% |  | 6.91\% |  | 0.00\% |  | 0.00\% |  | 0.00\% |  | 0.00\% |  | 27.58\% |  | 6.50\% | 100.00\% |
| June 30, 2007 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | AAA | AA |  | A |  | BBB |  | BB |  | B |  | CC \& Below |  | Short Term |  | ot Rated | Total |
| U.S. Government | \$ - | \$ - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ | - | \$ - |
| Corporate Bonds | 622,096 | 413,001 |  | 417,247 |  | - |  | - |  | - |  | - |  | 516,392 |  | 25,406 | 1,994,142 |
| Yankee Bonds | - | - |  | - |  | - |  | - |  | - |  | - |  | 50,727 |  | - | 50,727 |
| Short Term |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Commercial Paper | - | - |  | - |  | - |  | - |  | - |  | - |  | 174,779 |  | - | 174,779 |
| Pooled Funds | 513,658 | - |  | - |  | - |  | - |  | - |  | - |  | - |  | - | 513,658 |
| Repurchase Agreements | - - | - |  | - |  | - |  | - |  | - |  | - |  | 26,172 |  | 873,799 | 899,971 |
| Certificates of Deposit | - | 350,273 |  | 201,193 |  | - |  | - |  | - |  | - |  | 540,394 |  | - | 1,091,860 |
| Bank Notes | 92,825 | 657,073 |  | 331,413 |  | - |  | - |  | - |  | - |  | 143,782 |  | - | 1,225,093 |
| Other | 83 | 974 |  | - |  | - |  | - |  | - |  | - |  | 126,375 |  | - | 127,432 |
| Total | \$1,228,662 | \$1,421,321 | \$ | 949,853 | \$ | - | \$ | - | \$ | - | \$ | - |  | 1,578,621 |  | 899,205 | \$6,077,662 |
| Percent of SecuritiesLending Portfolio | 20.22\% | 23.39\% |  | 15.63\% |  | 0.00\% |  | 0.00\% |  | 0.00\% |  | 0.00\% |  | 25.97\% |  | 14.79\% | 100.00\% |

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


June 30, 2007

|  | Fair Value | Less than one year | One to five years | Six to ten years | More than ten years |
| :---: | :---: | :---: | :---: | :---: | :---: |
| U.S. Government | \$ | \$ - | \$ | ¢ | \$ |
| Corporate Bonds | 1,994,142 | 539,879 | 1,454,263 | - | - |
| Yankee Bonds | 50,727 | 20,846 | 29,881 | - | - |
| Short Term |  |  |  |  |  |
| Commercial Paper | 174,779 | 174,779 | - | - | - |
| Pooled Funds | 513,658 | 513,658 | - | - | - |
| Repurchase Agreements | 899,971 | 899,971 | - | - | - |
| Cerificates of Deposit | 1,091,860 | 593,758 | 498,102 | - | - |
| Bank Notes | 1,225,093 | 349,942 | 875,151 | - | - |
| Other | 127,432 | 118,859 | 8,573 | - | - |
| Total | \$6,077,662 | \$3,211,692 | \$2,865,970 | \$ | \$ |
| Percent of Securities-Lending Portfolio | 100.00\% | 52.84\% | 47.16\% | 0.00\% | 0.00\% |

## 4. Contributions and Actuarial Assumptions

The financial objective of the Plan 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. Under current law, the Employer contributes statutorily-required contributions (Statutory Contributions) that together with Member Contributions and investment income would ultimately be sufficient to accumulate assets to pay benefits when due.

## (a) Member Contributions

Members who joined prior to July 27, 1976 contribute by salary deductions on the basis of a normal rate of contribution that is assigned by the Plan at membership. This member normal rate, which is dependent upon age, years of prior service, and actuarial tables in effect at the time of membership, is determined so as to provide approximately one-fourth of the service retirement allowance at the earliest age for service retirement. For age at membership equal to 20 and with no prior service, the member normal rate is equal to $4.6 \%$. For age at membership equal to 40 with no prior service, the member normal rate is equal to $3.6 \%$.

Members who joined on or after July 27, 1976 are mandated to contribute 3\% of salary. Effective October 1, 2000, these members are not required to make contributions after the tenth anniversary of their membership date or completion of ten years of credited service, whichever is earlier.

Effective February 27, 2008, active members were eligible to enroll in a 55 retirement age minimum and 25 credited years of service retirement option enabling them to eliminate any age-reduction factor in their retirement allowance. Those choosing the age 55 retirement option are required to make additional contributions of $1.85 \%$ of salary from February 28, 2008 until June 29, 2008 or until they have accumulated 25 years of credited service, whichever is later. Members joining after February 27, 2008 are automatically enrolled in a 55 retirement age minimum and 27 credited years of service retirement option ("55/27 retirement option"). These members are required to make additional plan contributions of $1.85 \%$ of salary until they have accumulated 27 years of credited service.

## (b) Employer Contributions

Statutory Contributions to the Plan, determined by the Plan's Chief Actuary of the Office of the Actuary (the Actuary) in accordance with the State statutes and City laws, are generally funded by the Employer within the appropriate fiscal year.

The June 30, 2006 (Lag) actuarial valuation was used to determine the fiscal year 2008 Employer Contribution. There were no changes in actuarial assumptions and methods from the prior actuarial valuation.

The actuarial assumptions and methods used in the June 30, 2005 (Lag) actuarial valuation were unchanged from those used in the June 30, 2004 (Lag) actuarial valuation.

The Frozen Initial Liability Actuarial Cost Method is utilized by the Actuary to calculate the contributions from the Employer. Under this actuarial cost method, the Initial Liability was reestablished by the Entry Age Actuarial Cost Method as of June 30, 1999, but with the Unfunded Actuarial Accrued Liability (UAAL) not less than zero. The excess of the Actuarial Present Value (APV) of projected benefits of members as of the valuation date, over the sum of the Actuarial Asset Value (AAV) plus UAAL, if any, and the APV of future employee contributions is allocated on a level basis over the future earnings of members who are on the payroll as of the valuation date. Actuarial gains and losses are reflected in the employer normal contribution rate.

Chapter 85 of the Laws of 2000 (Chapter 80/00) reestablished the UAAL and eliminated the Balance Sheet Liability (BSL) for actuarial purposes as of June 30, 1999. The schedule of payments toward the reestablished UAAL provides that the UAAL, if any, 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.

Chapter 69 of the Laws of 2002 established the UAAL as of June 30, 2003, for an Early Retirement Incentive (Part A only). This UAAL is being amortized on a level basis over a period of five years beginning Fiscal Year 2004.

Beginning with the June 30, 2004 (Lag) actuarial valuation, the Actuarial Asset Valuation Method (AAVM) was changed to a method which reset the AAV to Market Value (i.e., Market Value Restart) as of June 30, 1999. As of each June 30 thereafter the AAVM recognizes investment returns greater or less than expected over a period of six years.

Under this revised AAVM, any Unexpected Investment Returns (UIR) for Fiscal Years 2000 and later are phased into the AAV beginning the following June 30 at a rate of $15 \%, 15 \%, 15 \%, 15 \%, 20 \%$ and $20 \%$ per year (or cumulative rates of $15 \%, 30 \%, 45 \%, 60 \%, 80 \%$ and $100 \%$ over a period of six years).

The UIR for fiscal years 2000 to 2004 under the revised AAVM was set equal to the UIR under the prior AAVM.

For determining employer contributions for fiscal years 2000 through 2005 inclusive, the AAVM was changed as of June 30,1999 to reflect a market basis for investments held by the Plan. This AAVM recognized expected investment returns immediately and phased in UIR.

Under this prior AAVM, any UIR for Fiscal Years 2000 through 2005 inclusive were phased into the AAV beginning the following June 30 at a rate of $10 \%, 15 \%, 20 \%, 25 \%$ and $30 \%$ per year (i.e., cumulative rates of $10 \%, 25 \%, 45 \%, 70 \%$ and $100 \%$ over a period of five years).

For assets of the Variable Annuity Programs, current market value is used.
Chapter 125 of the Laws of 2000 (Chapter 125/00) provided eligible retirees and eligible beneficiaries with increased Supplementation as of September 2000 and with automatic Cost-of-Living Adjustments (COLA) beginning September 2001. Chapter 125/00 also provided for a five-year phase-in schedule for funding the additional actuarial liabilities created by the benefits provided by this law. Chapter 278 of the Laws of 2002 (Chapter 278/02) required the Actuary to revise the methodology and timing for determining the Statutory Contributions on account of the additional actuarial liabilities attributable to the benefits provided under Chapter 125/00 by extending the phase-in period for funding these liabilities from five years to ten years.

The impact of the ten-year phase-in of Chapter 278/02 was to postpone funding of the additional actuarial liabilities attributable to Chapter 125/00, resulting in greater Employer Contributions in later years.

Chapter 152 of the Laws of 2006 (Chapter 152/06) eliminated the ten-year phase-in. All actuarial liabilities attributable to Chapter 125/00 are now recognized in the actuarial valuation.

Statutory Contributions for Fiscal Years 2007 and 2006 were equal to the amounts calculated by the Actuary.

## (c) Funded Status and Funding Progress

One measure of the funded status of the Plan as of June 30, 2006, the most recent actuarial valuation date, based on the Frozen Initial Liability Actuarial Cost Method, the plan's funding method, is as follows (dollar amounts in thousands):

|  | Actuarial |  |  | UAAL as a <br> Percentage |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Actuarial | Accrued | Unfunded |  |  | Funded |
| Value | Liability | AAL | Covered | of Covered |  |
| of Assets | (AAL) | (UAAL) | Ratio | Payroll | Payroll |
| (a) | (b) | (b-a) | (a/b) | (c) | (b-a)/c) |
| $\$ 32,405,645$ | $\$ 32,410,501$ | $\$ 4,979$ | $100.00 \%$ | $\$ 6,978,726$ | $0.1 \%$ |

A schedule of funding progress, presented as required supplementary information (RSI) following the notes to the financial statements, presents multiyear trend information about whether the actuarial values of plan assets are increasing or decreasing over time relative to the AALs for benefits under the Plan's Actuarial Cost Method.

An additional schedule of funding progress, presented as supplementary information following the notes to the financial statements, presents multiyear trend information about whether actuarial values of plan assets are increasing or decreasing over time relative to AALs for benefits under the Entry Age Actuarial Cost Method.

Additional Information as of the latest actuarial valuation follows:

| Valuation Date | June 30, 2006 (Lag) |
| :---: | :---: |
| Actuarial Cost Method | Frozen Initial Liability |
| Amortization Method Initial Unfunded ERI | Increasing Dollar Level Dollar |
| Remaining Amortization Period Initial Unfunded ERI | $\begin{array}{r} \text { NA } \\ 1 \end{array}$ |
| Asset Valuation Method | 6-Year Smoothed Market |
| Actuarial Assumptions |  |
| Projected Salary Increases* <br> Investment Rate of Return* COLAs* | In general, merit and promotion increases plus assumed general wage increases of $3.0 \%$ per year. 8.0\% per annum <br> 1.3\% per annum |
|  |  |

## 5. Member Loans

The balance of member loans receivable at June 30, 2008 and 2007 is $\$ 137.9$ million and $\$ 131.7$ million, respectively. Members are permitted to borrow up to $75 \%$ of their own contributions, including accumulated interest. Outstanding loan balances are insured in order to protect members' balances in case of death. In return for insurance coverage, Tier III and Tier IV members supplement their 7\% (APR) loan interest payments with a $0.2 \%$ (APR) insurance fee. Upon termination of employment before retirement, certain members are entitled to refunds of their own contributions, including accumulated interest, less any loans outstanding.

## 6. Related Parties

The Comptroller has been appointed by law as custodian for Fixed Annuity Program assets with discretionary authority. Securities are held by certain banks under custodial agreements with the Comptroller. The Comptroller, Financial Information Services Agency (FISA) and Office of Payroll Administration (OPA) provide cash receipt and cash disbursement services to the Plan. Actuarial services are provided to the Plan 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 Plan. The City also provides other administrative services. The cost of providing such services amounted to $\$ 8.4$ million and $\$ 8.6$ million in fiscal years 2008 and 2007.

## 7. Administrative and Investment Expenses

Chapter 593 of the Laws of 1996, effective July 1, 1996, authorized the Board of Trustees to draw upon its assets to pay the administrative expenses incurred by the Plan. Prior to Fiscal Year 1997, the City and Variable Annuity Programs had paid all administrative expenses. In Fiscal Year 2008, total expenses attributed to the Plan were approximately $\$ 48.8$ million; $\$ 40.4$ million was paid from the assets of the Plan. The remaining $\$ 8.4$ million were incurred on behalf of the Plan by other City agencies, primarily the Comptroller's office. In Fiscal Year 2007, total expenses attributed to the Plan were approximately $\$ 46.2$ million, $\$ 37.6$ million was paid from the assets of the Plan and the remaining $\$ 8.6$ million was paid by other City agencies on behalf of the Plan. Investment expenses charged to the investment earnings of the Plan amounted to $\$ 96.7$ million in 2008 and $\$ 81.7$ million in 2007.

## 8. Contingent Liabilities and Other Matters

## Contingent Liabilities

In February 1997, a former New York City school principal filed an action in New York State Supreme Court challenging the investment policies and practices of the Retirement Board with regard to the Stable-Value Fund (Variable B Annuity Program). The plaintiff alleges that the Trustees of the Plan illegally maintained the Stable-Value Fund (Variable B Annuity Program) as a fixed-income fund and ignored a requirement that a substantial amount of the Program's assets be invested in equity securities. The Plan and the individual Trustees are the defendants in the case. Plaintiff seeks damages on behalf of all Stable-Value Fund (Variable B Annuity Program) participants in excess of $\$ 250$ million. In May 1999, the Appellate Division, First Department, affirmed the Supreme Court's earlier denial of the defendant's motion for summary judgment. The discovery process has been completed and a motion for summary judgment is pending. Subsequently, during September 2005, this case was tried in New York Supreme Court. The plaintiff failed to meet his burden of proof that the Trustees of the Plan breached their fiduciary duty to the members. As such, the within complaint was dismissed, and judgment was entered for the defendants. The plaintiff filed a notice of appeal in June 2006.

In August 2002, a lawsuit was instituted on behalf of retired Plan members seeking service credit for work performed as "per session employment." Plaintiffs' request to proceed as a class action was granted by the lower court. Subsequently, the parties have reached a final agreement which is expected to result in substantial costs to the Employer.

In March 2005, the President of the UFT and three retired teachers commenced two related lawsuits alleging miscalculation of the retirement formula applicable to TRS members who retire under the 20-Year Pension Plan. Subsequently, the parties have settled with the Employer, agreeing to pay a sum of $\$ 160$ million allocated to the plaintiffs according to a negotiated algorithm.

Another lawsuit that was settled but not implemented was related to the inclusion of wages for class coverage into the calculation of retirement benefits. This is also expected to result in a substantial cost to the Employer.

The Plan also has certain other contingent liabilities. Management of the Plan, on advice from legal counsel, believes that such proceedings and contingencies will not have a material effect on Plan net assets or cause changes in Plan net assets. Under the State statutes and City laws that govern the functioning of the Plan, increases in the obligation of the Plan to members and beneficiaries ordinarily result in increases in the obligations of the Employer to the Plan.

## Other Matters

During fiscal years 2008 and 2007, certain events described below took place which, in the opinion of Plan management, could have the effect of increasing benefits to members and/or their beneficiaries and therefore would increase the obligations of the Plan. The effect of such events has not been fully quantified. However, it is the opinion of Plan management that such developments would not have a material effect on Plan net assets held in trust for pension benefits or cause changes in Plan net assets held in trust for pension benefits.

## (a) 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. The most recent study was published by The Segal Company (Segal) dated November 2006 and analyzed experience for Fiscal Years 2002 through 2005. Segal made recommendations to the actuarial assumptions and methods based on their analysis. The Actuary is reviewing these recommendations.

## (b) 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.

Based upon a review of an October 2003 experience study by Gabriel, Roeder, Smith \& Company (GRS), the Actuary issued an August 31, 2005 Report entitled "Proposed Changes in Actuarial Assumptions and Methods for Determining Employer Contributions for Fiscal Years Beginning On and After July 1, 2005 for the New York City Teachers' Retirement System" (August 2005 Report). Where required, the Retirement Board of the Plan adopted those changes to actuarial assumptions that required Board approval and the State Legislature and the Governor enacted Chapter 152 of the Laws of 2006 (Chapter 152/06) to provide for those changes to the actuarial assumptions and methods that required legislation, including the AIR assumption of $8.0 \%$ per annum.

The changes in actuarial assumptions and methods effective Fiscal Year 2006 result in somewhat lesser Employer Contributions for fiscal years 2007 and 2006 and increased Employer Contributions for future fiscal years.

## (c) New York State Legislation (only significant laws included)

Chapter 104 of the Laws of 2005, as amended by Chapter 93 of the Laws of 2005, created a presumptive eligibility for accidental disability in connection with the World Trade Center attack on September 11, 2001.

Chapter 105 of the Laws of 2005 states that a member killed in the US Armed Forces on and after June 14, 2005 is deemed a Line-of-Duty death while on active payroll.

Chapter 133 of the Laws of 2005 continued the valuation and other interest rates for one year to June 30, 2006 from June 30, 2005.

Chapter 152/06 provided for the changes in actuarial assumptions and methods that require legislation, including the continuation of the AIR assumption of $8.0 \%$ per annum and continuation of the current Frozen Initial Liability (FIL) Actuarial Cost Method and the existing Unfunded Actuarial (Accrued) Liability (UAL). In addition, Chapter 152/06 provides for elimination of the use of the tenyear phase-in of Chapter 278/02 for funding the additional actuarial liabilities created by the benefits provided by Chapter 125/00.

Chapter 445 of the Laws of 2006 (Chapter 445/06) created a presumptive eligibility for accidental death benefits in connection with the World Trade Center attack on September 11, 2001.

Chapter 5 of the Laws of 2007 amended Chapter 445/06 to clarify the World Trade Center accidental disability benefits payable to retirees who die in the first 25 years of retirement. It also amended Chapter 445/06 to include World Trade Center deaths as presumptive accidental death benefits in the Line-of-Duty.

Chapter 19 of the Laws of 2008 (Chapter 19/08) established retirement programs to permit Tier 2 and Tier 4 current members of TRS to elect to retire between ages 55 and 62 without reduction provided they have 25 years of service, by paying an additional contribution of $1.85 \%$ of future pay. New members after February 27, 2008 are mandated into this plan and are required to have 27 years of service.

Chapter 489 of the Laws of 2008 expanded and redefined the eligibility provisions of the accidental disability and accidental death benefits that arise in connection with the World Trade Center attack on September 11, 2001.

## 9. Subsequent Events

The systemic risk elevation in global financial markets that first became apparent in the latter half of 2007 continued in 2008 and accelerated in September 2008 with significant institutional stresses and failures and world-wide government interventions. This market downturn was dominated by the collapse of the sub prime mortgage markets and the credit crisis in capital markets.

The equity markets have been particularly impacted by current market conditions, which have had a negative effect on the market value of the Plan's assets.

Despite this decline in market values the systems continue to have sufficient liquidity, in terms of both current income and liquid assets to continue paying benefits in the foreseeable future.

City contributions to the pension plans are based upon actuarial valuations and calculations that consist of many factors, including investment returns on the assets. Therefore, in the event that the asset values do not recover by the end of the City's fiscal year ending June 30, 2009, the amounts the City is required to contribute to the pension plans will increase in the future.

## SCHEDULE 1: REQUIRED SUPPLEMENTARY INFORMATION FUNDING PROGRESS (IN CONFORMITY WITH THE PLAN'S FUNDING METHOD) (In Thousands)

$\left.\begin{array}{cccccc}\text { (1) } & \text { (2) }\end{array} \quad \begin{array}{c}\text { (3) }\end{array}\right)$

* Based on the Frozen Initial Liability Actuarial Cost Method.
\# Reflects revised actuarial assumptions and methods based on experience review.
** The annualized covered payroll under the One-Year Lag Methodology used for the Fiscal Year 2006 Employer Contribution differs from that as of June 30, 2004 to compute Fiscal Year 2005 Employer Contribution due to changes in actuarial assumptions and methods and more recent information on labor contract settlements.


## NOTES

(A) Beginning with the June 30, 2004 (Lag) actuarial valuation, the Actuarial Asset Valuation Method (AAVM) was changed to a method which reset the AAV to Market Value (i.e., "Market Value Restart") as of June 30, 1999. As of each June 30 thereafter the AAVM recognizes investment returns greater or less than expected over a period of six years.
Under this revised AAVM, any Unexpected Investment Returns (UIR) for fiscal years 2000 and later are phased into the AAV beginning June 30, 2000 at rates of $15 \%, 15 \%, 15 \%, 15 \%, 20 \%$, and $20 \%$ per year (or cumulative rates of $15 \%, 30 \%, 45 \%, 60 \%, 80 \%$ and $100 \%$ over a period of six years).
The UIR for fiscal years 2000 to 2004 under the revised AAVM was set equal to the UIR under the prior AAVM.
The prior AAVM was changed as of June 30, 1999 to reflect a market basis for investments held by the Plan and was made as one component of an overall revision of actuarial assumptions and methods as of June 30, 1999.
Under the AAVM used for the June 30, 1999 to June 30, 2004 actuarial valuations, any UIR for fiscal years 2000 and later were phased into the AAV beginning the following June 30 at a rate of $10 \%, 15 \%, 20 \%, 25 \%$ and $30 \%$ per year (i.e., cumulative rates of $10 \%, 25 \%, 45 \%, 70 \%$ and $100 \%$ over a period of five years).
(B) To effectively assess the funding progress of the Plan, it is necessary to compare the AAV and the AAL calculated in a manner consistent with the Plan's funding method over a period of time. The AAL is the portion of the Actuarial Present Value of pension plan benefits and expenses which is not provided for by future Employer normal costs and future Member Contributions.
(C) The UAAL is the excess of the AAL over the AAV. This is the same as the unfunded frozen AAL, which is not adjusted from one actuarial valuation to the next to reflect actuarial gains and losses.

## SCHEDULE 2: REQUIRED SUPPLEMENTARY INFORMATION EMPLOYER CONTRIBUTIONS (In Thousands)

| Fiscal Year Ended June 30 | Annual Required Contribution | Percentage Contributed |
| :---: | :---: | :---: |
| 2008 | $\$ 1,916,520$ | $100.0 \%$ |
| 2007 | $1,600,904$ | 100.0 |
| 2006 | $1,16,611$ | 100.0 |
| 2005 | $1,304,033$ | 94.2 |
| 2004 | $1,015,331$ | 90.6 |
| 2003 | 805,782 | 79.4 |

Under the requirements of Governmental Accounting Standards Board Statement Number 25 (GASB25), as amended by GASB Statement No. 50 (GASB50), the Annual Required Contribution (ARC) is determined through an actuarial valuation reflecting all liabilities of the Plan. The Employer Contribution to the Plan is determined in accordance with statute (i.e., Statutory Contribution). For fiscal years 2005, 2004 and 2003, the difference between the ARC and the Statutory Contribution is the consequence of Chapter 278/02 which phased in over 10 years the additional actuarial liabilities attributable to the benefits provided by Chapter 125/00 (i.e., automatic COLA).
The Statutory Contribution of $\$ 1,228.3$ million, $\$ 920.3$ million and $\$ 639.6$ million for Fiscal Years 2005, 2004 and 2003, respectively, were computed in accordance with Chapter 278/02, which provides for a ten-year phase-in of the additional actuarial liabilities attributable to Chapter 125/00.
Chapter 152/06 eliminated the use of the ten-year phase-in of Chapter 278/02 for funding the additional actuarial liabilities created by the benefits provided by Chapter 125/00. For fiscal years after 2005, the Statutory Contribution equals the ARC.

## SCHEDULE 3: REQUIRED SUPPLEMENTARY INFORMATION ACTUARIAL METHODS AND ASSUMPTIONS

The information presented in the required supplementary schedules was determined as part of the actuarial valuations as of June 30, 2006 (Lag) and June 30, 2005 (Lag). These actuarial valuations were used to determine Employer Contributions for Fiscal Years 2008 and 2007, respectively. Additional information as of the last two actuarial valuations follows:

|  | June 30, 2006 (Lag) ${ }^{1}$ | June 30, 2005 (Lag) ${ }^{1}$ |
| :---: | :---: | :---: |
| Actuarial cost method | Frozen Initial Liability ${ }^{2}$ | Frozen Initial Liability ${ }^{2}$ |
| Amortization method for Unfunded Actuarial Accrued Liabilities | Level dollar for UAAL attributable to 2002 (Part A only) Early Retirement Incentive (ERI). All outstanding components of UAAL are being amortized over closed periods. ${ }^{3}$ | Level dollar for UAAL attributable to 2002 (Part A only) Early Retirement Incentive (ERI). All outstanding components of UAAL are being amortized over closed periods. ${ }^{3}$ |
| Remaining amortization period | 1 year for 2002 ERI (Part A only) | 2 years for 2002 ERI (Part A only) |
| Actuarial asset valuation method | Modified six-year moving average of market values with a "market value restart" as of June 30, 1999. For assets of Variable Annuity Program, current market value. | Modified six-year moving average of market values with a "market value restart" as of June 30, 1999. For assets of Variable Annuity Program, current market value. |

## Actuarial assumptions:

Investment rate of return
Post-retirement mortality
Active service: withdrawal, death,
disability, service retirement
Salary increases

Cost-of-living adjustments
$8.0 \%$ per annum ${ }^{4}$ (4.0\% per annum for benefits payable under the Variable Annuity Programs).

Tables adopted by Retirement Board during Fiscal Year 2006.

Tables adopted by Retirement Board during Fiscal Year 2006.

In general, merit and promotion increases plus assumed general wage increases of $3.0 \%$ per year. ${ }^{4}$
$1.3 \%$ per annum ${ }^{4}$
$8.0 \%$ per annum ${ }^{4}$ ( $4.0 \%$ per annum for benefits payable under the Variable Annuity Programs).

Tables adopted by Retirement Board during Fiscal Year 2006.

Tables adopted by Retirement Board during Fiscal Year 2006.

In general, merit and promotion increases plus assumed general wage increases of $3.0 \%$ per year. ${ }^{4}$
$1.3 \%$ per annum ${ }^{4}$
(1)-Under the One-Year Lag Methodology, the actuarial valuation determines the Employer Contribution for the second following fiscal year.
(2)-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 UAAL no less than \$0. The financial results using this Frozen Initial Liability Actuarial Cost Method differ minimally from those that would be produced using the Aggregate Actuarial Cost Method.
(3)-In conjunction with Chapter 85/00, there is an amortization method. However, the June 30, 1999 UAAL for the Plan equaled $\$ 0$ and no amortization period was required. Chapter 69 of the Laws of 2002 established a UAAL as of June 30, 2003 for an ERI. The UAAL is being amortized on a level basis over a period of five years beginning Fiscal Year 2004.
(4)—Developed assuming a long-term Consumer Price Inflation of 2.5\% per year.

## SCHEDULE 4: SUPPLEMENTARY INFORMATION (UNAUDITED) FUNDED STATUS BASED ON ENTRY AGE ACTUARIAL COST METHOD (In Thousands)

This Schedule is being provided by the Actuary for the Plan to improve the transparency and decision usefulness of this financial report.

The Actuarial Cost Method (ACM) used to develop the funding requirements for the Plan is the Frozen Initial Liability (FIL) ACM. Under this ACM, following establishment of any Initial Unfunded Actuarial Accrued Liabilities (UAAL), actuarial gains and losses are financed over the working lifetimes of active participants and are not identified as separate UAAL.

The funding status and funding progress information provided in this Schedule has been prepared using the Entry Age ACM where the Actuarial Present Value (APV) of any obligations of the Plan are not provided by the APV of Future Contributions (Employer and Employee), as determined under the Entry Age ACM, equals the Actuarial Accrued Liability (AAL). Under the Entry Age ACM, the UAAL equals the AAL minus the Actuarial Value of Assets.

| Actuarial Valuation Date | Actuarial |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Actuarial <br> Assets <br> Value of Assets <br> (a) | Accrued Liability (AAL) Entry Age <br> (b) | Unfunded AAL (UAAL) Entry Age (b-a) | Funded Ratio (a/b) | Covered Payroll (c) | UAAL as a <br> Percentage of Covered Payroll (b-a)/c |
| June 30, 2006 (Lag) | \$32,405,645 | \$45,138,925 | \$12,733,403 | 71.8\% | \$6,978,726 | 182.5\% |
| June 30, 2005 (Lag) | \$32,865,126 | \$42,644,415 | \$9,779,289 | 77.1\% | \$6,273,910 | 155.9\% |
| June 30, 2004 (Lag) | \$33,149,251 | \$40,871,986 | \$7,722,735 | 81.1\% | \$6,175,940 | 125.0\% |

Note: Actuarial assumptions are those shown in Schedule 3.

## trsnyc

# Financial Section (TDA) 

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## Deloitte.

## Independent Auditors' Report

To the Board of Trustees
Teachers' Retirement System of the City of New York
Tax-Deferred Annuity Program

We have audited the accompanying statements of Plan net assets of the Teachers' Retirement System of the City of New York Tax-Deferred Annuity Program (the Plan) as of June 30, 2008 and 2007, and the related statements of changes in Plan net assets for the years then ended. These financial statements are the responsibility of the Plan's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes consideration of internal control over financial reporting as a basis for designing audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Plan's internal control over financial reporting. Accordingly, we express no such opinion. An audit also includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, such financial statements present fairly, in all material respects, the net assets of the Plan as of June 30, 2008 and 2007, and the changes in plan net assets for the years then ended in conformity with accounting principles generally accepted in the United States of America.

Management's Discussion and Analysis is not a required part of the financial statements, but is supplementary information required by the Governmental Accounting Standards Board (GASB). This supplementary information is the responsibility of Plan management. We have applied certain limited procedures, which consisted principally of inquiries of management regarding the methods of measurement and presentation of such required supplementary information. However, we did not audit this information and express no opinion on it.

## Debitte +Touche LLA

October 28, 2008

## Management's Discussion and Analysis (Unaudited)

This narrative discussion and analysis of the Teachers' Retirement System of the City of New York Tax-Deferred Annuity Program's (the TDA Program or the Plan) financial performance provides an overview of the Plan's financial activities for the fiscal years ended June 30, 2008 and 2007. It is meant to assist the reader in understanding the TDA Program's financial statements by providing an overall review of the financial activities during the two years and the effects of significant changes, as well as a comparison with prior years' activity and results. This discussion and analysis is intended to be read in conjunction with the Plan's financial statements, which begin on page 78.

The Teachers' Retirement System of the City of New York (TRS) maintains the TDA Program and the TRS Qualified Pension Plan (QPP). The TDA Program became effective February 1, 1970 and was established pursuant to and is administered according to the rules and regulations of Internal Revenue Code Section 403(b).

Members of TRS QPP have the option to participate in the TDA Program, which provides a means of deferring income tax payments on members' voluntary contributions until the period after retirement or upon withdrawal of contributions.

## Overview of Basic Financial Statements

The following discussion and analysis is intended to serve as an introduction to the TDA Program's basic financial statements. The basic financial statements are as follows:

- The Statement of Plan Net Assets presents the financial position of the Plan at fiscal year-end. It indicates the assets available for payment of future benefits and any current liabilities that are owed as of the statement date. Investments are shown at fair value. All other assets and liabilities are determined on an accrual basis.
- The Statement of Changes in Plan Net Assets presents the results of activities during the fiscal year. All changes affecting the assets and liabilities of the Plan 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 Financial Statements provide additional information that is essential to a full understanding of the data provided in the financial statements. The notes present information about the TDA Program's accounting policies, significant account balances and activities, material risks, obligations, contingencies, and subsequent events, if any.
The financial statements are prepared in accordance with Governmental Accounting Standards Board (GASB) Pronouncements.


## Financial Highlights

The TDA Program's total assets exceeded its liabilities by $\$ 16.3$ billion, $\$ 16.4$ billion and $\$ 14.1$ billion as of June 30, 2008, 2007, and 2006, respectively. These net assets are held in trust for the payment of future benefits to members and pensioners.

The TDA Program's net assets held in trust, at June 30, 2008, decreased by $\$ 112.1$ million ( $0.7 \%$ ) from June 30, 2007 and increased by $\$ 2.1$ billion (15.2\%) from June 30, 2006.

# STATEMENT OF PLAN NET ASSETS 

|  | As of June 30 |  |  |
| :---: | :---: | :---: | :---: |
|  | 2008 | 2007 | 2006 |
| Cash | \$ 63,971 | \$ 40,982 | \$ 40,445 |
| Receivables for investment securities sold | 61,799,475 | 71,559,142 | 3,013,855 |
| Receivables for accrued interest and dividends | 49,075,939 | 36,885,825 | 21,725,178 |
| Receivables from TRS QPP | 1,428,138 | 14,417,484 | 23,337,320 |
| Member loan receivables | 239,994,775 | 220,544,412 | 194,890,597 |
| Investments, at fair value | 18,227,211,963 | 18,132,080,518 | 15,217,609,401 |
| TOTAL ASSETS | \$ 18,579,574,261 | \$ 18,475,528,363 | \$ 15,460,616,796 |
| Accounts payable | 197,909,804 | 109,482,019 | 97,515,589 |
| Payables for investment securities purchased | 68,724,183 | 70,851,101 | 4,518,431 |
| Accrued benefits payable | 63,729,686 | 48,565,295 | 54,244,650 |
| Payables for securities-lending transactions | 1,981,337,960 | 1,866,632,503 | 1,184,099,879 |
| TOTAL LIABILITIES | \$ 2,311,701,633 | \$ 2,095,530,918 | \$ 1,340,378,549 |
| PLAN NET ASSETS HELD IN TRUST FOR BENEFITS | \$ 16,267,872,628 | \$ 16,379,997,445 | \$ 14,120,238,247 |

Receivables for investment securities sold at June 30, 2008 amounted to $\$ 61.8$ million, a decrease of $\$ 9.8$ million ( $13.6 \%$ ) from June 30, 2007 and an increase of $\$ 58.8$ million ( $1950.5 \%$ ) from June 30, 2006. This balance is principally composed of receivables for securities that have been sold but have not yet settled (i.e., the cash has not been collected). This increase resulted from timing differences in trading and settlement dates. Trades typically do not settle until a few days after the trade date.

Receivables for accrued earnings at June 30, 2008 were $\$ 49.1$ million, an increase of $\$ 12.2$ million ( $33.1 \%$ ) over June 30, 2007 and $\$ 27.4$ million ( $125.9 \%$ ) over June 30, 2006.

Receivables from QPP represent the TDA share of investment income and receivables for securities from the Variable Annuity Program. Receivables from the TRS QPP at June 30, 2008 were $\$ 1.4$ million, a decrease of $\$ 13.0$ million ( $90.1 \%$ ) over June 30, 2007 and $\$ 21.9$ million ( $93.9 \%$ ) over June 30, 2006.

Member loan receivables amounted to $\$ 240.0$ million, an increase of $\$ 19.5$ million ( $8.8 \%$ ) from the prior June and $\$ 45.1$ million (23.1\%) from June 30, 2006. For Fiscal Year 2008, loan disbursements amounted to $\$ 124.4$ million and principal and interest payments amounted to $\$ 111.3$ million.

Investments at June 30, 2008 were $\$ 18.2$ billion, an increase of $\$ 95.1$ million ( $0.5 \%$ ) from June 30, 2007 and $\$ 3.0$ billion ( $19.8 \%$ ) from June 30, 2006.

Accounts payable at June 30, 2008 amounted to $\$ 197.9$ million, compared to $\$ 109.5$ million at June 30,2007 for an increase of $80.8 \%$, and $\$ 97.5$ million at June 30,2006 for an increase of $103.0 \%$. The TDA Program's accounts payable balance primarily funds the TDA Program's investment and administrative expense payments.

Payables for investment securities purchased at June 30, 2008 amounted to $\$ 68.7$ million, decreasing $\$ 2.1$ million (3.0\%) from June 30, 2007 and increasing $\$ 64.2$ million (1421.0\%) from June 30, 2006. Investments purchased are accounted for on a trade-date basis. The changes resulted from timing differences in settlement dates, similar to receivables for investments sold discussed earlier. Accrued benefits payable at June 30, 2008 amounted to $\$ 63.7$ million, an increase of $\$ 15.2$ million ( $31.2 \%$ ) from June 30, 2007 and an increase of $\$ 9.5$ million ( $17.5 \%$ ) from June 30, 2006. The $\$ 15.2$ million accrued benefit increase from the period ended June 30, 2007 to June 30, 2008 is attributed to an increase in pending membership withdrawals and benefits payable to beneficiaries.

## STATEMENT OF CHANGES IN PLAN NET ASSETS

|  | Year Ended June 30 |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  | 2008 | 2007 | 2006 |
| Additions: |  |  |  |  |
| Member contributions | \$ | 602,748,851 | \$ 579,380,931 | \$ 556,812,734 |
| Net investment (loss) income |  | $(273,687,413)$ | 2,047,234,891 | 1,294,161,402 |
| TOTAL NET ADDITIONS | \$ | 329,061,438 | \$ 2,626,615,822 | \$1,850,974,136 |
| Deductions: |  |  |  |  |
| Administrative expenses |  | 12,135,421 | 10,855,415 | 8,889,316 |
| Benefits payments and withdrawals |  | 429,050,834 | 356,001,209 | 332,025,043 |
| TOTAL DEDUCTIONS | \$ | 441,186,255 | \$ 366,856,624 | \$ 340,914,359 |
| NET (DECREASE) INCREASE | \$ | $(112,124,817)$ | \$ 2,259,759,198 | \$ 1,510,059,777 |

## Changes in Plan Net Assets

TRS received $\$ 602.7$ million in member contributions during Fiscal Year 2008, an increase of $\$ 23.4$ million (4.0\%) from Fiscal Year 2007 and $\$ 45.9$ million ( $8.25 \%$ ) from Fiscal Year 2006.

Net investment income decreased by $\$ 2.3$ billion (loss) from Fiscal Year 2007 and $\$ 1.6$ billion (loss) from Fiscal Year 2006.

Administrative expenses for the fiscal year ended June 30, 2008 totaled $\$ 12.1$ million, an increase of \$1.3 million ( $11.8 \%$ ) from Fiscal Year 2007 and $\$ 3.2$ million (36.5\%) from Fiscal Year 2006.

Benefit payments and withdrawals for the fiscal year ended June 30, 2008 totaled $\$ 429.0$ million, an increase of $\$ 73.0$ million (20.5\%) from Fiscal Year 2007 and $\$ 97.0$ million (29.2\%) from Fiscal Year 2006. Benefit payments and withdrawals consisted primarily of total and partial withdrawals.

## Investments

TRS uses the S\&P 500 and Russell 3000 indices to provide benchmarks for equity domestic and private equity investment returns and the MSCI EAFE (Morgan Stanley Capital Investment Index for Europe, Australia, and Far East) index for international equity returns. The Citigroup BB \& B Rated and NYC indices are used to provide benchmarks for debt securities. The Wilshire Real Estate and NCREIF (National Council of Real Estate Investment Fiduciaries) Property Index and Solomon's two-year US treasury fund are used to provide benchmarks for mortgage investments and investment contracts, respectively. TRS does not use benchmarks for short-term investments.

Investments held by TRS are listed according to their investment classification in the following table:

## INVESTMENT SUMMARY

## Fair Value



## Contact Information

This financial report is designed to provide a general overview of the Teachers' Retirement System of the City of New York Tax-Deferred Annuity Program's finances. Questions concerning any data provided in this report or requests for additional information should be directed to Paul J. Raucci, Chief Accountant, Teachers' Retirement System of the City of New York, 55 Water Street, New York, NY 10041.

## STATEMENTS OF PLAN NET ASSETS-TDA

|  |  | As of June 30 |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | 2008 |  | 2007 |  |
| ASSETS |  |  |  |  |
| Cash | \$ | 63,971 | \$ | 40,982 |
| Receivables: |  |  |  |  |
| Investment securities sold |  | 61,799,475 |  | 71,559,142 |
| Accrued interest and dividends |  | 49,075,939 |  | 36,885,825 |
| Receivables from TRS QPP (Note 5) |  | 1,428,138 |  | 14,417,484 |
| Member loans |  | 239,994,775 |  | 220,544,412 |
| TOTAL RECEIVABLES | \$ | 352,298,327 | \$ | 343,406,863 |

Investments, at Fair Value (Notes 2 and 3):
Fixed funds:

| Short-term investment fund | $265,822,153$ | $264,043,276$ |
| :--- | ---: | ---: |
| Debt securities: | $1,095,327,762$ | $878,785,663$ |
| U.S. Government | $1,091,172,747$ | $848,608,971$ |
| Corporate | $36,097,342$ | $16,548,881$ |
| Foreign | $4,053,709,667$ | $3,737,995,507$ |
| Equity securities: | $417,286,828$ | $212,311,067$ |

Mutual funds:
Domestic equity $\quad 8,721,297 \quad 9,626,750$

International equity
1,354,729,038 $\quad 1,219,332,499$
Treasury inflation-protected securities
372,176,031 238,154,722

Mortgages
30,908,308 17,763,143
Promissory notes
4,002,310
2,304,849
1,324,201,022
Variable A funds:
Short-term investments
1,350,689,551

## Equity securities

174,612,771
152,851,950
Corporate bonds
$6,355,106,360 \quad 7,994,643,606$
Securities-lending collateral
Variable B funds:
Short-term investments
Managed investment contracts
753,650,130 429,381,336
587,475,102 517,490,768

Guaranteed investment contracts
112,003,573 96,895,377

Securities-lending collateral
$\begin{array}{rr}116,450,786 & 121,092,239 \\ 6,096,900 & 25,108,179\end{array}$
43,173,307
24,940,713

| TOTAL INVESTMENTS | \$ 18,227,211,963 | \$ 18,132,080,518 |
| :---: | :---: | :---: |
| TOTAL ASSETS | \$ 18,579,574,261 | \$ 18,475,528,363 |
| LIABILITIES |  |  |
| Accounts payable | 197,909,804 | 109,482,019 |
| Payables for investment securities purchased | 68,724,183 | 70,851,101 |
| Accrued benefits payable | 63,729,686 | 48,565,295 |
| Securities lending (Note 2) | 1,981,337,960 | 1,866,632,503 |
| TOTAL LIABILITIES | \$ 2,311,701,633 | \$ 2,095,530,918 |
| PLAN NET ASSETS HELD IN TRUST FOR BENEFITS | \$ 16,267,872,628 | \$ 16,379,997,445 |

[^7]
## STATEMENTS OF CHANGES IN PLAN NET ASSETS-TDA

Year Ended June 30
2008
2007

|  | 2008 |  | 2007 |  |
| :---: | :---: | :---: | :---: | :---: |
| ADDITIONS |  |  |  |  |
| CONTRIBUTIONS: |  |  |  |  |
| Member contributions (Note 3) | \$ | 602,748,851 | \$ | 579,380,931 |
| INVESTMENT INCOME (Note 5): |  |  |  |  |
| Interest income |  | 699,946,163 |  | 580,354,351 |
| Dividend income |  | 115,291,289 |  | 71,876,224 |
| Net (depreciation) appreciation in fair value of investments |  | (1,079,427,746) |  | 1,409,235,237 |
| TOTAL INVESTMENT (LOSS) GAIN |  | $(264,190,294)$ |  | 2,061,465,812 |
| Less: |  |  |  |  |
| Investment expenses |  | 13,558,241 |  | 15,268,783 |
| SECURITIES-LENDING TRANSACTIONS: |  |  |  |  |
| Securities-lending income |  | 28,089,422 |  | 19,510,026 |
| Securities-lending fees |  | $(24,028,299)$ |  | $(18,472,164)$ |
| Net securities-lending income |  | 4,061,123 |  | 1,037,862 |
| NET INVESTMENT (LOSS) INCOME | \$ | $(273,687,413)$ | \$ | 2,047,234,891 |
| TOTAL NET ADDITIONS | \$ | 329,061,438 | \$ | 2,626,615,822 |
| DEDUCTIONS: |  |  |  |  |
| Benefit payments and withdrawals (Note 4) |  | 429,050,834 |  | 356,001,209 |
| Administrative expenses (Note 8) |  | 12,135,421 |  | 10,855,415 |
| TOTAL DEDUCTIONS | \$ | 441,186,255 | \$ | 366,856,624 |
| NET (DECREASE) INCREASE |  | $(112,124,817)$ |  | 2,259,759,198 |
| NET ASSETS HELD IN TRUST FOR BENEFITS AT BEGINNING OF YEAR |  | 16,379,997,445 |  | 14,120,238,247 |
| NET ASSETS HELD IN TRUST FOR BENEFITS AT END OF YEAR |  | 16,267,872,628 |  | 16,379,997,445 |

(See accompanying "Notes to Financial Statements-Tax-Deferred Annuity Program")

## Notes to Financial Statements-Tax-Deferred Annuity Program

## 1. TDA Program Description

The Teachers' Retirement System of the City of New York (TRS) maintains the TRS Tax-Deferred Annuity Program (the TDA Program or the Plan) and the TRS Qualified Pension Plan (QPP). The TDA Program was established pursuant to Internal Revenue Code Section 403(b) and became effective February 1, 1970. The TRS QPP is maintained as a separate plan and is not included in these financial statements.

Members of the TRS QPP have the option to participate in the TDA Program, which provides a means of deferring income tax payments on members' voluntary contributions until the period after retirement or upon withdrawal of contributions. The TDA Program is administered according to the rules and regulations of Internal Revenue Code Section 403(b).

## 2. Summary of Significant Accounting Policies and Plan Asset Matters

## (a) Basis of Accounting

The TDA Program is accounted for on an accrual basis of accounting in which the measurement focus is on a flow of economic resources. Revenues are recognized in the accounting period in which they are earned and expenses are recognized in the period incurred.

## (b) Investment Valuation

Investments are reported at fair value. Securities purchased pursuant to agreements to resell are carried at the contract price, exclusive of interest, at which the securities will be resold. Fair value is defined as the quoted market value on the last trading day of the period, except for the International Investment funds (the IIF) and Alternative Investment funds (the ALTINVF). The IIF are private funds of publicly traded securities which are managed by various investment managers on behalf of the TDA Program. Fair value is determined by the TDA Program management based on information provided by the various investment managers. The investment managers determine fair value using the last available quoted price for each security owned adjusted by any contributions to or withdrawals from the fund during the period. The ALTINVF are investments for which exchange quotations are not readily available and are valued at estimated fair value as determined in good faith by the General Partner (GP). These investments are initially valued at cost with subsequent adjustments that reflect third party transactions, financial operating results and other factors deemed relevant by the GP. Fair value is determined by the TDA program management based on information provided by the various GP's after review by an independent consultant and the custodian bank for the fund.

Purchases and sales of securities are reflected on the trade date. Gains and losses on sale of securities are based on the average cost of securities.

Dividend income is recorded on the ex-dividend date. Interest income is recorded as earned on an accrual basis.

No investment in any one organization represents $5 \%$ or more of the Plan net assets held for benefits.

## (c) Income Taxes

Income of the TDA Program is not subject to federal income tax.

## (d) Securities-Lending Transactions

State statutes and Board policies permit the TDA Program to lend its securities to broker-dealers and other entities with a simultaneous agreement to return the collateral for the same securities in the future.

The TDA Program's custodian lends the following types of securities: short-term securities, common stock, long-term corporate bonds, U.S. Government and U.S. Government agencies' bonds, asset-backed securities and international equities, and bonds held in collective investment funds. In return, it receives collateral in the form of cash and treasury and agency securities at $100 \%$ to $105 \%$ of the principal plus accrued interest for reinvestment. Management believes the TDA Program has limited credit risk exposure to borrowers because the amounts the TDA Program owed the borrowers equaled or exceeded the amounts the borrowers owed the TDA Program. The contracts with the TDA Program's custodian require borrowers to indemnify the TDA Program if the borrowers fail to return the securities and if the collateral is inadequate to replace the securities loaned or if there is a failure to pay the TDA Program for income distributions by the securities' issuers while the securities are on loan. All securities loans can be terminated on demand within a period specified in each agreement by either the TDA Program or the borrowers. Cash collateral is invested in the lending agents' short-term investment pools, which have a weighted average maturity of 90 days. The underlying fixed-income securities in these pools have an average maturity of ten years.

The securities-lending program in which the TDA Program participates 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 Plan Net Assets. Cash received as collateral on securities-lending transactions and investments made with that cash are reported as assets. As of the balance sheet date the maturities of the investments made with cash collateral on average exceed the maturities of the securities loans by approximately 30 days. Securities received as collateral are also reported as assets if the government entity has the ability to pledge or sell them with a borrower default. Accordingly, the Plan recorded the investments purchased with the cash collateral from securities lending with a corresponding liability for securities lending. Securities on loan are carried at market value; the value as of June 30, 2008 is $\$ 1.952$ billion.

## 3. Funding and Contributions

Contributions to the TDA Program are made by the members only and are voluntary. Active members of the Plan are required to submit a salary-reduction agreement and enrollment request. Re-enrollment in the TDA Program is automatic, and members may choose to stop contributions at any time. A participant may elect to exclude an amount (within the maximum allowed by the IRS) of this compensation from current taxable income by contributing it to the TDA Program. This maximum amount is calculated based on various individual factors such as birth date, annual salary, years of employment with the New York City Department of Education or the City University of New York, accumulated contributions, Increased-Take-Home-Pay rate, and Annuity Savings Fund rate. Also, members can elect to invest their funds among the following investment programs: Fixed Return Fund (Fixed Annuity Program), or the Variable-Return Funds (Variable Annuity Programs) (see Note 5).

An expense charge is deducted from the TDA Program contributions to cover the expenses incurred in the operation of the TDA Program. This expense charge is determined by the Board of Trustees.

Benefits provided under the TDA Program are derived from members' accumulated contributions. No benefits are provided by employer contributions.

## 4. TDA Program Description and Benefits

A participant may withdraw all or part of the balance of his/her account prior to or at the time of retirement. As of January 1, 1989, the tax laws restrict withdrawals of tax-deferred annuity contributions and accumulated earnings thereon for reasons other than retirement or termination. Contributions made after December 31, 1988 and investment earnings credited after December 31, 1988 may only be
withdrawn upon attainment of age $59^{1} / 2$ or for reasons of hardship (as defined by IRS regulations). However, hardship withdrawals are limited to contributions only.

An in-service member may withdraw all or part of the contributions made before January 1, 1989 and the earnings credited to accounts before January 1, 1989. If the withdrawal is prior to retirement, the member may not contribute to the TDA Program for the rest of the calendar year.

If a member dies while an in-service employee, the full value of his/her TDA account at the date of death is paid to the member's beneficiary or estate.

When a member resigns before attaining vested rights under the TRS QPP, (s)he may withdraw the value of the account or may leave the account in the TDA Program for a period of up to seven school years after the date of resignation, provided (s)he does not withdraw his/her account from the TRS QPP. If a member resigns after attaining vested rights under the TRS QPP, (s)he may leave his/her account in the TDA Program, provided the member does not withdraw his/her QPP funds. Once a withdrawal is made from the TRS QPP, the member's participation in the TDA Program is automatically terminated, and the value of the account in the TDA Program will be refunded to the member.

At retirement, several payment options are available to those who annuitize their TDA funds. Generally, the same optional selection of benefits that is available through the TRS QPP is available under the TDA Program.

## 5. Investment Programs

The TDA Program's investments comprise the assets of three investment programs. These are the Fixed Return Fund (part of the New York City Pension Fund and prior to April 1, 2008 referred to as the Fixed Annuity Program) and two Variable Annuity Programs: the Diversified Equity Fund (formerly Variable A Annuity Program), which consists primarily of equity securities, and the Stable-Value Fund (formerly Variable B Annuity Program), which consists primarily of Managed Investment Contracts. As of July 1,2008 , the Plan's investment programs were expanded to include three new programs: the International Equity Fund, the Inflation Protection Fund, and the Socially Responsive Equity Fund. The six investment programs are collectively referred to as the TRS Passport funds.

Assets of the Fixed Return Fund (Fixed Annuity Program) of the TDA Program are co-invested with certain assets of the TRS QPP. Assets of the Variable-Return Funds (Variable Annuity Programs) of the TDA Program are co-invested with certain assets of the TRS QPP and the New York City Board of Education Retirement System. These financial statements reflect the TDA Program's proportionate share of the investment and the related activity of each of these programs.

Payments and receivables from the TRS QPP represent, principally, amounts due from/due to the TDA Program for net benefits paid by the TRS QPP on behalf of the TDA Program.

## 6. Investments and Deposits

The Comptroller of the City of New York (the Comptroller) acts as an investment advisor to the Plan. In addition, the Plan employs an independent investment consultant as an investment advisor. The Plan utilizes several investment managers to manage the long-term debt and equity portfolios. The managers are regularly reviewed, with regard to both their investment performance and their adherence to investment guidelines.

## (a) Concentration of Credit Risk

The Plan does not have any investments in any one entity that represent $5 \%$ or more of Plan net assets. The legal requirements for Plan investments are as follows:
(i) Fixed income, equity, and other investments may be made as permitted by New York State RSSL
$\$ \$$ 176-178(a) and Banking Law $\$ 235$, the New York City Administrative Code, and the Legal Investments for New York Savings Banks list as published by The New York State Banking Department, subject to Note 3(b).
(ii) Investments up to $25 \%$ of total pension fund assets may be made in instruments not expressly permitted by the State RSSL.
The Bank of New York Mellon Corporation is the primary custodian for substantially all of the securities of the Plan.

Cash deposits are insured by the Federal Deposit Insurance Corporation for up to \$100,000 (\$250,000 as of October 10, 2008) per Plan member and are, therefore, fully insured.

The information reflected in the Credit Ratings and in the Years to Maturity is derived from the Custodian's Risk and Performance Analytics Reporting System. Such information is prepared as a result of the Custodian's Risk Management Analysis.

## (b) Credit Risk

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

## Investment Type*

S\&P Quality Ratings

| June 30, 2008 | AAA | AA | A | BBB | BB | B |  <br> Below | Short Term | Not Rated | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| U.S. Government | - | - | - | - | - | - | - | - | - | - |
| Corporate Bonds | 14.03\% | 5.81\% | 12.16\% | 13.27\% | 13.28\% | 15.59\% | 2.41\% | 0.03\% | 2.22\% | 78.80\% |
| Yankee Bonds | 0.15\% | 0.49\% | 1.37\% | 0.58\% | 0.06\% | 0.01\% | - | - | 0.02\% | 2.68\% |
| Short Term |  |  |  |  |  |  |  |  |  |  |
| Commercial Paper | 6.53\% | - | - | - | - | - | - | - | - | 6.53\% |
| Pooled Funds | - | - | - | - | - | - | - | - | 11.93\% | 11.93\% |
| Certificates of Deposit | - | - | 0.06\% | - | - | - | - | - | - | 0.06\% |
| Master Notes | - | - | - | - | - | - | - | - | - | - |
| U.S. Treasuries | - | - | - | - | - | - | - | - | - | - |
| U.S. Agencies | - | - | - | - | - | - | - | - | - | - |
| Percent of Rated Portfolio | 20.71\% | 6.30\% | 13.59\% | 13.85\% | 13.34\% | 15.60\% | 2.41\% | 0.03\% | .17\% | 0.00\% |


| June 30, 2007 | AAA | AA | A | BBB | BB | B | CCC \& Below | Short Term | Not Rated | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| U.S. Government | 13.73\% | - | - | - | 0.04\% | - | - | - | - | 13.77\% |
| Corporate Bonds | 11.56\% | 6.06\% | 11.41\% | 12.00\% | 9.78\% | 16.99\% | 3.65\% | - | 1.06\% | 72.51\% |
| Yankee Bonds | - | - | 0.66\% | 0.73\% | 0.05\% | 0.01\% | - | - | - | 1.45\% |
| Short Term |  |  |  |  |  |  |  |  |  |  |
| Commercial Paper | - | - | 2.35\% | - | - | - | - | - | 0.25\% | 2.60\% |
| Pooled Funds | - | - | - | - | - | - | - | 9.52\% | - | 9.52\% |
| Repurchase Agreements | - | - | - | - | - | - | - | - | - | - |
| Certificates of Deposit | - | - | - | - | - | - | - | - | 0.15\% | 0.15\% |
| U.S. Treasuries | - | - | - | - | - | - | - | - | - | - |
| U.S. Agencies | - | - | - | - | - | - | - | - | - | - |
| Percent of Rated Portfolio | 25.29\% | 6.06\% | 14.42\% | 12.73\% | 9.87\% | 17.00\% | 3.65\% | 9.52\% | 1.46\% | 100.00\% |

[^8]
## (c) Custodial Credit Risk

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

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

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

All of the Plan's securities are held by the Plan's custodial bank in the Plan's name.

## (d) Interest Rate Risk

Interest rate risk is the risk that the fair value of investments could be adversely affected by the change in interest rates. Duration limits, in relation to a relevant benchmark, are used to control the portfolios' exposure to interest rate changes. Duration is limited to a range of -1 to 0.75 years. Duration range is a measure of the overall portfolio, while statements of the stated maturity reflect the specific maturities of the individual securities held. The lengths of investment maturities (in years), as shown by the percent of the rated portfolio, are as follows:

## Years to Maturity

Investment Type
June 30, 2008

|  | Fair <br> Value | Less than <br> one year | Investment Maturities <br> One to five <br> years | Six to ten <br> years | More than <br> ten years |
| :--- | :---: | :---: | :---: | :---: | :---: |
|  | $44.35 \%$ | $0.62 \%$ | $1.37 \%$ | $6.37 \%$ | $35.99 \%$ |
| U.S. Government | $43.47 \%$ | $0.82 \%$ | $15.63 \%$ | $14.33 \%$ | $12.69 \%$ |
| Corporate Bonds | $1.48 \%$ | $0.05 \%$ | $0.23 \%$ | $0.50 \%$ | $0.70 \%$ |
| Yankee Bonds |  |  |  |  |  |
| Short Term | $3.60 \%$ | $3.60 \%$ | - | - | - |
| Commercial Paper | $6.59 \%$ | $6.59 \%$ | - | - | - |
| Pooled Funds | $0.03 \%$ | - | - | - | $0.03 \%$ |
| Certificates of Deposit | - | - | - | - | - |
| U.S. Treasuries | $0.48 \%$ | $0.48 \%$ | - | - | - |
| U.S. Agencies | $100.00 \%$ | $12.16 \%$ | $17.23 \%$ | $21.20 \%$ | $49.41 \%$ |
| Percent of Rated Portfolio | 10 |  |  |  |  |

June 30, 2007

| J | Fair Value | Less than one year | One to five years | Six to ten years | More than ten years |
| :---: | :---: | :---: | :---: | :---: | :---: |
| U.S. Government | 45.40\% | 2.81\% | 6.24\% | - | 36.35\% |
| Corporate Bonds | 45.89\% | 0.87\% | 14.81\% | 17.19\% | 13.02\% |
| Yankee Bonds | 0.92\% | - | 0.37\% | 0.19\% | 0.36\% |
| Short Term |  |  |  |  |  |
| Commercial Paper | 1.63\% | 1.63\% | - | - | - |
| Pooled Funds | 6.06\% | 6.06\% | - | - | - |
| Certificates of Deposit | - | - | - | - | - |
| U.S. Treasuries | 0.10\% | 0.10\% | - | - | - |
| U.S. Agencies | - | - | - | - | - |
| Percent of Rated Portfolio | 100.00\% | 11.47\% | 21.42\% | 17.38\% | 49.73\% |
| 84 | 91 ${ }^{\text {st }}$ Annual Report |  |  |  |  |

(e) Securities-Lending Transactions
Credit Risk-The quality ratings of investments held as collateral for Securities Lending are as follows:
Investment Type and Fair Value of Securities-Lending Transactions


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

## Years to Maturity Investment Type

(In Thousands)


June 30, 2007

|  | Fair Value | Less than one year | One to five years | Six to ten years | More than ten years |
| :---: | :---: | :---: | :---: | :---: | :---: |
| U.S. Government | \$ - | \$ - | \$ - | \$ - | \$ - |
| Corporate Bonds | 521,516 | 181,473 | 340,043 | - | - |
| Yankee Bonds | 11,861 | 4,874 | 6,987 | - | - |
| Short Term |  |  |  |  |  |
| Commercial Paper | 110,711 | 110,711 | - | - | - |
| Pooled Funds | 120,106 | 120,106 | - | - | - |
| Repurchase Agreements | 311,845 | 311,845 | - | - | - |
| Certificates of Deposit | 524,697 | 408,228 | 116,469 | - | - |
| Bank Notes | 236,100 | 31,468 | 204,632 | - | - |
| Other | 29,797 | 27,792 | 2,005 | - | - |
| Total | \$1,866,633 | \$1,196,497 | \$ 670,136 | \$ | \$ |
| Percent of Securities-Lending Portfolio | 100.00\% | 64.10\% | 35.90\% | 0.00\% | 0.00\% |

## 7. Member Loans

Members are permitted to borrow up to $75 \%$ of their own contributions, including accumulated interest. The balance of member loans receivable at June 30, 2008 and 2007 is $\$ 240$ million and $\$ 221$ million, respectively. Outstanding loan balances are insured in order to protect members' balances in case of death. In return for the insurance coverage members supplement their $8.25 \%$ (APR) interest payments with a $0.30 \%$ (APR) insurance fee. Upon termination of employment before retirement, members are entitled to refunds of their own contributions, including accumulated interest, less any loans outstanding.

## 8. Related Parties

Administrative and investment-related expenses, except those related to the Variable Annuity Program, are paid by the City of New York (the City). The Comptroller is custodian of Plan assets. The Comptroller also provides administrative services to the TDA Program. Actuarial services are provided to the TDA Program by the Plan's Chief Actuary of 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 TDA Program. Other administrative services are also provided by the City.

As discussed in Note 5, the TDA Program's Fixed Return Fund (Fixed Annuity Program) assets, other than City obligations, are co-invested with those of the TRS QPP. The TDA Program's Variable Annuity Program assets are co-invested with those of the TRS QPP and the Board of Education Retirement System's Tax-Deferred Annuity Program.

## 9. Subsequent Events

The systemic risk elevation in global financial markets that first became apparent in the latter half of 2007 continued in 2008 and accelerated in September 2008 with significant financial institution stresses and failures and world-wide government interventions. This market downturn was dominated by the collapse of the sub prime mortgage markets and the credit crisis in capital markets.

The equity markets have been particularly impacted by the current market conditions, which have had a negative effect on the market value of the assets of the Plan.

The assets consist of public market securities; as such the assets are available to meet liquidity needs.

## trsnyc

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OFFICE OF THE ACTUARY

75 PARK PLACE • $9^{\text {m }}$ FLOOR<br>NEW YORK, NY 10007<br>(212) 442-5775 • FAX: (212) 442-5777<br>Robert C. North, Jr. CHIEF ACTUARY

December 11, 2008

Retirement Board<br>Teachers' Retirement System of the City of New York<br>55 Water Street<br>New York, NY 10041

Re: Actuarial Information for the Comprehensive Annual Financial Report (CAFR) for the Fiscal Year ended June 30, 2008

## Dear Members:

The financial objective of the Teachers' Retirement System of the City of New York-Qualified Pension Plan (the Plan) is to fund members' retirement benefits during their active service and to establish 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, would 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., June 30, 2006 (Lag) actuarial valuation to determine Fiscal Year 2008 Employer Contributions).

Under current law, Employers are required to contribute statutorily-required contributions (Statutory Contributions) and these contributions are generally funded by Employers within the appropriate fiscal year.

Statutory Contributions for Fiscal Year 2008 were equal to the Annual Required Contributions as defined under Governmental Accounting Standards Board (GASB) Statement Number 25 (GASB 25) as amended by GASB Statement No. 50 (GASB 50)

The Annual Required Contributions were computed in accordance with GASB 25 as amended by GASB 50 and are consistent with generally accepted actuarial principles.

## Actuarial Assumptions and Methods

Provided in this Actuarial Section of the CAFR is a "Summary of Actuarial Assumptions and Methods in Effect for the June 30, 2006 (Lag) Actuarial Valuation." These actuarial assumptions and methods were first employed in the June 30, 2004 (Lag) actuarial valuation that was used to determine Fiscal Year 2006 Employer Contributions to the Plan.

These actuarial assumptions and methods are unchanged from those employed in the June 30, 2005 (Lag) actuarial valuation that was used to determine Fiscal Year 2007 Employer Contributions to the Plan.

## Benefits and Census Data

A summary of the benefits available under the Plan is shown later in this Actuarial Section of the CAFR.

Census data are submitted by the Plan's administrative staff, by the employers' payroll facilities and by the Comptroller of the City of New York, and are reviewed by the Office of the Actuary (OA) for consistency and reasonability.

A summary of the census data used in the June 30, 2006 (Lag) actuarial valuation is included in this CAFR. A summary of the census data used in the June 30, 2005 ( Lag ) actuarial valuation of the Plan is available in the June 30, 2007 CAFR.

## Funded Status

The Funded Status of the Plan is usually expressed in various relationships of Assets to Liabilities.
With respect to the Funded Status of the Plan, included in the Financial Section of the CAFR is a Schedule of Funding Progress (Schedule 1).

Included in the Actuarial Section of the CAFR is a Solvency Test (i.e., Comparative Summary of Actuarial Values and Percentages Covered by Actuarial Value of Assets) as prescribed by the Government Finance Officers Association (GFOA). This Solvency Test represents an alternative approach to describing progress toward funding objectives.

In addition to the Schedule of Funding Progress and the Solvency Test, included for informational purposes in the Actuarial Section of the CAFR (following the Solvency Test) is an Additional Discussion of Plan Funding and Other Measures of Funded Status that provides different comparisons between the Assets and Liabilities of the Plan. Included in this Other Measures of Funded Status Discussion is information consistent with the disclosure expectations of GASB 50.

## Presentation Style and Sources of Information

The actuarial information herein is being presented in a manner believed to be consistent with the requirements of the GFOA and, where applicable, with GASB 25 which was adopted for financial reporting purposes beginning Fiscal Year 1995 and with GASB 50 which was adopted for financial reporting purposes beginning Fiscal Year 2008.

The Additional Discussion of Plan Funding and Other Measures of Funded Status represents additional information provided by the Actuary to assist those users who desire alternative analyses.

As prescribed by GASB 25 as amended by GASB 50, included in the Financial Section of the CAFR are the following schedules prepared by the OA:

- Schedule of Funding Progress.
- Schedule of Employer Contributions.
- Schedule of Actuarial Assumptions and Methods.

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

- Summary of Actuarial Assumptions and Methods in Effect for the June 30, 2006 (Lag) Actuarial Valuation.
- Active Member Valuation Data.
- Retirants and Beneficiaries Added to and Removed from Rolls.
- Comparative Summary of Actuarial Values and Percentages Covered by Actuarial Value of AssetsSolvency Test.
- Additional Discussion of Plan Funding and Other Measures of Funded Status.
- Statutory vs. Annual Required Contributions.
- Summary of Plan Provisions.

The following information and schedules in other sections of the CAFR were prepared by the OA:

- Summary of Plan Membership.
- Schedule of Participating Employers.

If you have any questions about any of the information in this Actuarial Section or any of the actuarial information elsewhere presented in this CAFR, please do not hesitate to contact Mr. John R. Gibney, Jr. or me.

I, Robert C. North, Jr., am the Chief Actuary for the New York City Retirement Systems. I am a Fellow of the Society of Actuaries and a Member of the American Academy of Actuaries. I meet the Qualification Standards of the American Academy of Actuaries to render the actuarial opinion contained herein.

Respectfully submitted,
Cout C Nowth
Robert C. North, Jr., F.S.A., MAAA
Chief Actuary

Att.

cc: Mr. P.B. Birnbaum<br>Mr. J.R. Gibney<br>Mr. E. Hue<br>Mr. S.S. Krasner<br>Mr. D. Lester<br>Mr. J.A. Petrovic<br>Mr. P.J. Raucci<br>Mr. N. Serrano

# Summary of Actuarial Assumptions and Methods in Effect as of June 30, 2006 (Lag) Actuarial Valuation—Qualified Pension Plan 

1. Based upon a review of an October 2003 experience study by Gabriel, Roeder, Smith \& Company (GRS), the Actuary issued an August 31, 2005 Report entitled Proposed Changes in Actuarial Assumptions and Methods for Determining Employer Contributions for Fiscal Years Beginning on and After July 1, 2005 for the New York City Teachers' Retirement System (August 2005 Report). Where required, the Retirement Board of the Plan adopted those changes to actuarial assumptions that required Board approval and the State Legislature and the Governor enacted Chapter 152 of the Laws of 2006 (Chapter $152 / 06$ ) to provide for those changes to the actuarial assumptions and methods that required legislation, including the Actuarial Interest Rate (AIR) assumption of $8.0 \%$ per annum.

Chapter 152/06 provided for the changes in actuarial assumptions and methods that require legislation, including the continuation of the AIR assumption of $8.0 \%$ per annum and continuation of the current Frozen Initial Liability (FIL) Actuarial Cost Method and the existing Unfunded Actuarial Accrued Liability (UAAL). In addition, Chapter 152/06 provided for elimination of the use of the ten-year phase-in of Chapter 278 of the Laws of 2002 (Chapter 278/02) for funding the additional actuarial liabilities created by the benefits provided by Chapter 125 of the Laws of 2000 (Chapter 125/00).
2. The investment rate of return assumption is $8.0 \%$ per annum ( $4.0 \%$ per annum for benefits payable under the Variable Annuity Programs).
3. The mortality tables for service and disability pensioners were developed from an experience study of the Plan's pensioners. Sample probabilities are shown in Table 1.
4. Active service tables are used to estimate various withdrawals from active service. Sample probabilities are shown in Table 2 for members withdrawing from active service due to death or disability, in Table 3 for members withdrawing for Other than Death or Disability or Retirement and in Table 4 for members withdrawing from Active Service after eligibility for Service Retirement.
5. A Salary Scale is used to estimate salaries at termination, retirement or death. Sample percentage increases are shown in Table 5. The Salary Scale includes a General Wage Increase (GWI) assumption of $3.0 \%$ per annum.
6. The economic assumptions (i.e., the assumed investment return rate, GWI rate and Cost-of-Living Adjustments (COLA) rate) were developed assuming a long-term Consumer Price Inflation (CPI) assumption of $2.5 \%$ per annum. The COLA assumption is $1.3 \%$ per annum.
7. The valuation assumes a closed group of members. Salaries of members on the valuation date are assumed to increase in accordance with the Salary Scale.
8. The Frozen Initial Liability Actuarial Cost Method is utilized by the Plan's Actuary to calculate the contribution from the employers. Under this Actuarial Cost Method, the Initial Liability was reestablished by the Entry Age Actuarial Cost Method as of June 30, 1999 but with the Unfunded Actuarial Accrued Liability (UAAL) not less than $\$ 0$.

Under this method, the excess of the Actuarial Present Value (APV) of projected benefits of members as of the valuation date, over the sum of the Actuarial Asset Value (AAV) plus UAAL, if any, and the APV of future employee contributions, is allocated on a level basis over the future earnings of members who are on payroll as of the valuation date. Actuarial gains and losses are reflected in the employer normal contribution rate.

All outstanding components of the UAAL are being amortized over closed periods.

Chapter 85 of the Laws of 2000 (Chapter 85/00) reestablished the UAAL and eliminated the Balance Sheet Liability (BSL) for actuarial purposes as of June 30, 1999.

The schedule of payments toward the reestablished UAAL provides that the UAAL, if any, be amortized over a period of 11 years beginning Fiscal Year 2000, where each annual payment after the first annual payment equals $103 \%$ of its preceding annual payment. However, the initial UAAL as of June 30, 1999 equaled $\$ 0$ and no amortization period was required.

Chapter 69 of the Laws of 2002 established the UAAL as of June 30, 2003 for an Early Retirement Incentive (Part A only). This UAAL is being amortized on a level basis over a period of five years beginning Fiscal Year 2004.

Note: Because the UAAL is small, the financial results using the Frozen Liability Actuarial Cost Method differ minimally from those that would be produced using the Aggregate Actuarial Cost Method.
9. One-Year Lag Methodology uses a June 30, 2006 (Lag) valuation date to determine Fiscal Year 2008 Employer Contributions.

This methodology requires technical adjustments to certain components used to determine Fiscal Year 2008 Employer Contributions as follows:

- Present Value of Future Salary (PVFS)

The PVFS at June 30, 2006 is reduced by the value of salary projected to be paid during Fiscal Year 2007.

- Salary for Determining Employer Contributions

Salary used to determine the employer Normal Cost is the salary projected to be paid during Fiscal Year 2008 to members on payroll at June 30, 2006.

- Present Value of Future Normal Costs (PVFNC)

The PVFNC at June 30, 2006 is reduced by the discounted value of the Fiscal Year 2007 Employer Contribution (after offsetting for any UAAL payments).
10. Beginning with the June 30, 2004 (Lag) actuarial valuation, the Actuarial Asset Valuation Method (AAVM) was changed to a method that reset the AAV to Market Value (i.e., Market Value Restart) as of June 30, 1999. As of each June 30 thereafter the AAVM recognizes investment returns greater or less than expected over a period of six years.

Under this revised AAVM, any Unexpected Investment Returns (UIR) for Fiscal Years 2000 and later are phased into the AAV beginning the following June 30 at a rate of $15 \%, 15 \%, 15 \%, 15 \%, 20 \%$ and $20 \%$ per year (or cumulative rates of $15 \%, 30 \%, 45 \%, 60 \%, 80 \%$ and $100 \%$ over a period of six years).

These revised averaging factors were applied against the UIR computed under the prior five-year AAVM used for Fiscal Years 2000 to 2004.

The revised AAVM was utilized for the first time in the June 30, 2004 (Lag) actuarial valuation to determine the Fiscal Year 2006 Employer Contribution in conjunction with the One-Year Lag Methodology and the revised economic and noneconomic assumptions.

The AAVM in effect for the June 30, 2006 (Lag) actuarial valuation is unchanged from the AAVM used in the June 30, 2005 (Lag) actuarial valuation.
11. Chapter $125 / 00$ provided eligible retirees and eligible beneficiaries with increased Supplementation as of September 2000 and with automatic Cost-of-Living Adjustments (COLA) beginning September 2001.

Chapter 125/00 also provided for a five-year phase-in schedule for funding the additional actuarial liabilities created by the benefits provided by this law. Chapter 278/02 required the Actuary to revise the methodology and timing for determining the Statutory Contributions on account of the additional actuarial liabilities attributable to the benefits provided under Chapter 125/00 by extending the phase-in period for funding these liabilities from five years to ten years.

Chapter 152/06 eliminated the use of the ten-year phase-in of Chapter 278/02 for funding the additional actuarial liabilities created by Chapter 125/00.


| Service Pensioners |  |  | Disability Pensioners |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Age | Males | Females | Age | Males | Females |
| 40 | .1151\% | .0645\% | 40 | 1.5101\% | 2.9247\% |
| 45 | . 1891 | . 0984 | 45 | 1.6709 | 2.9247 |
| 50 | . 2631 | . 1543 | 50 | 1.8462 | 2.5618 |
| 55 | . 4126 | . 2339 | 55 | 2.0266 | 1.8705 |
| 60 | . 6163 | . 3832 | 60 | 2.2326 | 1.4957 |
| 65 | 1.0493 | . 6265 | 65 | 2.5427 | 1.4771 |
| 70 | 1.8461 | 1.0802 | 70 | 3.1342 | 1.9287 |
| 75 | 2.8830 | 1.7974 | 75 | 4.2347 | 3.0066 |
| 80 | 4.6919 | 3.0798 | 80 | 6.0619 | 4.8143 |
| 85 | 7.9915 | 5.8229 | 85 | 8.9692 | 7.3812 |
| 90 | 12.9028 | 10.3790 | 90 | 12.9554 | 11.4430 |
| 95 | 19.7210 | 17.5405 | 95 | 19.7210 | 17.5405 |
| 100 | 30.1977 | 28.6331 | 100 | 30.1977 | 28.6331 |
| 105 | 49.9036 | 47.3178 | 105 | 49.9036 | 47.3178 |
| 110 | 100.0000 | 100.0000 | 110 | 100.0000 | 100.0000 |

## TABLE 2

## WITHDRAWALS FROM ACTIVE SERVICE (DUE TO DEATH OR DISABILITY)

Percentage of Active Members Separating within Next Year

| Accidental Disability |  |  |
| :---: | :---: | :---: |
| Age | Males | Females |
| 20 | $.00 \%$ | $.00 \%$ |
| 25 | .00 | .00 |
| 30 | .01 | .00 |
| 35 | .01 | .01 |
| 40 | .01 | .01 |
| 45 | .02 | .01 |
| 50 | .03 | .02 |
| 55 | .04 | .02 |
| 60 | .05 | .03 |
| 65 | .06 | .04 |
| 70 | NA | NA |


| Ordinary Disability |  |  |
| :---: | :---: | :---: |
| Age | Males | Females |
| 20 | $.02 \%$ | $.01 \%$ |
| 25 | .02 | .01 |
| 30 | .02 | .01 |
| 35 | .03 | .02 |
| 40 | .04 | .06 |
| 45 | .05 | .09 |
| 50 | .07 | .10 |
| 55 | .12 | .13 |
| 60 | .17 | .15 |
| 65 | .24 | .17 |
| 70 | NA | NA |


|  | Death <br> Age | Males |
| :---: | :--- | :---: | Females |  |  |  |
| :---: | :---: | :---: |
| 20 | $.040 \%$ | $.020 \%$ |
| 25 | .040 | .020 |
| 30 | .040 | .020 |
| 35 | .050 | .025 |
| 40 | .060 | .030 |
| 45 | .110 | .055 |
| 50 | .160 | .080 |
| 55 | .210 | .105 |
| 60 | .260 | .130 |
| 65 | .320 | .160 |
| 70 | NA | NA |



## TABLE 5 SALARY SCALE

Years of

Service \begin{tabular}{c}

| Assumed Annual |
| :---: |
| Percentage Increases |
| Within Next Year | <br>

\hline 0
\end{tabular} $11.00 \%$

* Salary Scale includes a General Wage Increase assumption of 3.0\% per annum.

ACTIVE MEMBER VALUATION DATA

| As of June 30 | Number | Annual Payroll | Annual Average Salary | Percentage Increase (Decrease) in Average Salary |
| :---: | :---: | :---: | :---: | :---: |
| 1999 | 86,682 | \$4,217,560,016 | \$48,656 | 5.4\% |
| 2000 | 91,494 | 4,721,526,309 | 51,605 | 6.1 |
| 2001 | 95,381 | 5,015,449,141 | 52,583 | 1.9 |
| 2002 | 95,678 | 5,469,239,283 | 57,163 | 8.7 |
| 2003 | 97,986 | 5,828,756,503 | 59,486 | 4.1 |
| 2004 | 105,391 | 6,219,808,501 | 59,017 | (0.8) |
| 2004 (Lag) | 105,391 | 6,175,939,608 ${ }^{(1)}$ | 58,600 | $(1.5)^{(2)}$ |
| 2005 (Lag) | 104,850 | 6,273,909,925 | 59,837 | 2.1 |
| 2006 (Lag) | 109,992 | 6,978,725,642 | 63,448 | 6.0 |
| 2007 (Lag) ${ }^{(3)}$ | 109,868 | 7,222,471,073 | 65,738 | 3.6 |

[^9]RETIRANTS AND BENEFICIARIES ADDED TO AND REMOVED FROM ROLLS

> |  | Added to Rolls |  | Removed from Rolls |  | Rolls End of Year |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{array}{c}\text { Fiscal Year } \\ \text { Ended June 30 }\end{array}$ | Number | $\begin{array}{c}\text { Annual } \\ \text { Allowances* }\end{array}$ | Number | $\begin{array}{c}\text { Annual } \\ \text { Allowances* }\end{array}$ | Number |  | $\begin{array}{r}\text { Allowan } \\ \hline 1999 \\ \hline 2000\end{array}$

* Allowances shown in table are those that are actually being paid and are not adjusted for anticipated changes due to finalization of benefit calculation or contract settlements.
**Same amounts apply for June 30, 2004 (Lag) actuarial valuation.


| Actuarial <br> Value of Assets <br> (D) | Percentage of Actuarial <br> Values <br> Covered by Actuarial <br> Value of Assets <br> (B) |  | (C) |
| :---: | :---: | :---: | :---: |

Active Members' Financed Portion \$12,447,411 14,340,434*
$14,114,923^{*}$
$13,623,528^{*}$
$12,561,516$
$11,465,947$ 능
$11,418,808$
$11,960,437$
Current
Retirants and
Retirants and
Beneficiaries
\$15,748,859

18,189,124



*
Accumulated
Contributions (A)


[^10]
## COMPARATIVE SUMMARY OF ACTUARIAL VALUES AND <br> PERCENTAGES COVERED BY ACTUARIAL VALUE OF ASSETS

## Solvency Test—Notes

The ultimate test of financial soundness in a retirement system is its ability to pay all of its promised benefits when due. The retirement system's progress in accumulating assets to pay all promised benefits can be measured by comparing the Actuarial Value of Assets of the retirement system with the Aggregate Accrued Liabilities for:
(A) Accumulated Member Contributions;
(B) Current Retirants and Beneficiaries; and
(C) Active Members' Employer Financed Portion.

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

This comparative summary allocated assets as if they were priority groups, somewhat similar to (but not identical to) the priority categories of Section 4044 of the Employee Retirement Income Security Act of 1974 (ERISA).
The values in the table are dependent upon census data, benefit levels (which have changed on occasion over the past years), and the actuarial assumptions and methods employed at each valuation date. The most recent change in assumptions and methods occurred in the June 30, 2004 (Lag) valuation used to compute the employer contribution for Fiscal Year 2006. These underlying bases can be found within the Comprehensive Annual Financial Report for each respective year.
To fully evaluate trends in financial soundness, changes in assumptions need to be evaluated. For the valuation dates appearing in the Table, the Actuarial Interest Rate and the General Wage Increase assumptions were all equal to $8.00 \%$ per annum and $3.00 \%$ per annum, respectively.

## Ongoing Funding of the Plan

Under the basic equation of pension funding, Contributions plus Investment Earnings pay for Benefits plus Expenses.
There are three major sources for financing those Benefits and Expenses paid from the Plan.
First, Member Contributions are established by statute and paid as percentages of member salaries.
Second, Investment Earnings reflect the rates of return achieved on the amounts of assets held in different asset classes in the Trust.

Third, Employer Contributions are determined by actuarial methodology to finance the Benefits payable by the Plan that are not provided by either Member Contributions or Investment Earnings and for the Administrative and Investment Expenses of the Plan.

This actuarial methodology includes demographic and certain tabular assumptions recommended by the Actuary and adopted by the Retirement Board, and certain economic assumptions and financing methods recommended by the Actuary, supported by the Retirement Board and, where required, enacted into law by the New York State Legislature and Governor.
Employer Contributions are particularly responsive to Investment Earnings and increase (decrease) on a smoothed basis whenever Investment Earnings are less (more) than expected.
For example, during Fiscal Years 2001 to 2003, the Assets of the Plan decreased because they earned less than expected. Consequently, over the following several years, the actuarial methodology responds by increasing Employer Contributions in order to bring the overall financial status of the Plan back into balance.

Due to Investment Earnings between Fiscal Years 2001 and 2003 being substantially lower than anticipated, the increases in Employer Contributions to the Plan over the subsequent few Fiscal Years were significantly higher.
The New York City Charter requires an independent actuary to conduct an experience review of the Plan every two years. The Actuary utilizes this information and regularly proposes changes in actuarial assumptions and methods, most recently during Fiscal Year 2006.
These most recent changes, approved by the Retirement Board and implemented during Fiscal Year 2006, include (1) updated demographic assumptions, (2) full recognition of all Obligations of the Plan (i.e., removing the statutory phase-in of certain liabilities) and (3) revised methodologies for smoothing changes in Employer Contributions due to Plan experience. Together, these changes further enhance the long-term financial integrity of the Plan.
The ongoing process of actuarial rebalancing and periodic reviews of actuarial assumptions and methods by the Actuary and the Retirement Board, coupled with a financially responsible, long-duration employer like the City of New York (the City) and other participating Employers that can afford some variability of Employer Contributions, help provide financial security for the Plan and its participants and reasonable intergenerational budget equity for taxpayers.
With the City and other participating Employers that have always paid and are expected to continue to pay the statutorily-required Employer Contributions as calculated by the Actuary and approved by the Retirement Board, changes in Employer Contributions represent the source for rebalancing the basic equation of pension funding.

## Other Measures of Funded Status

Measures of Funded Status of the Plan are determined at specific points in time and are usually expressed in various relationships of Assets to Obligations. Assets as percentages of Obligations are referred to as Funded Ratios.

Comparisons of Funded Ratios over time can provide insight into the long-term financial trend of the Plan.
The Other Measures of Funded Status presented herein provide somewhat different insights into the financial condition of the Plan and comparisons amongst these Other Measures of Funded Status can provide even more.
As noted, there are multiple, possible definitions of the Plan's Assets and Obligations. Some of these definitions of and comments on Assets and Obligations are set forth immediately hereafter. Additional observations about the meanings and usefulness of and the relationships amongst certain of the Funded Ratios are provided following the table of Funded Ratios.

## Definition of and Comments on Assets

With respect to Assets, both Market Value of Assets (MVA) and the Actuarial Value of Assets (or Actuarial Asset Value (AAV)) are used to determine Funded Ratios.
In the case of the Plan, the AAVM currently in use provides for smoothing of the MVA by phasing any Unexpected Investment Returns (i.e., Investment Earnings greater or less than those expected under the actuarial assumption of $8.0 \%$ of AAV each year) into the AAV over a period of six years.
The advantage of using MVA is that it represents the tradable value of the Assets of the Plan at any point in time.
The advantage of using AAV is that it is smoothed to remove the volatility of MVA. The disadvantage of AAV is that it is not the tradable value of Assets in the marketplace and, therefore, does not show the volatility of the Assets.

## Definition of and Comments on Obligations

With respect to Obligations, the Actuarial Accrued Liability (AAL) under any particular Actuarial Cost Method (ACM) is that portion of the APV of projected benefits which is not provided by normal costs (employer and employee).
With respect to the Plan, where the ACM is the Frozen Initial Liability (FIL) ACM, the AAL mathematically can be recast as the Unfunded AAL (UAAL) plus the AAV. To the extent that the UAAL does not change much year to year, then the related AAL remains relatively consistent in value with the AAV each year.
With respect to the ongoing funding of the Plan, the use of the FIL ACM provides for amortizing actuarial gains and losses over the future working lifetimes of active employees. As used by the Plan, the FIL ACM generally results in funding that is more conservative (i.e., greater Employer Contributions) than that of most other Public Pension Plans.
The Entry Age Accrued Liability (EAAL) is defined as the APV of projected benefits less the sum of the APV of future employee contributions and the APV of future employer entry age normal costs.
The EAAL is a required disclosure in accordance with Governmental Accounting Standards Board (GASB) Statement Number 43 (GASB 43) and GASB Statement Number 45 (GASB 45) for Other PostEmployment Benefits (OPEB) under certain ACM.
In accordance with GASB Statement Number 50 (GASB 50), beginning with Fiscal Year 2008, the EAAL is a required disclosure for Public Pension Plans that determine employer contributions using the Aggregate ACM.

The Entry Age ACM is the most-commonly utilized ACM for funding Public Pension Plans.
The Projected Benefit Obligation (PBO) is defined as the proportion of APV of all benefits attributed by the Plan's benefit formula to employee service rendered prior to the valuation date. The PBO was required reporting under GASB Statement Number 5 (GASB 5) prior to its replacement by GASB 25 and GASB 27.
The Accumulated Benefit Obligation (ABO) is determined in the same manner as the PBO but without assuming future salary increases.
The Market Value Accumulated Benefit Obligation (MVABO) is determined in the same manner as an ABO using the same actuarial assumptions except that projected benefit payments are discounted using annual yields on U.S. Treasury securities of like duration. The MVABO is sometimes described as a Mark-to-Market measure of Obligations or a Market Value of Liabilities (MVL).

## Table of Asset and Obligation Values

The following table presents the values of Assets and Obligations used to calculate alternative Funded Ratios.

| COMPONENT MEASURES OF FUNDED STATUS <br> (In Millions) |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Valuation Date | Market Value of Assets (MVA) | Actuarial Asset Value (AAV)* | Actuarial Accrued Liability <br> (AAL)* | Entry Age Accrued Liability <br> (EAAL)** | Projected Benefit Obligation (PBO)** | Accumulated Benefit Obligation (ABO)** | Market Value Accumulated Benefit Obligation (MVABO)*** | MVABO Equiv. Discount Yield (Per Annum) | MVABO <br> Weighted <br> Average <br> Duration <br> (Years) |
| 6/30/99 | \$34,626.1 | \$34,626.1 | \$34,626.1 | \$32,542.5 | \$31,307.3 | \$27,929.8 | \$31,828.0 | 6.0\% | 11.5 |
| 6/30/00 | 36,751.2 | 36,142.4 | 36,147.6 | 36,743.6 | 35,141.7 | 31,150.1 | 35,581.1 | 6.0 | 11.8 |
| 6/30/01 | 31,593.0 | 35,410.2 | 35,414.5 | 36,140.1 | 34,446.5 | 30,721.5 | 36,393.4 | 5.7 | 11.6 |
| 6/30/02 | 27,025.9 | 34,177.8 | 34,181.1 | 36,531.2 | 34,744.1 | 30,677.2 | 36,575.1 | 5.8 | 10.9 |
| 6/30/03 | 26,078.0 | 33,169.2 | 33,182.7 | 37,622.9 | 35,776.9 | 31,945.0 | 42,682.0 | 4.6 | 11.8 |
| 6/30/04 | 28,975.4 | 32,817.1 | 32,827.5 | 40,486.9 | 38,554.8 | 35,175.5 | 43,053.6 | 5.5 | 11.1 |
| 6/30/04 (Lag) | 28,975.4 | 33,149.3 | 33,159.7 | 40,872.0 | 38,947.5 | 35,277.6 | 43,223.1 | 5.5 | 11.2 |
| 6/30/05 (Lag) | 30,492.2 | 32,865.1 | 32,872.3 | 42,644.4 | 40,633.9 | 37,033.8 | 51,957.2 | 4.2 | 13.0 |
| 6/30/06 (Lag) | 32,206.7 | 32,405.5 | 32,410.5 | 45,138.9 | 42,619.6 | 38,580.8 | 47,892.4 | 5.4 | 11.9 |
| 6/30/07 (Lag) ${ }^{\text {F }}$ | * 37,142.8 | 33,854.2 | 33,856.7 | 47,958.3 | 45,566.8 | 41,494.7 | 49,515.9 | 5.4 | 11.9 |

\#The AAV used for the June 30, 1999 to June 30, 2004 actuarial valuations assumes the AAV was reset to MVA as of June 30, 1999. As of each June 30 thereafter, the AAV recognizes Investment Returns greater or less than expected over a period of five years (six years beginning with the June 30, 2004 (Lag) actuarial valuation).

* Calculated in accordance with the Actuarial Cost Method (i.e., Frozen Initial Liability) and actuarial assumptions used for determining Employer Contributions.
** Calculated based on actuarial assumptions used for determining Employer Contributions.
${ }^{* * *}$ Calculated based on actuarial assumptions used for determining Employer Contributions except that projected benefit payments are discounted using annual yields derived from U.S. Treasury Spot Rates as published by the U.S. Department of the Treasury Office of Thrift Supervision in its Selected Asset and Liability Price Tables. Also shown are the related MVABO Equivalent Discount Yield and the MVABO Weighted Average Duration.
\#\# The June 30, 2007 (Lag) figures are preliminary and are generally based on the same census data, actuarial assumptions and methods used to develop published, preliminary Fiscal Year 2009 employer contributions.


## Table of Funded Ratios

The following table presents alternative Funded Ratios comparing Assets to Obligations, including: (1) AAV divided by AAL, (2) AAV divided by EAAL, (3) MVA divided by EAAL, (4) AAV divided by PBO, (5) MVA divided by PBO, (6) AAV divided by ABO, (7) MVA divided by ABO and (8) MVA divided by MVABO.

## FUNDED RATIOS

| Valuation <br> Date | AAV/AAL | AAV/EAAL | MVA/EAAL | AAV/PBO | MVA/PBO | AAV/ABO | MVA/ABO | MVA/MVABO |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $6 / 30 / 99$ | $100 \%$ | $106 \%$ | $106 \%$ | $111 \%$ | $111 \%$ | $124 \%$ | $124 \%$ | $109 \%$ |
| $6 / 30 / 00$ | 100 | 98 | 100 | 103 | 105 | 116 | 118 | 103 |
| $6 / 30 / 01$ | 100 | 98 | 87 | 103 | 92 | 115 | 103 | 87 |
| $6 / 30 / 02$ | 100 | 94 | 74 | 98 | 78 | 111 | 88 | 74 |
| $6 / 30 / 03$ | 100 | 88 | 69 | 93 | 73 | 104 | 82 | 61 |
| $6 / 30 / 04$ | 100 | 81 | 72 | 85 | 75 | 93 | 82 | 67 |
| $6 / 30 / 04($ Lag | 100 | 81 | 71 | 85 | 74 | 94 | 82 | 67 |
| $6 / 30 / 05$ (Lag) | 100 | 77 | 72 | 81 | 75 | 89 | 82 | 59 |
| $6 / 30 / 06$ (Lag) | 100 | 72 | 71 | 76 | 76 | 84 | 83 | 67 |
| 6/30/07 (Lag)\# | 100 | 71 | 77 | 74 | 82 | 82 | 90 | 75 |
| \# Preliminary |  |  |  |  |  |  |  |  |

## Comments on Funded Ratios and Funding Methodology

With respect to the different Funded Ratios shown in the preceding table, the ratio of AAV/AAL is from the Schedule of Funding Progress (Schedule 1) presented in the Financial Section of this CAFR.
Due to the mathematics of the FIL ACM where AAL equals AAV plus UAAL, the AAV/AAL Funded Ratios tend to remain relatively constant from year to year and provide limited insight into the ongoing financial performance of the Plan.

The Other Measures of Funded Status shown in the preceding table provide different relationships between the Assets and Obligations of the Plan and are designed to offer additional insight into the Funded Status of the Plan that the Actuary believes useful to some users.
The ratios of AAV/EAAL reflect information that is now a required disclosure for certain Public Pension Plans that utilize the Aggregate ACM. This requirement also exists for certain OPEB plans under GASB 43 and GASB 45.
The ratios of AAV/PBO present information that was previously required under GASB 5 and is a comparable but somewhat different representation of the information shown in the Solvency Test presented earlier in this Section of the CAFR.
The ratios of MVA/MVABO provide information on Funded Status that is (1) independent of the asset allocation of the Plan, (2) exclusive of any advance recognition of expected asset risk premia (e.g., equity risk premium) and (3) absent any smoothing of asset values.
Inherent in its design, the MVA/MVABO Funded Ratio is expected to be volatile due to the impact of asset gains and losses without smoothing and the impact of changes in interest rates in the economy. Such volatility is a reflection of markets and can provide useful disclosure information. However, such volatility is not consistent with the needs of budgeting. Those budgeting needs are met by the actuarial assumptions and FIL ACM currently in use to determine Employer Contributions.

Comparing the MVA/EAAL to AAV/EAAL, MVA/PBO to AAV/PBO or MVA/ABO to AAV/ABO provides an opportunity to evaluate the degree of smoothing provided by the Actuarial Asset Valuation Method.
Comparing Funded Ratios based on the same Assets (i.e., MVA or AAV) but different definitions of Obligations (e.g., EAAL versus PBO versus ABO) provides an opportunity to evaluate the differences in those different definitions of Obligations.
Comparing AAV/PBO with AAV/ABO provides insight into the impact of expected salary growth on the value of benefits earned to date.
Comparing MVA/ABO with MVA/MVABO provides an opportunity to compare the impact of alternative interest rates on discounting the ABO.
It should also be noted that Measures of Funded Status are best examined with more consideration of their trends over time than their values at any given point in time.

Finally, over time, it should be noted that as the City and other participating Employers pay into the Plan the actuarially-determined Employer Contributions, all Funded Ratios can be expected to increase from their current levels.

## STATUTORY VS. ANNUAL REQUIRED CONTRIBUTIONS

| Fiscal Year <br> Ended June 30 | Statutory <br> Contribution $^{*}$ | Annual Required <br> Contribution | Employer Rate of <br> Contribution** |
| :---: | :---: | :---: | :---: |
| 2000 | $\$ 181,769,965$ | $\$ 181,769,965$ | $4.310 \%$ |
| 2001 | $444,965,372$ | $571,955,543$ | 9.424 |
| 2002 | $509,931,588$ | $607,762,939$ | 10.167 |
| 2003 | $639,617,910$ | $805,782,222$ | 11.695 |
| 2004 | $920,264,167$ | $1,015,331,185$ | 15.788 |
| 2005 | $1,228,275,356$ | $1,304,032,623$ | 19.748 |
| 2006 | $1,316,610,517$ | $1,316,610,517$ | 21.293 |
| 2007 | $1,600,904,278$ | $1,600,904,278$ | 25.471 |
| 2008 | $1,916,519,629$ | $1,916,519,629$ | 27.386 |

[^11]Teachers' Retirement System of the City of New York 55 Water Street. New York. NY 10041 1 (888) 8-NYC-TRS nun.trsnyc.nyus


[^0]:    * This category primarily consists of positions such as secretaries, guidance counselors, and social workers.

[^1]:    * Excludes \$4,761,529 in securities lending

[^2]:    See notes to Financial Statements No. 7 Administrative and Investment Expenses, page 64.

    * Total Investment Expenses does not include \$2,967,438 Diversified Equity Fund and Stable-Value Fund provisions for expenses.

[^3]:    * Excludes \$1,981,338 in securities lending.

[^4]:    * Total investment expenses does not include $\$ 2,834,360$ Diversified Equity Fund and Stable-Value Fund provisions for expenses.

[^5]:    *A schedule of funding progress for the Plan is presented in Schedule 1.
    (See accompanying "Notes to Financial Statements—Qualified Pension Plan.")

[^6]:    (See accompanying "Notes to Financial Statements-Qualified Pension Plan.").

[^7]:    (See accompanying "Notes to Financial Statements—Tax-Deferred Annuity Program")

[^8]:    *U.S. Treasury Bonds, Notes and Treasury-inflation protected securities are obligations of the U.S. government or explicitly guaranteed by the U.S. government and therefore not considered to have credit risk and are not included above.

[^9]:    (1) The annualized covered payroll under the One-Year Lag Methodology used for the Fiscal Year 2006 Employer Contributions differs from that as of June 30, 2004 to compute Fiscal Year 2005 Employer Contributions due to changes in actuarial assumptions and more recent information on labor contract settlements.
    (2) Decrease from June 30, 2003.
    (3) Preliminary

[^10]:    * Revised

    Also see following "SOLVENCY TEST-NOTES."

[^11]:    * Represents total employer contributions accrued for fiscal year.

    The Statutory Contributions for Fiscal Years 2001 and 2002 were computed in accordance with Chapter 125/00 which provided for a five-year phase-in of the additional actuarial liabilities attributable to Chapter 125/00.
    The Statutory Contributions for Fiscal Years 2003 through 2005 were computed in accordance with Chapter 278/02 which extended from five to ten years the phase-in period for the funding of the additional actuarial liabilities attributable to Chapter 125/00.

    Beginning Fiscal Year 2006, the Statutory Contributions were computed using a One-Year Lag Actuarial Valuation Methodology in accordance with Chapter 152/06 which also eliminated the use of ten-year phase-in of Chapter 278/02 for funding the additional actuarial liabilities attributed to Chapter 125/00.
    ** The employer rates of contribution equal the Statutory Contributions as percentages 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 $30^{\text {th }}$ adjusted, where applicable, to be consistent with collective bargaining agreements estimated to be achieved.

