



Metropolitan Transportation Authority

Audit Committee Meeting

September 2019

Committee Members

H. Mihaltses, Vice Chair
S. Feinberg
D. Jones
R. Mujica, Jr.

Audit Committee Meeting

MTA Board Room - 20th Floor

2 Broadway

Wednesday, 9/25/2019

8:00 - 9:00 AM ET

1. PUBLIC COMMENTS

2. APPROVAL OF MINUTES

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3. AUDIT COMMITTEE WORK PLAN

2020 WORKPLAN - Condensed - Page 5

2020 WORKPLAN - Detailed - Page 7

4. INDEPENDENT ACCOUNTANTS REVIEW REPORT - 1ST AND 2ND QUARTERS 2019

Draft - MTA Consolidated Financial Statements - 1Q 2019 - Page 12

Draft - MTA Consolidated Financial Statements - 2Q 2019 - Page 133

5. APPOINTMENT OF EXTERNAL AUDITORS

PCAOB Report on 2017 Inspection of Deloitte - Page 254

6. AUDIT APPROACH/COORDINATION WITH EXTERNAL AUDITOR (Materials previously distributed)

7. 2019 AUDIT PLAN STATUS UPDATE

2019 Audit Plan Status - Page 288

8. DDCR PERFORMANCE MEASURES

DDCR Update - September Audit Committee Presentation - Page 295

9. REVIEW OF AUDIT COMMITTEE CHARTER

Audit Committee Charter - Page 300

10. ANNUAL AUDIT COMMITTEE ACTIVITY REPORT (Materials previously distributed)

**MINUTES OF MEETING
AUDIT COMMITTEE OF THE BOARD
WEDNESDAY, JUNE 26, 2019 – 8:30 A.M.
RONAN BOARD ROOM – 20TH FLOOR
2 BROADWAY**

The following were present:

Honorable:

**Haeda Mihaltses
David Jones**

**Sarah Feinberg
Andrew Albert**

Norman Brown

**M. Fucilli - MTA
L. Kearse - MTA
M. Murray - MTA**

**R. Foran - MTA
N. Lopez - MTA**

**C. Hickmann - Deloitte
G. Koslow - Deloitte
D. Patel - Deloitte
P. Zurita - Deloitte**

Also in attendance:

H. Fromm - MTA

1. PUBLIC COMMENTS PERIOD

There were no public speakers.

2. APPROVAL OF MINUTES

The minutes of the January 22nd and May 20th Audit Committee meetings were approved.

3. AUDIT COMMITTEE WORK PLAN

The Auditor General noted these changes to the work plan: (1) The meeting originally scheduled for July has been moved to this meeting today and (2) the meeting scheduled for October was moved to September. Additionally, the five agenda items slated for discussions in the July meeting were being moved to the September meeting.

A motion was made and seconded to approve the changes to the Work Plan.

4. 2018 AUDITED MTA CONSOLIDATED & AGENCY FINANCIAL STATEMENTS

Chair Mihaltses stated that at the last meeting, Deloitte presented the results of its audit of the 2018 MTA Consolidated Financial Statements and each agency's financial statements. The Committee voted then to accept the audited financial statements, but the acceptance was not ratified due to the absence of a quorum.

Before proceeding for a motion for a vote, Chair Mihaltses asked the Committee members if there were any questions on the audited financial statements. There being none, a motion was made and seconded to accept the audited 2018 financial statements of MTAHQ and the MTA agencies.

5. 2018 INVESTMENT COMPLIANCE REPORT

Chair Mihaltses indicated that similar to the audited Financial Statements, Deloitte also presented at the last month's committee meeting the results of their audit of the MTA investments in which Deloitte reported that the MTA investments were in compliance with the relevant State's guidelines, rules and regulations. The committee voted then to accept the 2018 Investment Compliance Report, but the acceptance was not ratified due to the absence of a quorum.

Before proceeding for a motion for a vote, Chair Mihaltses asked the committee members if there were any questions on the Investment Compliance Report. There being none, a motion was made and seconded to accept the 2018 Investment Compliance Report.

6. 2018 SINGLE AUDIT REPORT

Darshan Patel (Deloitte) deferred to Greg Koslow (Deloitte Engagement Partner) to present the results of its Single Audit of the MTA. Greg Koslow indicated that the three audit reports provided to the committee earlier contained the results of their audit of the four major MTA programs and that they have no findings and are issuing a "clean" report on them.

Chair Mihaltses asked the committee members if there were any questions on the Single Audit Report. There being none, a motion was made and seconded to accept the 2018 Single Audit Report.

7. 2018 MANAGEMENT LETTER

Chris Hickmann (Deloitte) stated that, during the course of their audit of the financial statements of MTA HQ and the agencies, they were mindful of any control deficiencies that may occur and those identified during the audit are presented in Deloitte's Management Letter. Chris said that the control deficiencies have been reviewed with management and that Deloitte was in agreement with the actions that management plan to take to remedy or correct the deficiencies.

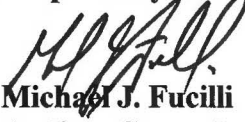
A motion was made and seconded to accept the 2018 Management Letter.

8. MOTION TO ADJOURN

Before making a motion to adjourn the meeting, Chair Mihaltses informed the Committee that this would be the Auditor General's last committee meeting as he will be retiring at the end of August. The Committee expressed its gratitude to the Auditor General for his 27 years of service with the MTA.

A motion was made and seconded to adjourn the meeting.

Respectfully submitted,


Michael J. Fucilli
Auditor General

2020 AUDIT COMMITTEE WORK PLAN

I. RECURRING AGENDA ITEMS

Responsibility

Each Meeting:

Approval of Minutes
Audit Work Plan

Committee Chair & Members
Committee Chair & Members

As Appropriate:

Pre-Approval of Audit and Non-
Auditing Services
Follow-Up Items
Status of Audit Activities

Committee Chair & Members

Auditor General
Auditor General/MTA IG/
CCO/CFO/
Controllers/External Auditor/
Committee Chair & Members

Executive Sessions

II. SPECIFIC AGENDA ITEMS

January 2020

Quarterly Financial Statements – 3rd Quarter 2019
Pension Audits
Review of MTA/IG's Office
Enterprise Risk Management Update
and Internal Control Guidelines
Compliance with the Requirements
of the Internal Control Act
Information Technology Report
2019 Audit Plan Status Report
2020 Audit Plan
DDCR Performance Measures
IT Security of Sensitive Data & Systems
(Executive Session)

External Auditor/CFOs/Controllers
External Auditor/Comptroller
External Auditor
Chief Compliance Officer

Chief Compliance Officer/Agency ICOs

Chief Information Officer
Auditor General
Auditor General
Chief Diversity Officer
Chief Information Officer

April 2020

2019 Financial Statements and Audit
Representation Letters
Management's Review of Consolidated
Financial Statements
Contingent Liabilities/Third Party
Lawsuits (Executive Session)
Open Audit Recommendations

External Auditor/CFOs/Controllers

Comptroller

General Counsels/External Auditor

Agency ICOs/Chief Compliance Officer

July 2020

Quarterly Financial Statements – 1st Quarter 2020
Single Audit Report
Investment Compliance Report
Management Letter Reports
Enterprise Risk Management Update
Ethics and Compliance Program
Financial Interest Reports
MTAAS 2020 Audit Plan Status Report
DDCR Performance Measures
IT Security of Sensitive Data & Systems
(Executive Session)

External Auditor/CFOs
External Auditor/CFOs
External Auditor
External Auditor/CFOs/Controllers
Chief Compliance Officer
Chief Compliance Officer
Chief Compliance Officer
Auditor General
Chief Diversity Officer
Chief Information Officer

October 2020

Quarterly Financial Statements – 2nd Quarter 2020
Appointment of External Auditors
Audit Approach Plans/Coordination
Review of Audit Committee Charter
Annual Audit Committee Report
Open Audit Recommendations

External Auditor/CFOs
Committee Chair & Members
External Auditor
CCO and Committee Chair
Committee Chair
Agency ICOs/Chief Compliance Officer

2020 AUDIT COMMITTEE WORK PLAN

I. RECURRING AGENDA ITEMS

Each Meeting

Approval of Minutes

Approval of the official proceedings of the previous month's Committee meeting.

Audit Work Plan

A monthly update of any edits and/or changes in the work plan.

As Appropriate

Pre-Approval of Audit and Non-Auditing Services

As appropriate, all auditing services and non-audit services to be performed by external auditors will be presented to and pre-approved by the Committee.

Follow-Up Items

Communications to the Committee of the current status of selected open issues, concerns or matters previously brought to the Committee's attention or requested by the Committee.

Status of Audit Activities

As appropriate, representatives of MTA's public accounting firm or agency management will discuss with the Committee significant audit findings/issues, the status of on-going audits, and the actions taken by agency management to implement audit recommendations.

Executive Sessions

Executive Sessions will be scheduled to provide direct access to the Committee, as appropriate.

II. SPECIFIC AGENDA ITEMS

JANUARY 2020

Quarterly Financial Statements - 3rd Quarter 2019

Representatives of the MTA public accounting firm, in conjunction with appropriate agency management, will discuss the interim financial statement that was prepared for the third quarter of 2019.

Pension Plans

i Management's Review of MTA-Managed/Controlled Pension Plan Financial Statements

The MTA Comptroller will present a management's review of the 2018 MTA-managed and controlled Pension Plan financial statements, including changes in the plan's net position, the required supplementary information and any new GASB statements or statutory regulations affecting the financial statements.

ii Audit of the Pension Plans Financial Statements

Representatives of the MTA public accounting firms will provide the results of their audits of the pension plans that are managed and controlled by MTA HQ, Long Island Rail Road, Metro-North and NYC Transit.

Review of the MTA Inspector General's Office

Representatives of MTA's public accounting firm will provide the results of their "agreed-upon" review procedures on the MTA/IG's operating expenses to ensure compliance with applicable policies and procedures.

Enterprise Risk Management Update and Internal Control Guidelines

These MTA-wide guidelines, which were adopted by the Board in 2011 pursuant to Public Authority Law Section 2931, are required to be reviewed by the Committee annually. The MTA Chief Compliance Officer will brief the Committee on the agency compliance with these guidelines and answer any questions and offer additional comments, as appropriate. The MTA Chief Compliance Officer will also brief the Committee on the status of agency compliance with the ERM guidelines and any new or emerging risk.

Compliance with Internal Control Act

The Committee will be briefed by the MTA Chief Compliance Officer and Agency Internal Control Officers on the results of the All-Agency Internal Control Reports issued to the NYS Division of the Budget as required by the Government Accountability, Audit and Internal Control Act.

Information Technology Report

The MTA Chief Information Security Officer will brief the Committee on the activities of the MTA IT for the past year, including its accomplishments, strategies and plans for the current

MTAAS 2019/2020 Audit Plans

i. 2019 Audit Plan Status

A briefing by Audit Services that will include a status of the work completed, a summary of the more significant audit findings, and a discussion of the other major activities performed by the department in 2019.

ii 2020 Audit Plan

A discussion by Audit Services of the areas scheduled to be reviewed in 2020 as well as the guidelines and policies that were used to assess audit risk and their application in the development of the audit work plan.

DDCR Performance Measures

The MTA Chief Diversity Officer will brief the Committee on the status of the performance measures and compliance monitoring used by the Department of Diversity and Civil Rights in tracking critical tasks.

Security of Sensitive Data & Systems

The MTA Chief Security Information Officer will make a presentation to the Committee on the security of sensitive data and systems at the MTA.

APRIL 2020

2019 Audited Financial Statements

The MTA public accounting firm will review the results and conclusions of their examination of the 2019 Financial Statements. The agency CFOs/Controllers will be available to the Committee to answer any questions regarding the submission of their audit representation letters to the external audit firm.

Management's Review of MTA Consolidated Financial Statements

The MTA Comptroller will present a management's review of the 2019 MTA consolidated financial statements, including changes in capital, net assets, other assets and operating revenues and expenses.

Contingent Liabilities and Status of Third Party Lawsuits

The General Counsels from each agency, along with representatives from the independent accounting firm, will review in Executive Session the status of major litigation that may have a material effect on the financial position of their agency, or for which a contingency has been or will be established and/or disclosed in a footnote to the financial statements. In addition, the Committee will be briefed on the status of third party lawsuits for which there has been minimal or sporadic case activity.

Open Audit Recommendations

The MTA Chief Compliance Officer and Agency Internal Control Officers will report to the Committee on the status of audit recommendations previously accepted by their respective agency.

JUNE 2020

Quarterly Financial Statements – 1st Quarter 2020

Representatives of MTA's public accounting firm, in conjunction with appropriate agency management, will discuss the interim financial statement that was prepared for the first quarter of 2020.

Single Audit Report

Representatives of MTA's public accounting firm will provide the results of their Federal- and State-mandated single audits of MTA and NYC Transit.

Investment Compliance Report

Representatives of the MTA's public accounting firm will provide a review of MTA's compliance with the guidelines governing investment practices.

Management Letter Reports

Reports will be made by the MTA's public accounting firm on the recommendations made in the auditors' Management Letter for improving the accounting and internal control systems of the MTA and its agencies. The report will also include management's response to each Management Letter comment. The response will describe the plan of action and timeframe to address each comment. In addition, the report will contain a follow-up of prior years' open recommendations conducted by the external audit firm.

Management Letter Reports

Reports will be made by the MTA's public accounting firm on the recommendations made in the auditors' Management Letter for improving the accounting and internal control systems of the MTA and its agencies. The report will also include management's response to each Management Letter comment. The response will describe the plan of action and timeframe to address each comment. In addition, the report will contain a follow-up of prior years' open recommendations conducted by the external audit firm.

Enterprise Risk Management Update and Internal Control Guidelines

These MTA-wide guidelines, which were adopted by the Board in 2011 pursuant to Public Authority Law Section 2931, are required to be reviewed by the Committee annually. The MTA Chief Compliance Officer will brief the Committee on the agency compliance with these guidelines and answer any questions and offer additional comments, as appropriate. The MTA Chief Compliance Officer will also brief the Committee on the status of agency compliance with the ERM guidelines and any new or emerging risk.

Ethics & Compliance Program

The MTA Chief Compliance Officer will brief the Committee (i) on the status of agency compliance with the ERM guidelines and any new or emerging risk and (ii) selected aspects of the MTA Ethics and Compliance Program.

Financial Interest Reports

The MTA Chief Compliance Officer will brief the Committee on the agencies' compliance with the State Law regarding the filing of Financial Interest Reports (FIRs), including any known conflicts of interest.

MTAAS 2020 Audit Plan Status Report

A briefing by Audit Services that will include a status of the work completed as compared to the audits planned for the year, a summary of the more significant audit findings, results of audit follow-up, and a discussion of the other major activities performed by the department.

DDCR Performance Measures

The MTA Chief Diversity Officer will brief the Committee on the status of the performance measures and compliance monitoring used by the Department of Diversity and Civil Rights in tracking critical tasks.

Security of Sensitive Data

The MTA Chief Security Information Officer will make a presentation to the Committee on the security of sensitive data and systems at the MTA.

OCTOBER 2020

Quarterly Financial Statements – 2nd Quarter 2020

Representatives of MTA's public accounting firm, in conjunction with appropriate agency management, will discuss the interim financial statement that was prepared for the second quarter of 2020.

Appointment of External Auditors

The Audit Committee will review the appointment of the independent auditor for MTA HQ and all the agencies. As part of this process, the Auditor General has reviewed and provided to the Committee, and will retain on file, the latest report of the firm's most recent internal quality control review

Audit Approach Plans/Coordination with External Auditors

Representatives of MTA's public accounting firm will review their audit approach for the 2020 year-end agency financial audits. This review will describe the process used to assess inherent and internal control risks, the extent of the auditor's coverage, the timing and nature of the procedures to be performed, and the types of statements to be issued. In addition, the impact of new or proposed changes in accounting principles, regulations, or financial reporting practices will be discussed.

Review of Audit Committee Charter

The Committee Chair will report that the Committee has reviewed and assessed the adequacy of the Audit Committee Charter and, based on that review, will recommend any changes. The review will also show if the Committee's performance in 2020 adequately complied with the roles and responsibilities outlined in its Charter (i.e. monitoring and overseeing the conduct of MTA's financial reporting process; application of accounting principles; engagement of outside auditors; MTA's internal controls; and other matters relative to legal, regulatory and ethical compliance at the MTA).

Annual Audit Committee Report

As a non-agenda information item, the Audit Committee will be provided with a draft report which outlines the Audit Committee's activities for the 12 months ended July 2020. This report is prepared in compliance with the Audit Committee's Charter. After Committee review and approval, the Committee Chair will present the report to the full MTA Board.

Open Audit Recommendations

The MTA Chief Compliance Officer and Agency Internal Control Officers will report to the Committee on the status of audit recommendations previously accepted by their respective agency.

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NOTE: The Pension Funds balances as of 12/31/2018 related to MaBSTOA Plan on pages 114 & 116 will be updated on 9/20/2019. An updated draft will be distributed with the final balances on this date.

Metropolitan Transportation Authority

(A Component Unit of the State of New York)

Independent Auditors' Review Report

Consolidated Interim Financial Statements as of and
for the Three-Month Period Ended March 31, 2019

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INDEPENDENT AUDITORS' REVIEW REPORT

To the Members of the Board of
Metropolitan Transportation Authority

Report on the Consolidated Interim Financial Information

We have reviewed the accompanying consolidated interim statement of net position of the Metropolitan Transportation Authority (the "MTA"), a component unit of the State of New York, as of March 31, 2019, and the related consolidated interim statements of revenues, expenses and changes in net position and consolidated cash flows for the three-month periods ended March 31, 2019 and 2018 (the "consolidated interim financial information").

Management's Responsibility for the Consolidated Interim Financial Information

MTA management is responsible for the preparation and fair presentation of the consolidated interim financial information in accordance with accounting principles generally accepted in the United States of America; this responsibility includes the design, implementation, and maintenance of internal control sufficient to provide a reasonable basis for the preparation and fair presentation of the consolidated interim financial information in accordance with accounting principles generally accepted in the United States of America.

Auditors' Responsibility

Our responsibility is to conduct our reviews in accordance with auditing standards generally accepted in the United States of America applicable to reviews of interim financial information. A review of interim financial information consists principally of applying analytical procedures and making inquiries of persons responsible for financial and accounting matters. It is substantially less in scope than an audit conducted in accordance with auditing standards generally accepted in the United States of America, the objective of which is the expression of an opinion regarding the financial information. Accordingly, we do not express such an opinion.

Conclusion

Based on our reviews, we are not aware of any material modifications that should be made to the consolidated interim financial information referred to above for it to be in accordance with the accounting principles generally accepted in the United States of America.

Emphasis of Matters

As discussed in the notes to the consolidated interim financial information, the MTA is a component unit of the State of New York. The MTA requires significant subsidies from and has material transactions with the City of New York, the State of New York, and the State of Connecticut, and depends on certain tax revenues that are economically sensitive. The accompanying interim financial information does not include any adjustments that might result from the outcome of this uncertainty.

As described in Note 2 to the consolidated interim financial statements, the MTA adopted Governmental Accounting Standards Board ("GASB") Statement No. 83, *Certain Asset Retirement Obligations* and GASB Statement No. 84 *Fiduciary Activities*.

Other Matters

Required Supplementary Information

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Accounting principles generally accepted in the United States of America require that the Management's Discussion and Analysis, the Schedule of Changes in the MTA's Net Pension Liability and Related Ratios for the Single Employer Pension Plans, the Schedule of the MTA's Proportionate Share of Net Pension Liabilities of Cost-Sharing Multiple-Employer Pension Plans, the Schedule of the MTA's Contributions for All Pension Plans, the Schedule of Changes in the MTA's Net OPEB Liability and Related Ratios, and the Schedule of the MTA's Contributions to the OPEB Plan, as listed in the table of contents, be presented to supplement the consolidated interim financial information. Such information, although not a part of the consolidated interim financial information, is required by the Governmental Accounting Standards Board who considers it to be an essential part of financial reporting for placing the consolidated interim financial information in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, applicable to reviews of interim financial information, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the consolidated interim financial information, and other knowledge we obtained during our reviews of the consolidated interim financial information. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

Supplementary Information

Our reviews were conducted for the purpose of expressing limited assurance, as described under the Conclusion section above, on the MTA's consolidated interim financial information. The Schedule of Consolidated Reconciliation Between Financial Plan and Financial Statements, Schedule of Consolidated Subsidy Accrual Reconciliation Between Financial Plan and Financial Statements, and Schedule of Financial Plan to Financial Statements Reconciliation as well as the Pension and Other Employee Benefit Trust Funds - Combining Statement of Fiduciary Net Position as of December 31, 2018, Pension and Other Employee Benefit Trust Funds - Combining Statement of Fiduciary Net Position as of December 31, 2017, Pension and Other Employee Benefit Trust Funds - Combining Statement of Changes in Fiduciary Net Position for the Year-Ended December 31, 2018, and Pension and Other Employee Benefit Trust Funds - Combining Statement of Changes in Fiduciary Net Position for the Year-Ended December 31, 2017 are presented for the purposes of additional analysis and are not a required part of the consolidated interim financial information.

The Schedule of Consolidated Reconciliation Between Financial Plan and Financial Statements, Schedule of Consolidated Subsidy Accrual Reconciliation Between Financial Plan and Financial Statements, and Schedule of Financial Plan to Financial Statements Reconciliation as well as the Pension and Other Employee Benefit Trust Funds - Combining Statement of Fiduciary Net Position as of December 31, 2018, Pension and Other Employee Benefit Trust Funds - Combining Statement of Fiduciary Net Position as of December 31, 2017, Pension and Other Employee Benefit Trust Funds - Combining Statement of Changes in Fiduciary Net Position for the Year-Ended December 31, 2018, and Pension and Other Employee Benefit Trust Funds - Combining Statement of Changes in Fiduciary Net Position for the Year-Ended December 31, 2017, are the responsibility of management and were derived from and relate directly to the underlying accounting and other records used to prepare the consolidated interim financial information. Such information has been subjected to the analytical procedures and inquiries applied in the reviews of the basic consolidated interim financial information and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the consolidated interim financial information or to the consolidated interim financial information themselves, and other additional procedures and we are not aware of any material modifications that should be made thereto in order for such information to be in conformity with accounting principles generally accepted in the United States of America when considered in relation to the basic consolidated interim financial information taken as a whole.

Report on Consolidated Statement of Net Position as of December 31, 2018

We have previously audited, in accordance with auditing standards generally accepted in the United States of America, the consolidated statement of net position of the MTA as of December 31, 2018, and the related consolidated statement of revenues, expenses and changes in net position and cash flows for the year then ended (not presented herein); and we expressed an unmodified audit opinion on those audited consolidated financial statements in our report dated June 26, 2019, which contains an explanatory paragraph that the MTA requires significant subsidies from other

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governmental entities. In our opinion, the accompanying consolidated statement of net position of the MTA as of December 31, 2018, is consistent, in all material respects, with the audited consolidated financial statements from which it has been derived.

September 25, 2019

(A Component Unit of the State of New York)

**MANAGEMENT'S DISCUSSION AND ANALYSIS
AS OF MARCH 31, 2019 AND DECEMBER 31, 2018 AND
FOR THE THREE-MONTH PERIODS ENDED MARCH 31, 2019 AND 2018**

(\$ In Millions, except as noted)

OVERVIEW OF THE CONSOLIDATED INTERIM FINANCIAL STATEMENTS

Introduction

This report consists of seven parts: Management's Discussion and Analysis ("MD&A"), Consolidated Interim Financial Statements, Fiduciary Funds Financial Statements, Notes to the Consolidated Interim Financial Statements, Required Supplementary Information, Supplementary Information - Combining Fiduciary Fund Financial Statements, and Supplementary Information.

Management's Discussion and Analysis

This MD&A provides a narrative overview and analysis of the financial activities of the Metropolitan Transportation Authority and its consolidated subsidiaries and affiliates (the "MTA" or "MTA Group") as of March 31, 2019 and December 31, 2018 and for the three-month periods ended March 31, 2019 and 2018. For financial reporting purposes, the subsidiaries and affiliates of the MTA are blended component units. This management discussion and analysis is intended to serve as an introduction to the MTA Group's consolidated interim financial statements. It provides an assessment of how the MTA Group's position has improved or deteriorated and identifies the factors that, in management's view, significantly affected the MTA Group's overall financial position. It may contain opinions, assumptions, or conclusions by the MTA Group's management that must be read in conjunction with, and should not be considered a replacement for, the consolidated interim financial statements.

The Consolidated Interim Financial Statements

The Consolidated Interim Statements of Net Position, which provide information about the nature and amounts of resources with present service capacity that the MTA Group presently controls (assets), consumption of net assets by the MTA Group that is applicable to a future reporting period (deferred outflow of resources), present obligations to sacrifice resources that the MTA Group has little or no discretion to avoid (liabilities), and acquisition of net assets by the MTA Group that is applicable to a future reporting period (deferred inflow of resources) with the difference between assets/deferred outflow of resources and liabilities/deferred inflow of resources being reported as net position.

The Consolidated Interim Statements of Revenues, Expenses and Changes in Net Position, which provide information about the MTA's changes in net position for the period then ended and accounts for all of the period's revenues and expenses, measures the success of the MTA Group's operations during the year and can be used to determine how the MTA has funded its costs.

The Consolidated Interim Statements of Cash Flows, which provide information about the MTA Group's cash receipts, cash payments and net changes in cash resulting from operations, noncapital financing, capital and related financing, and investing activities.

The Fiduciary Funds Financial Statements

Fiduciary funds are used to account for resources held in a trustee capacity for the benefit of parties outside of a government entity. Fiduciary funds are not reported in the MTA's consolidated interim financial statements because the resources of those funds are not available to support the MTA's own programs. The MTA's fiduciary funds are collectively reported as Pension and Other Employee Benefit Trust Funds.

The Statement of Fiduciary Net Position presents financial information about the assets, liabilities, and the fiduciary net position held in trust of the fiduciary funds of the MTA.

The Statement of Changes in Fiduciary Net Position presents fiduciary activities of the fiduciary funds as additions and deductions to the fiduciary net position.

Notes to the Consolidated Interim Financial Statements

The notes provide information that is essential to understanding the consolidated interim financial statements, such as the MTA Group's accounting methods and policies, details of cash and investments, employee benefits, long-term debt, lease transactions, future commitments and contingencies of the MTA Group, and information about other events or developing situations that could materially affect the MTA Group's financial position.

Required Supplementary Information

The required supplementary information provides information about the changes in the net pension liability and net other postemployment benefits (“OPEB”) liability, employer contributions for the OPEB and pension plans, actuarial assumptions used to calculate the net pension liability and net OPEB liability, historical trends, and other required supplementary information related to the MTA Group’s cost-sharing multiple-employer defined benefit pension plans.

Supplementary Information - Combining Fiduciary Funds Financial Statements

The supplementary information combining fiduciary funds financial statements includes the combining statement of fiduciary net position and the combining statement of changes in fiduciary net position which provides financial information on each fiduciary fund in which the MTA is functioning as a trustee for another party. The MTA’s fiduciary funds are categorized as Pension and Other Employee Benefit Trust Funds.

Supplementary Information

The supplementary information provides a series of reconciliations between the MTA Group’s financial plan and the consolidated interim statements of revenues, expenses and changes in net position.

FINANCIAL REPORTING ENTITY

The Metropolitan Transportation Authority (“MTA” or “MTA Group”) was established under the New York Public Authorities Law and is a public benefit corporation and a component unit of the State of New York whose mission is to continue, develop, and improve public transportation and to develop and implement a unified public transportation policy in the New York metropolitan area. The financial reporting entity consists of subsidiaries and affiliates, considered component units of the MTA, because the Board of the MTA serves as the overall governing body of these related entities.

MTA Related Groups

The following entities, listed by their legal names, are subsidiaries (component units) of the MTA:

- Metropolitan Transportation Authority Headquarters (“MTAHQ”) provides support in budget, cash management, finance, legal, real estate, treasury, risk and insurance management, and other services to the related groups listed below.
- The Long Island Rail Road Company (“MTA Long Island Rail Road”) provides passenger transportation between New York City (“NYC”) and Long Island.
- Metro-North Commuter Railroad Company (“MTA Metro-North Railroad”) provides passenger transportation between NYC and the suburban communities in Westchester, Dutchess, Putnam, Orange, and Rockland counties in New York State (“NYS”) and New Haven and Fairfield counties in Connecticut.
- Staten Island Rapid Transit Operating Authority (“MTA Staten Island Railway”) provides passenger transportation on Staten Island.
- First Mutual Transportation Assurance Company (“FMTAC”) provides primary insurance coverage for certain losses, some of which are reinsured, and assumes reinsurance coverage for certain other losses.
- MTA Capital Construction Company (“MTA Capital Construction”) provides oversight for the planning, design and construction of current and future major MTA system-wide expansion projects.
- MTA Bus Company (“MTA Bus”) operates certain bus routes in areas previously served by private bus operators pursuant to franchises granted by the City of New York.
- MTAHQ, MTA Long Island Rail Road, MTA Metro-North Railroad, MTA Staten Island Railway, FMTAC, MTA Capital Construction, and MTA Bus, collectively are referred to herein as MTA. MTA Long Island Rail Road and MTA Metro-North Railroad are referred to collectively as the Commuter Railroads.

The following entities, listed by their legal names, are affiliates (component units) of the MTA:

- New York City Transit Authority (“MTA New York City Transit”) and its subsidiary, Manhattan and Bronx Surface Transit Operating Authority (“MaBSTOA”), provide subway and public bus service within the five boroughs of New York City.
- Triborough Bridge and Tunnel Authority (“MTA Bridges and Tunnels”) operates seven toll bridges, two tunnels, and the Battery Parking Garage, all within the five boroughs of New York City.

CONDENSED CONSOLIDATED FINANCIAL INFORMATION AND CONDENSED CONSOLIDATED INTERIM FINANCIAL INFORMATION

The following sections discuss the significant changes in the MTA Group's financial position as of March 31, 2019 and December 31, 2018 and for the three-month periods ended March 31, 2019 and 2018. An analysis of major economic factors and industry trends that have contributed to these changes is provided. It should be noted that for purposes of the MD&A, the information contained within the summaries of the consolidated interim financial statements and the various exhibits presented were derived from the MTA Group's consolidated interim financial statements.

Total Assets and Deferred Outflows of Resources, Distinguishing Between Capital Assets, Other Assets and Deferred Outflows of Resources

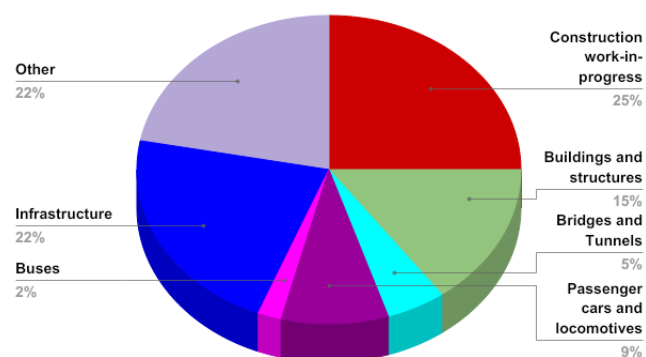
Capital assets include, but are not limited to: bridges, structures, tunnels, construction of buildings and the acquisition of buses, equipment, passenger cars, and locomotives.

Other assets include, but are not limited to: cash, restricted and unrestricted investments, State and regional mass transit taxes receivables, and receivables from New York State.

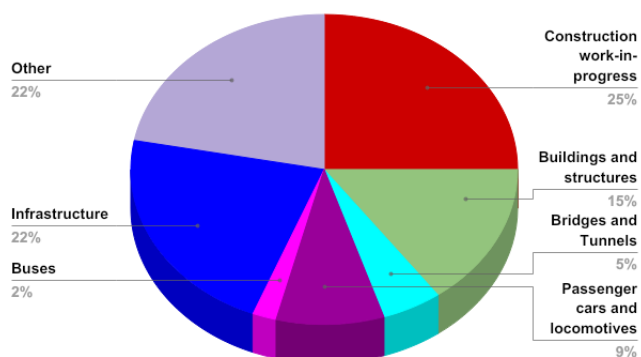
Deferred outflows of resources reflect: changes in fair market values of hedging derivative instruments that are determined to be effective, unamortized loss on refunding, deferred outflows from pension activities, and deferred outflows from OPEB activities.

(In millions)	March 31, 2019 (Unaudited)	December 31, 2018	Increase / (Decrease)
Capital assets — net (see Note 6)	\$ 73,135	\$ 72,511	\$ 624
Other assets	10,377	7,827	2,550
Total Assets	83,512	80,338	3,174
Deferred outflows of resources	4,374	4,360	14
Total assets and deferred outflows of resources	<u>\$ 87,886</u>	<u>\$ 84,698</u>	<u>\$ 3,188</u>

Capital Assets, Net - March 31, 2019 (Unaudited)



Capital Assets, Net - December 31, 2018



Significant Changes in Assets and Deferred Outflows of Resources Include:

March 31, 2019 versus December 31, 2018

- Net capital assets increased at March 31, 2019 by \$624 or 0.9%. There was an increase in other capital assets of \$550, an increase in infrastructure of \$405, an increase in passenger cars and locomotives of \$124, an increase in buses of \$78, an increase in construction work-in-progress of \$74, and an increase in buildings and structures of \$58. This was offset by a net increase in accumulated depreciation of \$665. See Note 6 to the MTA's Consolidated Interim Financial Statements for further information. Some of the more significant projects contributing to the net increase included:
 - Continued progress on the East Side Access, Second Avenue Subway and Number 7 Extension Project.
 - Infrastructure work including:
 - Repairs and improvements of all MTA Bridge and Tunnels' facilities.
 - Improvements to MTA Long Island Railroad's road-assets, replacement of signal power lines, various

- right-of-way enhancements and upgrades of radio communications.
- Continued improvements to MTA Metro-North Railroad stations, tracks and structures, power rehabilitation of substations, and security.
 - Subway and bus real-time customer information and communications systems.
 - Continued structural rehabilitation and repairs of the ventilation system at various facilities.
 - Continued improvements made to the East River Tunnel Fire and Life Safety project for 1st Avenue, Long Island City and construction of three Montauk bridges.
 - Continued passenger station rehabilitations for Penn Station and East Side Access Passenger station.
 - Ongoing work by MTA New York City Transit to make stations fully accessible and structurally reconfigured in accordance with the Americans with Disability Act (“ADA”) standards.
 - Other assets increased by \$2,550 or 32.6%. The major items contributing to this change include:
 - An increase in current and non-current receivables of \$2,008 primarily due to an increase from State and regional mass transit tax of \$1,939, an increase in State and local operating assistance of \$210, an increase Station Maintenance receivable of \$42, a decrease in New York City operating recovery subsidy to the MTA New York City Transit, MTA Staten Island Railway, and MTA Bus of \$80, a decrease in Other current receivables of \$52, a decrease in Mortgage Recording tax of \$13, and a decrease in Federal and State grants for capital projects of \$23. This was offset by a net decrease in other current and non-current receivables of \$15.
 - A decrease in cash of \$36 from net cash flow activities.
 - An increase in investments of \$565 mainly due to the use of funds for capital and operating purposes.
 - A net increase in various other current and noncurrent assets of \$13.
 - Deferred outflows of resources increased by \$14 or 0.3%. This increase was primarily due to a change in the fair value of derivative instruments of \$36, an increase in deferred outflows related to other post-employment benefits of \$14. The increases were offset by a net decrease in deferred outflows for unamortized loss and pensions of \$36.

Total Liabilities and Deferred Inflows of Resources, Distinguishing Between Current Liabilities, Non-Current Liabilities and Deferred Inflows of Resources

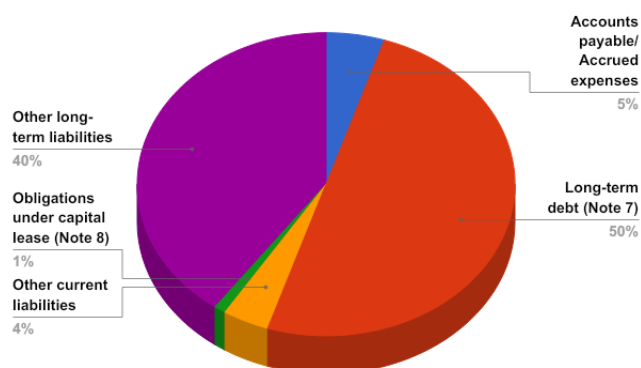
Current liabilities include: accounts payable, accrued expenses, current portions of long-term debt, capital lease obligations, pollution remediation liabilities, unredeemed fares and tolls, and other current liabilities.

Non-current liabilities include: long-term debt, capital lease obligations, claims for injuries to persons, post-employment benefits and other non-current liabilities.

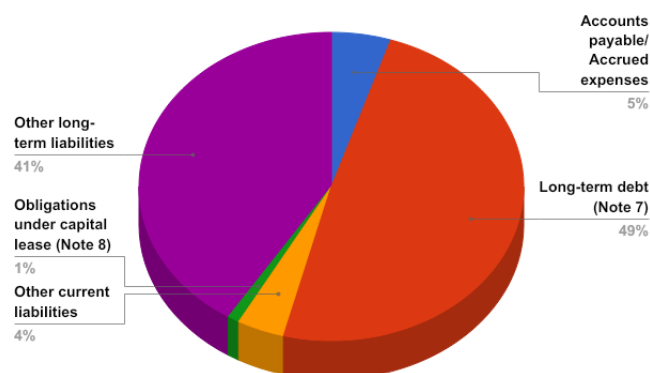
Deferred inflows of resources reflect unamortized gains on refunding, pension related deferred inflows, and deferred inflows from OPEB activities.

(In millions)	March 31, 2019	December 31, 2018	Increase / (Decrease)
	(Unaudited)		
Current liabilities	\$ 7,413	\$ 7,609	\$ (196)
Non-current liabilities	74,017	72,022	1,995
Total liabilities	81,430	79,631	1,799
Deferred inflows of resources	1,113	1,114	(1)
Total liabilities and deferred inflows of resources	\$ 82,543	\$ 80,745	\$ 1,798

Total Liabilities - March 31, 2019 (Unaudited)



Total Liabilities - December 31, 2018



Significant Changes in Liabilities and Deferred Inflows of Resources Include:

March 31, 2019 versus December 31, 2018

- Current liabilities decreased by \$196 or 2.6%. The net decrease in current liabilities was primarily due to a decrease in the current portion of long-term debt of \$491 due to the maturity of Bond Anticipation Notes and debt service payments. In addition, there was an increase in accrued expenses of \$188 due to an increase in interest payable of \$380, an increase in employee related accruals of \$39, an increase in estimated liability from injuries to persons of \$4, an increase in unearned premiums of \$7, offset by a decrease in other accrued expenses of \$90 and a decrease in capital accruals of \$152. Unearned revenues increased by \$14. There was a net decrease in various other current liabilities of \$8 primarily due to a decrease in derivative fuel hedge liability (Note 15) of \$12. Accounts payable due to vendors increased by \$101.
- Non-current liabilities increased by \$1,995 or 2.8%. This increase was mainly due to:
 - An increase in the non-current portion of long-term debt of \$1,921 primarily due to 2019 bond issuances (See Note 7).
 - An increase in estimated liability arising from injuries to persons (Note 10) of \$80 due to revised calculations of the workers' compensation reserve.
 - An increase in derivative liabilities of \$27 resulting mainly from changes in market valuation and a reduction in the notional amount of derivative contracts.
 - A net decrease in other various non-current liabilities of \$33.
- Deferred inflows of resources decreased by \$1 or 0.1%, due to gain on refunding of debt of \$1.

Total Net Position, Distinguishing Between Net Investment in Capital Assets, Restricted Amounts, and Unrestricted Amounts

(In millions)	March 31, 2019 (Unaudited)	December 31, 2018	Increase / (Decrease)
Net investment in capital assets	\$ 30,010	\$ 30,000	\$ 10
Restricted for debt service	1,173	454	719
Restricted for claims	216	206	10
Restricted for other purposes	1,184	1,230	(46)
Unrestricted	(27,240)	(27,937)	697
Total Net Position	\$ 5,343	\$ 3,953	\$ 1,390

Significant Changes in Net Position Include:

March 31, 2019 versus December 31, 2018

At March 31, 2019, total net position increased by \$1,390 or 35.2%, when compared with December 31, 2018. This change is a result of net non-operating revenues of \$2,930 and appropriations, grants and other receipts externally restricted for capital projects of \$381 offset by operating losses of \$1,921.

The net investment in capital assets increased by \$10 or 0.0%. Funds restricted for debt service, claims and other purposes increased by \$683 or 36.1% in the aggregate, mainly due to scheduled debt service payments. Unrestricted net position increased by \$697 or 2.5%.

Condensed Consolidated Interim Statement of Revenues, Expenses and Changes in Net Position

(In millions)	Three-Month Period Ended March 31,		Increase / (Decrease)
	2019 (Unaudited)	2018 (Unaudited)	
Operating revenues			
Passenger and tolls	\$ 1,920	\$ 1,909	\$ 11
Other	166	143	23
Total operating revenues	2,086	2,052	34
Non-operating revenues			
Grants, appropriations and taxes	3,021	2,870	151
Other	239	192	47
Total non-operating revenues	3,260	3,062	198
Total revenues	5,346	5,114	232
Operating expenses			
Salaries and wages	1,573	1,542	31
Retirement and other employee benefits	754	757	(3)
Postemployment benefits other than pensions	144	539	(395)
Depreciation and amortization	706	657	49
Other expenses	830	822	8
Total operating expenses	4,007	4,317	(310)
Non-operating expenses			
Interest on long-term debt	329	339	(10)
Other net non-operating expenses	1	1	-
Total non-operating expenses	330	340	(10)
Total expenses	4,337	4,657	(320)
Loss before appropriations, grants and other receipts			
externally restricted for capital projects	1,009	457	552
Appropriations, grants and other receipts			
externally restricted for capital projects	381	169	212
Change in net position	1,390	626	764
Net position, beginning of period	3,953	5,224	(1,271)
Net position, end of period	\$ 5,343	\$ 5,850	\$ (507)

Revenues and Expenses, by Major Source:

Period ended March 31, 2019 versus 2018

- Total operating revenues increased by \$34 or 1.7%. This increase was mainly due to an increase in fare and toll revenue of \$11 primarily due to an increase in vehicle crossings for the period ended March 31, 2019, when compared to the period ended March 31, 2018. The increase in Other operating revenues of \$23 was due to higher advertising revenues collected on behalf of agencies.
- Total non-operating revenues increased by \$198 or 6.5%.
 - Total grants, appropriations, and taxes increased by \$151. This was due to an increase in Mass Transportation operating assistance of \$137, an increase in Mass Transportation Trust Fund from New York State of \$9, an increase in Urban Tax of \$18, a decrease in Payroll Mobility Tax of \$4, a decrease in Aid Trust subsidies of \$2, and a decrease in Mortgage Recording Tax subsidies of \$7.
 - Other non-operating revenues increased by \$47 primarily due to an increase in Other non-operating revenue of \$56, an increase in station maintenance, operation and use assessments of \$1. This was offset by a decrease in subsidies from the Connecticut Department of Transportation for the MTA Metro-North Railroad of \$9, and a decrease in operating subsidies from New York City of \$1 for MTA Bus and MTA Staten Island Railway.

- Labor costs decreased by \$367 or 12.9%. The major changes within this category are:
 - Salaries, wages and overtime increased by \$31 primarily due to increases in MTA New York City Transit to support various maintenance and weather-related requirements.
 - Postemployment benefits other than pensions decreased by \$395 based on changes in the actuarial estimates as a result of GASB 75.
 - Retirement and employee benefits decreased by \$3.
- Non-labor operating costs increased by \$57 or 3.9%. The variance was primarily due to:
 - An increase in depreciation of \$49 primarily due to more assets placed in service in the current year.
 - An increase in paratransit service contracts of \$23 primarily due to higher paratransit taxi expenses.
 - An increase in claims arising from injuries to persons of \$13 based on the most recent actuarial valuations.
 - An increase in material and supplies by \$9, mainly due to revised maintenance and repairs requirements for transit and commuter systems.
 - An increase in insurance of \$3 primarily due to fewer policies added in 2019.
 - A decrease in maintenance and other contracts by \$15 and professional service contracts of \$18 due to changes in consulting services requirements.
 - A decrease in electric power of \$2 and fuel of \$1 due to changes in rates and consumption.
 - A net decrease in other various expenses of \$4 mainly due to lower operating expenses.
- Total net non-operating expenses decreased by \$10 or 2.9% due to decreases in interest on long-term debt of \$10.
- Appropriations, grants and other receipts externally restricted for capital projects increased by \$212 or 125.4% mainly due timing of requisitioning for Federal and State grants.

OVERALL FINANCIAL POSITION AND RESULTS OF OPERATIONS AND IMPORTANT ECONOMIC CONDITIONS

Economic Conditions

Metropolitan New York is the most transit-intensive region in the United States, and a financially sound and reliable transportation system is critical to the region's economic well-being. The MTA consists of urban subway and bus systems, suburban rail systems, and bridge and tunnel facilities, all of which are affected by many different economic forces. In order to achieve maximum efficiency and success in its operations, the MTA must identify economic trends and continually implement strategies to adapt to changing economic conditions.

Preliminary MTA system-wide utilization for the first quarter of 2019 decreased relative to 2018, with ridership down by 5.7 million trips (0.9%). The decrease was driven by MTA New York City Transit bus ridership, which declined by 4.9 million trips (3.5%), and subway ridership, which declined by 1.5 million trips (0.4%). In addition, MTA Staten Island Railway declined by 45 thousand trips (4.0%) and MTA Metro-North Railroad ridership declined by 5 thousand trips (0.0%). These declines were partially offset by increases at MTA Long Island Rail Road, where ridership increased by 455 thousand trips (2.2%), and MTA Bus, where ridership increased by 215 thousand trips (0.7%). The overall decline in bus ridership is consistent with a trend that began in 2009 and has been observed nationally, while declining subway ridership is a more recent trend, beginning in the third quarter of 2016. Vehicle traffic at MTA Bridges and Tunnels facilities for the first quarter increased by 3.7 million crossings (5.1%) in 2019 compared to 2018. The 2019 New York State Budget approved congestion pricing in Manhattan south of 60th Street, which is scheduled to go into effect in 2021 – this will likely impact ridership and vehicle crossings.

Seasonally adjusted non-agricultural employment in New York City for the first quarter was higher in 2019 than in 2018 by 99.1 thousand jobs (2.1%). On a quarter-to-quarter basis, New York City employment has increased in each of the last thirty-four quarters—the last decline occurred in the third quarter of 2010—and is higher than at any time since 1950, when non-agricultural employment levels for New York City were first recorded by the Bureau of Labor Statistics.

National economic growth, as measured by Real Gross Domestic Product (“RGDP”), expanded at an annualized rate of 3.1% in the first quarter of 2019, according to the most recent estimate released by the Bureau of Economic Analysis. The increase in RGDP reflected positive contributions from personal consumption expenditures, private inventory investment, exports, state and local government spending, and nonresidential fixed investment, which were partially offset by a negative contribution from residential fixed investment. Imports, which are a subtraction in the RGDP calculation, decreased. The acceleration in RGDP growth, over the fourth quarter's revised 2.2% growth rate in 2018, reflected an upturn in state and local government spending, accelerations in private inventory investment and exports, and a smaller decrease in residential investment; these were partially

offset by decelerations in personal consumption expenditures and nonresidential fixed investment, as well as a downturn in federal government spending. Imports also experienced a downturn.

The New York City metropolitan area's price inflation, as measured by the Consumer Price Index for All Urban Consumers ("CPI-U"), was lower than the national average in the first quarter of 2019, with the metropolitan area index increasing 1.52% while the national index increased 1.64%, when compared with the first quarter of 2018. A 1.86% decrease in the regional price of energy products, along with a 3.41% national decrease, contributed to the low inflation rates; in the metropolitan area, the CPI-U exclusive of energy products increased by 1.75%, while nationally, inflation exclusive of energy prices increased 2.06%. Decreasing more sharply than overall energy prices, the spot price for New York Harbor conventional gasoline declined by 13.4% from an average price of \$1.85 per gallon to an average price of \$1.60 per gallon between the first quarters of 2018 and 2019.

The Federal Open Market Committee ("FOMC") did not change its target for the Federal Funds rate in the first quarter of 2019, maintaining the target range of 2.25% to 2.5% which was set in December 2018. This represents a slowdown in rate increases after the target rate was increased four times in 2018 and three times in 2017. The decision to maintain the target range for the Federal Funds rate at 2.25% to 2.5% was in view of continued labor market strength, solid job gains and low unemployment. Household spending and business fixed investment grew at slower rates in the first quarter, while overall inflation declined to below the 2 percent target level, largely due to lower energy prices; inflation for items other than food and energy remained close to 2 percent and indicators of longer-term inflation expectations were little changed. The FOMC expects that the economic expansion will be sustained, labor market conditions will remain strong, and inflation will remain near the 2 percent objective. In light of muted inflationary pressures and global economic and financial developments, the FOMC has indicated its patience in determining the timing and size of future rate adjustments, assessing realized and expected economic conditions relative to its dual mandate of maximizing employment and targeting 2 percent inflation.

The influence of the Federal Reserve monetary policy on the mortgage market is a matter of interest to the MTA, since variability of mortgage rates can affect the number of real estate transactions and thereby impact receipts from the Mortgage Recording Tax ("MRT") and Urban Tax, two important sources of MTA revenue. Mortgage Recording Tax collections for the first quarter of 2019 were higher than the first quarter of 2018 by \$7.2 million (6.8%); receipts in the first quarter of 2019 were \$4.3 million (3.9%) higher than receipts from the fourth quarter of 2018. Despite the gradual overall recovery of MRT receipts that began in 2012 following the financial crisis, average monthly receipts in the first quarter of 2019 remain \$25.9 million (40.7%) lower than the monthly average for 2006, just prior to the steep decline in Mortgage Recording Tax revenues. MTA's Urban Tax receipts—which are based on commercial real estate transactions and mortgage recording activity within New York City, and can vary significantly from quarter to quarter based on the timing of exceptionally high-priced transactions—were \$89.2 million (63.3%) higher in the first quarter of 2019 than receipts for the first quarter of 2018; receipts in the first quarter of 2019 were \$73.0 million (46.5%) higher than receipts from the fourth quarter of 2018. Average monthly receipts in the first quarter of 2019 were \$3.1 million (4.1%) higher than the monthly average for 2007, just prior to the steep decline in Urban Tax revenues following the 2008 financial crisis.

Results of Operations

MTA Bridges and Tunnels - For the period ended March 31, 2019, operating revenue increased by \$11 compared to the three months ended March 31, 2018. Paid traffic for the first quarter of 2019 totaled 75.9 million crossings, which was 3.7 million, or 5.1% higher than the same period in 2018. The increase is primarily due to improvements in the regional economy, relatively favorable winter weather, stable gas prices and the substantial completion of Sandy restoration work at the Queens Midtown Tunnel and the Hugh L. Carey Tunnel in the fourth quarter of 2018. Toll revenue through March 2019 totaled \$452, which was \$11, or 2.3% greater than the same period in 2018. The additional revenue was due to the higher traffic volume.

The E-ZPass electronic toll collection system experienced year-to-year increases in market share. The total average market share as of March 31, 2019 was 95.1% compared to 94.4% as of March 31, 2018. The average weekday market share for passenger and commercial vehicles were 95.6% and 95.0% for the first quarter of 2019 and 2018, respectively.

MTA New York City Transit - For the period ended March 31, 2019, revenue from fares was \$1,068, a decrease of \$5, or 0.5%, compared to March 31, 2018. For the same comparative period, total operating expenses were lower by \$213 or 7.6%, totaling \$2,600 for the three months ended March 31, 2019.

MTA Long Island Rail Road – Total operating revenue for the period ended March 31, 2019 was \$187, which was higher by \$8 or 4.5%, compared to March 31, 2018. For the same comparative period, operating expenses were lower by \$20 or 4.0%, totaling \$475 for the three months ended March 31, 2019.

MTA Metro-North Railroad – For the three months ended March 31, 2019, operating revenues totaled \$187, an increase of \$4 or 2.2%, compared to March 31, 2018. During the same period, operating expenses decreased by \$15 or 3.8% to \$380. For the three months ended March 31, 2019, fare revenue increased by 1.2% to \$173 compared to March 31, 2018. Passenger fares accounted for 92.1% and 93.3% of operating revenues in 2019 and 2018, respectively. The remaining revenue represents collection of rental income from stores in and around passenger stations and revenue generated from advertising.

The MTA receives the equivalent of four quarters of Metropolitan Mass Transportation Operating Assistance (“MMTOA”) receipts each year, with the state advancing the first quarter of each succeeding calendar year’s receipts in the fourth quarter of the current year. This results in little or no Metropolitan Mass Transportation Operating Assistance receipts being received during the first quarter of each calendar year. The MTA has made other provisions to provide for cash liquidity during this period. During March 2016, the State appropriated \$1.6 billion in MMTOA funds. There has been no change in the timing of the State’s payment of, or MTA’s receipt of, Dedicated Mass Transportation Trust Fund (“MTTF”) receipts, which MTA anticipates will be sufficient to make monthly principal and interest deposits into the Debt Service Fund for the Dedicated Tax Fund Bonds. The total MRT for the period ended March 31, 2019 was \$99 compared to \$106 at March 31, 2018.

Capital Programs

At March 31, 2019, \$20,939 had been committed and \$8,566 had been expended for the combined 2015-2019 MTA Capital Programs and the 2015-2019 MTA Bridges and Tunnels Capital Program, and \$27,982 had been committed and \$22,935 had been expended for the combined 2010-2014 MTA Capital Programs and the 2010-2014 MTA Bridges and Tunnels Capital Program, and \$24,133 had been committed and \$23,728 had been expended for the combined 2005-2009 MTA Capital Programs and the 2005-2009 MTA Bridges and Tunnels Capital Program.

The MTA Group has ongoing capital programs, which except for MTA Bridges and Tunnels are subject to the approval of the Metropolitan Transportation Authority Capital Program Review Board (“CPRB”), and are designed to improve public transportation in the New York Metropolitan area.

2015-2019 Capital Program — Capital programs covering the years 2015-2019 for: (1) the commuter railroad operations of the MTA conducted by MTA Long Island Rail Road and MTA Metro-North Railroad (the “2015–2019 Commuter Capital Program”), (2) the transit system operated by MTA New York City Transit and its subsidiary, MaBSTOA, the MTA Bus Company, and the rail system operated by MTA Staten Island Railway (the “2015–2019 Transit Capital Program”) were originally approved by the MTA Board in September 2014. The capital programs were subsequently submitted to the Capital Program Review Board (“CPRB”) in October 2014. This plan was disapproved by the CPRB, without prejudice, in October 2014. The capital program for the toll bridges and tunnels operated by MTA Bridges and Tunnels (the “2015–2019 MTA Bridges and Tunnels Capital Program”) was approved by the MTA Board in September 2014 and was not subject to CPRB approval.

On April 20, 2016, the MTA Board approved revised capital programs for the years covering 2015-2019. The revised capital programs provided for \$29,456 in capital expenditures. On May 23, 2016, the CPRB deemed approved the revised 2015-2019 Capital Programs for the Transit and Commuter systems as submitted. The revised 2015-2019 MTA Bridges and Tunnels Capital Program, was approved by the MTA Board on April 20, 2016.

On February 23, 2017, the MTA Board approved a revision to the CPRB portion of the capital programs for the years covering 2015-2019, adding \$119 transferred from prior capital programs to support additional investment projects. On March 30, 2017, the CPRB deemed approved the revised 2015-2019 Capital Programs for the Transit and Commuter systems as submitted. On May 24, 2017, the MTA Board approved a full amendment to the 2015- 2019 Capital Programs to reflect updated project estimates and rebalanced programs to address budgetary and funding needs of priority projects that include Second Avenue Subway Phase 2, MTA Long Island Rail Road regional mobility, station enhancement work, investments at Penn Station, and new Open Road Tolling at MTA Bridges and Tunnels. On July 31, 2017, the CPRB deemed approved the revised 2015-2019 Capital Programs for the Transit and Commuter systems totaling \$29,517, as submitted. The revised 2015-2019 MTA Bridges and Tunnels Capital Program totaling \$2,940, as approved by the MTA Board in May 2017, was not subject to CPRB approval. On December 13, 2017, the MTA Board approved an amendment adding \$349 to the 2015-2019 Capital Program for the Transit system in support of the NYC Subway Action Plan. On April 25, 2018, the MTA Board approved a full amendment to increase the 2015-2019 Capital Programs to \$33,270 reflecting updated project cost estimates, emerging new needs across the agencies, and reallocation of funds within the East Side Access and Regional Investment programs, among others. On June 1, 2018, the CPRB deemed approved the revised 2015-2019 Capital Programs for the Transit and Commuter systems totaling \$30,334, as submitted. The revised 2015-2019 MTA Bridges and Tunnels Capital Program totaling \$2,936, as approved by the MTA Board in April 2018, was not subject to CPRB approval.

By March 31, 2019, the revised 2015-2019 Capital Programs provided \$33,273 in capital expenditures, of which \$16,742 relates to ongoing repairs of, and replacements to, the transit system operated by MTA New York City Transit and MaBSTOA and the rail system operated by MTA Staten Island Railway; \$5,323 relates to ongoing repairs of, and replacements to, the commuter system operated by MTA Long Island Rail Road and MTA Metro-North Railroad; \$7,652 relates to the expansion of existing rail networks for both the transit and commuter systems to be managed by MTA Capital Construction; \$243 relates to Planning and Customer Service; \$376 relates to MTA Bus Company initiatives; and \$2,936 in capital expenditures for ongoing repairs of, and replacements to, MTA Bridges and Tunnels facilities.

The combined funding sources for the revised 2015–2019 MTA Capital Programs and the 2015-2019 MTA Bridges and Tunnels Capital Program, include \$7,968 in MTA Bonds, \$2,936 in MTA Bridges and Tunnels dedicated funds, \$8,640 in funding from the State of New York, \$7,307 in Federal Funds, \$2,667 from City Capital Funds, \$2,145 in pay-as-you-go (“PAYGO”) capital, \$1,018 from asset sale/leases, and \$592 from Other Sources.

2010-2014 Capital Program — Capital programs covering the years 2010-2014 for: (1) the commuter railroad operations of the MTA conducted by MTA Long Island Rail Road and MTA Metro-North Railroad (the “2010–2014 Commuter Capital Program”), (2) the transit system operated by MTA New York City Transit and its subsidiary, MaBSTOA, the MTA Bus Company, and the rail system operated by MTA Staten Island Railway (the “2010–2014 Transit Capital Program”) were originally approved by the MTA Board in September 2009. The capital programs were subsequently submitted to the CPRB in October 2009. This plan was disapproved by the CPRB, without prejudice, in December 2009 allowing the State Legislature to review funding issues in their 2010 session. The capital program for the toll bridges and tunnels operated by MTA Bridges and Tunnels (the “2010–2014 MTA Bridges and Tunnels Capital Program”) was approved by the MTA Board in September 2009 and was not subject to CPRB approval. The MTA Board approved the revised plan for the Transit and Commuter systems on April 28, 2010 and CPRB approval of the five-year program of projects was obtained on June 1, 2010. The approved CPRB program fully funded only the first two years (2010 and 2011) of the plan, with a commitment to come back to CPRB with a funding proposal for the last three years for the Transit and Commuter Programs. On December 21, 2011, the MTA Board approved an amendment to the 2010-2014 Capital Program for the Transit, Commuter, and Bridges and Tunnels systems that fund the last three years of the program through a combination of self-help (efficiency improvements and real estate initiatives), participation by our funding partners, and innovative and pragmatic financing arrangements. On March 27, 2012, the CPRB deemed approved the amended 2010-2014 Capital Programs for the Transit and Commuter systems as submitted.

On December 19, 2012, the MTA Board approved an amendment to the 2010-2014 Capital Programs for the Transit, Commuter, and Bridges and Tunnels systems to add projects for the repair/restoration of MTA agency assets damaged as a result of Superstorm Sandy, which struck the region on October 29, 2012. On January 22, 2013, the CPRB deemed approved the amended 2010-2014 Capital Programs for the Transit and Commuter systems as submitted. On July 22, 2013, the MTA Board approved a further amendment to the 2010-2014 Capital Programs for the Transit, Commuter, and Bridges and Tunnels systems to include specific revisions to planned projects and to include new resilience/mitigation initiatives in response to Superstorm Sandy. On August 27, 2013, the CPRB deemed approved those amended 2010-2014 Capital Programs for the Transit and Commuter systems as submitted. On July 28, 2014, the MTA Board approved an amendment to select elements of the Disaster Recovery (Sandy) and MTA New York City Transit portions of the 2010-2014 Capital Programs, and a change in the funding plan. On September 3, 2014, the CPRB deemed approved the amended 2010-2014 Capital Programs for the Transit and Commuter systems as submitted.

In May 2017, the MTA Board approved an amendment to the 2010-2014 Capital Programs to reflect scope transfers and consolidation between the approved capital programs, and to reflect reductions to the MTA Superstorm Sandy capital projects to match current funding assumptions. This amendment, which provided \$29,237 in capital expenditures for the Transit and Commuter systems, was deemed approved by the CPRB as submitted on July 31, 2017. The amended 2010-2014 MTA Bridges and Tunnels Capital Program, which provided \$2,784 in capital expenditures, was not subject to CPRB approval. By March 31, 2019, the 2010-2014 MTA Capital Programs reflected an overall decrease of \$402 primarily due to reallocation of funds within the East Side Access and Regional Investment programs. Of the \$31,619 in capital expenditures, \$11,365 relates to ongoing repairs of, and replacements to, the transit system operated by MTA New York City Transit and MaBSTOA and the rail system operated by MTA Staten Island Railway; \$3,904 relates to ongoing repairs of, and replacements to, the commuter system operated by MTA Long Island Rail Road and MTA Metro-North Railroad; \$5,920 relates to the expansion of existing rail networks for both the transit and commuter systems to be managed by MTA Capital Construction; \$337 relates to a multi-faceted security program including MTA Police Department; \$223 relates to MTA Interagency; \$297 relates to MTA Bus Company initiatives; \$2,022 relates to the ongoing repairs of, and replacements to, MTA Bridges and Tunnels facilities; and \$7,551 relates to Superstorm Sandy recovery/mitigation capital expenditures.

The combined funding sources for the CPRB-approved 2010–2014 MTA Capital Programs and 2010–2014 MTA Bridges and Tunnels Capital Program include \$11,483 in MTA Bonds, \$2,026 in MTA Bridges and Tunnels dedicated funds, \$7,594 in Federal Funds, \$132 in MTA Bus Federal and City Match, \$719 from City Capital Funds, and \$1,344 from other sources. Also included is \$770 in State Assistance funds added to re-establish a traditional funding partnership. The funding strategy for Superstorm Sandy repair and restoration assumes the receipt of \$6,329 in insurance and federal reimbursement proceeds (including interim borrowing by MTA to cover delays in the receipt of such proceeds), \$235 in pay-as-you-go capital, supplemented, to the extent necessary, by external borrowing of up to \$988 in additional MTA and MTA Bridges and Tunnels bonds.

2005-2009 Capital Program — Capital programs covering the years 2005-2009 for: (1) the commuter railroad operations of the MTA conducted by MTA Long Island Rail Road and MTA Metro-North Railroad (the “2005–2009 Commuter Capital Program”), (2) the transit system operated by MTA New York City Transit and its subsidiary, MaBSTOA, the MTA Bus Company, and the rail system operated by MTA Staten Island Railway (the “2005–2009 Transit Capital Program”) were originally approved by the MTA Board in April 2005 and subsequently by the CPRB in July 2005. The capital program for the toll bridges and tunnels

operated by MTA Bridges and Tunnels (the “2005–2009 MTA Bridges and Tunnels Capital Program”) was approved by the MTA Board in April 2005 and was not subject to CPRB approval. The 2005–2009 amended Commuter Capital Program and the 2005–2009 Transit Capital program (collectively, the “2005–2009 MTA Capital Programs”) were last amended by the MTA Board in July 2008. This latest 2005–2009 MTA Capital Program amendment was resubmitted to the CPRB for approval in July 2008, and was approved in August 2009.

As last amended by the MTA Board, the 2005–2009 MTA Capital Programs and the 2005–2009 MTA Bridges and Tunnels Capital Program, provided for \$23,717 in capital expenditures. By March 31, 2019, the 2005–2009 MTA Capital Programs budget increased by \$680 primarily due to the receipt of new American Recovery and Reinvestment Act (“ARRA”) funds and additional New York City Capital funds for MTA Capital Construction work still underway. Of the \$24,397 now provided in capital expenditures, \$11,516 relates to ongoing repairs of, and replacements to the transit system operated by MTA New York City Transit and MaBSTOA and the rail system operated by MTA Staten Island Railway; \$3,713 relates to ongoing repairs of, and replacements to, the commuter system operated by MTA Long Island Rail Road and MTA Metro-North Railroad; \$168 relates to certain interagency projects; \$7,721 relates generally to the expansion of existing rail networks for both the transit and commuter systems to be managed by the MTA Capital Construction Company (including the East Side Access, Second Avenue Subway and No. 7 subway line) and a security program throughout MTA’s transit network; \$1,127 relates to the ongoing repairs of, and replacements to, bridge and tunnel facilities operated by MTA Bridges and Tunnels; and \$152 relates to capital projects for the MTA Bus.

The combined funding sources for the MTA Board-approved 2005–2009 MTA Capital Programs and 2005–2009 MTA Bridges and Tunnels Capital Program include \$11,006 in MTA and MTA Bridges and Tunnels Bonds (including funds for LaGuardia Airport initiative), \$1,450 in New York State general obligation bonds approved by the voters in the November 2005 election, \$7,827 in Federal Funds, \$2,838 in City Capital Funds, and \$1,276 from other sources.

CURRENTLY KNOWN FACTS, DECISIONS, OR CONDITIONS

The 2018 November Financial Plan

The 2018 MTA November Financial Plan (the “November Plan” or “Plan”), which includes the 2018 November Forecast, the 2019 Final Proposed Budget and a Financial Plan for the years 2019–2022, updates the July Financial Plan. The November Plan which was presented to the MTA Board on December 10, 2018 included the following initiatives and goals, each of which continue to be MTA management priorities:

- *Hold projected fare/toll increases to 4% in 2019 and 2021.* The November Plan continues to project net 4% biennial fare/toll increases (the equivalent of 2% per year), which is lower than the projected two-year inflation rates of 5.3% and 4.7% in 2019 and 2021, respectively. Consistent with recent financial plans, a March 1st implementation was assumed for both the 2019 and 2021 increases. The annualized yield of these increases was projected in the November Plan to be \$316 and \$321, respectively.
- *Achieve annually recurring savings targets.* Since the February Plan 2018, nearly \$1.9 billion in recurring savings have been identified over the November Plan period. The November Plan maintains the commitment to fully identify the savings goals targeted in the earlier Financial Plans, but did not include any additional savings targets.
- *Maintenance of prior plan investments.* The November Plan maintains major investments for the MTA Long Island Rail Road “Forward” Plan, the “Bus Plans” at MTA New York City Transit and MTA Bus, and the MTA Metro-North Railroad “Way Ahead” Plan. Also included is maintenance of the Subway Action Plan, which will be funded from Phase 1 of congestion pricing, using fees from for-hire vehicle trips.
- *Additional maintenance and operations investments.* Another \$216 over the November Plan period will be invested in additional maintenance and operating needs, including:
 - At MTA New York City Transit, replacing, modifying, updating and maintaining various components of HVAC systems.
 - At MTA Metro-North Railroad, installation of various components at Grand Central Terminal to ensure safety and state of good repair of building systems; update to dry-water line systems at stations; enhanced diesel fleet maintenance; and indefinite extension of weekend bus service between Rockland County and the Hudson and Harlem Lines in Westchester County.
 - At MTA Long Island Rail Road and MTA Metro-North Railroad, increase of support for weather-related operational coverage requirements.
- *Bus and subway service guidelines.* Bus and subway service guidelines, which have been reviewed and approved by the MTA Board, are used to maintain an appropriate level of service based upon actual ridership on a route. The guidelines provided an objective standard of maximum loads for different times of day, and are intended to minimize the occurrences when buses or trains are either overcrowded or underutilized. During years of ridership growth, these service guidelines

were the basis for increased service where it was warranted, but over the past several years as ridership has declined, reductions based on service guideline standards had been deferred. With ridership levels not rebounding, the November Plan included MTA New York City Transit proposed service guideline adjustments beginning in 2020 that are projected to result in savings of \$41 annually, with reductions of \$10 for subway service and \$31 for bus service.

The MTA 2019 Adopted Budget and February Financial Plan 2019-2022 (collectively, the “February Plan”) was released in February 2019. The purpose of the February Plan was to incorporate adjustments approved by the MTA Board that were captured “below-the-line” and on a consolidated basis in the November Plan into MTA agencies’ financial plan baseline budgets and forecasts. The February Plan also reflected certain technical adjustments to MTA and Agency forecasts and captures baseline changes that were not in the November Plan.

Tropical Storm Sandy Update

The total allocation of emergency relief funding from the Federal Transit Administration (“FTA”) to MTA in connection with Superstorm Sandy to date is \$5.83 billion, including \$1.599 billion allocated on September 22, 2014 through a competitive resiliency program. FTA Emergency Relief Grants totaling \$4.803 billion have been executed, including six grants in the amounts of \$194, \$886, \$685, \$344, \$788, and \$1,090, respectively, for repair/local priority resiliency and fourteen grants for competitive resiliency totaling \$816. As of March 31, 2019, MTA has drawn down a total of \$2.170 billion in grant reimbursement for eligible operating and capital expenses. The balance of funds to be drawn down from all twenty grants is available to MTA for reimbursement of eligible expenses as requisitions are submitted by MTA and approved by FTA. Additional requisitions are in process. At MTA and Amtrak’s request, in April 2018, FTA transferred \$14 of MTA’s emergency relief allocation to the Federal Railroad Administration (“FRA”) to allow Amtrak to execute a portion of MTA Long Island Rail Road’s Competitive Resilience scope.

MTA expects to submit grant requests for the remainder of its FTA emergency relief allocation as follows: \$822.3 in Federal Fiscal Year 2019 and \$186.8 in Federal Fiscal Year 2020.

Labor Update

During the first quarter of 2019, several labor unions representing employees at various MTA agencies reached new agreements. The following summarizes the status of collective bargaining at each MTA agency through the end of the first quarter of 2019.

MTA Long Island Rail Road – During the first quarter of 2019, MTA Long Island Rail Road had approximately 7,637 employees. Approximately 6,604 of the MTA Long Island Rail Road employees were represented by 11 different unions in 19 bargaining units. MTA Long Island Rail Road has reached agreement with all its unions. Significantly, the agreements all contain general wage increases that conform to those present in the pattern-setting TWU Local 100 agreement with MTA New York City Transit; and, consistent with MTA’s Financial Plan, they were all designed to result in net going-out costs that match the costs of the TWU agreement.

MTA Metro-North Railroad – During the first quarter of 2019, MTA Metro-North Railroad had reached agreements with eleven bargaining units covering approximately 69% of its 5,590 represented employees. Included in this number is a new agreement, passed by the MTA Board in March, between Metro-North and the International Brotherhood of Teamsters – Local 808 (IBT Local 808), which will cover approximately 800 Trackmen, Mechanics and Vehicle and Machine Operators. This will be a 28.5-month agreement—running from July 1, 2017 to November 15, 2019 and, like all the other agreements with MTA Metro-North Railroad’s unions, it is consistent with the railroad wage pattern established at MTA Long Island Rail Road. MTA Metro-North Railroad’s remaining represented population is covered by agreements that, while now considered “amendable” under the Railway Labor Act, remain in effect. The railroad engaged, throughout the first quarter, in collective bargaining with these remaining units and it is expected that settlements will be reached that will also conform to the established railroad wage pattern.

MTA Headquarters – At the end of 2018, labor agreements with approximately 47% of MTA Headquarters employees had expired. On October 14, 2018 the agreements covering approximately 741 MTA Police employees covered by the Police Benevolent Association (“PBA”) and by the Commanding Officers Association (“COA”) expired, while the labor agreement covering Headquarters employees represented by the International Brotherhood of Teamsters Local 808 (IBT Local 808), had earlier expired (on August 31, 2016). However, in March 2019, the MTA Board approved an agreement between MTA Headquarters and approximately 79 employees of this latter union, including Emergency Communications Operators and Supervisors, Crime Analysts, Summons Administrators, Police Administrators and employees in other clerical/administrative positions. The 61-month agreement, running from September 1, 2016 to September 30, 2021, is consistent with the MTA Financial Plan over the period. Meanwhile, collective bargaining efforts to reach new agreements with the MTA Police unions (PBA and COA) continued throughout the 1st Quarter of 2019.

At the end of the first quarter of 2019, MTA Headquarters Business Service Center had 291 employees, approximately 229 of whom are represented by several clerical/administrative unions. The largest such union, representing approximately 95% of BSC's represented population, is the Transportation Communications Union ("TCU"), Local 643 whose contract covers the period from April 1, 2015 through March 31, 2020.

In January 2014, the Information Technology Department consolidated all agency IT functions and positions under MTA Headquarters. At the end of the first quarter, the department had 978 employees, approximately 606 of whom are represented. The two predominant unions are TCU Local 982 and TWU Local 100, which together account for more than 90% of the IT Department's represented workforce. MTA had a prevailing agreement with TCU through the first quarter of 2019, and it will expire December 31, 2019. In many respects, it is similar to the BSC agreement with its TCU employees, including employee eligibility for a 401(k) plan as opposed to a defined benefit pension plan for new hires. An agreement with TWU local 100 that is consistent with the established bargaining pattern was also in effect through the first quarter, and it will expire July 13, 2019.

MTA Headquarters' 38-month collective bargaining agreement with TCU employees in the Procurement Department will remain in effect until March 30, 2020. The agreement is similar to those reached with TCU's employees in the IT Department and at the Business Service Center.

MTA New York City Transit Authority/Manhattan and Bronx Surface Transit Operating Authority – At the end of the first quarter of 2019, most employees of New York City Transit and MaBSTOA were covered by labor agreements which remained in effect, though set to expire later in the year. The existing 28-month agreement between MTA New York City Transit and MaBSTOA and their TWU Local 100 employees (in total, more than 35,000) was set to expire on May 15, 2019. Additionally, agreements between the Amalgamated Transit Union locals 1056 and 726 remained in effect (but were similarly set to expire on May 15, 2019). Also in effect at the end of the first quarter was the agreement reached in September 2017 between MTA New York City Transit and TWU Local 100 Computer and Telecommunications titles together with Career and Salary employees formerly represented by TWU Local 106. This agreement covered more than 500 employees, in all, and was set to expire July 13, 2019. Meanwhile, collective bargaining efforts continued with MTA New York City Transit's largest unsettled union - the Subway Surface Supervisors Association ("SSSA") - whose contract with approximately 4,054 supervisory employees had expired on March 31, 2018.

In the first quarter MTA New York City Transit did reach agreements with TWU Local 106 TSO Maintenance Level II and Station Supervisors Level II bargaining units. The two agreements—together, covering approximately 383 employees-- adhere to the pattern established by all other MTA New York City Transit labor unions in this round of bargaining and were anticipated in Financial Plan. The 30.75- month agreement with 356 Maintenance Level II employees will run from January 1, 2018 to July 31, 2020; and the 28-month agreement with 27 supervisory employees in the Station Supervisors Level II unit will cover the period from April 16, 2018 to August 15, 2020.

MTA Bus Company – At the end of the first quarter of 2019, MTA Bus Company had 4,169 employees (full and part time), approximately 3,824 of whom are represented by five different unions. TWU Local 100, by far the largest of them, with approximately 58% of the agency's represented employees, had bargained together with TWU Local 100 at MTA New York City Transit and MaBSTOA to reach an agreement that was in effect but soon to expire (on May 15, 2019).

After intensive negotiations between MTA Bus Company and employees represented by ATU 1179, an arbitration award was issued that will cover approximately 814 employees from the period from May 22, 2012 through October 31, 2019 – essentially, the same length of time covered by MTA New York City Transit's current agreement with TWU Local 100 and its previous 5-year agreement with that union. Overall, the provisions of the decision are similar to those of the two TWU agreements; however, the impasse award also decided certain outstanding issues regarding ATU 1179's employee pension benefits and their funding.

Subsequent to the May impasse arbitration with ATU Local 1179, MTA Bus Company reached an agreement with a second ATU unit—Local 1181— which represents approximately 254 hourly employees. As with ATU Local 1179, the 88-month ATU Local 1181 agreement, which expires October 31, 2019, covers an equal length of time as the two most recent labor agreements between MTA New York City Transit and TWU Local 100; and it is consistent with the cost pattern established by those agreements. The agreement also contains essentially the same pension modifications and means of funding these changes that were laid out in the impasse arbitration with ATU Local 1179.

MTA Bridges and Tunnels – As of March 31, 2019, MTA Bridges and Tunnels had 1,380 employees, approximately 937 of whom were represented by four different unions. On May 22, 2014 MTA Bridges and Tunnels entered into a Memorandum of Understanding ("DC 37 Local 1931 MOU") with DC 37 Local 1931, representing maintenance employees (approximately 34% of MTA Bridges and Tunnels's current represented population). That agreement ran from October 15, 2009 through October 14, 2012 and was consistent with MTA's bargaining pattern as expressed in the 2009-2012 TWU Local 100 collective bargaining agreement. Through the first quarter of 2019, negotiations for a new agreement continued.

On July 17, 2014, an Interest Arbitration Award was issued for the Bridge and Tunnel Officers Benevolent Association, representing approximately 48% of MTA Bridges and Tunnels's total represented population. The award laid out terms for the May 18, 2009 through May 17, 2012 period and was consistent with the TWU Local 100 2009-2012 pattern. Negotiations for a new agreement continued through the first quarter of 2019.

On January 30, 2015, MTA Bridges and Tunnels entered into a Memorandum of Agreement ("MOA") with the Superior Officers Benevolent Association ("SOBA") representing approximately supervisory officers—around 16% of MTA Bridges and Tunnels's represented population. This MOA was ratified by SOBA and was approved by the MTA Board on February 25, 2015. The agreement ran from March 15, 2009 through March 14, 2012 and was consistent with MTA's bargaining pattern as expressed in the 2009-2012 TWU Local 100 collective bargaining agreement. Negotiations for a new agreement continued through the first quarter of 2019.

On March 17, 2015, a seven year and four-month agreement, March 3, 2010 through July 2, 2017, was reached with DC 37 Local 1655, which represents clerical employees constituting approximately 3% of MTA Bridges and Tunnels's represented population. The agreement is consistent with the pattern set by the DC 37 Citywide agreement for the same period.

MTA Staten Island Railway – During the first quarter of 2019, MTA Staten Island Railway had 341 employees, approximately 311 of whom were represented by four different unions. At the end of the third quarter of 2018, MTA Staten Island Railway had reached agreement with one of these unions—the TCU, covering approximately 25 station cleaners, station agents, clerks and stock workers. The 28-month agreement, spanning the period from December 17, 2017 through April 16, 2019, matches the pattern-setting agreement reached between MTA New York City Transit and TWU Local 100, and it is consistent with MTA Staten Island Railway's Financial Plan for the period. Additionally, in March 2019, the MTA Board approved an agreement recently reached between the and approximately 13 Dispatchers, represented by the American Train Dispatchers Association ("ATDA"). The agreement will cover the period from December 17, 2016 to April 16, 2019.

Meanwhile, contracts with the railway's other unions have both expired. Its contract with the Sheet Metal, Air, Rail and Transportation Workers International Association ("SMART") Local 1440 (formerly the United Transportation Union), covering approximately 243 employees, expired on February 15, 2017; and the agreement with SSSA, covering 16 represented employees, expired on February 15, 2017. Negotiations for successor agreements were underway throughout the first quarter.

SSSA has petitioned to represent MTA Staten Island Railway employees in the title of Supervisor Maintenance, Supervisor Car Equipment (mechanical), Supervisor Electrical Maintenance, Supervisor Electronic Maintenance, Supervisor Power/Signals, Supervisor Timekeeping, and Supervisor Operational Support. The Public Employment Relations Board ("PERB") has certified SSSA as the exclusive negotiating agent for this unit of 11 employees. An initial collective bargaining agreement was reached on February 25, 2017. Negotiations for a successor agreement are forthcoming.

(A Component Unit of the State of New York)

**CONSOLIDATED INTERIM STATEMENT OF NET POSITION AS OF MARCH 31, 2019
AND CONSOLIDATED STATEMENT OF NET POSITION AS OF DECEMBER 31, 2018**

(\$ In millions)

	March 31, 2019 (Unaudited)	December 31, 2018
ASSETS AND DEFERRED OUTFLOWS OF RESOURCES		
CURRENT ASSETS:		
Cash (Note 3)	\$ 505	\$ 541
Unrestricted investments (Note 3)	2,034	2,915
Restricted investments (Note 3)	2,885	1,487
Restricted investments held under capital lease obligations (Notes 3 and 8)	102	4
Receivables:		
Station maintenance, operation, and use assessments	161	119
State and regional mass transit taxes	2,047	108
Mortgage Recording Tax receivable	30	43
State and local operating assistance	221	11
Other receivable from New York City and New York State	209	289
Due from Build America Bonds	3	1
Capital project receivable from federal and state government	120	143
Other	411	463
Less allowance for doubtful accounts	(151)	(128)
Total receivables — net	<u>3,051</u>	<u>1,049</u>
Materials and supplies	648	624
Prepaid expenses and other current assets (Note 2)	<u>142</u>	<u>145</u>
Total current assets	<u>9,367</u>	<u>6,765</u>
NON-CURRENT ASSETS:		
Capital assets (Note 6):		
Land and construction work-in-progress	18,343	18,269
Other capital assets (net of accumulated depreciation)	54,792	54,242
Unrestricted investments (Note 3)	55	46
Restricted investments (Note 3)	584	546
Restricted investments held under capital lease obligations (Notes 3 and 8)	285	382
Other non-current receivables	64	58
Receivable from New York State	10	10
Other non-current assets	<u>12</u>	<u>20</u>
Total non-current assets	<u>74,145</u>	<u>73,573</u>
TOTAL ASSETS	<u>83,512</u>	<u>80,338</u>
DEFERRED OUTFLOWS OF RESOURCES:		
Accumulated decreases in fair value of derivative instruments (Note 7)	365	329
Loss on debt refunding (Note 7)	1,113	1,138
Deferred outflows related to pensions (Note 4)	1,386	1,397
Deferred outflows related to OPEB (Note 5)	<u>1,510</u>	<u>1,496</u>
TOTAL DEFERRED OUTFLOWS OF RESOURCES	<u>4,374</u>	<u>4,360</u>
TOTAL ASSETS AND DEFERRED OUTFLOWS OF RESOURCES	<u><u>\$ 87,886</u></u>	<u><u>\$ 84,698</u></u>

See Independent Auditors' Review Report and
notes to the consolidated interim financial statements.

(Continued)

(A Component Unit of the State of New York)

**CONSOLIDATED INTERIM STATEMENT OF NET POSITION AS OF MARCH 31, 2019
AND CONSOLIDATED STATEMENT OF NET POSITION AS OF DECEMBER 31, 2018
(\$ In millions)**

	March 31, 2019 (Unaudited)	December 31, 2018
LIABILITIES, DEFERRED INFLOWS OF RESOURCES AND NET POSITION		
CURRENT LIABILITIES:		
Accounts payable	\$ 571	\$ 470
Accrued expenses:		
Interest	590	210
Salaries, wages and payroll taxes	352	327
Vacation and sick pay benefits	1,034	1,020
Current portion — retirement and death benefits	16	16
Current portion — estimated liability from injuries to persons (Note 10)	458	454
Capital accruals	585	737
Unearned premiums	271	264
Other	603	693
Total accrued expenses	<u>3,909</u>	<u>3,721</u>
Current portion — loan payable (Note 7)	14	15
Current portion — long-term debt (Note 7)	2,061	2,552
Current portion — obligations under capital lease (Note 8)	10	4
Current portion — pollution remediation projects (Note 12)	30	31
Derivative fuel hedge liability (Note 14)	-	12
Unearned revenues	<u>818</u>	<u>804</u>
Total current liabilities	<u>7,413</u>	<u>7,609</u>
NON-CURRENT LIABILITIES:		
Net pension liability (Note 4)	6,487	6,487
Estimated liability arising from injuries to persons (Note 10)	3,880	3,800
Post employment benefits other than pensions (Note 5)	20,335	20,335
Loan payable (Note 7)	102	104
Long-term debt (Note 7)	41,538	39,617
Obligations under capital leases (Note 8)	436	443
Pollution remediation projects (Note 12)	107	108
Contract retainage payable	413	406
Derivative liabilities (Note 7)	373	346
Other long-term liabilities	<u>346</u>	<u>376</u>
Total non-current liabilities	<u>74,017</u>	<u>72,022</u>
TOTAL LIABILITIES	<u>81,430</u>	<u>79,631</u>
DEFERRED INFLOWS OF RESOURCES:		
Gain on debt refunding	22	23
Deferred Inflows related to pensions (Note 4)	1,070	1,070
Deferred inflows related to OPEB (Note 5)	<u>21</u>	<u>21</u>
TOTAL DEFERRED INFLOWS OF RESOURCES	<u>1,113</u>	<u>1,114</u>
NET POSITION:		
Net investment in capital assets	30,010	30,000
Restricted for debt service	1,173	454
Restricted for claims	216	206
Restricted for other purposes (Note 2)	1,184	1,230
Unrestricted	<u>(27,240)</u>	<u>(27,937)</u>
TOTAL NET POSITION	<u>5,343</u>	<u>3,953</u>
TOTAL LIABILITIES, DEFERRED INFLOWS OF RESOURCES AND NET POSITION	<u>\$ 87,886</u>	<u>\$ 84,698</u>

See Independent Auditors' Review Report and
notes to the consolidated interim financial statements.

(Concluded)

(A Component Unit of the State of New York)

**CONSOLIDATED INTERIM STATEMENTS OF REVENUES, EXPENSES
AND CHANGES IN NET POSITION**

THREE-MONTH PERIODS ENDED MARCH 31, 2019 AND 2018

(\$ In millions)

	March 31, 2019 (Unaudited)	March 31, 2018 (Unaudited)
OPERATING REVENUES:		
Fare revenue	\$ 1,468	\$ 1,468
Vehicle toll revenue	452	441
Rents, freight, and other revenue	166	143
Total operating revenues	<u>2,086</u>	<u>2,052</u>
OPERATING EXPENSES:		
Salaries and wages	1,573	1,542
Retirement and other employee benefits	754	757
Postemployment benefits other than pensions (Note 5)	144	539
Electric power	118	120
Fuel	46	47
Insurance	1	(2)
Claims	101	88
Paratransit service contracts	122	99
Maintenance and other operating contracts	142	157
Professional service contracts	94	112
Pollution remediation projects (Note 12)	3	1
Materials and supplies	153	144
Depreciation (Note 2)	706	657
Other	50	56
Total operating expenses	<u>4,007</u>	<u>4,317</u>
OPERATING LOSS	<u>(1,921)</u>	<u>(2,265)</u>
NON-OPERATING REVENUES (EXPENSES):		
Grants, appropriations and taxes:		
Tax-supported subsidies — NYS:		
Mass Transportation Trust Fund subsidies	158	149
Metropolitan Mass Transportation Operating Assistance subsidies	1,824	1,687
Payroll Mobility Tax subsidies	479	483
MTA Aid Trust Account subsidies	65	67
Tax-supported subsidies — NYC and Local:		
Mortgage Recording Tax subsidies	99	106
Urban Tax subsidies	177	159
Other subsidies:		
Operating Assistance - 18-B program	217	217
Build America Bond subsidy	2	2
Subtotal grants, appropriations and taxes	<u>\$ 3,021</u>	<u>\$ 2,870</u>

See Independent Auditors' Review Report and
notes to the consolidated interim financial statements.

(Continued)

(A Component Unit of the State of New York)

**CONSOLIDATED INTERIM STATEMENTS OF REVENUES, EXPENSES
AND CHANGES IN NET POSITION**

THREE-MONTH PERIODS ENDED MARCH 31, 2019 AND 2018

(\$ In millions)

	March 31, 2019	March 31, 2018
	(Unaudited)	(Unaudited)
NON-OPERATING REVENUES (EXPENSES):		
Connecticut Department of Transportation	\$ 33	\$ 42
Subsidies paid to Dutchess, Orange, and Rockland Counties	(1)	(1)
Interest on long-term debt (Note 2)	(329)	(339)
Station maintenance, operation and use assessments	42	41
Operating subsidies recoverable from NYC	115	116
Other net non-operating expenses	49	(7)
	<u>2,930</u>	<u>2,722</u>
Net non-operating revenues		
	<u>2,930</u>	<u>2,722</u>
GAIN BEFORE APPROPRIATIONS, GRANTS AND OTHER RECEIPTS EXTERNALLY RESTRICTED FOR CAPITAL PROJECTS	1,009	457
APPROPRIATIONS, GRANTS AND OTHER RECEIPTS EXTERNALLY RESTRICTED FOR CAPITAL PROJECTS	381	169
CHANGE IN NET POSITION	1,390	626
NET POSITION— Beginning of period	3,953	5,224
NET POSITION — End of period	<u>\$ 5,343</u>	<u>\$ 5,850</u>

See Independent Auditors' Review Report and
notes to the consolidated interim financial statements.

(Concluded)

(A Component Unit of the State of New York)

CONSOLIDATED INTERIM STATEMENTS OF CASH FLOWS

THREE-MONTH PERIODS ENDED MARCH 31, 2019 AND 2018

(\$ In millions)

	March 31, 2019	March 31, 2018
	(Unaudited)	(Unaudited)
CASH FLOWS FROM OPERATING ACTIVITIES:		
Passenger receipts/tolls	\$ 1,900	\$ 1,950
Rents and other receipts	255	210
Payroll and related fringe benefits	(2,433)	(2,386)
Other operating expenses	(772)	(735)
Net cash used by operating activities	(1,050)	(961)
CASH FLOWS FROM NONCAPITAL FINANCING ACTIVITIES:		
Grants, appropriations, and taxes	1,101	902
Operating subsidies from CDOT	27	38
Subsidies paid to Dutchess, Orange, and Rockland Counties	(6)	(6)
Net cash provided by noncapital financing activities	1,122	934
CASH FLOWS FROM CAPITAL AND RELATED FINANCING ACTIVITIES:		
MTA bond proceeds	552	529
MTA Bridges and Tunnels bond proceeds	-	400
MTA bonds refunded/reissued	(50)	-
MTA Bridges and Tunnels bonds refunded/reissued	-	(163)
MTA anticipation notes proceeds	1,583	518
MTA anticipation notes redeemed	(500)	(512)
MTA credit facility proceeds	310	-
MTA credit facility refunded	(300)	-
Federal and local grants	294	352
Other capital financing activities	(794)	(209)
Payment for capital assets	(1,465)	(1,305)
Debt service payments	(100)	(158)
Net cash used by capital and related financing activities	(470)	(548)
CASH FLOWS FROM INVESTING ACTIVITIES:		
Purchase of long-term securities	(807)	(2,182)
Sales or maturities of long-term securities	485	1,750
Net sales or maturities of short-term securities	657	1,114
Earnings on investments	27	28
Net cash provided by investing activities	362	710
NET (DECREASE) INCREASE IN CASH	(36)	135
CASH — Beginning of period	541	283
CASH — End of period	\$ 505	\$ 418

See Independent Auditors' Review Report and
notes to the consolidated interim financial statements.

(Continued)

(A Component Unit of the State of New York)

CONSOLIDATED INTERIM STATEMENTS OF CASH FLOWS

THREE-MONTH PERIODS ENDED MARCH 31, 2019 AND 2018

(\$ In millions)

	March 31, 2019	March 31, 2018
	(Unaudited)	(Unaudited)
RECONCILIATION OF OPERATING LOSS TO NET CASH USED BY		
OPERATING ACTIVITIES:		
Operating loss (Note 2)	\$ (1,921)	\$ (2,265)
Adjustments to reconcile to net cash used in operating activities:		
Depreciation and amortization	705	657
Net increase in payables, accrued expenses, and other liabilities	118	599
Net decrease in receivables	28	(22)
Net decrease in materials and supplies and prepaid expenses	20	70
	<u> </u>	<u> </u>
NET CASH USED BY OPERATING ACTIVITIES	<u>\$ (1,050)</u>	<u>\$ (961)</u>
NONCASH INVESTING, CAPITAL AND RELATED FINANCING ACTIVITIES:		
Noncash investing activities:		
Interest expense includes amortization of net (premium) / discount (Note 2)	\$ 28	\$ 35
Interest expense which was capitalized	9	13
Total Noncash investing activities	<u>37</u>	<u>48</u>
Noncash capital and related financing activities:		
Capital assets related liabilities	585	434
Capital leases related liabilities	446	436
Total Noncash capital and related financing activities	<u>1,031</u>	<u>870</u>
TOTAL NONCASH INVESTING, CAPITAL AND RELATED		
FINANCING ACTIVITIES	<u>\$ 1,068</u>	<u>\$ 918</u>

See Independent Auditors' Review Report and
notes to the consolidated interim financial statements.

(Concluded)

(A Component Unit of the State of New York)

**STATEMENTS OF FIDUCIARY NET POSITION
PENSION AND OTHER EMPLOYEE BENEFIT TRUST FUNDS
AS OF DECEMBER 31, 2018 AND 2017**

(\$ In thousands)

	December 31, 2018 (Unaudited)	December 31, 2017
ASSETS:		
Cash	\$ 13,185	\$ 18,805
Receivables:		
Employee loans	197,067	183,952
Participant and union contributions	-	(6)
Investment securities sold	818	1,126
Accrued interest and dividends	4,540	3,554
Other receivables	1,938	1,843
Total receivables	<u>204,363</u>	<u>190,469</u>
Investments at fair value:		
Investments measured at readily determined fair value	1,323,040	1,247,701
Investments measured at net asset value	9,046,005	9,404,830
Investments at contract value	1,313,496	1,224,190
Total investments	<u>11,682,541</u>	<u>11,876,721</u>
Total assets	<u>\$ 11,900,089</u>	<u>\$ 12,085,995</u>
LIABILITIES:		
Accounts payable and accrued liabilities	\$ 9,075	\$ 6,823
Payable for investment securities purchased	5,461	6,735
Accrued benefits payable	2,419	2,498
Accrued postretirement death benefits (PRDB) payable	3,344	3,344
Accrued 55/25 Additional Members Contribution (AMC) payable	6,181	6,181
Other liabilities	341	719
Total liabilities	<u>26,821</u>	<u>26,300</u>
NET POSITION:		
Restricted for pensions	7,763,257	7,922,373
Restricted for postemployment benefits other than pensions	351,380	370,352
Restricted for other employee benefits	3,758,631	3,766,970
Total net position	<u>11,873,268</u>	<u>12,059,695</u>
Total liabilities and net position	<u>\$ 11,900,089</u>	<u>\$ 12,085,995</u>

See Independent Auditors' Review Report and
notes to the consolidated interim financial statements.

(A Component Unit of the State of New York)

**STATEMENT OF CHANGES IN FIDUCIARY NET POSITION
PENSION AND OTHER EMPLOYEE BENEFIT TRUST FUNDS
FOR THE YEARS ENDED DECEMBER 31, 2018 AND 2017**

(\$ In thousands)

	<u>December 31, 2018</u> (Unaudited)	<u>December 31, 2017</u>
ADDITIONS:		
Contributions:		
Employer contributions	\$ 1,222,186	\$ 1,185,070
Non-Employer contributions	-	145,000
Implicit rate subsidy contribution	74,484	71,101
Participant rollovers	21,673	22,430
Member contributions	333,767	302,589
Total contributions	<u>1,652,110</u>	<u>1,726,190</u>
Investment income:		
Net appreciation in fair value of investments	(2,382)	1,465,223
Dividend income	97,439	73,632
Interest income	17,238	13,730
Less:		
Investment expenses	101,235	109,658
Investment income, net	<u>11,060</u>	<u>1,442,927</u>
Other additions:		
Loan repayments - interest	<u>7,529</u>	<u>6,337</u>
Total additions	<u>1,670,699</u>	<u>3,175,454</u>
DEDUCTIONS:		
Benefit payments and withdrawals	1,227,531	1,180,123
Implicit rate subsidy payments	74,484	71,101
Transfer to other plans	93,387	67,653
Distribution to participants	87,379	73,733
Administrative expenses	5,681	6,455
Other deductions	5,410	4,895
Total deductions	<u>1,493,872</u>	<u>1,403,960</u>
Net increase in fiduciary net position	176,827	1,771,494
NET POSITION:		
Restricted for Benefits:		
Beginning of year	<u>11,696,441</u>	<u>10,288,201</u>
End of year	<u>\$ 11,873,268</u>	<u>\$ 12,059,695</u>

See Independent Auditors' Review Report and
notes to the consolidated interim financial statements.

(A Component Unit of the State of New York)

NOTES TO CONSOLIDATED INTERIM FINANCIAL STATEMENTS AS OF MARCH 31, 2019 AND DECEMBER 31, 2018 AND FOR THE THREE-MONTH PERIODS ENDED MARCH 31, 2019 AND 2018

(\$ In millions, except as noted)

1. BASIS OF PRESENTATION

Reporting Entity — The Metropolitan Transportation Authority (“MTA”) was established in 1965, under Section 1263 of the New York Public Authorities Law, and is a public benefit corporation and a component unit of the State of New York (“NYS”) whose mission is to continue, develop and improve public transportation and to develop and implement a unified public transportation policy in the New York metropolitan area.

These consolidated interim financial statements are of the Metropolitan Transportation Authority (“MTA”), including its related groups (collectively, the “MTA Group”) as follows:

Metropolitan Transportation Authority and Related Groups (Component Units)

- Metropolitan Transportation Authority Headquarters (“MTAHQ”) provides support in budget, cash management, finance, legal, real estate, treasury, risk and insurance management, and other services to the related groups listed below.
- The Long Island Rail Road Company (“MTA Long Island Rail Road”) provides passenger transportation between New York City (“NYC”) and Long Island.
- Metro-North Commuter Railroad Company (“MTA Metro-North Railroad”) provides passenger transportation between NYC and the suburban communities in Westchester, Dutchess, Putnam, Orange, and Rockland counties in NYS and New Haven and Fairfield counties in Connecticut.
- Staten Island Rapid Transit Operating Authority (“MTA Staten Island Railway”) provides passenger transportation on Staten Island.
- First Mutual Transportation Assurance Company (“FMTAC”) provides primary insurance coverage for certain losses, some of which are reinsured, and assumes reinsurance coverage for certain other losses.
- MTA Capital Construction Company (“MTA Capital Construction”) provides oversight for the planning, design and construction of current and future major MTA system-wide expansion projects.
- MTA Bus Company (“MTA Bus”) operates certain bus routes in areas previously served by private bus operators pursuant to franchises granted by the City of New York.
- MTAHQ, MTA Long Island Rail Road, MTA Metro-North Railroad, MTA Staten Island Railway, FMTAC, MTA Capital Construction, and MTA Bus, collectively are referred to herein as MTA. MTA Long Island Rail Road and MTA Metro-North Railroad are referred to collectively as the Commuter Railroads.
- New York City Transit Authority (“MTA New York City Transit”) and its subsidiary, Manhattan and Bronx Surface Transit Operating Authority (“MaBSTOA”), provide subway and public bus service within the five boroughs of New York City.
- Triborough Bridge and Tunnel Authority (“MTA Bridges and Tunnels”) operates seven toll bridges, two tunnels, and the Battery Parking Garage, all within the five boroughs of New York City.

The subsidiaries and affiliates, considered component units of the MTA, are operationally and legally independent of the MTA. These related groups enjoy certain rights typically associated with separate legal status including, in some cases, the ability to issue debt. However, they are included in the MTA’s consolidated interim financial statements as blended component units because of the MTA’s financial accountability for these entities and they are under the direction of the MTA Board (a reference to “MTA Board” means the board of MTAHQ and/or the boards of the other MTA Group entities that apply in the specific context, all of which are comprised of the same persons). Under accounting principles generally accepted in the United States of America (“GAAP”), the MTA is required to include these related groups in its financial statements. While certain units are separate legal entities, they do have legal capital requirements and the revenues of all of the related groups of the MTA are used to support the organizations as a whole. The components do not constitute a separate accounting entity (fund) since there is no legal requirement to account for the activities of the components as discrete accounting entities. Therefore, the MTA financial statements are presented on a consolidated basis with segment disclosure for each distinct operating activity. All of the component units publish separate annual financial statements, which are available by writing to the MTA Comptroller, 2 Broadway, 16th Floor, New York, New York 10004.

Although the MTA Group collects fares for the transit and commuter service, they provide and receive revenues from other sources, such as the leasing out of real property assets, and the licensing of advertising. Such revenues, including forecast-increased revenues from fare increases, are not sufficient to cover all operating expenses associated with such services. Therefore, to maintain a balanced budget, the members of the MTA Group providing transit and commuter service rely on operating surpluses transferred from MTA Bridges and Tunnels, operating subsidies provided by NYS and certain local governmental entities in the MTA commuter district, and service reimbursements from certain local governmental entities in the MTA commuter district and from the State of Connecticut. Non-operating subsidies to the MTA Group for transit and commuter service for the period ended March 31, 2019 and 2018 totaled \$3.0 billion and \$2.9 billion, respectively.

Basis of Presentation - Fiduciary Funds – The fiduciary fund financial statements provide information about the funds that are used to report resources held in trust for retirees and beneficiaries covered by pension plans and other employee benefit trust funds of the MTA. Separate financial statements are presented for the fiduciary funds.

The following MTA's fiduciary funds are categorized within Pension and Other Employee Benefit Trust Funds.

- Pension Trust Funds
 - o MTA Defined Benefit Plan
 - o The Long Island Railroad Company Plan for Additional Pensions ("Additional Plan")
 - o Manhattan and Bronx Surface Transit Operating Authority ("MaBSTOA Plan")
 - o Metro-North Commuter Railroad Company Cash Balance Plan ("MNR Cash Balance Plan")
- Other Employee Benefit Trust Funds
 - o MTA Other Postemployment Benefits Plan ("OPEB" Plan)
 - o Thrift Plan for Employees of the MTA, its Subsidiaries and Affiliates ("401(k) Plan")

These fiduciary statements of the fiduciary funds are prepared using the accrual basis of accounting and a measurement focus on the periodic determination of additions, deductions, and net position restricted for benefits.

2. SIGNIFICANT ACCOUNTING POLICIES

Basis of Accounting — The accompanying consolidated interim financial statements are prepared on the accrual basis of accounting in accordance with accounting principles generally accepted in the United States of America.

The MTA applies Governmental Accounting Standards Board ("GASB") Codification of Governmental Accounting and Financial Reporting Standards ("GASB Codification") Section P80, Proprietary Accounting and Financial Reporting.

New Accounting Standards – The MTA adopted the following GASB Statements for the period ended March 31, 2019.

GASB Statement No. 83, Certain Asset Retirement Obligations establishes accounting and financial reporting standards for certain asset retirement obligations ("AROs"). An ARO is a legally enforceable liability associated with the retirement of a tangible capital asset that is permanently removed from service. This Statement requires that a liability must be recognized when incurred and reasonably estimated. The determination of when a liability is incurred should be based on the occurrence of external laws, regulations, contracts, or court judgments, together with the occurrence of an internal event that obligates a government to perform asset retirement activities. The requirements of this Statement are effective for reporting periods beginning after June 15, 2018. The adoption of this Statement had no material impact on the MTA's financial statements.

GASB Statement No. 84, Fiduciary Activities, improves guidance regarding the identification of fiduciary activities for accounting and financial reporting purposes and how those activities should be reported. The requirements of GASB Statement No. 84 are effective for reporting periods beginning after December 15, 2018. The adoption of this Statement resulted in the addition of fiduciary funds financial statements and supplementary information combining financial information of the MTA's fiduciary funds.

GASB Statement No. 88, "Certain Disclosures Related to Debt, including Direct Borrowings and Direct Placements", requires that additional information be disclosed in the notes to financial statements related to direct borrowings and direct placements. It also clarifies which liabilities should be included when disclosing information related to debt. The Statement requires that additional information related to debt be disclosed in the notes to the financial statements, including unused lines of credit; assets pledged as collateral for the debt; and terms specified in debt agreements related to significant events of default with finance-related consequences; significant termination events with finance-related consequences; and significant subjective acceleration clauses. GASB Statement No. 88 is effective for reporting periods beginning after June 15, 2018. The adoption of this Statement did not have a material impact to MTA's note disclosures.

Accounting Standards Issued but Not Yet Adopted

GASB has issued the following pronouncements that may affect the future financial position, results of operations, cash flows, or financial presentation of the MTA upon implementation. Management has not yet evaluated the effect of implementation of these standards.

GASB Statement No.	GASB Accounting Standard	MTA Required Year of Adoption
87	<i>Leases</i>	2020
89	<i>Accounting for Interest Cost Incurred Before the End of a Construction Period</i>	2020
90	<i>Majority Equity Interests – An Amendment of GASB Statements No. 14 and No. 61</i>	2019
91	<i>Conduit Debt Obligations 2021</i>	2021

Use of Management Estimates — The preparation of the consolidated interim financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities, and disclosure of contingent assets and liabilities at the date of the consolidated interim financial statements, and the reported amounts of revenues and expenses during the reporting period. Significant estimates include the fair value of investments, allowances for doubtful accounts, valuation of derivative instruments, arbitrage rebate liability, accrued expenses and other liabilities, depreciable lives of capital assets, estimated liability arising from injuries to persons, pension benefits and other postemployment benefits. Actual results could differ significantly from those estimates.

Principles of Consolidation — The consolidated interim financial statements consist of MTAHQ, MTA Long Island Rail Road, MTA Metro-North Railroad, MTA Staten Island Railway, FMTAC, MTA Bus, MTA Capital Construction, MTA New York City Transit (including its subsidiary MaBSTOA), and MTA Bridges and Tunnels for years presented in the financial statements. All related group transactions have been eliminated for consolidation purposes.

Net Position – Restricted for Other Purposes – This category is classified within net position and includes net investments restricted for capital leases and MTA Bridges and Tunnels necessary reconstruction reserve.

Investments — The MTA Group’s investment policies comply with the New York State Comptroller’s guidelines for such operating and capital policies. Those policies permit investments in, among others, obligations of the U.S. Treasury, its agencies and instrumentalities, and repurchase agreements secured by such obligations. FMTAC’s investment policies comply with New York State Comptroller guidelines and New York State Department of Insurance guidelines.

Investments expected to be utilized within a year of March 31st have been classified as current assets in the consolidated interim financial statements.

In accordance with the provisions of GASB Statement No. 72, *Fair Value Measurement and Application*, investments are recorded on the consolidated statement of net position at fair value, except for commercial paper, certificates of deposit, and repurchase agreements, which are recorded at amortized cost or contract value. All investment income, including changes in the fair value of investments, is reported as revenue on the consolidated statement of revenues, expenses and changes in net position. Fair values have been determined using quoted market values at March 31, 2019 and December 31, 2018.

Investment derivative contracts are reported at fair value using the income approach.

Materials and Supplies — Materials and supplies are valued principally at average cost, net of obsolescence reserve at March 31, 2019 and December 31, 2018 of \$172 and \$171, respectively.

Prepaid Expenses and Other Current Assets — Prepaid expenses and other current assets reflect advance payment of insurance premiums as well as farecard media related with ticket machines, WebTickets and AirTrain tickets.

Capital Assets — Properties and equipment are carried at cost and are depreciated on a straight-line basis over their estimated useful lives. Expenses for maintenance and repairs are charged to operations as incurred. Capital assets and improvements include all land, buildings, equipment, and infrastructure of the MTA having a minimum useful life of two years and having a cost of more than \$25 thousand. Capital assets are stated at historical cost, or at estimated historical cost based on appraisals, or on other acceptable methods when historical cost is not available. Capital leases are classified as capital assets in amounts equal to the lesser of the fair market value or the present value of net minimum lease payments at the inception of the lease. Accumulated depreciation and amortization are reported as reductions of capital assets. Depreciation is computed using the straight-line method based upon estimated useful lives of 25 to 50 years for buildings, 2 to 40 years for equipment, and 25 to 100 years for infrastructure. Capital lease assets and leasehold improvements are amortized over the term of the lease or the life of the asset whichever is less.

Pollution remediation projects — Pollution remediation costs have been expensed in accordance with the provisions of GASB Statement No. 49, *Accounting and Financial Reporting for Pollution Remediation Obligations* (See Note 12). An operating expense provision and corresponding liability measured at current value using the expected cash flow method has been recognized for certain pollution remediation obligations, which previously may not have been required to be recognized, have been recognized earlier than in the past or are no longer able to be capitalized as a component of a capital project. Pollution remediation obligations occur when any one of the following obligating events takes place: the MTA is in violation of a pollution prevention-related permit or license; an imminent threat to public health due to pollution exists; the MTA is named by a regulator as a responsible or potentially responsible party to participate in remediation; the MTA voluntarily commences or legally obligates itself to commence remediation efforts; or the MTA is named or there is evidence to indicate that it will be named in a lawsuit that compels participation in remediation activities.

Operating Revenues — Passenger Revenue and Tolls — Revenues from the sale of tickets, tokens, electronic toll collection system, and farecards are recognized as income when tickets or farecards are used. Tickets are assumed to be used in the month of purchase, with the exception of advance purchases of monthly and weekly tickets. When the farecards expire, revenue is recorded for the unused value of the farecards.

MTA Bridges and Tunnel has two toll rebate programs at the Verrazano-Narrows Bridge: the Staten Island Resident (“SIR”) Rebate Program, available for residents of Staten Island participating in the SIR E-ZPass toll discount plan, and the Verrazano-Narrows Bridge Commercial Rebate Program (“VNB Commercial Rebate Program”), available for commercial vehicles making more than ten trips per month using the same New York Customer Service Center (“NYCSC”) E-ZPass account. The VNB Commercial Rebate Program and SIR Rebate Program are funded by the State and MTA.

Capital Financing — The MTA has ongoing programs on behalf of its subsidiaries and affiliates, subject to approval by the New York State Metropolitan Transportation Authority Capital Program Review Board (the “State Review Board”), which are intended to improve public transportation in the New York Metropolitan area.

The federal government has a contingent equity interest in assets acquired by the MTA with federal funds and upon disposal of such assets, the federal government may have a right to its share of the proceeds from the sale. This provision has not been a substantial impediment to the MTA’s operations.

Non-operating Revenues

Operating Assistance — The MTA Group receives, subject to annual appropriation, NYS operating assistance funds that are recognized as revenue after the NYS budget is approved and adopted. Generally, funds received under the NYS operating assistance program are fully matched by contributions from NYC and the seven other counties within the MTA’s service area.

Mortgage Recording Taxes (“MRT”) — Under NYS law, the MTA receives capital and operating assistance through a Mortgage Recording Tax (“MRT-1”). MRT-1 is collected by NYC and the seven other counties within the MTA’s service area, at the rate of 0.25% of the debt secured by certain real estate mortgages. Effective September 2005, the rate was increased from 25 cents per 100 dollars of recorded mortgage to 30 cents per 100 dollars of recorded mortgage. The MTA also receives an additional Mortgage Recording Tax (“MRT-2”) of 0.25% of certain mortgages secured by real estate improved or to be improved by structures containing one to nine dwelling units in the MTA’s service area. MRT-1 and MRT-2 taxes are recognized as revenue based upon reported amounts of taxes collected.

- MRT-1 proceeds are initially used to pay MTAHQ’s operating expenses. Remaining funds, if any, are allocated 55% to certain transit operations and 45% to the commuter railroads operations. The commuter railroad portion is first used to fund the NYS Suburban Highway Transportation Fund in an amount not to exceed \$20 annually (subject to the monies being returned under the conditions set forth in the governing statute if the Commuter Railroads are operating at a deficit).
- The first \$5 of the MRT-2 proceeds is transferred to the MTA Dutchess, Orange, and Rockland (“DOR”) Fund (\$1.5 each for Dutchess and Orange Counties and \$2 for Rockland County). Additionally, the MTA must transfer to each County’s fund an amount equal to the product of (i) the percentage by which each respective County’s mortgage recording tax payments (both MRT-1 and MRT-2) to the MTA increased over such payments in 1989 and (ii) the base amount received by each county as described above. The counties do not receive any portion of the September 1, 2005 increase in MRT-1 from 25 cents per \$100 of recorded mortgage to 30 cents. As of March 31, 2019, the MTA paid to Dutchess, Orange and Rockland Counties the 2018 excess amounts of MRT-1 and MRT-2 totaling \$4.4.
- In addition, MTA New York City Transit receives operating assistance directly from NYC through a mortgage recording tax at the rate of 0.625% of the debt secured by certain real estate mortgages and through a property transfer tax at the rate of one percent of the assessed value (collectively referred to as “Urban Tax Subsidies”) of certain properties.

Mobility Tax — In June of 2009, Chapter 25 of the NYS Laws of 2009 added Article 23, which establishes the Metropolitan Commuter Transportation Mobility Tax (“MCTMT”). The proceeds of this tax, administered by the New York State Tax Department, are to be distributed to the Metropolitan Transportation Authority. This tax is imposed on certain employers and self-employed individuals engaging in business within the metropolitan commuter transportation district which includes

New York City, and the counties of Rockland, Nassau, Suffolk, Orange, Putnam, Dutchess, and Westchester. This Tax is imposed on certain employers that have payroll expenses within the Metropolitan Commuter Transportation District, to pay at a rate of 0.34% of an employer's payroll expenses for all covered employees for each calendar quarter. The employer is prohibited from deducting from wages or compensation of an employee any amount that represents all or any portion of the MCTMT. The effective date of this tax was March 1, 2009 for employers other than public school district; September 1, 2009 for Public school districts and January 1, 2009 for individuals.

Supplemental Aid — In 2009, several amendments to the existing tax law provided the MTA supplemental revenues to be deposited into the AID Trust Account of the Metropolitan Transportation Authority Financial Assistance Fund established pursuant to Section 92 of the State Finance law. These supplemental revenues relate to: 1) supplemental learner permit/license fee in the Metropolitan Commuter Transportation District, 2) supplemental registration fee, 3) supplemental tax on every taxicab owner per taxicab ride on every ride that originated in the City of New York and terminates anywhere within the territorial boundaries of the Metropolitan Commuter Transportation District, and 4) supplemental tax on passenger car rental. This Supplemental Aid Tax is provided to the MTA in conjunction with the Mobility Tax.

Dedicated Taxes — Under NYS law, subject to annual appropriation, the MTA receives operating assistance through a portion of the Dedicated Mass Transportation Trust Fund ("MTTF") and Metropolitan Mass Transportation Operating Assistance Fund ("MMTOA"). The MTTF receipts consist of a portion of the revenues derived from certain business privilege taxes imposed by the State on petroleum businesses, a portion of the motor fuel tax on gasoline and diesel fuel, and a portion of certain motor vehicle fees, including registration and non-registration fees. Effective October 1, 2005, the State increased the amount of motor vehicle fees deposited into the MTTF for the benefit of the MTA. MTTF receipts are applied first to meet certain debt service requirements or obligations and second to the Transit System (defined as MTA New York City Transit and MaBSTOA), MTA Staten Island Railway and the Commuter Railroads to pay operating and capital costs. The MMTOA receipts are comprised of 0.375% regional sales tax, regional franchise tax surcharge, a portion of taxes on certain transportation and transmission companies, and an additional portion of the business privilege tax imposed on petroleum businesses. MMTOA receipts, to the extent that MTTF receipts are not sufficient to meet debt service requirements, will also be applied to certain debt service obligations, and secondly to operating and capital costs of the Transit System, and the Commuter Railroads.

The State Legislature enacts, in an annual budget bill for each state fiscal year, an appropriation to the MTA Dedicated Tax Fund for the then-current state fiscal year and an appropriation of the amounts projected by the Director of the Budget of the State to be deposited in the MTA Dedicated Tax Fund for the next succeeding state fiscal year. The assistance deposited into the MTTF is required by law to be allocated, after provision for debt service on Dedicated Tax Fund Bonds (see Note 7), 85% to certain transit operations (not including MTA Bus) and 15% to the commuter railroads operations. Revenues from this funding source are recognized based upon amounts of tax reported as collected by NYS, to the extent of the appropriation.

Build America Bond Subsidy — The MTA is receiving cash subsidy payments from the United States Treasury equal to 35% of the interest payable on the Series of Bonds issued as "Build America Bonds" and authorized by the Recovery Act. The Internal Revenue Code of 1986 imposes requirements that MTA must meet and continue to meet after the issuance in order to receive the cash subsidy payments. The interest on these bonds is fully subject to Federal income taxation to the bondholder.

Congestion Zone Surcharges – In April 2018, the approved 2018-2019 New York State Budget enacted legislation that provided additional sources of revenue, in the form of surcharges and fines, as defined by Article 29-C, Chapter 59 of the Tax Law, to address the financial needs of the MTA. Beginning on January 1, 2019, the legislation imposed the following:

- A surcharge of \$2.75 on for-hire transportation trips provided by motor vehicles carrying passengers for hire (or \$2.50 in the case of taxicabs that are subject to the \$0.50 cents tax on hailed trips that are part of the MTA Aid Trust Account Receipts), other than pool vehicles, ambulance and buses, on each trip that (1) originates and terminates south of and excluding 96th Street in the City of New York, in the Borough of Manhattan (the "Congestion Zone"), (2) originates anywhere in NYS and terminates within the Congestion Zone, (3) originates in the Congestion Zone and terminates anywhere in NYS, or (4) originates anywhere in NYS, enters into the Congestion Zone while in transit, and terminates anywhere in NYS.
- A surcharge of \$0.75 cents for each person who both enters and exits a pool vehicle in NYS and who is picked up in, dropped off in, or travels through the Congestion Zone.

The Congestion Zone Surcharges do not apply to transportation services administered by or on behalf of MTA, including paratransit services.

The April 2018 legislation also created the New York City Transportation Assistance Fund, held by MTA. The fund consists of the three sub-accounts, the Subway Action Plan Account, the Outer Borough Transportation Account and the General Transportation Account.

- **Subway Action Plan Account** – Funds in this account may be used exclusively for funding the operating and capital

costs, and debt service associated, with the Subway Action Plan.

- **Outer Borough Transportation Account** - Funds in this account may be used exclusively for funding (1) the operating and capital costs of, and debt service associated with, the MTA facilities, equipment and services in the counties of Bronx, Kings, Queens and Richmond, and any projects improving transportation connections from such counties to Manhattan, or (2) a toll reduction program for any crossing under the jurisdiction of MTA or MTA Bridges and Tunnels.
- **General Transportation Account** - Funds in this account may be used exclusively for funding the operating and capital costs of MTA. In each case, funds may be used for various operations and capital needs or for debt service and reserve requirements.

NYS/NYC Subway Action Plan — In April 2018, the approved 2018-2019 New York State Budget committed both New York State (“NYS”) and New York City (“NYC”) to equally cover the costs of the 2017-2018 Subway Action Plan (“SAP”), which was launched at the direction of Governor Andrew Cuomo in July 2017 to take extraordinary measures to stabilize and improve the more than 100-year old New York City subway system. The SAP includes a comprehensive \$836 investment to address system failures, breakdowns, delays and deteriorating customer service, and position the New York City subway system for future modernization. The SAP provided the MTA with funds already used to advance the SAP, as well as additional operating and capital funding to cover the cost of the remaining SAP through the end of 2018. The MTA started receiving the SAP funding in April 2018 and received the full funding by the end of 2018. For the year-end December 31, 2018, the MTA received \$508 related to operating needs and \$189 related to capital needs for the Subway Action Plan. In 2019, the MTA will be using the remaining Subway Action Plan funds from New York State and New York City primarily for the signals modernization capital project.

Operating Subsidies Recoverable from Connecticut Department of Transportation (“CDOT”) — A portion of the deficit from operations relating to MTA Metro-North Railroad’s New Haven line is recoverable from CDOT. Under the terms of a renewed Service Agreement, which began on January 1, 2015, and the 1998 resolution of an arbitration proceeding initiated by the State of Connecticut, CDOT pays 100.0% of the net operating deficit of MTA Metro-North Railroad’s branch lines in Connecticut (New Canaan, Danbury, and Waterbury), 65.0% of the New Haven mainline operating deficit, and 54.3% of the Grand Central Terminal (“GCT”) operating deficit. The New Haven line’s share of the net operating deficit for the use of GCT is comprised of a fixed fee, calculated using several years as a base, with annual increases for inflation, and the actual cost of operating GCT’s North End Access beginning in 1999. The Service Agreement also provides that CDOT pay 100% of the cost of non-movable capital assets located in Connecticut, 100% of movable capital assets to be used primarily on the branch lines and 65% of the cost of other movable capital assets allocated to the New Haven line. Remaining funding for New Haven line capital assets is provided by the MTA. The Service Agreement provides for automatic five-year renewals unless a notice of termination has been provided. The Service Agreement has been automatically extended for an additional five years beginning January 1, 2015 subject to the right of CDOT or MTA to terminate the agreement on eighteen month’s written notice. Capital assets completely funded by CDOT are not reflected in these financial statements, as ownership is retained by CDOT. The Service Agreement provides that final billings for each year be subject to audit by CDOT. The audits of 2016 and 2017 billings are still open.

Reimbursement of Expenses — The cost of operating and maintaining the passenger stations of the Commuter Railroads in NYS is assessable by the MTA to NYC and the other counties in which such stations are located for each NYS fiscal year ending December 31, under provisions of the NYS Public Authorities Law. This funding is recognized as revenue based upon an amount, fixed by statute, for the costs to operate and maintain passenger stations and is revised annually by the increase or decrease of the regional Consumer Price Index.

In 1995, New York City ceased reimbursing the Authority for the full costs of the free/reduced fare program for students. Beginning in 1996, the State and New York City each began paying \$45 per annum to MTA New York City Transit toward the cost of the program. In 2009, the State reduced their \$45 reimbursement to \$6.3. Beginning in 2010, the State increased their annual commitment to \$25.3 while New York City’s annual commitment remained at \$45. These commitments have been met by both the State and New York City for both 2017 and 2018.

Prior to April 1995, New York City was obligated to reimburse MTA New York City Transit for the transit police force. As a result of the April 1995 merger of the transit police force into the New York City Police Department, New York City no longer reimburses MTA New York City Transit for the costs of policing the Transit System on an ongoing basis since policing of the Transit System is being carried out by the New York City Police Department at New York City’s expense. MTA New York City Transit continues to be responsible for certain capital costs and support services related to such police activities, a portion of which is reimbursed by New York City. MTA New York City Transit received approximately \$1.9 in the three months ended March 31, 2019 and \$0 in the three months ended March 31, 2018 from New York City for the reimbursement of transit police costs.

MTAHQ bills MTA Metro-North Railroad through its consolidated services for MTA police costs in the New Haven line of which MTA Metro-North Railroad recovers approximately 65% from Connecticut Department of Transportation. The amounts billed for the periods ended March 31, 2019 and 2018 were \$5.6 and \$5.6, respectively. The amounts recovered for the periods ended March 31, 2019 and 2018 were approximately \$3.7 and \$3.6, respectively.

Federal law and regulations require a paratransit system for passengers who are not able to ride the buses and trains because of their disabilities. Pursuant to an agreement between New York City and the MTA, MTA New York City Transit, effective July 1, 1993, assumed operating responsibility for all paratransit service required by the Americans with Disability Act of 1990. Services are provided by private vendors under contract with MTA New York City Transit. New York City reimburses MTA New York City Transit for the lesser of 33% of net paratransit operating expenses defined as labor, transportation, and administrative costs less fare revenues and 6% of gross urban tax proceeds as described above or, an amount that is 20% greater than the amount paid by New York City for the preceding calendar year. Fare revenues and New York City's reimbursement aggregated approximately \$60.7 for the three months ended March 31, 2019 and \$53.3 for the three months ended March 31, 2018.

Grants and Appropriations — Grants and appropriations for capital projects are recorded when requests are submitted to the funding agencies for reimbursement of capital expenditures meeting eligibility requirements. These amounts are reported separately after Net Non-operating Revenues in the Statements of Revenues, Expenses, and Changes in Net Position.

Operating and Non-operating Expenses — Operating and non-operating expenses are recognized in the accounting period in which the liability is incurred. All expenses related to operating the MTA (e.g. salaries, insurance, depreciation, etc.) are reported as operating expenses. All other expenses (e.g. interest on long-term debt, subsidies paid to counties, etc.) are reported as non-operating expenses.

Liability Insurance — FMTAC, an insurance captive subsidiary of MTA, operates a liability insurance program ("ELF") that insures certain claims in excess of the self-insured retention limits of the agencies on both a retrospective (claims arising from incidents that occurred before October 31, 2003) and prospective (claims arising from incidents that occurred on or after October 31, 2003) basis. For claims arising from incidents that occurred on or after November 1, 2006, but before November 1, 2009, the self-insured retention limits are: \$8 for MTA New York City Transit, MaBSTOA, MTA Bus, MTA Long Island Rail Road, and MTA Metro-North Railroad; \$2.3 for MTA Long Island Bus and MTA Staten Island Railway; and \$1.6 for MTAHQ and MTA Bridges and Tunnels. For claims arising from incidents that occurred on or after November 1, 2009, but before November 1, 2012, the self-insured retention limits are: \$9 for MTA New York City Transit, MaBSTOA, MTA Bus, MTA Long Island Rail Road and MTA Metro-North Railroad; \$2.6 for MTA Long Island Bus and MTA Staten Island Railway; and \$1.9 for MTAHQ and MTA Bridges and Tunnels. Effective November 1, 2012, the self-insured retention limits for ELF were increased to the following amounts: \$10 for MTA New York City Transit, MaBSTOA, MTA Bus, MTA Long Island Rail Road and MTA Metro-North Railroad; \$3 for MTA Staten Island Railway; and \$2.6 for MTAHQ and MTA Bridges and Tunnels. Effective October 31, 2015, the self-insured retention limits for ELF were increased to the following amounts: \$11 for MTA New York City Transit, MaBSTOA, MTA Bus, MTA Long Island Rail Road and MTA Metro-North Railroad; \$3.2 for MTA Staten Island Railway, MTAHQ and MTA Bridges and Tunnels. The maximum amount of claims arising out of any one occurrence is the total assets of the program available for claims, but in no event greater than \$50. The retrospective portion contains the same insurance agreements, participant retentions, and limits as existed under the ELF program for occurrences happening on or before October 30, 2003. On a prospective basis, FMTAC issues insurance policies indemnifying the other MTA Group entities above their specifically assigned self-insured retention with a limit of \$50 per occurrence with a \$50 annual aggregate. FMTAC charges appropriate annual premiums based on loss experience and exposure analysis to maintain the fiscal viability of the program. On March 31, 2019, the balance of the assets in this program was \$156.5.

MTA also maintains an All-Agency Excess Liability Insurance Policy that affords the MTA Group additional coverage limits of \$350 for a total limit of \$400 (\$350 excess of \$50). In certain circumstances, when the assets in the program described in the preceding paragraph are exhausted due to payment of claims, the All-Agency Excess Liability Insurance will assume the coverage position of \$50.

On March 1, 2019, the "nonrevenue fleet" automobile liability policy program was renewed. This program provides third-party auto liability insurance protection for the MTA Group with the exception of MTA New York City Transit, MTA Bus and MTA Bridges and Tunnels. The policy provides \$11 per occurrence limit with a \$0.5 per occurrence deductible for MTA Long Island Rail Road, MTA Staten Island Railway, MTA Police, MTA Metro-North Railroad, MTA Inspector General and MTA Headquarters. FMTAC renewed its deductible buy back policy, where it assumes the liability of the agencies for their deductible.

On March 1, 2019, the "Access-A-Ride" automobile liability policy program was renewed. This program provides third-party auto liability insurance protection for the MTA New York City Transit's Access-A-Ride program, including the contracted operators. This policy provides \$2 per occurrence limit excess of a \$1 self-insured retention.

On December 15, 2018, FMTAC renewed the primary coverage on the Station Liability and Force Account liability policies \$11 per occurrence loss for MTA Metro-North Railroad and MTA Long Island Rail Road.

Property Insurance — Effective May 1, 2018, FMTAC renewed the all-agency property insurance program. For the annual period commencing May 1, 2018, FMTAC directly insures property damage claims of the Related Entities in excess of a \$25 per occurrence deductible, subject to an annual \$75 aggregate deductible. The total program annual limit is \$800 per

occurrence and in the annual aggregate for Flood and Earthquake covering property of the Related Entities collectively. FMTAC is reinsured in the domestic, Asian, London, European and Bermuda reinsurance markets for this coverage. Losses occurring after exhaustion of the deductible aggregate are subject to a deductible of \$7.5 per occurrence. The property insurance policy provides replacement cost coverage for all risks (including Earthquake, Flood and Wind) of direct physical loss or damage to all real and personal property, with minor exceptions. The policy also provides extra expense and business interruption coverage.

FMTAC's property insurance program has been expanded to include \$125 of fully collateralized earthquake coverage for an event of a certain index value and for storm surge coverage for losses from storm surges that surpass specified trigger levels in the New York Harbor or Long Island Sound and are associated with named storms that occur at any point in the three year period from May 23, 2017 to April 30, 2020. The expanded protection is reinsured by MetroCat Re Ltd. 2017-1, a Bermuda special purpose insurer independent from the MTA and formed to provide FMTAC with capital markets based property reinsurance. The MetroCat Re Ltd. 2017-1 reinsurance policy is fully collateralized by a Regulation 114 trust invested in U.S. Treasury Money Market Funds. The additional coverage provided is parametric and available for storm surge losses resulting from a storm that causes water levels that reach the specified index values, and also for an earthquake event of a certain index value.

With respect to acts of terrorism, FMTAC provides direct coverage that is reinsured by the United States Government for 82% of "certified" losses in 2018, 81% of "certified" losses in 2019 and 80% of "certified" losses in 2020, as covered by the Terrorism Risk Insurance Program Reauthorization Act ("TRIPRA") of 2015. The remaining 18% (2018), 19% (2019) and 20% (2020) of the Related Entities' losses arising from an act of terrorism would be covered under the additional terrorism policy described below. No federal compensation will be paid unless the aggregate industry insured losses exceed a trigger of \$160 in 2018, \$180 in 2019 and \$200 in 2020. The United States government's reinsurance is in place through December 31, 2020.

To supplement the reinsurance to FMTAC through the TRIPRA, MTA obtained an additional commercial reinsurance policy with various reinsurance carriers in the domestic, London and European marketplaces. That policy provides coverage for (1) 18% of any "certified" act of terrorism up to a maximum recovery of \$193.5 for any one occurrence and in the annual aggregate during 2018, 19% of any "certified" act of terrorism up to a maximum recovery of \$204.3 for any one occurrence and in the annual aggregate during 2019 and 20% of any "certified" act of terrorism up to a maximum recovery of \$215 for any one occurrence and in the annual aggregate during 2020 (2) the TRIPRA FMTAC captive deductible (per occurrence and on an aggregated basis) that applies when recovering under the "certified" acts of terrorism insurance or (3) 100% of any "certified" terrorism loss which exceeds \$5 and less than the \$160 TRIPRA trigger up to a maximum recovery of \$160 for any occurrence and in the annual aggregate during 2018, or 100% of any "certified" terrorism loss which exceeds \$5 and less than the \$180 TRIPRA trigger up to a maximum recovery of \$180 for any occurrence and in the annual aggregate during 2019 or 100% of any "certified" terrorism loss which exceeds \$5 and less than the \$200 TRIPRA trigger up to a maximum recovery of \$200 for any occurrence and in the annual aggregate during 2020.

Additionally, MTA purchases coverage for acts of terrorism which are not certified under TRIPRA to a maximum of \$193.5 in 2018, \$204.3 in 2019 and \$215 in 2020. Recovery under the terrorism policy is subject to a deductible of \$25 per occurrence and \$75 in the annual aggregate in the event of multiple losses during the policy year. Should the Related Entities' deductible in any one year exceed \$75 future losses in that policy year are subject to a deductible of \$7.5. The terrorism coverages expire at midnight on May 1, 2020.

Pension Plans — In accordance with the provisions of GASB Statement No. 68, *Accounting and Financial Reporting for Pensions*, the MTA recognizes a net pension liability for each qualified pension plan in which it participates, which represents the excess of the total pension liability over the fiduciary net position of the qualified pension plan, or the MTA's proportionate share thereof in the case of a cost-sharing multiple-employer plan, measured as of the measurement date of each of the qualified pension plans. Changes in the net pension liability during the year are recorded as pension expense, or as deferred inflows of resources or deferred outflows of resources depending on the nature of the change, in the year incurred. Those changes in net pension liability that are recorded as deferred inflows of resources or deferred outflows of resources that arise from changes in actuarial assumptions or other inputs and differences between expected or actual experience are amortized over the weighted average remaining service life of all participants in the respective qualified pension plan and recorded as a component of pension expense beginning with the year in which they are incurred. Projected earnings on qualified pension plan investments are recognized as a component of pension expense. Differences between projected and actual investment earnings are reported as deferred inflows of resources or deferred outflows of resources and amortized as a component of pension expense on a closed basis over a five-year period beginning with the year in which the difference occurred.

Postemployment Benefits Other Than Pensions — In June 2004, GASB issued Statement No. 45, *Accounting and Financial Reporting by Employers for Postemployment Benefits Other Than Pensions*, which established standards for the measurement, recognition, and display of OPEB expense/expenditures and related liabilities (assets), note disclosures, and if applicable, required supplementary information in the financial reports of state and local governmental employers. The MTA reported under this standard for its Postemployment Benefits Other Than Pensions for the year ended December 31, 2017.

Effective for the year ended December 31, 2018, the MTA adopted the standards of GASB Statement No. 75, *Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions* and GASB Statement No. 85, *Omnibus* for the OPEB Plan.

GASB has issued Statements No. 74 and 75, which replaced GASB Statements No. 43 and 45. The effective date of GASB Statement No. 74 (which applies to financial reporting on a plan basis) is the year ended December 31, 2017. The effective date of GASB Statement No. 75 (which applies to financial reporting by contributing employers) is the year ended December 31, 2018.

The MTA recognizes a net OPEB liability, which represents the excess of the total OPEB liability over the fiduciary net position of the OPEB Plan, measured as of the measurement date of the plan.

Changes in the net OPEB liability during the year are recorded as OPEB expense, or as deferred outflows of resources or deferred inflows of resources relating to OPEB depending on the nature of the change, in the year incurred. Changes in net OPEB liability that are recorded as deferred outflows of resources or deferred inflows of resources that arise from changes in actuarial assumptions and differences between expected or actual experience are amortized over the weighted average remaining service life of all participants in the OPEB plan and recorded as a component of OPEB expense beginning with the year in which they are incurred. Projected earnings on qualified OPEB plan investments are recognized as a component of OPEB expenses. Differences between projected and actual investment earnings are reported as deferred outflows of resources or deferred inflow of resources as a component of OPEB expense on a closed basis over a five-year period beginning with the year in which the difference occurred.

3. CASH AND INVESTMENTS

Cash - The Bank balances are insured up to \$250 thousand in the aggregate by the Federal Deposit Insurance Corporation ("FDIC") for each bank in which funds are deposited. Cash, including deposits in transit, consists of the following at March 31, 2019 and December 31, 2018 (in millions):

	March 31, 2019		December 31, 2018	
	Carrying Amount	Bank Balance	Carrying Amount	Bank Balance
	(Unaudited)			
FDIC insured or collateralized deposits	\$ 93	\$ 80	\$ 75	\$ 62
Uninsured and not collateralized	412	349	466	406
Total Balance	<u>\$ 505</u>	<u>\$ 429</u>	<u>\$ 541</u>	<u>\$ 468</u>

All collateralized deposits are held by the MTA or its agent in the MTA's name.

The MTA, on behalf of itself, its affiliates and subsidiaries, invests funds which are not immediately required for the MTA's operations in securities permitted by the New York State Public Authorities Law, including repurchase agreements collateralized by U.S. Treasury securities, U.S. Treasury notes, and U.S. Treasury zero coupon bonds.

Custodial credit risk for deposits is the risk that, in the event of the failure of a depository financial institution, the MTA will not be able to recover the value of its deposits. While the MTA does not have a formal deposit policy for custodial credit risk, New York State statutes govern the MTA's investment policies. The MTA's uninsured and uncollateralized deposits are primarily held by commercial banks in the metropolitan New York area and are subject to the credit risks of those institutions.

Investments - MTA holds most of its investments at a custodian bank. The custodian must meet certain banking institution criteria enumerated in MTA's Investment Guidelines. The Investment Guidelines also require the Treasury Division to hold at least \$100 of its portfolio with a separate emergency custodian bank. The purpose of this deposit is in the event that the MTA's main custodian cannot execute transactions due to an emergency outside of the custodian's control, the MTA has an immediate alternate source of liquidity.

The MTA categorizes its fair value measurements within the fair value hierarchy established by generally accepted accounting principles. The hierarchy is based on the valuation inputs used to measure the fair value of the asset. Level 1 inputs are quoted prices in active markets for identical assets; Level 2 inputs are significant other observable inputs; Level 3 inputs are significant unobservable inputs.

The MTA had the following recurring fair value measurements as of March 31, 2019 and December 31, 2018 (in millions):

Investments by fair value level	March 31, 2019	Fair Value Measurements		December 31, 2018	Fair Value Measurements	
	(Unaudited)	Level 1	Level 2		Level 1	Level 2
Debt Securities:						
U.S. treasury securities	\$ 3,920	\$ 3,597	\$ 323	\$ 3,325	\$ 2,984	\$ 341
U.S. government agency	543	60	483	387	261	126
Commercial paper	732	-	732	758	-	758
Asset-backed securities	58	-	58	45	-	45
Commercial mortgage-backed securities	86	-	86	81	-	81
Foreign bonds	16	16	-	16	16	-
Corporate bonds	132	132	-	133	133	-
Tax Benefit Lease Investments:						
U.S. treasury securities	181	181	-	178	178	-
U.S. government agency	118	64	54	112	-	112
Repurchase agreements	37	37	-	223	223	-
Total investments by fair value level	5,823	\$ 4,087	\$ 1,736	5,258	\$ 3,795	\$ 1,463
Other	122			122		
Total Investments	\$ 5,945			\$ 5,380		

Investments classified as Level 1 of the fair value hierarchy, totaling \$4,087 and \$3,795 as of March 31, 2019 and December 31, 2018, respectively, are valued using quoted prices in active markets. Fair values include accrued interest to the extent that interest is included in the carrying amounts. Accrued interest on investments other than Treasury bills and coupons is included in other receivables on the statement of net position. The MTA's investment policy states that securities underlying repurchase agreements must have a fair value at least equal to the cost of the investment.

U.S. Government agency securities totaling \$537 and \$238, U.S. treasury securities totaling \$323 and \$341, commercial paper totaling \$732 and \$758, asset-backed securities totaling \$58 and \$45, and commercial mortgage-backed securities totaling \$86 and \$81 as of March 31, 2019 and December 31, 2018, respectively, classified in Level 2 of the fair value hierarchy, are valued using matrix pricing techniques maintained by a third party pricing service. Matrix pricing is used to value securities based on the securities' relationship to benchmark quoted prices and indices. Fair value is defined as the quoted market value on the last trading day of the period. These prices are obtained from a third party pricing service or our custodian bank.

In connection with certain lease transactions described in Note 8, the MTA has purchased securities or entered into payment undertaking, letter of credit, or similar type agreements or instruments (guaranteed investment contracts) with financial institutions, which generate sufficient proceeds to make basic rent and purchase option payments under the terms of the leases. If the obligors do not perform, the MTA may have an obligation to make the related rent payments.

All investments, other than the investments restricted for capital lease obligations, are either insured or registered and held by the MTA or its agent in the MTA's name. Investments restricted for capital lease obligations are either held by MTA or its agent in the MTA's name or held by a custodian as collateral for MTA's obligation to make rent payments under capital lease obligations. Investments had weighted average yields of 2.05% and 2.36% for the three months ended March 31, 2019 and year ended December 31, 2018, respectively.

Credit Risk — At March 31, 2019 and December 31, 2018, the following credit quality rating has been assigned to MTA investments by a nationally recognized rating organization (in millions):

Quality Rating Standard & Poor's	March 31, 2019	Percent of Portfolio	December 31, 2018	Percent of Portfolio
	(Unaudited)			
A-1+	\$ 436	7%	\$ 283	5%
A-1	732	13%	758	14%
AAA	235	4%	217	4%
AA+	55	1%	52	1%
AA	35	1%	31	1%
A	73	1%	76	1%
BB	-	-	-	-
BBB	38	1%	38	1%
Not rated	53	1%	240	5%
U.S. Government	4,166	71%	3,563	68%
Total	5,823	100%	5,258	100%
Equities and capital leases	122		122	
Total investment	<u>\$ 5,945</u>		<u>\$ 5,380</u>	

Interest Rate Risk — Interest rate risk is the risk that changes in interest rates will adversely affect the fair value of the investment. Duration is a measure of interest rate risk. The greater the duration of a bond or portfolio of bonds, the greater its price volatility will be in response to a change in interest rate risk and vice versa. Duration is an indicator of bond price's sensitivity to a 100 basis point change in interest rates.

	March 31, 2019		December 31, 2018	
	(Unaudited)			
(In millions)	Fair Value	Duration (in years)	Fair Value	Duration (in years)
U.S. Treasuries	\$ 3,920	3.82	\$ 3,325	3.00
Federal Agencies	543	6.11	387	5.91
Tax benefits lease investments	299	8.18	290	8.06
Repurchase agreement	37	-	223	-
Certificate of deposits	-	-	-	-
Commercial paper	732	-	758	-
Asset-backed securities ⁽¹⁾	58	1.89	45	1.94
Commercial mortgage-backed securities ⁽¹⁾	86	5.81	81	5.55
Foreign bonds ⁽¹⁾	16	6.43	16	6.20
Corporates ⁽¹⁾	132	4.45	133	4.43
Total fair value	5,823		5,258	
Modified duration		3.78		3.01
Equities ⁽¹⁾	-		-	
Total	5,823		5,258	
Investments with no duration reported	122		122	
Total investments	<u>\$ 5,945</u>		<u>\$ 5,380</u>	

⁽¹⁾ These securities are only included in the FMTAC portfolio.

MTA is a public benefit corporation established under the New York Public Authorities Law. MTA's Treasury Division is responsible for the investment management of the funds of the component units. The investment activity covers all operating and capital funds, including bond proceeds, and the activity is governed by State statutes, bond resolutions and the Board-adopted investment guidelines (the "Investment Guidelines"). The MTA Act currently permits the Related Entities to invest in the following general types of obligations:

- obligations of the State or the United States Government;
- obligations of which the principal and interest are guaranteed by the State or the United States government;
- obligations issued or guaranteed by certain Federal agencies;

- repurchase agreements fully collateralized by the obligations of the foregoing United States Government and Federal agencies;
- certain certificates of deposit of banks or trust companies in the State;
- certain banker's acceptances with a maturity of 90 days or less;
- certain commercial paper;
- certain municipal obligations; and
- certain mutual funds up to \$10 in the aggregate.

MTA adopted NYS Statutory Requirements with respect to credit risk of its investments, which include, but are not limited to the following sections:

- i. Public Authorities Law Sections 1265(4) (MTA), 1204(19) (MTA New York City Transit Authority) and 553(21) (MTA Bridges and Tunnels);
- ii. Public Authorities Law Section 2925 Investment of funds by public authorities and public benefit corporations; general provisions; and
- iii. State Finance Law Article 15 – EXCELSIOR LINKED DEPOSIT ACT.

MTA Investment Guidelines limit the dollar amount invested in banker acceptances, commercial paper, and obligations issued or guaranteed by certain Federal agencies to \$250 at cost. There are no dollar limits on the purchase of obligations of the United States government, the State or obligations the principal and interest of which are guaranteed by the State or the United States government. Investments in collateralized repurchase agreements are limited by dealer or bank's capital. MTA can invest no greater than \$300 with a bank or dealer rated in Tier 1 (i.e. \$1 billion or more of capital).

FMTAC is created as a MTA subsidiary and is licensed as a captive direct insurer and reinsurer by the New York State Department of Insurance. As such, FMTAC is responsible for the investment management of its funds. The investment activity is governed by State statutes and the FMTAC Board adopted investment guidelines. The minimum surplus to policyholders and reserve instruments are invested in the following investments:

- obligations of the United States or any agency thereof provided such agency obligations are guaranteed as to principal and interest by the United States;
- direct obligations of the State or of any county, district or municipality thereof;
- any state, territory, possession or any other governmental unit of the United States;
- certain bonds of agencies or instrumentalities of any state, territory, possession or any other governmental unit of the United States;
- the obligations of a solvent American institution which are rated investment grade or higher (or the equivalent thereto) by a securities rating agency; and
- certain mortgage backed securities in amounts no greater than five percent of FMTAC's admitted assets.

FMTAC may also invest non-reserve instruments in a broader range of investments including the following general types of obligations:

- certain equities; and
- certain mutual funds.

FMTAC is prohibited from making the following investments:

- investment in an insolvent entity;
- any investment as a general partner; and
- any investment found to be against public policy.

FMTAC investment guidelines do include other investments, but FMTAC has limited itself to the above permissible investments at this time.

4. EMPLOYEE BENEFITS

Pensions — The MTA Related Groups sponsor and participate in several defined benefit pension plans for their employees, the Long Island Railroad Company Plan for Additional Pensions (the “Additional Plan”), The Manhattan and Bronx Surface Transit Operating Authority Pension Plan (the “MaBSTOA Plan”), the Metro-North Commuter Railroad Company Cash Balance Plan (the “MNR Cash Balance Plan”), the Metropolitan Transportation Authority Defined Benefit Plan (the “MTA Defined Benefit Plan”), the New York City Employees’ Retirement System (“NYCERS”), and the New York State and Local Employees’ Retirement System (“NYSLERS”). A brief description of each of these pension plans follows:

Plan Descriptions

1. Additional Plan —

The Additional Plan is a single-employer defined benefit pension plan that provides retirement, disability and survivor benefits to members and beneficiaries. The Additional Plan covers MTA Long Island Rail Road employees hired effective July 1, 1971 and prior to January 1, 1988. The Additional Plan’s activities, including establishing and amending contributions and benefits are administered by the Board of Managers of Pensions. The Additional Plan is a governmental plan and accordingly, is not subject to the funding and other requirements of the Employee Retirement Income Security Act of 1974 (“ERISA”). The Additional Plan is a closed plan.

The Board of Managers of Pensions is comprised of the Chairman of the MTA, MTA Chief Financial Officer, MTA Director of Labor Relations and the agency head of each participating Employer or the designee of a member of the Board of Managers. The Additional Plan for Additional Pensions may be amended by action of the MTA Board.

The pension plan has a separately issued financial statement that is publicly available and contains required descriptions and supplemental information regarding the employee benefit plan. The financial statements may be obtained at www.mta.info or by writing to, Long Island Rail Road, Controller, 93-02 Sutphin Boulevard – mail code 1421, Jamaica, New York 11435.

2. MaBSTOA Plan —

The MaBSTOA Plan is a single-employer defined benefit governmental retirement plan administered by MTA New York City Transit covering MaBSTOA employees, who are specifically excluded from NYCERS. The Plan provides retirement as well as death, accident and disability benefits. Effective January 1, 1999, in order to afford managerial and non-represented MaBSTOA employees the same pension rights as like title employees in MTA New York City Transit Authority, membership in the MaBSTOA Plan is optional.

The Board of Administration, established in 1963, determines the eligibility of employees and beneficiaries for retirement and death benefits. The MaBSTOA Plan assigns authority to the MaBSTOA Board to modify, amend or restrict the MaBSTOA Plan or to discontinue it altogether, subject, however, to the obligations under its collective bargaining agreements. The Board is composed of five members: two representatives from the Transport Workers Union, Local 100 (“TWU”) and three employer representatives.

The pension plan issues a publicly available financial report that includes financial statements and required supplementary information. This report may be obtained by writing to MTA Comptroller, 2 Broadway, 16th Floor, New York, New York, 10004 or at www.mta.info.

3. MNR Cash Balance Plan —

The MNR Cash Balance Plan is a single employer, defined benefit pension plan administered by MTA Metro-North Railroad. The MNR Cash Balance Plan covers non-collectively bargained employees, formerly employed by Conrail, who joined MTA Metro-North Railroad as management employees between January 1 and June 30, 1983, and were still employed as of December 31, 1988. Effective January 1, 1989, these management employees became covered under the Metro-North Commuter Railroad Defined Contribution Plan for Management Employees (the “Management Plan”) and the MNR Cash Balance Plan was closed to new participants. The assets of the Management Plan were merged with the Metropolitan Transportation Authority Defined Benefit Plan for Non-Represented Employees (now titled as the Metropolitan Transportation Authority Defined Benefit Pension Plan) as of the asset transfer date of July 14, 1995. The MNR Cash Balance Plan is designed to satisfy the applicable requirements for governmental plans under Section 401(a) and 501(a) of the Internal Revenue Code. Accordingly, the MNR Cash Balance Plan is tax-exempt and is not subject to the provisions of ERISA.

The MTA Board of Trustees appoints a Board of Managers of Pensions consisting of five individuals who may, but need not, be officers or employees of the company. The Board of Managers control and manage the operation and administration of the MNR Cash Balance Plan’s activities, including establishing and amending contributions and benefits.

Further information about the MNR Cash Balance Plan is more fully described in the separately issued financial statements that can be obtained by writing to MTA Comptroller, 2 Broadway, 16th Floor, New York, New York, 10004. These statements are also available at www.mta.info.

4. MTA Defined Benefit Plan —

The MTA Defined Benefit Pension Plan (the “MTA Plan” or the “Plan”) is a cost sharing, multiple-employer defined benefit pension plan. The Plan covers certain MTA Long Island Rail Road non-represented employees hired after December 31, 1987, MTA Metro-North Railroad non-represented employees, certain employees of the former MTA Long Island Bus hired prior to January 23, 1983, MTA Police, MTA Long Island Rail Road represented employees hired after December 31, 1987, certain MTA Metro-North Railroad represented employees, MTA Staten Island Railway represented and non-represented employees and certain employees of the MTA Bus Company (“MTA Bus”). The MTA, MTA Long Island Rail Road, MTA Metro-North Railroad, MTA Staten Island Railway and MTA Bus contribute to the MTA Plan, which offers distinct retirement, disability retirement, and death benefit programs for their covered employees and beneficiaries.

The MTA Defined Benefit Plan is administered by the Board of Managers of Pensions. The MTA Plan, including benefits and contributions, may be amended by action of the MTA Board.

The pension plan issues a publicly available financial report that includes financial statements and required supplementary information. This report may be obtained by writing to the MTA Comptroller, 2 Broadway, 16th Floor, New York, New York, 10004 or at www.mta.info.

5. NYCERS —

NYCERS is a cost-sharing, multiple-employer retirement system for employees of The City of New York (“The City”) and certain other governmental units whose employees are not otherwise members of The City’s four other pension systems. NYCERS administers the New York City Employees Retirement System qualified pension plan.

NYCERS was established by an act of the Legislature of the State of New York under Chapter 427 of the Laws of 1920. NYCERS functions in accordance with the governing statutes contained in the New York State Retirement and Social Security Law (“RSSL”), and the Administrative Code of the City of New York (“ACNY”), which are the basis by which benefit terms and employer and member contribution requirements are established and amended. The head of the retirement system is the Board of Trustees.

NYCERS issues a publicly available comprehensive annual financial. This report may be obtained by writing to the New York City Employees’ Retirement System at 335 Adams Street, Suite 2300, Brooklyn, NY 11201-3724 or at www.nycers.org.

All employees of the Related Group holding permanent civil service positions in the competitive or labor class are required to become members of NYCERS six months after their date of appointment, but may voluntarily elect to join NYCERS prior to their mandated membership date. All other eligible employees have the option of joining NYCERS upon appointment or anytime thereafter. NYCERS members are assigned to a “tier” depending on the date of their membership.

- | | |
|--------|--|
| Tier 1 | All members who joined prior to July 1, 1973. |
| Tier 2 | All members who joined on or after July 1, 1973 and before July 27, 1976. |
| Tier 3 | Only certain members who joined on or after July 27, 1976 and prior to April 1, 2012 |
| Tier 4 | All members (with certain member exceptions) who joined on or after July 27, 1976 but prior to April 1, 2012. Members who joined on or after July 27, 1976 but prior to September 1, 1983 retain all rights and benefits of Tier 3 membership. |
| Tier 6 | Members who joined on or after April 1, 2012 |

6. NYSLERS —

NYSLERS is a cost-sharing, multiple-employer defined benefit retirement system. The New York State Comptroller’s Office administers the NYSLERS. The net position of NYSLERS is held in the New York State Common Retirement Fund (the “Fund”), which was established to hold all assets and record changes in fiduciary net position allocated to the plan. The Comptroller of the State of New York serves as the trustee of the Fund and is the administrative head of NYSLERS. NYSLERS’ benefits are established under the provisions of the New York State RSSL. Once a public employer elects to participate in NYSLERS, the election is irrevocable. The New York State Constitution provides that

pension membership is a contractual relationship and plan benefits cannot be diminished or impaired. Benefits can be changed for future members only by enactment of a State statute.

NYSLERS is included in New York State's financial report as a pension trust fund. The report can be accessed on the New York State Comptroller's website at www.osc.state.ny.us/retire/about_us/financial_statements_index.php or obtained by writing to the New York State and Local Retirement System, 110 State Street, Albany, NY 12244-001.

Pension legislation enacted in 1973, 1976, 1983, 2009 and 2012 established distinct classes of tier membership.

Tier 1	All members who joined prior to July 1, 1973.
Tier 2	All members who joined on or after July 1, 1973 and before July 27, 1976.
Tier 3	Generally, certain members who joined on or after July 27, 1976 but before January 1, 2010 and all other members who joined on or after July 27, 1976, but before September 1, 1983.
Tier 4	Generally, members (with certain member exceptions) who joined on or after September 1, 1983, but before January 1, 2010.
Tier 5	Members who joined on or after January 1, 2010, but before April 1, 2012.
Tier 6	Members who joined on or after April 1, 2012.

Benefits Provided

1. Additional Plan —

Pension Benefits — An employee who retires under the Additional Plan, either: (a) after completing at least 20 years of credited service, or (b) after both attaining age 65 while in service and completing at least five years of credited service, or in the case of those who were active employees on January 1, 1988, after completing at least 10 years of credited service, is entitled to an annual retirement benefit, payable monthly for life. Payments commence to an employee referred to in: (a) only after attaining age 50, or (b) only after attaining age 65.

Benefit and contribution provisions, which are based on the point in time at which participants last entered qualifying service and their length of credited service, are established by, and may only be amended by the MTA Long Island Rail Road, subject to the obligations of the MTA Long Island Rail Road under its collective bargaining agreements.

The Additional Plan has both contributory and non-contributory requirements, with retirement ages varying from 50 to 65 depending upon a participant's length of credited service. Pension benefits payable to age 65, where eligible, are calculated as 2% of the employee's applicable final average earnings for each year of qualifying service up to 25 years plus 1.5% of applicable final average earnings for each year of qualifying service in excess of 25 years. For pension benefits payable at and after age 65, regardless of whether benefits commenced before or after the employee attained age 65, benefits are calculated in the same manner as pension benefits payable prior to age 65 except that the amount so determined is reduced by a percentage of the employee's annuity (not including any supplemental annuity) value at age 65 under the Federal Railroad Retirement Act.

Participants who entered qualifying service before July 1, 1978 are not required to contribute. Participants who entered qualifying service on or after July 1, 1978, are required to contribute 3% of their wages. The MTA Long Island Rail Road contributes additional amounts based on actuarially determined amounts that are designed to accumulate sufficient assets to pay benefits when due.

Death and Disability Benefits — Participants who become disabled after accumulating 10 years of credited service and who meet the requirements as described in the Additional Plan receive a disability benefit. Disability pension benefits are calculated based on the participant's qualifying service and a percentage of final average compensation reduced by the full amount of benefit under the Federal Railroad Retirement Act. Survivorship benefits are paid to the participant's spouse when a survivorship option is elected or when an active participant has not divested his or her spouse of benefits. The survivorship benefit is payable at the time of death or when the vested participant would have attained an eligible age. The amount payable is in the form of an annuity. A lump sum death benefit no greater than five thousand dollars is payable upon death on behalf of a non-vested participant or vested participant whose pension rights were waived.

Retirement benefits establishment and changes for representative employees are collectively bargained and must be ratified by the respective union and the MTA Board. For non represented employees, amendments must be approved by the MTA Board.

2. MaBSTOA Plan —

The MaBSTOA Plan provides retirement as well as death, accident, and disability benefits. The benefits provided by the MaBSTOA Plan are generally similar to the benefits provided to MTA New York City Transit participants in NYCERS. Benefits vest after either 5, 10, or 20 years of credited service, depending on the date of membership.

In 2008, NYCERS had determined that Tier 4 employees are and have been eligible for a post retirement death benefit retroactive to 1986. In June 2012, the MTA Board approved an amendment to the MaBSTOA Plan to provide for incorporation of this benefit.

Tier 1 —

Eligibility and Benefit Calculation: Tier 1 members must be at least age 50 with the completion of 20 years of service to be eligible to collect a service retirement benefit. Generally, the benefit is 1.50% for service before March 1, 1962, plus 2.0% for service from March 1, 1962 to June 30, 1970, plus 2.5% for service after June 30, 1970. The accumulated percentage, up to a maximum of 50%, is multiplied by the member's compensation, which is the greater of earned salary during the year prior to retirement. Once the accumulated reaches 50%, the percentage for each further year of service reverts back to 1.5%. The percentage in excess of 50% is multiplied by the final compensation, which is the highest average earnings over five consecutive years.

Ordinary Disability Benefits — Generally, ordinary disability benefits, are provided to eligible Tier 1 members after ten years of service with the benefit equal to the greater of the service retirement percentages or 25% multiplied by final compensation.

Accidental Disability Benefits — The accidental disability benefit to eligible Tier 1 members is equal to 75% of final compensation reduced by 100% of any worker's compensation payments.

Ordinary Death Benefits — For Tier 1 members the amount of the death benefit is a lump sum equal to six months' pay for members with less than 10 years of service; a lump sum equal to a 12 months of pay for members with more than 10 but less than 20 years of service, and a lump sum equal to two times 12 months of pay for members with more than 20 years of service.

Tier 2 —

Eligibility and Benefit Calculation: Tier 2 members must be at least age 55 with the completion of 25 years of service to be eligible to collect a service retirement benefit. Generally, the benefit equals 50% of final 3-year average compensation, defined as the highest average earnings over three consecutive years, plus 1% of final 5-year average compensation, defined as the highest average earnings over five consecutive years, per year of credited service in excess of 20 years. For early retirement, members must be at least age 50 with the completion of at least 20 years of service. The benefit is determined in the same manner as the service retirement but not greater than 2.0% of final 3-year average compensation per year of service.

Ordinary Disability Benefits — Generally, ordinary disability benefits, are provided to eligible Tier 2 members after ten years of service with the benefit equal to the greater of the service retirement percentages or 25% multiplied by the final 5- year average compensation.

Accidental Disability Benefits — The accidental disability benefit to eligible Tier 2 members is equal to 75% of the final 5-year average compensation reduced by any worker's compensation payments.

Ordinary Death Benefits — Tier 2 members require the completion of 90 days of service to receive a lump sum equal to 3 times salary, raised to the next multiple of \$1,000 dollars.

Tiers 3, 4 —

Eligibility and Benefit Calculation: Tier 3 and 4 members in the Regular 62 and 5 Plan must be at least age 62 with the completion of at least 5 years of service to be eligible to collect a service retirement benefit. Generally, the benefit for members with at least 20 years of service, is equal to 2.0% of Final Average Compensation ("FAC") for the first 30 years of service plus 1.5% of FAC for years of service in excess of 30. FAC is defined as the highest average earnings over three consecutive years, of which earnings in a year cannot exceed 110% of the average of the two preceding years. If the member completes less than 20 years of credited service, the benefit equals 1- 2/3% of FAC multiplied by years of service. For early retirement, members must be at least age 55 with the completion of at least 5 years of service. The benefit equals the service retirement benefit reduced by 6% for each of the first two years prior to age 62, and by 3% for years prior to age 60.

Tier 3 and 4 members in the basic 55/25 Plan must be at least age 55 with the completion of at least 25 years of service, or be at least age 62 with the completion of at least 5 years of service, to be eligible to collect a service retirement benefit. Generally, the benefit for members with at least 25 years of service, is equal to 2.0% of FAC for the first 30 years of service plus 1.5% of FAC for years of service in excess of 30. If the member completes less than 25 years of credited service, the benefit equals $1 - \frac{2}{3}\%$ of FAC multiplied by years of service.

Tier 4 members in the 57/5 Plan must be at least age 57 with the completion of at least 5 years of service to be eligible to collect a service retirement benefit. Generally, the benefit for members with at least 20 years of service, is equal to 2.0% of FAC for the first 30 years of service plus 1.5% of FAC for years of service in excess of 30. If the member completes less than 20 years of credited service, the benefit equals $1 - \frac{2}{3}\%$ of FAC multiplied by years of service.

Ordinary and Accidental Disability Benefits — For eligible members of the Regular 62/5 Plan, 57/25 Plan and 57/5 Plan, ordinary and accidental disability benefits, are provided after 10 years of service for ordinary and no service required for accidental disability benefit. The benefit equals the greater of $1 - \frac{2}{3}\%$ of FAC per year of service and $\frac{1}{3}$ of FAC.

Ordinary Death Benefits — For eligible members of the Regular 62/5 Plan, 55/25 Plan, 57/5 Plan, the pre-retirement ordinary death benefit is equal to a lump sum of annual salary times the lesser of completed years of service and 3. After age 60, the benefit is reduced 5% per year, to a maximum reduction of 50%. Accumulated regular member contributions with interest and one-half of accumulated additional member contributions with interest are also payable. Upon retirement, the post-retirement benefit is reduced by 50% and reduced an additional 25% after completion of one year of retirement. After completion of two years of retirement, the benefit equals 10% of the pre-retirement benefit in force at age 60.

Tier 6 —

Eligibility and Benefit Calculation: Tier 6 members in the 55/25 Special Plan must be at least age 55 with the completion of at least 25 years, or at least age 63 with the completion of at least 10 years of service, to be eligible to collect a service retirement benefit. Generally, the benefit for members with at least 25 years of service, is equal to 2.0% of Final Average Salary (“FAS”) for the first 30 years of service plus 1.5% of FAS for years of service in excess of 30. If the member completes less than 20 years of credited service, the benefit equals $1 - \frac{2}{3}\%$ of FAS multiplied by years of service. FAS is defined as the highest average pensionable compensation over five consecutive years.

Tier 6 members in the Basic 63/10 Plan must be at least age 63 with the completion of at least 10 years to be eligible to collect a service retirement benefit. Generally, the benefit for members with at least 20 years of service, is equal to 35% of FAS plus 2.0% of FAS for years of service in excess of 20. If the member completes less than 20 years of credited service, the benefit equals $1 - \frac{2}{3}\%$ of FAS multiplied by years of service. FAS is defined as the highest average pensionable earnings over five consecutive years. For early retirement, members must be at least age 55 with the completion of at least 10 years of service. The benefit equals the service retirement benefit reduced by 6.5% for each year early retirement precedes age 63.

Ordinary and Accidental Disability Benefits — For eligible members of the 55/25 Special Plan and the Basic 63/10 Plan, ordinary and accidental disability benefits, are provided after 10 years of credited service for ordinary disability benefit. There is no service requirement for accidental disability benefit. The benefit equals the greater of $1 - \frac{2}{3}\%$ of FAS per year of service and $\frac{1}{3}$ of FAS.

Ordinary Death Benefits — For eligible members of the 55/25 Special Plan and the Basic 63/10 Plan, the pre-retirement ordinary death benefit is equal to a lump sum of annual salary times the lesser of completed years of service and 3. After age 60, the benefit is reduced 5% per year, to a maximum reduction of 50%. Accumulated regular member contributions with interest and one-half of accumulated additional member contributions with interest are also payable. Upon retirement, the post-retirement benefit is reduced by 50% and reduced an additional 25% after completion of one year of retirement. After completion of two years of retirement, the benefit equals 10% of the pre-retirement benefit in force at age 60.

3. MNR Cash Balance Plan —

Pension Benefits — Participants of the MNR Cash Balance Plan are vested in their benefit upon the earlier of (a) the completion of 5 years of service with MTA Metro-North Railroad or (b) the attainment of age 62. The accrued benefit is a participant’s Initial Account Balance increased each month by the benefit escalator. The benefit escalator is defined as the Pension Benefit Guaranty Corporation (“PBGC”) immediate annuity rate in effect for December of the year preceding the year for which the determination is being made) divided by 180. The accrued benefit is paid as an escalating annuity. Vested participants are entitled to receive pension benefits commencing at age sixty-five. Participants may elect to receive the value of their accumulated plan benefits as a lump-sum distribution upon retirement or they may elect a monthly life annuity. Participants may elect to receive their pension in the form of a joint and survivor annuity.

Participants of the MNR Cash Balance Plan are eligible for early retirement benefits upon termination of employment, the attainment of age 62, or age 60 and completion of 15 years of service, or age 55 and the completion of 30 years of service. The early retirement benefits paid is the normal retirement pension deferred to age 65 or an immediate pension equal to the life annuity actuarial equivalent of a participant's escalating annuity at normal retirement date indexed by the Initial Benefit Escalator from early retirement date to normal retirement date and reduced by 5/9 of 1% for each month retirement precedes age 65 up to 60 months and 5/18 of 1% for each month after 60 months.

For members with cash balances who are currently members of the Metropolitan Transportation Authority Defined Benefit Pension Plan, an additional benefit is provided equal to the amount needed to bring their total benefits (i.e., Railroad Retirement Tier I and II benefits, Conrail Plan benefits, Cash Balance Plan benefits, and MTA Defined Benefit Pension Plan benefits) up to a minimum of 65% of their 3-year final average pay under the MTA Defined Benefit Plan. In no event will the Additional Benefit exceed 2% of 3-year final average pay multiplied by the Conrail Management Service prior to July 1, 1983. This benefit is payable as a life annuity and is reduced for commencement prior to age 65 in the same manner as the regular cash balance benefit. This additional benefit is payable only in the form of a life annuity or 100% or 50% contingent annuity.

Death Benefits — Benefits are paid to vested participants' beneficiaries in the event of a participants' death. The amount of benefits payable is the participant's account balance at the date of his or her death. Pre-retirement death benefits paid for a participant's death after 55 is equal to the amount the spouse would have received had the participant elected retirement under the normal form of payment on the day preceding his death. Pre-retirement death benefits paid for a participant's death before 55 is equal to the amount the spouse would have received had the participant survived to age 55 and retired under the normal form of payment on that date. The benefit is based on service to the participant's date of death and is payable beginning on the date the participant would have attained age 55.

In lieu of the above benefit, the surviving spouse can elect to receive the participant's account balance in a single lump sum payment immediately. If the participant was not married, the participant's beneficiary is entitled to receive the participant's Account Balance as of the participant's date of death in a single lump sum payment.

4. MTA Defined Benefit Plan —

Pension Benefits — Retirement benefits are paid from the Plan to covered MTA Metro-North Railroad, MTA Staten Island Railway and post - 1987 MTA Long Island Rail Road employees as service retirement allowances or early retirement allowances. A participant is eligible for a service retirement allowance upon termination if the participant satisfied both age and service requirement. A participant is eligible for a service retirement allowance upon termination if the participant satisfied both age and service requirements. A participant is eligible for an early retirement allowance upon termination if the participant has attained age 55 and completed at least 10 years of credited service. Terminated participants with 5 or more years of credited service are eligible for a deferred vested benefit. Deferred vested benefits are payable on an unreduced basis on the first day of the month following the participant's 62nd birthday.

Certain represented employees of the MTA Long Island Rail Road and the MTA Metro-North Railroad continue to make contributions to the Plan for 15 years. Certain represented employees of the MTA Long Island Rail Road and the MTA Metro-North Railroad are eligible for an early retirement allowance upon termination if the participant has attained age 60 and completed at least 5 years of credited service, or has attained age 55 and completed at least 30 years of credited service. The early retirement allowance is reduced one-quarter of 1% per month for each full month that retirement predates age 60 for certain represented employees of the MTA Long Island Rail Road and the MTA Metro-North Railroad.

Effective in 2007, members and certain former members who become (or became) employed by another MTA agency which does not participate in the Plan continue to accrue service credit based on such other employment. Upon retirement, the member's vested retirement benefit from the Plan will be calculated on the final average salary of the subsequent MTA agency, if higher. Moreover, the Plan benefit will be reduced by the benefit, if any, payable by the other plan based on such MTA agency employment. Such member's disability and ordinary death benefit will be determined in the same way.

Retirement benefits are paid from the Plan under the MTA 20-Year Police Retirement Program. A participant is eligible for service retirement at the earlier of completing twenty years of credited Police service or attainment of age 62. Terminated participants with five years of credited police service, who are not eligible for retirement, are eligible for a deferred benefit. Deferred vested benefits are payable on the first of the month following the participant's attainment of age 55.

Retirement benefits paid from the Plan to covered represented MTA Bus employees include service retirement allowances or early retirement allowances. Under the programs covering all represented employees at Baisley Park, Eastchester, LaGuardia, Spring Creek, and Yonkers Depots and the represented employees at College Point Depot, JFK, Far Rockaway a participant is eligible for a service retirement allowance upon termination if the participant has attained age sixty-five and completed at least five years of credited service or if the participant has attained age 57 and

completed at least 20 years of credited service. A participant hired prior to June 2009 from Baisley Park, College Point, and La Guardia Depots is eligible for an early retirement allowance if the participant has attained age 55 and completed 20 years of credited service. Terminated participants with five or more years of credited service who are not eligible to receive a service retirement allowance or early retirement allowance are eligible for a deferred vested benefit. Deferred vested benefits are payable on an unreduced basis on or after the participant attains age 65.

At Baisley Park, Far Rockaway, JFK, LaGuardia and Spring Creek Depots, a participant who is a non-represented employee is eligible for an early retirement allowance upon termination if the participant has attained age 55 and completed 15 years of service. Terminated participants with five or more years of credited service who are not eligible to receive a service retirement allowance or early retirement allowance are eligible for a deferred vested benefit. Deferred vested benefits are payable on an unreduced basis on or after the participant attains age 62.

The MTA Bus retirement programs covering represented and non-represented employees at Eastchester and Yonkers and covering the represented employees at Baisley Park, College Point, Far Rockaway, JFK, LaGuardia and Spring Creek are fixed dollar plans, i.e., the benefits are a product of credited service and a specific dollar amount.

The retirement benefits for certain non-represented employees at Baisley Park, Far Rockaway, JFK, LaGuardia and Spring Creek are based on final average salary. Certain participants may elect to receive the retirement benefit as a single life annuity or in the form of an unreduced 75% joint and survivor benefit.

Pre-1988 MTA Long Island Rail Road participants are eligible for a service retirement allowance upon termination if the participants has either: (a) attained age sixty-five and completed at least five years of credited service, or if an employee on January 1, 1988 completed at least 10 years of credited service, or (b) attained age fifty and has completed at least 20 years of credited service. Terminated participants who were not employees on January 1, 1988 with five or more years of credited service are eligible for a deferred vested benefit. Pension benefits payable to age 65, where eligible, are calculated as 2% of the employee's applicable final average earnings for each year of qualifying service up to 25 years plus 1.5% of applicable final average earning of each year of qualifying service in excess of 25 years. For pension benefits payable at and after age 65 regardless of whether benefits commenced before or after the employee attained age 65, benefits are calculated in the same manner as pension benefits payable prior to age 65 except that the amount so determined is reduced by a percentage of the employee's annuity (not including supplemental annuity) value at age 65 under the Federal Railroad Retirement Act. The reduction of pension benefits for amounts payable under the Federal Railroad Retirement Act is 50%.

Death and Disability Benefits — In addition to service retirement benefits, participants of the Plan are eligible to receive disability retirement allowances and death benefits. Participants who become disabled may be eligible to receive disability retirement allowances after 10 years of covered MTA Bus service; 10 years of credited service for covered MTA Metro-North Railroad and MTA Long Island Rail Road management and represented employees, covered MTA Staten Island Railway employees and covered MTA police participants.

The disability retirement allowance for covered MTA Metro-North Railroad and MTA Long Island Rail Road management and represented covered MTA Staten Island Railway employees is calculated based on the participant's credited service and final average salary ("FAS") but not less than $\frac{1}{3}$ of FAS. Under the MTA 20 Year Police Retirement Program, a disabled participant may be eligible for one of three forms of disability retirement: (a) ordinary disability which is payable if a participant has ten years of covered Police service and is calculated based on the participant's credited Police service and FAS but not less than $\frac{1}{3}$ of FAS; (b) performance of duty, which is payable if a participant is disabled in the performance of duty and is $\frac{1}{2}$ of FAS, and (c) accidental disability, which is payable if a participant is disabled as the result of an on-the-job accidental injury and is $\frac{3}{4}$ of FAS subject to an offset of Workers' Compensation benefits. Pursuant to the MTA Bus programs, the disability benefit is the same as the service retirement benefit.

Pre-1988 MTA Long Island Rail Road participants who become disabled after accumulating 10 years of credited service and who meet the requirements as described in the Plan may be eligible to receive a disability benefit. Disability pension benefits are based on the participant's qualified service and a percentage of final average compensation reduced by the full amount of the disability benefit under the Federal Railroad Retirement Act. Survivorship benefits for pre-1988 MTA Long Island Rail Road participants are paid to the spouse when a survivorship option is elected or when an active participant has not divested their spouse of benefits.

The survivorship benefit is payable at the time of death or when the vested participant would have attained an eligible age. The amount payable is in the form of an annuity. A lump sum death benefit no greater than \$5,000 (whole dollars) is payable upon death on behalf of a non-vested participant or vested participant whose pension rights were waived.

Death benefits are paid to the participant's beneficiary in the event of the death of a covered MTA Metro-North Railroad, post-1987 MTA Long Island Rail Road or MTA Staten Island Railway employee after completion of one year of credited service. The death benefit payable is calculated based on a multiple of a participant's salary based on years of credited service up to three years and is reduced beginning at age 61. There is also a post-retirement death benefit which, in the 1st year of retirement, is equal to 50% of the pre-retirement death benefit amount, whichever is greater, 25% the

2nd year and 10% of the death benefit payable at age 60 for the 3rd and later years. For the Police 20 Year Retirement Program, the death benefit is payable after ninety days of credited MTA Police service, and is equal to three times their salary. For non-Police groups, this death benefit is payable in a lump sum distribution while for Police, the member or the beneficiary can elect to have it paid as an annuity. The MTA Police do not have a post retirement benefit.

In the MSBA Employees' Pension Plan, there are special spousal benefits payable upon the death of a participant who is eligible for an early retirement benefit, or a normal service retirement benefit, or who is a vested participant or vested former participant. To be eligible, the spouse and participant must have been married at least one year at the time of death. Where the participant was eligible for an early service retirement benefit or was a vested participant or former participant, the benefit is a pension equal to 40% of the benefit payable to the participant as if the participant retired on the date of death. Where the participant was eligible for a normal service retirement benefit, the eligible spouse can elect either the benefit payable as a pension, as described in the prior sentence, or a lump sum payment based on an actuarially determined pension reserve. If there is no eligible spouse for this pension reserve benefit, a benefit is payable to the participant's beneficiary or estate.

Moreover, an accidental death benefit is payable for the death of a participant who is a covered MTA Metro-North Railroad or post-1987 MTA Long Island Rail Road employee, a covered MTA Staten Island Railway employee or a covered MTA Police member and dies as the result of an on-the-job accidental injury. This death benefit is paid as a pension equal to 50% of the participant's salary and is payable to the spouse for life, or, if none, to children until age eighteen (or twenty-three, if a student), or if none, to a dependent parent.

For MTA Bus employees, there is varied death benefit coverage under the Plan. For all represented and non-represented MTA Bus employees at Eastchester and Yonkers Depots and represented MTA Bus employees at Baisley Park, College Point, Far Rockaway, JFK, Laguardia and Spring Creek Depots, if a participant dies prior to being eligible for a retirement benefit, the participant's beneficiary may elect to receive a refund of the participant's contributions plus interest.

Moreover, the spouses of the above employees who are vested are entitled to a presumed retirement survivor annuity which is based on a 50% Joint and Survivor annuity. The date as of which such annuity is determined and on which it commences varies among the different programs depending on whether the participants are eligible for retirement and for payment of retirement benefits.

In addition, the spouse of a non-represented MTA Bus employee at Spring Creek, JFK, Laguardia, Baisley Park and Far Rockaway, if such employee is age 55 and has 15 years of service and is a terminated member with a vested benefit which is not yet payable, may elect the presumed retirement survivor annuity or 1/2 the participant's accrued benefit paid monthly and terminating on the 60th payment or the spouse's death. The spouse of a non-represented MTA Bus employee at Yonkers Depot may also receive a pre-retirement survivor annuity from the supplemental plan. If there is no such spouse, the actuarial equivalent of such annuity is payable.

Dependent children of MTA Bus employees are also entitled to an annuity based on the spouse's pre-retirement survivor annuity (1/2 of the spouse's annuity is payable to each child, but no more than 100% of the spouse's annuity is payable). In addition, the dependent children of retirees who were MTA Bus employees at these Depots are entitled to an annuity based on the presumed retirement survivor's annuity (25% of the spouse's annuity; but no more than 50% of the spouse's annuity is payable).

Retirement benefits establishment and changes for represented employees are collectively bargained and must be ratified by the respective union and the MTA Board. For non represented employees, retirement benefits establishment and changes are presented to the MTA Board and must be accepted and approved by the MTA Board.

5. NYCERS —

NYCERS provides three main types of retirement benefits: Service Retirements, Ordinary Disability Retirements (non-job-related disabilities) and Accident Disability Retirements (job-related disabilities) to participants generally based on salary, length of service, and member Tiers.

The Service Retirement benefits provided to Tier 1 participants fall into four categories according to the level of benefits provided and the years of service required. Three of the four categories provide annual benefits of 50% to 55% of final salary after 20 or 25 years of service, with additional benefits equal to a specified percentage per year of service (currently 1.2% to 1.7%) of final salary. The fourth category has no minimum service requirement and instead provides an annual benefit for each year of service equal to a specified percentage (currently 0.7% to 1.53%) of final salary.

Tier 2 participants have provisions similar to Tier 1, except that the eligibility for retirement and the salary base for benefits are different and there is a limitation on the maximum benefit.

Tier 3 participants were later mandated into Tier 4, but could retain their Tier 3 rights. The benefits for Tier 3 participants are reduced by one half of the primary Social Security benefit attributable to service, and provides for an automatic annual cost-of-living escalator in pension benefits of not more than 3.0%.

Tier 4 participants upon satisfying applicable eligibility requirements may be mandated or elected, as applicable, into the Basic 62/5 Retirement Plan, the 57/5 Plan, the 55/25 Plan, the Transit 55/25 Plan, the MTA Triborough Bridge and Tunnel Authority 50/20 Plan, and the Automotive Member 25/50 Plan. These plans provide annual benefits of 40% to 50% of final salary after 20 or 25 years of service, with additional benefits equal to a specified percentage per year of service (currently 1.5% to 2%) of final salary.

Chapter 18 of the Laws of 2012 created Tier 6. These changes increase the retirement age to 63, require member contributions for all years of service, institute progressive member contributions, and lengthen the final average salary period from 3 to 5 years.

NYCERS also provides automatic Cost-of-Living Adjustments (“COLA”) for certain retirees and beneficiaries, death benefits; and certain retirees also receive supplemental benefits. Subject to certain conditions, members generally become fully vested as to benefits upon the completion of 5 years of service.

6. NYSLERS —

NYSLERS provides retirement benefits as well as death and disability benefits. Members who joined prior to January 1, 2010 need 5 years of service to be fully vested. Members who joined on or after January 1, 2010 need 10 years of service to be fully vested.

Tiers 1 and 2 —

Eligibility: Tier 1 members generally must be at least age 55 to be eligible for a retirement benefit. There is no minimum service requirement for Tier 1 members. Generally, Tier 2 members must have 5 years of service and be at least age 55 to be eligible for a retirement benefit. The age at which full benefits may be collected for Tier 1 is 55, and the full benefit age for Tier 2 is 62.

Benefit Calculation: Generally, the benefit is 1.67% of final average salary for each year of service if the member retires with less than 20 years. If the member retires with 20 or more years of service, the benefit is 2 percent of final average salary for each year of service. Tier 2 members with five or more years of service can retire as early as age 55 with reduced benefits. Tier 2 members age 55 or older with 30 or more years of service can retire with no reduction in benefits. As a result of Article 19 of the RSSL, Tier 1 and Tier 2 members who worked continuously from April 1, 1999 through October 1, 2000 received an additional month of service credit for each year of credited service they have at retirement, up to a maximum of 24 additional months. Final average salary is the average of the wages earned in the three highest consecutive years of employment. For Tier 1 members who joined on or after June 17, 1971, each year’s compensation used in the final average salary calculation is limited to no more than 20 percent greater than the previous year. For Tier 2 members, each year of final average salary is limited to no more than 20 percent greater than the average of the previous two years.

Tiers 3, 4, and 5 —

Eligibility: Most Tier 3 and 4 members must have 5 years of service and be at least age 55 to be eligible for a retirement benefit. Tier 5 members, must have 10 years of service and be at least age 55 to be eligible to collect a retirement benefit. The full benefit age for Tiers 3, 4 and 5 is 62.

Benefit Calculation: Generally, the benefit is 1.67% of final average salary for each year of service if the member retires with less than 20 years. If a member retires with between 20 and 30 years of service, the benefit is 2 percent of final average salary for each year of service. If a member retires with more than 30 years of service, an additional benefit of 1.5% of final average salary is applied for each year of service over 30 years. Tier 3 and 4 members with five or more years of service and Tier 5 members with 10 or more years of service can retire as early as age 55 with reduced benefits. Tier 3 and 4 members age 55 or older with 30 or more years of service can retire with no reduction in benefits. Final average salary is the average of the wages earned in the three highest consecutive years of employment. For Tier 3, 4 and 5 members, each year’s compensation used in the final average salary calculation is limited to no more than 10% greater than the average of the previous two years.

Tier 6 —

Eligibility: Generally, Tier 6 members must have 10 years of service and be at least age 55 to be eligible to collect a retirement benefit. The full benefit age for Tier 6 is 63.

Benefit Calculation: Generally, the benefit is 1.67% of final average salary for each year of service if the member retires with less than 20 years. If a member retires with 20 years of service, the benefit is 1.75% of final average salary

for each year of service. If a member retires with more than 20 years of service, an additional benefit of 2% of final average salary is applied for each year of service over 20 years. Tier 6 members with 10 or more years of service can retire as early as age 55 with reduced benefits. Final average salary is the average of the wages earned in the five highest consecutive years of employment. For Tier 6 members, each year's compensation used in the final average salary calculation is limited to no more than 10% greater than the average of the previous four years.

Disability Benefits— Generally, disability retirement benefits are available to members unable to perform their job duties because of permanent physical or mental incapacity. There are three general types of disability benefits: ordinary, performance of duty, and accidental disability benefits. Eligibility, benefit amounts, and other rules such as any offsets of other benefits depend on a member's tier, years of service, and plan. Ordinary disability benefits, usually one-third of salary, are provided to eligible members after ten years of service; in some cases, they are provided after five years of service. For all eligible Tier 1 and Tier 2 members, the accidental disability benefit is a pension of 75 percent of final average salary, with an offset for any Workers' Compensation benefits received. The benefit for eligible Tier 3, 4, 5 and 6 members is the ordinary disability benefit with the years-of-service eligibility requirement dropped.

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

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

Membership

As of January 1, 2018, January 1, 2017 and January 1, 2016, the dates of the most recent actuarial valuations, membership data for the following pension plans are as follows:

Membership at:	January 1, 2018	January 1, 2017			
	MNR Cash Balance Plan	Additional Plan	MaBSTOA Plan	MTA Defined Benefit Plan	TOTAL
Active Plan Members	2	146	8,739	18,048	26,935
Retirees and beneficiaries receiving benefits	26	5,833	5,523	10,861	22,243
Vested formerly active members not yet receiving benefits	15	28	1,006	1,433	2,482
Total	43	6,007	15,268	30,342	51,660

Membership at:	January 1, 2017	January 1, 2016			
	MNR Cash Balance Plan	Additional Plan	MaBSTOA Plan	MTA Defined Benefit Plan	TOTAL
Active Plan Members	4	216	8,617	17,670	26,507
Retirees and beneficiaries receiving benefits	27	5,900	5,468	10,701	22,096
Vested formerly active members not yet receiving benefits	13	38	998	1,439	2,488
Total	44	6,154	15,083	29,810	51,091

Contributions and Funding Policy

1. Additional Plan —

Employer contributions are actuarially determined on an annual basis and are recognized when due. The Additional Plan is a defined benefit plan administered by the Board of Pension Managers and is a governmental plan and accordingly, is not subject to the funding and other requirements of ERISA.

Upon termination of employment before retirement, vested participants who have been required to contribute must choose to: (1) receive a refund of their own contributions, including accumulated interest at rates established by the MTA Long Island Rail Road's Board of Managers of Pensions (1.5% in 2017 and 2016), or (2) leave their contributions in the Additional Plan until they retire and become entitled to the pension benefits. Non-vested participants who have been required to contribute will receive a refund of their own contributions, including accumulated interest at rates established by the MTA Long Island Rail Road's Board of Managers of Pensions (1.5% in 2017 and 2016).

Funding for the Additional Plan by the MTA Long Island Rail Road is provided by MTA. Certain funding by MTA is made to the MTA Long Island Rail Road on a discretionary basis. The continuance of the MTA Long Island Rail Road's funding for the Additional Plan has been, and will continue to be, dependent upon the receipt of adequate funds.

2. MaBSTOA Plan —

The contribution requirements of MaBSTOA Plan members are established and may be amended only by the MaBSTOA Board in accordance with Article 10.01 of the MaBSTOA Plan. MaBSTOA's funding policy for periodic employer contributions is to provide for actuarially determined amounts that are designed to accumulate sufficient assets to pay benefits when due. It is MaBSTOA's policy to fund, at a minimum, the current year's normal pension cost plus amortization of the unfunded actuarial accrued liability.

The MaBSTOA Pension Plan includes the following plans, including the 2000 amendments which are all under the same terms and conditions as NYCERS:

- i. Tier 1 and 2 - Basic Plans;
- ii. Tier 3 and 4 - 55 and 25 Plan;
- iii. Tier 3 and 4 - Regular 62 and 5 Plan;
- iv. Tier 4 - 57 and 5 Plan
- v. Tier 6 - 55 and 25 Special Plan
- vi. Tier 6 - Basic 63 and 10 Plan

For employees, the MaBSTOA Plan has both contributory and noncontributory requirements depending on the date of entry into service. Employees entering qualifying service on or before July 26, 1976, are non contributing (Tiers 1 and 2). Certain employees entering qualifying service on or after July 27, 1976, are required to contribute 3% of their salary (Tiers 3 and 4).

In March 2012, pursuant to Chapter 18 of the Laws of 2012, individuals joining NYCERS or the MaBSTOA Pension Plan on or after April 1, 2012 are subject to the provisions of Tier 6. The highlights of Tier 6 include:

- Increases in employee contribution rates. The rate varies depending on salary, ranging from 3% to 6% of gross wages. Contributions are made until retirement or separation from service.
- The retirement age increases to 63 and includes early retirement penalties, which reduce pension allowances by 6.5 percent for each year of retirement prior to age 63.
- Vesting after 10 years of credited service; increased from 5 years of credited service under Tier 3 and Tier 4.
- Adjustments of the Pension Multiplier for calculating pension benefits (excluding Transit Operating Employees): the multiplier will be 1.75% for the first 20 years of service, and 2% starting in the 21st year; for an employee who works 30 years, their pension will be 55% of Final Average Salary under Tier 4, instead of 60% percent under Tier 4.
- Adjustments to the Final Average Salary Calculation; the computation changed from an average of the final 3 years to an average of the final 5 years. Pensionable overtime will be capped at \$15,000 dollars per year plus an inflation factor.
- Pension buyback in Tier 6 will be at a rate of 6% of the wages earned during the period of buyback, plus 5% compounded annually from the date of service until date of payment.

Pursuant to Section 7.03 of the MaBSTOA Plan, active plan members are permitted to borrow up to 75% of their contributions with interest. Their total contributions and interest remain intact and interest continues to accrue on the full balance. The participant's accumulated contribution account is used as collateral against the loan.

3. MNR Cash Balance Plan —

Funding for the MNR Cash Balance Plan is provided by MTA Metro-North Railroad, a public benefit corporation that receives funding for its operations and capital needs from the MTA and the Connecticut Department of Transportation ("CDOT"). Certain funding by MTA is made to the MTA Metro-North Railroad on a discretionary basis. The continuance of funding for the MNR Cash Balance Plan has been, and will continue to be, dependent upon the receipt of adequate funds.

MTA Metro-North Railroad's funding policy with respect to the MNR Cash Balance Plan was to contribute the full amount of the pension benefit obligation ("PBO") of approximately \$2,977 (in thousands) to the trust fund in 1989. As participants retire, the Trustee has made distributions from the MNR Cash Balance Plan. MTA Metro-North Railroad anticipated that no further contributions would be made to the MNR Cash Balance Plan. However, due to changes in actuarial assumptions and market performance, additional contributions were made to the MNR Cash Balance Plan in several subsequent years.

4. MTA Defined Benefit Plan —

Employer contributions are actuarially determined on an annual basis. Amounts recognized as receivables for contributions include only those due pursuant to legal requirements. Employee contributions to the MTA Defined Benefit Plan are recognized in the period in which the contributions are due. There are no contributions required under the Metropolitan Suburban Bus Authority Employee's Pension Plan.

The following summarizes the employee contributions made to the MTA Defined Benefit Plan:

Effective January 1, 1994, covered MTA Metro-North Railroad and MTA Long Island Rail Road non-represented employees are required to contribute to the MTA Plan to the extent that their Railroad Retirement Tier II employee contribution is less than the pre-tax cost of the 3% employee contributions. Effective October 1, 2000, employee contributions, if any, were eliminated after ten years of making contributions to the MTA Plan. MTA Metro-North Railroad employees may purchase prior service from January 1, 1983 through December 31, 1993 and MTA Long Island Rail Road employees may purchase prior service from January 1, 1988 through December 31, 1993 by paying the contributions that would have been required of that employee for the years in question, calculated as described in the first sentence, had the MTA Plan been in effect for those years.

Police Officers who become participants of the MTA Police Program prior to January 9, 2010 contribute to that program at various rates. Police Officers who become participants on or after January 9, 2010, but before April 1, 2012 contribute 3% up to the completion of 30 years of service, the maximum amount of service credit allowed. Police Officers who become participants on or after April 1, 2012 contribute 3%, with additional new rates starting April 2013, ranging from 3.5%, 4.5%, 5.75%, to 6%, depending on salary level, for their remaining years of service.

Covered MTA Metro-North Railroad represented employees and MTA Long Island Rail Road represented employees who first became eligible to be MTA Plan participants prior to January 30, 2008 contribute 3% of salary. MTA Staten Island Railway employees contribute 3% of salary except for represented employees hired on or after June 1, 2010 who contribute 4%. MTA Long Island Rail Road represented employees who became participants after January 30, 2008 contribute 4% of salary. For the MTA Staten Island Railway employees, contributions are not required after the completion of ten years of credited service. MTA Long Island Rail Road represented employees are required to make the employee contributions for ten years, or fifteen years if hired after certain dates in 2014 as per collective bargaining agreements. Certain Metro-North represented employees, depending on their collective bargaining agreements, are required to make the employee contributions until January 1, 2014, January 1, 2017, June 30, 2017, or the completion of required years of credited service as per the relevant collective bargaining agreements.

Covered MTA Bus represented employees and certain non-represented employees are required to contribute a fixed dollar amount, which varies, by depot. Currently, non-represented employees at certain Depots, contribute \$21.50 (whole dollars) per week. Non-represented employees at Eastchester hired prior to 2007 contribute \$25 (whole dollars) per week. Represented employees at Baisley Park, College Point, Eastchester, Far Rockaway, JFK, LaGuardia and Yonkers Depots contribute \$29.06 (whole dollars) per week; Spring Creek represented employees contribute \$32.00 (whole dollars) per week. Certain limited number of represented employees promoted prior to the resolution of a bargaining impasse continue to participate in the MTA Defined Benefit Plan that was in effect before their promotion. Certain MTA Bus non-represented employees who are formerly employed by the private bus companies (Jamaica, Green, Triboro and Command) at Baisley Park, Far Rockaway, JFK, LaGuardia and Spring Creek Depots who are in the pension program covering only such employees make no contributions to the program. (Note: the dollar figures

in this paragraph are in dollars, not in millions of dollars).

5. **NYCERS** —

NYCERS funding policy is to contribute statutorily-required contributions (“Statutory Contributions”), determined by the Chief Actuary for the New York City Retirement Systems, in accordance with State statutes and City laws, and are generally funded by employers within the appropriate Fiscal Year. The Statutory Contributions are determined under the One-Year Lag Methodology (“OYLM”). Under OYLM, the actuarial valuation date is used for calculating the Employer Contributions for the second following Fiscal Year. Statutory Contributions are determined annually to be an amount that, together with member contributions and investment income, provides for NYCERS’ assets to be sufficient to pay benefits when due.

Member contributions are established by law. NYCERS has both contributory and noncontributory requirements, with retirement age varying from 55 to 70 depending upon when an employee last entered qualifying service.

In general, Tier 1 and Tier 2 member contribution rates are dependent upon the employee’s age at membership and retirement plan election. In general, Tier 3 and Tier 4 members make basic contributions of 3.0% of salary, regardless of age at membership. Effective October 1, 2000, in accordance with Chapter 126 of the Laws of 2000, these members, except for certain Transit Authority employees enrolled in the Transit 20-Year Plan, are not required to make basic contributions after the 10th anniversary of their membership date or completion of ten years of credited service, whichever is earlier. In addition, members who meet certain eligibility requirements will receive one month’s additional service credit for each completed year of service up to a maximum of two additional years of service credit. Effective December 2000, certain Transit Authority Tier 3 and Tier 4 members make basic member contributions of 2.0% of salary, in accordance with Chapter 10 of the Laws of 2000. Certain Tier 2, Tier 3 and Tier 4 members who are participants in special retirement plans are required to make additional member contributions of 1.85%, in addition to their base membership contribution. Tier 6 members are mandated to contribute between 3.0% and 6.0% of salary, depending on salary level, until they separate from City service or until they retire.

NYCERS established a “special program” for employees hired on or after July 26, 1976. A plan for employees, who have worked 20 years, and reached age 50, is provided to Bridge and Tunnel Officers, Sergeants and Lieutenants and Maintainers. Also, an age 57 retirement plan is available for all other such MTA Bridges and Tunnels employees. Both these plans required increased employee contributions.

Certain retirees also receive supplemental benefits from MTA Bridges and Tunnels. Certain participants are permitted to borrow up to 75% of their own contributions including accumulated interest. These loans are accounted for as reductions in such participants’ contribution accounts. Upon termination of employment before retirement, certain members are entitled to refunds of their own contributions, including accumulated interest, less any outstanding loan balances.

MTA New York City Transit and MTA Bridges and Tunnels are required to contribute at an actuarially determined rate. The contribution requirements of plans members, MTA New York City Transit and MTA Bridges and Tunnels are established and amended by law.

6. **NYSLERS** —

Employer Contributions - Under the authority of the RSSL, the Comptroller annually certifies the actuarially determined rates expressly used in computing the employers’ contributions based on salaries paid during the NYSLERS fiscal year ending June 30.

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

MTAHQ, MTA Capital Construction and MTA Long Island Bus are required to contribute at an actuarially determined rate.

A summary of the aggregate actual contributions made to each pension plan for the years ended December 31, 2018 and 2017 are as follows:

Year-ended December 31,	2018	2017
(\$ in millions)	Actual Employer Contributions	Actual Employer Contributions
Additional Plan	\$ 59.5	\$ 221.5
MaBSTOA Plan	205.4	202.7
MNR Cash Balance Plan	- *	- *
MTA Defined Benefit Plan	339.8	321.9
NYCERS	807.1	800.9
NYSLERS	14.5	14.0
Total	<u>\$ 1,426.3</u>	<u>\$ 1,561.0</u>

*MNR Cash Balance Plan's actual employer contribution for the years ended December 31, 2018 and 2017 was \$5 thousand and \$0 thousand, respectively.

Net Pension Liability

The MTA's net pension liabilities for each of the pension plans reported at December 31, 2018 and 2017 were measured as of the fiscal year-end dates for each respective pension plan. The total pension liabilities used to calculate those net pension liabilities were determined by actuarial valuations as of each pension plan's valuation date, and rolled forward to the respective year-ends for each pension plan. Information about the fiduciary net position of each qualified pension plan's fiduciary net position has been determined on the same basis as reported by each respective qualified pension plan. For this purpose, benefits and refunds are recognized when due and payable in accordance with the terms of the respective qualified pension plan, and investments are reported at fair value. The following table provides the measurement and valuation dates used by each pension plan to calculate the MTA's aggregate net pension liability.

Pension Plan	Plan Measurement Date	Plan Valuation Date	Plan Measurement Date	Plan Valuation Date
Additional Plan	December 31, 2017	January 1, 2017	December 31, 2016	January 1, 2016
MaBSTOA Plan	December 31, 2017	January 1, 2017	December 31, 2016	January 1, 2016
MNR Cash Balance Plan	December 31, 2017	January 1, 2018	December 31, 2016	January 1, 2017
MTA Defined Benefit Plan	December 31, 2017	January 1, 2017	December 31, 2016	January 1, 2016
NYCERS	June 30, 2018	June 30, 2016	June 30, 2017	June 30, 2015
NYSLERS	March 31, 2018	April 1, 2017	March 31, 2017	April 1, 2016

Pension Plan Fiduciary Net Position

Detailed information about the fiduciary net position of the Additional Plan, MaBSTOA Plan, MNR Cash Balance Plan, MTA Defined Benefit Plan, NYCERS plan and the NYSLERS plan is available in the separately issued pension plan financial reports for each respective plan.

Actuarial Assumptions

The total pension liabilities in each pension plan's actuarial valuation dates were determined using the following actuarial assumptions for each pension plan, applied to all periods included in the measurement date:

Valuation Date:	Additional Plan		MaBSTOA Plan		MNR Cash Balance Plan	
	January 1, 2017	January 1, 2016	January 1, 2017	January 1, 2016	January 1, 2018	January 1, 2017
Investment Rate of Return	7.00% per annum, net of investment expenses.	7.00% per annum, net of investment expenses.	7.00% per annum, net of investment expenses.	7.00% per annum, net of investment expenses.	4.00% per annum, net of investment expenses.	4.00% per annum, net of investment expenses.
Salary Increases	3.00%	3.00%	Reflecting general wage, merit and promotion increases of 3.5% for operating employees and 4.0% for non- operating employees per year. Larger increases are assumed in the first 5 years of a member's career.	Reflecting general wage, merit and promotion increases of 3.5% for operating employees and 4.0% for non- operating employees per year. Larger increases are assumed in the first 5 years of a member's career.	Not applicable	Not applicable
Inflation	2.50%; 3.50% for Railroad Retirement Wage Base.	2.50%; 3.50% for Railroad Retirement Wage Base.	2.50%.	2.50%.	2.50%	2.30%
Cost-of Living Adjustments	Not applicable	Not applicable	1.375% per annum.	1.375% per annum.	Not applicable	Not applicable
Valuation Date:	MTA Defined Benefit Plan		NYCERS		NYSLERS	
	January 1, 2017	January 1, 2016	June 30, 2016	June 30, 2015	April 1, 2017	April 1, 2016
Investment Rate of Return	7.00% per annum, net of investment expenses.	7.00% per annum, net of investment expenses.	7.00% per annum, net of expenses.	7.00% per annum, net of expenses.	7.00% per annum, including inflation, net of investment expenses.	7.00% per annum, including inflation, net of investment expenses.
Salary Increases	Varies by years of employment, and employee group; 3.0% General Wage Increases for TWU Local 100 MTA Bus hourly employees.	Varies by years of employment, and employee group; 3.0% General Wage Increases for TWU Local 100 MTA Bus hourly employees.	In general, merit and promotion increases plus assumed General Wage increases of 3.0% per year.	In general, merit and promotion increases plus assumed General Wage increases of 3.0% per year.	3.8% in ERS, 4.5% in PFRS	3.8% in ERS, 4.5% in PFRS
Inflation	2.50%; 3.50% for Railroad Retirement Wage Base.	2.50%; 3.00% for Railroad Retirement Wage Base.	2.50%	2.50%	2.50%	2.50%
Cost-of Living Adjustments	55% of inflation assumption or 1.375%, if applicable.	55% of inflation assumption or 1.375%, if applicable.	1.5% per annum for Tiers 1, 2, 4 and certain Tier 3 and Tier 6 retirees. 2.5% per annum for certain Tier 3 and Tier 6 retirees.	1.5% per annum for Tiers 1, 2, 4 and certain Tier 3 and Tier 6 retirees. 2.5% per annum for certain Tier 3 and Tier 6 retirees.	1.30% per annum.	1.30% per annum.

Mortality

Additional Plan / MaBSTOA Plan/ MNR Cash Balance Plan and MTA Defined Benefit Plan:

The actuarial assumptions used in the January 1, 2018, 2017, and 2016 valuations for the MTA plans are based on an experience study covering the period from January 1, 2006 to December 31, 2011. The mortality assumption used in the January 1, 2018 and January 1, 2017 valuations are based on an experience study for all MTA plans covering the period from January 1, 2011 to December 1, 2015. The mortality assumption used in the January 1, 2016 valuation is based on a 2012 experience study for all MTA plans. The pre-retirement and post-retirement healthy annuitant rates are projected on a generational basis using Scale AA, as recommended by the Society of Actuaries Retirement Plans Experience Committee. As generational tables, they reflect mortality improvements both before and after the measurement date.

Pre-retirement: The MTA plans utilized RP-2000 Employee Mortality Table for Males and Females with Blue collar adjustments.

Post-retirement Healthy Lives: Assumption utilized 95% of RP-2000 Healthy Annuitant mortality table for males with Blue Collar adjustments and 116% of the rates from the RP-2000 Healthy Annuitant mortality table for females.

Post-retirement Disabled Lives: Assumption utilized in the January 1, 2017 valuation was the RP-2014 Disabled Annuitant mortality table for males and females. Assumption utilized in the January 1, 2016 valuation was the RP-2000 Disabled Annuitant mortality table for males and females. This assumption was not applicable for the Additional Plan and the MNR Cash Balance Plan.

NYCERS:

Pursuant to Section 96 of the New York City Charter, an independent actuarial firm conducts studies of the actuarial assumptions used to value liabilities of the NYCERS pension plan every two years. In accordance, with the Administrative Code of the City of New York ("ACNY"), the Board of Trustees of NYCERS are to periodically review and adopt actuarial assumptions as proposed by the Actuary for use in the determination of Employer Contributions.

Mortality tables for service and disability pensioners were developed from experience studies of the NYCERS Plan. The mortality tables for beneficiaries were developed from an experience review.

The actuarial assumptions used in the June 30, 2016 and June 30, 2015 valuations are based, in part, on the Gabriel, Roeder, Smith & Company ("GRS") report, on published studies of mortality improvement, and on input from the NYC's outside consultants and auditors, the Actuary proposed, and the Board of Trustees of NYCERS adopted, new post-retirement mortality tables for use in determining employer contributions beginning in Fiscal Year 2016. The new tables of post-retirement are based primarily on the experience of NYCERS and the application of the Mortality Improvement Scale MP-2015, published by the Society of Actuaries in October 2015. Scale MP-2015 replaced Mortality Improvement Scale AA.

NYSLERS:

The actuarial assumptions used in the April 1, 2017 and April 1, 2016 valuations are based on the results of an actuarial experience study for the period April 1, 2010 through March 31, 2015. The annuitant mortality rates are based on the results of the 2015 experience study of the period April 1, 2010 through March 31, 2015, with adjustments for mortality improvement based on the Society of Actuaries' Scale MP-2014.

Expected Rate of Return on Investments

The long-term expected rate of return on pension plan investments for each pension plan is presented in the following table.

Pension Plan	Plan Measurement Date	Rate
Additional Plan	December 31, 2017	7.00%
MaBSTOA Plan	December 31, 2017	7.00%
MNR Cash Balance Plan	December 31, 2017	4.00%
MTA Defined Benefit Plan	December 31, 2017	7.00%
NYCERS	June 30, 2018	7.00%
NYSLERS	March 31, 2018	7.00%

For the Additional Plan, MaBSTOA Plan, MNR Cash Balance Plan, MTA Defined Benefit Plan, NYCERS plan and NYSLERS plan, the long-term expected rate of return on investments was determined using a building-block method in which best-estimate ranges of expected future real rates of return (expected returns, net of plan investment expense and inflation) are developed for each major asset class. These ranges are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation.

The target asset allocation of each of the funds and the expected real rate of returns (“RROR”) for each of the asset classes are summarized in the following tables for each of the pension plans:

Asset Class	Additional Plan		MaBSTOA Plan	
	Target Asset Allocation	Long - Term Expected Real Rate of Return	Target Asset Allocation	Long - Term Expected Real Rate of Return
US Core Fixed Income	10.00%	1.96%	10.00%	1.96%
US High Yield Bonds	8.00%	4.62%	8.00%	4.62%
Global Bonds	10.00%	0.34%	10.00%	0.34%
Emerging Markets Bonds	3.00%	3.30%	3.00%	3.30%
US Large Caps	10.00%	4.31%	10.00%	4.31%
US Small Caps	5.50%	5.57%	5.50%	5.57%
Global Equity	10.00%	4.99%	10.00%	4.99%
Foreign Developed Equity	10.00%	5.57%	10.00%	5.57%
Emerging Markets Equity	3.50%	7.91%	3.50%	7.91%
Global REITs	5.00%	5.62%	5.00%	5.62%
Private Real Estate Property	3.00%	3.64%	3.00%	3.64%
Private Equity	7.00%	8.99%	7.00%	8.99%
Hedge Funds - MultiStrategy	15.00%	3.35%	15.00%	3.35%
	<u>100.00%</u>		<u>100.00%</u>	
Assumed Inflation - Mean		2.50%		2.50%
Assumed Inflation - Standard Deviation		1.85%		1.85%
Portfolio Nominal Mean Return		6.80%		6.80%
Portfolio Standard Deviation		11.54%		11.54%
Long Term Expected Rate of Return selected by MTA		7.00%		7.00%

Asset Class	MTA Defined Benefit Plan		MNR Cash Balance Plan	
	Target Asset Allocation	Long - Term Expected Real Rate of Return	Target Asset Allocation	Long - Term Expected Real Rate of Return
US Core Fixed Income	10.00%	1.96%	100.00%	1.41%
US High Yield Bonds	8.00%	4.62%		
Global Bonds	10.00%	0.34%		
Emerging Markets Bonds	3.00%	3.30%		
US Large Caps	10.00%	4.31%		
US Small Caps	5.50%	5.57%		
Global Equity	10.00%	4.99%		
Foreign Developed Equity	10.00%	5.57%		
Emerging Markets Equity	3.50%	7.91%		
Global REITs	5.00%	5.62%		
Private Real Estate Property	3.00%	3.64%		
Private Equity	7.00%	8.99%		
Hedge Funds - MultiStrategy	15.00%	3.35%		
	<u>100.00%</u>		<u>100.00%</u>	
Assumed Inflation - Mean		2.50%		2.50%
Assumed Inflation - Standard Deviation		1.85%		1.85%
Portfolio Nominal Mean Return		6.80%		3.92%
Portfolio Standard Deviation		11.54%		4.55%
Long Term Expected Rate of Return selected by MTA		7.00%		4.00%

Asset Class	NYCERS		NYSLERS	
	Target Asset Allocation	Long - Term Expected Real Rate of Return	Target Asset Allocation	Long - Term Expected Real Rate of Return
U.S. Public Market Equities	29.00%	6.30%	36.00%	4.55%
International Public Market Equities	13.00%	7.00%	14.00%	6.35%
Emerging Public Market Equities	7.00%	9.50%	0.00%	0.00%
Private Market Equities	7.00%	10.40%	10.00%	7.50%
Fixed Income	33.00%	2.20%	17.00%	1.31%
Alternatives (Real Assets, Hedge Funds)	11.00%	5.50%	3.00%	5.29%
Real Estate			10.00%	5.55%
Absolute Return Strategies			2.00%	3.75%
Opportunistic Portfolio			3.00%	5.68%
Cash			1.00%	-0.25%
Inflation-indexed Bonds			4.00%	1.25%
	<u>100.00%</u>		<u>100.00%</u>	
Assumed Inflation - Mean		2.50%		2.50%
Long Term Expected Rate of Return		7.00%		7.00%

Discount rate

The discount rate used to measure the total pension liability of each pension plan is presented in the following table:

Year ended December 31,	Discount Rate			
	2018		2017	
	Plan Measurement Date	Rate	Plan Measurement Date	Rate
Pension Plan				
Additional Plan	December 31, 2017	7.00%	December 31, 2016	7.00%
MaBSTOA Plan	December 31, 2017	7.00%	December 31, 2016	7.00%
MNR Cash Balance Plan	December 31, 2017	4.00%	December 31, 2016	4.00%
MTA Defined Benefit Plan	December 31, 2017	7.00%	December 31, 2016	7.00%
NYCERS	June 30, 2018	7.00%	June 30, 2017	7.00%
NYSLERS	March 31, 2018	7.00%	March 31, 2017	7.00%

The projection of cash flows used to determine the discount rate assumed that employee contributions will be made at the rates applicable for each pension plan and that employer contributions will be made at the rates determined by each pension plan's actuary. Based on those assumptions, each pension plan's fiduciary net position was projected to be available to make all projected future benefit payments of current and inactive plan members. Therefore, the long-term expected rate of return on pension plan investments was applied to all periods of projected benefit payments to determine the total pension liability.

Changes in Net Pension Liability – Additional Plan, MaBSTOA Plan, MNR Cash Balance Plan and the MTA Defined Benefit Plan

Changes in the MTA's net pension liability for the Additional Plan, MaBSTOA Plan, MNR Cash Balance Plan and the MTA Defined Benefit Plan for the year ended December 31, 2018, based on the December 31, 2017 measurement date, and for the year ended December 31, 2017, based on the December 31, 2016 measurement date, were as follows:

	Additional Plan			MaBSTOA Plan		
	Total Pension Liability	Plan Fiduciary Net Position	Net Pension Liability	Total Pension Liability	Plan Fiduciary Net Position	Net Pension Liability
	(in thousands)					
Balance as of December 31, 2016	\$ 1,526,304	\$ 777,217	\$ 749,087	\$ 3,536,747	\$ 2,555,735	\$ 981,012
Changes for fiscal year 2017:						
Service Cost	1,874	-	1,874	84,394	-	84,394
Interest on total pension liability	101,477	-	101,477	246,284	-	246,284
Effect of economic /demographic (gains) or losses	1,890	-	1,890	11,826	-	11,826
Effect of assumption changes or inputs	-			6,347	-	6,347
Benefit payments	(159,717)	(159,717)	-	(209,122)	(209,122)	-
Administrative expense	-	(1,070)	1,070	-	(207)	207
Member contributions	-	760	(760)	-	19,713	(19,713)
Net investment income	-	112,614	(112,614)	-	350,186	(350,186)
Nonemployer contributions	-	145,000	(145,000)	-	-	-
Employer contributions	-	76,523	(76,523)	-	202,684	(202,684)
Balance as of December 31, 2017	<u>\$ 1,471,828</u>	<u>\$ 951,327</u>	<u>\$ 520,501</u>	<u>\$ 3,676,476</u>	<u>\$ 2,918,989</u>	<u>\$ 757,487</u>

	Additional Plan			MaBSTOA Plan		
	Total Pension Liability	Plan Fiduciary Net Position	Net Pension Liability	Total Pension Liability	Plan Fiduciary Net Position	Net Pension Liability
	(in thousands)					
Balance as of December 31, 2015	\$ 1,562,251	\$ 726,198	\$ 836,053	\$ 3,391,989	\$ 2,292,316	\$ 1,099,673
Changes for fiscal year 2016:						
Service Cost	2,752	-	2,752	82,075	-	82,075
Interest on total pension liability	104,093	-	104,093	236,722	-	236,722
Effect of economic /demographic (gains) or losses	15,801	-	15,801	13,784	-	13,784
Benefit payments	(158,593)	(158,593)	-	(187,823)	(187,823)	-
Administrative expense	-	(611)	611	-	(186)	186
Member contributions	-	884	(884)	-	18,472	(18,472)
Net investment income	-	58,239	(58,239)	-	212,259	(212,259)
Nonemployer contributions	-	70,000	(70,000)	-	-	-
Employer contributions	-	81,100	(81,100)	-	220,697	(220,697)
Balance as of December 31, 2016	<u>\$ 1,526,304</u>	<u>\$ 777,217</u>	<u>\$ 749,087</u>	<u>\$ 3,536,747</u>	<u>\$ 2,555,735</u>	<u>\$ 981,012</u>

	MNR Cash Balance Plan			MTA Defined Benefit Plan		
	Total Pension Liability	Plan Fiduciary Net Position	Net Pension Liability	Total Pension Liability	Plan Fiduciary Net Position	Net Pension Liability
	(in thousands)					
Balance as of December 31, 2016	\$ 566	\$ 574	\$ (8)	\$ 4,761,877	\$ 3,419,971	\$ 1,341,906
Changes for fiscal year 2017:						
Service Cost	-	-	-	148,051	-	148,051
Interest on total pension liability	21	-	21	335,679	-	335,679
Effect of plan changes	-	-	-	76,511	-	76,511
Effect of economic / demographic (gains) or losses	12	-	12	(27,059)	-	(27,059)
Effect of assumption changes or inputs	-	-	-	10,731	-	10,731
Benefit payments	(71)	(71)	-	(232,976)	(232,976)	-
Administrative expense	-	-	-	-	(4,502)	4,502
Member contributions	-	-	-	-	31,027	(31,027)
Net investment income	-	20	(20)	-	516,153	(516,153)
Employer contributions	-	-	-	-	321,861	(321,861)
Balance as of December 31, 2017	<u>\$ 528</u>	<u>\$ 523</u>	<u>\$ 5</u>	<u>\$ 5,072,814</u>	<u>\$ 4,051,534</u>	<u>\$ 1,021,280</u>

	MNR Cash Balance Plan			MTA Defined Benefit Plan		
	Total Pension Liability	Plan Fiduciary Net Position	Net Pension Liability	Total Pension Liability	Plan Fiduciary Net Position	Net Pension Liability
	(in thousands)					
Balance as of December 31, 2015	\$ 634	\$ 612	\$ 22	\$ 4,364,946	\$ 3,074,777	\$ 1,290,169
Changes for fiscal year 2016:						
Service Cost	-	-	-	138,215	-	138,215
Interest on total pension liability	24	-	24	308,009	-	308,009
Effect of plan changes	-	-	-	73,521	-	73,521
Effect of economic / demographic (gains) or losses	(15)	-	(15)	86,809	-	86,809
Benefit payments	(77)	(77)	-	(209,623)	(209,623)	-
Administrative expense	-	-	-	-	(3,051)	3,051
Member contributions	-	-	-	-	29,392	(29,392)
Net investment income	-	16	(16)	-	247,708	(247,708)
Employer contributions	-	23	(23)	-	280,768	(280,768)
Balance as of December 31, 2016	<u>\$ 566</u>	<u>\$ 574</u>	<u>\$ (8)</u>	<u>\$ 4,761,877</u>	<u>\$ 3,419,971</u>	<u>\$ 1,341,906</u>

Sensitivity of the Net Pension Liability to Changes in the Discount Rate

The following presents the MTA's net pension liability calculated for the Additional Plan, MaBSTOA Plan, MNR Cash Balance Plan and the MTA Defined Benefit Plan using the discount rate as of each measurement date, as well as what the net pension liability would be if it were calculated using a discount rate that is 1-percentage point lower or 1-percentage point higher than the actual discount rate used for each measurement date:

Measurement Date:	December 31, 2017			December 31, 2016		
	Discount			Discount		
	1% Decrease	Rate	1% Increase	1% Decrease	Rate	1% Increase
	(6.0%)	(7.0%)	(8.0%)	(6.0%)	(7.0%)	(8.0%)
	(in thousands)			(in thousands)		
Additional Plan	\$ 636,713	\$ 520,501	\$ 419,474	\$ 871,350	\$ 749,087	\$ 642,973
MaBSTOA Plan	1,166,477	757,487	409,121	1,376,916	981,012	643,826
MTA Defined Benefit Plan	1,648,216	1,021,280	492,284	1,936,639	1,341,906	840,176

	Discount			Discount		
	Rate			Rate		
	1% Decrease	Rate	1% Increase	1% Decrease	Rate	1% Increase
	(3.0%)	(4.0%)	(5.0%)	(3.5%)	(4.5%)	(5.5%)
	(in whole dollars)			(in whole dollars)		
MNR Cash Balance Plan	\$ 35,109	\$ 5,235	\$ (21,154)	\$ 25,200	\$ (7,899)	\$ (37,092)

The MTA's Proportion of Net Pension Liability – NYCERS and NYSLERS

The following table presents the MTA's proportionate share of the net pension liability of NYCERS based on the June 30, 2016 and June 30, 2015 actuarial valuations, rolled forward to June 30, 2018 and June 30, 2017, respectively, and the proportion percentage of the aggregate net pension liability allocated to the MTA:

	NYCERS	
	June 30, 2018	June 30, 2017
	(\$ in thousands)	
MTA's proportion of the net pension liability	23.682%	24.096%
MTA's proportionate share of the net pension liability	\$ 4,176,941	\$ 5,003,811

The following table presents the MTA's proportionate share of the net pension liability of NYSLERS based on the April 1, 2017 and April 1, 2016 actuarial valuations, rolled forward to March 31, 2018 and March 31, 2017, respectively, and the proportion percentage of the aggregate net pension liability allocated to the MTA:

	NYSLERS	
	March 31, 2018	March 31, 2017
	(\$ in thousands)	
MTA's proportion of the net pension liability	0.327%	0.311%
MTA's proportionate share of the net pension liability	\$ 10,553	\$ 29,239

The MTA's proportion of each respective Plan's net pension liability was based on the MTA's actual required contributions made to NYCERS for the plan's fiscal year-end June 30, 2018 and 2017 and to NYSLERS for the plan's fiscal year-end March 31, 2018 and 2017, relative to the contributions of all employers in each plan.

Sensitivity of the MTA's Proportionate Share of the Net Pension Liability to Changes in the Discount Rate

The following presents the MTA's proportionate share of the net pension liability for NYCERS and NYSLERS calculated using the discount rate as of each measurement date, as well as what the proportionate share of the net pension liability would be if it were calculated using a discount rate that is 1-percentage point lower or 1-percentage point higher than the actual discount rate used as of each measurement date (\$ in thousands):

Measurement Date:	June 30, 2018			June 30, 2017		
	1% Decrease (6.0%)	Discount Rate (7.0%)	1% Increase (8.0%)	1% Decrease (6.0%)	Discount Rate (7.0%)	1% Increase (8.0%)
NYCERS	\$ 6,402,891	\$ 4,176,941	\$ 2,298,962	\$ 7,231,780	\$ 5,003,811	\$ 3,046,531

Measurement Date:	March 31, 2018			March 31, 2017		
	1% Decrease (6.0%)	Discount Rate (7.0%)	1% Increase (8.0%)	1% Decrease (6.0%)	Discount Rate (7.0%)	1% Increase (8.0%)
NYSLERS	\$ 79,847	\$ 10,553	\$ (48,067)	\$ 93,385	\$ 29,239	\$ (24,995)

Pension Expense, Deferred Outflows of Resources and Deferred Inflows of Resources Related to Pensions

For the three-month period ended March 31, 2019 and year ended December 31, 2018, the MTA recognized pension expense related to each pension plan as follows (in \$ thousands):

Pension Plan	March 31, 2019 (Unaudited)	December 31, 2018
Additional Plan	\$ 14,925	\$ 47,936
MaBSTOA Plan	48,208	116,967
MNR Cash Balance plan	-	16
MTA Defined Benefit Plan	80,779	316,900
NYCERS	198,128	510,157
NYSLERS	3,625	13,885
Total	\$ 345,665	\$ 1,005,861

For the three-month period ended March 31, 2019 and year ended December 31, 2018, the MTA reported deferred outflow of resources and deferred inflow of resources for each pension plan as follows (in \$ thousands):

For the Period Ended March 31, 2019 (Unaudited)	Additional Plan		MaBSTOA Plan		MNR Cash Balance Plan		MTA Defined Benefit Plan	
	Deferred Outflows of Resources	Deferred Inflows of Resources	Deferred Outflows of Resources	Deferred Inflows of Resources	Deferred Outflows of Resources	Deferred Inflows of Resources	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between expected and actual experience	\$ -	\$ -	\$ 19,549	\$ 36,673	\$ -	\$ -	\$ 141,294	\$ 23,748
Changes in assumptions	-	-	5,370	-	-	-	9,406	46,880
Net difference between projected and actual earnings on pension plan investments	-	22,499	-	83,734	16	2	-	112,897
Changes in proportion and differences between contributions and proportionate share of contributions	-	-	-	-	-	-	50,989	50,989
Employer contributions to the plan subsequent to the measurement of net pension liability	59,500	-	203,969	-	5	-	339,973	-
Total	<u>\$ 59,500</u>	<u>\$ 22,499</u>	<u>\$ 228,888</u>	<u>\$ 120,407</u>	<u>\$ 21</u>	<u>\$ 2</u>	<u>\$ 541,662</u>	<u>\$ 234,514</u>

For the Period Ended March 31, 2019 (Unaudited)	NYCERS		NYSLERS		TOTAL	
	Deferred Outflows of Resources	Deferred Inflows of Resources	Deferred Outflows of Resources	Deferred Inflows of Resources	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between expected and actual experience	\$ -	\$ 403,424	\$ 3,763	\$ 3,110	\$ 164,606	\$ 466,955
Changes in assumptions	63,653	-	6,998	-	85,427	46,880
Net difference between projected and actual earnings on pension plan investments	-	234,268	-	14,927	16	468,327
Changes in proportion and differences between contributions and proportionate share of contributions	46,817	36,998	3,363	66	101,169	88,053
Employer contributions to the plan subsequent to the measurement of net pension liability	416,875	-	14,501	-	1,034,823	-
Total	<u>\$ 527,345</u>	<u>\$ 674,690</u>	<u>\$ 28,625</u>	<u>\$ 18,103</u>	<u>\$ 1,386,041</u>	<u>\$ 1,070,215</u>

**For the Year Ended
December 31, 2018**

	Additional Plan		MaBSTOA Plan		MNR Cash Balance Plan		MTA Defined Benefit Plan	
	Deferred Outflows of Resources	Deferred Inflows of Resources	Deferred Outflows of Resources	Deferred Inflows of Resources	Deferred Outflows of Resources	Deferred Inflows of Resources	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between expected and actual experience	\$ -	\$ -	\$ 19,549	\$ 36,673	\$ -	\$ -	\$ 141,294	\$ 23,748
Changes in assumptions	-	-	5,370	-	-	-	9,406	46,880
Net difference between projected and actual earnings on pension plan investments	-	22,499	-	83,734	16	2	-	112,897
Changes in proportion and differences between contributions and proportionate share of contributions	-	-	-	-	-	-	50,989	50,989
Employer contributions to the plan subsequent to the measurement of net pension liability	59,500	-	205,433	-	5	-	339,800	-
Total	<u>\$ 59,500</u>	<u>\$ 22,499</u>	<u>\$ 230,352</u>	<u>\$ 120,407</u>	<u>\$ 21</u>	<u>\$ 2</u>	<u>\$ 541,489</u>	<u>\$ 234,514</u>

**For the Year Ended
December 31, 2018**

	NYCERS		NYSLERS		TOTAL	
	Deferred Outflows of Resources	Deferred Inflows of Resources	Deferred Outflows of Resources	Deferred Inflows of Resources	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between expected and actual experience	\$ -	\$ 403,424	\$ 3,763	\$ 3,110	\$ 164,606	\$ 466,955
Changes in assumptions	63,653	-	6,998	-	85,427	46,880
Net difference between projected and actual earnings on pension plan investments	-	234,268	-	14,927	16	468,327
Changes in proportion and differences between contributions and proportionate share of contributions	46,817	36,998	3,363	66	101,169	88,053
Employer contributions to the plan subsequent to the measurement of net pension liability	426,474	-	14,501	-	1,045,713	-
Total	<u>\$ 536,944</u>	<u>\$ 674,690</u>	<u>\$ 28,625</u>	<u>\$ 18,103</u>	<u>\$ 1,396,931</u>	<u>\$ 1,070,215</u>

The annual differences between the projected and actual earnings on investments are amortized over a five-year closed period beginning the year in which the difference occurs. The following table presents the recognition periods used by each pension plan to amortize the annual differences between expected and actual experience, changes in proportion and differences between employer contributions and proportionate share of contributions, and changes in actuarial assumptions, beginning the year in which the deferred amount occurs.

Pension Plan	Recognition Period (in years)		
	Differences between expected and actual experience	Changes in proportion and differences between employer contributions and proportionate share of contributions	Changes in actuarial assumptions
Additional Plan	1.00	N/A	N/A
MaBSTOA Plan	6.50	N/A	6.30
MNR Cash Balance Plan	1.00	N/A	1.00
MTA Defined Benefit Plan	8.10	8.10	8.10
NYCERS	6.01	6.01	6.01
NYSLERS	5.00	5.00	5.00

For the three-month period ended March 31, 2019 and year ended December 31, 2018, \$1,034.8 and \$1,045.7 were reported as deferred outflows of resources related to pensions resulting from the MTA's contributions subsequent to the measurement date which will be recognized as a reduction of the net pension liability in the year ending December 31, 2019 and December 31, 2018, respectively. Other amounts reported as deferred outflows of resources and deferred inflows of resources related to pensions at December 31, 2018 will be recognized as pension expense as follows:

	Additional Plan	MaBSTOA Plan	MNR Cash Balance plan	MTA Defined Benefit Plan	NYCERS	NYSLERS	Total
	(in thousands)						
Year Ending December 31:							
2019	\$ 1,989	\$ (4,711)	\$ 5	\$ 25,730	\$ 29,753	\$ 3,386	\$ 56,152
2020	(1,713)	(13,424)	7	6,224	(133,502)	2,884	(139,524)
2021	(12,173)	(50,126)	2	(45,688)	(259,448)	(7,083)	(374,516)
2022	(10,602)	(32,481)	-	(39,989)	(116,871)	(3,166)	(203,109)
2023	-	3,856	-	13,351	(83,319)	-	(66,112)
Thereafter	-	1,398	-	7,547	(833)	-	8,112
	<u>\$ (22,499)</u>	<u>\$ (95,488)</u>	<u>\$ 14</u>	<u>\$ (32,825)</u>	<u>\$ (564,220)</u>	<u>\$ (3,979)</u>	<u>\$ (718,997)</u>

Deferred Compensation Program

Description - The Deferred Compensation Program consists of two defined contribution plans that provide benefits based solely on the amount contributed to each participant's account(s), plus or minus any income, expenses and gains/losses. The Deferred Compensation Program is comprised of the Deferred Compensation Plan For Employees of the Metropolitan Transportation Authority ("MTA"), its Subsidiaries and Affiliates ("457 Plan") and the Thrift Plan For Employees of the Metropolitan Transportation Authority, its Subsidiaries and Affiliates ("401(k) Plan"). Certain MTA Related Groups employees are eligible to participate in both deferred compensation plans. Both Plans are designed to have participant charges, including investment and other fees, cover the costs of administering the Deferred Compensation Program.

Participation in the 401(k) Plan is now available to non-represented employees and, after collective bargaining, most represented employees. All amounts of compensation deferred under the 401(k) Plan, and all income attributable to such compensation, less expenses and fees, are held in trust for the exclusive benefit of the participants and their beneficiaries. Accordingly, the 401(k) Plan is not reflected in the accompanying consolidated statements of net position.

The Deferred Compensation Program is administered and may be amended by the Deferred Compensation Committee.

As the Deferred Compensation Program's asset base and contribution flow increased, participants' investment options were expanded by the Deferred Compensation Committee with the advice of its Financial Advisor to provide greater diversification and flexibility. In 1988, after receiving an IRS determination letter for the 401(k) Plan, the MTA offered

its managers the choice of either participating in the 457 Plan or the 401(k) Plan. By 1993, the MTA offered eight investment funds: a Guaranteed Interest Account Fund, a Money Market Fund, a Common Stock Fund, a Managed Fund, a Stock Index Fund, a Government Income Fund, an International Fund and a Growth Fund.

In 1998, the Deferred Compensation Committee approved the unbundling of the Plans. In 2008, the Plans' investment choices were restructured to set up a four-tier strategy:

- Tier 1 – The MTA Asset Allocation Programs offer two options for those participants who would like to make retirement investing easy – the MTA Target Year Funds and Goal maker. Investments will be automatically diversified among a range of investment options.
- Tier 2 - The MTA Index Funds offer a tier of index funds, which invest in the securities of companies that are included in a selected index, such as the Standard & Poor's 500 (large cap) Index or Barclays Capital U.S. Aggregate (bond) index. The typical objective of an index fund is to achieve approximately the same return as that specific market index. Index funds provide investors with lower-cost investments because they are less expensive to administer than actively managed funds.
- Tier 3 – The MTA Actively Managed Portfolios, which are comprised of actively managed portfolios that are directed by one or a team of professional managers who buy and sell a variety of holdings in an effort to outperform selected indices. The funds provide a diversified array of distinct asset classes, with a single option in each class. They combine the value and growth disciplines to create a “core” portfolio for the mid-cap and international categories.
- Tier 4 – The Self-Directed Mutual Fund Option is designed for the more experienced investors. The fund offers access to an expanded universe of mutual funds from hundreds of well-known mutual fund families. Participants may invest only a portion of their account balances in this Tier.

In 2011, the Deferred Compensation Program began offering Roth contributions. Employees can elect after-tax Roth contributions and before-tax contributions in both the 401(k) Plan and the 457 Plan. The total combination of Roth after-tax contributions and regular before-tax contributions cannot exceed the IRS maximum of \$18,500 dollars or \$24,500 dollars for those over age 50 for the year ended December 31, 2018.

The two Plans offer the same array of investment options to participants. Eligible participants in the Deferred Compensation Program include employees (and in the case of MTA Long Island Bus, former employees) of:

- MTA
- MTA Long Island Rail Road
- MTA Bridges and Tunnels
- MTA Long Island Bus
- MTA Metro-North Railroad
- MTA New York City Transit
- MTA Staten Island Rapid Transit
- MTA Capital Construction
- MTA Bus

Matching Contributions - MTA Bus on behalf of certain MTA Bus employees, MTA Metro-North Railroad on behalf of certain MNR employees who opted-out of participation in the MTA Defined Benefit Pension Plan and MTA on behalf of certain represented MTA Business Service Center employees and on behalf of certain MTA Police Officers, make contributions to the 401(k) Plan. The rate for the employer contribution varies.

MTA Bus - Certain members who were employed by Queens Surface Corporation on February 26, 2005, and who became employees of MTA Bus on February 27, 2005, receive a matching contribution equal to 50% of member's before-tax contributions provided that the maximum matching contribution shall not exceed 3% of the member's base pay. MTA Bus also makes a basic contribution equal to 2% of the member's compensation. These members shall vest in the amount in the member's account attributable to the matching contributions and basic contributions as follows:

<u>Years of Service</u>	<u>Vested Percentage</u>
Less than 2	0%
2	20%
3	40%
4	60%
5	80%
6 or more	100%

MTA Metro-North Railroad – MNR employees represented by certain unions and who elected to opt-out of participation in the MTA Defined Benefit Pension Plan receive an annual employer contribution equal to 4% of the member's compensation. Effective on the first full pay period following the nineteenth anniversary date of an eligible MNR member's continuous employment, MTA Metro-North Railroad contributes an amount equal to 7% of the member's compensation. Eligible MNR members vest in these employer contributions as set forth below:

<u>Years of Service</u>	<u>Vested Percentage</u>
Less than 5	0%
5 or more	100%

MTA Headquarters - Police - For each plan year, the MTA shall make contributions to the account of each eligible MTA Police Benevolent Association member in the amounts required by the collective bargaining agreement ("CBA") and subject to the contribution limits set forth in the CBA. These contributions shall be made monthly and shall be considered MTA Police contributions. Members are immediately 100% vested in these employer contributions.

MTA Headquarters – Commanding Officers - In addition, for each plan year, the MTA shall make contributions to the account of each eligible MTA Police Department Commanding Officers Benevolent Association member in the amounts required by the CBA and subject to the contribution limits set forth in the CBA. These contributions shall be made monthly and shall be considered MTA Police contributions. These members are immediately 100% vested in these employer contributions.

MTA Headquarters – Business Services - Effective January 1, 2011, all newly hired MTA Business Services Center employees represented by the Transportation Communications Union are eligible to receive a matching contribution up to a maximum of 3% of the participant's compensation. A participant's right to the balance in his or her matching contributions shall vest upon the first of the following to occur:

- i. Completing 5 years of service,
- ii. Attaining the Normal Retirement Age of 62 while in continuous employment, or
- iii. Death while in continuous employment.

Additional Deposits (Incoming Rollover or Transfers) - Participants in the Deferred Compensation Program are eligible to roll over both their before-tax and after-tax assets from other eligible retirement plans into the 401(k) and 457 Plans. Under certain conditions, both Plans accept rollovers from all eligible retirement plans (as defined by the Code), including 401(a), 457, 401(k), 403(b), and rollover IRAs.

Forfeitures – Non vested contributions are forfeited upon termination of employment. Such forfeitures are used to cover a portion of the pension plan's administrative expenses.

	<u>December 31, 2018</u>	<u>December 31, 2017</u>
	(In thousands)	
Employer 401K contributions	\$ 4,392	\$ 4,109

5. OTHER POSTEMPLOYMENT BENEFITS

The MTA participates in a defined benefit other postemployment benefits (“OPEB”) plan for its employees, the Metropolitan Transportation Authority Retiree Welfare Benefits Plan (“OPEB Plan”). A description of the Plan follows:

(1) Plan Description

The MTA Retiree Welfare Benefits Plan (“OPEB Plan”) and the related Trust Fund (“Trust”) was established on January 1, 2009 for the exclusive benefit of MTA retired employees and their eligible spouses and dependents, to fund some of the OPEB provided in accordance with the MTA’s various collective bargaining agreements. Postemployment benefits are part of an exchange of salaries and benefits for employee services rendered. Amounts contributed to the OPEB Plan are held in an irrevocable trust and may not be used for any other purpose than to fund the costs of health and welfare benefits of its eligible participants.

The OPEB Plan and the Trust are exempt from federal income taxation under Section 115(1) of the Internal Revenue Code. The OPEB Plan is classified as a single-employer plan.

The OPEB Plan Board of Managers, comprised of the MTA Chairman, MTA Chief Financial Officer and MTA Director of Labor Relations, are the administrators of the OPEB Plan. The MTA Board has the right to amend, suspend or terminate the OPEB Plan.

The separate annual financial statements of the OPEB Plan may be obtained by writing to MTA Comptroller, 2 Broadway, 16th Floor, New York, New York, 10004 or at www.mta.info.

Benefits Provided — The benefits provided by the OPEB Plan include medical, pharmacy, dental, vision, life insurance and a Medicare supplemental plan. The different types of benefits provided vary by agency, employee type (represented employees versus non-represented) and the relevant collective bargaining agreements. Certain benefits are provided upon retirement as defined in the applicable pension plan. Certain agencies provide benefits to certain former employees if separated from service within 5 years of attaining retirement eligibility. Employees of the MTA are members of the following pension plans: the MTA Defined Benefit Plan, the Additional Plan, the MNR Cash Balance Plan, the MaBSTOA Plan, NYCERS, and NYSLERS. Certain represented employees of MTA Metro-North Railroad participate in the 401(k) Plan. Eligible employees of the MTA may elect to join the New York State Voluntary Defined Contribution Plan (“VDC”).

The MTA participates in the New York State Health Insurance Program (“NYSHIP”) and provides medical and prescription drug benefits, including Medicare Part B reimbursements, to many of its retirees. NYSHIP offers a Preferred Provider Organization (“PPO”) plan and several Health Maintenance Organization (“HMO”) plans. Represented MTA New York City Transit employees, other MTA New York City Transit former employees who retired prior to January 1, 1996 or January 1, 2001, MTA Staten Island Railway represented employees as of March 1, 2010, June 1, 2010 or January 1, 2013 depending on the union and MTA Bus retirees do not participate in NYSHIP. These benefits are provided either through a self-insured health plan, a fully insured health plan or an HMO.

The MTA is a participating employer in NYSHIP. The NYSHIP financial report can be obtained by writing to NYS Department of Civil Service, Employee Benefits Division, Alfred E. Smith Office Building, 805 Swan Street, Albany, NY 12239.

OPEB Plan Eligibility — To qualify for benefits under the OPEB Plan, a former employee of the MTA must:

- i. have retired;
- ii. be receiving a pension (except in the case of the 401(k) Plan);
- iii. have at least 10 years of credited service as a member of NYCERS, NYSLERS, the MTA Defined Benefit Plan, the Additional Plan, the MaBSTOA Plan, the MNR Cash Balance Plan, the 401(k) Plan or the VDC; and
- iv. have attained the minimum age requirement (unless within 5 years of commencing retirement for certain members).
A represented retired employee may be eligible only pursuant to the relevant collective bargaining agreement.

Surviving Spouse and Other Dependents —

- Lifetime coverage is provided to the surviving spouse (not remarried) or domestic partner and surviving dependent children to age 26 of retired managers and certain non-represented retired employees.
- Represented retired employees must follow the guidelines of their collective bargaining agreements regarding continued health coverage for a surviving spouse or domestic partner and surviving dependents. The surviving spouse coverage continues until spouse is eligible for Medicare for represented employees of MTA New York City Transit and MTA Staten Island Railway, retiring on or after:
 - o May 21, 2014 for Transport Workers Union (“TWU”) Local 100;

- September 24, 2014 for Amalgamated Transit Union (“ATU”) Local 726;
- October 29, 2014 for ATU Local 1056;
- March 25, 2015 for Transportation Communication Union (“TCU”); and
- December 16, 2015 for United Transportation Union (“UTU”) and American Train Dispatchers Association (“ATDA”).
- Lifetime coverage is provided to the surviving spouse (not remarried) or domestic partner and surviving dependents of retired uniform members of the MTA Police Department.
- Lifetime coverage is provided to the surviving spouse (not remarried) or domestic partner and surviving dependent children to age 26 of uniformed members of the MTA Police Department whose death was sustained while in performance of duty.

The OPEB Plan Board of Managers has the authority to establish and amend the benefits that will be covered under the OPEB Plan, except to the extent that they have been established by collective bargaining agreement.

Employees Covered by Benefit Terms — As of July 1, 2017, the date of the most recent actuarial valuation, the following classes of employees were covered by the benefit terms:

	Number of Participants
Active plan members	72,047
Inactive plan members currently receiving benefit payments	45,330
Inactive plan members entitled to but not yet receiving benefit payments	254
Total	<u><u>117,631</u></u>

Contributions — The MTA is not required by law or contractual agreement to provide funding for the OPEB Plan, other than the “pay-as-you-go” (“PAYGO”) amounts. PAYGO is the cost of benefits necessary to provide the current benefits to retirees and eligible beneficiaries and dependents. Employees are not required to contribute to the OPEB Plan. The OPEB Plan Board has the authority for establishing and amending the funding policy. For the year-ended December 31, 2018, the MTA paid \$696.1 of PAYGO to the OPEB Plan.

During 2012, the MTA funded \$250 into the Trust an additional \$50 during 2013. There have been no further contributions made to the Trust. The discount rate estimates investment earnings for assets earmarked to cover retiree health benefits. Under GASB Statement No. 75, the discount rate depends on the nature of underlying assets for funded plans. Since the amount of benefits paid in 2017 exceeded the current market value of the assets, a depletion date is assumed to occur immediately. Therefore, the discount rate is set equal to the municipal bond index. The MTA elected the Bond Buyer General Obligation 20-Bond Municipal Bond Index. As a result, the discount rates as of December 31, 2017 and December 31, 2016, the measurement dates, are 3.44% and 3.78%, respectively.

Employer contributions include the implicit subsidy, or age-related subsidy inherent in the healthcare premiums structure. The implicit subsidy arises when an employer allows a retiree and their dependents to continue on the active plans and pay the active premiums. Retirees are not paying the true cost of their benefits because they have higher utilization rates than actives and therefore, are partially subsidized by the active employees. As shown in the following table, for the year ended December 31, 2017, the employer made a cash payment for retiree healthcare of \$71,101 as part of the employer’s payment for active-employee healthcare benefits. For purposes of GASB Statement No. 75, this payment made on behalf of the active employees should be reclassified as benefit payments for retiree health care to reflect the retirees’ underlying age-adjusted, retiree benefit costs.

Blended and Age-adjusted Premium (in thousands)	<u>2017 Retirees</u>
Total blended premiums	\$579,893
Employment payment for retiree healthcare	71,101
Net Payments	<u><u>\$650,994</u></u>

(2) Actuarial Assumptions

Actuarial valuation involve estimates of the value of reported amounts and assumptions about the probability of occurrence of events far into the future, such as future employment, mortality and health care cost trend. Actuarially determined amounts are subject to continual revision as actual results are compared with past expectations and new estimates are made about the future.

Projections of benefits for financial reporting purposes are based on the substantive plan, which refers to the plan terms as understood by the employer and the plan members at the time of the valuation, including only changes to plan terms that have been made and communicated to employees. The projections include the types of benefits provided at the time of each valuation and the historical pattern of sharing benefit costs between the employer and plan members at that time. The MTA may not be obligated to provide the same types or levels of benefits to retirees in the future.

The total OPEB liability was determined by an actuarial valuation performed on July 1, 2017. Update procedures were used to roll forward the total OPEB liability to December 31, 2017, the measurement date. The actuarial valuations were performed using the following actuarial assumptions, applied to all periods included in the measurement, unless specified:

Valuation date	July 1, 2017
Measurement date	December 31, 2017
Discount rate	3.44%, net of expenses
Inflation	2.50%
Actuarial cost method	Entry Age Normal
Amortization method	Level percentage of payroll
Normal cost increase factor	4.50%
Investment rate of return	6.50%
Salary increases	3%. Varies by years of service and differs for members of the various pension plans

Healthcare Cost Trend — The healthcare trend assumption is based on the Society of Actuaries-Getzen Model version 2017 utilizing the baseline assumptions included in the model, except inflation of 2.5% for medical and pharmacy benefits. Additional adjustments apply based on percentage of costs associated with administrative expenses, aging factors, potential excise taxes due to healthcare reform, and other healthcare reform provisions, separately for NYSHIP and self-insured benefits administered by MTA New York City Transit. The NYSHIP trend reflects actual increases in premiums to participating agencies through 2018. These assumptions are combined with long-term assumptions for dental and vision benefits of an annual trend of 4.0% plus Medicare Part B reimbursements of an annual trend of 4.5%, but not more than projected medical and pharmacy trends excluding any excise tax adjustments. The self-insured trend is applied directly for represented employees of MTA New York City Transit, MTA Staten Island Railway and MTA Bus. For purposes of estimating the impact of the excise tax, the NYSHIP trend for MTA Bridges and Tunnels reflects that certain represented members do not receive prescription drug coverage through NYSHIP.

Healthcare Cost Trend Rates — The following lists illustrative rates for the NYSHIP and self-insured trend assumptions (all amounts are in percentages).

Fiscal Year	NYSHIP		TBTA		Self-Insured	
	< 65	> = 65	< 65	> = 65	< 65	> = 65
2018	8.5	8.2	7.5	4.9	6.8	9.1
2019	6.2	5.5	5.8	3.1	6.2	5.3
2020	5.8	5.3	5.6	3.9	5.8	5.2
2021	5.5	5.2	5.3	4.4	5.5	5.2
2022	7.2	5.1	5.1	5.1	11.1	5.1
2023	6.1	5.1	5.1	5.1	6.0	5.1
2024	6.1	5.0	5.0	5.0	5.9	5.0
2025	5.9	5.0	5.0	5.0	5.8	5.0
2026	5.9	5.0	5.0	5.0	5.8	5.0
2027	5.8	4.9	5.0	4.9	5.7	4.9
2037	5.6	5.0	5.9	5.0	5.5	5.0
2047	5.4	5.9	5.6	4.9	5.3	4.9
2057	5.1	5.4	5.2	4.8	5.1	5.2
2067	4.8	5.0	4.9	4.6	4.8	4.8
2077	4.2	4.3	4.2	4.0	4.1	4.5
2087	4.1	4.2	4.2	4.0	4.1	4.4
2097	4.1	4.2	4.2	4.7	4.1	4.4

For purposes of applying the Entry Age Normal Cost method, the healthcare trend prior to the valuation date are based on the ultimate rates, which are 4.1% for medical and pharmacy costs prior to age 65, 4.2% for NYSHIP costs at age 65 and

later (4.6% for certain MTA Bridges and Tunnels represented members), and 4.3% for self-insured medical and pharmacy costs at age 65 and later.

Mortality — Preretirement and postretirement healthy annuitant rates are projected on a generational basis using Scale AA. As a generational table, it reflects mortality improvements both before and after the measurement date. The postretirement mortality assumption is based on an experience analysis covering the period from January 1, 2011 to December 31, 2015 for the MTA-sponsored pension plans.

Preretirement — RP-2000 Employee Mortality Table for Males and Females with blue-collar adjustments. No blue-collar adjustments were used for management members of MTAHQ.

Postretirement Healthy Lives — 95% of the rates from the RP-2000 Healthy Annuitant mortality table for males with blue collar adjustments and 116% of the rates from the RP-2000 Healthy Annuitant mortality table for females. No blue collar or percentage adjustments were used for management members of MTAHQ.

Postretirement Disabled Lives — RP-2014 Disabled Annuitant mortality table for males and females.

(3) Net OPEB Liability

At December 31, 2018, the MTA reported a net OPEB liability of \$20,335. The MTA's net OPEB liability was measured as of the OPEB Plan's fiscal year-end of December 31, 2017. The total OPEB liability used to calculate the net OPEB liability was determined by an actuarial valuation date of July 1, 2017, and rolled forward to December 31, 2017.

OPEB Plan Fiduciary Net Position — The fiduciary net position has been determined on the same basis used by the OPEB plan. The OPEB plan uses the accrual basis of accounting under which contributions from the employer are recognized when paid. Benefits and refunds are recognized when due and payable in accordance with the terms of the Plan. Investments are reported at fair value based on quoted market prices or Net Asset Value. Detailed information about the OPEB plan's fiduciary net position is available in the separately issued financial report or at www.mta.info.

Expected Rate of Return on Investments — The long-term expected rate of return on OPEB plan investments was determined using a building-block method in which best-estimate ranges of expected future real rates of return (expected returns, net of OPEB plan investment expense and inflation) are developed for each major asset class. These ranges are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation. The target allocation and best estimates of arithmetic real rates of return for each major asset class are summarized in the following table:

Asset Class	Target Allocation	Long-Term Expected Arithmetic Real Rate of Return
U.S core fixed income	13.0%	1.96%
Global bonds	15.0%	0.34%
Emerging markets bonds	5.0%	3.30%
Global equity	35.0%	4.99%
Non-U.S. equity	15.0%	5.84%
Global REITs	5.0%	5.62%
Hedge funds - multistrategy	12.0%	3.35%
Total	100%	
Assumed Inflation - Mean		2.50%
Assumed Inflation - Standard Deviation		1.85%
Portfolio Nominal Mean return		6.29%
Portfolio Standard Deviation		11.37%
Long Term Expected Rate of Return selected by MTA		6.50%

Discount Rate — The discount rate used in this valuation to measure the total OPEB liability was updated to incorporate GASB Statement No. 75 guidance.

The plan's fiduciary net position was not projected to be available to make all projected future benefit payments of current active and inactive employees. Therefore, the discount rate for calculating the total OPEB liability is equal to the single equivalent rate that results in the same actuarial present value as the long-term expected rate of return applied to benefit payments, to the extent that the plan's fiduciary net position is projected to be sufficient to make projected benefit payments, and the municipal bond rate applied to benefit payments, to the extent that the plan's fiduciary net position is not projected

to be sufficient. Therefore, the discount rate is set equal to the Bond Buyer General Obligation 20-Bond Municipal Bond Index as of December 31, 2017 of 3.44%.

Changes in Net OPEB Liability — Changes in the MTA's net OPEB liability for the year ended December 31, 2018, based on the December 31, 2017 measurement date, are as follows:

	Total OPEB Liability	Plan Fiduciary Net Position (in thousands)	Net OPEB Liability
Balance as of December 31, 2016	\$18,787,254	\$322,982	\$18,464,272
Changes for the year:			
Service Cost	884,548	-	884,548
Interest on total OPEB liability	731,405	-	731,405
Effect of plan changes	27,785	-	27,785
Effect of economic/demographic gains or losses	13,605	-	13,605
Effect of assumptions changes or inputs	911,465	-	911,465
Benefit payments	(650,994)	(650,994)	-
Employer contributions	-	650,994	(650,994)
Net investment income	-	47,370	(47,370)
Administrative expenses	-	0	0
Net changes	<u>1,917,814</u>	<u>47,370</u>	<u>1,870,444</u>
Balance as of December 31, 2017	<u>\$20,705,068</u>	<u>\$370,352</u>	<u>\$20,334,716</u>

Sensitivity of the Net OPEB Liability to Changes in the Discount Rate — The following presents the net OPEB liability of the MTA, calculated using the discount rate of 3.44%, as well as what the MTA's net OPEB liability would be if it were calculated using a discount rate that is 1-percentage point lower or 1-percentage point higher than the actual discount rate used for the measurement date:

	1% Decrease (2.44%)	Discount Rate (3.44%) (in thousands)	1% Increase (4.44%)
Net OPEB liability	\$23,407,072	\$20,334,716	\$17,817,307

Sensitivity of the Net OPEB Liability to Changes in the Healthcare Cost Trend Rates — The following presents the net OPEB liability of the MTA, calculated using the current healthcare cost trend rates, as well as what the MTA's net OPEB liability would be if it were calculated using trend rates that are 1-percentage point lower or 1-percentage point higher than the actual healthcare trend rate used for the measurement date:

	1% Decrease	Healthcare Cost Current Trend Rate* (in thousands)	1% Increase
Net OPEB liability	\$17,394,102	\$20,334,716	\$24,043,932

*For further details, refer to the Health Care Cost Trend Rates tables in the Actuarial Assumptions section of this Note Disclosure

(4) OPEB Expense and Deferred Outflows of Resources and Deferred Inflows of Resources Related to OPEB

For the three-month period ended March 31, 2019 and year ended December 31, 2018, the MTA recognized OPEB expense of \$144 and \$1.75 billion, respectively.

At March 31, 2019 and December 31, 2018, the MTA reported deferred outflows of resources and deferred inflows of resources related to OPEB as follows (\$ in thousands):

	March 31, 2019		December 31, 2018	
	Deferred Outflows of Resources	Deferred Inflows of Resources	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between expected and actual experience	\$ 11,767.00	\$ -	11,767.00	\$ -
Changes of assumptions	788,294	-	788,294	-
Net difference between projected and actual earnings on OPEB plan investments	-	21,101	-	21,101
Employer contributions to the plan subsequent to the measurement of net OPEB liability	710,145	-	696,065	-
Total	<u>\$ 1,510,206</u>	<u>\$ 21,101</u>	<u>\$ 1,496,126</u>	<u>\$ 21,101</u>

The annual differences between the projected and actual earnings on investments are amortized over a 5-year closed period beginning the year in which the difference occurs. The annual differences between expected and actual experience and changes in assumptions are amortized over a 7.4-year closed period, beginning the year in which the deferred amount occurs.

For the three-month period ended March 31, 2019 and year ended December 31, 2018, \$710.1 and \$696.1 were reported as deferred outflows of resources related to OPEB. This amount includes both MTA's contributions subsequent to the measurement date and an implicit rate subsidy adjustment that will be recognized as a reduction of the net OPEB liability in the year ended December 31, 2019. Other amounts reported as deferred outflows of resources and deferred inflows of resources related to OPEB at December 31, 2018 will be recognized in OPEB expense as follows (in thousands):

Year ended December 31, :

2019	\$119,734
2020	119,734
2021	119,734
2022	119,734
2023	125,010
Thereafter	<u>175,014</u>
	<u>\$778,960</u>

6. CAPITAL ASSETS

Capital assets and improvements include all land, buildings, equipment, and infrastructure of the MTA having a minimum useful life of two years and having a cost of more than \$25 thousand.

Capital assets are stated at historical cost, or at estimated historical cost based on appraisals, or on other acceptable methods when historical cost is not available. Capital leases are classified as capital assets in amounts equal to the lesser of the fair market value or the present value of net minimum lease payments at the inception of the lease.

Accumulated depreciation and amortization are reported as reductions of fixed assets. Depreciation is computed using the straight-line method based upon estimated useful lives of 25 to 50 years for buildings, 2 to 40 years for equipment, and 25 to 100 years for infrastructure. Capital lease assets and leasehold improvements are amortized over the term of the lease or the life of the asset whichever is less. Capital assets consist of the following at December 31, 2017, December 31, 2018 and March 31, 2019 (in millions):

	Balance December 31, 2017	Additions / Reclassifications	Deletions / Reclassifications	Balance December 31, 2018	Additions / Reclassifications (Unaudited)	Deletions / Reclassifications (Unaudited)	Balance March 31, 2019 (Unaudited)
Capital assets not being depreciated:							
Land	\$ 217	\$ -	\$ -	\$ 217	\$ -	\$ -	\$ 217
Construction work-in-progress	16,978	7,528	6,454	18,052	2,549	2,475	18,126
Total capital assets not being depreciated	17,195	7,528	6,454	18,269	2,549	2,475	18,343
Capital assets being depreciated:							
Buildings and structures	17,716	746	5	18,457	58	-	18,515
Bridges and tunnels	3,604	550	-	4,154	-	-	4,154
Equipment:							
Passenger cars and locomotives	13,860	303	785	13,378	124	-	13,502
Buses	3,613	321	126	3,808	118	40	3,886
Infrastructure	23,834	2,438	14	26,258	405	-	26,663
Other	22,706	1,825	12	24,519	551	1	25,069
Total capital assets being depreciated	85,333	6,183	942	90,574	1,256	41	91,789
Less accumulated depreciation:							
Buildings and structures	6,923	495	4	7,414	128	-	7,542
Bridges and tunnels	783	23	-	806	-	-	806
Equipment:							
Passenger cars and locomotives	7,206	397	660	6,943	100	-	7,043
Buses	2,216	233	126	2,323	60	41	2,342
Infrastructure	9,286	803	17	10,072	249	-	10,321
Other	8,054	728	8	8,774	169	-	8,943
Total accumulated depreciation	34,468	2,679	815	36,332	706	41	36,997
Total capital assets being depreciated - net	50,865	3,504	127	54,242	550	-	54,792
Capital assets - net	\$ 68,060	\$ 11,032	\$ 6,581	\$ 72,511	\$ 3,099	\$ 2,475	\$ 73,135

Interest capitalized in conjunction with the construction of capital assets for the periods ended March 31, 2019 and December 31, 2018 was \$9.3 and \$49.3, respectively.

Capital assets acquired prior to April 1982 for MTA New York City Transit were funded primarily by NYC with capital grants made available to MTA New York City Transit. NYC has title to a substantial portion of such assets and, accordingly, these assets are not recorded on the books of the MTA. Subsequent acquisitions, which are part of the MTA Capital Program, are recorded at cost by MTA New York City Transit. In certain instances, title to MTA Bridges and Tunnels' real property may revert to NYC in the event the MTA determines such property is unnecessary for its corporate purpose. With respect to MTA Metro-North Railroad, capital assets completely funded by CDOT are not reflected in MTA's financial statements, as ownership is retained by CDOT.

For certain construction projects, the MTA holds in a trust account marketable securities pledged by third-party contractors in lieu of cash retainages. At March 31, 2019 and December 31, 2018, these securities, which are not included in these financial statements, totaled \$92.2 and \$81.7, respectively, and had a market value of \$67.9 and \$53.2, respectively.

7. LONG-TERM DEBT

(In millions)	Original Issuance	December 31, 2018	Issued	Retired	March 31, 2019
			(Unaudited)		(Unaudited)
MTA:					
Transportation Revenue Bonds					
1.37%–6.68% due through 2057	\$ 36,823	\$ 20,923	\$ 454	\$ -	\$ 21,377
Bond Anticipation Notes*					
2.3% due through 2021	9,417	4,007	1,810	800	5,017
State Service Contract Bonds					
4.125%–5.70% due through 2031	2,395	-	-	-	-
Dedicated Tax Fund Bonds					
2.05%–5.00% due through 2057	11,039	5,184	-	-	5,184
	59,674	30,114	2,264	800	31,578
Net unamortized bond premium	-	1,559	131	82	1,608
	59,674	31,673	2,395	882	33,186
TBTA:					
General Revenue Bonds					
1.81%–4.18% due through 2047	16,680	7,663	-	43	7,620
Bond Anticipation Notes					
5.77% due through 2032	400	-	-	-	-
Subordinate Revenue Bonds					
3.13%–5.34% due through 2032	4,066	1,022	-	19	1,003
	21,146	8,685	-	62	8,623
Net unamortized bond premium	-	626	-	20	606
	21,146	9,311	-	82	9,229
MTA Hudson Rail Yards Trust:					
MTA Hudson Rail Yards Trust Obligations					
1.88%–2.65% due through 2056	1,057	1,057	-	-	1,057
Net unamortized bond premium	-	128	-	1	127
	1,057	1,185	-	1	1,184
Total	\$ 81,877	\$ 42,169	\$ 2,395	\$ 965	\$ 43,599
Current portion		\$ 2,552			\$ 2,061
Long-term portion		\$ 39,617			\$ 41,538

* Includes draws on a \$700 taxable revolving credit agreement with JPMorgan Chase Bank, National Association, which is active through August 24, 2022. Draws under the JPMorgan Chase Agreement will be evidenced by revenue anticipation notes ("RANs"). As of March 31, 2019 and December 31, 2018, the outstanding RAN was \$17 and \$7, respectively.

(In millions)	Original Issuance	December 31, 2017	Issued	Retired	December 31, 2018
MTA:					
Transportation Revenue Bonds					
1.37%–6.68% due through 2057	\$ 36,369	\$ 21,028	\$ 680	\$ 785	\$ 20,923
Bond Anticipation Notes					
5.0% due through 2021	7,607	1,516	3,003	512	4,007
State Service Contract Bonds					
4.125%–5.70% due through 2031	2,395	68	-	68	-
Dedicated Tax Fund Bonds					
2.05%–5.00% due through 2057	11,039	5,371	-	187	5,184
	57,410	27,983	3,683	1,552	30,114
Net unamortized bond premium	-	1,578	279	298	1,559
	57,410	29,561	3,962	1,850	31,673
TBTA:					
General Revenue Bonds					
4.00%–5.77% due through 2050	16,680	7,218	1,055	610	7,663
Bond Anticipation Notes					
5.77% due through 2032	400	165	-	165	-
Subordinate Revenue Bonds					
4.00%–5.77% due through 2032	4,066	1,386	-	364	1,022
	21,146	8,769	1,055	1,139	8,685
Net unamortized bond premium	-	581	129	84	626
	21,146	9,350	1,184	1,223	9,311
MTA Hudson Rail Yards Trust:					
MTA Hudson Rail Yards Trust Obligations					
1.88%–2.65% due through 2056	1,057	1,057	-	-	1,057
Net unamortized bond premium	-	130	-	2	128
	1,057	1,187	-	2	1,185
Total	\$ 79,613	\$ 40,098	\$ 5,146	\$ 3,075	\$ 42,169
Current portion		\$ 1,806			\$ 2,552
Long-term portion		\$ 38,292			\$ 39,617

MTA Transportation Revenue Bonds — Prior to 2019, MTA issued sixty-two Series of Transportation Revenue Bonds secured under its General Resolution Authorizing Transportation Revenue Obligations adopted on March 26, 2002 in the aggregate principal amount of \$31,891. The Transportation Revenue Bonds are MTA's special obligations payable solely from transit and commuter systems revenues and certain state and local operating subsidies.

On February 6, 2019, MTA issued \$454.150 Transportation Revenue Green Bonds, Series 2019A. Proceeds from the transaction were used to pay off the existing outstanding 2017C-1 Transportation Revenue Bond Anticipation Notes in the amount of \$500. The Series 2019A bonds were issued through a competitive bidding process as \$191.345 Subseries 2019A-1, \$162.805 Subseries 2019A-2, and \$100 Subseries 2019A-3. The Subseries 2019A-1 bonds were issued as mandatory tender bonds with an initial purchase date of November 15, 2024. The Subseries 2019A-2 and 2019A-3 bonds were issued as fixed rate tax-exempt bonds with final maturities of November 15, 2045, and November 15, 2046, respectively.

On March 28, 2019, MTA effectuated a mandatory tender and remarketed \$50 MTA Transportation Revenue Bonds, Subseries 2012A-3 because its current interest rate period expired by its terms. The Series 2012A-3 Bonds were remarketed in Term Rate Mode as Floating Rate Tender Notes ("FRNs") with a purchase date of March 1, 2022 and with an interest rate of SIFMA plus 0.50%.

MTA Bond Anticipation Notes — From time to time, MTA issues Transportation Revenue Bond Anticipation Notes in accordance with the terms and provisions of the General Resolution described above in the form of commercial paper to fund its transit and commuter capital needs. The interest rate payable on the notes depends on the maturity and market conditions at the time of issuance. The MTA Act requires MTAHQ to periodically (at least each five years) refund its bond anticipation notes with bonds.

On February 6, 2019, MTA issued \$750 MTA Transportation Revenue Bond Anticipation Notes, Series 2019A to generate new money proceeds to finance existing approved transit and commuter projects and to retire the outstanding Taxable Revenue Anticipation Note. The Series 2019A Notes were priced through a competitive method of sale. The Series 2019A

Notes were issued as fixed rate tax-exempt notes with an all-in True Interest Cost of 2.069% and a final maturity of February 3, 2020.

MTA Revenue Anticipation Notes — On January 9, 2014, MTA closed a \$350 revolving working capital liquidity facility with the Royal Bank of Canada which is expected to remain in place until July 7, 2017. Draws on the facility will be taxable, as such this facility is intended to be used only for operating needs of MTA and the related entities. On January 31, 2017, MTA drew down \$200 of its \$350 Revolving Credit Agreement with the Royal Bank of Canada, which was entered into on January 1, 2014. The purpose of the draw was to retire Transportation Revenue Bond Anticipation Notes, Subseries 2016A-2. The \$200 draw-down plus accrued interest was repaid on March 31, 2017.

On August 24, 2017, MTA entered into a \$350 taxable Revenue Anticipation Note facility, (the “2017A RAN”), with J.P.Morgan Chase Bank, National Association. An initial draw of \$3.5 was made at closing. This balance will remain throughout the duration of the agreement. The 2017A RAN is available to be used by MTA for any corporate purpose as needed and is structured as a revolving loan facility. The RAN expires on August 24, 2022.

On August 14, 2018, MTA amended the 2017A RAN to (1) correct the designation of the facility to Transportation Revenue Anticipation Notes, Series 2017 (the “Series 2017 RANs”) and (2) increase the maximum amount of the Series 2017 RANs authorized to be issued by \$350, for a maximum principal amount of \$700 at any one-time outstanding. To maintain the 1% draw on the line of credit throughout the duration of the agreement, an additional \$3.5 draw was made on August 14, 2018.

MTA State Service Contract Bonds — Prior to 2019, MTA issued two Series of State Service Contract Bonds secured under its State Service Contract Obligation Resolution adopted on March 26, 2002, in the aggregate principal amount of \$2,395. Currently, there are no outstanding bonds. The State Service Contract Bonds are MTA’s special obligations payable solely from certain payments from the State of New York under a service contract.

MTA Dedicated Tax Fund Bonds — Prior to 2019, MTA issued twenty-two Series of Dedicated Tax Fund Bonds secured under its Dedicated Tax Fund Obligation Resolution adopted on March 26, 2002, in the aggregate principal amount of \$9,769. The Dedicated Tax Fund Bonds are MTA’s special obligations payable solely from monies held in the Pledged Amounts Account of the MTA Dedicated Tax Fund. State law requires that the MTTF revenues and MMTOA revenues (described above in Note 2 under “Nonoperating Revenues”) be deposited, subject to appropriation by the State Legislature, into the MTA Dedicated Tax Fund.

On March 19, 2019, MTA issued \$750 MTA Dedicated Tax Fund Bond Anticipation Notes, Series 2019A to generate new money proceeds to finance existing approved transit and commuter projects. The Series 2019A Notes were priced through a competitive method of sale. The Series 2019A Notes were issued as fixed rate tax-exempt notes with an all-in True Interest Cost of 1.856% and a final maturity of March 1, 2022.

MTA Certificates of Participation — Prior to 2019, MTA (solely on behalf of MTA Long Island Rail Road and MTA Metro-North Railroad), MTA New York City Transit and MTA Bridges and Tunnels executed and delivered three Series of Certificates of Participation in the aggregate principal amount of \$807 to finance certain building and leasehold improvements to an office building at Two Broadway in Manhattan occupied principally by MTA New York City Transit, MTA Bridges and Tunnels, MTA Capital Construction, and MTAHQ. The Certificates of Participation represented proportionate interests in the principal and interest components of Base Rent paid severally, but not jointly, in their respective proportionate shares by MTA New York City Transit, MTA, and MTA Bridges and Tunnels, pursuant to a Leasehold Improvement Sublease Agreement.

MTA Bridges and Tunnels General Revenue Bonds — Prior to 2019, MTA Bridges and Tunnels issued thirty- one Series of General Revenue Bonds secured under its General Resolution Authorizing General Revenue Obligations adopted on March 26, 2002, in the aggregate principal amount of \$12,899. The General Revenue Bonds are MTA Bridges and Tunnels’ general obligations payable generally from the net revenues collected on the bridges and tunnels operated by MTA Bridges and Tunnels.

MTA Bridges and Tunnels Subordinate Revenue Bonds — Prior to 2019, MTA Bridges and Tunnels issued twelve Series of Subordinate Revenue Bonds secured under its 2001 Subordinate Revenue Resolution Authorizing Subordinate Revenue Obligations adopted on March 26, 2002, in the aggregate principal amount of \$3,871. The Subordinate Revenue Bonds are MTA Bridges and Tunnels’ special obligations payable generally from the net revenues collected on the bridges and tunnels operated by MTA Bridges and Tunnels after the payment of debt service on the MTA Bridges and Tunnels General Revenue Bonds described in the preceding paragraph.

MTA Hudson Rail Yards Trust Obligations — The MTA Hudson Rail Yards Trust Obligations, Series 2016A (“Series 2016A Obligations”) were executed and delivered on September 22, 2016 by Wells Fargo Bank National Association, as Trustee (“Trustee”), to (i) retire the outstanding Transportation Revenue Bond Anticipation Notes, Series 2016A of the MTA, which were issued to provide interim financing of approved capital program transit and commuter projects, (ii) finance approved capital program transit and commuter projects of the affiliates and subsidiaries of the MTA, (iii) fund an Interest Reserve Requirement in an amount equal to one-sixth (1/6) of the greatest amount of Interest Components (as hereinafter

defined) in the current or any future year, (iv) fund a portion of the Capitalized Interest Fund requirement, and (v) finance certain costs of issuance.

Pursuant to the Financing Agreement (as hereinafter defined), the MTA has agreed to pay to, or for the benefit of, the Trustee the “MTA Financing Agreement Amount,” consisting of principal and interest components. The Series 2016A Obligations evidence the interest of the Owners thereof in such MTA Financing Agreement Amount payable by the MTA pursuant to the Financing Agreement. The principal amount of the Series 2016A Obligations represent the principal components of the MTA Financing Agreement Amount (“Principal Components”) and the interest represent the interest components of the MTA Financing Agreement Amount (“Interest Components”). The Series 2016A Obligations (and the related Principal Components and Interest Components) are special limited obligations payable solely from the Trust Estate established under the MTA Hudson Rail Yards Trust Agreement, dated as of September 1, 2016 (“Trust Agreement”), by and between the MTA and the Trustee.

The Trust Estate consists principally of (i) the regularly scheduled rent, delinquent rent or prepaid rent (“Monthly Ground Rent”) to be paid by Ground Lease Tenants (the tenants under the Western Rail Yard Original Ground Lease and each Severed Parcel Ground Lease of the Eastern Rail Yard) of certain parcels being developed on and above the Eastern Rail Yard and Western Rail Yard portions of the John D. Caemmerer West Side Yards (“Hudson Rail Yards”) currently operated by The Long Island Rail Road Company (“LIRR”), (ii) monthly scheduled transfers from the Capitalized Interest Fund during the limited period that the Monthly Ground Rent is abated under the applicable Ground Lease, (iii) payments made by the Ground Lease Tenants if they elect to exercise their option to purchase the fee interest in such parcels (“Fee Purchase Payments”), (iv) Interest Reserve Advances and Direct Cost Rent Credit Payments (collectively “Contingent Support Payments”) made by the MTA, (v) rights of the MTA to exercise certain remedies under the Ground Leases and (vi) rights of the Trustee to exercise certain remedies under the Ground Leases and the Fee Mortgages.

Pursuant to the Interagency Financing Agreement, dated as of September 1, 2016 (“Financing Agreement”), by and among the MTA, New York City Transit Authority, Manhattan and Bronx Surface Transit Operating Authority, LIRR, Metro-North Commuter Railroad Company, and MTA Bus Company (collectively, the “Related Transportation Entities”), and the Trustee, the MTA has agreed to pay to the Trustee the MTA Financing Agreement Amount with moneys provided by the Financing Agreement Payments (which are principally the revenues within the Trust Estate) and Interest Reserve Advances. The MTA has established a deposit account with Wells Fargo Bank, National Association, as depository (“Depository”), and the MTA will direct all Ground Lease Tenants to make Monthly Ground Rent and Fee Purchase Payments (payments made by the Ground Lease Tenants if they elect to exercise their option to purchase the fee interest in such parcels) directly to the Depository, which deposits will be transferred daily to the Trustee. In addition, in the event the MTA elects to exercise certain Authority Cure Rights upon the occurrence of a Ground Lease Payment Event of Default or is required to make certain Direct Cost Rent Credit Payments, the MTA will make all payments relating to defaulted and future Monthly Ground Rent directly to the Depository.

Refer to Note 8 for further information on Leases.

Debt Limitation — The New York State Legislature has imposed limitations on the aggregate amount of debt that the MTA and MTA Bridges and Tunnels can issue to fund the approved transit and commuter capital programs. The current aggregate ceiling, subject to certain exclusions, is \$55,497 compared with issuances totaling approximately \$34,849. The MTA expects that the current statutory ceiling will allow it to fulfill the bonding requirements of the approved Capital Programs.

Bond Refundings — From time to time, the MTA and MTA Bridges and Tunnels issue refunding bonds to achieve debt service savings or other benefits. The proceeds of refunding bonds are generally used to purchase U.S. Treasury obligations that are placed in irrevocable trusts. The principal and interest within the trusts will be used to repay the refunded debt. The trust account assets and the refunded debt are excluded from the consolidated statements of net position.

At March 31, 2019 and December 31, 2018, the following amounts of MTA bonds, which have been refunded, remain valid debt instruments and are secured solely by and payable solely from their respective irrevocable trusts.

(In millions)	March 31, 2019 (Unaudited)	December 31, 2018
MTA Transit and Commuter Facilities:		
Transit Facilities Revenue Bonds	\$ 169	\$ 169
Commuter Facilities Revenue Bonds	172	172
Dedicated Tax Fund Bonds	42	42
MTA Bridges and Tunnels:		
General Purpose Revenue Bonds	628	674
Special Obligation Subordinate Bonds	89	102
Total	<u>\$ 1,100</u>	<u>\$ 1,159</u>

For the three months ended March 31, 2019, MTA did not have any refunding transactions. For the three months ended March 31, 2018, MTA did not have any refunding transactions. Details of bond refunding savings as of December 31, 2018 are as follows:

Bonds Refunded in 2018	(In millions)	Series	Date issued	Par value Refunded	Debt Service Savings	Net Present Value of Savings
Transportation Revenue Bonds		TRB 2018B	08/23/2018	\$ 207	\$ 30	\$ 28
MTA Bridges and Tunnels General Revenue Bonds		TBTA 2018B	08/30/2018	270	80	62
		TBTA 2018C	08/30/2018	159	(5)	21
				<u>429</u>	<u>75</u>	<u>83</u>
Total Bond Refunding Savings				<u>\$ 636</u>	<u>\$ 105</u>	<u>\$ 111</u>

For the three-month periods ended March 31, 2019 and 2018, the accounting loss on bond refundings totaled \$0 and the accounting loss on bond refundings totaled \$0, respectively.

Unamortized losses related to bond refundings were as follows:

(In millions)	December 31, 2017	(Gain)/loss on refunding	2017 amortization	December 31, 2018	(Gain)/loss on refunding	Current year amortization	March 31, 2019
					(Unaudited)	(Unaudited)	(Unaudited)
MTA:							
Transportation Revenue Bonds	\$ 728	\$ (2)	\$ (56)	\$ 670	\$ -	\$ (16)	\$ 654
State Service Contract Bonds	(10)	-	(2)	(12)	-	-	(12)
Dedicated Tax Fund Bonds	254	-	(16)	238	-	(4)	234
	<u>972</u>	<u>(2)</u>	<u>(74)</u>	<u>896</u>	<u>-</u>	<u>(20)</u>	<u>876</u>
TBTA:							
General Revenue Bonds	233	1	(25)	209	-	(4)	205
Subordinate Revenue Bonds	30	-	3	33	-	(1)	32
	<u>263</u>	<u>1</u>	<u>(22)</u>	<u>242</u>	<u>-</u>	<u>(5)</u>	<u>237</u>
Total	<u>\$ 1,235</u>	<u>\$ (1)</u>	<u>\$ (96)</u>	<u>\$ 1,138</u>	<u>\$ -</u>	<u>\$ (25)</u>	<u>\$ 1,113</u>

Debt Service Payments — Future principal and interest debt service payments at March 31, 2019 are as follows (in millions):

(Unaudited)	MTA		MTA BRIDGES AND TUNNELS		Debt Service	
	Principal	Interest	Principal	Interest	Principal	Interest
2019	\$ 1,751	\$ 1,448	\$ 310	\$ 333	\$ 2,061	\$ 1,781
2020	2,708	1,340	266	336	2,974	1,676
2021	2,754	1,229	324	322	3,078	1,551
2022	834	1,167	336	307	1,170	1,474
2023	983	1,082	362	291	1,345	1,373
2024-2028	5,302	4,051	2,138	1,177	7,440	5,228
2029-2033	6,371	2,904	2,351	701	8,722	3,605
2034-2038	5,068	2,002	1,346	399	6,414	2,401
2039-2043	3,424	962	667	135	4,091	1,097
2044-2048	2,051	377	497	30	2,548	407
2049-2053	764	137	26	2	790	139
2054-2058	626	29	-	-	626	29
Thereafter	-	-	-	-	-	-
Total	<u>\$ 32,636</u>	<u>\$ 16,728</u>	<u>\$ 8,623</u>	<u>\$ 4,033</u>	<u>\$ 41,259</u>	<u>\$ 20,761</u>

The above interest amounts include both fixed-rate and variable-rate calculations. The interest rate assumptions for variable rate bonds are as follows:

- *Transportation Revenue Refunding Bonds, Series 2002D — 4.45% per annum taking into account the interest rate swap plus the current fixed floating rate note spread.*
- *Transportation Revenue Refunding Bonds, Series 2002G — 3.542% per annum taking into account the interest rate swap plus the current fixed floating rate note spread; and 4.00% per annum plus the current fixed floating rate note spread on the unhedged portion.*
- *Transportation Revenue Bonds, Series 2005D — 3.561% per annum taking into account the interest rate swaps.*
- *Transportation Revenue Bonds, Series 2005E — 3.561% per annum taking into account the interest rate swaps and 4.00% per annum on the unhedged portion.*
- *Transportation Revenue Bonds, Series 2011B — 3.542% per annum taking into account the interest rate swaps plus the current fixed floating rate note spread; and 4.00% per annum plus the current fixed floating rate note spread on the unhedged portion.*
- *Transportation Revenue Bonds, Series 2012A — 4.00% per annum plus the current fixed floating rate note spread.*
- *Transportation Revenue Bonds, Series 2012G — 3.563% per annum taking into account the interest rate swaps plus the current fixed floating rate note spread.*
- *Transportation Revenue Bonds, Series 2014D-2 — 4.00% per annum plus the current fixed floating rate note spread.*
- *Transportation Revenue Bonds, Series 2015A-2 — 4.00% per annum plus the current fixed floating rate note spread.*
- *Transportation Revenue Bonds, Series 2015E — 4.00% per annum.*
- *Dedicated Tax Fund Bonds, Series 2002B — 4.00% per annum on SubSeries 2002B-1; and 4.00% per annum plus the current fixed floating rate note spread.*
- *Dedicated Tax Fund Variable Rate Refunding Bonds, Series 2008A — 3.316% per annum taking into account the interest rate swaps plus the current fixed floating rate note spread; and 4.00% per annum plus the current fixed floating rate note spread on the unhedged portion.*
- *Dedicated Tax Fund Refunding Bonds, SubSeries 2008B-3a and 2008B-3c — 4.00% per annum plus the current fixed floating rate note spread.*
- *MTA Bridges and Tunnels Subordinate Refunding Bonds, Series 2000ABCD — 6.08% per annum taking into account the interest rate swap plus the current fixed floating rate note spread; and 4.00% per annum plus the current fixed floating rate note spread on the unhedged portion.*
- *MTA Bridges and Tunnels General Revenue Refunding Bonds, Series 2001C — 4.00% per annum.*
- *MTA Bridges and Tunnels General Revenue Refunding Bonds, Series 2001B — 4.00% per annum plus the current fixed floating rate note spread.*
- *MTA Bridges and Tunnels General Revenue Refunding Bonds, Series 2002F — 5.404% and 3.076% per annum taking into account the interest rate swaps and 4.00% per annum on portions not covered by the interest rate swaps.*
- *MTA Bridges and Tunnels General Revenue Bonds, Series 2003B — 4.00% per annum; and 4.00% per annum plus the current fixed floating rate note spread on SubSeries 2003B-2.*
- *MTA Bridges and Tunnels General Revenue Bonds, Series 2005A — 4.00% per annum except from November 1, 2027 through November 1, 2030, 3.076% per annum taking into account the interest rate swap.*
- *MTA Bridges and Tunnels General Revenue Refunding Bonds, Series 2005B — 3.076% per annum based on the Initial Interest Rate Swaps plus the current fixed floating rate note spread.*
- *MTA Bridges and Tunnels General Revenue Bonds, Series 2008B-2 — 4.00% per annum plus the current fixed floating rate note spread.*
- *MTA Bridges and Tunnels General Revenue Bonds, Series 2018D — 4.00% per annum plus the current fixed floating rate note spread.*
- *MTA Bridges and Tunnels General Revenue Bonds, Series 2018E — 4.00% per annum.*

Loans Payable – The MTA and the New York Power Authority (“NYPA”) entered into an updated Energy Services Program Agreement (“ESP Agreement”). The ESP Agreement authorized MTA affiliates and subsidiaries to enter into a Customer Installation Commitment (“CIC”) with NYPA for turn-key, energy efficiency projects, which would usually be long-term funded and constructed by NYPA. The repayment period for the NYPA loan can be up to 20 years, but can be repaid at any time without penalty.

The debt service requirements at March 31, 2019 are as follows:

Year	(Unaudited)	Principal	Interest	Total
2019		\$ 13	\$ 2	\$ 15
2020		14	2	16
2021		13	1	14
2022		12	1	13
2023		10	1	11
2024-2028		35	2	37
2029-2033		19	2	21
Total		<u>\$ 116</u>	<u>\$ 11</u>	<u>\$ 127</u>
Current portion		\$ 14		
Long-term portion		102		
Total NYPA Loans Payable		<u>\$ 116</u>		

The above interest amounts include both fixed and variable rate calculations. Interest on the variable-rate loan is paid at the Securities Industry and Financial Markets Association Municipal Swap Index (“SIFMA”) rate and is reset annually.

Tax Rebate Liability — Under the Internal Revenue Code of 1986, the MTA may accrue a liability for an amount of rebateable arbitrage resulting from investing low-yielding, tax-exempt bond proceeds in higher-yielding, taxable securities. The arbitrage liability is payable to the federal government every five years. No accruals or payments were made during the periods ended March 31, 2019 and December 31, 2018.

Liquidity Facility — MTA and MTA Bridges and Tunnels have entered into several Standby Bond Purchase Agreements (“SBPA”) and Letter of Credit Agreements (“LOC”) as listed on the table below.

Resolution	Series	Swap	Provider (Insurer)	Type of Facility	Exp. Date
Transportation Revenue	2002G-1g	Y	TD Bank, N.A.	LOC	11/1/2021
Transportation Revenue	2005D-2	Y	Helaba	LOC	11/10/2022
Transportation Revenue	2005E-1	Y	PNC Bank, National Association	LOC	8/20/2021
Transportation Revenue	2005E-2	Y	Bank of America, N.A.	LOC	12/10/2021
Transportation Revenue	2005E-3	Y	PNC Bank, National Association	LOC	8/20/2021
Transportation Revenue	2012G-2	Y	TD Bank, N.A.	LOC	11/1/2021
Transportation Revenue	2015E-1	N	U.S. Bank National Association	LOC	8/20/2021
Transportation Revenue	2015E-3	N	Bank of America, N.A.	LOC	9/2/2022
Transportation Revenue	2015E-4	N	PNC Bank, National Association	LOC	9/3/2021
Dedicated Tax Fund	2002B-1	N	Bank of Tokyo Mitsubishi	LOC	3/22/2021
Dedicated Tax Fund	2008A-1	Y	TD Bank, N.A.	LOC	6/13/2022
MTA Bridges and Tunnels General Revenue	2001C	Y	State Street	LOC	6/26/2023
MTA Bridges and Tunnels General Revenue	2002F	Y	Citibank, N.A.	LOC	10/29/2021
MTA Bridges and Tunnels General Revenue	2003B-1	N	Bank of America, N.A.	LOC	1/21/2022
MTA Bridges and Tunnels General Revenue	2005A	Y	TD Bank, N.A.	LOC	1/28/2020
MTA Bridges and Tunnels General Revenue	2005B-2	Y	Citibank, N.A.	LOC	1/23/2021
MTA Bridges and Tunnels General Revenue	2005B-3	Y	State Street	LOC	6/26/2023

Derivative Instruments — Fair value for the swaps is calculated in accordance with GASB Statement No. 72, utilizing the income approach and Level 2 inputs. It incorporates the mid-market valuation, nonperformance risk of either MTA/MTA Bridges and Tunnels or the counterparty, as well as bid/offer. The fair values were estimated using the zero-coupon method. This method calculates the future net settlement payments required by the swap, assuming that the current forward rates implied by the yield curve correctly anticipate future spot interest rates. These payments are then discounted using the spot rates implied by the current yield curve for hypothetical zero-coupon bonds due on the date of each future net settlement on the swap.

The fair value balances and notional amounts of derivative instruments outstanding at March 31, 2019 and December 31, 2018, classified by type, and the changes in fair value of such derivative instruments from the year ended December 31, 2018 are as follows:

Derivative Instruments - Summary Information

(in \$ millions)

(in \$ millions)

Bond Resolution Credit	Underlying Bond Series	Type of Derivative	Cash Flow or Fair Value Hedge	Effective Methodology	Trade/Hedge Association Date	As of March 31, 2019	
						Notional Amount	Fair Value
Cashflow Hedges						(Unaudited)	
MTA Bridges and Tunnels Senior Revenue Bonds	2002F & 2003B-2 (Citi 2005B)	Libor Fixed Payer	Cash Flow	Synthetic Instrument	6/2/2005	\$ 189.300	\$ (27.331)
MTA Bridges and Tunnels Senior Revenue Bonds	2005B-2,3,4	Libor Fixed Payer	Cash Flow	Synthetic Instrument	6/2/2005	567.900	(81.993)
MTA Bridges and Tunnels Senior Revenue Bonds	2005A (COPS 2004A)	Libor Fixed Payer	Cash Flow	Synthetic Instrument	4/1/2016	22.650	(2.512)
MTA Bridges and Tunnels Senior Revenue Bonds	2001C (COPS 2004A)	Libor Fixed Payer	Cash Flow	Synthetic Instrument	12/5/2016	21.275	(1.335)
MTA Dedicated Tax Fund Bonds	2008A	Libor Fixed Payer	Cash Flow	Synthetic Instrument	3/8/2005	324.670	(39.854)
MTA Transportation Revenue Bonds	2002D-2	Libor Fixed Payer	Cash Flow	Synthetic Instrument	7/11/2002	200.000	(60.095)
MTA Transportation Revenue Bonds	2005D & 2005E	Libor Fixed Payer	Cash Flow	Synthetic Instrument	9/10/2004	365.860	(59.197)
MTA Transportation Revenue Bonds	2012G	Libor Fixed Payer	Cash Flow	Synthetic Instrument	12/12/2007	356.775	(74.196)
MTA Transportation Revenue Bonds	2002G-1 (COPS 2004A)	Libor Fixed Payer	Cash Flow	Synthetic Instrument	4/1/2016	112.730	(8.112)
MTA Transportation Revenue Bonds	2011B (COPS 2004A)	Libor Fixed Payer	Cash Flow	Synthetic Instrument	4/1/2016	84.520	(13.760)
Total						\$ 2,245.680	\$ (368.385)

Derivative Instruments - Summary Information

(in \$ millions)

(in \$ millions)

Bond Resolution Credit	Underlying Bond Series	Type of Derivative	Cash Flow or Fair Value Hedge	Effective Methodology	Trade/Hedge Association Date	As of December 31, 2018	
						Notional Amount	Fair Value
Cashflow Hedges							
MTA Bridges and Tunnels Senior Revenue Bonds	2002F & 2003B-2 (Citi 2005B)	Libor Fixed Payer	Cash Flow	Synthetic Instrument	6/2/2005	\$ 191.300	\$ (29.658)
MTA Bridges and Tunnels Senior Revenue Bonds	2005B-2,3,4	Libor Fixed Payer	Cash Flow	Synthetic Instrument	6/2/2005	573.900	(88.974)
MTA Bridges and Tunnels Senior Revenue Bonds	2005A (COPS 2004A)	Libor Fixed Payer	Cash Flow	Synthetic Instrument	4/1/2016	22.765	(3.028)
MTA Bridges and Tunnels Senior Revenue Bonds	2001C (COPS 2004A)	Libor Fixed Payer	Cash Flow	Synthetic Instrument	12/5/2016	57.475	(2.409)
MTA Bridges and Tunnels Subordinate Revenue Bonds	2000ABCD	SIFMA Fixed Payer	Cash Flow	Synthetic Instrument	8/12/1998	34.150	(1.450)
MTA Dedicated Tax Fund Bonds	2008A	Libor Fixed Payer	Cash Flow	Synthetic Instrument	3/8/2005	326.860	(45.587)
MTA Transportation Revenue Bonds	2002D-2	Libor Fixed Payer	Cash Flow	Synthetic Instrument	7/11/2002	200.000	(65.547)
MTA Transportation Revenue Bonds	2005D & 2005E	Libor Fixed Payer	Cash Flow	Synthetic Instrument	9/10/2004	380.700	(67.631)
MTA Transportation Revenue Bonds	2012G	Libor Fixed Payer	Cash Flow	Synthetic Instrument	12/12/2007	357.150	(81.075)
MTA Transportation Revenue Bonds	2002G-1 (COPS 2004A)	Libor Fixed Payer	Cash Flow	Synthetic Instrument	4/1/2016	142.015	(11.405)
MTA Transportation Revenue Bonds	2011B (COPS 2004A)	Libor Fixed Payer	Cash Flow	Synthetic Instrument	4/1/2016	56.220	(14.961)
Total						\$ 2,342.535	\$ (411.725)

	Changes In Fair Value Amount Classification (in millions)	Fair Value at March 31, 2019 Amount Classification (in millions)	Notional (in millions)
Government activities	(Unaudited)	(Unaudited)	(Unaudited)
Cash Flow hedges:			
Pay-fixed interest rate swaps	Deferred outflow of resources \$(35.450)	Debt \$(368.385)	\$2,245.680

Swap Agreements Relating to Synthetic Fixed Rate Debt

Board-adopted Guidelines. The Related Entities adopted guidelines governing the use of swap contracts on March 26, 2002. The guidelines were amended and approved by the MTA Board on March 13, 2013. The guidelines establish limits on the amount of interest rate derivatives that may be outstanding and specific requirements that must be satisfied for a Related Entity to enter into a swap contract, such as suggested swap terms and objectives, retention of a swap advisor, credit ratings of the counterparties, collateralization requirements and reporting requirements.

Objectives of synthetic fixed rate debt. To achieve cash flow savings through a synthetic fixed rate, MTA and MTA Bridges and Tunnels have entered into separate pay-fixed, receive-variable interest rate swaps at a cost anticipated to be less than what MTA and MTA Bridges and Tunnels would have paid to issue fixed-rate debt, and in some cases where Federal tax law prohibits an advance refunding to synthetically refund debt on a forward basis.

Terms and Fair Values. The terms, fair values and counterparties of the outstanding swaps of MTA and MTA Bridges and Tunnels are reflected in the following tables (as of March 31, 2019).

Metropolitan Transportation Authority						
Related Bonds	Notional Amount as of 3/31/19 (Unaudited)	Effective Date	Maturity Date	Terms	Counterparty and Ratings(S&P / Moody's / Fitch)	Fair Value as of 3/31/19 (Unaudited)
TRB 2002D-2	\$ 200.000	01/01/07	11/01/32	Pay 4.45%; receive 69% 1M LIBOR	JPMorgan Chase Bank, NA (A+ / Aa2 / AA)	\$ (60.095)
TRB 2005D & 2005E	274.395	11/02/05	11/01/35	Pay 3.561%; receive 67% 1M LIBOR	UBS AG (A+ / Aa3 / AA-)	(44.398)
TRB 2005E	91.465	11/02/05	11/01/35	Pay 3.561%; receive 67% 1M LIBOR	AIG Financial Products ⁽¹⁾ (BBB+ / Baa1 / BBB+)	(14.799)
TRB 2012G	356.775	11/15/12	11/01/32	Pay 3.563%; receive 67% 1M LIBOR	JPMorgan Chase Bank, NA (A+ / Aa2 / AA)	(74.195)
DTF 2008A	324.670	03/24/05	11/01/31	Pay 3.3156%; receive 67% 1M LIBOR	Bank of New York Mellon (AA- / Aa2 / AA)	(39.854)
Total	\$ 1,247.305					\$ (233.341)

¹ Guarantor: American International Group, Inc., parent of AIG Financial Products.

MTA Bridges and Tunnels						
Related Bonds	Notional Amount as of 3/31/19 (Unaudited)	Effective Date	Maturity Date	Terms	Counterparty and Ratings (S&P / Moody's / Fitch)	Fair Value as of 3/31/19 (Unaudited)
TBTA 2002F & 2003B-2	\$ 189.300	07/07/05	01/01/32	Pay 3.076%; receive 67% 1M LIBOR	Citibank, N.A. (A+ / Aa3 / A+)	\$ (27.331)
TBTA 2005B-2	189.300	07/07/05	01/01/32	Pay 3.076%; receive 67% 1M LIBOR	JPMorgan Chase Bank, NA (A+ / Aa2 / AA)	(27.331)
TBTA 2005B-3	189.300	07/07/05	01/01/32	Pay 3.076%; receive 67% 1M LIBOR	BNP Paribas North America (A / Aa3 / A+)	(27.331)
TBTA 2005B-4	189.300	07/07/05	01/01/32	Pay 3.076%; receive 67% 1M LIBOR	UBS AG (A+ / Aa3 / AA-)	(27.331)
TRB 2002G-1 & 2011B TBTA 2005A & 2001C ²	120.588 ³	04/01/16	01/01/30	Pay 3.52%; receive 67% 1M LIBOR	U.S. Bank N.A. (AA- / A1 / AA-)	(12.859) ³
TRB 2002G-1 & 2011B TBTA 2005A & 2001C ²	120.587 ³	04/01/16	01/01/30	Pay 3.52%; receive 67% 1M LIBOR	Wells Fargo Bank, N.A. (A+ / Aa2 / AA-)	(12.859) ³
Total	\$ 998.375					\$ (135.042)

1 Guarantor: BNP Paribas. The S&P rating for BNP Paribas, the guarantor on the swap, was upgraded to A+ by S&P on April 5, 2019.

2 Between November 22, 2016 and December 5, 2016, the Variable Rate Certificates of Participation, Series 2004A were redeemed. Corresponding notional amounts from the Series 2004A COPs were reassigned to MTA Bridges and Tunnels General Revenue Variable Rate Bonds, Series 2001C.

3 Pursuant to an Interagency Agreement (following novations from UBS in April 2016), MTA New York City Transit is responsible for 68.7%, MTA is responsible for 21.0%, and TBTA is responsible for 10.3% of the transaction.

LIBOR: London Interbank Offered Rate

TRB: Transportation Revenue Bonds

DTF: Dedicated Tax Fund Bonds

Risks Associated with the Swap Agreements

From MTA's and MTA Bridges and Tunnels' perspective, the following risks are generally associated with swap agreements:

Credit Risk. The risk that a counterparty becomes insolvent or is otherwise not able to perform its financial obligations. To mitigate the exposure to credit risk, the swap agreements include collateral provisions in the event of downgrades to the swap counterparties' credit ratings. Generally, MTA and MTA Bridges and Tunnels' swap agreements contain netting provisions under which transactions executed with a single counterparty are netted to determine collateral amounts. Collateral may be posted with a third-party custodian in the form of cash, U.S. Treasury securities, or certain Federal agency securities. MTA and MTA Bridges and Tunnels require its counterparties to fully collateralize if ratings fall below certain levels (in general, at the Baa1/BBB+ or Baa2/BBB levels), with partial posting requirements at higher rating levels (details on collateral posting discussed further under "Collateralization/Contingencies"). As of March 31, 2019, all of the valuations were in liability positions to MTA and MTA Bridges and Tunnels; accordingly, no collateral was posted by any of the counterparties.

The following table shows, as of March 31, 2019, the diversification, by percentage of notional amount, among the various counterparties that have entered into ISDA Master Agreements with MTA and/or MTA Bridges and Tunnels. The notional amount totals below include all swaps.

Counterparty	S&P	Moody's	Fitch	Notional Amount (in thousands) (Unaudited)	% of Total Notional Amount (Unaudited)
JPMorgan Chase Bank, NA	A+	Aa2	AA	\$746,075	33.22%
UBS AG	A+	Aa3	AA-	463,695	20.65
The Bank of New York Mellon	AA-	Aa2	AA	324,670	14.46
Citibank, N.A.	A+	Aa3	A+	189,300	8.43
BNP Paribas North America, Inc.	A	Aa3	A+	189,300	8.43
U.S. Bank National Association	AA-	A1	AA-	120,588	5.37
Wells Fargo Bank, N.A.	A+	Aa2	AA-	120,587	5.37
AIG Financial Products Corp.	BBB+	Baa1	BBB+	91,465	4.07
Total				\$2,245,680	100.00%

Interest Rate Risk. MTA and MTA Bridges and Tunnels are exposed to interest rate risk on the interest rate swaps. On the pay-fixed, receive variable interest rate swaps, as LIBOR decreases, MTA and MTA Bridges and Tunnels' net payments on the swaps increase.

Basis Risk. The risk that the variable rate of interest paid by the counterparty under the swap and the variable interest rate paid by MTA or MTA Bridges and Tunnels on the associated bonds may not be the same. If the counterparty's rate under the swap is lower than the bond interest rate, then the counterparty's payment under the swap agreement does not fully reimburse MTA or MTA Bridges and Tunnels for its interest payment on the associated bonds. Conversely, if the bond interest rate is lower than the counterparty's rate on the swap, there is a net benefit to MTA or MTA Bridges and Tunnels.

Termination Risk. The risk that a swap agreement will be terminated and MTA or MTA Bridges and Tunnels will be required to make a swap termination payment to the counterparty and, in the case of a swap agreement which was entered into for the purpose of creating a synthetic fixed rate for an advance refunding transaction may also be required to take action to protect the tax-exempt status of the related refunding bonds.

The ISDA Master Agreement sets forth certain termination events applicable to all swaps entered into by the parties to that ISDA Master Agreement. MTA and MTA Bridges and Tunnels have entered into separate ISDA Master Agreements with each counterparty that govern the terms of each swap with that counterparty, subject to individual terms negotiated in a confirmation. MTA and MTA Bridges and Tunnels are subject to termination risk if its credit ratings fall below certain specified thresholds or if MTA/MTA Bridges and Tunnels commits a specified event of default or other specified event of termination. If, at the time of termination, a swap were in a liability position to MTA or MTA Bridges and Tunnels, a termination payment would be owed by MTA or MTA Bridges and Tunnels to the counterparty, subject to applicable netting arrangements.

The following tables set forth the Additional Termination Events for MTA/MTA Bridges and Tunnels and its counterparties.

MTA Transportation Revenue		
Counterparty Name	MTA	Counterparty
AIG Financial Products Corp.; JPMorgan Chase Bank, NA; UBS AG	Below Baa3 (Moody's) or BBB- (S&P)*	Below Baa3 (Moody's) or BBB- (S&P)*

*Note: Equivalent Fitch rating is replacement for Moody's or S&P.

MTA Dedicated Tax Fund		
Counterparty Name	MTA	Counterparty
Bank of New York Mellon	Below BBB (S&P) or BBB (Fitch)*	Below A3 (Moody's) or A- (S&P)**

*Note: Equivalent Moody's rating is replacement for S&P or Fitch.

**Note: Equivalent Fitch rating is replacement for Moody's or S&P.

MTA Bridges and Tunnels Senior Lien		
Counterparty Name	MTA Bridges and Tunnels	Counterparty
BNP Paribas North America, Inc.; Citibank, N.A.; JPMorgan Chase Bank, NA; UBS AG	Below Baa2 (Moody's) or BBB (S&P)*	Below Baa1 (Moody's) or BBB+ (S&P)*

*Note: Equivalent Fitch rating is replacement for Moody's or S&P.

MTA Bridges and Tunnels Subordinate Lien		
Counterparty Name	MTA Bridges and Tunnels	Counterparty
U.S. Bank National Association; Wells Fargo Bank, N.A.	Below Baa2 (Moody's) or BBB (S&P)*	Below Baa2 (Moody's) or BBB (S&P)**

*Note: Equivalent Fitch rating is replacement for Moody's or S&P. If not below Investment Grade, MTA Bridges and Tunnels may cure such Termination Event by posting collateral at a Zero threshold.

**Note: Equivalent Fitch rating is replacement for Moody's or S&P.

MTA and MTA Bridges and Tunnels' ISDA Master Agreements provide that the payments under one transaction will be netted against other transactions entered into under the same ISDA Master Agreement. Under the terms of these agreements, should one party become insolvent or otherwise default on its obligations, close-out netting provisions permit the non-defaulting party to accelerate and terminate all outstanding transactions and net the amounts so that a single sum will be owed by, or owed to, the non-defaulting party.

Rollover Risk. The risk that the swap agreement matures or may be terminated prior to the final maturity of the associated bonds on a variable rate bond issuance, and MTA or MTA Bridges and Tunnels may be exposed to then market rates and cease to receive the benefit of the synthetic fixed rate for the duration of the bond issue. The following debt is exposed to rollover risk:

Associated Bond Issue	Bond Maturity Date	Swap Termination Date
MTA Bridges and Tunnels General Revenue Variable Rate Bonds, Series 2001C (swaps with U.S. Bank/Wells Fargo)	January 1, 2032	January 1, 2030
MTA Bridges and Tunnels General Revenue Variable Rate Refunding Bonds, Series 2002F (swap with Citibank, N.A.)	November 1, 2032	January 1, 2032
MTA Bridges and Tunnels General Revenue Variable Rate Bonds, Series 2003B (swap with Citibank, N.A.)	January 1, 2033	January 1, 2032
MTA Bridges and Tunnels General Revenue Variable Rate Bonds, Series 2005A (swaps with U.S. Bank/Wells Fargo and Citibank, N.A.)	November 1, 2035	January 1, 2030 (U.S. Bank/Wells Fargo) January 1, 2032 (Citibank)
MTA Transportation Revenue Variable Rate Bonds, Series 2011B (swaps with U.S. Bank/Wells Fargo)	November 1, 2041	January 1, 2030

Collateralization/Contingencies. Under the majority of the swap agreements, MTA and/or MTA Bridges and Tunnels is required to post collateral in the event its credit rating falls below certain specified levels. The collateral posted is to be in the form of cash, U.S. Treasury securities, or certain Federal agency securities, based on the valuations of the swap agreements in liability positions and net of the effect of applicable netting arrangements. If MTA and/or MTA Bridges and Tunnels do not post collateral, the swap(s) may be terminated by the counterparty(ies).

As of March 31, 2019, the aggregate mid-market valuation of the MTA's swaps subject to collateral posting agreements was (\$201.274); as of this date, the MTA was not subject to collateral posting based on its credit ratings (see further details below).

As of March 31, 2019, the aggregate mid-market valuation of MTA Bridges and Tunnels' swaps subject to collateral posting agreements was (\$134.647); as of this date, MTA Bridges and Tunnels was not subject to collateral posting based on its credit ratings (see further details below).

The following tables set forth the ratings criteria and threshold amounts applicable to MTA/MTA Bridges and Tunnels and its counterparties.

MTA Transportation Revenue		
Counterparty	MTA Collateral Thresholds (based on highest rating)	Counterparty Collateral Thresholds (based on highest rating)
AIG Financial Products Corp.; JPMorgan Chase Bank, NA; UBS AG	Baa1/BBB+: \$10 million Baa2/BBB & below: Zero	Baa1/BBB+: \$10 million Baa2/BBB & below: Zero

Note: Based on Moody's and S&P ratings. In all cases except JPMorgan counterparty thresholds, Fitch rating is replacement for either Moody's or S&P, at which point threshold is based on lowest rating.

MTA Dedicated Tax Fund		
Counterparty	MTA Collateral Thresholds	Counterparty Collateral Thresholds (based on lowest rating)
Bank of New York Mellon	N/A—MTA does not post collateral	Aa3/AA- & above: \$10 million A1/A+: \$5 million A2/A: \$2 million A3/A-: \$1 million Baa1/BBB+ & below: Zero

Note: Counterparty thresholds based on Moody's and S&P ratings. Fitch rating is replacement for either Moody's or S&P.

MTA Bridges and Tunnels Senior Lien		
Counterparty	MTA Bridges and Tunnels Collateral Thresholds (based on highest rating)	Counterparty Collateral Thresholds (based on highest rating)
BNP Paribas North America, Inc.; Citibank, N.A.; JPMorgan Chase Bank, NA; UBS AG	Baa1/BBB+: \$30 million Baa2/BBB: \$15 million Baa3/BBB- & below: Zero	A3/A-: \$10 million Baa1/BBB+ & below: Zero

Note: MTA Bridges and Tunnels thresholds based on Moody's, S&P, and Fitch ratings. Counterparty thresholds based on Moody's and S&P ratings; Fitch rating is replacement for Moody's or S&P.

MTA Bridges and Tunnels Subordinate Lien		
Counterparty	MTA Bridges and Tunnels Collateral Thresholds (based on lowest rating)	Counterparty Collateral Thresholds (based on lowest rating)
U.S. Bank National Association; Wells Fargo Bank, N.A.	Baa3/BBB- & below: Zero <i>(note: only applicable as cure for Termination Event)</i>	Aa3/AA- & above: \$15 million A1/A+ to A3/A-: \$5 million Baa1/BBB+ & below: Zero

Note: Thresholds based on Moody's and S&P ratings. Fitch rating is replacement for Moody's or S&P.

Swap payments and Associated Debt. The following tables contain the aggregate amount of estimated variable- rate bond debt service and net swap payments during certain years that such swaps were entered into in order to: protect against the potential of rising interest rates; achieve a lower net cost of borrowing; reduce exposure to changing interest rates on a related bond issue; or, in some cases where Federal tax law prohibits an advance refunding, achieve debt service savings through a synthetic fixed rate. As rates vary, variable-rate bond interest payments and net swap payments will vary. Using the following assumptions, debt service requirements of MTA's and MTA Bridges and Tunnels' outstanding variable-rate debt and net swap payments are estimated to be as follows:

- It is assumed that the variable-rate bonds would bear interest at a rate of 4.0% per annum.
- The net swap payments were calculated using the actual fixed interest rate on the swap agreements.

MTA				
(in millions)				
Period Ended March 31, 2019	Variable-Rate Bonds		Net Swap Payments	Total
	Principal	Interest		
2019	55.6	48.6	(5.2)	99.0
2020	38.4	46.5	(4.9)	80.0
2021	58.3	44.9	(4.7)	98.5
2022	63.3	42.6	(4.4)	101.4
2023	65.7	40.1	(4.1)	101.6
2024-2028	328.7	173.3	(15.5)	486.6
2029-2033	790.8	423.2	(6.5)	1,207.6
2034-2038	108.4	22.7	(1.1)	130.1

MTA Bridges and Tunnels				
(in millions)				
Period Ended March 31, 2019	Variable-Rate Bonds		Net Swap Payments	Total
	Principal	Interest		
2019	43.4	38.0	(6.9)	74.5
2020	25.4	37.0	(6.9)	55.6
2021	26.6	36.0	(6.8)	55.8
2022	27.6	34.9	(6.8)	55.7
2023	28.6	33.8	(6.8)	55.6
2024-2028	201.9	144.5	(32.0)	314.4
2029-2033	644.2	43.2	(10.1)	677.3
2034-2038	-	2.5	-	2.5

8. LEASE TRANSACTIONS

Leveraged Lease Transactions: Qualified Technological Equipment — On December 19, 2002, the MTA entered into four sale/leaseback transactions whereby MTA New York City Transit transferred ownership of certain MTA New York City Transit qualified technological equipment (“QTE”) relating to the MTA New York City Transit automated fare collection system to the MTA. The MTA sold that equipment to third parties and the MTA leased that equipment back from such third parties. Three of those four leases were terminated early and are no longer outstanding. The fourth lease expires in 2022, at which point the MTA has the option of either exercising a fixed-price purchase option for the equipment or returning the equipment to the third-party owner.

Under the terms of the outstanding sale/leaseback agreement the MTA initially received \$74.9, which was utilized as follows: The MTA paid \$52.1 to an affiliate of the lender to the third party, which affiliate has the obligation to pay to MTA an amount equal to the rent obligations under the lease attributable to the debt service on the loan from the third party’s lender. The MTA also purchased U.S. Treasury debt securities in amounts and with maturities, which are expected to be sufficient to pay the remainder of the regularly scheduled lease rent payments under the lease and the purchase price due upon exercise by the MTA of the related purchase option if exercised.

Leveraged Lease Transaction: Subway Cars — On September 3, 2003, the MTA entered into a sale/leaseback transaction whereby MTA New York City Transit transferred ownership of certain MTA New York City Transit subway cars to the MTA, the MTA sold those cars to a third party, and the MTA leased those cars back from such third party. The MTA subleased the cars to MTA New York City Transit. The lease expires in 2033. At the lease expiration, the MTA has the option of either exercising a fixed-price purchase option for the cars or returning the cars to the third-party owner.

Under the terms of the sale/leaseback agreement, the MTA initially received \$168.1, which was utilized as follows: The MTA paid \$126.3 to an affiliate of one of the lenders to the third party, which affiliate has the obligation to pay to the MTA an amount equal to the rent obligations under the lease attributable to the debt service on such loan from such third party’s lender. The obligations of the affiliate of the third party’s lender are guaranteed by American International Group, Inc. The MTA also purchased the Federal National Mortgage Association (“FNMA”) and U.S. Treasury securities in amounts and with maturities which are sufficient to make the lease rent payments equal to the debt service on the loans from the other lender to the third party and to pay the remainder of the regularly scheduled rent due under that lease and the purchase price due upon exercise by the MTA of the fixed price purchase option if exercised. The amount remaining after payment of transaction expenses, \$7.4, was the MTA’s benefit from the transaction.

Leveraged Lease Transactions: Subway Cars — On September 25, 2003 and September 29, 2003, the MTA entered into two sale/leaseback transactions whereby MTA New York City Transit transferred ownership of certain MTA New York City Transit subway cars to the MTA, the MTA sold those cars to third parties, and the MTA leased those cars back from such third parties. The MTA subleased the cars to MTA New York City Transit. Both leases expire in 2033. At the lease expiration, MTAHQ has the option of either exercising a fixed-price purchase option for the cars or returning the cars to the third-party owner.

Under the terms of the sale/leaseback agreements, the MTA initially received \$294, which was utilized as follows: In the case of one of the leases, the MTA paid \$97 to an affiliate of one of the lenders to the third party, which affiliate has the obligation to pay to the MTA an amount equal to the rent obligations under the lease attributable to the debt service on the loan from such third party’s lender. The obligations of the affiliate of such third party’s lender are guaranteed by American International Group, Inc. In the case of the other lease, the MTA purchased U.S. Treasury debt securities in amounts and with maturities, which are sufficient for the MTA to make the lease rent payments equal to the debt service on the loan from the lender to that third party. In the case of both of the leases, the MTA also purchased Resolution Funding Corporation

(“REFCO”) debt securities that mature in 2030. Under an agreement with AIG Matched Funding Corp. (guaranteed by American International Group, Inc.), AIG Matched Funding Corp. receives the proceeds from the REFCO debt securities at maturity and is obligated to pay to the MTA amounts sufficient for the MTA to pay the remainder of the regularly scheduled lease rent payments under those leases and the purchase price due upon exercise by the MTA of the purchase options if exercised. The amount remaining after payment of transaction expenses, \$24, was the MTA’s net benefit from these two transactions.

On September 16, 2008, the MTA learned that American International Group, Inc. was downgraded to a level that under the terms of the transaction documents for the sale/leaseback transaction that closed on September 29, 2003, the MTA was required to replace or restructure the applicable Equity Payment Undertaking Agreement provided by AIG Financial Products Corp. and guaranteed by American International Group, Inc. On December 17, 2008, MTA terminated the Equity Payment Undertaking Agreement provided by AIG Financial Products Corp. and guaranteed by American International Group, Inc. and provided replacement collateral in the form of U.S. Treasury strips. REFCO debt security that was being held in pledge was released to MTA. On November 6, 2008, the MTA learned that Ambac Assurance Corp., the provider of the credit enhancement that insures the MTA’s contingent obligation to pay a portion of the termination values upon an early termination in both the September 25, 2003 and September 29, 2003 transactions, was downgraded to a level that required the provision of new credit enhancement facilities for each lease by December 21, 2008.

On December 17, 2008, MTA terminated the Ambac Assurance Corp. surety bond for the lease transaction that closed on September 25, 2003 and since then MTA has provided short-term U.S. Treasury debt obligations as replacement collateral. As of March 31, 2019, the market value of total collateral funds was \$38.0.

On January 12, 2009, MTA provided a short-term U.S. Treasury debt obligation as additional collateral in addition to the Ambac Assurance Corp. surety bond for the lease transaction that closed on September 29, 2003. From time to time, additional collateral has been required to be added such that the total market value of the securities being held as additional collateral are expected to be sufficient to pay the remainder of the regularly scheduled lease rent payments under the lease. As of March 31, 2019, the market value of total collateral funds was \$53.5.

MTA Hudson Rail Yards Ground Leases – In the 1980’s, the MTA developed a portion of the Hudson Rail Yards as a storage yard, car wash and repair facility for the Long Island Railroad Company (“LIRR”) rail cars entering Manhattan. It was anticipated that, eventually, the air rights above the Hudson Rail Yards would be developed to meet the evolving needs for high-quality commercial, retail, residential and public space in Manhattan. The Hudson Rail Yards is a rectangular area of approximately 26-acres bounded by 10th Avenue on the east, 12th Avenue on the west, 30th Street on the south and 33rd Street on the North. The Hudson Rail Yards is divided into the Eastern Rail Yards (“ERY”) and the Western Rail Yards (“WRY”). In 2008, the MTA selected a development team led by the Related Companies, L.P to develop a commercial, residential and retail development on the ERY and the WRY.

To undertake the development of the Hudson Rail Yards, the MTA entered into 99-year ground leases (“Balance Leases”) for the airspace above a limiting plane above the tracks (from 31st to 33rd Streets) and the area where there are no rail tracks (from 30th to 31st Streets) within the boundary of the Hudson Rail Yards (“Ground Leased Property”). The Balance Leases do not encumber the railroad tracks, which will continue to be used for transportation purposes.

The following ground leases, each with a 99-year term (beginning December 3, 2012), entered into between the MTA, as landlord, and a special purpose entity controlled by Related-Oxford, as Ground Lease tenants, all of which Ground Leases demise the Eastern Rail Yards (“ERY”) and were severed from the ERY Balance Lease, dated as of April 10, 2013:

- the Ground Lease demising the Tower A Severed Parcel, also known as 30 Hudson Yards.
- the Ground Lease demising the Tower D Severed Parcel, also known as 15 Hudson Yards.
- the Ground Lease demising the Tower E Severed Parcel, also known as 35 Hudson Yards.
- the Ground Lease demising the Retail Podium Severed Parcel.
- the Ground Lease demising the Retail Pavilion Parcel.

The 99-year West Side Rail Yard (“WRY”) Balance Lease (beginning December 3, 2013) between the MTA and a special purpose entity controlled by Related-Oxford demising the WRY and the Severed Parcel Leases to be entered into upon the creation of Severed Parcels that may be severed from the WRY, at the option of the applicable Ground Lease Tenant, upon satisfaction of certain conditions, in order to construct improvements thereon in accordance with the terms of the applicable Severed Parcel Lease.

Both the ERY and WRY Ground Leases were pledged as security for the Series 2016A Hudson Yards Trust Obligations.

The MTA has also entered into the following ground leases which do not provide a source of payment or security for the Series 2016A Hudson Yards Trust Obligations:

- the now-terminated ground lease demising Tower C, also known as 10 Hudson Yards, as to which the Ground Lease tenant closed on its exercise of its Fee Conversion Option on August 1, 2016 for which MTA received \$120.
- the ground lease demising the Culture Shed, which does not pay any Monthly Ground Rent, and
- the ground lease demising the Open Space Severed Parcel which does not pay any Monthly Ground Rent.

The Severed Parcel Ground Leases required Ground Lease Tenants, at their sole cost and expense, to construct the Long Island Railroad Roof (“LIRR Roof”) over the Long Island Railroad tracks in the Hudson Rail Yards, which LIRR Roof will serve as the foundation for substantial portions of the buildings and other improvements being constructed pursuant to each Severed Parcel Ground Lease. Each Ground Lease tenant has the option to purchase fee title to the Ground Leased Property at any time following completion of construction of the building on the Ground Leased Property.

The MTA has classified the ERY and WRY Ground Leases as operating leases. If at the inception of the ground leases, the leases meet one or more of the following four criteria, the lease should be classified as a capital lease. Otherwise, it should be classified as an operating lease. The ERY and WRY Ground Leases did not meet one or more of the following criteria:

- i. The lease transfers ownership of the property to the lessee by the end of the lease term.
- ii. The lease contains a bargain purchase option.
- iii. The lease term is equal to 75 percent or more of the estimated economic life of the leased property.
- iv. The present value at the beginning of the lease term of the minimum lease payments, equals or exceeds 90 percent of the excess of the fair value of the leased property to the lessor at the inception of the lease over any related investment tax credit retained by and expected to be realized by the lessor.

Minimum rent receipts for ERY and WRY Ground Leases are as follows as of March 31, 2019 (unaudited):

Year	ERY		WRY		Total
2019	\$	14	\$	12	\$ 26
2020		19		16	35
2021		19		32	51
2022		19		33	52
2023		19		33	52
Thereafter		868		1,525	2,393
Total	\$	958	\$	1,651	\$ 2,609

Other Lease Transactions — On July 29, 1998 the MTA, (solely on behalf of MTA Long Island Rail Road and MTA Metro-North Railroad, MTA New York City Transit, and MTA Bridges and Tunnels) entered into a lease and related agreements whereby each agency, as sublessee, will rent, an office building at Two Broadway in lower Manhattan. The triple-net-lease has an initial stated term of approximately 50 years, with the right to extend the lease for two successive 15-year periods at a rental of at least 95% of fair market rent. Remaining payments under the lease approximate \$1.1 billion. Under the subleases, the lease is apportioned as follows: MTA New York City Transit, 68.7%, MTA, 21%; and MTA Bridges and Tunnels, 10.3%. However, the involved agencies have agreed to sub-lease space from one another as necessary to satisfy actual occupancy needs. The agencies will be responsible for obligations under the lease based on such actual occupancy percentages. Actual occupancy percentages at March 31, 2019, for the MTA New York City Transit, MTA Bridges and Tunnels and MTA (including MTA Bus, MTA Capital Construction Company and MTA Business Service Center) were 57.6%, 7.5% and 34.9%, respectively. MTAs’ sublease is for a year-to-year term, automatically extended, except upon the giving of a non-extension notice by MTA. The lease is comprised of both operating and capital elements, with the portion of the lease attributable to the land recorded as an operating lease, and the portion of the lease attributable to the building recorded as a capital lease. The total annual rental payments over the initial lease term are \$1,602 with rent being abated from the commencement date through June 30, 1999. The office building at 2 Broadway, is principally occupied by MTA New York City Transit, MTA Bridges and Tunnels, MTA Capital Construction, and MTAHQ.

MTA reflected a capital lease obligation as of March 31, 2019 and December 31, 2018, of \$234 and \$234, respectively. The MTA made rent payments of \$7 and \$25 for the period ended March 31, 2019 and December 31, 2018, respectively. MTA pays the lease payments on behalf of MTA New York City Transit and MTA Bridges and Tunnels and subsequently makes monthly chargebacks in the form of rental payments. During 2018, the total of the rental payments charged to MTA New York City Transit and MTA Bridges and Tunnels was \$4.52 and \$1.84 less, respectively, than the lease payment made by MTA on behalf of MTA New York City Transit and MTA Bridges and Tunnels.

The adjusted capital lease for the aforementioned building is being amortized over the remaining life of the lease. The cost of the building and related accumulated amortization at March 31, 2019 and December 31, 2018, is as follows (in millions):

	March 31, 2019	December 31, 2018
	(Unaudited)	
Capital lease - building	\$196	\$196
Less accumulated amortization	(93)	(92)
Capital lease - building - net	<u>\$103</u>	<u>\$104</u>

On April 8, 1994, the MTA amended its lease for the Harlem/Hudson line properties, including Grand Central Terminal. This amendment initially extends the lease term, previously expiring in 2031, an additional 110 years and, pursuant to several other provisions, an additional 133 years. In addition, the amendment grants the MTA an option to purchase the leased property after the 25th anniversary of the amended lease, subject to the owner's right to postpone such purchase option exercise date for up to an additional 15 years if the owner has not yet closed the sale, transfer or conveyance of an aggregate amount of 1,000,000 square feet or more of development rights appurtenant to Grand Central Terminal and the associated zoning lots. The amended lease comprises both operating (for the lease of land) and capital (for the lease of buildings and track structure) elements.

In August 1988, the MTA entered into a 99-year lease agreement with Amtrak for Pennsylvania Station. This agreement, with an option to renew, is for rights to the lower concourse level and certain platforms.

The \$45 paid to Amtrak by the MTA under this agreement is included in other assets. This amount is being amortized over 30 years.

Total rent expense under operating leases approximated \$19.1 and \$20.6 for the periods ended March 31, 2019 and 2018, respectively.

At March 31, 2019, the future minimum lease payments under non-cancelable leases are as follows (in millions):

Years	Operating	Capital
	(Unaudited)	
2019	\$ 64	\$ 24
2020	77	33
2021	75	24
2022	80	75
2023	80	19
2024–2028	416	107
2029–2033	446	557
2034–2038	313	158
2039–2043	275	175
2044–2048	264	174
Thereafter	261	200
Future minimum lease payments	<u>\$ 2,351</u>	1,546
Amount representing interest		(1,100)
Total present value of capital lease obligations		446
Less current present value of capital lease obligations		10
Noncurrent present value of capital lease obligations		<u>\$ 436</u>

Capital Leases Schedule

For the Period Ended March 31, 2019

(in millions)

Description	December 31,		Increase		Decrease		March 31,	
	2018						2019	
			(Unaudited)				(Unaudited)	
Sumitomo	\$	15	\$	-	\$	1	\$	14
Met Life		6		-		-		6
Met Life Equity		19		-		-		19
Bank of New York		22		-		-		22
Bank of America		39		-		-		39
Bank of America Equity		16		-		-		16
Sumitomo		27		-		-		27
Met Life Equity		55		-		-		55
Grand Central Terminal & Harlem Hudson Railroad Lines		14		-		-		14
2 Broadway Lease Improvement		177		-		-		177
2 Broadway		57		-		-		57
Total MTA Capital Lease	\$	447	\$	-	\$	1	\$	446
Current Portion Obligations under Capital Lease		4						10
Long Term Portion Obligations under Capital Lease	\$	443					\$	436

Capital Leases Schedule

For the Year Ended December 31, 2018

(in millions)

Description	December 31,		Increase		Decrease		December 31,	
	2017						2018	
Sumitomo	\$	15	\$	-	\$	-	\$	15
Met Life		6		-		-		6
Met Life Equity		19		-		-		19
Bank of New York		22		-		-		22
Bank of America		37		2		-		39
Bank of America Equity		16		-		-		16
Sumitomo		31		1		5		27
Met Life Equity		52		3		-		55
Grand Central Terminal & Harlem Hudson Railroad Lines		14		-		-		14
2 Broadway Lease Improvement		173		4		-		177
2 Broadway		55		2		-		57
Total MTA Capital Lease	\$	440	\$	12	\$	5	\$	447
Current Portion Obligations under Capital Lease		4						4
Long Term Portion Obligations under Capital Lease	\$	436					\$	443

9. FUTURE OPTION

In 2010, MTA and MTA Long Island Railroad entered into an Air Space Parcel Purchase and Sale Agreement (“Agreement”) with Atlantic Yards Development Company, LLC (“AADC”) pursuant to which AADC has obtained an exclusive right to purchase fee title to a parcel (subdivided into six sub-parcels) of air space above the MTA Long Island Railroad Vanderbilt Yard in Brooklyn, New York. Initial annual payments of \$2 (covering all six sub-parcels) commenced on June 1, 2012 and are due on the following three anniversaries of that date. Starting on June 1, 2016, and continuing on each anniversary thereof through and including June 1, 2031, an annual option payment in the amount of \$11 is due. The Agreement provides that all such payments are (i) fully earned by MTA as of the date due in consideration of the continuing grant to AADC of the rights to purchase the air space sub-parcels, (ii) are non-refundable except under certain limited circumstances and (iii) shall be deemed to be payments on account of successive annual options granted to AADC.

After AADC and its affiliates have completed the new yard and transit improvements to be constructed by them at and in the vicinity of the site, AADC has the right from time to time until June 1, 2031, to close on the purchase of any or all of the six air rights sub-parcels. The purchase price for the six sub-parcels is an amount, when discounted at 6.5% per annum from the date of each applicable payment that equals a present value of \$80 as of January 1, 2010. The purchase price of any particular air space sub-parcel is equal to a net present value as of January 1, 2010 (calculated based on each applicable payment) of the product of that sub-parcel's percentage of the total gross square footage of permissible development on all six air space sub-parcels multiplied by \$80.

10. ESTIMATED LIABILITY ARISING FROM INJURIES TO PERSONS

A summary of activity in estimated liability as computed by actuaries arising from injuries to persons, including employees, and damage to third-party property for the period ended March 31, 2019 and year ended December 31, 2018 is presented below (in millions):

	March 31, 2019 (Unaudited)	December 31, 2018
Balance - beginning of year	\$ 4,254	\$ 3,851
Activity during the year:		
Current year claims and changes in estimates	207	870
Claims paid	(123)	(467)
Balance - end of year	4,338	4,254
Less current portion	(458)	(454)
Long-term liability	<u>\$ 3,880</u>	<u>\$ 3,800</u>

See Note 2 for additional information on MTA's liability and property disclosures.

11. COMMITMENTS AND CONTINGENCIES

The MTA Group monitors its properties for the presence of pollutants and/or hazardous wastes and evaluates its exposure with respect to such matters. When the expense, if any, to clean up pollutants and/or hazardous wastes is estimable it is accrued by the MTA (see Note 12).

Management has reviewed with counsel all actions and proceedings pending against or involving the MTA Group, including personal injury claims. Although the ultimate outcome of such actions and proceedings cannot be predicted with certainty at this time, management believes that losses, if any, in excess of amounts accrued resulting from those actions will not be material to the financial position, results of operations, or cash flows of the MTA.

Under the terms of federal and state grants, periodic audits are required and certain costs may be questioned as not being appropriate expenditures under the terms of the grants. Such audits could lead to reimbursements to the grantor agencies. While there have been some questioned costs in recent years, ultimate repayments required of the MTA have been infrequent.

Financial Guarantee — Moynihan Station Development Project - On May 22, 2017, the MTA Board approved entering into various agreements, including a Joint Services Agreement ("JSA"), necessary to effectuate Phase 2 of the Moynihan Station Development Project (the "Project"), which will entail the redevelopment of the James A. Farley Post Office Building to include a new world-class train hall to be shared by National Railroad Passenger Corporation ("Amtrak"), the Long Island Rail Road and Metro-North Commuter Railroad (the "Train Hall"), as well as retail and commercial space (Retail and Commercial Space).

On July 21, 2017, New York State Urban Development Corporation d/b/a Empire State Development ("ESD") executed a TIFIA Loan Agreement with the United States Department of Transportation (the "TIFIA Lender") in an amount of up to \$526 (the "TIFIA Loan"), with a final maturity date of the earlier of (1) October 30, 2055 and (2) the last semi-annual payment date occurring no later than the date that is thirty-five (35) years following the date on which the Train Hall is substantially completed. The proceeds of the TIFIA Loan are being used to pay for costs of the construction of the Train Hall. The TIFIA Loan is secured by a mortgage on the Train Hall property. The principal and interest on the TIFIA Loan is payable from a pledged revenue stream that primarily consists of PILOT payments to be paid by certain tenants in the Retail and Commercial Space. The amount of the PILOT payments is fixed through September, 2030 and is thereafter calculated based upon the assessed value of the properties as determined by New York City. The TIFIA Loan is further supported by a TIFIA Debt Service Reserve Account, which is funded in an amount equal to the sum of the highest aggregate TIFIA

debt service amounts that will become due and payable on any two consecutive semi-annual payment dates in a five-year prospective period.

Simultaneously with the execution of the TIFIA Loan Agreement, the JSA was entered into by and among the MTA, the TIFIA Lender, ESD, and Manufacturers and Traders Trust Company (as Pilot trustee). Under the JSA, MTA is obligated to satisfy semi-annual deficiencies in the TIFIA Debt Service Reserve Account. MTA's obligations under the JSA are secured by the same moneys available to MTA for the payment of the operating and maintenance expenses of the operating agencies.

MTA's obligation under the JSA remains in effect until the earliest to occur of (a) the MTA JSA Release Date (as defined in the JSA and generally summarized below), (b) the date on which the TIFIA Loan has been paid in full and (c) foreclosure by the TIFIA Lender under the Mortgage (as defined in the TIFIA Loan Agreement).

The obligations of the MTA under the JSA will be terminated and released on the date (the "MTA JSA Release Date") on which each of the following conditions have been satisfied: (a) substantial completion of (1) the Train Hall Project and initiation by LIRR and Amtrak of transportation operations therein, and (2) the Retail and Commercial Space; (b) all material construction claims have been discharged or settled; (c) the PILOT payments have been calculated based upon assessed value for at least three years (i.e., 2033); (d) certain designated defaults or events of default under the TIFIA Loan Agreement have not occurred and are continuing; and (e) either of the following release tests shall have been satisfied:

- Release Test A: (a) certain debt service coverage ratios have equaled or exceeded levels set forth in the JSA, taking into consideration assessment appeals; (b) occupancy levels have equaled or exceeded levels set forth in the JSA; and (c) the TIFIA Loan is rated no lower than "BBB-" or "Baa3" by one rating agency, all as more fully described in the JSA; or
- Release Test B: the TIFIA Loan is rated no lower than "A-" or "A3" by two rating agencies, all as more fully described in the JSA.

On the date the JSA was executed and delivered, MTA deposited \$20 into an account, which MTA invests, to be used in accordance with the JSA to reimburse MTA in the event it is obligated under the JSA to make semi-annual deficiency payments to the TIFIA Debt Service Reserve Account.

On June 12, 2017, the MTA entered into a Memorandum of Understanding with ESD and the New York State Division of the Budget (the "Division") whereby the Division agreed that in the event in any given year during the term of the JSA (i) the MTA is required to make a semi-annual deficiency payment to the TIFIA Debt Service Reserve Account, and (ii) the Division has determined that the MTA has incurred an expense that would otherwise have been incurred by the State of New York (the "State Expense"), the Division will consider entering into a cost recovery agreement with the MTA pursuant to subdivision 4 of Section 2975 of the Public Authorities Law (the "PAL") for such year that will provide that in lieu of paying the full assessment pursuant to subdivisions 2 and 3 of Section 2975 of the PAL in any such year, any such assessment shall be reduced by the State Expense.

12. POLLUTION REMEDIATION COST

In accordance with GASB Statement No. 49, *Accounting and Financial Reporting for Pollution Remediation Obligations*, an operating expense provision and corresponding liability measured at its current value using the expected cash flow method is recognized when an obligatory event occurs. Pollution remediation obligations are estimates and subject to changes resulting from price increase or reductions, technology, or changes in applicable laws or regulations. The MTA does not expect any recoveries of cost that would have a material effect on the recorded obligations.

The MTA recognized pollution remediation expenses of \$3 and \$1 for the periods ended March 31, 2019 and 2018, respectively. A summary of the activity in pollution remediation liability at March 31, 2019 and December 31, 2018 were as follows:

	March 31, 2019 (Unaudited)	December 31, 2018
Balance at beginning of year	\$ 139	\$ 79
Current year expenses/changes in estimates	3	106
Current year payments	(5)	(46)
Balance at end of year	137	139
Less current portion	30	31
Long-term liability	<u>\$ 107</u>	<u>\$ 108</u>

The MTA's pollution remediation liability primarily consists of future remediation activities associated with asbestos removal, lead abatement, ground water contamination, arsenic contamination and soil remediation.

13. CURRENT AND NON-CURRENT LIABILITIES

Changes in the activity of current and non-current liabilities for the periods ended March 31, 2019 and December 31, 2018 are presented below:

	Balance December 31, 2017			Balance December 31, 2018			Balance March 31, 2019							
		Additions	Reductions		Additions	Reductions								
						(Unaudited)		(Unaudited)						
Current liabilities:														
Accounts payable	\$	607	\$	-	\$	(137)	\$	470	\$	101	\$	-	\$	571
Interest		204		6		-		210		380		-		590
Salaries, wages and payroll taxes		307		20		-		327		25		-		352
Vacation and sick pay benefits		988		32		-		1,020		14		-		1,034
Current portion — retirement and death benefits		14		2		-		16		-		-		16
Capital accrual		412		325		-		737		-		(152)		585
Unearned premiums		255		9		-		264		7		-		271
Other accrued expenses		606		87		-		693		-		(90)		603
Unearned revenues		594		210		-		804		14		-		818
Total current liabilities	\$	3,987	\$	691	\$	(137)	\$	4,541	\$	541	\$	(242)	\$	4,840
Non-current liabilities:														
Contract retainage payable	\$	376	\$	30	\$	-		406	\$	7	\$	-	\$	413
Other long-term liabilities		347		29		-		376		-		(30)		346
Total non-current liabilities	\$	723	\$	59	\$	-	\$	782	\$	7	\$	(30)	\$	759

14. FUEL HEDGE

MTA partially hedges its fuel cost exposure using financial hedges. All MTA fuel hedges provide for up to 24 monthly settlements. The table below summarizes twenty-four (24) active ultra-low sulfur diesel (“ULSD”) hedges in whole dollars:

Counterparty	Goldman Sachs	Goldman Sachs	Goldman Sachs	Goldman Sachs	Goldman Sachs	Goldman Sachs	Goldman Sachs	Goldman Sachs
Trade Date	4/27/2017	5/30/2017	6/27/2017	7/26/2017	8/29/2017	9/22/2017	10/26/2017	11/29/2017
Effective Date	4/1/2018	5/1/2018	6/1/2018	7/1/2018	8/1/2018	9/1/2018	10/1/2018	11/1/2018
Termination Date	3/31/2019	4/30/2019	5/31/2019	6/30/2019	7/31/2019	8/31/2019	9/30/2019	10/31/2019
Price/Gal	\$1.5915	\$1.6085	\$1.5225	\$1.6180	\$1.6315	\$1.7205	\$1.7635	\$1.8520
Original Notional Quantity	2,887,174	2,914,270	2,914,264	2,914,252	2,914,252	2,914,244	2,612,515	2,870,561

Counterparty	Goldman Sachs	Goldman Sachs	Goldman Sachs	Goldman Sachs	Macquarie Energy LLC	Goldman Sachs	Goldman Sachs	BOA Merrill
Trade Date	12/27/2017	1/31/2018	2/28/2018	3/28/2018	4/24/2018	5/29/2018	6/26/2018	7/31/2018
Effective Date	12/1/2018	1/1/2019	2/1/2019	3/1/2019	4/1/2019	5/1/2019	6/1/2019	7/1/2019
Termination Date	11/30/2019	12/31/2019	1/31/2020	2/29/2020	3/31/2020	4/30/2020	5/31/2020	6/30/2020
Price/Gal	\$1.9050	\$1.9570	\$1.8815	\$1.9805	\$2.0795	\$2.1590	\$2.1755	\$2.1730
Original Notional Quantity	2,870,574	2,870,565	2,786,237	2,853,500	2,799,258	2,841,090	2,841,069	2,820,856

Counterparty	Goldman Sachs	Goldman Sachs	Cargill	BOA Merrill	BOA Merrill	Cargill	Cargill	Goldman Sachs
Trade Date	8/29/2018	9/25/2018	10/30/2018	11/27/2018	1/3/2019	1/29/2019	2/28/2019	3/28/2019
Effective Date	8/1/2019	9/1/2019	10/1/2019	11/1/2019	12/1/2019	1/1/2020	2/1/2020	3/1/2020
Termination Date	7/31/2020	8/31/2020	9/30/2020	10/31/2020	11/30/2020	12/31/2020	1/31/2021	2/28/2021
Price/Gal	\$2.2145	\$2.2885	\$2.2455	\$1.9213	\$1.7885	\$1.9390	\$2.0518	\$2.0045
Original Notional Quantity	2,831,924	2,831,922	2,831,934	3,023,197	2,856,019	2,856,014	2,793,123	2,849,714

The monthly settlements are based on the daily prices of the respective commodities whereby MTA will either receive a payment, or make a payment to the various counterparties depending on the average monthly price of the commodities in relation to the contract prices. At a contract’s termination date, the MTA will take delivery of the fuel. As of March 31, 2019, the total outstanding notional value of the ULSD contracts was 53 million gallons with a positive fair market value of \$0.5 (unaudited). The valuation of each trade was based on discounting future net cash flows to a single current amount (the income approach) using observable commodity futures prices (Level 2 inputs).

15. CONDENSED COMPONENT UNIT INFORMATION

The following tables present condensed financial information for MTA's component units (in millions).

		Metro - North Railroad	Long Island Railroad	New York City Transit Authority	Triborough Bridge and Tunnel Authority	Eliminations	Consolidated Total
March 31, 2019 (Unaudited)	MTA						
Current assets	\$ 7,980	\$ 207	\$ 245	\$ 559	\$ 729	\$ (353)	\$ 9,367
Capital assets	11,270	5,098	6,958	43,390	6,419	-	73,135
Other Assets	11,839	5	-	1	444	(11,279)	1,010
Intercompany receivables	1,390	76	136	800	12	(2,414)	-
Deferred outflows of resources	1,543	315	431	1,755	486	(156)	4,374
Total assets and deferred outflows of resources	\$ 34,022	\$ 5,701	\$ 7,770	\$ 46,505	\$ 8,090	\$ (14,202)	\$ 87,886
Current liabilities	\$ 4,180	\$ 284	\$ 238	\$ 1,971	\$ 909	\$ (169)	\$ 7,413
Non-current liabilities	36,519	2,070	3,703	21,671	10,190	(136)	74,017
Intercompany payables	1,754	116	109	672	443	(3,094)	-
Deferred inflows of resources	146	68	88	759	52	-	1,113
Total liabilities and deferred inflows of resources	\$ 42,599	\$ 2,538	\$ 4,138	\$ 25,073	\$ 11,594	\$ (3,399)	\$ 82,543
Net investment in capital assets	\$ (27,114)	\$ 5,084	\$ 6,958	\$ 43,214	\$ 1,984	\$ (116)	\$ 30,010
Restricted	2,307	-	-	-	692	(426)	2,573
Unrestricted	16,230	(1,921)	(3,326)	(21,782)	(6,180)	(10,261)	(27,240)
Total net position	\$ (8,577)	\$ 3,163	\$ 3,632	\$ 21,432	\$ (3,504)	\$ (10,803)	\$ 5,343
For the period ended March 31, 2019 (Unaudited)							
Fare revenue	\$ 53	\$ 173	\$ 175	\$ 1,068	\$ -	\$ (1)	\$ 1,468
Vehicle toll revenue	-	-	-	-	452	-	452
Rents, freight and other revenue	22	15	12	122	5	(10)	166
Total operating revenue	75	188	187	1,190	457	(11)	2,086
Total labor expenses	279	230	286	1,615	61	-	2,471
Total non-labor expenses	107	92	88	504	52	(13)	830
Depreciation	25	58	101	481	41	-	706
Total operating expenses	411	380	475	2,600	154	(13)	4,007
Operating (deficit) surplus	(336)	(192)	(288)	(1,410)	303	2	(1,921)
Subsidies and grants	331	33	-	-	2	-	366
Tax revenue	2,625	-	-	180	-	(3)	2,802
Interagency subsidy	144	69	57	34	-	(304)	-
Interest expense	(258)	-	-	-	(69)	(2)	(329)
Other	250	-	-	5	1	(165)	91
Total non-operating revenues (expenses)	3,092	102	57	219	(66)	(474)	2,930
Gain (Loss) before appropriations	2,756	(90)	(231)	(1,191)	237	(472)	1,009
Appropriations, grants and other receipts externally restricted for capital projects	(66)	59	318	(302)	(140)	512	381
Change in net position	2,690	(31)	87	(1,493)	97	40	1,390
Net position, beginning of period	(11,267)	3,194	3,545	22,925	(3,601)	(10,843)	3,953
Net position, end of period	\$ (8,577)	\$ 3,163	\$ 3,632	\$ 21,432	\$ (3,504)	\$ (10,803)	\$ 5,343
For the period ended March 31, 2019 (Unaudited)							
Net cash (used in) / provided by operating activities	\$ (306)	\$ (102)	\$ (140)	\$ (813)	\$ 354	\$ (43)	\$ (1,050)
Net cash provided by / (used in) non-capital financing activities	407	131	213	896	(201)	(324)	1,122
Net cash (used in) / provided by capital and related financing activities	(139)	4	(2)	(316)	(172)	155	(470)
Net cash provided by / (used in) investing activities	14	(35)	(70)	222	19	212	362
Cash at beginning of period	430	26	9	66	10	-	541
Cash at end of period	\$ 406	\$ 24	\$ 10	\$ 55	\$ 10	\$ -	\$ 505

		Metro- North Railroad	Long Island Railroad	New York City Transit Authority	Triborough Bridge and Tunnel Authority	Eliminations	Consolidated Total
December 31, 2018	MTA						
Current assets	\$ 5,337	\$ 206	\$ 244	\$ 633	\$ 461	\$ (116)	\$ 6,765
Capital assets	11,032	5,092	6,826	43,195	6,366	-	72,511
Other Assets	11,825	5	-	-	4	(10,772)	1,062
Intercompany receivables	696	95	153	1,627	730	(3,301)	-
Deferred outflows of resources	1,528	315	435	1,738	487	(143)	4,360
Total assets and deferred outflows of resources	\$ 30,418	\$ 5,713	\$ 7,658	\$ 47,193	\$ 8,048	\$ (14,332)	\$ 84,698
Current liabilities	\$ 4,374	\$ 316	\$ 272	\$ 1,900	\$ 836	\$ (89)	\$ 7,609
Non-current liabilities	34,509	2,070	3,705	21,609	10,249	(120)	72,022
Intercompany payables	2,655	65	48	-	512	(3,280)	-
Deferred inflows of resources	147	68	88	759	52	-	1,114
Total liabilities and deferred inflows of resources	\$ 41,685	\$ 2,519	\$ 4,113	\$ 24,268	\$ 11,649	\$ (3,489)	\$ 80,745
Net investment in capital assets	\$ (26,670)	\$ 5,079	\$ 6,826	\$ 43,018	\$ 2,026	\$ (279)	\$ 30,000
Restricted	1,716	-	-	-	902	(728)	1,890
Unrestricted	13,687	(1,885)	(3,281)	(20,093)	(6,529)	(9,836)	(27,937)
Total net position	\$ (11,267)	\$ 3,194	\$ 3,545	\$ 22,925	\$ (3,601)	\$ (10,843)	\$ 3,953
For the period ended March 31, 2018 (Unaudited)							
Fare revenue	\$ 54	\$ 171	\$ 170	\$ 1,073	\$ -	\$ -	\$ 1,468
Vehicle toll revenue	-	-	-	-	441	-	441
Rents, freight and other revenue	22	12	9	106	5	(11)	143
Total operating revenue	76	183	179	1,179	446	(11)	2,052
Total labor expenses	309	248	313	1,878	79	11	2,838
Total non-labor expenses	113	91	92	484	57	(15)	822
Depreciation	26	57	89	451	34	-	657
Total operating expenses	448	396	494	2,813	170	(4)	4,317
Operating (deficit) surplus	(372)	(213)	(315)	(1,634)	276	(7)	(2,265)
Subsidies and grants	193	42	-	-	2	139	376
Tax revenue	2,491	-	-	747	-	(587)	2,651
Interagency subsidy	153	99	118	35	-	(405)	-
Interest expense	(267)	-	-	-	(68)	(4)	(339)
Other	(249)	-	-	1	1	281	34
Total non-operating revenues (expenses)	2,321	141	118	783	(65)	(576)	2,722
Loss before appropriations	1,949	(72)	(197)	(851)	211	(583)	457
Appropriations, grants and other receipts externally restricted for capital projects	(792)	40	226	223	(151)	623	169
Change in net position	1,157	(32)	29	(628)	60	40	626
Net position, beginning of the period	(10,023)	3,838	4,246	21,148	(4,042)	(9,943)	5,224
Net position, end of period	\$ (8,866)	\$ 3,806	\$ 4,275	\$ 20,520	\$ (3,982)	\$ (9,903)	\$ 5,850
For the period ended March 31, 2018 (Unaudited)							
Net cash (used in) / provided by operating activities	\$ (241)	\$ (125)	\$ (172)	\$ (759)	\$ 344	\$ (8)	\$ (961)
Net cash provided by / (used in) non-capital financing activities	841	137	173	821	(193)	(845)	934
Net cash (used in) / provided by capital and related financing activities	(1,085)	(13)	1	(322)	26	845	(548)
Net cash provided by / (used in) investing activities	588	-	-	249	(135)	8	710
Cash at beginning of period	199	15	5	56	8	-	283
Cash at end of period	\$ 302	\$ 14	\$ 7	\$ 45	\$ 50	\$ -	\$ 418

16. SUBSEQUENT EVENTS

On April 30, 2019, MTA executed a 2,874,889 gallon ultra-low sulfur diesel fuel hedge at an all-in price of \$2.065 (whole dollars) per gallon. The hedge covers the period from April 2020 through March 2021.

On May 1, 2019, MTA drew \$300 on the Railroad Rehabilitation and Improvement Financing loan ("RRIF Loan") to finance the positive train control project for MTA Long Island Rail Road and MTA Metro-North Railroad. MTA originally entered into a Financing Agreement with the Federal Railroad Administrator, acting on behalf of the United States Secretary of Transportation, on May 5, 2015 to establish the RRIF Loan which is not to exceed \$967.1.

Effective May 1, 2019, FMTAC renewed the all-agency property insurance program. For the annual period commencing May 1, 2019, FMTAC directly insures property damage claims of the Related Entities in excess of a \$25 per occurrence deductible, subject to an annual \$75 aggregate deductible.

On May 14, 2019, MTA issued \$177 MTA Transportation Revenue Green Bonds, Series 2019B, to (i) retire a portion of the outstanding MTA Transportation Revenue Bond Anticipation Notes, Series 2017C-2 and (ii) pay certain financing, legal and miscellaneous expenses. The Series 2019B bonds have maturities of November 15, 2049, 2050, and 2052.

On May 15, 2019, MTA effectuated the early mandatory redemption of a portion of the MTA Hudson Rail Yards Trust Obligations, Series 2016A maturing on November 15, 2046 in the Principal Component of \$106. This is due to the payment of Fee Purchase Payments in connection with the two commercial condominium units to be owned and occupied by (1) Time Warner, Inc. and (2) affiliates of Oxford.

On May 22, 2019, MTA issued \$1.2 billion MTA Transportation Revenue Bond Anticipation Notes, Series 2019B, consisting of \$1 billion Subseries 2019B-1 and \$200 Subseries 2019B-2, to (i) finance existing approved transit and commuter projects, (ii) retire all or a portion of an outstanding Taxable Revenue Anticipation Note, (iii) pay capitalized interest on the Subseries 2019B-1 Notes through maturity, and (iv) pay certain financing, legal and miscellaneous expenses. The Series 2019B-1 Notes and 2019B-2 Notes mature on May 15, 2022 and May 15, 2020, respectively.

On May 23, 2019, MTA issued \$150 Triborough Bridge and Tunnel Authority General Revenue Bonds, Series 2019A, to (i) finance bridge and tunnel projects in the MTA Bridges and Tunnels approved Capital Program and (ii) pay certain financing, legal and miscellaneous expenses. The Series 2019A bonds have maturities of November 15, 2041, 2042, 2043, 2044, and 2049.

On May 28, 2019, MTA executed a 2,851,286 gallon ultra-low sulfur diesel fuel hedge at an all-in price of \$1.9675 (whole dollars) per gallon. The hedge covers the period from May 2020 through April 2021.

On June 3, 2019, MTA effectuated a mandatory tender and remarketed \$50 MTA Transportation Revenue Variable Rate Bonds, Subseries 2012A-2. The bonds were converted from a Term Rate Mode to a Weekly Mode at a weekly interest rate determined through the Clarity BidRate Alternative Trading System.

On June 25, 2019, MTA executed a 2,851,258 gallon ultra-low sulfur diesel fuel hedge with Goldman, Sachs & Co./J. Aron at an all-in price of \$1.920 (whole dollars) per gallon. The hedge covers the period from June 2020 through May 2021.

On July 9, 2019, MTA priced \$300 MTA Transportation Revenue Bond Anticipation Notes, Series 2019C to generate new money proceeds to finance existing approved transit and commuter projects related to the State funding commitment for the 2015-2019 Capital Program. The Series 2019C Notes were issued as fixed rate tax-exempt notes with an all-in True Interest Cost of 1.492% and a final maturity of July 1, 2020.

On July 15, 2019, MTA effectuated the early mandatory redemption of a portion of the MTA Hudson Rail Yards Trust Obligations, Series 2016A maturing on November 15, 2046 in the Principal Component of \$68. This is due to the payment of Fee Purchase Payments in connection with three commercial condominium units to be owned and occupied by Wells Fargo and KKR.

On July 30, 2019, MTA executed a 2,788,533 gallon ultra-low sulfur diesel fuel hedge with Goldman, Sachs & Co./J. Aron at an all-in price of \$1.8875 (whole dollars) per gallon. The hedge covers the period from July 2020 through June 2021.

On August 8, 2019, MTA issued \$422 MTA Transportation Revenue Green Bonds, Series 2019C, to (i) retire the outstanding Transportation Revenue Bond Anticipation Notes, Series 2018A, and (ii) pay certain financing, legal and miscellaneous expenses. The series 2019C bonds mature on November 15 in the years 2038 - 2049.

On August 16, 2019, the Revenue Anticipation Note facility with JPMorgan Chase was amended, increasing the line of credit to \$800. To maintain the 1% draw on the line of credit throughout the duration of the agreement, an additional \$1 draw was made on August 16, 2019.

On August 16, 2019, MTA entered into a \$200 taxable revolving credit agreement with Bank of America, National Association that is active through August 24, 2022. Draws under the credit agreement will be evidenced by RANs. Funds may be used for operational or capital purposes.

On August 27, 2019, MTA executed a 2,842,790 gallon ultra-low sulfur diesel fuel hedge with Macquarie at an all-in price of \$1.7790 (whole dollars) per gallon. The hedge covers the period from August 2020 through July 2021.

On September 6, 2019, MTA issued \$1.2 billion MTA Transportation Revenue Bond Anticipation Notes, Series 2019D, consisting of \$1 billion Subseries 2019D-1 and \$200 Subseries 2019D-2. The Series 2019D bonds were issued to (i) finance existing approved transit and commuter projects, (ii) pay capitalized interest on the Subseries 2019D-1 Notes through maturity, and (iii) pay certain financing, legal and miscellaneous expenses.

The New York State Fiscal Year 2019-2020 Enacted Budget established the Central Business District Tolling Program (CBD Tolling Program), the goals of which are to reduce traffic congestion in the Manhattan Central Business District, improve air quality, and provide a stable and reliable funding source for the repair and revitalization of the MTA's public transportation systems. The CBD Tolling Program revenues are not expected to begin to flow to MTA until at least early 2021. MTA Bridges and Tunnels is directed to establish the CBD Tolling Capital Lockbox Fund. Monies in the fund cannot be commingled with any other MTA Bridges and Tunnel monies. Funds on deposit in the CBD Tolling Capital Lockbox Fund shall be applied to: (1) operating, administration and other necessary expenses relating to the program, or to DOT pursuant to the MOU; and (2) costs of MTA capital projects included in the 2020-2024 Capital Program or any successor capital program. The 2019-2020 State Enacted Budget further provides that capital project costs paid for by the CBD Tolling Capital Lockbox Fund are subject to the following revenue split: (1) 80 percent for MTA New York City Transit, MaBSTOA, MTA Staten Island Railway and MTA Bus capital project costs, with priority given to subway system, new signaling, new subway cars, track and car repair, accessibility, buses and bus system improvements and further investments in expanding transit availability in the outer boroughs; (2) 10 percent for MTA Long Island Rail Road capital projects, including parking facilities, rolling stock, capacity enhancements, accessibility and expanding transit availability; and (3) 10 percent for MTA Metro-North Railroad capital projects including parking facilities, rolling stock, capacity enhancements, accessibility and expanding transit availability.

The 2019-2020 State Enacted Budget also establishes two additional sources of annually recurring MTA capital program subsidy revenues. These are (i) a portion of new City property derived real estate transfer tax receipts and (ii) certain incremental City-based internet sales tax allocations. The real estate transfer tax is derived from two new real estate transfer taxes imposed in the City on transfers of high value residential properties beginning with conveyances occurring on or after July 1, 2019. The internet sales tax is MTA's allocated portion of the State and City sales taxes, including those collected from Internet marketplace providers based outside the State under changes in the sales tax law effected in the 2019-2020 State Enacted Budget.

REQUIRED SUPPLEMENTARY INFORMATION

Schedule of Changes in the MTA's Net Pension Liability and Related Ratios for Single Employer Pension Plans

(\$ in thousands)

Plan Measurement Date (December 31):	Additional Plan				MaBSTOA Plan			
	2017	2016	2015	2014	2017	2016	2015	2014
Total pension liability:								
Service cost	\$ 1,874	\$ 2,752	\$ 3,441	\$ 3,813	\$ 84,394	\$ 82,075	\$ 77,045	\$ 72,091
Interest	101,477	104,093	106,987	110,036	246,284	236,722	232,405	223,887
Effect of economic / demographic (gains) or losses	1,890	15,801	6,735	-	11,826	13,784	(68,997)	-
Effect of assumption changes or inputs	-	-	-	-	6,347	-	-	-
Differences between expected and actual experience	-	-	-	-	-	-	-	(1,596)
Benefit payments and withdrawals	(159,717)	(158,593)	(157,071)	(156,974)	(209,122)	(187,823)	(179,928)	(175,447)
Net change in total pension liability	(54,476)	(35,947)	(39,908)	(43,125)	139,729	144,758	60,525	118,935
Total pension liability—beginning	1,526,304	1,562,251	1,602,159	1,645,284	3,536,747	3,391,989	3,331,464	3,212,529
Total pension liability—ending (a)	1,471,828	1,526,304	1,562,251	1,602,159	3,676,476	3,536,747	3,391,989	3,331,464
Plan fiduciary net position:								
Employer contributions	76,523	81,100	100,000	407,513	202,684	220,697	214,881	226,374
Nonemployer contributions	145,000	70,000	-	-	-	-	-	-
Member contributions	760	884	1,108	1,304	19,713	18,472	16,321	15,460
Net investment income	112,614	58,239	527	21,231	350,186	212,260	(24,163)	105,084
Benefit payments and withdrawals	(159,717)	(158,593)	(157,071)	(156,974)	(209,122)	(187,823)	(179,928)	(175,447)
Administrative expenses	(1,070)	(611)	(1,218)	(975)	(208)	(186)	(88)	(74)
Net change in plan fiduciary net position	174,110	51,019	(56,654)	272,099	363,253	263,420	27,023	171,397
Plan fiduciary net position—beginning	777,217	726,198	782,852	510,753	2,555,736	2,292,316	2,265,293	2,093,896
Plan fiduciary net position—ending (b)	951,327	777,217	726,198	782,852	2,918,989	2,555,736	2,292,316	2,265,293
Employer's net pension liability—ending (a)-(b)	\$ 520,501	\$ 749,087	\$ 836,053	\$ 819,307	\$ 757,487	\$ 981,011	\$ 1,099,673	\$ 1,066,171
Plan fiduciary net position as a percentage of the total pension liability	64.64%	50.92%	46.48%	48.86%	79.40%	72.26%	67.58%	68.00%
Covered payroll	\$ 20,500	\$ 29,312	\$ 39,697	\$ 43,267	\$ 749,666	\$ 716,527	\$ 686,674	\$ 653,287
Employer's net pension liability as a percentage of covered payroll	2539.03%	2555.56%	2106.09%	1893.61%	101.04%	136.91%	160.14%	163.20%

Note: Information was not readily available for periods prior to 2014. This schedule is intended to show information for ten years. Additional years will be displayed as they become available.

REQUIRED SUPPLEMENTARY INFORMATION

Schedule of Changes in the MTA's Net Pension Liability and Related Ratios for Single Employer Pension Plans

(continued)

(\$ in thousands)

	MNR Cash Balance Plan				MTA Defined Benefit Plan			
Plan Measurement Date (December 31):	2017	2016	2015	2014	2017	2016	2015	2014
Total pension liability:								
Service cost	\$ -	\$ -	\$ -	\$ -	\$ 148,051	\$ 138,215	\$ 124,354	\$ 121,079
Interest	21	24	29	32	335,679	308,009	288,820	274,411
Effect of economic / demographic (gains) or losses	12	(15)	(10)	-	(27,059)	86,809	121,556	2,322
Effect of assumption changes or inputs	-	-	18	-	10,731	-	(76,180)	-
Effect of plan changes	-	-	-	-	76,511	73,521	6,230	-
Benefit payments and withdrawals	(71)	(77)	(113)	(88)	(232,976)	(209,623)	(199,572)	(191,057)
Net change in total pension liability	(38)	(68)	(76)	(56)	310,937	396,931	265,208	206,755
Total pension liability—beginning	566	634	710	766	4,761,877	4,364,946	4,099,738	3,892,983
Total pension liability—ending (a)	528	566	634	710	5,072,814	4,761,877	4,364,946	4,099,738
Plan fiduciary net position:								
Employer contributions	-	23	18	-	321,861	280,768	221,694	331,259
Member contributions	-	-	-	-	31,027	29,392	34,519	26,006
Net investment income	20	16	6	41	516,153	247,708	(45,122)	102,245
Benefit payments and withdrawals	(71)	(77)	(113)	(88)	(232,976)	(209,623)	(199,572)	(191,057)
Administrative expenses	-	-	3	(3)	(4,502)	(3,051)	(1,962)	(9,600)
Net change in plan fiduciary net position	(51)	(38)	(86)	(50)	631,563	345,194	9,557	258,853
Plan fiduciary net position—beginning	574	612	698	748	3,419,971	3,074,777	3,065,220	2,806,367
Plan fiduciary net position—ending (b)	523	574	612	698	4,051,534	3,419,971	3,074,777	3,065,220
Employer's net pension liability—ending (a)-(b)	\$ 5	\$ (8)	\$ 22	\$ 12	\$ 1,021,280	\$ 1,341,906	\$ 1,290,169	\$ 1,034,518
Plan fiduciary net position as a percentage of the total pension liability	99.05%	101.41%	96.53%	98.36%	79.87%	71.82%	70.44%	74.77%
Covered payroll	\$ 471	\$ 846	\$ 1,474	\$ 2,274	\$ 1,857,026	\$ 1,784,369	\$ 1,773,274	\$ 1,679,558
Employer's net pension liability as a percentage of covered payroll	1.06%	-0.95%	1.49%	0.53%	55.00%	75.20%	72.76%	61.59%

Note: Information was not readily available for periods prior to 2014. This schedule is intended to show information for ten years. Additional years will be displayed as they become available.

REQUIRED SUPPLEMENTARY INFORMATION
Schedule of the MTA's Proportionate Share of the Net Pension Liabilities of Cost-Sharing Multiple-Employer Pension Plans

(\$ in thousands)

	NYCERS Plan			
	June 30, 2018	June 30, 2017	June 30, 2016	June 30, 2015
Plan Measurement Date:				
MTA's proportion of the net pension liability	23.682%	24.096%	23.493%	23.585%
MTA's proportionate share of the net pension liability	\$ 4,176,941	\$ 5,003,811	\$ 5,708,052	\$ 4,773,787
MTA's actual covered payroll	\$ 3,216,837	\$ 3,154,673	\$ 3,064,007	\$ 2,989,480
MTA's proportionate share of the net pension liability as a percentage of the MTA's covered payroll	129.846%	158.616%	186.294%	159.686%
Plan fiduciary net position as a percentage of the total pension liability	78.826%	74.805%	69.568%	73.125%
NYSLERS Plan				
	March 31, 2018	March 31, 2017	March 31, 2016	March 31, 2015
Plan Measurement Date:				
MTA's proportion of the net pension liability	0.327%	0.311%	0.303%	0.289%
MTA's proportionate share of the net pension liability	\$ 10,553	\$ 29,239	\$ 48,557	\$ 9,768
MTA's actual covered payroll	\$ 105,269	\$ 96,583	\$ 87,670	\$ 87,315
MTA's proportionate share of the net pension liability as a percentage of the MTA's covered payroll	10.025%	30.273%	55.386%	11.187%
Plan fiduciary net position as a percentage of the total pension liability	98.240%	94.703%	90.685%	97.947%

Note: Information was not readily available for periods prior to 2015. This schedule is intended to show information for ten years. Additional years will be displayed as they become available. The data provided in this schedule is based on the measurement date used by NYCERS and NYSLERS for the net pension liability.

REQUIRED SUPPLEMENTARY INFORMATION

Schedule of the MTA's Contributions for All Pension Plans for the Year Ended December 31,

(\$ in thousands)

	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009
Additional Plan*										
Actuarially Determined Contribution	\$ 59,196	\$ 76,523	\$ 83,183	\$ 82,382	\$ 112,513	\$ -	\$ -	\$ -	\$ -	\$ -
Actual Employer Contribution	59,500	221,523	151,100	100,000	407,513	-	-	-	-	-
Contribution Deficiency (Excess)	<u>\$ (304)</u>	<u>\$ (145,000)</u>	<u>\$ (67,917)</u>	<u>\$ (17,618)</u>	<u>\$ (295,000)</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>
Covered Payroll	<u>\$ 13,076</u>	<u>\$ 20,500</u>	<u>\$ 29,312</u>	<u>\$ 39,697</u>	<u>\$ 43,267</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>
Contributions as a % of Covered Payroll	466.49%	1080.62%	515.49%	251.91%	941.87%	N/A	N/A	N/A	N/A	N/A
MaBSTOA Plan										
Actuarially Determined Contribution	\$ 202,509	\$ 202,924	\$ 220,697	\$ 214,881	\$ 226,374	\$ 234,474	\$ 228,918	\$ 186,454	\$ 200,633	\$ 204,274
Actual Employer Contribution	205,434	202,684	220,697	214,881	226,374	234,474	228,918	186,454	200,633	204,274
Contribution Deficiency (Excess)	<u>\$ (2,925)</u>	<u>\$ 240</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>
Covered Payroll	<u>\$ 776,200</u>	<u>\$ 749,666</u>	<u>\$ 716,527</u>	<u>\$ 686,674</u>	<u>\$ 653,287</u>	<u>\$ 582,081</u>	<u>\$ 575,989</u>	<u>\$ 579,696</u>	<u>\$ 591,073</u>	<u>\$ 569,383</u>
Contributions as a % of Covered Payroll	26.47%	27.04%	30.80%	31.29%	34.65%	40.28%	39.74%	32.16%	33.94%	35.88%
Metro-North Cash Balance Plan*										
Actuarially Determined Contribution	\$ 5	\$ -	\$ 23	\$ -	\$ 5	\$ -	\$ -	\$ -	\$ -	\$ -
Actual Employer Contribution	5	-	23	14	-	-	-	-	-	-
Contribution Deficiency (Excess)	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ (14)</u>	<u>\$ 5</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>
Covered Payroll	<u>\$ 268</u>	<u>\$ 471</u>	<u>\$ 846</u>	<u>\$ 1,474</u>	<u>\$ 2,274</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>
Contributions as a % of Covered Payroll	2.03%	0.00%	2.68%	0.96%	0.00%	N/A	N/A	N/A	N/A	N/A
MTA Defined Benefit Plan*										
Actuarially Determined Contribution	\$ 331,566	\$ 316,916	\$ 290,415	\$ 273,700	\$ 271,523	\$ -	\$ -	\$ -	\$ -	\$ -
Actual Employer Contribution	339,800	321,861	280,767	221,694	331,259	-	-	-	-	-
Contribution Deficiency (Excess)	<u>\$ (8,234)</u>	<u>\$ (4,945)</u>	<u>\$ 9,648</u>	<u>\$ 52,006</u>	<u>\$ (59,736)</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>
	<u>\$ 2,030,695</u>	<u>\$ 1,857,026</u>	<u>\$ 1,784,369</u>	<u>\$ 1,773,274</u>	<u>\$ 1,679,558</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>
Covered Payroll	<u>\$ 2,030,695</u>	<u>\$ 1,857,026</u>	<u>\$ 1,784,369</u>	<u>\$ 1,773,274</u>	<u>\$ 1,679,558</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>
Contributions as a % of Covered Payroll	16.83%	17.33%	15.73%	12.50%	19.72%	N/A	N/A	N/A	N/A	N/A

* For the MTA Defined Benefit Plan, Additional Plan and Metro-North Cash Balance Plan, information was not readily available for periods

REQUIRED SUPPLEMENTARY INFORMATION

Schedule of the MTA's Contributions for All Pension Plans for the Year Ended December 31,

(continued)

(\$ in thousands)

	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009
NYCERS										
Actuarially Determined Contribution	\$ 807,097	\$ 800,863	\$ 797,845	\$ 736,212	\$ 741,223	\$ 736,361	\$ 731,983	\$ 657,771	\$ 574,555	\$ 548,721
Actual Employer Contribution	807,097	800,863	797,845	736,212	741,223	736,361	731,983	657,771	574,555	548,721
Contribution Deficiency (Excess)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Covered Payroll	\$ 3,974,494	\$ 3,768,885	\$ 3,523,993	\$ 3,494,907	\$ 3,617,087	\$ 2,943,195	\$ 2,925,834	\$ 2,900,630	\$ 2,886,789	\$ 2,800,882
Contributions as a % of										
Covered Payroll	20.31%	21.25%	22.64%	21.07%	20.49%	25.02%	25.02%	22.68%	19.90%	19.59%
NYSLERS **										
Actuarially Determined Contribution	\$ 14,501	\$ 13,969	\$ 12,980	\$ 15,792	\$ 13,816	\$ -	\$ -	\$ -	\$ -	\$ -
Actual Employer Contribution	14,501	13,969	12,980	15,792	13,816	-	-	-	-	-
Contribution Deficiency (Excess)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Covered Payroll	\$ 109,210	\$ 103,787	\$ 94,801	\$ 86,322	\$ 84,041	\$ -	\$ -	\$ -	\$ -	\$ -
Contributions as a % of										
Covered Payroll	13.28%	13.46%	13.69%	18.29%	16.44%	N/A	N/A	N/A	N/A	N/A

** For the NYSLERS plan, information was not readily available for periods prior to 2014. This schedule is intended to show information for ten years. Additional years will be displayed as they become available.

REQUIRED SUPPLEMENTARY INFORMATION

Notes to Schedule of the MTA's Contributions for All Pension Plans

	Additional Plan			
Valuation Dates:	January 1, 2017	January 1, 2016	January 1, 2015	January 1, 2014
Measurement Date:	December 31, 2017	December 31, 2016	December 31, 2015	December 31, 2014
Actuarial cost method:	Entry Age Normal Cost	Entry Age Normal Cost	Entry Age Normal Cost	Entry Age Normal Cost
Amortization method:	Period specified in current valuation report (closed 17 year period beginning January 1, 2016) with level dollar payments.	Period specified in current valuation report (closed 17 year period beginning January 1, 2016) with level dollar payments.	Period specified in current valuation report (closed 18 year period beginning January 1, 2015) with level dollar payments.	Period specified in current valuation report (closed 19 year period beginning January 1, 2014) with level dollar payments.
Asset Valuation Method:	Actuarial value equals market value less unrecognized gains/losses over a 5-year period. Gains/losses are based on market value of assets.	Actuarial value equals market value less unrecognized gains/losses over a 5-year period. Gains/losses are based on market value of assets.	Actuarial value equals market value less unrecognized gains/losses over a 5-year period. Gains/losses are based on market value of assets.	Actuarial value equals market value less unrecognized gains/losses over a 5-year period. Gains/losses are based on market value of assets.
Salary increases:	3.00%	3.00%	3.00%	3.00%
Actuarial assumptions:				
Discount Rate:	7.00%	7.00%	7.00%	7.00%
Investment rate of return :	7.00%, net of investment expenses.	7.00%, net of investment expenses.	7.00%, net of investment expenses.	7.00%, net of investment expenses.
Mortality:	Based on experience of all MTA members reflecting mortality improvement on a generational basis using scale AA.	Based on experience of all MTA members reflecting mortality improvement on a generational basis using scale AA.	Based on experience of all MTA members reflecting mortality improvement on a generational basis using scale AA.	Based on experience of all MTA members reflecting mortality improvement on a generational basis using scale AA. As generational tables, they reflect mortality improvements both before and after the measurement date. Mortality assumption is based on a 2012 experience study for all MTA plans.
Pre-retirement:	RP-2000 Employee Mortality Table for Males and Females with blue collar adjustments.	RP-2000 Employee Mortality Table for Males and Females with blue collar adjustments.	RP-2000 Employee Mortality Table for Males and Females with blue collar adjustments.	RP-2000 Employee Mortality Table for Males and Females with blue collar adjustments.
Post-retirement Healthy Lives:	95% of the rates from the RP-2000 Healthy Annuitant mortality table for males with blue collar adjustments and 116% of the rates from the RP-2000 Healthy Annuitant mortality table for females.	95% of the rates from the RP-2000 Healthy Annuitant mortality table for males with blue collar adjustments and 116% of the rates from the RP-2000 Healthy Annuitant mortality table for females.	95% of the rates from the RP-2000 Healthy Annuitant mortality table for males with blue collar adjustments and 116% of the rates from the RP-2000 Healthy Annuitant mortality table for females.	95% of the rates from the RP-2000 Healthy Annuitant mortality table for males with blue collar adjustments and 116% of the rates from the RP-2000 Healthy Annuitant mortality table for females.
Post-retirement Disabled Lives:	N/A	N/A	N/A	N/A
Inflation/Railroad Retirement Wage Base:	2.50%; 3.50%	2.50%; 3.50%	2.50%; 3.50%	2.50%; 3.50%
Cost-of-Living Adjustments:	N/A	N/A	N/A	N/A

REQUIRED SUPPLEMENTARY INFORMATION

Notes to Schedule of the MTA's Contributions for All Pension Plans

	MaBSTOA Plan			
Valuation Dates:	January 1, 2017	January 1, 2016	January 1, 2015	January 1, 2014
Measurement Date:	December 31, 2017	December 31, 2016	December 31, 2015	December 31, 2014
Actuarial cost method:	Frozen Initial Liability (FIL)	Frozen Initial Liability (FIL)	Frozen Initial Liability (FIL)	Frozen Initial Liability (FIL)
Amortization method:	For FIL bases, period specified in current valuation 30-year level dollar. Future gains/losses are amortized through the calculation of the normal cost in accordance with the FIL cost method amortized based on expected working lifetime, weighted by salary, of the projected population.	For FIL bases, period specified in current valuation 30-year level dollar. Future gains/losses are amortized through the calculation of the normal cost in accordance with the FIL cost method amortized based on expected working lifetime, weighted by salary, of the projected population.	For FIL bases, period specified in current valuation 30-year level dollar. Future gains/losses are amortized through the calculation of the normal cost in accordance with the FIL cost method amortized based on expected working lifetime, weighted by salary, of the projected population.	For FIL bases, period specified in current valuation 30-year level dollar. Future gains/losses are amortized through the calculation of the normal cost in accordance with the FIL cost method amortized based on expected working lifetime, weighted by salary, of the projected population.
Asset Valuation Method:	Actuarial value equals market value less unrecognized gains/losses over a 5-year period. Gains/losses are based on market value of assets.	Actuarial value equals market value less unrecognized gains/losses over a 5-year period. Gains/losses are based on market value of assets.	Actuarial value equals market value less unrecognized gains/losses over a 5-year period. Gains/losses are based on market value of assets.	Actuarial value equals market value less unrecognized Market value restart as of 1/1/96, then gains/losses over a 5-year period. Gains/losses are five-year moving average of market values based on market value of assets.
Salary increases:	Varies by years of employment and employment type.	Varies by years of employment and employment type.	Varies by years of employment and employment type.	In general, merit and promotion increases plus assumed general wage increases of 3.5% to 15.0% for operating employees and 4.0% to 7.0% for nonoperating employees per year, depending on years of service.
Actuarial assumptions:				
Discount Rate:	7.00%	7.00%	7.00%	7.00%
Investment rate of return :	7.00%, net of investment expenses.	7.00%, net of investment expenses.	7.00%, net of investment expenses.	7.00%, net of investment expenses.
Mortality:	Based on experience of all MTA members reflecting mortality improvement on a generational basis using scale AA.	Based on experience of all MTA members reflecting mortality improvement on a generational basis using scale AA.	Based on experience of all MTA members reflecting mortality improvement on a generational basis using scale AA.	Pre-retirement and post-retirement healthy annuitant rates are projected on a generational basis using Scale AA. As generational tables, they reflect mortality improvements both before and after the measurement date. Mortality assumption is based on a 2012 experience study for all MTA plans.
Pre-retirement:	RP-2000 Employee Mortality Table for Males and Females with blue collar adjustments.	RP-2000 Employee Mortality Table for Males and Females with blue collar adjustments.	RP-2000 Employee Mortality Table for Males and Females with blue collar adjustments.	RP-2000 Employee Mortality Table for Males and Females with blue collar adjustments.
Post-retirement Healthy Lives:	95% of the rates from the RP-2000 Healthy Annuitant mortality table for males with blue collar adjustments and 116% of the rates from the RP-2000 Healthy Annuitant mortality table for females.	95% of the rates from the RP-2000 Healthy Annuitant mortality table for males with blue collar adjustments and 116% of the rates from the RP-2000 Healthy Annuitant mortality table for females.	95% of the rates from the RP-2000 Healthy Annuitant mortality table for males with blue collar adjustments and 116% of the rates from the RP-2000 Healthy Annuitant mortality table for females.	95% of the rates from the RP-2000 Healthy Annuitant mortality table for males with blue collar adjustments and 116% of the rates from the RP-2000 Healthy Annuitant mortality table for females.
Post-retirement Disabled Lives:	RP-2014 Disabled Annuitant mortality table for males and females.	75% of the rates from the RP-2000 Healthy Annuitant mortality table for males and females.	75% of the rates from the RP-2000 Healthy Annuitant mortality table for males and females.	75% of the rates from the RP-2000 Healthy Annuitant mortality table for males and females.
Inflation/Railroad Retirement Wage Base:	2.50%	2.50%	2.50%	2.50%
Cost-of-Living Adjustments:	1.375% per annum	1.375% per annum	1.375% per annum	1.375% per annum

REQUIRED SUPPLEMENTARY INFORMATION

Notes to Schedule of the MTA's Contributions for All Pension Plans

(continued)

	MNR Cash Balance Plan			
Valuation Dates:	January 1, 2018	January 1, 2017	January 1, 2016	January 1, 2014
Measurement Date:	December 31, 2017	December 31, 2016	December 31, 2015	December 31, 2014
Actuarial cost method:	Unit Credit Cost	Unit Credit Cost	Unit Credit Cost	Unit Credit Cost
Amortization method:	One-year amortization of the unfunded liability, if any.	One-year amortization of the unfunded liability, if any.	One-year amortization of the unfunded liability, if any.	Period specified in current valuation report (closed 10 year period beginning January 1, 2008 - 4 year period for the January 1, 2014 valuation).
Asset Valuation Method:	Actuarial value equals market value.	Actuarial value equals market value.	Actuarial value equals market value.	Effective January 1, 2015, the Actuarially Determined Contribution (ADC) will reflect one-year amortization of the unfunded accrued liability in accordance with the funding policy adopted by the MTA.
Salary increases:	N/A	N/A	N/A	There were no projected salary increase assumptions used in the January 1, 2014 valuation as the participants of the Plan were covered under the Management Plan effective January 1, 1989. For participants of the Plan eligible for additional benefits, these benefits were not valued as the potential liability is de minimus.
Actuarial assumptions:				
Discount Rate:	4.00%	4.00%	4.00%	4.50%
Investment rate of return :	4.00%, net of investment expenses.	4.00%, net of investment expenses.	4.00%, net of investment expenses.	4.50%, net of investment expenses.
Mortality:	Based on experience of all MTA members reflecting mortality improvement on a generational basis using scale AA. Mortality assumption is based on a 2017 experience study for all MTA plans.	Based on experience of all MTA members reflecting mortality improvement on a generational basis using scale AA. Mortality assumption is based on a 2012 experience study for all MTA plans.	Based on experience of all MTA members reflecting mortality improvement on a generational basis using scale AA. Mortality assumption is based on a 2012 experience study for all MTA plans.	Based on experience of all MTA members reflecting mortality improvement on a generational basis using scale AA. As generational tables, they reflect mortality improvements both before and after the measurement date. Mortality assumption is based on a 2012 experience study for all MTA plans.
Pre-retirement:	RP-2000 Employee Mortality Table for Males and Females with blue collar adjustments.	RP-2000 Employee Mortality Table for Males and Females with blue collar adjustments.	RP-2000 Employee Mortality Table for Males and Females with blue collar adjustments.	RP-2000 Employee Mortality Table for Males and Females with blue collar adjustments.
Post-retirement Healthy Lives:	95% of the rates from the RP-2000 Healthy Annuitant mortality table for males with blue collar adjustments and 116% of the rates from the RP-2000 Healthy Annuitant mortality table for females.	95% of the rates from the RP-2000 Healthy Annuitant mortality table for males with blue collar adjustments and 116% of the rates from the RP-2000 Healthy Annuitant mortality table for females.	95% of the rates from the RP-2000 Healthy Annuitant mortality table for males with blue collar adjustments and 116% of the rates from the RP-2000 Healthy Annuitant mortality table for females.	95% of the rates from the RP-2000 Healthy Annuitant mortality table for males with blue collar adjustments and 116% of the rates from the RP-2000 Healthy Annuitant mortality table for females.
Post-retirement Disabled Lives:	N/A	N/A	N/A	N/A
Inflation/Railroad Retirement Wage Base:	2.50%	2.30%	2.30%	2.50%
Cost-of-Living Adjustments:	N/A	N/A	N/A	N/A

REQUIRED SUPPLEMENTARY INFORMATION

Notes to Schedule of the MTA's Contributions for All Pension Plans

(continued)

	MTA Defined Benefit Plan			
Valuation Dates:	January 1, 2017	January 1, 2016	January 1, 2015	January 1, 2014
Measurement Date:	December 31, 2017	December 31, 2016	December 31, 2015	December 31, 2014
Actuarial cost method:	Entry Age Normal Cost	Entry Age Normal Cost	Entry Age Normal Cost	Entry Age Normal Cost
Amortization method:	For Frozen Initial Liability ("FIL") bases, period specified in current valuation report. Future gains/ losses are amortized through the calculation of the normal cost in accordance with FIL cost method amortized based on expected working lifetime, weighted by salary, of the projected population for each group.	For Frozen Initial Liability ("FIL") bases, period specified in current valuation report. Future gains/ losses are amortized through the calculation of the normal cost in accordance with FIL cost method amortized based on expected working lifetime, weighted by salary, of the projected population for each group.	For Frozen Initial Liability ("FIL") bases, period specified in current valuation report. Future gains/ losses are amortized through the calculation of the normal cost in accordance with FIL cost method amortized based on expected working lifetime, weighted by salary, of the projected population for each group.	For Frozen Initial Liability ("FIL") bases, period specified in current valuation report. Future gains/ losses are amortized through the calculation of the normal cost in accordance with FIL cost method amortized based on expected working lifetime, weighted by salary, of the projected population for each group.
Asset Valuation Method:	Actuarial value equals market value less unrecognized gains/ losses over a 5-year period. Gains/losses are based on market value of assets.	Actuarial value equals market value less unrecognized gains/ losses over a 5-year period. Gains/losses are based on market value of assets.	Actuarial value equals market value less unrecognized gains/ losses over a 5-year period. Gains/losses are based on market value of assets.	Actuarial value equals market value less unrecognized gains/ losses over a 5-year period. Gains/losses are based on market value of assets.
Salary increases:	Varies by years of employment, and employee group. 3.5% for MTA Bus hourly employees.	Varies by years of employment, and employee group. 3.5% for MTA Bus hourly employees.	Varies by years of employment, and employee group. 3.5% for MTA Bus hourly employees.	Varies by years of employment, and employee group.
Actuarial assumptions:				
Discount Rate:	7.00%	7.00%	7.00%	7.00%
Investment rate of return :	7.00%	7.00%	7.00%	7.00%
Mortality:	Pre-retirement and post-retirement healthy annuitant rates are projected on a generational basis using Scale AA. As a general table, it reflects mortality improvements both before and after the measurement date.	Pre-retirement and post-retirement healthy annuitant rates are projected on a generational basis using Scale AA. As a general table, it reflects mortality improvements both before and after the measurement date.	Pre-retirement and post-retirement healthy annuitant rates are projected on a generational basis using Scale AA. As a general table, it reflects mortality improvements both before and after the measurement date.	Pre-retirement and post-retirement healthy annuitant rates are projected on a generational basis using Scale AA, as recommended by the Society of Actuaries Retirement Plans Experience Committee. Mortality assumption is based on a 2012 experience study for all MTA plans.
Pre-retirement:	RP-2000 Employee Mortality Table for Males and Females with blue collar adjustments.	RP-2000 Employee Mortality Table for Males and Females with blue collar adjustments.	RP-2000 Employee Mortality Table for Males and Females with blue collar adjustments.	RP-2000 Employee Mortality Table for Males and Females with blue collar adjustments.
Post-retirement Healthy Lives:	95% of the rates from the RP-2000 Healthy Annuitant mortality table for males with blue collar adjustments and 116% of the rates from the RP-2000 Healthy Annuitant mortality table for females.	95% of the rates from the RP-2000 Healthy Annuitant mortality table for males with blue collar adjustments and 116% of the rates from the RP-2000 Healthy Annuitant mortality table for females.	95% of the rates from the RP-2000 Healthy Annuitant mortality table for males with blue collar adjustments and 116% of the rates from the RP-2000 Healthy Annuitant mortality table for females.	95% of the rates from the RP-2000 Healthy Annuitant mortality table for males with blue collar adjustments and 116% of the rates from the RP-2000 Healthy Annuitant mortality table for females.
Post-retirement Disabled Lives:	RP-2014 Disabled Annuitant mortality table for males and females	75% of the rates from the RP-2000 Healthy Annuitant mortality table for males and females. At age 85 and later for males and age 77 and later for females, the disability rates are set to the male and females healthy rates, respectively.	75% of the rates from the RP-2000 Healthy Annuitant mortality table for males and females. At age 85 and later for males and age 77 and later for females, the disability rates are set to the male and females healthy rates, respectively.	75% of the rates from the RP-2000 Healthy Annuitant mortality table for males and females. At age 85 and later for males and age 77 and later for females, the disability rates are set to the male and females healthy rates, respectively.
Inflation/Railroad Retirement Wage Base:	2.50%; 3.50%	2.50%; 3.50%	2.50%; 3.50%	2.50%; 3.00%
Cost-of-Living Adjustments:	55% of inflation assumption or 1.375%, if applicable.	55% of inflation assumption or 1.375%, if applicable.	55% of inflation assumption or 1.375%, if applicable.	55% of inflation assumption or 1.375%, if applicable.

REQUIRED SUPPLEMENTARY INFORMATION

Notes to Schedule of the MTA's Contributions for All Pension Plans

(continued)

	NYCERS Plan			
Valuation Dates:	June 30, 2016	June 30, 2015	June 30, 2014	June 30, 2013
Measurement Date:	June 30, 2018	June 30, 2017	June 30, 2016	June 30, 2015
Actuarial cost method:	Entry Age Normal Cost	Entry Age Normal Cost	Entry Age Normal Cost	Entry Age Normal Cost
Amortization method:	Increasing Dollar for Initial Unfunded; Level Dollar for Post 2010 Unfunded.	Increasing Dollar for Initial Unfunded; Level Dollar for Post 2010 Unfunded.	Increasing Dollar for Initial Unfunded; Level Dollar for Post 2010 Unfunded.	Increasing Dollar for Initial Unfunded; Level Dollar for Post 2010 Unfunded.
Asset Valuation Method:	Modified six-year moving average of market values with a Market Value Restart as of June 30, 2011.	Modified six-year moving average of market values with a Market Value Restart as of June 30, 2011.	Modified six-year moving average of market values with a Market Value Restart as of June 30, 2011.	Modified six-year moving average of market values with a Market Value Restart as of June 30, 2011.
Salary increases:	3% per annum.	3% per annum.	3% per annum.	3% per annum.
Actuarial assumptions:				
Discount Rate:	7.00%	7.00%	7.00%	7.00%
Investment rate of return :	7.00%, net of investment expenses.	7.00%, net of investment expenses.	7.00%, net of investment expenses.	7.00%, net of investment expenses.
Mortality:	Mortality tables for service and disability pensioners were developed from an experience study of NYCERS's pensioners. The mortality tables for beneficiaries were developed from an experience review of NYCERS' beneficiaries. The most recently completed study was published by Gabriel Roeder & Company ("GRS"), dated October 2015, and analyzed experience for Fiscal Years 2010 through 2013.	Mortality tables for service and disability pensioners were developed from an experience study of NYCERS's pensioners. The mortality tables for beneficiaries were developed from an experience review of NYCERS' beneficiaries. The most recently completed study was published by Gabriel Roeder & Company ("GRS"), dated October 2015, and analyzed experience for Fiscal Years 2010 through 2013.	Mortality tables for service and disability pensioners were developed from an experience study of NYCERS's pensioners. The mortality tables for beneficiaries were developed from an experience review of NYCERS' beneficiaries. The most recently completed study was published by Gabriel Roeder & Company ("GRS"), dated October 2015, and analyzed experience for Fiscal Years 2010 through 2013.	Mortality tables for service and disability pensioners were developed from an experience study of NYCERS's pensioners. The mortality tables for beneficiaries were developed from an experience review of NYCERS' beneficiaries. The most recently completed study was published by Gabriel Roeder & Company ("GRS"), dated October 2015, and analyzed experience for Fiscal Years 2010 through 2013.
Pre-retirement:	N/A	N/A	N/A	N/A
Post-retirement Healthy Lives:	N/A	N/A	N/A	N/A
Post-retirement Disabled Lives:	N/A	N/A	N/A	N/A
Inflation/Railroad Retirement Wage Base:	2.50%	2.50%	2.50%	2.50%
Cost-of-Living Adjustments:	1.5% per annum for Auto COLA and 2.5% per annum for Escalation.	1.5% per annum for Auto COLA and 2.5% per annum for Escalation.	1.5% per annum for Auto COLA and 2.5% per annum for Escalation.	1.5% per annum for Auto COLA and 2.5% per annum for Escalation.

REQUIRED SUPPLEMENTARY INFORMATION

Notes to Schedule of the MTA's Contributions for All Pension Plans

(continued)

	NYSLERS Plan			
Valuation Dates:	April 1, 2017	April 1, 2016	April 1, 2015	April 1, 2014
Measurement Date:	March 31, 2018	March 31, 2017	March 31, 2016	March 31, 2015
Actuarial cost method:	Aggregate Cost method	Aggregate Cost method	Aggregate Cost method	Aggregate Cost method
Amortization method:	Evenly over the remaining working lifetimes of the active membership.	Evenly over the remaining working lifetimes of the active membership.	Evenly over the remaining working lifetimes of the active membership.	Evenly over the remaining working lifetimes of the active membership.
Asset Valuation Method:	5 year level smoothing of the difference between the actual gain and the expected gain using the assumed investment rate of return.	5 year level smoothing of the difference between the actual gain and the expected gain using the assumed investment rate of return.	5 year level smoothing of the difference between the actual gain and the expected gain using the assumed investment rate of return.	5-year level smoothing of the difference between the actual gain and the expected gain using the assumed investment rate of return.
Salary increases:	3.80%	3.80%	3.80%	4.90%
Actuarial assumptions:				
Discount Rate:	7.00%	7.00%	7.00%	7.50%
Investment rate of return :	7.00%, net of investment expenses.	7.00%, net of investment expenses.	7.00%, net of investment expenses.	7.5%, net of investment expenses.
Mortality:	Annuitant mortality rates are based on NYSLERS's 2015 experience study of the period April 1, 2010 through March 31, 2015 with adjustments for mortality improvements based on the Society of Actuaries's Scale MP-2014.	Annuitant mortality rates are based on NYSLERS's 2010 experience study of the period April 1, 2005 through March 31, 2010 with adjustments for mortality improvements based on the Society of Actuaries's Scale MP-2014.	Annuitant mortality rates are based on NYSLERS's 2010 experience study of the period April 1, 2005 through March 31, 2010 with adjustments for mortality improvements based on the Society of Actuaries's Scale MP-2014.	Annuitant mortality rates are based on NYSLERS's 2010 experience study of the period April 1, 2005 through March 31, 2010 with adjustments for mortality improvements based on the Society of Actuaries's Scale MP-2014.
Pre-retirement:	N/A	N/A	N/A	N/A
Post-retirement Healthy Lives:	N/A	N/A	N/A	N/A
Post-retirement Disabled Lives:	N/A	N/A	N/A	N/A
Inflation/Railroad Retirement Wage Base:	2.50%	2.50%	2.50%	2.70%
Cost-of-Living Adjustments:	1.3% per annum.	1.3% per annum.	1.3% per annum.	1.4% per annum.

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REQUIRED SUPPLEMENTARY INFORMATION

Notes to Schedule of MTA's Contributions for All Pension Plans

(concluded)

Significant methods and assumptions used in calculating the actuarially determined contributions of an employer's proportionate share in Cost Sharing, Multiple-Employer pension plans, the NYCERS plan and the NYSLERS plan, are presented as notes to the schedule.

Factors that significantly affect trends in the amounts reported are changes of benefit terms, changes in the size or composition of the population covered by the benefit terms, or the use of different assumptions. Following is a summary of such factors:

Changes of Benefit Terms:

There were no significant legislative changes in benefit for the June 30, 2016 valuation for the NYCERS plan.

There were no significant legislative changes in benefit for the April 1, 2017 valuation for the NYSLERS plan.

Changes of Assumptions:

There were no significant changes in the economic and demographic assumptions used in the June 30, 2016 valuation for the NYCERS plan.

There were no significant changes in the economic and demographic assumptions used in the April 1, 2017 valuation for the NYSLERS plan.

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REQUIRED SUPPLEMENTARY INFORMATION

Schedule of Changes in the MTA's Net OPEB Liability and Related Ratios and Notes to Schedule

(\$ in thousands)	<u>OPEB Plan</u>
Plan Measurement Date (December 31):	<u>2017</u>
Total OPEB liability:	
Service cost	\$ 884,548
Interest on total OPEB liability	731,405
Effect of plan changes	27,785
Effect of economic/demographic (gains) or losses	13,605
Effect of assumption changes or inputs	911,465
Benefit payments	<u>(650,994)</u>
Net change in total OPEB liability	1,917,814
Total OPEB liability—beginning	<u>18,787,254</u>
Total OPEB liability—ending (a)	<u>20,705,068</u>
Plan fiduciary net position:	
Employer contributions	650,994
Net investment income	47,370
Benefit payments	<u>(650,994)</u>
Net change in plan fiduciary net position	47,370
Plan fiduciary net position—beginning	<u>322,982</u>
Plan fiduciary net position—ending (b)	<u>370,352</u>
Net OPEB liability—ending (a)-(b)	<u><u>\$ 20,334,716</u></u>
Plan fiduciary net position as a percentage of the total OPEB liability	1.79%
Covered payroll	\$ 5,394,332
Net OPEB liability as a percentage of covered payroll	<u><u>376.96%</u></u>

Notes to Schedule:

Changes of benefit terms: In the July 1, 2017 actuarial valuation, there were no changes to the benefit terms.

Changes of assumptions: In the July 1, 2017 actuarial valuation, there was a change in assumptions. The discount rate used to measure liabilities was updated to incorporate GASB 75 guidance and changed to reflect the current municipal bond rate.

Note: This schedule is intended to show information for ten years. However, until a full 10-year trend has been compiled, information is presented only for the years for which the required supplementary information is available.

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REQUIRED SUPPLEMENTARY INFORMATION

Schedule of the MTA's Contributions to the OPEB Plan for the years ended December 31:

(\$ in thousands)	<u>2018</u>	<u>2017</u>
Actuarially Determined Contribution	N/A	N/A
Actual Employer Contribution (1)	\$ 696,065	\$ 650,994
Contribution Deficiency (Excess)	<u>N/A</u>	<u>N/A</u>
Covered Payroll	\$ 6,903,700	\$ 5,394,200
Actual Contribution as a Percentage of Covered Payroll	<u>10.08%</u>	<u>12.07%</u>

⁽¹⁾ Actual employer contribution includes the implicit rate of subsidy adjustment of \$74,484 and \$71,101 for the years ended December 31, 2018 and 2017, respectively.

Note: This schedule is intended to show information for ten years. However, until a full 10-year trend has been compiled, information is presented only for the years for which the required supplementary information is available.

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REQUIRED SUPPLEMENTARY INFORMATION

Notes to Schedule of the MTA's Contributions to the OPEB Plan:

Valuation date	July 1, 2017
Measurement date	December 31, 2017
Discount rate	3.44%, net of expenses
Inflation	2.50%
Actuarial cost method	Entry Age Normal
Amortization method	Level percentage of payroll
Normal cost increase factor	4.50%
Investment rate of return	6.50%
Salary increases	3%. Varies by years of service and differs for members of the various pension plans.

Note: This schedule is intended to show information for ten years. However, until a full 10-year trend has been compiled, information is presented only for the years for which the required supplementary information is available.

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SUPPLEMENTARY INFORMATION

Pension And Other Employee Benefit Trust Funds

Combining Statement of Fiduciary Net Position as of December 31, 2018

(\$ in thousands)	Pension Funds				Other Employee Benefit Trust Funds		
	Defined Benefit Pension Plan	LIRR Company Plan for Additional Pensions	MaBSTOA Plan	Metro-North Cash Balance Plan	Other Post-employment Benefit Plan	Deferred Compensation 401K Plan	Total
ASSETS:							
Cash	\$ 6,539	\$ 1,228	\$ 5,418	\$ -	\$ -	\$ -	\$ 13,185
Receivables:							
Employee loans	-	-	37,605	-	-	159,462	197,067
Participant and union contributions	-	-	-	-	-	-	-
Investment securities sold	-	58	760	-	-	-	818
Accrued interest and dividends	2,745	516	1,263	2	14	-	4,540
Other receivables	1,845	93	-	-	-	-	1,938
Total receivables	4,590	667	39,628	2	14	159,462	204,363
Investments at fair value:							
Investments measured at readily determined fair value	787,191	147,855	387,520	474	-	-	1,323,040
Investments measured at net asset value	3,234,904	671,157	2,502,012	-	351,538	2,286,394	9,046,005
Investments at contract value	-	-	-	-	-	1,313,496	1,313,496
Total investments	4,022,095	819,012	2,889,532	474	351,538	3,599,890	11,682,541
Total assets	\$ 4,033,224	\$ 820,907	\$ 2,934,578	\$ 476	\$ 351,552	\$ 3,759,352	\$ 11,900,089
LIABILITIES:							
Accounts payable and accrued liabilities	\$ 5,752	\$ 1,035	\$ 1,567	\$ -	\$ -	\$ 721	\$ 9,075
Payable for investment securities purchased	2,699	507	2,250	5	-	-	5,461
Accrued benefits payable	-	-	2,247	-	172	-	2,419
Accrued postretirement death benefits (PRDB) payable	-	-	3,344	-	-	-	3,344
Accrued 55/25 Additional Members Contribution (AMC) payable	-	-	6,181	-	-	-	6,181
Other liabilities	293	48	-	-	-	-	341
Total liabilities	8,744	1,590	15,589	5	172	721	26,821
NET POSITION:							
Restricted for pensions	4,024,480	819,317	2,918,989	471	-	-	7,763,257
Restricted for postemployment benefits other than pensions	-	-	-	-	351,380	-	351,380
Restricted for other employee benefits	-	-	-	-	-	3,758,631	3,758,631
Total net position	4,024,480	819,317	2,918,989	471	351,380	3,758,631	11,873,268
Total liabilities and net position	\$ 4,033,224	\$ 820,907	\$ 2,934,578	\$ 476	\$ 351,552	\$ 3,759,352	\$ 11,900,089

See Independent Auditors' Review Report and notes to the consolidated interim financial statements.

(A Component Unit of the State of New York)

SUPPLEMENTARY INFORMATION

Pension And Other Employee Benefit Trust Funds

Combining Statement of Fiduciary Net Position as of December 31, 2017

(\$ in thousands)	Pension Funds				Other Employee Benefit Trust Funds		
	Defined Benefit Pension Plan	LIRR Company Plan for Additional Pensions	MaBSTOA Plan	Metro-North Cash Balance Plan	Other Post-employment Benefit Plan	Deferred Compensation 401K Plan	Total
ASSETS:							
Cash	\$ 11,812	\$ 1,575	\$ 5,418	\$ -	\$ -	\$ -	\$ 18,805
Receivables:							
Employee loans	-	-	37,605	-	-	146,347	183,952
Participant and union contributions	-	(6)	-	-	-	-	(6)
Investment securities sold	-	363	760	3	-	-	1,126
Accrued interest and dividends	1,882	399	1,263	3	7	-	3,554
Other receivables	1,896	(53)	-	-	-	-	1,843
Total receivables	3,778	703	39,628	6	7	146,347	190,469
Investments at fair value:							
Investments measured at readily determined fair value	675,779	183,875	387,520	527	-	-	1,247,701
Investments measured at net asset value	3,369,189	765,925	2,502,012	-	370,596	2,397,108	9,404,830
Investments at contract value	-	-	-	-	-	1,224,190	1,224,190
Total investments	4,044,968	949,800	2,889,532	527	370,596	3,621,298	11,876,721
Total assets	<u>\$ 4,060,558</u>	<u>\$ 952,078</u>	<u>\$ 2,934,578</u>	<u>\$ 533</u>	<u>\$ 370,603</u>	<u>\$ 3,767,645</u>	<u>\$ 12,085,995</u>
LIABILITIES:							
Accounts payable and accrued liabilities	\$ 4,730	\$ (149)	\$ 1,567	\$ -	\$ -	\$ 675	\$ 6,823
Payable for investment securities purchased	3,575	900	2,250	10	-	-	6,735
Accrued benefits payable	-	-	2,247	-	251	-	2,498
Accrued postretirement death benefits (PRDB) payable	-	-	3,344	-	-	-	3,344
Accrued 55/25 Additional Members Contribution (AMC) payable	-	-	6,181	-	-	-	6,181
Other liabilities	719	-	-	-	-	-	719
Total liabilities	9,024	751	15,589	10	251	675	26,300
NET POSITION:							
Restricted for pensions	4,051,534	951,327	2,918,989	523	-	-	7,922,373
Restricted for postemployment benefits other than pensions	-	-	-	-	370,352	-	370,352
Restricted for other employee benefits	-	-	-	-	-	3,766,970	3,766,970
Total net position	4,051,534	951,327	2,918,989	523	370,352	3,766,970	12,059,695
Total liabilities and net position	<u>\$ 4,060,558</u>	<u>\$ 952,078</u>	<u>\$ 2,934,578</u>	<u>\$ 533</u>	<u>\$ 370,603</u>	<u>\$ 3,767,645</u>	<u>\$ 12,085,995</u>

See Independent Auditors' Review Report and notes to the consolidated interim financial statements.

(A Component Unit of the State of New York)

SUPPLEMENTARY INFORMATION

Pension And Other Employee Benefit Trust Funds

Combining Statement of Changes in Fiduciary Net Position for the year ended December 31, 2018

(\$ in thousands)	Pension Funds				Other Employee Benefit Trust Funds		
	Defined Benefit Pension Plan	LIRR Additional Plan	MaBSTOA Plan	Metro-North Cash Balance Plan	Other Post-employment Benefit Plan	Deferred Compensation 401K Plan	Total
ADDITIONS:							
Contributions:							
Employer contributions	\$ 338,967	\$ 59,500	\$ 202,684	\$ 5	\$ 616,638	\$ 4,392	\$ 1,222,186
NonEmployer contributions	-	-	-	-	-	-	-
Implicit rate subsidy contribution	-	-	-	-	74,484	-	74,484
Participant rollovers	-	-	-	-	-	21,673	21,673
Member contributions	29,902	334	19,713	-	-	283,818	333,767
Total contributions	368,869	59,834	222,397	5	691,122	309,883	1,652,110
Investment income:							
Net appreciation/ (depreciation)							
in fair value of investments	(169,255)	(35,344)	363,877	(15)	(22,591)	(139,054)	(2,382)
Dividend income	56,670	11,441	24,125	-	5,203	-	97,439
Interest income	9,254	1,715	6,092	16	161	-	17,238
Less: Investment expenses	47,091	8,547	43,908	-	1,689	-	101,235
Investment income, net	(150,422)	(30,735)	350,186	1	(18,916)	(139,054)	11,060
Other additions: Loan repayments - interest	0	0	0	0	0	7,529	7,529
Total additions	218,447	29,099	572,583	6	672,206	178,358	1,670,699
DEDUCTIONS:							
Benefit payments and withdrawals	242,149	159,565	209,121	58	616,638	-	1,227,531
Implicit rate subsidy payments	-	-	-	-	74,484	-	74,484
Transfer to other plans	200	-	-	-	-	93,187	93,387
Distribution to participants	-	-	-	-	-	87,379	87,379
Administrative expenses	3,152	1,544	208	-	56	721	5,681
Other deductions	-	-	-	-	-	5,410	5,410
Total deductions	245,501	161,109	209,329	58	691,178	186,697	1,493,872
Net increase (decrease) in fiduciary net position	(27,054)	(132,010)	363,254	(52)	(18,972)	(8,339)	176,827
NET POSITION:							
Restricted for Benefits:							
Beginning of year	4,051,534	951,327	2,555,735	523	370,352	3,766,970	11,696,441
End of year	\$ 4,024,480	\$ 819,317	\$ 2,918,989	\$ 471	\$ 351,380	\$ 3,758,631	\$ 11,873,268

See Independent Auditors' Review Report and notes to the consolidated interim financial statements.

(A Component Unit of the State of New York)

SUPPLEMENTARY INFORMATION

Pension And Other Employee Benefit Trust Funds

Combining Statement of Changes in Fiduciary Net Position for the year ended December 31, 2017

(\$ in thousands)	Pension Funds				Other Employee Benefit Trust Funds		
	Defined Benefit Pension Plan	LIRR Additional Plan	MaBSTOA Plan	Metro-North Cash Balance Plan	Other Post- employment Benefit Plan	Deferred Compensation 401K Plan	Total
ADDITIONS:							
Contributions:							
Employer contributions	\$ 321,861	\$ 76,523	\$ 202,684	\$ -	\$ 579,893	\$ 4,109	\$ 1,185,070
NonEmployer contributions	-	145,000	-	-	-	-	145,000
Implicit rate subsidy contribution	-	-	-	-	71,101	-	71,101
Participant rollovers	-	-	-	-	-	22,430	22,430
Member contributions	30,994	760	19,713	-	-	251,122	302,589
Total contributions	352,855	222,283	222,397	-	650,994	277,661	1,726,190
Investment income:							
Net appreciation/ (depreciation)							
in fair value of investments	527,182	115,106	363,877	4	42,470	416,584	1,465,223
Dividend income	35,211	7,599	24,125	-	6,697	-	73,632
Interest income	6,522	1,036	6,092	16	64	-	13,730
Less: Investment expenses	52,762	11,127	43,908	-	1,861	-	109,658
Investment income, net	516,153	112,614	350,186	20	47,370	416,584	1,442,927
Other additions: Loan repayments - interest	0	0	0	0	0	6,337	6,337
Total additions	869,008	334,897	572,583	20	698,364	700,582	3,175,454
DEDUCTIONS:							
Benefit payments and withdrawals	231,321	159,717	209,121	71	579,893	-	1,180,123
Implicit rate subsidy payments	-	-	-	-	71,101	-	71,101
Transfer to other plans	1,622	-	-	-	-	66,031	67,653
Distribution to participants	-	-	-	-	-	73,733	73,733
Administrative expenses	4,502	1,070	208	-	-	675	6,455
Other deductions	-	-	-	-	-	4,895	4,895
Total deductions	237,445	160,787	209,329	71	650,994	145,334	1,403,960
Net increase (decrease) in fiduciary net position	631,563	174,110	363,254	(51)	47,370	555,248	1,771,494
NET POSITION:							
Restricted for Benefits:							
Beginning of year	3,419,971	777,217	2,555,735	574	322,982	3,211,722	10,288,201
End of year	\$ 4,051,534	\$ 951,327	\$ 2,918,989	\$ 523	\$ 370,352	\$ 3,766,970	\$ 12,059,695

See Independent Auditors' Review Report and notes to the consolidated interim financial statements.

(A Component Unit of the State of New York)

SUPPLEMENTARY INFORMATION

SCHEDULE OF CONSOLIDATED RECONCILIATION BETWEEN FINANCIAL PLAN AND FINANCIAL STATEMENTS FOR THE PERIOD ENDED MARCH 31, 2019

(\$ in millions)

(Unaudited)

Category	Financial Plan Actual	Statement GAAP Actual	Variance
REVENUE:			
Farebox revenue	\$ 1,467	\$ 1,468	\$ 1
Vehicle toll revenue	452	452	-
Other operating revenue	193	166	(27)
Total revenue	2,112	2,086	(26)
OPERATING EXPENSES:			
Labor:			
Payroll	1,320	1,324	4
Overtime	249	249	-
Health and welfare	319	322	3
Pensions	321	339	18
Other fringe benefits	225	226	1
Postemployment benefits	173	144	(29)
Reimbursable overhead	(129)	(133)	(4)
Total labor expenses	2,478	2,471	(7)
Non-labor:			
Electric power	120	118	(2)
Fuel	46	46	-
Insurance	1	1	-
Claims	102	101	(1)
Paratransit service contracts	122	122	-
Maintenance and other	153	142	(11)
Professional service contract	100	94	(6)
Pollution remediation project costs	3	3	-
Materials and supplies	153	153	-
Other business expenses	51	50	(1)
Total non-labor expenses	851	830	(21)
Depreciation	705	706	1
Other Expenses Adjustment	(5)	-	5
Total operating expenses	4,029	4,007	(22)
NET OPERATING LOSS	<u>\$ (1,917)</u>	<u>\$ (1,921)</u>	<u>\$ (4)</u>

(A Component Unit of the State of New York)

SUPPLEMENTARY INFORMATION

SCHEDULE OF CONSOLIDATED SUBSIDY ACCRUAL RECONCILIATION BETWEEN FINANCIAL PLAN AND FINANCIAL STATEMENTS FOR THE PERIOD ENDED MARCH 31, 2019

(\$ in millions)

(Unaudited)

	Financial Plan Actual	Financial Statement GAAP Actual	Variance	
Accrued Subsidies				
Mass transportation operating assistance	\$ -	\$ 1,824	\$ 1,824	
Mass transit trust fund subsidies	92	158	66	{1}
Mortgage recording tax 1 and 2	99	99	-	{1}
MRT transfer	-	(1)	(1)	{1}
Urban tax	177	177	-	{1}
State and local operating assistance	-	217	217	{1}
Station maintenance	42	42	-	{1}
Connecticut Department of Transportation (CDOT)	33	33	-	{1}
Subsidy from New York City for MTA Bus and SIRTOA	166	115	(51)	{1}
Build American Bonds Subsidy	-	2	2	{1}
Mobility tax	386	544	158	{1}
NYS/NYC Subway Action Plan	57	-	(57)	{1}
Other non-operating income	-	49	49	{2}
	<u>1,052</u>	<u>3,259</u>	<u>2,207</u>	
 Total accrued subsidies	 1,052	 3,259	 2,207	
 Net operating deficit before subsidies and debt service	 (1,917)	 (1,921)	 (4)	
Debt Service	(697)	(329)	368	
Conversion to Cash basis: Depreciation	705	-	(705)	
Conversion to Cash basis: OPEB Obligation	17	-	(17)	
Conversion to Cash basis: Pollution & Remediation	3	-	(3)	
	<u>3</u>	<u>-</u>	<u>(3)</u>	
 Total net operating surplus/(deficit) before appropriations, grants and other receipts restricted for capital projects	 <u>\$ (837)</u>	 <u>\$ 1,009</u>	 <u>\$ 1,846</u>	

{1} The Financial Plan records on a cash basis while the Financial Statement records on an accrual basis.

{2} The Financial Plan records do not include other non-operating income or changes in market value.

{3} The Financial Plan records do not include other non-operating subsidy or expense for the
refunding of NYS Service Contract Bonds.

(A Component Unit of the State of New York)

SUPPLEMENTARY INFORMATION

SCHEDULE OF FINANCIAL PLAN TO FINANCIAL STATEMENTS RECONCILIATION RECONCILING ITEMS

FOR THE PERIOD ENDED MARCH 31, 2019

(\$ in millions)

Financial Plan Actual Operating Loss at March 31, 2019	\$ (1,917)
The Financial Plan Actual Includes:	
1 Higher other operating revenues	(26)
2 Higher labor expense primarily from higher OPEB expense projections, which does not reflect GASB No. 75 OPEB implementation	7
3 Higher non-labor expense primarily from higher maintenance expense projections	21
4 Other expense adjustments	(6)
Total operating reconciling items	(4)
Financial Statements Operating Loss at March 31, 2019	(1,921)
Financial Plan Deficit after Subsidies and Debt Service	(837)
The Audited Financial Statements Includes:	
1 Debt service bond principal payments	368
2 Adjustments for non-cash liabilities:	
Depreciation	(705)
Unfunded OPEB expense	(17)
Unfunded GASB No. 68 pension adjustment	-
Other non-cash liability adjustment	(3)
The Financial Statement includes:	
3 Higher dedicated taxes and subsidies	2,207
4 Total operating reconciling items (from above)	(4)
Financial Statement Gain Before Capital Appropriations	\$ 1,009

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NOTE: The Pension Funds balances as of 12/31/2018 related to MaBSTOA Plan on pages 114 & 116 will be updated on 9/20/2019. An updated draft will be distributed with the final balances on this date.

Metropolitan Transportation Authority

(A Component Unit of the State of New York)

Independent Auditors' Review Report

Consolidated Interim Financial Statements as of and
for the Six-Month Period Ended June 30, 2019

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INDEPENDENT AUDITORS' REVIEW REPORT

To the Members of the Board of
Metropolitan Transportation Authority

Report on the Consolidated Interim Financial Information

We have reviewed the accompanying consolidated interim statement of net position of the Metropolitan Transportation Authority (the "MTA"), a component unit of the State of New York, as of June 30, 2019, and the related consolidated interim statements of revenues, expenses and changes in net position and consolidated cash flows for the three-month periods ended June 30, 2019 and 2018 (the "consolidated interim financial information").

Management's Responsibility for the Consolidated Interim Financial Information

MTA management is responsible for the preparation and fair presentation of the consolidated interim financial information in accordance with accounting principles generally accepted in the United States of America; this responsibility includes the design, implementation, and maintenance of internal control sufficient to provide a reasonable basis for the preparation and fair presentation of the consolidated interim financial information in accordance with accounting principles generally accepted in the United States of America.

Auditors' Responsibility

Our responsibility is to conduct our reviews in accordance with auditing standards generally accepted in the United States of America applicable to reviews of interim financial information. A review of interim financial information consists principally of applying analytical procedures and making inquiries of persons responsible for financial and accounting matters. It is substantially less in scope than an audit conducted in accordance with auditing standards generally accepted in the United States of America, the objective of which is the expression of an opinion regarding the financial information. Accordingly, we do not express such an opinion.

Conclusion

Based on our reviews, we are not aware of any material modifications that should be made to the consolidated interim financial information referred to above for it to be in accordance with the accounting principles generally accepted in the United States of America.

Emphasis of Matters

As discussed in the notes to the consolidated interim financial information, the MTA is a component unit of the State of New York. The MTA requires significant subsidies from and has material transactions with the City of New York, the State of New York, and the State of Connecticut, and depends on certain tax revenues that are economically sensitive. The accompanying interim financial information does not include any adjustments that might result from the outcome of this uncertainty.

As described in Note 2 to the consolidated interim financial statements, the MTA adopted Governmental Accounting Standards Board ("GASB") Statement No. 83, *Certain Asset Retirement Obligations* and GASB Statement No. 84 *Fiduciary Activities*.

Other Matters

Required Supplementary Information

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Accounting principles generally accepted in the United States of America require that the Management's Discussion and Analysis, the Schedule of Changes in the MTA's Net Pension Liability and Related Ratios for the Single Employer Pension Plans, the Schedule of the MTA's Proportionate Share of Net Pension Liabilities of Cost-Sharing Multiple-Employer Pension Plans, the Schedule of the MTA's Contributions for All Pension Plans, the Schedule of Changes in the MTA's Net OPEB Liability and Related Ratios, and the Schedule of the MTA's Contributions to the OPEB Plan, as listed in the table of contents, be presented to supplement the consolidated interim financial information. Such information, although not a part of the consolidated interim financial information, is required by the Governmental Accounting Standards Board who considers it to be an essential part of financial reporting for placing the consolidated interim financial information in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, applicable to reviews of interim financial information, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the consolidated interim financial information, and other knowledge we obtained during our reviews of the consolidated interim financial information. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

Supplementary Information

Our reviews were conducted for the purpose of expressing limited assurance, as described under the Conclusion section above, on the MTA's consolidated interim financial information. The Schedule of Consolidated Reconciliation Between Financial Plan and Financial Statements, Schedule of Consolidated Subsidy Accrual Reconciliation Between Financial Plan and Financial Statements, and Schedule of Financial Plan to Financial Statements Reconciliation as well as the Pension and Other Employee Benefit Trust Funds - Combining Statement of Fiduciary Net Position as of December 31, 2018, Pension and Other Employee Benefit Trust Funds - Combining Statement of Fiduciary Net Position as of December 31, 2017, Pension and Other Employee Benefit Trust Funds - Combining Statement of Changes in Fiduciary Net Position for the Year-Ended December 31, 2018, and Pension and Other Employee Benefit Trust Funds - Combining Statement of Changes in Fiduciary Net Position for the Year-Ended December 31, 2017 are presented for the purposes of additional analysis and are not a required part of the consolidated interim financial information.

The Schedule of Consolidated Reconciliation Between Financial Plan and Financial Statements, Schedule of Consolidated Subsidy Accrual Reconciliation Between Financial Plan and Financial Statements, and Schedule of Financial Plan to Financial Statements Reconciliation as well as the Pension and Other Employee Benefit Trust Funds - Combining Statement of Fiduciary Net Position as of December 31, 2018, Pension and Other Employee Benefit Trust Funds - Combining Statement of Fiduciary Net Position as of December 31, 2017, Pension and Other Employee Benefit Trust Funds - Combining Statement of Changes in Fiduciary Net Position for the Year-Ended December 31, 2018, and Pension and Other Employee Benefit Trust Funds - Combining Statement of Changes in Fiduciary Net Position for the Year-Ended December 31, 2017, are the responsibility of management and were derived from and relate directly to the underlying accounting and other records used to prepare the consolidated interim financial information. Such information has been subjected to the analytical procedures and inquiries applied in the reviews of the basic consolidated interim financial information and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the consolidated interim financial information or to the consolidated interim financial information themselves, and other additional procedures and we are not aware of any material modifications that should be made thereto in order for such information to be in conformity with accounting principles generally accepted in the United States of America when considered in relation to the basic consolidated interim financial information taken as a whole.

Report on Consolidated Statement of Net Position as of December 31, 2018

We have previously audited, in accordance with auditing standards generally accepted in the United States of America, the consolidated statement of net position of the MTA as of December 31, 2018, and the related consolidated statement of revenues, expenses and changes in net position and cash flows for the year then ended (not presented herein); and we expressed an unmodified audit opinion on those audited consolidated financial statements in our report dated June 26, 2019, which contains an explanatory paragraph that the MTA requires significant subsidies from other governmental entities. In our opinion, the accompanying consolidated statement of net position of the MTA as of

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December 31, 2018, is consistent, in all material respects, with the audited consolidated financial statements from which it has been derived.

September 25, 2019

(A Component Unit of the State of New York)

**MANAGEMENT'S DISCUSSION AND ANALYSIS
AS OF JUNE 30, 2019 AND DECEMBER 31, 2018 AND FOR THE SIX-MONTH PERIODS ENDED
JUNE 30, 2019 AND 2018
(\$ In Millions, except as noted)**

OVERVIEW OF THE CONSOLIDATED INTERIM FINANCIAL STATEMENTS

Introduction

This report consists of seven parts: Management's Discussion and Analysis ("MD&A"), Consolidated Interim Financial Statements, Fiduciary Funds Financial Statements, Notes to the Consolidated Interim Financial Statements, Required Supplementary Information, Supplementary Information - Combining Fiduciary Fund Financial Statements, and Supplementary Information.

Management's Discussion and Analysis

This MD&A provides a narrative overview and analysis of the financial activities of the Metropolitan Transportation Authority and its consolidated subsidiaries and affiliates (the "MTA" or "MTA Group") as of June 30, 2019 and December 31, 2018 and for the six-month periods ended June 30, 2019 and 2018. For financial reporting purposes, the subsidiaries and affiliates of the MTA are blended component units. This management discussion and analysis is intended to serve as an introduction to the MTA Group's consolidated interim financial statements. It provides an assessment of how the MTA Group's position has improved or deteriorated and identifies the factors that, in management's view, significantly affected the MTA Group's overall financial position. It may contain opinions, assumptions, or conclusions by the MTA Group's management that must be read in conjunction with, and should not be considered a replacement for, the consolidated interim financial statements.

The Consolidated Interim Financial Statements

The Consolidated Interim Statements of Net Position, which provide information about the nature and amounts of resources with present service capacity that the MTA Group presently controls (assets), consumption of net assets by the MTA Group that is applicable to a future reporting period (deferred outflow of resources), present obligations to sacrifice resources that the MTA Group has little or no discretion to avoid (liabilities), and acquisition of net assets by the MTA Group that is applicable to a future reporting period (deferred inflow of resources) with the difference between assets/deferred outflow of resources and liabilities/deferred inflow of resources being reported as net position.

The Consolidated Interim Statements of Revenues, Expenses and Changes in Net Position, which provide information about the MTA's changes in net position for the period then ended and accounts for all of the period's revenues and expenses, measures the success of the MTA Group's operations during the year and can be used to determine how the MTA has funded its costs.

The Consolidated Interim Statements of Cash Flows, which provide information about the MTA Group's cash receipts, cash payments and net changes in cash resulting from operations, noncapital financing, capital and related financing, and investing activities.

The Fiduciary Funds Financial Statements

Fiduciary funds are used to account for resources held in a trustee capacity for the benefit of parties outside of a government entity. Fiduciary funds are not reported in the MTA's consolidated interim financial statements because the resources of those funds are not available to support the MTA's own programs. The MTA's fiduciary funds are collectively reported as Pension and Other Employee Benefit Trust Funds.

The Statement of Fiduciary Net Position presents financial information about the assets, liabilities, and the fiduciary net position held in trust of the fiduciary funds of the MTA.

The Statement of Changes in Fiduciary Net Position presents fiduciary activities of the fiduciary funds as additions and deductions to the fiduciary net position.

Notes to the Consolidated Interim Financial Statements

The notes provide information that is essential to understanding the consolidated interim financial statements, such as the MTA Group's accounting methods and policies, details of cash and investments, employee benefits, long-term debt, lease transactions, future commitments and contingencies of the MTA Group, and information about other events or developing situations that could materially affect the MTA Group's financial position.

Required Supplementary Information

The required supplementary information provides information about the changes in the net pension liability and net other postemployment benefits (“OPEB”) liability, employer contributions for the OPEB and pension plans, actuarial assumptions used to calculate the net pension liability and net OPEB liability, historical trends, and other required supplementary information related to the MTA Group’s cost-sharing multiple-employer defined benefit pension plans.

Supplementary Information - Combining Fiduciary Funds Financial Statements

The supplementary information combining fiduciary funds financial statements includes the combining statement of fiduciary net position and the combining statement of changes in fiduciary net position which provides financial information on each fiduciary fund in which the MTA is functioning as a trustee for another party. The MTA’s fiduciary funds are categorized as Pension and Other Employee Benefit Trust Funds.

Supplementary Information

The supplementary information provides a series of reconciliations between the MTA Group’s financial plan and the consolidated interim statements of revenues, expenses and changes in net position.

FINANCIAL REPORTING ENTITY

The Metropolitan Transportation Authority (“MTA” or “MTA Group”) was established under the New York Public Authorities Law and is a public benefit corporation and a component unit of the State of New York whose mission is to continue, develop, and improve public transportation and to develop and implement a unified public transportation policy in the New York metropolitan area. The financial reporting entity consists of subsidiaries and affiliates, considered component units of the MTA, because the Board of the MTA serves as the overall governing body of these related entities.

MTA Related Groups

The following entities, listed by their legal names, are subsidiaries (component units) of the MTA:

- Metropolitan Transportation Authority Headquarters (“MTAHQ”) provides support in budget, cash management, finance, legal, real estate, treasury, risk and insurance management, and other services to the related groups listed below.
- The Long Island Rail Road Company (“MTA Long Island Rail Road”) provides passenger transportation between New York City (“NYC”) and Long Island.
- Metro-North Commuter Railroad Company (“MTA Metro-North Railroad”) provides passenger transportation between NYC and the suburban communities in Westchester, Dutchess, Putnam, Orange, and Rockland counties in New York State (“NYS”) and New Haven and Fairfield counties in Connecticut.
- Staten Island Rapid Transit Operating Authority (“MTA Staten Island Railway”) provides passenger transportation on Staten Island.
- First Mutual Transportation Assurance Company (“FMTAC”) provides primary insurance coverage for certain losses, some of which are reinsured, and assumes reinsurance coverage for certain other losses.
- MTA Capital Construction Company (“MTA Capital Construction”) provides oversight for the planning, design and construction of current and future major MTA system-wide expansion projects.
- MTA Bus Company (“MTA Bus”) operates certain bus routes in areas previously served by private bus operators pursuant to franchises granted by the City of New York.
- MTAHQ, MTA Long Island Rail Road, MTA Metro-North Railroad, MTA Staten Island Railway, FMTAC, MTA Capital Construction, and MTA Bus, collectively are referred to herein as MTA. MTA Long Island Rail Road and MTA Metro-North Railroad are referred to collectively as the Commuter Railroads.

The following entities, listed by their legal names, are affiliates (component units) of the MTA:

- New York City Transit Authority (“MTA New York City Transit”) and its subsidiary, Manhattan and Bronx Surface Transit Operating Authority (“MaBSTOA”), provide subway and public bus service within the five boroughs of New York City.
- Triborough Bridge and Tunnel Authority (“MTA Bridges and Tunnels”) operates seven toll bridges, two tunnels, and the Battery Parking Garage, all within the five boroughs of New York City.

CONDENSED CONSOLIDATED FINANCIAL INFORMATION AND CONDENSED CONSOLIDATED INTERIM FINANCIAL INFORMATION

The following sections discuss the significant changes in the MTA Group's financial position as of June 30, 2019 and December 31, 2018 and for the six-month periods ended June 30, 2019 and 2018. An analysis of major economic factors and industry trends that have contributed to these changes is provided. It should be noted that for purposes of the MD&A, the information contained within the summaries of the consolidated interim financial statements and the various exhibits presented were derived from the MTA Group's consolidated interim financial statements.

Total Assets and Deferred Outflows of Resources, Distinguishing Between Capital Assets, Other Assets and Deferred Outflows of Resources

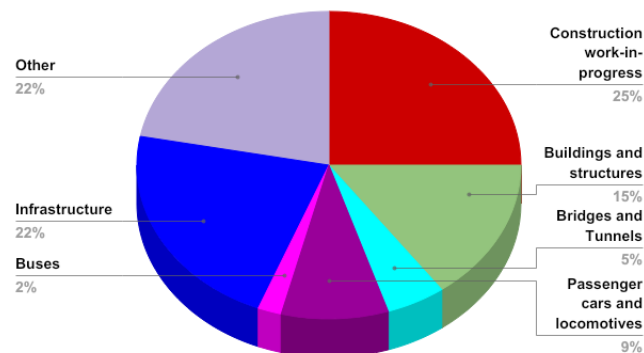
Capital assets include, but are not limited to: bridges, structures, tunnels, construction of buildings and the acquisition of buses, equipment, passenger cars, and locomotives.

Other assets include, but are not limited to: cash, restricted and unrestricted investments, State and regional mass transit taxes receivables, and receivables from New York State.

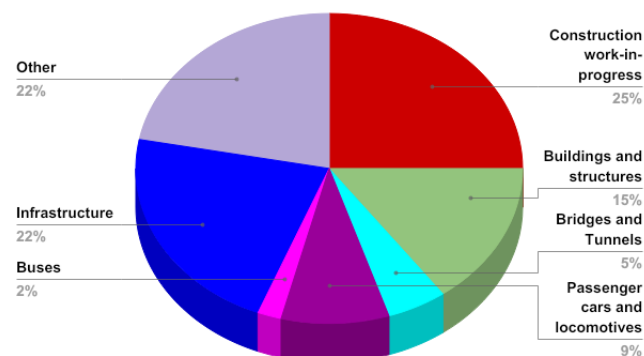
Deferred outflows of resources reflect: changes in fair market values of hedging derivative instruments that are determined to be effective, unamortized loss on refunding, deferred outflows from pension activities, and deferred outflows from OPEB activities.

(In millions)	June 30, 2019	December 31, 2018	Increase / (Decrease)
	(Unaudited)		
Capital assets — net (see Note 6)	\$ 74,082	\$ 72,511	\$ 1,571
Other assets	10,024	7,827	2,197
Total Assets	84,106	80,338	3,768
Deferred outflows of resources	4,467	4,360	107
Total assets and deferred outflows of resources	<u>\$ 88,573</u>	<u>\$ 84,698</u>	<u>\$ 3,875</u>

Capital Assets, Net - June 30, 2019 (Unaudited)



Capital Assets, Net - December 31, 2018



Significant Changes in Assets and Deferred Outflows of Resources Include:

June 30, 2019 versus December 31, 2018

- Net capital assets increased at June 30, 2019 by \$1,571 or 2.2%. There was an increase in other capital assets of \$894, an increase in construction in progress of \$863, an increase in infrastructure of \$535, an increase in buses of \$234, an increase in passenger cars and locomotives of \$223, an increase in buildings and structures of \$133, an increase in bridges and tunnels of \$16 and an increase in land of \$3. This was offset by a net increase in accumulated depreciation of \$1,330. See Note 6 to the MTA's Consolidated Interim Financial Statements for further information. Some of the more significant projects contributing to the net increase included:
 - Continued progress on the East Side Access, Second Avenue Subway and Number 7 Extension Project.
 - Infrastructure work including:
 - Repairs and improvements of all MTA Bridge and Tunnels' facilities.

- Improvements to MTA Long Island Railroad's road-assets, replacement of signal power lines, various right-of-way enhancements and upgrades of radio communications.
- Continued improvements to MTA Metro-North Railroad stations, tracks and structures, power rehabilitation of substations, and security.
- Subway and bus real-time customer information and communications systems.
- Continued structural rehabilitation and repairs of the ventilation system at various facilities.
- Continued improvements made to the East River Tunnel Fire and Life Safety project for 1st Avenue, Long Island City and construction of three Montauk bridges.
- Continued passenger station rehabilitations for Penn Station and East Side Access Passenger station.
- Ongoing work by MTA New York City Transit to make stations fully accessible and structurally reconfigured in accordance with the Americans with Disability Act ("ADA") standards.
- Other assets increased by \$2,197 or 28.1%. The major items contributing to this change include:
 - An increase in current and non-current receivables of \$1,604 primarily due to an increase from State and regional mass transit tax of \$1,577, an increase in State and local operating assistance of \$158, an increase Station Maintenance receivable of \$85, an increase in Mortgage Recording tax of \$3, a net decrease in Other current receivables of \$52, a decrease in New York City operating recovery subsidy to the MTA New York City Transit, MTA Staten Island Railway, and MTA Bus of \$66, a decrease in Federal and State grants for capital projects of \$73 and a net decrease in other non-current receivables of \$28.
 - An increase in cash of \$30 from net cash flow activities.
 - An increase in investments of \$564 mainly due to the issuance of new debt.
 - A net decrease in various other current and noncurrent assets of \$1.
- Deferred outflows of resources increased by \$107 or 2.5%. This increase was primarily due to a change in the fair value of derivative instruments of \$97, an increase in deferred outflows related to pensions of \$65 and other post-employment benefits of \$2. This increase was offset by a decrease in deferred outflows for unamortized loss of \$57.

Total Liabilities and Deferred Inflows of Resources, Distinguishing Between Current Liabilities, Non-Current Liabilities and Deferred Inflows of Resources

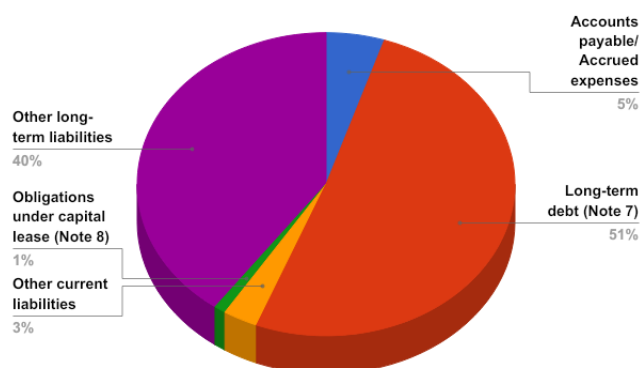
Current liabilities include: accounts payable, accrued expenses, current portions of long-term debt, capital lease obligations, pollution remediation liabilities, unredeemed fares and tolls, and other current liabilities.

Non-current liabilities include: long-term debt, capital lease obligations, claims for injuries to persons, post-employment benefits and other non-current liabilities.

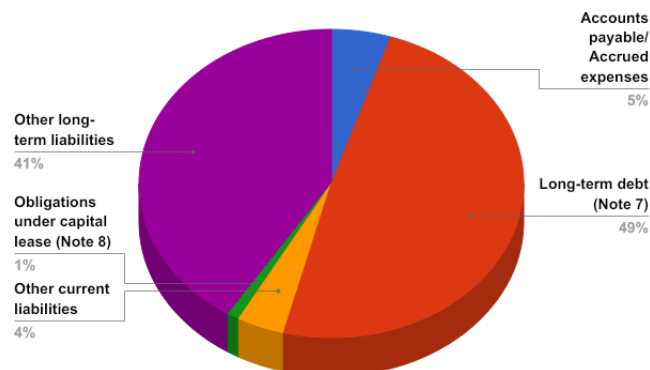
Deferred inflows of resources reflect unamortized gains on refunding, pension related deferred inflows, and deferred inflows from OPEB activities.

(In millions)	June 30, 2019	December 31, 2018	Increase / (Decrease)
	(Unaudited)		
Current liabilities	\$ 6,521	\$ 7,609	\$ (1,088)
Non-current liabilities	75,905	72,022	3,883
Total liabilities	82,426	79,631	2,795
Deferred inflows of resources	1,112	1,114	(2)
Total liabilities and deferred inflows of resources	\$ 83,538	\$ 80,745	\$ 2,793

Total Liabilities - June 30, 2019 (Unaudited)



Total Liabilities - December 31, 2018



Significant Changes in Liabilities and Deferred Inflows of Resources Include:

June 30, 2019 versus December 31, 2018

- Current liabilities decreased by \$1,088 or 14.3%. The net decrease in current liabilities was primarily due to a decrease in the current portion of long-term debt of \$991 due to the maturity of Bond Anticipation Notes and debt service payments. In addition, there was a decrease in accrued expenses of \$264 due to a decrease in capital accrual of \$334, a decrease in unearned premiums of \$20, an increase in interest payable of \$155, an increase in employee related accruals of \$6, an increase in estimated liability from injuries to persons of \$8, offset by a decrease in other accrued expenses of \$79. Unearned revenues increased by \$46. There was a net decrease in various other current liabilities of \$3. Accounts payable due to vendors increased by \$124.
- Non-current liabilities increased by \$3,883 or 5.4%. This increase was mainly due to:
 - An increase in the non-current portion of long-term debt of \$3,668 primarily due to 2019 bond issuances (See Note 7).
 - An increase in estimated liability arising from injuries to persons (Note 10) of \$150 due to revised calculations of the workers' compensation reserve.
 - An increase in derivative liabilities of \$90 resulting mainly from changes in market valuation and a reduction in the notional amount of derivative contracts.
 - A net decrease in other various non-current liabilities of \$25.
- Deferred inflows of resources decreased by \$2 or 0.2%, due to gain on refunding of debt of \$2.

Total Net Position, Distinguishing Between Net Investment in Capital Assets, Restricted Amounts, and Unrestricted Amounts

(In millions)	June 30, 2019 (Unaudited)	December 31, 2018	Increase / (Decrease)
Net investment in capital assets	\$ 30,059	\$ 30,000	\$ 59
Restricted for debt service	1,118	454	664
Restricted for claims	214	206	8
Restricted for other purposes	1,209	1,230	(21)
Unrestricted	(27,565)	(27,937)	372
Total Net Position	\$ 5,035	\$ 3,953	\$ 1,082

Significant Changes in Net Position Include:

June 30, 2019 versus December 31, 2018

At June 30, 2019, total net position increased by \$1,082 or 27.4%, when compared with December 31, 2018. This change is a result of net non-operating revenues of \$3,771 and appropriations, grants and other receipts externally restricted for capital projects of \$1,079 offset by operating losses of \$3,768.

The net investment in capital assets increased by \$59 or 0.2%. Funds restricted for debt service, claims and other purposes increased by \$651 or 34.4% in the aggregate, mainly due to scheduled debt service payments. Unrestricted net position increased by \$372 or 1.3%.

Condensed Consolidated Interim Statement of Revenues, Expenses and Changes in Net Position

(In millions)	Six-Month Period Ended		Increase / (Decrease)
	June 30,		
	2019	2018	
	(Unaudited)	(Unaudited)	
Operating revenues			
Passenger and tolls	\$ 4,087	\$ 3,988	\$ 99
Other	323	299	24
Total operating revenues	4,410	4,287	123
Non-operating revenues			
Grants, appropriations and taxes	4,192	4,087	105
Other	475	387	88
Total non-operating revenues	4,667	4,474	193
Total revenues	9,077	8,761	316
Operating expenses			
Salaries and wages	3,138	3,104	34
Retirement and other employee benefits	1,534	1,517	17
Postemployment benefits other than pensions	325	1,095	(770)
Depreciation and amortization	1,420	1,336	84
Other expenses	1,761	1,699	62
Total operating expenses	8,178	8,751	(573)
Non-operating expenses			
Interest on long-term debt	894	733	161
Other net non-operating expenses	2	(5)	7
Total non-operating expenses	896	728	168
Total expenses	9,074	9,479	(405)
Gain / (Loss) before appropriations, grants and other receipts			
externally restricted for capital projects	3	(718)	721
Appropriations, grants and other receipts			
externally restricted for capital projects	1,079	754	325
Change in net position	1,082	36	1,046
Net position, beginning of period	3,953	5,224	(1,271)
Net position, end of period	\$ 5,035	\$ 5,260	\$ (225)

Revenues and Expenses, by Major Source:

Period ended June 30, 2019 versus 2018

- Total operating revenues increased by \$123 or 2.9%. This increase was mainly due to an increase in fare and toll revenue of \$99 primarily due to an increase in vehicle crossings for the period ended June 30, 2019, when compared to the period ended June 30, 2018. The increase in Other operating revenues of \$24 was due to higher advertising revenues collected on behalf of agencies.
- Total non-operating revenues increased by \$193 or 4.3%.
 - Total grants, appropriations, and taxes increased by \$105. This was due to an increase in Mass Transportation operating assistance of \$138, an increase in Payroll Mobility Tax of \$84, an increase from New York City Assistance Fund of \$76, an increase in Urban Tax of \$14, an increase in Mass Transportation Trust Fund from New York State of \$5, and an increase in Mortgage Recording Tax subsidies of \$3. The increases were offset by a decrease in NYS/NYC Subway Action Plan of \$209, a decrease in Aid Trust subsidies of \$4, and a decrease of \$2 in other subsidies.

- Other non-operating revenues increased by \$88 primarily due to an increase in non-operating revenue of \$80, an increase in operating subsidies from New York City of \$20 for MTA Bus and MTA Staten Island Railway, and an increase in station maintenance, operation and use assessments of \$1. This was offset by a decrease in subsidies from the Connecticut Department of Transportation for the MTA Metro-North Railroad of \$13.
- Labor costs decreased by \$719 or 12.6%. The major changes within this category are:
 - Salaries, wages and overtime increased by \$34 primarily due to increases in MTA New York City Transit to support various maintenance and weather-related requirements.
 - Retirement and employee benefits increased by \$17.
 - Postemployment benefits other than pensions decreased by \$770 based on changes in the actuarial estimates as a result of GASB 75.
- Non-labor operating costs increased by \$146 or 4.8%. The variance was primarily due to:
 - An increase in depreciation of \$84 primarily due to assets placed in service in the current year.
 - An increase in paratransit service contracts of \$32 primarily due to higher paratransit taxi expenses.
 - An increase in claims arising from injuries to persons of \$30 based on the most recent actuarial valuations.
 - An increase in material and supplies by \$12, mainly due to revised maintenance and repairs requirements for transit and commuter systems.
 - An increase in insurance of \$7 primarily due to fewer policies added in 2019.
 - An increase in maintenance and other contracts by \$27.
 - A decrease in professional service contracts of \$25 due to changes in consulting services requirements.
 - A decrease in electric power of \$8 and fuel of \$4 due to changes in rates and consumption.
 - A net decrease in other various expenses of \$9 mainly due to lower operating expenses.
- Total net non-operating expenses increased by \$168 or 23.1% due to increases in interest on long-term debt of \$161 and an increase in other non-operating expenses of \$7.
- Appropriations, grants and other receipts externally restricted for capital projects increased by \$325 or 43.1% mainly due to timing of requisitioning for Federal and State grants.

OVERALL FINANCIAL POSITION AND RESULTS OF OPERATIONS AND IMPORTANT ECONOMIC CONDITIONS

Economic Conditions

Metropolitan New York is the most transit-intensive region in the United States, and a financially sound and reliable transportation system is critical to the region's economic well-being. The MTA consists of urban subway and bus systems, suburban rail systems, and bridge and tunnel facilities, all of which are affected by many different economic forces. In order to achieve maximum efficiency and success in its operations, the MTA must identify economic trends and continually implement strategies to adapt to changing economic conditions.

Preliminary MTA system-wide utilization through the second quarter of 2019 decreased relative to 2018, with ridership down by 8.7 million trips (0.7%). The decrease was driven by MTA New York City Transit bus ridership, which declined by 10.0 million trips (3.5%). In addition, MTA Bus ridership declined by 0.5 million trips (0.8%) and MTA Staten Island Railway ridership decreased by 0.1 million trips (3.7%). These declines through the second quarter were partially offset by ridership increases at MTA New York City Transit subway, which increased by 0.8 million trips (0.1%), MTA Long Island Rail Road, which increased by 1.0 million trips (2.2%), and MTA Metro-North Railroad, which increased by 0.2 million trips (0.4%). The decline in bus ridership is consistent with a trend that began in 2009 and has been observed nationally, while the increase in subway ridership breaks a trend of 12 consecutive year-on-year quarterly decreases that began in the second quarter of 2016. Vehicle traffic at MTA Bridges and Tunnels facilities through the second quarter increased by 5.9 million crossings (3.8%) compared with 2018 levels. The 2019 New York State Budget approved congestion pricing in Manhattan south of 60th Street, which is scheduled to go into effect in 2021—this will likely impact ridership and vehicle crossings.

Seasonally adjusted non-agricultural employment in New York City for the second quarter was higher in 2019 than in 2018 by 100.0 thousand jobs (2.2%). On a quarter-to-quarter basis, New York City employment has increased in each of the last thirty-five quarters—the last decline occurred in the third quarter of 2010—and is higher than at any time since 1950, when non-agricultural employment levels for New York City were first recorded by the Bureau of Labor Statistics.

National economic growth, as measured by Real Gross Domestic Product (“RGDP”), expanded at an annualized rate of 2.1% in the second quarter of 2019, according to the most recent advance estimate released by the Bureau of Economic Analysis. The increase in RGDP reflected positive contributions from personal consumption expenditures, federal government spending, and state and local government spending. Partially offsetting these favorable impacts were negative contributions from private inventory investment, exports, nonresidential fixed investment and residential fixed investment. Imports, which are a subtraction in the RGDP calculation, increased. The deceleration in RGDP growth, over the first quarter’s revised 3.1% growth rate, reflected downturns in inventory investment, exports, and nonresidential fixed investment, which were partially offset by accelerations in personal consumption expenditures and federal government spending.

The New York City metropolitan area’s price inflation, as measured by the Consumer Price Index for All Urban Consumers (“CPI-U”), was lower than the national average in the second quarter of 2019, with the metropolitan area index increasing 1.61% while the national index increased 1.81%, when compared with the second quarter of 2018. Decreases in both the regional and national price of energy products (2.92% for the region, and 0.76% nationally) contributed to the low inflation rates; in the metropolitan area, the CPI-U exclusive of energy products increased by 1.94%, while nationally, inflation exclusive of energy products increased 2.04%. Decreasing more sharply than overall energy prices, the spot price for New York Harbor conventional gasoline declined by 7.4%, from an average price of \$2.05 per gallon to an average price of \$1.90 per gallon between the second quarters of 2018 and 2019.

The Federal Open Market Committee (“FOMC”) did not change its target for the Federal Funds rate in the second quarter of 2019, maintaining the target range of 2.25% to 2.5% which was set in December 2018. The decision to maintain the target range was in view of continued labor market strength, solid job gains and low unemployment in the second quarter. Household spending picked up compared to the first quarter, but business fixed investment softened. Overall inflation and inflation for items other than food and energy were both below 2 percent, but indicators suggested longer-term inflation expectations were little changed. The FOMC continued to expect a sustained economic expansion, strong labor market conditions and inflation near the 2% target level, but signaled a willingness to lower the Federal Funds target range in the second half of 2019 by stating that uncertainties over the outlook had increased and that it would act to sustain the economic expansion (the FOMC lowered the target range by 0.25 percentage points on August 1). The FOMC indicated that the timing and size of future adjustments to the target range would take into account measures of labor market conditions, indicators of inflation and inflation expectations, and financial and international developments, in the service of the dual mandate to maximize employment and achieve 2% inflation.

The influence of the Federal Reserve’s monetary policy on the mortgage market is a matter of interest to the MTA, since variability of mortgage rates can affect the number of real estate transactions and thereby impact receipts from the Mortgage Recording Tax (“MRT”) and Urban Tax, two important sources of MTA revenue. Mortgage Recording Tax collections for the second quarter of 2019 were lower than the second quarter of 2018 by \$8.4 (7.8%); receipts in the second quarter of 2019 were \$13.7 (12.1%) lower than receipts from the first quarter. Despite the gradual overall recovery of MRT receipts that began in 2012 following the financial crisis, average monthly receipts in the second quarter of 2019 remain \$28.2 (44.3%) lower than the monthly average for 2006, just prior to the steep decline in Mortgage Recording Tax revenues. MTA’s Urban Tax receipts—which are based on commercial real estate transactions and mortgage recording activity within New York City, and can vary significantly from quarter to quarter based on the timing of exceptionally high-priced transactions—were \$53.3 (28.2%) lower in the second quarter of 2019 than receipts for the second quarter of 2018; receipts in the second quarter of 2019 were \$94.5 (41.1%) lower than receipts from the first quarter. Average monthly receipts in the second quarter of 2019 were \$12.7 (17.3%) lower than the monthly average for 2007, just prior to the steep decline in Urban Tax revenues following the 2008 financial crisis.

Results of Operations

MTA Bridges and Tunnels - For the period ended June 30, 2019, operating revenue increased by \$44 compared to the six months ended June 30, 2018. Paid traffic for the first half of 2019 totaled 161.3 million crossings, which was 5.9 million, or 3.8% higher than the first half of 2018. The increase is primarily due to improvements in the regional economy, relatively favorable winter weather, stable gas prices and the substantial completion of Sandy restoration work at the Queens Midtown Tunnel and the Hugh L. Carey Tunnel in the fourth quarter of 2018. Toll revenue through June 2019 totaled \$996, which was \$44, or 4.5% greater than the first half of 2018. The additional revenue was due to the higher traffic volume and a toll increase implemented on March 31, 2019.

The E-ZPass electronic toll collection system experienced year-to-year increases in market share. The total average market share as of June 30, 2019 was 95.0% compared to 94.5% as of June 30, 2018. The average weekday market share for passenger and commercial vehicles were 95.6% and 95.2% for the first two quarters of 2019 and 2018, respectively.

MTA New York City Transit - For the period ended June 30, 2019, revenue from fares was \$2,242, an increase of \$35, or 1.6%, compared to June 30, 2018. For the same comparative period, total operating expenses were lower by \$381 or 6.7%, totaling \$5,310 for the six months ended June 30, 2019.

MTA Long Island Rail Road – Total operating revenue for the period ended June 30, 2019 was \$391, which was higher by \$12 or 3.2%, compared to June 30, 2018. For the same comparative period, operating expenses were lower by \$47 or 4.7%, totaling \$950 for the six months ended June 30, 2019.

MTA Metro-North Railroad – For the six months ended June 30, 2019, operating revenues totaled \$394, an increase of \$10 or 2.6%, compared to June 30, 2018. During the same period, operating expenses decreased by \$32 or 4.0% to \$763. For the six months ended June 30, 2019, fare revenue increased by 1.9% to \$366 compared to June 30, 2018. Passenger fares accounted for 92.9% and 93.5% of operating revenues in 2019 and 2018, respectively. The remaining revenue represents collection of rental income from stores in and around passenger stations and revenue generated from advertising.

The MTA receives the equivalent of four quarters of Metropolitan Mass Transportation Operating Assistance (“MMTOA”) receipts each year, with the state advancing the first quarter of each succeeding calendar year’s receipts in the fourth quarter of the current year. This results in little or no Metropolitan Mass Transportation Operating Assistance receipts being received during the first quarter of each calendar year. The MTA has made other provisions to provide for cash liquidity during this period. During March 2016, the State appropriated \$1.6 billion in MMTOA funds. There has been no change in the timing of the State’s payment of, or MTA’s receipt of, Dedicated Mass Transportation Trust Fund (“MTTF”) receipts, which MTA anticipates will be sufficient to make monthly principal and interest deposits into the Debt Service Fund for the Dedicated Tax Fund Bonds. The total MRT for the period ended June 30, 2019 was \$215 compared to \$212 at June 30, 2018.

Capital Programs

At June 30, 2019, \$22,173 had been committed and \$9,828 had been expended for the combined 2015-2019 MTA Capital Programs and the 2015-2019 MTA Bridges and Tunnels Capital Program, and \$28,078 had been committed and \$23,440 had been expended for the combined 2010-2014 MTA Capital Programs and the 2010-2014 MTA Bridges and Tunnels Capital Program, and \$24,133 had been committed and \$23,751 had been expended for the combined 2005-2009 MTA Capital Programs and the 2005-2009 MTA Bridges and Tunnels Capital Program.

The MTA Group has ongoing capital programs, which except for MTA Bridges and Tunnels are subject to the approval of the Metropolitan Transportation Authority Capital Program Review Board (“CPRB”), and are designed to improve public transportation in the New York Metropolitan area.

2015-2019 Capital Program — Capital programs covering the years 2015-2019 for: (1) the commuter railroad operations of the MTA conducted by MTA Long Island Rail Road and MTA Metro-North Railroad (the “2015–2019 Commuter Capital Program”), (2) the transit system operated by MTA New York City Transit and its subsidiary, MaBSTOA, the MTA Bus Company, and the rail system operated by MTA Staten Island Railway (the “2015–2019 Transit Capital Program”) were originally approved by the MTA Board in September 2014. The capital programs were subsequently submitted to the Capital Program Review Board (“CPRB”) in October 2014. This plan was disapproved by the CPRB, without prejudice, in October 2014. The capital program for the toll bridges and tunnels operated by MTA Bridges and Tunnels (the “2015–2019 MTA Bridges and Tunnels Capital Program”) was approved by the MTA Board in September 2014 and was not subject to CPRB approval.

On April 20, 2016, the MTA Board approved revised capital programs for the years covering 2015-2019. The revised capital programs provided for \$29,456 in capital expenditures. On May 23, 2016, the CPRB deemed approved the revised 2015-2019

Capital Programs for the Transit and Commuter systems as submitted. The revised 2015-2019 MTA Bridges and Tunnels Capital Program, was approved by the MTA Board on April 20, 2016.

On February 23, 2017, the MTA Board approved a revision to the CPRB portion of the capital programs for the years covering 2015-2019, adding \$119 transferred from prior capital programs to support additional investment projects. On March 30, 2017, the CPRB deemed approved the revised 2015-2019 Capital Programs for the Transit and Commuter systems as submitted. On May 24, 2017, the MTA Board approved a full amendment to the 2015-2019 Capital Programs to reflect updated project estimates and rebalanced programs to address budgetary and funding needs of priority projects that include Second Avenue Subway Phase 2, MTA Long Island Rail Road regional mobility, station enhancement work, investments at Penn Station, and new Open Road Tolling at MTA Bridges and Tunnels. On July 31, 2017, the CPRB deemed approved the revised 2015-2019 Capital Programs for the Transit and Commuter systems totaling \$29,517, as submitted. The revised 2015-2019 MTA Bridges and Tunnels Capital Program totaling \$2,940, as approved by the MTA Board in May 2017, was not subject to CPRB approval. On December 13, 2017, the MTA Board approved an amendment adding \$349 to the 2015-2019 Capital Program for the Transit system in support of the NYC Subway Action Plan. On April 25, 2018, the MTA Board approved a full amendment to increase the 2015-2019 Capital Programs to \$33,270 reflecting updated project cost estimates, emerging new needs across the agencies, and reallocation of funds within the East Side Access and Regional Investment programs, among others. On June 1, 2018, the CPRB deemed approved the revised 2015-2019 Capital Programs for the Transit and Commuter systems totaling \$30,334, as

submitted. The revised 2015-2019 MTA Bridges and Tunnels Capital Program totaling \$2,936, as approved by the MTA Board in April 2018, was not subject to CPRB approval.

By June 30, 2019, the revised 2015-2019 Capital Programs provided \$33,273 in capital expenditures, of which \$16,742 relates to ongoing repairs of, and replacements to, the transit system operated by MTA New York City Transit and MaBSTOA and the rail system operated by MTA Staten Island Railway; \$5,324 relates to ongoing repairs of, and replacements to, the commuter system operated by MTA Long Island Rail Road and MTA Metro-North Railroad; \$7,652 relates to the expansion of existing rail networks for both the transit and commuter systems to be managed by MTA Capital Construction; \$243 relates to Planning and Customer Service; \$376 relates to MTA Bus Company initiatives; and \$2,936 in capital expenditures for ongoing repairs of, and replacements to, MTA Bridges and Tunnels facilities.

The combined funding sources for the revised 2015–2019 MTA Capital Programs and the 2015-2019 MTA Bridges and Tunnels Capital Program, include \$7,968 in MTA Bonds, \$2,936 in MTA Bridges and Tunnels dedicated funds, \$8,640 in funding from the State of New York, \$7,308 in Federal Funds, \$2,667 from City Capital Funds, \$2,145 in pay-as-you-go (“PAYGO”) capital, \$1,017 from asset sale/leases, and \$592 from Other Sources.

2010-2014 Capital Program — Capital programs covering the years 2010-2014 for: (1) the commuter railroad operations of the MTA conducted by MTA Long Island Rail Road and MTA Metro-North Railroad (the “2010–2014 Commuter Capital Program”), (2) the transit system operated by MTA New York City Transit and its subsidiary, MaBSTOA, the MTA Bus Company, and the rail system operated by MTA Staten Island Railway (the “2010–2014 Transit Capital Program”) were originally approved by the MTA Board in September 2009. The capital programs were subsequently submitted to the CPRB in October 2009. This plan was disapproved by the CPRB, without prejudice, in December 2009 allowing the State Legislature to review funding issues in their 2010 session. The capital program for the toll bridges and tunnels operated by MTA Bridges and Tunnels (the “2010–2014 MTA Bridges and Tunnels Capital Program”) was approved by the MTA Board in September 2009 and was not subject to CPRB approval. The MTA Board approved the revised plan for the Transit and Commuter systems on April 28, 2010 and CPRB approval of the five-year program of projects was obtained on June 1, 2010. The approved CPRB program fully funded only the first two years (2010 and 2011) of the plan, with a commitment to come back to CPRB with a funding proposal for the last three years for the Transit and Commuter Programs. On December 21, 2011, the MTA Board approved an amendment to the 2010-2014 Capital Program for the Transit, Commuter, and Bridges and Tunnels systems that fund the last three years of the program through a combination of self-help (efficiency improvements and real estate initiatives), participation by our funding partners, and innovative and pragmatic financing arrangements. On March 27, 2012, the CPRB deemed approved the amended 2010-2014 Capital Programs for the Transit and Commuter systems as submitted.

On December 19, 2012, the MTA Board approved an amendment to the 2010-2014 Capital Programs for the Transit, Commuter, and Bridges and Tunnels systems to add projects for the repair/restoration of MTA agency assets damaged as a result of Superstorm Sandy, which struck the region on October 29, 2012. On January 22, 2013, the CPRB deemed approved the amended 2010-2014 Capital Programs for the Transit and Commuter systems as submitted. On July 22, 2013, the MTA Board approved a further amendment to the 2010-2014 Capital Programs for the Transit, Commuter, and Bridges and Tunnels systems to include specific revisions to planned projects and to include new resilience/mitigation initiatives in response to Superstorm Sandy. On August 27, 2013, the CPRB deemed approved those amended 2010-2014 Capital Programs for the Transit and Commuter systems as submitted. On July 28, 2014, the MTA Board approved an amendment to select elements of the Disaster Recovery (Sandy) and MTA New York City Transit portions of the 2010-2014 Capital Programs, and a change in the funding plan. On September 3, 2014, the CPRB deemed approved the amended 2010-2014 Capital Programs for the Transit and Commuter systems as submitted.

In May 2017, the MTA Board approved an amendment to the 2010-2014 Capital Programs to reflect scope transfers and consolidation between the approved capital programs, and to reflect reductions to the MTA Superstorm Sandy capital projects to match current funding assumptions. This amendment, which provided \$29,237 in capital expenditures for the Transit and Commuter systems, was deemed approved by the CPRB as submitted on July 31, 2017. The amended 2010-2014 MTA Bridges and Tunnels Capital Program, which provided \$2,784 in capital expenditures, was not subject to CPRB approval. By June 30, 2019, the 2010-2014 MTA Capital Programs reflected an overall decrease of \$401 primarily due to reallocation of funds within the East Side Access and Regional Investment programs. Of the \$31,620 in capital expenditures, \$11,365 relates to ongoing repairs of, and replacements to, the transit system operated by MTA New York City Transit and MaBSTOA and the rail system operated by MTA Staten Island Railway; \$3,904 relates to ongoing repairs of, and replacements to, the commuter system operated by MTA Long Island Rail Road and MTA Metro-North Railroad; \$5,920 relates to the expansion of existing rail networks for both the transit and commuter systems to be managed by MTA Capital Construction; \$338 relates to a multi-faceted security program including MTA Police Department; \$223 relates to MTA Interagency; \$297 relates to MTA Bus Company initiatives; \$2,022 relates to the ongoing repairs of, and replacements to, MTA Bridges and Tunnels facilities; and \$7,551 relates to Superstorm Sandy recovery/mitigation capital expenditures.

The combined funding sources for the CPRB-approved 2010–2014 MTA Capital Programs and 2010–2014 MTA Bridges and Tunnels Capital Program include \$11,483 in MTA Bonds, \$2,025 in MTA Bridges and Tunnels dedicated funds, \$7,594 in Federal Funds, \$132 in MTA Bus Federal and City Match, \$719 from City Capital Funds, and \$1,345 from other sources. Also included is \$770 in State Assistance funds added to re-establish a traditional funding partnership. The funding strategy for Superstorm

Sandy repair and restoration assumes the receipt of \$6,329 in insurance and federal reimbursement proceeds (including interim borrowing by MTA to cover delays in the receipt of such proceeds), \$235 in pay-as-you-go capital, supplemented, to the extent necessary, by external borrowing of up to \$988 in additional MTA and MTA Bridges and Tunnels bonds.

2005-2009 Capital Program — Capital programs covering the years 2005-2009 for: (1) the commuter railroad operations of the MTA conducted by MTA Long Island Rail Road and MTA Metro-North Railroad (the “2005–2009 Commuter Capital Program”), (2) the transit system operated by MTA New York City Transit and its subsidiary, MaBSTOA, the MTA Bus Company, and the rail system operated by MTA Staten Island Railway (the “2005–2009 Transit Capital Program”) were originally approved by the MTA Board in April 2005 and subsequently by the CPRB in July 2005. The capital program for the toll bridges and tunnels operated by MTA Bridges and Tunnels (the “2005–2009 MTA Bridges and Tunnels Capital Program”) was approved by the MTA Board in April 2005 and was not subject to CPRB approval. The 2005–2009 amended Commuter Capital Program and the 2005–2009 Transit Capital program (collectively, the “2005–2009 MTA Capital Programs”) were last amended by the MTA Board in July 2008. This latest 2005-2009 MTA Capital Program amendment was resubmitted to the CPRB for approval in July 2008, and was approved in August 2009.

As last amended by the MTA Board, the 2005–2009 MTA Capital Programs and the 2005–2009 MTA Bridges and Tunnels Capital Program, provided for \$23,717 in capital expenditures. By June 30, 2019, the 2005-2009 MTA Capital Programs budget increased by \$680 primarily due to the receipt of new American Recovery and Reinvestment Act (“ARRA”) funds and additional New York City Capital funds for MTA Capital Construction work still underway. Of the \$24,397 now provided in capital expenditures, \$11,516 relates to ongoing repairs of, and replacements to the transit system operated by MTA New York City Transit and MaBSTOA and the rail system operated by MTA Staten Island Railway; \$3,713 relates to ongoing repairs of, and replacements to, the commuter system operated by MTA Long Island Rail Road and MTA Metro-North Railroad; \$168 relates to certain interagency projects; \$7,721 relates generally to the expansion of existing rail networks for both the transit and commuter systems to be managed by the MTA Capital Construction Company (including the East Side Access, Second Avenue Subway and No.7 subway line) and a security program throughout MTA’s transit network; \$1,127 relates to the ongoing repairs of, and replacements to, bridge and tunnel facilities operated by MTA Bridges and Tunnels; and \$152 relates to capital projects for the MTA Bus.

The combined funding sources for the MTA Board-approved 2005–2009 MTA Capital Programs and 2005–2009 MTA Bridges and Tunnels Capital Program include \$11,006 in MTA and MTA Bridges and Tunnels Bonds (including funds for LaGuardia Airport initiative), \$1,450 in New York State general obligation bonds approved by the voters in the November 2005 election, \$7,783 in Federal Funds, \$2,838 in City Capital Funds, and \$1,320 from other sources.

CURRENTLY KNOWN FACTS, DECISIONS, OR CONDITIONS

The 2018 November Financial Plan

The 2018 November Plan, which was approved by the MTA Board in December 2018, projected cash balances through 2019, with projected deficits of \$467 in 2020 and \$814 in 2021 and \$976 in 2022. The November Plan projected net 4% biennial fare/toll increases, which is lower than the projected two-year inflation rates of 5.3% and 4.7% in 2019 and 2021, respectively. Consistent with recent financial plans, a March 1st implementation was assumed for both the 2019 and 2020 increases; however, the approval and implementation of the 2019 fare/toll increases was delayed by one month, until April 2019, resulting in an estimated reduction of \$27 million in the 2019 toll collection.

The MTA 2019 Adopted Budget and February Financial Plan 2019-2022 (collectively, the “February Plan”) was released in February 2019. The purpose of the February Plan was to incorporate adjustments approved by the MTA Board that were captured “below-the-line” and on a consolidated basis in the November Plan into MTA agencies’ financial plan baseline budgets and forecasts. The February Plan also reflected certain technical adjustments to MTA and Agency forecasts and captures baseline changes that were not in the November Plan.

Changes to the November Plan

The February Plan also captures baseline changes that were not included in the November Plan, as well as adjustments to below-the-line items:

- *Health & Welfare Premium Adjustment* – 2019 premiums for the New York State Health Insurance Program (“NYSHIP”), which covers about 40% of MTA employees and retirees, are lower than estimates used in the November Plan. The lower premiums are estimated to reduce expenses by \$57 in 2019, and about \$6 annually thereafter.
- *Insurance Policy Renewal Cost Adjustments* – Lower than forecasted renewal costs for excess liability, environmental liability, stations liability and force account liability policies with estimated savings of \$8 annually through 2020 and \$9 annually thereafter.
- *Timing Adjustments/Other Baseline Re-estimates* – The February Plan includes timing and other minor technical adjustments impacting expenses and subsidies that have been incorporated into the baseline.

- *City Subsidy for MTA Bus* – Reflects timing-related changes to subsidy payments from the City of New York.
- *Other Subsidies* – Reflects lower collection of For-Hire Vehicle fees, which was delayed following the filing of a lawsuit and a temporary restraining order, which order was lifted at the end of January.

The following MTA Plan Adjustments remain below-the-baseline and therefore are not captured within Agency baseline forecasts:

- *Fare and Toll Increase in March 2019* – A \$316 annualized consolidated farebox and toll increase was assumed for implementation in March 2019, and estimated to yield 4%, for an additional \$269 in 2019, \$316 in both 2020 and 2021, and \$317 in 2022. Factoring in the MTA Bus, MTA Staten Island Railway and MTA Bridges and Tunnels adjustments, the net increase to the MTA was projected to be \$262 in 2019, \$308 in 2020, \$307 in 2021, and \$308 in 2022, unchanged from the estimate in the November Plan.
- *One-Month Delay in 2019 Fare and Toll Increase* – The November Plan, approved in December, anticipated the MTA Board would review and approve fare and toll increases in January 2019 for implementation in March. This Plan reflects a one-month delay in approval and implementation of the 2019 fare and toll increases, resulting in an estimated \$27 reduction in 2019 revenues.
- *Fare and Toll Increase in March 2021* – A \$329 annualized consolidated farebox and toll increase is assumed for implementation in March 2021, and is estimated to yield 4%, for an additional \$280 in 2021 and \$329 in 2022. Factoring in the MTA Bus, MTA Staten Island Railway and MTA Bridges and Tunnels adjustments, the net increase to the MTA is projected to be \$273 in 2021 and \$320 in 2022, which is unchanged from the estimate in the November Plan.
- *MTA Efficiencies – Not Yet Implemented* – The November Plan recognized identified savings from the Agencies – included in Agency baseline projections – totaling \$84 in 2018, exceeding the target in that year, \$207 in 2019, \$209 in 2020, \$213 in 2021 and \$203 in 2022. Included in the total savings identified non-recurring savings of \$69 in 2018 and \$18 in 2019. Efficiencies yet to be implemented total \$123 in 2019, \$58 in 2020, \$82 in 2021 and \$86 in 2022; this is unchanged from the November Plan.
- *Service Guideline Adjustments* – Service guidelines have been reviewed and approved by the MTA Board. They are used to maintain an appropriate level of service based upon actual ridership on a route, minimizing occurrences when buses or trains are either overcrowded or underutilized and providing a standard for maximum loads for different times of day. Following these guidelines, MTA New York City Transit first proposed in the November Plan service guideline adjustments beginning in 2020 that result in net savings of \$37 in 2020 and \$41 in 2021 and 2022, of which \$10 is for subway service and \$31 for bus; this is unchanged from the November Plan.
- *Additional Savings Actions* – The November Plan included additional reductions and re-estimates resulting in savings beyond those captured in Agency Baseline projections. These savings programs are expected to be implemented in time for inclusion within Agency baselines in the 2019 July Financial Plan.

Tropical Storm Sandy Update

The total allocation of emergency relief funding from the Federal Transit Administration (“FTA”) to MTA in connection with Superstorm Sandy to date is \$5.83 billion, including \$1.599 billion allocated on September 22, 2014 through a competitive resiliency program. FTA Emergency Relief Grants totaling \$4.815 billion have been executed, including six grants in the amounts of \$194, \$886, \$685, \$344, \$788, and \$1,090, respectively, for repair/local priority resiliency and fourteen grants for competitive resiliency totaling \$829. As of June 30, 2019, MTA has drawn down a total of \$2.279 billion in grant reimbursement for eligible operating and capital expenses. The balance of funds to be drawn down from all twenty grants is available to MTA for reimbursement of eligible expenses as requisitions are submitted by MTA and approved by FTA. Additional requisitions are in process. At MTA and Amtrak’s request, in April 2018, FTA transferred \$13.5 of MTA’s emergency relief allocation to the Federal Railroad Administration (“FRA”) to allow Amtrak to execute a portion of MTA Long Island Rail Road’s Competitive Resilience scope.

MTA has \$801.0 in pending grant requests for Federal Fiscal Year 2019 and expects to submit grant requests for the \$206.3 of remaining FTA emergency relief allocation in Federal Fiscal Year 2020.

Labor Update

During the second quarter of 2019, four new labor agreements were reached with represented employees at four different agencies. Also during the quarter, several labor agreements expired or became amendable, including MTA New York City Transit’s agreement with MTA’s largest union, TWU Local 100, and most agreements with the commuter railroads. The following describes these developments and summarizes the general status of collective bargaining at each MTA agency through the end of the second quarter of 2019.

MTA Long Island Rail Road – During the second quarter of 2019, MTA Long Island Rail Road had approximately 7,613 employees. Approximately 6,609 of the railroad’s employees were represented by 12 different unions in 19 bargaining units. MTA Long Island Rail Road, having reached agreement with all of its unions for the period from December 16, 2016 through April 16, 2019, is now in position to begin a new round of collective bargaining. Meanwhile, under the Railway Labor Act, MTA Long Island Rail Road’s represented population is covered by the amendable agreements.

MTA Metro-North Railroad – In June, most of the agreements settled between MTA Metro-North Railroad and its unions for the 2017-2019 round of bargaining became amendable under the Railway Labor Act. (Several others had already become amendable in prior months.) As of the end of the second quarter of 2019, MTA Metro-North Railroad had reached agreements with sixteen of its nineteen unions covering approximately 88% of its 5,595 represented employees for the 2017-2019 round of collective bargaining. Included in this number are two new agreements between MTA Metro-North Railroad and two different bargaining units of the Association of Commuter Rail Employees (“ACRE”). In June, the MTA Board approved a 31.5-month agreement with ACRE-1, which covers approximately 997 Conductors, Assistant Conductors and Hostlers through September 1, 2019. At the same meeting, the Board also approved the railroad’s 28.5-month agreement with ACRE-113, which covers 78 Rail Traffic Controllers through June 1, 2019. Like all other agreements with MTA Metro-North Railroad, the new agreements are consistent with the railroad wage pattern established at MTA Long Island Rail Road.

At the end of the second quarter, with several contracts from the last round of bargaining becoming amendable, more than 60% of MTA Metro-North Railroad’s represented employees were covered by amendable agreements. The remaining agreements will become amendable later in 2019.

MTA Headquarters – Labor agreements with approximately 741 MTA Police employees covered by the Police Benevolent Association (“PBA”) and by approximately 29 employees of the Commanding Officers Association (“COA”) expired in October 2018, and negotiations to establish new terms with these MTA Police unions, covering close to 45% of MTA Headquarters’ represented population, continued throughout the 2nd Quarter of 2019. At the same time, agreements with the other unions that cover approximately 937 represented employees working at MTA Headquarters remained in effect throughout the second quarter.

MTA New York City Transit Authority/Manhattan and Bronx Surface Transit Operating Authority – In May 2019, labor agreements with three bargaining units of MTA New York City Transit’s largest unions - the Transport Workers Union Local 100 (“TWU Local 100”) and the Amalgamated Transit Union (“ATU 726” and “ATU 1056”)—expired, and they remained unsettled throughout the second quarter. These agreements, together, cover approximately 38,000 employees, with TWU Local 100 alone representing more than 35,000 employees in operating titles. Collective bargaining proceeded during the quarter, with the expectation that a successor deal will set a pattern for future agreements, not only for MTA New York City Transit unions, but for most unions across all other MTA agencies. Agreements with other TWU Local 100 bargaining units—those with Computer and Telecommunications titles and with Career and Salary employees-- remained in effect throughout the second quarter, but were set to expire in July 2019. Meanwhile, agreements with TWU Local 106 Maintenance Supervisors and Station Supervisors, passed by the MTA Board during the first quarter of this year, also remained in effect and are not set to expire until 2020.

In the second quarter, the MTA Board approved a new agreement between MTA New York City Transit and the Subway Surface Supervisors Association (“SSSA”), whose contract with approximately 4,054 supervisory employees had expired on March 31, 2018. The 28-month agreement, covering the period April 1, 2018 through July 31, 2020 followed the pattern established by the now expired 2017-2019 TWU Local 100 agreement. As such, it conforms to the expectations of the MTA Financial Plan.

MTA Bus Company – At the end of the second quarter of 2019, MTA Bus Company had 4,169 employees (full and part time), approximately 3,815 of whom are represented by three different unions (five bargaining units). The largest of these is TWU Local 100, whose members sat with their counterparts at MTA New York City Transit and MaBSTOA in the 2017-2019 round of collective bargaining and were co-parties to that agreement. In May, the TWU Local 100 agreement with MTA Bus Company employees expired, and negotiations for new terms are underway. Meanwhile, members of ATU Local 1179 continued to be covered by the terms of an arbitration award, made in May 2018, that will expire on October 31, 2019. Likewise, MTA Bus Company’s agreement with ATU Local 1181, which lays out essentially the same terms as the ATU 1179 arbitration award, will expire on October 31, 2019.

MTA Bridges and Tunnels – As of June 30, 2019, MTA Bridges and Tunnels had 1,340 employees, approximately 913 of whom were represented by three different labor unions (four bargaining units). In the second quarter, the MTA Board approved an agreement between MTA Bridges and Tunnels and District Council 37 Local 1931, representing maintenance employees (approximately 34% of MTA Bridges and Tunnels’ current represented population). Members of this bargaining unit had been without agreement since January 14, 2018. The terms of the new agreement, which covers the period January 15, 2018 to July 14, 2020 match the pattern established by the 28-month TWU Local 100 agreement for the 2017-2019 period, and are consistent with MTA Bridges and Tunnels’ financial plan.

In April 2019, the New York State Legislature amended the Public Authorities Law to give MTA Bridges and Tunnels Officers “the power to issue notices of violation for transit infractions committed in and about any or all of the facilities, equipment or real property owned, occupied or operated by the Metropolitan Transportation Authority or its subsidiaries and the MTA New York City Transit Authority and its subsidiaries”. The law expands the jurisdiction of MTA Bridges and Tunnels Officers and allows their deployment in subways and on other MTA properties as part of the effort to reduce the increase in fare evasion since 2015.

Since the May 17, 2012 expiration of MTA Bridges and Tunnels’ agreement with the Bridge and Tunnel Officers Benevolent Association (“BTOBA”), management and the union had been engaged in diligent and deliberate negotiations, compounded by, among other issues, the advent of Open Road Tolling, which essentially eliminated many of the duties and responsibilities of MTA Bridges and Tunnels Officers -- most notably duties related to fare collection and protection, leaving law enforcement duties as their primary remaining function. With the new legislation in place, a Cooperation Agreement was reached on June 10, 2019 between MTA Bridges and Tunnels and BTOBA to establish and orderly operate a Fare Evasion Task Force. The Cooperation Agreement resolved many of the issues over which collective bargaining had struggled since 2012. Subsequently a Memorandum of Understanding was signed by the parties and was approved by the MTA Board in June 2019. The agreement covers approximately 412 MTA Bridges and Tunnels Officers for the period May 18, 2012 to September 17, 2019 and includes a series of wage increases that are the same as those established in the two most recent TWU Local 100 agreements, spanning the same length of time (7 years, 4 months). Like the TWU represented employees, MTA Bridges and Tunnels Officers will now contribute 2.0% of base wages towards health care.

While this agreement matches the TWU pattern, it is unique in that it also compensates BTOs with a \$6,033 (whole dollars) per member Law Enforcement adjustment that addresses fundamental changes in their scope of work. This will be partly offset by savings of \$2,800 (whole dollars) per member from expected work rule changes that the parties have agreed will be identified and awarded to the Authority as the product of an arbitration hearing. Additional savings are expected to result from fare recovery.

MTA Staten Island Railway – During the second quarter of 2019, MTA Staten Island Railway had 341 employees, approximately 311 of whom were represented by four different unions. In April, the railway’s agreement with the Transportation Communications Union (“TCU”), covering approximately 25 station cleaners, station agents, clerks and stock workers, expired. Additionally, April 2019 saw the expiration of MTA Staten Island Railway’s agreement with approximately thirteen Dispatchers, represented by the American Train Dispatchers Association (ATDA). Meanwhile, contracts with the railway’s other two unions had already expired: its contract with the Sheet Metal, Air, Rail and Transportation Workers International Association (“SMART”) Local 1440 (formerly the United Transportation Union), covering approximately 243 employees, expired on February 15, 2017; and the agreement with SSSA, covering 16 represented employees, expired on February 15, 2017. Negotiations for successor agreements were underway throughout the second quarter.

In addition to the unions mentioned above, MTA Staten Island Railway now has employees represented by the Subway Surface Supervisors Association (“SSSA”). On January 25, 2016, the Public Employment Relations Board (“PERB”) certified SSSA as the exclusive negotiating agent for a unit of 11 employees in the title of Supervisor Maintenance, Supervisor Car Equipment (mechanical), Supervisor Electrical Maintenance, Supervisor Electronic Maintenance, Supervisor Power/Signals, Supervisor Timekeeping, and Supervisor Operational Support. A collective bargaining agreement was signed on February 15, 2017 and, in anticipation of future negotiations, expired on the same day. Negotiations for a successor agreement are underway. Additionally, on March 6, 2019, PERB certified SSSA to represent approximately 10 employees in the title of Transit Management Analyst Trainees, Assistant Transit Analyst Managers Levels I and II, and Associate Transit Management Analyst. Collective bargaining has not yet begun with this group, and they have not yet sought negotiations, so they continue to be covered by the rules and regulations for non-represented, career & salary, non-managerial employees.

(A Component Unit of the State of New York)

**CONSOLIDATED INTERIM STATEMENT OF NET POSITION AS OF JUNE 30, 2019
AND CONSOLIDATED STATEMENT OF NET POSITION AS OF DECEMBER 31, 2018**

(\$ In millions)

	June 30, 2019	December 31, 2018
	(Unaudited)	
ASSETS AND DEFERRED OUTFLOWS OF RESOURCES		
CURRENT ASSETS:		
Cash (Note 3)	\$ 571	\$ 541
Unrestricted investments (Note 3)	1,805	2,915
Restricted investments (Note 3)	3,095	1,487
Restricted investments held under capital lease obligations (Notes 3 and 8)	103	4
Receivables:		
Station maintenance, operation, and use assessments	204	119
State and regional mass transit taxes	1,685	108
Mortgage Recording Tax receivable	46	43
State and local operating assistance	169	11
Other receivable from New York City and New York State	223	289
Due from Build America Bonds	1	1
Capital project receivable from federal and state government	70	143
Other	467	463
Less allowance for doubtful accounts	(184)	(128)
Total receivables — net	<u>2,681</u>	<u>1,049</u>
Materials and supplies	660	624
Prepaid expenses and other current assets (Note 2)	<u>115</u>	<u>145</u>
Total current assets	<u>9,030</u>	<u>6,765</u>
NON-CURRENT ASSETS:		
Capital assets (Note 6):		
Land and construction work-in-progress	19,135	18,269
Other capital assets (net of accumulated depreciation)	54,947	54,242
Unrestricted investments (Note 3)	63	46
Restricted investments (Note 3)	590	546
Restricted investments held under capital lease obligations (Notes 3 and 8)	288	382
Other non-current receivables	30	58
Receivable from New York State	10	10
Other non-current assets	<u>13</u>	<u>20</u>
Total non-current assets	<u>75,076</u>	<u>73,573</u>
TOTAL ASSETS	<u>84,106</u>	<u>80,338</u>
DEFERRED OUTFLOWS OF RESOURCES:		
Accumulated decreases in fair value of derivative instruments (Note 7)	426	329
Loss on debt refunding (Note 7)	1,081	1,138
Deferred outflows related to pensions (Note 4)	1,462	1,397
Deferred outflows related to OPEB (Note 5)	<u>1,498</u>	<u>1,496</u>
TOTAL DEFERRED OUTFLOWS OF RESOURCES	<u>4,467</u>	<u>4,360</u>
TOTAL ASSETS AND DEFERRED OUTFLOWS OF RESOURCES	<u><u>\$ 88,573</u></u>	<u><u>\$ 84,698</u></u>

See Independent Auditors' Review Report and
notes to the consolidated interim financial statements.

(Continued)

(A Component Unit of the State of New York)

**CONSOLIDATED INTERIM STATEMENT OF NET POSITION AS OF JUNE 30, 2019
AND CONSOLIDATED STATEMENT OF NET POSITION AS OF DECEMBER 31, 2018
(\$ In millions)**

	June 30, 2019 (Unaudited)	December 31, 2018
LIABILITIES, DEFERRED INFLOWS OF RESOURCES AND NET POSITION		
CURRENT LIABILITIES:		
Accounts payable	\$ 594	\$ 470
Accrued expenses:		
Interest	365	210
Salaries, wages and payroll taxes	310	327
Vacation and sick pay benefits	1,039	1,020
Current portion — retirement and death benefits	20	16
Current portion — estimated liability from injuries to persons (Note 10)	462	454
Capital accruals	403	737
Unearned premiums	244	264
Other	614	693
Total accrued expenses	<u>3,457</u>	<u>3,721</u>
Current portion — loan payable (Note 7)	13	15
Current portion — long-term debt (Note 7)	1,561	2,552
Current portion — obligations under capital lease (Note 8)	11	4
Current portion — pollution remediation projects (Note 12)	30	31
Derivative fuel hedge liability (Note 14)	5	12
Unearned revenues	850	804
Total current liabilities	<u>6,521</u>	<u>7,609</u>
NON-CURRENT LIABILITIES:		
Net pension liability (Note 4)	6,487	6,487
Estimated liability arising from injuries to persons (Note 10)	3,950	3,800
Post employment benefits other than pensions (Note 5)	20,335	20,335
Loan payable (Note 7)	108	104
Long-term debt (Note 7)	43,285	39,617
Obligations under capital leases (Note 8)	436	443
Pollution remediation projects (Note 12)	109	108
Contract retainage payable	411	406
Derivative liabilities (Note 7)	436	346
Other long-term liabilities	348	376
Total non-current liabilities	<u>75,905</u>	<u>72,022</u>
TOTAL LIABILITIES	<u>82,426</u>	<u>79,631</u>
DEFERRED INFLOWS OF RESOURCES:		
Gain on debt refunding	21	23
Deferred Inflows related to pensions (Note 4)	1,070	1,070
Deferred inflows related to OPEB (Note 5)	21	21
TOTAL DEFERRED INFLOWS OF RESOURCES	<u>1,112</u>	<u>1,114</u>
NET POSITION:		
Net investment in capital assets	30,059	30,000
Restricted for debt service	1,118	454
Restricted for claims	214	206
Restricted for other purposes (Note 2)	1,209	1,230
Unrestricted	<u>(27,565)</u>	<u>(27,937)</u>
TOTAL NET POSITION	<u>5,035</u>	<u>3,953</u>
TOTAL LIABILITIES, DEFERRED INFLOWS OF RESOURCES AND NET POSITION	<u>\$ 88,573</u>	<u>\$ 84,698</u>

See Independent Auditors' Review Report and
notes to the consolidated interim financial statements.

(Concluded)

(A Component Unit of the State of New York)

CONSOLIDATED INTERIM STATEMENTS OF REVENUES, EXPENSES AND CHANGES IN NET POSITION

SIX-MONTH PERIODS ENDED JUNE 30, 2019 AND 2018

(\$ In millions)

	June 30, 2019 (Unaudited)	June 30, 2018 (Unaudited)
OPERATING REVENUES:		
Fare revenue	\$ 3,091	\$ 3,036
Vehicle toll revenue	996	952
Rents, freight, and other revenue	323	299
Total operating revenues	4,410	4,287
OPERATING EXPENSES:		
Salaries and wages	3,138	3,104
Retirement and other employee benefits	1,534	1,517
Postemployment benefits other than pensions (Note 5)	325	1,095
Electric power	223	231
Fuel	93	97
Insurance	3	(4)
Claims	215	185
Paratransit service contracts	246	214
Maintenance and other operating contracts	330	303
Professional service contracts	218	243
Pollution remediation projects (Note 12)	5	4
Materials and supplies	322	310
Depreciation (Note 2)	1,420	1,336
Other	106	116
Total operating expenses	8,178	8,751
OPERATING LOSS	(3,768)	(4,464)
NON-OPERATING REVENUES (EXPENSES):		
Grants, appropriations and taxes:		
Tax-supported subsidies — NYS:		
Mass Transportation Trust Fund subsidies	315	310
Metropolitan Mass Transportation Operating Assistance subsidies	1,824	1,686
Payroll Mobility Tax subsidies	1,011	927
MTA Aid Trust Account subsidies	143	147
Tax-supported subsidies — NYC and Local:		
Mortgage Recording Tax subsidies	215	212
Urban Tax subsidies	347	333
Other subsidies:		
New York State Service Contract subsidy	-	1
Operating Assistance - 18-B program	217	217
Build America Bond subsidy	44	45
NYS/NYC Subway Action Plan	-	209
NYC Assistance Fund	76	-
Subtotal grants, appropriations and taxes	\$ 4,192	\$ 4,087

See Independent Auditors' Review Report and
notes to the consolidated interim financial statements.

(Continued)

(A Component Unit of the State of New York)

**CONSOLIDATED INTERIM STATEMENTS OF REVENUES, EXPENSES
AND CHANGES IN NET POSITION**

SIX-MONTH PERIODS ENDED JUNE 30, 2019 AND 2018

(\$ In millions)

	June 30, 2019	June 30, 2018
	(Unaudited)	(Unaudited)
NON-OPERATING REVENUES (EXPENSES):		
Connecticut Department of Transportation	\$ 58	\$ 71
Subsidies paid to Dutchess, Orange, and Rockland Counties	(2)	(3)
Interest on long-term debt (Note 2)	(894)	(733)
Station maintenance, operation and use assessments	85	84
Operating subsidies recoverable from NYC	252	232
Other net non-operating expenses	80	8
	<u>3,771</u>	<u>3,746</u>
Net non-operating revenues		
	<u>3,771</u>	<u>3,746</u>
GAIN / (LOSS) BEFORE APPROPRIATIONS, GRANTS AND OTHER RECEIPTS EXTERNALLY RESTRICTED FOR CAPITAL PROJECTS	3	(718)
APPROPRIATIONS, GRANTS AND OTHER RECEIPTS EXTERNALLY RESTRICTED FOR CAPITAL PROJECTS	<u>1,079</u>	<u>754</u>
CHANGE IN NET POSITION	1,082	36
NET POSITION— Beginning of period	<u>3,953</u>	<u>5,224</u>
NET POSITION — End of period	<u>\$ 5,035</u>	<u>\$ 5,260</u>

See Independent Auditors' Review Report and
notes to the consolidated interim financial statements.

(Concluded)

(A Component Unit of the State of New York)

CONSOLIDATED INTERIM STATEMENTS OF CASH FLOWS

SIX-MONTH PERIODS ENDED JUNE 30, 2019 AND 2018

(\$ In millions)

	June 30, 2019 (Unaudited)	June 30, 2018 (Unaudited)
CASH FLOWS FROM OPERATING ACTIVITIES:		
Passenger receipts/tolls	\$ 4,083	\$ 4,007
Rents and other receipts	394	353
Payroll and related fringe benefits	(5,053)	(4,864)
Other operating expenses	(1,572)	(1,639)
Net cash used by operating activities	(2,148)	(2,143)
CASH FLOWS FROM NONCAPITAL FINANCING ACTIVITIES:		
Grants, appropriations, and taxes	2,749	2,862
Operating subsidies from CDOT	43	58
Subsidies paid to Dutchess, Orange, and Rockland Counties	(7)	(7)
Net cash provided by noncapital financing activities	2,785	2,913
CASH FLOWS FROM CAPITAL AND RELATED FINANCING ACTIVITIES:		
MTA bond proceeds	1,103	529
MTA Bridges and Tunnels bond proceeds	182	402
MTA bonds refunded/reissued	(100)	-
MTA anticipation notes proceeds	2,885	2,233
MTA anticipation notes redeemed	(1,000)	(512)
MTA credit facility proceeds	365	-
MTA credit facility refunded	(365)	-
Capital lease payments and terminations	(1)	-
Federal and local grants	717	733
Other capital financing activities	(563)	(54)
Payment for capital assets	(3,199)	(2,952)
Debt service payments	(1,096)	(1,137)
Net cash used by capital and related financing activities	(1,072)	(758)
CASH FLOWS FROM INVESTING ACTIVITIES:		
Purchase of long-term securities	(2,109)	(4,025)
Sales or maturities of long-term securities	1,478	3,692
Net sales or maturities of short-term securities	1,037	612
Earnings on investments	59	50
Net cash provided by investing activities	465	329
NET INCREASE IN CASH	30	341
CASH — Beginning of period	541	283
CASH — End of period	\$ 571	\$ 624

See Independent Auditors' Review Report and
notes to the consolidated interim financial statements.

(Continued)

(A Component Unit of the State of New York)

CONSOLIDATED INTERIM STATEMENTS OF CASH FLOWS

SIX-MONTH PERIODS ENDED JUNE 30, 2019 AND 2018

(\$ In millions)

	<u>June 30, 2019</u>	<u>June 30, 2018</u>
	<u>(Unaudited)</u>	<u>(Unaudited)</u>
RECONCILIATION OF OPERATING LOSS TO NET CASH USED BY		
OPERATING ACTIVITIES:		
Operating loss (Note 2)	\$ (3,768)	\$ (4,464)
Adjustments to reconcile to net cash used in operating activities:		
Depreciation and amortization	1,418	1,335
Net increase in payables, accrued expenses, and other liabilities	169	1,155
Net decrease in receivables	5	(170)
Net decrease in materials and supplies and prepaid expenses	28	1
	<u> </u>	<u> </u>
NET CASH USED BY OPERATING ACTIVITIES	<u>\$ (2,148)</u>	<u>\$ (2,143)</u>
NONCASH INVESTING, CAPITAL AND RELATED FINANCING ACTIVITIES:		
Noncash investing activities:		
Interest expense includes amortization of net (premium) / discount (Note 2)	\$ 63	\$ 61
Interest expense which was capitalized	19	23
Total Noncash investing activities	<u>82</u>	<u>84</u>
Noncash capital and related financing activities:		
Capital assets related liabilities	403	515
Capital leases related liabilities	447	441
Total Noncash capital and related financing activities	<u>850</u>	<u>956</u>
TOTAL NONCASH INVESTING, CAPITAL AND RELATED FINANCING ACTIVITIES	<u>\$ 932</u>	<u>\$ 1,040</u>

See Independent Auditors' Review Report and
notes to the consolidated interim financial statements.

(Concluded)

(A Component Unit of the State of New York)

STATEMENTS OF FIDUCIARY NET POSITION PENSION AND OTHER EMPLOYEE BENEFIT TRUST FUNDS

AS OF DECEMBER 31, 2018 AND 2017

(\$ In thousands)

	<u>December 31, 2018</u> (Unaudited)	<u>December 31, 2017</u>
ASSETS:		
Cash	\$ 13,185	\$ 18,805
Receivables:		
Employee loans	197,067	183,952
Participant and union contributions	-	(6)
Investment securities sold	818	1,126
Accrued interest and dividends	4,540	3,554
Other receivables	1,938	1,843
Total receivables	<u>204,363</u>	<u>190,469</u>
Investments at fair value:		
Investments measured at readily determined fair value	1,323,040	1,247,701
Investments measured at net asset value	9,046,005	9,404,830
Investments at contract value	1,313,496	1,224,190
Total investments	<u>11,682,541</u>	<u>11,876,721</u>
Total assets	<u>\$ 11,900,089</u>	<u>\$ 12,085,995</u>
LIABILITIES:		
Accounts payable and accrued liabilities	\$ 9,075	\$ 6,823
Payable for investment securities purchased	5,461	6,735
Accrued benefits payable	2,419	2,498
Accrued postretirement death benefits (PRDB) payable	3,344	3,344
Accrued 55/25 Additional Members Contribution (AMC) payable	6,181	6,181
Other liabilities	341	719
Total liabilities	<u>26,821</u>	<u>26,300</u>
NET POSITION:		
Restricted for pensions	7,763,257	7,922,373
Restricted for postemployment benefits other than pensions	351,380	370,352
Restricted for other employee benefits	3,758,631	3,766,970
Total net position	<u>11,873,268</u>	<u>12,059,695</u>
Total liabilities and net position	<u>\$ 11,900,089</u>	<u>\$ 12,085,995</u>

See Independent Auditors' Review Report and
notes to the consolidated interim financial statements.

(A Component Unit of the State of New York)

**STATEMENT OF CHANGES IN FIDUCIARY NET POSITION
PENSION AND OTHER EMPLOYEE BENEFIT TRUST FUNDS
FOR THE YEARS ENDED DECEMBER 31, 2018 AND 2017**
(\$ In thousands)

	<u>December 31, 2018</u> (Unaudited)	<u>December 31, 2017</u>
ADDITIONS:		
Contributions:		
Employer contributions	\$ 1,222,186	\$ 1,185,070
Non-Employer contributions	-	145,000
Implicit rate subsidy contribution	74,484	71,101
Participant rollovers	21,673	22,430
Member contributions	333,767	302,589
Total contributions	<u>1,652,110</u>	<u>1,726,190</u>
Investment income:		
Net appreciation in fair value of investments	(2,382)	1,465,223
Dividend income	97,439	73,632
Interest income	17,238	13,730
Less:		
Investment expenses	101,235	109,658
Investment income, net	<u>11,060</u>	<u>1,442,927</u>
Other additions:		
Loan repayments - interest	<u>7,529</u>	<u>6,337</u>
Total additions	<u>1,670,699</u>	<u>3,175,454</u>
DEDUCTIONS:		
Benefit payments and withdrawals	1,227,531	1,180,123
Implicit rate subsidy payments	74,484	71,101
Transfer to other plans	93,387	67,653
Distribution to participants	87,379	73,733
Administrative expenses	5,681	6,455
Other deductions	5,410	4,895
Total deductions	<u>1,493,872</u>	<u>1,403,960</u>
Net increase in fiduciary net position	176,827	1,771,494
NET POSITION:		
Restricted for Benefits:		
Beginning of year	<u>11,696,441</u>	<u>10,288,201</u>
End of year	<u>\$ 11,873,268</u>	<u>\$ 12,059,695</u>

See Independent Auditors' Review Report and
notes to the consolidated interim financial statements.

(A Component Unit of the State of New York)

NOTES TO CONSOLIDATED INTERIM FINANCIAL STATEMENTS AS OF JUNE 30, 2019 AND DECEMBER 31, 2018 AND FOR THE SIX-MONTH PERIODS ENDED JUNE 30, 2019 AND 2018

(\$ In millions, except as noted)

1. BASIS OF PRESENTATION

Reporting Entity — The Metropolitan Transportation Authority (“MTA”) was established in 1965, under Section 1263 of the New York Public Authorities Law, and is a public benefit corporation and a component unit of the State of New York (“NYS”) whose mission is to continue, develop and improve public transportation and to develop and implement a unified public transportation policy in the New York metropolitan area.

These consolidated interim financial statements are of the Metropolitan Transportation Authority (“MTA”), including its related groups (collectively, the “MTA Group”) as follows:

Metropolitan Transportation Authority and Related Groups (Component Units)

- Metropolitan Transportation Authority Headquarters (“MTAHQ”) provides support in budget, cash management, finance, legal, real estate, treasury, risk and insurance management, and other services to the related groups listed below.
- The Long Island Rail Road Company (“MTA Long Island Rail Road”) provides passenger transportation between New York City (“NYC”) and Long Island.
- Metro-North Commuter Railroad Company (“MTA Metro-North Railroad”) provides passenger transportation between NYC and the suburban communities in Westchester, Dutchess, Putnam, Orange, and Rockland counties in NYS and New Haven and Fairfield counties in Connecticut.
- Staten Island Rapid Transit Operating Authority (“MTA Staten Island Railway”) provides passenger transportation on Staten Island.
- First Mutual Transportation Assurance Company (“FMTAC”) provides primary insurance coverage for certain losses, some of which are reinsured, and assumes reinsurance coverage for certain other losses.
- MTA Capital Construction Company (“MTA Capital Construction”) provides oversight for the planning, design and construction of current and future major MTA system-wide expansion projects.
- MTA Bus Company (“MTA Bus”) operates certain bus routes in areas previously served by private bus operators pursuant to franchises granted by the City of New York.
- MTAHQ, MTA Long Island Rail Road, MTA Metro-North Railroad, MTA Staten Island Railway, FMTAC, MTA Capital Construction, and MTA Bus, collectively are referred to herein as MTA. MTA Long Island Rail Road and MTA Metro-North Railroad are referred to collectively as the Commuter Railroads.
- New York City Transit Authority (“MTA New York City Transit”) and its subsidiary, Manhattan and Bronx Surface Transit Operating Authority (“MaBSTOA”), provide subway and public bus service within the five boroughs of New York City.
- Triborough Bridge and Tunnel Authority (“MTA Bridges and Tunnels”) operates seven toll bridges, two tunnels, and the Battery Parking Garage, all within the five boroughs of New York City.

The subsidiaries and affiliates, considered component units of the MTA, are operationally and legally independent of the MTA. These related groups enjoy certain rights typically associated with separate legal status including, in some cases, the ability to issue debt. However, they are included in the MTA’s consolidated interim financial statements as blended component units because of the MTA’s financial accountability for these entities and they are under the direction of the MTA Board (a reference to “MTA Board” means the board of MTAHQ and/or the boards of the other MTA Group entities that apply in the specific context, all of which are comprised of the same persons). Under accounting principles generally accepted in the United States of America (“GAAP”), the MTA is required to include these related groups in its financial statements. While certain units are separate legal entities, they do have legal capital requirements and the revenues of all of the related groups of the MTA are used to support the organizations as a whole. The components do not constitute a separate accounting entity (fund) since there is no legal requirement to account for the activities of the components as discrete accounting entities. Therefore, the MTA financial statements are presented on a consolidated basis with segment disclosure for each distinct operating activity. All of the component units publish separate annual financial statements, which are available by writing to the MTA Comptroller, 2 Broadway, 16th Floor, New York, New York 10004.

Although the MTA Group collects fares for the transit and commuter service, they provide and receive revenues from other sources, such as the leasing out of real property assets, and the licensing of advertising. Such revenues, including forecast-increased revenues from fare increases, are not sufficient to cover all operating expenses associated with such services. Therefore, to maintain a balanced budget, the members of the MTA Group providing transit and commuter service rely on operating surpluses transferred from MTA Bridges and Tunnels, operating subsidies provided by NYS and certain local governmental entities in the MTA commuter district, and service reimbursements from certain local governmental entities in the MTA commuter district and from the State of Connecticut. Non-operating subsidies to the MTA Group for transit and commuter service for the period ended June 30, 2019 and 2018 totaled \$4.2 billion and \$4.1 billion, respectively.

Basis of Presentation - Fiduciary Funds – The fiduciary fund financial statements provide information about the funds that are used to report resources held in trust for retirees and beneficiaries covered by pension plans and other employee benefit trust funds of the MTA. Separate financial statements are presented for the fiduciary funds.

The following MTA's fiduciary funds are categorized within Pension and Other Employee Benefit Trust Funds.

- Pension Trust Funds
 - MTA Defined Benefit Plan
 - The Long Island Railroad Company Plan for Additional Pensions (“Additional Plan”)
 - Manhattan and Bronx Surface Transit Operating Authority (“MaBSTOA Plan”)
 - Metro-North Commuter Railroad Company Cash Balance Plan (“MNR Cash Balance Plan”)
- Other Employee Benefit Trust Funds
 - MTA Other Postemployment Benefits Plan (“OPEB” Plan)
 - Thrift Plan for Employees of the MTA, its Subsidiaries and Affiliates (“401(k) Plan”)

These fiduciary statements of the fiduciary funds are prepared using the accrual basis of accounting and a measurement focus on the periodic determination of additions, deductions, and net position restricted for benefits.

2. SIGNIFICANT ACCOUNTING POLICIES

Basis of Accounting — The accompanying consolidated interim financial statements are prepared on the accrual basis of accounting in accordance with accounting principles generally accepted in the United States of America.

The MTA applies Governmental Accounting Standards Board (“GASB”) Codification of Governmental Accounting and Financial Reporting Standards (“GASB Codification”) Section P80, Proprietary Accounting and Financial Reporting.

New Accounting Standards – The MTA adopted the following GASB Statements for the period ended June 30, 2019.

GASB Statement No. 83, *Certain Asset Retirement Obligations* establishes accounting and financial reporting standards for certain asset retirement obligations (“AROs”). An ARO is a legally enforceable liability associated with the retirement of a tangible capital asset that is permanently removed from service. This Statement requires that a liability must be recognized when incurred and reasonably estimated. The determination of when a liability is incurred should be based on the occurrence of external laws, regulations, contracts, or court judgments, together with the occurrence of an internal event that obligates a government to perform asset retirement activities. The requirements of this Statement are effective for reporting periods beginning after June 15, 2018. The adoption of this Statement had no material impact on the MTA's financial statements.

GASB Statement No. 84, *Fiduciary Activities*, improves guidance regarding the identification of fiduciary activities for accounting and financial reporting purposes and how those activities should be reported. The requirements of GASB Statement No. 84 are effective for reporting periods beginning after December 15, 2018. The adoption of this Statement resulted in the addition of fiduciary funds financial statements and supplementary information combining financial information of the MTA's fiduciary funds.

GASB Statement No. 88, *Certain Disclosures Related to Debt, including Direct Borrowings and Direct Placements*, requires that additional information be disclosed in the notes to financial statements related to direct borrowings and direct placements. It also clarifies which liabilities should be included when disclosing information related to debt. The Statement requires that additional information related to debt be disclosed in the notes to the financial statements, including unused lines of credit; assets pledged as collateral for the debt; and terms specified in debt agreements related to significant events of default with finance-related consequences; significant termination events with finance-related consequences; and significant subjective acceleration clauses. GASB Statement No. 88 is effective for reporting periods beginning after June 15, 2018. The adoption of this Statement did not have a material impact to MTA's note disclosures.

Accounting Standards Issued but Not Yet Adopted

GASB has issued the following pronouncements that may affect the future financial position, results of operations, cash flows, or financial presentation of the MTA upon implementation. Management has not yet evaluated the effect of implementation of these standards.

GASB Statement No.	GASB Accounting Standard	MTA Required Year of Adoption
87	<i>Leases</i>	2020
89	<i>Accounting for Interest Cost Incurred Before the End of a Construction Period</i>	2020
90	<i>Majority Equity Interests – An Amendment of GASB Statements No. 14 and No. 61</i>	2019
91	<i>Conduit Debt Obligations 2021</i>	2021

Use of Management Estimates — The preparation of the consolidated interim financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities, and disclosure of contingent assets and liabilities at the date of the consolidated interim financial statements, and the reported amounts of revenues and expenses during the reporting period. Significant estimates include the fair value of investments, allowances for doubtful accounts, valuation of derivative instruments, arbitrage rebate liability, accrued expenses and other liabilities, depreciable lives of capital assets, estimated liability arising from injuries to persons, pension benefits and other postemployment benefits. Actual results could differ significantly from those estimates.

Principles of Consolidation — The consolidated interim financial statements consist of MTAHQ, MTA Long Island Rail Road, MTA Metro-North Railroad, MTA Staten Island Railway, FMTAC, MTA Bus, MTA Capital Construction, MTA New York City Transit (including its subsidiary MaBSTOA), and MTA Bridges and Tunnels for years presented in the financial statements. All related group transactions have been eliminated for consolidation purposes.

Net Position – Restricted for Other Purposes – This category is classified within net position and includes net investments restricted for capital leases and MTA Bridges and Tunnels necessary reconstruction reserve.

Investments — The MTA Group’s investment policies comply with the New York State Comptroller’s guidelines for such operating and capital policies. Those policies permit investments in, among others, obligations of the U.S. Treasury, its agencies and instrumentalities, and repurchase agreements secured by such obligations. FMTAC’s investment policies comply with New York State Comptroller guidelines and New York State Department of Insurance guidelines.

Investments expected to be utilized within a year of June 30th have been classified as current assets in the consolidated interim financial statements.

In accordance with the provisions of GASB Statement No. 72, *Fair Value Measurement and Application*, investments are recorded on the consolidated statement of net position at fair value, except for commercial paper, certificates of deposit, and repurchase agreements, which are recorded at amortized cost or contract value. All investment income, including changes in the fair value of investments, is reported as revenue on the consolidated statement of revenues, expenses and changes in net position. Fair values have been determined using quoted market values at June 30, 2019 and December 31, 2018.

Investment derivative contracts are reported at fair value using the income approach.

Materials and Supplies — Materials and supplies are valued principally at average cost, net of obsolescence reserve at June 30, 2019 and December 31, 2018 of \$179 and \$171, respectively.

Prepaid Expenses and Other Current Assets — Prepaid expenses and other current assets reflect advance payment of insurance premiums as well as farecard media related with ticket machines, WebTickets and AirTrain tickets.

Capital Assets — Properties and equipment are carried at cost and are depreciated on a straight-line basis over their estimated useful lives. Expenses for maintenance and repairs are charged to operations as incurred. Capital assets and improvements include all land, buildings, equipment, and infrastructure of the MTA having a minimum useful life of two years and having a cost of more than \$25 thousand. Capital assets are stated at historical cost, or at estimated historical cost based on appraisals, or on other acceptable methods when historical cost is not available. Capital leases are classified as capital assets in amounts equal to the lesser of the fair market value or the present value of net minimum lease payments at the inception of the lease. Accumulated depreciation and amortization are reported as reductions of capital assets. Depreciation is computed using the straight-line method based upon estimated useful lives of 25 to 50 years for buildings, 2 to 40 years for equipment, and 25 to 100 years for infrastructure. Capital lease assets and leasehold improvements are amortized over the term of the lease or the life of the asset whichever is less.

Pollution remediation projects — Pollution remediation costs have been expensed in accordance with the provisions of GASB Statement No. 49, *Accounting and Financial Reporting for Pollution Remediation Obligations* (See Note 12). An

operating expense provision and corresponding liability measured at current value using the expected cash flow method has been recognized for certain pollution remediation obligations, which previously may not have been required to be recognized, have been recognized earlier than in the past or are no longer able to be capitalized as a component of a capital project. Pollution remediation obligations occur when any one of the following obligating events takes place: the MTA is in violation of a pollution prevention-related permit or license; an imminent threat to public health due to pollution exists; the MTA is named by a regulator as a responsible or potentially responsible party to participate in remediation; the MTA voluntarily commences or legally obligates itself to commence remediation efforts; or the MTA is named or there is evidence to indicate that it will be named in a lawsuit that compels participation in remediation activities.

Operating Revenues — Passenger Revenue and Tolls — Revenues from the sale of tickets, tokens, electronic toll collection system, and farecards are recognized as income when tickets or farecards are used. Tickets are assumed to be used in the month of purchase, with the exception of advance purchases of monthly and weekly tickets. When the farecards expire, revenue is recorded for the unused value of the farecards.

MTA Bridges and Tunnel has two toll rebate programs at the Verrazano-Narrows Bridge: the Staten Island Resident (“SIR”) Rebate Program, available for residents of Staten Island participating in the SIR E-ZPass toll discount plan, and the Verrazano-Narrows Bridge Commercial Rebate Program (“VNB Commercial Rebate Program”), available for commercial vehicles making more than ten trips per month using the same New York Customer Service Center (“NYCSC”) E-ZPass account. The VNB Commercial Rebate Program and SIR Rebate Program are funded by the State and MTA.

Capital Financing — The MTA has ongoing programs on behalf of its subsidiaries and affiliates, subject to approval by the New York State Metropolitan Transportation Authority Capital Program Review Board (the “State Review Board”), which are intended to improve public transportation in the New York Metropolitan area.

The federal government has a contingent equity interest in assets acquired by the MTA with federal funds and upon disposal of such assets, the federal government may have a right to its share of the proceeds from the sale. This provision has not been a substantial impediment to the MTA’s operations.

Non-operating Revenues

Operating Assistance — The MTA Group receives, subject to annual appropriation, NYS operating assistance funds that are recognized as revenue after the NYS budget is approved and adopted. Generally, funds received under the NYS operating assistance program are fully matched by contributions from NYC and the seven other counties within the MTA’s service area.

Mortgage Recording Taxes (“MRT”) — Under NYS law, the MTA receives capital and operating assistance through a Mortgage Recording Tax (“MRT-1”). MRT-1 is collected by NYC and the seven other counties within the MTA’s service area, at the rate of 0.25% of the debt secured by certain real estate mortgages. Effective September 2005, the rate was increased from 25 cents per 100 dollars of recorded mortgage to 30 cents per 100 dollars of recorded mortgage. The MTA also receives an additional Mortgage Recording Tax (“MRT-2”) of 0.25% of certain mortgages secured by real estate improved or to be improved by structures containing one to nine dwelling units in the MTA’s service area. MRT-1 and MRT-2 taxes are recognized as revenue based upon reported amounts of taxes collected.

- MRT-1 proceeds are initially used to pay MTAHQ’s operating expenses. Remaining funds, if any, are allocated 55% to certain transit operations and 45% to the commuter railroads operations. The commuter railroad portion is first used to fund the NYS Suburban Highway Transportation Fund in an amount not to exceed \$20 annually (subject to the monies being returned under the conditions set forth in the governing statute if the Commuter Railroads are operating at a deficit).
- The first \$5 of the MRT-2 proceeds is transferred to the MTA Dutchess, Orange, and Rockland (“DOR”) Fund (\$1.5 each for Dutchess and Orange Counties and \$2 for Rockland County). Additionally, the MTA must transfer to each County’s fund an amount equal to the product of (i) the percentage by which each respective County’s mortgage recording tax payments (both MRT-1 and MRT-2) to the MTA increased over such payments in 1989 and (ii) the base amount received by each county as described above. The counties do not receive any portion of the September 1, 2005 increase in MRT-1 from 25 cents per \$100 of recorded mortgage to 30 cents. As of June 30, 2019, the MTA paid to Dutchess, Orange and Rockland Counties the 2018 excess amounts of MRT-1 and MRT-2 totaling \$4.4.
- In addition, MTA New York City Transit receives operating assistance directly from NYC through a mortgage recording tax at the rate of 0.625% of the debt secured by certain real estate mortgages and through a property transfer tax at the rate of one percent of the assessed value (collectively referred to as “Urban Tax Subsidies”) of certain properties.

Mobility Tax — In June of 2009, Chapter 25 of the NYS Laws of 2009 added Article 23, which establishes the Metropolitan Commuter Transportation Mobility Tax (“MCTMT”). The proceeds of this tax, administered by the New York State Tax Department, are to be distributed to the Metropolitan Transportation Authority. This tax is imposed on certain employers and self-employed individuals engaging in business within the metropolitan commuter transportation district which includes New York City, and the counties of Rockland, Nassau, Suffolk, Orange, Putnam, Dutchess, and Westchester. This Tax is imposed on certain employers that have payroll expenses within the Metropolitan Commuter Transportation District, to pay

at a rate of 0.34% of an employer's payroll expenses for all covered employees for each calendar quarter. The employer is prohibited from deducting from wages or compensation of an employee any amount that represents all or any portion of the MCTMT. The effective date of this tax was March 1, 2009 for employers other than public school district; September 1, 2009 for Public school districts and January 1, 2009 for individuals.

Supplemental Aid — In 2009, several amendments to the existing tax law provided the MTA supplemental revenues to be deposited into the AID Trust Account of the Metropolitan Transportation Authority Financial Assistance Fund established pursuant to Section 92 of the State Finance law. These supplemental revenues relate to: 1) supplemental learner permit/license fee in the Metropolitan Commuter Transportation District, 2) supplemental registration fee, 3) supplemental tax on every taxicab owner per taxicab ride on every ride that originated in the City of New York and terminates anywhere within the territorial boundaries of the Metropolitan Commuter Transportation District, and 4) supplemental tax on passenger car rental. This Supplemental Aid Tax is provided to the MTA in conjunction with the Mobility Tax.

Dedicated Taxes — Under NYS law, subject to annual appropriation, the MTA receives operating assistance through a portion of the Dedicated Mass Transportation Trust Fund ("MTTF") and Metropolitan Mass Transportation Operating Assistance Fund ("MMTOA"). The MTTF receipts consist of a portion of the revenues derived from certain business privilege taxes imposed by the State on petroleum businesses, a portion of the motor fuel tax on gasoline and diesel fuel, and a portion of certain motor vehicle fees, including registration and non-registration fees. Effective October 1, 2005, the State increased the amount of motor vehicle fees deposited into the MTTF for the benefit of the MTA. MTTF receipts are applied first to meet certain debt service requirements or obligations and second to the Transit System (defined as MTA New York City Transit and MaBSTOA), MTA Staten Island Railway and the Commuter Railroads to pay operating and capital costs. The MMTOA receipts are comprised of 0.375% regional sales tax, regional franchise tax surcharge, a portion of taxes on certain transportation and transmission companies, and an additional portion of the business privilege tax imposed on petroleum businesses. MMTOA receipts, to the extent that MTTF receipts are not sufficient to meet debt service requirements, will also be applied to certain debt service obligations, and secondly to operating and capital costs of the Transit System, and the Commuter Railroads.

The State Legislature enacts in an annual budget bill for each state fiscal year an appropriation to the MTA Dedicated Tax Fund for the then-current state fiscal year and an appropriation of the amounts projected by the Director of the Budget of the State to be deposited in the MTA Dedicated Tax Fund for the next succeeding state fiscal year. The assistance deposited into the MTTF is required by law to be allocated, after provision for debt service on Dedicated Tax Fund Bonds (See Note 7), 85% to certain transit operations (not including MTA Bus) and 15% to the commuter railroads operations. Revenues from this funding source are recognized based upon amounts of tax reported as collected by NYS, to the extent of the appropriation.

Build America Bond Subsidy — The MTA is receiving cash subsidy payments from the United States Treasury equal to 35% of the interest payable on the Series of Bonds issued as "Build America Bonds" and authorized by the Recovery Act. The Internal Revenue Code of 1986 imposes requirements that MTA must meet and continue to meet after the issuance in order to receive the cash subsidy payments. The interest on these bonds is fully subject to Federal income taxation to the bondholder.

Congestion Zone Surcharges – In April 2018, the approved 2018-2019 New York State Budget enacted legislation that provided additional sources of revenue, in the form of surcharges and fines, as defined by Article 29-C, Chapter 59 of the Tax Law, to address the financial needs of the MTA. Beginning on January 1, 2019, the legislation imposed the following:

- A surcharge of \$2.75 on for-hire transportation trips provided by motor vehicles carrying passengers for hire (or \$2.50 in the case of taxicabs that are subject to the \$0.50 cents tax on hailed trips that are part of the MTA Aid Trust Account Receipts), other than pool vehicles, ambulance and buses, on each trip that (1) originates and terminates south of and excluding 96th Street in the City of New York, in the Borough of Manhattan (the "Congestion Zone"), (2) originates anywhere in NYS and terminates within the Congestion Zone, (3) originates in the Congestion Zone and terminates anywhere in NYS, or (4) originates anywhere in NYS, enters into the Congestion Zone while in transit, and terminates anywhere in NYS.
- A surcharge of \$0.75 cents for each person who both enters and exits a pool vehicle in NYS and who is picked up in, dropped off in, or travels through the Congestion Zone.

The Congestion Zone Surcharges do not apply to transportation services administered by or on behalf of MTA, including paratransit services.

The April 2018 legislation also created the New York City Transportation Assistance Fund, held by MTA. The fund consists of the three sub-accounts, the Subway Action Plan Account, the Outer Borough Transportation Account and the General Transportation Account.

- **Subway Action Plan Account** – Funds in this account may be used exclusively for funding the operating and capital costs, and debt service associated, with the Subway Action Plan.

- **Outer Borough Transportation Account** - Funds in this account may be used exclusively for funding (1) the operating and capital costs of, and debt service associated with, the MTA facilities, equipment and services in the counties of Bronx, Kings, Queens and Richmond, and any projects improving transportation connections from such counties to Manhattan, or (2) a toll reduction program for any crossing under the jurisdiction of MTA or MTA Bridges and Tunnels.
- **General Transportation Account** - Funds in this account may be used exclusively for funding the operating and capital costs of MTA. In each case, funds may be used for various operations and capital needs or for debt service and reserve requirements.

NYS/NYC Subway Action Plan — In April 2018, the approved 2018-2019 New York State Budget committed both New York State (“NYS”) and New York City (“NYC”) to equally cover the costs of the 2017-2018 Subway Action Plan (“SAP”), which was launched at the direction of Governor Andrew Cuomo in July 2017 to take extraordinary measures to stabilize and improve the more than 100-year old New York City subway system. The SAP includes a comprehensive \$836 investment to address system failures, breakdowns, delays and deteriorating customer service, and position the New York City subway system for future modernization. The SAP provided the MTA with funds already used to advance the SAP, as well as additional operating and capital funding to cover the cost of the remaining SAP through the end of 2018. The MTA started receiving the SAP funding in April 2018 and received the full funding by the end of 2018. For the year-end December 31, 2018, the MTA received \$508 related to operating needs and \$189 related to capital needs for the Subway Action Plan. In 2019, the MTA will be using the remaining Subway Action Plan funds from New York State and New York City primarily for the signals modernization capital project.

Operating Subsidies Recoverable from Connecticut Department of Transportation (“CDOT”) — A portion of the deficit from operations relating to MTA Metro-North Railroad’s New Haven line is recoverable from CDOT. Under the terms of a renewed Service Agreement, which began on January 1, 2015, and the 1998 resolution of an arbitration proceeding initiated by the State of Connecticut, CDOT pays 100.0% of the net operating deficit of MTA Metro-North Railroad’s branch lines in Connecticut (New Canaan, Danbury, and Waterbury), 65.0% of the New Haven mainline operating deficit, and 54.3% of the Grand Central Terminal (“GCT”) operating deficit. The New Haven line’s share of the net operating deficit for the use of GCT is comprised of a fixed fee, calculated using several years as a base, with annual increases for inflation, and the actual cost of operating GCT’s North End Access beginning in 1999. The Service Agreement also provides that CDOT pay 100% of the cost of non-movable capital assets located in Connecticut, 100% of movable capital assets to be used primarily on the branch lines and 65% of the cost of other movable capital assets allocated to the New Haven line. Remaining funding for New Haven line capital assets is provided by the MTA. The Service Agreement provides for automatic five-year renewals unless a notice of termination has been provided. The Service Agreement has been automatically extended for an additional five years beginning January 1, 2015 subject to the right of CDOT or MTA to terminate the agreement on eighteen month’s written notice. Capital assets completely funded by CDOT are not reflected in these financial statements, as ownership is retained by CDOT. The Service Agreement provides that final billings for each year be subject to audit by CDOT. The audits of 2016 and 2017 billings are still open.

Reimbursement of Expenses — The cost of operating and maintaining the passenger stations of the Commuter Railroads in NYS is assessable by the MTA to NYC and the other counties in which such stations are located for each NYS fiscal year ending December 31, under provisions of the NYS Public Authorities Law. This funding is recognized as revenue based upon an amount, fixed by statute, for the costs to operate and maintain passenger stations and is revised annually by the increase or decrease of the regional Consumer Price Index.

In 1995, New York City ceased reimbursing the Authority for the full costs of the free/reduced fare program for students. Beginning in 1996, the State and New York City each began paying \$45 per annum to MTA New York City Transit toward the cost of the program. In 2009, the State reduced their \$45 reimbursement to \$6.3. Beginning in 2010, the State increased their annual commitment to \$25.3 while New York City’s annual commitment remained at \$45. These commitments have been met by both the State and New York City for both 2017 and 2018.

Prior to April 1995, New York City was obligated to reimburse MTA New York City Transit for the transit police force. As a result of the April 1995 merger of the transit police force into the New York City Police Department, New York City no longer reimburses MTA New York City Transit for the costs of policing the Transit System on an ongoing basis since policing of the Transit System is being carried out by the New York City Police Department at New York City’s expense. MTA New York City Transit continues to be responsible for certain capital costs and support services related to such police activities, a portion of which is reimbursed by New York City. MTA New York City Transit received approximately \$1.9 in the six months ended June 30, 2019 and \$0 in the six months ended June 30, 2018 from New York City for the reimbursement of transit police costs.

MTAHQ bills MTA Metro-North Railroad through its consolidated services for MTA police costs in the New Haven line of which MTA Metro-North Railroad recovers approximately 65% from Connecticut Department of Transportation. The amounts billed for the periods ended June 30, 2019 and 2018 were \$11.3 and \$11.3, respectively. The amounts recovered for the periods ended June 30, 2019 and 2018 were approximately \$7.3 and \$7.3, respectively.

Federal law and regulations require a paratransit system for passengers who are not able to ride the buses and trains because of their disabilities. Pursuant to an agreement between New York City and the MTA, MTA New York City Transit, effective July 1, 1993, assumed operating responsibility for all paratransit service required by the Americans with Disability Act of 1990. Services are provided by private vendors under contract with MTA New York City Transit. New York City reimburses MTA New York City Transit for the lesser of 33% of net paratransit operating expenses defined as labor, transportation, and administrative costs less fare revenues and 6% of gross urban tax proceeds as described above or, an amount that is 20% greater than the amount paid by New York City for the preceding calendar year. Fare revenues and New York City's reimbursement aggregated approximately \$121.3 for the six months ended June 30, 2019 and \$108.6 for the six months ended June 30, 2018.

Grants and Appropriations — Grants and appropriations for capital projects are recorded when requests are submitted to the funding agencies for reimbursement of capital expenditures meeting eligibility requirements. These amounts are reported separately after Net Non-operating Revenues in the Statements of Revenues, Expenses, and Changes in Net Position.

Operating and Non-operating Expenses — Operating and non-operating expenses are recognized in the accounting period in which the liability is incurred. All expenses related to operating the MTA (e.g. salaries, insurance, depreciation, etc.) are reported as operating expenses. All other expenses (e.g. interest on long-term debt, subsidies paid to counties, etc.) are reported as non-operating expenses.

Liability Insurance — FMTAC, an insurance captive subsidiary of MTA, operates a liability insurance program (“ELF”) that insures certain claims in excess of the self-insured retention limits of the agencies on both a retrospective (claims arising from incidents that occurred before October 31, 2003) and prospective (claims arising from incidents that occurred on or after October 31, 2003) basis. For claims arising from incidents that occurred on or after November 1, 2006, but before November 1, 2009, the self-insured retention limits are: \$8 for MTA New York City Transit, MaBSTOA, MTA Bus, MTA Long Island Rail Road, and MTA Metro-North Railroad; \$2.3 for MTA Long Island Bus and MTA Staten Island Railway; and \$1.6 for MTAHQ and MTA Bridges and Tunnels. For claims arising from incidents that occurred on or after November 1, 2009, but before November 1, 2012, the self-insured retention limits are: \$9 for MTA New York City Transit, MaBSTOA, MTA Bus, MTA Long Island Rail Road and MTA Metro-North Railroad; \$2.6 for MTA Long Island Bus and MTA Staten Island Railway; and \$1.9 for MTAHQ and MTA Bridges and Tunnels. Effective November 1, 2012, the self-insured retention limits for ELF were increased to the following amounts: \$10 for MTA New York City Transit, MaBSTOA, MTA Bus, MTA Long Island Rail Road and MTA Metro-North Railroad; \$3 for MTA Staten Island Railway; and \$2.6 for MTAHQ and MTA Bridges and Tunnels. Effective October 31, 2015, the self-insured retention limits for ELF were increased to the following amounts: \$11 for MTA New York City Transit, MaBSTOA, MTA Bus, MTA Long Island Rail Road and MTA Metro-North Railroad; \$3.2 for MTA Staten Island Railway, MTAHQ and MTA Bridges and Tunnels. The maximum amount of claims arising out of any one occurrence is the total assets of the program available for claims, but in no event greater than \$50. The retrospective portion contains the same insurance agreements, participant retentions, and limits as existed under the ELF program for occurrences happening on or before October 30, 2003. On a prospective basis, FMTAC issues insurance policies indemnifying the other MTA Group entities above their specifically assigned self-insured retention with a limit of \$50 per occurrence with a \$50 annual aggregate. FMTAC charges appropriate annual premiums based on loss experience and exposure analysis to maintain the fiscal viability of the program. On June 30, 2019, the balance of the assets in this program was \$160.5.

MTA also maintains an All-Agency Excess Liability Insurance Policy that affords the MTA Group additional coverage limits of \$350 for a total limit of \$400 (\$350 excess of \$50). In certain circumstances, when the assets in the program described in the preceding paragraph are exhausted due to payment of claims, the All-Agency Excess Liability Insurance will assume the coverage position of \$50.

On March 1, 2019, the “non-revenue fleet” automobile liability policy program was renewed. This program provides third-party auto liability insurance protection for the MTA Group with the exception of MTA New York City Transit, MTA Bus and MTA Bridges and Tunnels. The policy provides \$11 per occurrence limit with a \$0.5 per occurrence deductible for MTA Long Island Rail Road, MTA Staten Island Railway, MTA Police, MTA Metro-North Railroad, MTA Inspector General and MTA Headquarters. FMTAC renewed its deductible buy back policy, where it assumes the liability of the agencies for their deductible.

On March 1, 2019, the “Access-A-Ride” automobile liability policy program was renewed. This program provides third-party auto liability insurance protection for the MTA New York City Transit's Access-A-Ride program, including the contracted operators. This policy provides \$2 per occurrence limit excess of a \$1 self-insured retention.

On December 15, 2018, FMTAC renewed the primary coverage on the Station Liability and Force Account liability policies \$11 per occurrence loss for MTA Metro-North Railroad and MTA Long Island Rail Road.

Property Insurance — Effective May 1, 2019, FMTAC renewed the all-agency property insurance program. For the annual period commencing May 1, 2019, FMTAC directly insures property damage claims of the Related Entities in excess of a \$25 per occurrence deductible, subject to an annual \$75 aggregate deductible. The total All Risk program annual limit is \$575 per occurrence and in the annual aggregate for Flood and Earthquake covering property of the Related Entities collectively. FMTAC is reinsured in the domestic, Asian, London, European and Bermuda reinsurance markets for this coverage. Losses occurring after exhaustion of the deductible aggregate are subject to a deductible of \$7.5 per occurrence. The property insurance policy provides replacement cost coverage for all risks (including Earthquake, Flood and Wind) of direct physical loss or damage to all real and personal property, with minor exceptions. The policy also provides extra expense and business interruption coverage.

Supplementing the \$575 per occurrence noted above, FMTAC's property insurance program has been expanded to include a further layer of \$125 of fully collateralized earthquake coverage for an event of a certain index value and for storm surge coverage for losses from storm surges that surpass specified trigger levels in the New York Harbor or Long Island Sound and are associated with named storms that occur at any point in the three year period from May 23, 2017 to April 30, 2020. The expanded protection is reinsured by MetroCat Re Ltd. 2017-1, a Bermuda special purpose insurer independent from the MTA and formed to provide FMTAC with capital markets based property reinsurance. The MetroCat Re Ltd. 2017-1 reinsurance policy is fully collateralized by a Regulation 114 trust invested in U.S. Treasury Money Market Funds. The additional coverage provided is parametric and available for storm surge losses resulting from a storm that causes water levels that reach the specified index values, and also for an earthquake event of a certain index value.

With respect to acts of terrorism, FMTAC provides direct coverage that is reinsured by the United States Government for 81% of "certified" losses in 2019 and 80% of "certified" losses in 2020, as covered by the Terrorism Risk Insurance Program Reauthorization Act ("TRIPRA") of 2015. The remaining 19% (2019) and 20% (2020) of the Related Entities' losses arising from an act of terrorism would be covered under the additional terrorism policy described below. No federal compensation will be paid unless the aggregate industry insured losses exceed a trigger of \$180 in 2019 and \$200 in 2020. The United States government's reinsurance is in place through December 31, 2020.

To supplement the reinsurance to FMTAC through the TRIPRA, MTA obtained an additional commercial reinsurance policy with various reinsurance carriers in the domestic, London and European marketplaces. That policy provides coverage for (1) 19% of any "certified" act of terrorism up to a maximum recovery of \$204.3 for any one occurrence and in the annual aggregate during 2019 and 20% of any "certified" act of terrorism up to a maximum recovery of \$215 for any one occurrence and in the annual aggregate during 2020 (2) the TRIPRA FMTAC captive deductible (per occurrence and on an aggregated basis) that applies when recovering under the "certified" acts of terrorism insurance or (3) 100% of any "certified" terrorism loss which exceeds \$5 and less than the \$180 TRIPRA trigger up to a maximum recovery of \$180 for any occurrence and in the annual aggregate during 2019 or 100% of any "certified" terrorism loss which exceeds \$5 and less than the \$200 TRIPRA trigger up to a maximum recovery of \$200 for any occurrence and in the annual aggregate during 2020.

Additionally, MTA purchases coverage for acts of terrorism which are not certified under TRIPRA to a maximum of \$204.3 in 2019 and \$215 in 2020. Recovery under the terrorism policy is subject to a deductible of \$25 per occurrence and \$75 in the annual aggregate in the event of multiple losses during the policy year. Should the Related Entities' deductible in any one year exceed \$75 future losses in that policy year are subject to a deductible of \$7.5. The terrorism coverages expire at midnight on December 31, 2020.

Pension Plans — In accordance with the provisions of GASB Statement No. 68, *Accounting and Financial Reporting for Pensions*, the MTA recognizes a net pension liability for each qualified pension plan in which it participates, which represents the excess of the total pension liability over the fiduciary net position of the qualified pension plan, or the MTA's proportionate share thereof in the case of a cost-sharing multiple-employer plan, measured as of the measurement date of each of the qualified pension plans. Changes in the net pension liability during the year are recorded as pension expense, or as deferred inflows of resources or deferred outflows of resources depending on the nature of the change, in the year incurred. Those changes in net pension liability that are recorded as deferred inflows of resources or deferred outflows of resources that arise from changes in actuarial assumptions or other inputs and differences between expected or actual experience are amortized over the weighted average remaining service life of all participants in the respective qualified pension plan and recorded as a component of pension expense beginning with the year in which they are incurred. Projected earnings on qualified pension plan investments are recognized as a component of pension expense. Differences between projected and actual investment earnings are reported as deferred inflows of resources or deferred outflows of resources and amortized as a component of pension expense on a closed basis over a five-year period beginning with the year in which the difference occurred.

Postemployment Benefits Other Than Pensions — In June 2004, GASB issued Statement No. 45, *Accounting and Financial Reporting by Employers for Postemployment Benefits Other Than Pensions*, which established standards for the measurement, recognition, and display of OPEB expense/expenditures and related liabilities (assets), note disclosures, and if

applicable, required supplementary information in the financial reports of state and local governmental employers. The MTA reported under this standard for its Postemployment Benefits Other Than Pensions for the year ended December 31, 2017.

Effective for the year ended December 31, 2018, the MTA adopted the standards of GASB Statement No. 75, *Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions* and GASB Statement No. 85, *Omnibus* for the OPEB Plan.

GASB has issued Statements No. 74 and 75, which replaced GASB Statements No. 43 and 45. The effective date of GASB Statement No. 74 (which applies to financial reporting on a plan basis) is the year ended December 31, 2017. The effective date of GASB Statement No. 75 (which applies to financial reporting by contributing employers) is the year ended December 31, 2018.

The MTA recognizes a net OPEB liability, which represents the excess of the total OPEB liability over the fiduciary net position of the OPEB Plan, measured as of the measurement date of the plan.

Changes in the net OPEB liability during the year are recorded as OPEB expense, or as deferred outflows of resources or deferred inflows of resources relating to OPEB depending on the nature of the change, in the year incurred. Changes in net OPEB liability that are recorded as deferred outflows of resources or deferred inflows of resources that arise from changes in actuarial assumptions and differences between expected or actual experience are amortized over the weighted average remaining service life of all participants in the OPEB plan and recorded as a component of OPEB expense beginning with the year in which they are incurred. Projected earnings on qualified OPEB plan investments are recognized as a component of OPEB expenses. Differences between projected and actual investment earnings are reported as deferred outflows of resources or deferred inflow of resources as a component of OPEB expense on a closed basis over a five-year period beginning with the year in which the difference occurred.

3. CASH AND INVESTMENTS

Cash - The Bank balances are insured up to \$250 thousand in the aggregate by the Federal Deposit Insurance Corporation ("FDIC") for each bank in which funds are deposited. Cash, including deposits in transit, consists of the following at June 30, 2019 and December 31, 2018 (in millions):

	June 30, 2019		December 31, 2018	
	Carrying Amount	Bank Balance	Carrying Amount	Bank Balance
	(Unaudited)			
FDIC insured or collateralized deposits	\$ 98	\$ 77	\$ 75	\$ 62
Uninsured and not collateralized	473	409	466	406
Total Balance	<u>\$ 571</u>	<u>\$ 486</u>	<u>\$ 541</u>	<u>\$ 468</u>

All collateralized deposits are held by the MTA or its agent in the MTA's name.

The MTA, on behalf of itself, its affiliates and subsidiaries, invests funds which are not immediately required for the MTA's operations in securities permitted by the New York State Public Authorities Law, including repurchase agreements collateralized by U.S. Treasury securities, U.S. Treasury notes, and U.S. Treasury zero coupon bonds.

Custodial credit risk for deposits is the risk that, in the event of the failure of a depository financial institution, the MTA will not be able to recover the value of its deposits. While the MTA does not have a formal deposit policy for custodial credit risk, New York State statutes govern the MTA's investment policies. The MTA's uninsured and uncollateralized deposits are primarily held by commercial banks in the metropolitan New York area and are subject to the credit risks of those institutions.

Investments - MTA holds most of its investments at a custodian bank. The custodian must meet certain banking institution criteria enumerated in MTA's Investment Guidelines. The Investment Guidelines also require the Treasury Division to hold at least \$100 of its portfolio with a separate emergency custodian bank. The purpose of this deposit is in the event that the MTA's main custodian cannot execute transactions due to an emergency outside of the custodian's control, the MTA has an immediate alternate source of liquidity.

The MTA categorizes its fair value measurements within the fair value hierarchy established by generally accepted accounting principles. The hierarchy is based on the valuation inputs used to measure the fair value of the asset. Level 1 inputs are quoted prices in active markets for identical assets; Level 2 inputs are significant other observable inputs; Level 3 inputs are significant unobservable inputs.

The MTA had the following recurring fair value measurements as of June 30, 2019 and December 31, 2018 (in millions):

Investments by fair value level	June 30, 2019	Fair Value Measurements		December 31, 2018	Fair Value Measurements	
	(Unaudited)	Level 1	Level 2		Level 1	Level 2
Debt Securities:						
U.S. treasury securities	\$ 3,697	\$ 3,259	\$ 438	\$ 3,325	\$ 2,984	\$ 341
U.S. government agency	512	-	512	387	261	126
Commercial paper	917	-	917	758	-	758
Asset-backed securities	55	-	55	45	-	45
Commercial mortgage-backed securities	91	-	91	81	-	81
Foreign bonds	18	18	-	16	16	-
Corporate bonds	132	132	-	133	133	-
Tax Benefit Lease Investments:						
U.S. treasury securities	186	186	-	178	178	-
U.S. government agency	125	-	125	112	-	112
Repurchase agreements	89	89	-	223	223	-
Total investments by fair value level	5,822	\$ 3,684	\$ 2,138	5,258	\$ 3,795	\$ 1,463
Other	122			122		
Total Investments	\$ 5,944			\$ 5,380		

Investments classified as Level 1 of the fair value hierarchy, totaling \$3,684 and \$3,795 as of June 30, 2019 and December 31, 2018, respectively, are valued using quoted prices in active markets. Fair values include accrued interest to the extent that interest is included in the carrying amounts. Accrued interest on investments other than Treasury bills and coupons is included in other receivables on the statement of net position. The MTA's investment policy states that securities underlying repurchase agreements must have a fair value at least equal to the cost of the investment.

U.S. Government agency securities totaling \$637 and \$238, U.S. treasury securities totaling \$438 and \$341, commercial paper totaling \$917 and \$758, asset-backed securities totaling \$55 and \$45, and commercial mortgage-backed securities totaling \$91 and \$81 as of June 30, 2019 and December 31, 2018, respectively, classified in Level 2 of the fair value hierarchy, are valued using matrix pricing techniques maintained by a third party pricing service. Matrix pricing is used to value securities based on the securities' relationship to benchmark quoted prices and indices. Fair value is defined as the quoted market value on the last trading day of the period. These prices are obtained from a third party pricing service or our custodian bank.

In connection with certain lease transactions described in Note 8, the MTA has purchased securities or entered into payment undertaking, letter of credit, or similar type agreements or instruments (guaranteed investment contracts) with financial institutions, which generate sufficient proceeds to make basic rent and purchase option payments under the terms of the leases. If the obligors do not perform, the MTA may have an obligation to make the related rent payments.

All investments, other than the investments restricted for capital lease obligations, are either insured or registered and held by the MTA or its agent in the MTA's name. Investments restricted for capital lease obligations are either held by MTA or its agent in the MTA's name or held by a custodian as collateral for MTA's obligation to make rent payments under capital lease obligations. Investments had weighted average yields of 2.20% and 2.36% for the six months ended June 30, 2019 and year ended December 31, 2018, respectively.

Credit Risk — At June 30, 2019 and December 31, 2018, the following credit quality rating has been assigned to MTA investments by a nationally recognized rating organization (in millions):

Quality Rating Standard & Poor's	June 30, 2019	Percent of Portfolio	December 31, 2018	Percent of Portfolio
	(Unaudited)			
A-1+	\$ 406	7%	\$ 283	5%
A-1	917	16%	758	14%
AAA	223	4%	217	4%
AA+	58	1%	52	1%
AA	36	1%	31	1%
A	78	1%	76	1%
BB	-	-	-	-
BBB	36	1%	38	1%
Not rated	118	2%	240	5%
U.S. Government	3,950	67%	3,563	68%
Total	5,822	100%	5,258	100%
Equities and capital leases	122		122	
Total investment	<u>\$ 5,944</u>		<u>\$ 5,380</u>	

Interest Rate Risk — Interest rate risk is the risk that changes in interest rates will adversely affect the fair value of the investment. Duration is a measure of interest rate risk. The greater the duration of a bond or portfolio of bonds, the greater its price volatility will be in response to a change in interest rate risk and vice versa. Duration is an indicator of bond price's sensitivity to a 100 basis point change in interest rates.

	June 30, 2019		December 31, 2018	
	(Unaudited)			
(In millions)	Fair Value	Duration (in years)	Fair Value	Duration (in years)
U.S. Treasuries	\$ 3,697	3.79	\$ 3,325	3.00
Federal Agencies	512	5.94	387	5.91
Tax benefits lease investments	311	7.82	290	8.06
Repurchase agreement	89	-	223	-
Certificate of deposits	-	-	-	-
Commercial paper	917	-	758	-
Asset-backed securities ⁽¹⁾	55	2.12	45	1.94
Commercial mortgage-backed securities ⁽¹⁾	91	5.43	81	5.55
Foreign bonds ⁽¹⁾	18	6.56	16	6.20
Corporates ⁽¹⁾	132	4.42	133	4.43
Total fair value	5,822		5,258	
Modified duration		3.57		3.01
Equities ⁽¹⁾	-		-	
Total	5,822		5,258	
Investments with no duration reported	122		122	
Total investments	<u>\$ 5,944</u>		<u>\$ 5,380</u>	

⁽¹⁾ These securities are only included in the FMTAC portfolio.

MTA is a public benefit corporation established under the New York Public Authorities Law. MTA's Treasury Division is responsible for the investment management of the funds of the component units. The investment activity covers all operating and capital funds, including bond proceeds, and the activity is governed by State statutes, bond resolutions and the Board-adopted investment guidelines (the "Investment Guidelines"). The MTA Act currently permits the Related Entities to invest in the following general types of obligations:

- obligations of the State or the United States Government;
- obligations of which the principal and interest are guaranteed by the State or the United States government;
- obligations issued or guaranteed by certain Federal agencies;
- repurchase agreements fully collateralized by the obligations of the foregoing United States Government and Federal agencies;
- certain certificates of deposit of banks or trust companies in the State;
- certain banker's acceptances with a maturity of 90 days or less;
- certain commercial paper;
- certain municipal obligations; and
- certain mutual funds up to \$10 in the aggregate.

MTA adopted NYS Statutory Requirements with respect to credit risk of its investments, which include, but are not limited to the following sections:

- i. Public Authorities Law Sections 1265(4) (MTA), 1204(19) (MTA New York City Transit Authority) and 553(21) (MTA Bridges and Tunnels);
- ii. Public Authorities Law Section 2925 Investment of funds by public authorities and public benefit corporations; general provisions; and
- iii. State Finance Law Article 15 – EXCELSIOR LINKED DEPOSIT ACT.

MTA Investment Guidelines limit the dollar amount invested in banker acceptances, commercial paper, and obligations issued or guaranteed by certain Federal agencies to \$250 at cost. There are no dollar limits on the purchase of obligations of the United States government, the State or obligations the principal and interest of which are guaranteed by the State or the United States government. Investments in collateralized repurchase agreements are limited by dealer or bank's capital. MTA can invest no greater than \$300 with a bank or dealer rated in Tier 1 (i.e. \$1 billion or more of capital).

FMTAC is created as a MTA subsidiary and is licensed as a captive direct insurer and reinsurer by the New York State Department of Insurance. As such, FMTAC is responsible for the investment management of its funds. The investment activity is governed by State statutes and the FMTAC Board adopted investment guidelines. The minimum surplus to policyholders and reserve instruments are invested in the following investments:

- obligations of the United States or any agency thereof provided such agency obligations are guaranteed as to principal and interest by the United States;
- direct obligations of the State or of any county, district or municipality thereof;
- any state, territory, possession or any other governmental unit of the United States;
- certain bonds of agencies or instrumentalities of any state, territory, possession or any other governmental unit of the United States;
- the obligations of a solvent American institution which are rated investment grade or higher (or the equivalent thereto) by a securities rating agency; and
- certain mortgage backed securities in amounts no greater than five percent of FMTAC's admitted assets.

FMTAC may also invest non-reserve instruments in a broader range of investments including the following general types of obligations:

- certain equities; and
- certain mutual funds.

FMTAC is prohibited from making the following investments:

- investment in an insolvent entity;
- any investment as a general partner; and
- any investment found to be against public policy.

FMTAC investment guidelines do include other investments, but FMTAC has limited itself to the above permissible investments at this time.

4. EMPLOYEE BENEFITS

Pensions — The MTA Related Groups sponsor and participate in several defined benefit pension plans for their employees, the Long Island Railroad Company Plan for Additional Pensions (the “Additional Plan”), The Manhattan and Bronx Surface Transit Operating Authority Pension Plan (the “MaBSTOA Plan”), the Metro-North Commuter Railroad Company Cash Balance Plan (the “MNR Cash Balance Plan”), the Metropolitan Transportation Authority Defined Benefit Plan (the “MTA Defined Benefit Plan”), the New York City Employees’ Retirement System (“NYCERS”), and the New York State and Local Employees’ Retirement System (“NYSLERS”). A brief description of each of these pension plans follows:

Plan Descriptions

1. Additional Plan —

The Additional Plan is a single-employer defined benefit pension plan that provides retirement, disability and survivor benefits to members and beneficiaries. The Additional Plan covers MTA Long Island Rail Road employees hired effective July 1, 1971 and prior to January 1, 1988. The Additional Plan’s activities, including establishing and amending contributions and benefits are administered by the Board of Managers of Pensions. The Additional Plan is a governmental plan and accordingly, is not subject to the funding and other requirements of the Employee Retirement Income Security Act of 1974 (“ERISA”). The Additional Plan is a closed plan.

The Board of Managers of Pensions is comprised of the Chairman of the MTA, MTA Chief Financial Officer, MTA Director of Labor Relations and the agency head of each participating Employer or the designee of a member of the Board of Managers. The Additional Plan for Additional Pensions may be amended by action of the MTA Board.

The pension plan has a separately issued financial statement that is publicly available and contains required descriptions and supplemental information regarding the employee benefit plan. The financial statements may be obtained at www.mta.info or by writing to, Long Island Rail Road, Controller, 93-02 Sutphin Boulevard – mail code 1421, Jamaica, New York 11435.

2. MaBSTOA Plan —

The MaBSTOA Plan is a single-employer defined benefit governmental retirement plan administered by MTA New York City Transit covering MaBSTOA employees, who are specifically excluded from NYCERS. The Plan provides retirement as well as death, accident and disability benefits. Effective January 1, 1999, in order to afford managerial and non-represented MaBSTOA employees the same pension rights as like title employees in MTA New York City Transit Authority, membership in the MaBSTOA Plan is optional.

The Board of Administration, established in 1963, determines the eligibility of employees and beneficiaries for retirement and death benefits. The MaBSTOA Plan assigns authority to the MaBSTOA Board to modify, amend or restrict the MaBSTOA Plan or to discontinue it altogether, subject, however, to the obligations under its collective bargaining agreements. The Board is composed of five members: two representatives from the Transport Workers Union, Local 100 (“TWU”) and three employer representatives.

The pension plan issues a publicly available financial report that includes financial statements and required supplementary information. This report may be obtained by writing to MTA Comptroller, 2 Broadway, 16th Floor, New York, New York, 10004 or at www.mta.info.

3. MNR Cash Balance Plan —

The MNR Cash Balance Plan is a single employer, defined benefit pension plan administered by MTA Metro-North Railroad. The MNR Cash Balance Plan covers non-collectively bargained employees, formerly employed by Conrail, who joined MTA Metro-North Railroad as management employees between January 1 and June 30, 1983, and were still employed as of December 31, 1988. Effective January 1, 1989, these management employees became covered under the Metro-North Commuter Railroad Defined Contribution Plan for Management Employees (the “Management Plan”) and the MNR Cash Balance Plan was closed to new participants. The assets of the Management Plan were merged with the Metropolitan Transportation Authority Defined Benefit Plan for Non-Represented Employees (now titled as the Metropolitan Transportation Authority Defined Benefit Pension Plan) as of the asset transfer date of July 14, 1995. The MNR Cash Balance Plan is designed to satisfy the applicable requirements for governmental plans under Section 401(a) and 501(a) of the Internal Revenue Code. Accordingly, the MNR Cash Balance Plan is tax-exempt and is not subject to the provisions of ERISA.

The MTA Board of Trustees appoints a Board of Managers of Pensions consisting of five individuals who may, but need not, be officers or employees of the company. The Board of Managers control and manage the operation and administration of the MNR Cash Balance Plan’s activities, including establishing and amending contributions and benefits.

Further information about the MNR Cash Balance Plan is more fully described in the separately issued financial statements that can be obtained by writing to MTA Comptroller, 2 Broadway, 16th Floor, New York, New York, 10004. These statements are also available at www.mta.info.

4. MTA Defined Benefit Plan —

The MTA Defined Benefit Pension Plan (the “MTA Plan” or the “Plan”) is a cost sharing, multiple-employer defined benefit pension plan. The Plan covers certain MTA Long Island Rail Road non-represented employees hired after December 31, 1987, MTA Metro-North Railroad non-represented employees, certain employees of the former MTA Long Island Bus hired prior to January 23, 1983, MTA Police, MTA Long Island Rail Road represented employees hired after December 31, 1987, certain MTA Metro-North Railroad represented employees, MTA Staten Island Railway represented and non-represented employees and certain employees of the MTA Bus Company (“MTA Bus”). The MTA, MTA Long Island Rail Road, MTA Metro-North Railroad, MTA Staten Island Railway and MTA Bus contribute to the MTA Plan, which offers distinct retirement, disability retirement, and death benefit programs for their covered employees and beneficiaries.

The MTA Defined Benefit Plan is administered by the Board of Managers of Pensions. The MTA Plan, including benefits and contributions, may be amended by action of the MTA Board.

The pension plan issues a publicly available financial report that includes financial statements and required supplementary information. This report may be obtained by writing to the MTA Comptroller, 2 Broadway, 16th Floor, New York, New York, 10004 or at www.mta.info.

5. NYCERS —

NYCERS is a cost-sharing, multiple-employer retirement system for employees of The City of New York (“The City”) and certain other governmental units whose employees are not otherwise members of The City’s four other pension systems. NYCERS administers the New York City Employees Retirement System qualified pension plan.

NYCERS was established by an act of the Legislature of the State of New York under Chapter 427 of the Laws of 1920. NYCERS functions in accordance with the governing statutes contained in the New York State Retirement and Social Security Law (“RSSL”), and the Administrative Code of the City of New York (“ACNY”), which are the basis by which benefit terms and employer and member contribution requirements are established and amended. The head of the retirement system is the Board of Trustees.

NYCERS issues a publicly available comprehensive annual financial. This report may be obtained by writing to the New York City Employees’ Retirement System at 335 Adams Street, Suite 2300, Brooklyn, NY 11201-3724 or at www.nycers.org.

All employees of the Related Group holding permanent civil service positions in the competitive or labor class are required to become members of NYCERS six months after their date of appointment, but may voluntarily elect to join NYCERS prior to their mandated membership date. All other eligible employees have the option of joining NYCERS upon appointment or anytime thereafter. NYCERS members are assigned to a “tier” depending on the date of their membership.

Tier 1	All members who joined prior to July 1, 1973.
Tier 2	All members who joined on or after July 1, 1973 and before July 27, 1976.
Tier 3	Only certain members who joined on or after July 27, 1976 and prior to April 1, 2012
Tier 4	All members (with certain member exceptions) who joined on or after July 27, 1976 but prior to April 1, 2012. Members who joined on or after July 27, 1976 but prior to September 1, 1983 retain all rights and benefits of Tier 3 membership.
Tier 6	Members who joined on or after April 1, 2012

6. NYSLERS —

NYSLERS is a cost-sharing, multiple-employer defined benefit retirement system. The New York State Comptroller’s Office administers the NYSLERS. The net position of NYSLERS is held in the New York State Common Retirement Fund (the “Fund”), which was established to hold all assets and record changes in fiduciary net position allocated to the plan. The Comptroller of the State of New York serves as the trustee of the Fund and is the administrative head of NYSLERS. NYSLERS’ benefits are established under the provisions of the New York State RSSL. Once a public employer elects to participate in NYSLERS, the election is irrevocable. The New York State Constitution provides that pension membership is a contractual relationship and plan benefits cannot be diminished or impaired. Benefits can be changed for future members only by enactment of a State statute.

NYSLERS is included in New York State’s financial report as a pension trust fund. The report can be accessed on the New York State Comptroller’s website at www.osc.state.ny.us/retire/about_us/financial_statements_index.php or obtained by writing to the New York State and Local Retirement System, 110 State Street, Albany, NY 12244-001.

Pension legislation enacted in 1973, 1976, 1983, 2009 and 2012 established distinct classes of tier membership.

Tier 1	All members who joined prior to July 1, 1973.
Tier 2	All members who joined on or after July 1, 1973 and before July 27, 1976.
Tier 3	Generally, certain members who joined on or after July 27, 1976 but before January 1, 2010 and all other members who joined on or after July 27, 1976, but before September 1, 1983.
Tier 4	Generally, members (with certain member exceptions) who joined on or after September 1, 1983, but before January 1, 2010.
Tier 5	Members who joined on or after January 1, 2010, but before April 1, 2012.
Tier 6	Members who joined on or after April 1, 2012.

Benefits Provided

1. Additional Plan —

Pension Benefits — An employee who retires under the Additional Plan, either: (a) after completing at least 20 years of credited service, or (b) after both attaining age 65 while in service and completing at least five years of credited service, or in the case of those who were active employees on January 1, 1988, after completing at least 10 years of credited service, is entitled to an annual retirement benefit, payable monthly for life. Payments commence to an employee referred to in: (a) only after attaining age 50, or (b) only after attaining age 65.

Benefit and contribution provisions, which are based on the point in time at which participants last entered qualifying service and their length of credited service, are established by, and may only be amended by the MTA Long Island Rail Road, subject to the obligations of the MTA Long Island Rail Road under its collective bargaining agreements.

The Additional Plan has both contributory and non-contributory requirements, with retirement ages varying from 50 to 65 depending upon a participant’s length of credited service. Pension benefits payable to age 65, where eligible, are

calculated as 2% of the employee's applicable final average earnings for each year of qualifying service up to 25 years plus 1.5% of applicable final average earnings for each year of qualifying service in excess of 25 years. For pension benefits payable at and after age 65, regardless of whether benefits commenced before or after the employee attained age 65, benefits are calculated in the same manner as pension benefits payable prior to age 65 except that the amount so determined is reduced by a percentage of the employee's annuity (not including any supplemental annuity) value at age 65 under the Federal Railroad Retirement Act.

Participants who entered qualifying service before July 1, 1978 are not required to contribute. Participants who entered qualifying service on or after July 1, 1978, are required to contribute 3% of their wages. The MTA Long Island Rail Road contributes additional amounts based on actuarially determined amounts that are designed to accumulate sufficient assets to pay benefits when due.

Death and Disability Benefits — Participants who become disabled after accumulating 10 years of credited service and who meet the requirements as described in the Additional Plan receive a disability benefit. Disability pension benefits are calculated based on the participant's qualifying service and a percentage of final average compensation reduced by the full amount of benefit under the Federal Railroad Retirement Act. Survivorship benefits are paid to the participant's spouse when a survivorship option is elected or when an active participant has not divested his or her spouse of benefits. The survivorship benefit is payable at the time of death or when the vested participant would have attained an eligible age. The amount payable is in the form of an annuity. A lump sum death benefit no greater than five thousand dollars is payable upon death on behalf of a non-vested participant or vested participant whose pension rights were waived.

Retirement benefits establishment and changes for representative employees are collectively bargained and must be ratified by the respective union and the MTA Board. For non represented employees, amendments must be approved by the MTA Board.

2. MaBSTOA Plan —

The MaBSTOA Plan provides retirement as well as death, accident, and disability benefits. The benefits provided by the MaBSTOA Plan are generally similar to the benefits provided to MTA New York City Transit participants in NYCERS. Benefits vest after either 5, 10, or 20 years of credited service, depending on the date of membership.

In 2008, NYCERS had determined that Tier 4 employees are and have been eligible for a post retirement death benefit retroactive to 1986. In June 2012, the MTA Board approved an amendment to the MaBSTOA Plan to provide for incorporation of this benefit.

Tier 1 —

Eligibility and Benefit Calculation: Tier 1 members must be at least age 50 with the completion of 20 years of service to be eligible to collect a service retirement benefit. Generally, the benefit is 1.50% for service before March 1, 1962, plus 2.0% for service from March 1, 1962 to June 30, 1970, plus 2.5% for service after June 30, 1970. The accumulated percentage, up to a maximum of 50%, is multiplied by the member's compensation, which is the greater of earned salary during the year prior to retirement. Once the accumulated reaches 50%, the percentage for each further year of service reverts back to 1.5%. The percentage in excess of 50% is multiplied by the final compensation, which is the highest average earnings over five consecutive years.

Ordinary Disability Benefits — Generally, ordinary disability benefits, are provided to eligible Tier 1 members after ten years of service with the benefit equal to the greater of the service retirement percentages or 25% multiplied by final compensation.

Accidental Disability Benefits — The accidental disability benefit to eligible Tier 1 members is equal to 75% of final compensation reduced by 100% of any worker's compensation payments.

Ordinary Death Benefits — For Tier 1 members the amount of the death benefit is a lump sum equal to six months' pay for members with less than 10 years of service; a lump sum equal to a 12 months of pay for members with more than 10 but less than 20 years of service, and a lump sum equal to two times 12 months of pay for members with more than 20 years of service.

Tier 2 —

Eligibility and Benefit Calculation: Tier 2 members must be at least age 55 with the completion of 25 years of service to be eligible to collect a service retirement benefit. Generally, the benefit equals 50% of final 3-year average compensation, defined as the highest average earnings over three consecutive years, plus 1% of final 5-year average compensation, defined as the highest average earnings over five consecutive years, per year of credited service in excess of 20 years. For early retirement, members must be at least age 50 with the completion of at least 20 years of service. The benefit is determined in the same manner as the service retirement but not greater than 2.0% of final 3-year average compensation per year of service.

Ordinary Disability Benefits — Generally, ordinary disability benefits, are provided to eligible Tier 2 members after ten years of service with the benefit equal to the greater of the service retirement percentages or 25% multiplied by the final 5- year average compensation.

Accidental Disability Benefits — The accidental disability benefit to eligible Tier 2 members is equal to 75% of the final 5-year average compensation reduced by any worker's compensation payments.

Ordinary Death Benefits — Tier 2 members require the completion of 90 days of service to receive a lump sum equal to 3 times salary, raised to the next multiple of \$1,000 dollars.

Tiers 3, 4 —

Eligibility and Benefit Calculation: Tier 3 and 4 members in the Regular 62 and 5 Plan must be at least age 62 with the completion of at least 5 years of service to be eligible to collect a service retirement benefit. Generally, the benefit for members with at least 20 years of service, is equal to 2.0% of Final Average Compensation ("FAC") for the first 30 years of service plus 1.5% of FAC for years of service in excess of 30. FAC is defined as the highest average earnings over three consecutive years, of which earnings in a year cannot exceed 110% of the average of the two preceding years. If the member completes less than 20 years of credited service, the benefit equals 1- 2/3% of FAC multiplied by years of service. For early retirement, members must be at least age 55 with the completion of at least 5 years of service. The benefit equals the service retirement benefit reduced by 6% for each of the first two years prior to age 62, and by 3% for years prior to age 60.

Tier 3 and 4 members in the basic 55/25 Plan must be at least age 55 with the completion of at least 25 years of service, or be at least age 62 with the completion of at least 5 years of service, to be eligible to collect a service retirement benefit. Generally, the benefit for members with at least 25 years of service, is equal to 2.0% of FAC for the first 30 years of service plus 1.5% of FAC for years of service in excess of 30. If the member completes less than 25 years of credited service, the benefit equals 1- 2/3% of FAC multiplied by years of service.

Tier 4 members in the 57/5 Plan must be at least age 57 with the completion of at least 5 years of service to be eligible to collect a service retirement benefit. Generally, the benefit for members with at least 20 years of service, is equal to 2.0% of FAC for the first 30 years of service plus 1.5% of FAC for years of service in excess of 30. If the member completes less than 20 years of credited service, the benefit equals 1- 2/3% of FAC multiplied by years of service.

Ordinary and Accidental Disability Benefits — For eligible members of the Regular 62/5 Plan, 57/25 Plan and 57/5 Plan, ordinary and accidental disability benefits, are provided after 10 years of service for ordinary and no service required for accidental disability benefit. The benefit equals the greater of 1-2/3% of FAC per year of service and 1/3 of FAC.

Ordinary Death Benefits — For eligible members of the Regular 62/5 Plan, 55/25 Plan, 57/5 Plan, the pre-retirement ordinary death benefit is equal to a lump sum of annual salary times the lesser of completed years of service and 3. After age 60, the benefit is reduced 5% per year, to a maximum reduction of 50%. Accumulated regular member contributions with interest and one-half of accumulated additional member contributions with interest are also payable. Upon retirement, the post-retirement benefit is reduced by 50% and reduced an additional 25% after completion of one year of retirement. After completion of two years of retirement, the benefit equals 10% of the pre-retirement benefit in force at age 60.

Tier 6 —

Eligibility and Benefit Calculation: Tier 6 members in the 55/25 Special Plan must be at least age 55 with the completion of at least 25 years, or at least age 63 with the completion of at least 10 years of service, to be eligible to collect a service retirement benefit. Generally, the benefit for members with at least 25 years of service, is equal to 2.0% of Final Average Salary ("FAS") for the first 30 years of service plus 1.5% of FAS for years of service in excess of 30. If the member completes less than 20 years of credited service, the benefit equals 1- 2/3% of FAS multiplied by years of service. FAS is defined as the highest average pensionable compensation over five consecutive years.

Tier 6 members in the Basic 63/10 Plan must be at least age 63 with the completion of at least 10 years to be eligible to collect a service retirement benefit. Generally, the benefit for members with at least 20 years of service, is equal to 35% of FAS plus 2.0% of FAS for years of service in excess of 20. If the member completes less than 20 years of credited service, the benefit equals 1-2/3% of FAS multiplied by years of service. FAS is defined as the highest average pensionable earnings over five consecutive years. For early retirement, members must be at least age 55 with the completion of at least 10 years of service. The benefit equals the service retirement benefit reduced by 6.5% for each year early retirement precedes age 63.

Ordinary and Accidental Disability Benefits — For eligible members of the 55/25 Special Plan and the Basic 63/10 Plan, ordinary and accidental disability benefits, are provided after 10 years of credited service for ordinary disability benefit. There is no service requirement for accidental disability benefit. The benefit equals the greater of 1-2/3% of FAS per year of service and 1/3 of FAS.

Ordinary Death Benefits — For eligible members of the 55/25 Special Plan and the Basic 63/10 Plan, the pre-retirement ordinary death benefit is equal to a lump sum of annual salary times the lesser of completed years of service and 3. After age 60, the benefit is reduced 5% per year, to a maximum reduction of 50%. Accumulated regular member contributions with interest and one-half of accumulated additional member contributions with interest are also payable. Upon retirement, the post-retirement benefit is reduced by 50% and reduced an additional 25% after completion of one year of retirement. After completion of two years of retirement, the benefit equals 10% of the pre-retirement benefit in force at age 60.

3. MNR Cash Balance Plan —

Pension Benefits — Participants of the MNR Cash Balance Plan are vested in their benefit upon the earlier of (a) the completion of 5 years of service with MTA Metro-North Railroad or (b) the attainment of age 62. The accrued benefit is a participant's Initial Account Balance increased each month by the benefit escalator. The benefit escalator is defined as the Pension Benefit Guaranty Corporation ("PBGC") immediate annuity rate in effect for December of the year preceding the year for which the determination is being made) divided by 180. The accrued benefit is paid as an escalating annuity. Vested participants are entitled to receive pension benefits commencing at age sixty-five. Participants may elect to receive the value of their accumulated plan benefits as a lump-sum distribution upon retirement or they may elect a monthly life annuity. Participants may elect to receive their pension in the form of a joint and survivor annuity.

Participants of the MNR Cash Balance Plan are eligible for early retirement benefits upon termination of employment, the attainment of age 62, or age 60 and completion of 15 years of service, or age 55 and the completion of 30 years of service. The early retirement benefits paid is the normal retirement pension deferred to age 65 or an immediate pension equal to the life annuity actuarial equivalent of a participant's escalating annuity at normal retirement date indexed by the Initial Benefit Escalator from early retirement date to normal retirement date and reduced by 5/9 of 1% for each month retirement precedes age 65 up to 60 months and 5/18 of 1% for each month after 60 months.

For members with cash balances who are currently members of the Metropolitan Transportation Authority Defined Benefit Pension Plan, an additional benefit is provided equal to the amount needed to bring their total benefits (i.e., Railroad Retirement Tier I and II benefits, Conrail Plan benefits, Cash Balance Plan benefits, and MTA Defined Benefit Pension Plan benefits) up to a minimum of 65% of their 3-year final average pay under the MTA Defined Benefit Plan. In no event will the Additional Benefit exceed 2% of 3-year final average pay multiplied by the Conrail Management Service prior to July 1, 1983. This benefit is payable as a life annuity and is reduced for commencement prior to age 65 in the same manner as the regular cash balance benefit. This additional benefit is payable only in the form of a life annuity or 100% or 50% contingent annuity.

Death Benefits — Benefits are paid to vested participants' beneficiaries in the event of a participants' death. The amount of benefits payable is the participant's account balance at the date of his or her death. Pre-retirement death benefits paid for a participant's death after 55 is equal to the amount the spouse would have received had the participant elected retirement under the normal form of payment on the day preceding his death. Pre-retirement death benefits paid for a participant's death before 55 is equal to the amount the spouse would have received had the participant survived to age 55 and retired under the normal form of payment on that date. The benefit is based on service to the participant's date of death and is payable beginning on the date the participant would have attained age 55.

In lieu of the above benefit, the surviving spouse can elect to receive the participant's account balance in a single lump sum payment immediately. If the participant was not married, the participant's beneficiary is entitled to receive the participant's Account Balance as of the participant's date of death in a single lump sum payment.

4. MTA Defined Benefit Plan —

Pension Benefits — Retirement benefits are paid from the Plan to covered MTA Metro-North Railroad, MTA Staten Island Railway and post - 1987 MTA Long Island Rail Road employees as service retirement allowances or early retirement allowances. A participant is eligible for a service retirement allowance upon termination if the participant satisfied both age and service requirement. A participant is eligible for a service retirement allowance upon termination if the participant satisfied both age and service requirements. A participant is eligible for an early retirement allowance upon termination if the participant has attained age 55 and completed at least 10 years of credited service. Terminated participants with 5 or more years of credited service are eligible for a deferred vested benefit. Deferred vested benefits are payable on an unreduced basis on the first day of the month following the participant's 62nd birthday.

Certain represented employees of the MTA Long Island Rail Road and the MTA Metro-North Railroad continue to make contributions to the Plan for 15 years. Certain represented employees of the MTA Long Island Rail Road and the MTA Metro-North Railroad are eligible for an early retirement allowance upon termination if the participant has attained age 60 and completed at least 5 years of credited service, or has attained age 55 and completed at least 30 years of credited service. The early retirement allowance is reduced one-quarter of 1% per month for each full month that retirement predates age 60 for certain represented employees of the MTA Long Island Rail Road and the MTA Metro-North Railroad.

Effective in 2007, members and certain former members who become (or became) employed by another MTA agency which does not participate in the Plan continue to accrue service credit based on such other employment. Upon retirement, the member's vested retirement benefit from the Plan will be calculated on the final average salary of the subsequent MTA agency, if higher. Moreover, the Plan benefit will be reduced by the benefit, if any, payable by the other plan based on such MTA agency employment. Such member's disability and ordinary death benefit will be determined in the same way.

Retirement benefits are paid from the Plan under the MTA 20-Year Police Retirement Program. A participant is eligible for service retirement at the earlier of completing twenty years of credited Police service or attainment of age 62. Terminated participants with five years of credited police service, who are not eligible for retirement, are eligible for a deferred benefit. Deferred vested benefits are payable on the first of the month following the participant's attainment of age 55.

Retirement benefits paid from the Plan to covered represented MTA Bus employees include service retirement allowances or early retirement allowances. Under the programs covering all represented employees at Baisley Park, Eastchester, LaGuardia, Spring Creek, and Yonkers Depots and the represented employees at College Point Depot, JFK, Far Rockaway a participant is eligible for a service retirement allowance upon termination if the participant has attained age sixty-five and completed at least five years of credited service or if the participant has attained age 57 and completed at least 20 years of credited service. A participant hired prior to June 2009 from Baisley Park, College Point, and La Guardia Depots is eligible for an early retirement allowance if the participant has attained age 55 and completed 20 years of credited service. Terminated participants with five or more years of credited service who are not eligible to receive a service retirement allowance or early retirement allowance are eligible for a deferred vested benefit. Deferred vested benefits are payable on an unreduced basis on or after the participant attains age 65.

At Baisley Park, Far Rockaway, JFK, LaGuardia and Spring Creek Depots, a participant who is a non-represented employee is eligible for an early retirement allowance upon termination if the participant has attained age 55 and completed 15 years of service. Terminated participants with five or more years of credited service who are not eligible to receive a service retirement allowance or early retirement allowance are eligible for a deferred vested benefit. Deferred vested benefits are payable on an unreduced basis on or after the participant attains age 62.

The MTA Bus retirement programs covering represented and non-represented employees at Eastchester and Yonkers and covering the represented employees at Baisley Park, College Point, Far Rockaway, JFK, LaGuardia and Spring Creek are fixed dollar plans, i.e., the benefits are a product of credited service and a specific dollar amount.

The retirement benefits for certain non-represented employees at Baisley Park, Far Rockaway, JFK, LaGuardia and Spring Creek are based on final average salary. Certain participants may elect to receive the retirement benefit as a single life annuity or in the form of an unreduced 75% joint and survivor benefit.

Pre-1988 MTA Long Island Rail Road participants are eligible for a service retirement allowance upon termination if the participants has either: (a) attained age sixty-five and completed at least five years of credited service, or if an employee on January 1, 1988 completed at least 10 years of credited service, or (b) attained age fifty and has completed at least 20 years of credited service. Terminated participants who were not employees on January 1, 1988 with five or more years of credited service are eligible for a deferred vested benefit. Pension benefits payable to age 65, where eligible, are calculated as 2% of the employee's applicable final average earnings for each year of qualifying service up to 25 years plus 1.5% of applicable final average earning of each year of qualifying service in excess of 25 years. For pension benefits payable at and after age 65 regardless of whether benefits commenced before or after the employee attained age 65, benefits are calculated in the same manner as pension benefits payable prior to age 65 except that the amount so determined is reduced by a percentage of the employee's annuity (not including supplemental annuity) value at age 65 under the Federal Railroad Retirement Act. The reduction of pension benefits for amounts payable under the Federal Railroad Retirement Act is 50%.

Death and Disability Benefits — In addition to service retirement benefits, participants of the Plan are eligible to receive disability retirement allowances and death benefits. Participants who become disabled may be eligible to receive disability retirement allowances after 10 years of covered MTA Bus service; 10 years of credited service for covered MTA Metro-North Railroad and MTA Long Island Rail Road management and represented employees, covered MTA Staten Island Railway employees and covered MTA police participants.

The disability retirement allowance for covered MTA Metro-North Railroad and MTA Long Island Rail Road management and represented covered MTA Staten Island Railway employees is calculated based on the participant's credited service and final average salary ("FAS") but not less than $\frac{1}{3}$ of FAS. Under the MTA 20 Year Police Retirement Program, a disabled participant may be eligible for one of three forms of disability retirement: (a) ordinary disability which is payable if a participant has ten years of credited Police service and is calculated based on the participant's credited Police service and FAS but not less than $\frac{1}{3}$ of FAS; (b) performance of duty, which is payable if a participant is disabled in the performance of duty and is $\frac{1}{2}$ of FAS, and (c) accidental disability, which is payable if a participant is disabled as the result of an on-the-job accidental injury and is $\frac{3}{4}$ of FAS subject to an offset of Workers' Compensation benefits. Pursuant to the MTA Bus programs, the disability benefit is the same as the service retirement benefit.

Pre -1988 MTA Long Island Rail Road participants who become disabled after accumulating 10 years of credited service and who meet the requirements as described in the Plan may be eligible to receive a disability benefit. Disability pension benefits are based on the participant's qualified service and a percentage of final average compensation reduced by the full amount of the disability benefit under the Federal Railroad Retirement Act. Survivorship benefits for pre-1988 MTA Long Island Rail Road participants are paid to the spouse when a survivorship option is elected or when an active participant has not divested their spouse of benefits.

The survivorship benefit is payable at the time of death or when the vested participant would have attained an eligible age. The amount payable is in the form of an annuity. A lump sum death benefit no greater than \$5,000 (whole dollars) is payable upon death on behalf of a non-vested participant or vested participant whose pension rights were waived.

Death benefits are paid to the participant's beneficiary in the event of the death of a covered MTA Metro-North Railroad, post-1987 MTA Long Island Rail Road or MTA Staten Island Railway employee after completion of one year of credited service. The death benefit payable is calculated based on a multiple of a participant's salary based on years of credited service up to three years and is reduced beginning at age 61. There is also a post-retirement death benefit which, in the 1st year of retirement, is equal to 50% of the pre-retirement death benefit amount, whichever is greater, 25% the 2nd year and 10% of the death benefit payable at age 60 for the 3rd and later years. For the Police 20 Year Retirement Program, the death benefit is payable after ninety days of credited MTA Police service, and is equal to three times their salary. For non-Police groups, this death benefit is payable in a lump sum distribution while for Police, the member or the beneficiary can elect to have it paid as an annuity. The MTA Police do not have a post retirement benefit.

In the MSBA Employees' Pension Plan, there are special spousal benefits payable upon the death of a participant who is eligible for an early retirement benefit, or a normal service retirement benefit, or who is a vested participant or vested former participant. To be eligible, the spouse and participant must have been married at least one year at the time of death. Where the participant was eligible for an early service retirement benefit or was a vested participant or former participant, the benefit is a pension equal to 40% of the benefit payable to the participant as if the participant retired on the date of death. Where the participant was eligible for a normal service retirement benefit, the eligible spouse can elect either the benefit payable as a pension, as described in the prior sentence, or a lump sum payment based on an actuarially determined pension reserve. If there is no eligible spouse for this pension reserve benefit, a benefit is payable to the participant's beneficiary or estate.

Moreover, an accidental death benefit is payable for the death of a participant who is a covered MTA Metro-North Railroad or post-1987 MTA Long Island Rail Road employee, a covered MTA Staten Island Railway employee or a covered MTA Police member and dies as the result of an on-the-job accidental injury. This death benefit is paid as a pension equal to 50% of the participant's salary and is payable to the spouse for life, or, if none, to children until age eighteen (or twenty-three, if a student), or if none, to a dependent parent.

For MTA Bus employees, there is varied death benefit coverage under the Plan. For all represented and non-represented MTA Bus employees at Eastchester and Yonkers Depots and represented MTA Bus employees at Baisley Park, College Point, Far Rockaway, JFK, Laguardia and Spring Creek Depots, if a participant dies prior to being eligible for a retirement benefit, the participant's beneficiary may elect to receive a refund of the participant's contributions plus interest.

Moreover, the spouses of the above employees who are vested are entitled to a presumed retirement survivor annuity which is based on a 50% Joint and Survivor annuity. The date as of which such annuity is determined and on which it commences varies among the different programs depending on whether the participants are eligible for retirement and for payment of retirement benefits.

In addition, the spouse of a non-represented MTA Bus employee at Spring Creek, JFK, Laguardia, Baisley Park and Far Rockaway, if such employee is age 55 and has 15 years of service and is a terminated member with a vested benefit which is not yet payable, may elect the presumed retirement survivor annuity or $\frac{1}{2}$ the participant's accrued benefit paid monthly and terminating on the 60th payment or the spouse's death. The spouse of a non-represented MTA Bus employee at Yonkers Depot may also receive a pre-retirement survivor annuity from the supplemental plan. If there is no such spouse, the actuarial equivalent of such annuity is payable.

Dependent children of MTA Bus employees are also entitled to an annuity based on the spouse's pre-retirement survivor annuity (1/2 of the spouse's annuity is payable to each child, but no more than 100% of the spouse's annuity is payable). In addition, the dependent children of retirees who were MTA Bus employees at these Depots are entitled to an annuity based on the presumed retirement survivor's annuity (25% of the spouse's annuity; but no more than 50% of the spouse's annuity is payable).

Retirement benefits establishment and changes for represented employees are collectively bargained and must be ratified by the respective union and the MTA Board. For non represented employees, retirement benefits establishment and changes are presented to the MTA Board and must be accepted and approved by the MTA Board.

5. NYCERS —

NYCERS provides three main types of retirement benefits: Service Retirements, Ordinary Disability Retirements (non-job-related disabilities) and Accident Disability Retirements (job-related disabilities) to participants generally based on salary, length of service, and member Tiers.

The Service Retirement benefits provided to Tier 1 participants fall into four categories according to the level of benefits provided and the years of service required. Three of the four categories provide annual benefits of 50% to 55% of final salary after 20 or 25 years of service, with additional benefits equal to a specified percentage per year of service (currently 1.2% to 1.7%) of final salary. The fourth category has no minimum service requirement and instead provides an annual benefit for each year of service equal to a specified percentage (currently 0.7% to 1.53%) of final salary.

Tier 2 participants have provisions similar to Tier 1, except that the eligibility for retirement and the salary base for benefits are different and there is a limitation on the maximum benefit.

Tier 3 participants were later mandated into Tier 4, but could retain their Tier 3 rights. The benefits for Tier 3 participants are reduced by one half of the primary Social Security benefit attributable to service, and provides for an automatic annual cost-of-living escalator in pension benefits of not more than 3.0%.

Tier 4 participants upon satisfying applicable eligibility requirements may be mandated or elected, as applicable, into the Basic 62/5 Retirement Plan, the 57/5 Plan, the 55/25 Plan, the Transit 55/25 Plan, the MTA Triborough Bridge and Tunnel Authority 50/20 Plan, and the Automotive Member 25/50 Plan. These plans provide annual benefits of 40% to 50% of final salary after 20 or 25 years of service, with additional benefits equal to a specified percentage per year of service (currently 1.5% to 2%) of final salary.

Chapter 18 of the Laws of 2012 created Tier 6. These changes increase the retirement age to 63, require member contributions for all years of service, institute progressive member contributions, and lengthen the final average salary period from 3 to 5 years.

NYCERS also provides automatic Cost-of-Living Adjustments ("COLA") for certain retirees and beneficiaries, death benefits; and certain retirees also receive supplemental benefits. Subject to certain conditions, members generally become fully vested as to benefits upon the completion of 5 years of service.

6. NYSLERS —

NYSLERS provides retirement benefits as well as death and disability benefits. Members who joined prior to January 1, 2010 need 5 years of service to be fully vested. Members who joined on or after January 1, 2010 need 10 years of service to be fully vested.

Tiers 1 and 2 —

Eligibility: Tier 1 members generally must be at least age 55 to be eligible for a retirement benefit. There is no minimum service requirement for Tier 1 members. Generally, Tier 2 members must have 5 years of service and be at least age 55 to be eligible for a retirement benefit. The age at which full benefits may be collected for Tier 1 is 55, and the full benefit age for Tier 2 is 62.

Benefit Calculation: Generally, the benefit is 1.67% of final average salary for each year of service if the member retires with less than 20 years. If the member retires with 20 or more years of service, the benefit is 2 percent of final average salary for each year of service. Tier 2 members with five or more years of service can retire as early as age 55 with reduced benefits. Tier 2 members age 55 or older with 30 or more years of service can retire with no reduction in benefits. As a result of Article 19 of the RSSL, Tier 1 and Tier 2 members who worked continuously from April 1, 1999 through October 1, 2000 received an additional month of service credit for each year of credited service they have at retirement, up to a maximum of 24 additional months. Final average salary is the average of the wages earned in the three highest consecutive years of employment. For Tier 1 members who joined on or after June 17, 1971, each year's compensation used in the final average salary calculation is limited to no more than 20 percent greater than the previous year. For Tier 2 members, each year of final average salary is limited to no more than 20 percent greater than the average of the previous two years.

Tiers 3, 4, and 5 —

Eligibility: Most Tier 3 and 4 members must have 5 years of service and be at least age 55 to be eligible for a retirement benefit. Tier 5 members, must have 10 years of service and be at least age 55 to be eligible to collect a retirement benefit. The full benefit age for Tiers 3, 4 and 5 is 62.

Benefit Calculation: Generally, the benefit is 1.67% of final average salary for each year of service if the member retires with less than 20 years. If a member retires with between 20 and 30 years of service, the benefit is 2 percent of final average salary for each year of service. If a member retires with more than 30 years of service, an additional benefit of 1.5% of final average salary is applied for each year of service over 30 years. Tier 3 and 4 members with five or more years of service and Tier 5 members with 10 or more years of service can retire as early as age 55 with reduced benefits. Tier 3 and 4 members age 55 or older with 30 or more years of service can retire with no reduction in benefits. Final average salary is the average of the wages earned in the three highest consecutive years of employment. For Tier 3, 4 and 5 members, each year's compensation used in the final average salary calculation is limited to no more than 10% greater than the average of the previous two years.

Tier 6 —

Eligibility: Generally, Tier 6 members must have 10 years of service and be at least age 55 to be eligible to collect a retirement benefit. The full benefit age for Tier 6 is 63.

Benefit Calculation: Generally, the benefit is 1.67% of final average salary for each year of service if the member retires with less than 20 years. If a member retires with 20 years of service, the benefit is 1.75% of final average salary for each year of service. If a member retires with more than 20 years of service, an additional benefit of 2% of final average salary is applied for each year of service over 20 years. Tier 6 members with 10 or more years of service can retire as early as age 55 with reduced benefits. Final average salary is the average of the wages earned in the five highest consecutive years of employment. For Tier 6 members, each year's compensation used in the final average salary calculation is limited to no more than 10% greater than the average of the previous four years.

Disability Benefits— Generally, disability retirement benefits are available to members unable to perform their job duties because of permanent physical or mental incapacity. There are three general types of disability benefits: ordinary, performance of duty, and accidental disability benefits. Eligibility, benefit amounts, and other rules such as any offsets of other benefits depend on a member's tier, years of service, and plan. Ordinary disability benefits, usually one-third of salary, are provided to eligible members after ten years of service; in some cases, they are provided after five years of service. For all eligible Tier 1 and Tier 2 members, the accidental disability benefit is a pension of 75 percent of final average salary, with an offset for any Workers' Compensation benefits received. The benefit for eligible Tier 3, 4, 5 and 6 members is the ordinary disability benefit with the years-of-service eligibility requirement dropped.

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

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

Membership

As of January 1, 2018, January 1, 2017 and January 1, 2016, the dates of the most recent actuarial valuations, membership data for the following pension plans are as follows:

Membership at:	January 1, 2018	January 1, 2017			TOTAL
	MNR Cash Balance Plan	Additional Plan	MaBSTOA Plan	MTA Defined Benefit Plan	
Active Plan Members	2	146	8,739	18,048	26,935
Retirees and beneficiaries receiving benefits	26	5,833	5,523	10,861	22,243
Vested formerly active members not yet receiving benefits	15	28	1,006	1,433	2,482
Total	43	6,007	15,268	30,342	51,660

Membership at:	January 1, 2017	January 1, 2016			TOTAL
	MNR Cash Balance Plan	Additional Plan	MaBSTOA Plan	MTA Defined Benefit Plan	
Active Plan Members	4	216	8,617	17,670	26,507
Retirees and beneficiaries receiving benefits	27	5,900	5,468	10,701	22,096
Vested formerly active members not yet receiving benefits	13	38	998	1,439	2,488
Total	44	6,154	15,083	29,810	51,091

Contributions and Funding Policy

1. Additional Plan —

Employer contributions are actuarially determined on an annual basis and are recognized when due. The Additional Plan is a defined benefit plan administered by the Board of Pension Managers and is a governmental plan and accordingly, is not subject to the funding and other requirements of ERISA.

Upon termination of employment before retirement, vested participants who have been required to contribute must choose to: (1) receive a refund of their own contributions, including accumulated interest at rates established by the MTA Long Island Rail Road's Board of Managers of Pensions (1.5% in 2017 and 2016), or (2) leave their contributions in the Additional Plan until they retire and become entitled to the pension benefits. Non-vested participants who have been required to contribute will receive a refund of their own contributions, including accumulated interest at rates established by the MTA Long Island Rail Road's Board of Managers of Pensions (1.5% in 2017 and 2016).

Funding for the Additional Plan by the MTA Long Island Rail Road is provided by MTA. Certain funding by MTA is made to the MTA Long Island Rail Road on a discretionary basis. The continuance of the MTA Long Island Rail Road's funding for the Additional Plan has been, and will continue to be, dependent upon the receipt of adequate funds.

2. MaBSTOA Plan —

The contribution requirements of MaBSTOA Plan members are established and may be amended only by the MaBSTOA Board in accordance with Article 10.01 of the MaBSTOA Plan. MaBSTOA's funding policy for periodic employer contributions is to provide for actuarially determined amounts that are designed to accumulate sufficient assets to pay benefits when due. It is MaBSTOA's policy to fund, at a minimum, the current year's normal pension cost plus amortization of the unfunded actuarial accrued liability.

The MaBSTOA Pension Plan includes the following plans, including the 2000 amendments which are all under the same terms and conditions as NYCERS:

- i. Tier 1 and 2 - Basic Plans;
- ii. Tier 3 and 4 - 55 and 25 Plan;
- iii. Tier 3 and 4 - Regular 62 and 5 Plan;
- iv. Tier 4 - 57 and 5 Plan
- v. Tier 6 - 55 and 25 Special Plan
- vi. Tier 6 - Basic 63 and 10 Plan

For employees, the MaBSTOA Plan has both contributory and noncontributory requirements depending on the date of entry into service. Employees entering qualifying service on or before July 26, 1976, are non contributing (Tiers 1 and 2). Certain employees entering qualifying service on or after July 27, 1976, are required to contribute 3% of their salary (Tiers 3 and 4).

In March 2012, pursuant to Chapter 18 of the Laws of 2012, individuals joining NYCERS or the MaBSTOA Pension Plan on or after April 1, 2012 are subject to the provisions of Tier 6. The highlights of Tier 6 include:

- Increases in employee contribution rates. The rate varies depending on salary, ranging from 3% to 6% of gross wages. Contributions are made until retirement or separation from service.
- The retirement age increases to 63 and includes early retirement penalties, which reduce pension allowances by 6.5 percent for each year of retirement prior to age 63.
- Vesting after 10 years of credited service; increased from 5 years of credited service under Tier 3 and Tier 4.
- Adjustments of the Pension Multiplier for calculating pension benefits (excluding Transit Operating Employees): the multiplier will be 1.75% for the first 20 years of service, and 2% starting in the 21st year; for an employee who works 30 years, their pension will be 55% of Final Average Salary under Tier 4, instead of 60% percent under Tier 4.
- Adjustments to the Final Average Salary Calculation; the computation changed from an average of the final 3 years to an average of the final 5 years. Pensionable overtime will be capped at \$15,000 dollars per year plus an inflation factor.
- Pension buyback in Tier 6 will be at a rate of 6% of the wages earned during the period of buyback, plus 5% compounded annually from the date of service until date of payment.

Pursuant to Section 7.03 of the MaBSTOA Plan, active plan members are permitted to borrow up to 75% of their contributions with interest. Their total contributions and interest remain intact and interest continues to accrue on the full balance. The participant's accumulated contribution account is used as collateral against the loan.

3. MNR Cash Balance Plan —

Funding for the MNR Cash Balance Plan is provided by MTA Metro-North Railroad, a public benefit corporation that receives funding for its operations and capital needs from the MTA and the Connecticut Department of Transportation ("CDOT"). Certain funding by MTA is made to the MTA Metro-North Railroad on a discretionary basis. The continuance of funding for the MNR Cash Balance Plan has been, and will continue to be, dependent upon the receipt of adequate funds.

MTA Metro-North Railroad's funding policy with respect to the MNR Cash Balance Plan was to contribute the full amount of the pension benefit obligation ("PBO") of approximately \$2,977 (in thousands) to the trust fund in 1989. As participants retire, the Trustee has made distributions from the MNR Cash Balance Plan. MTA Metro-North Railroad anticipated that no further contributions would be made to the MNR Cash Balance Plan. However, due to changes in actuarial assumptions and market performance, additional contributions were made to the MNR Cash Balance Plan in several subsequent years.

4. MTA Defined Benefit Plan —

Employer contributions are actuarially determined on an annual basis. Amounts recognized as receivables for contributions include only those due pursuant to legal requirements. Employee contributions to the MTA Defined Benefit Plan are recognized in the period in which the contributions are due. There are no contributions required under the Metropolitan Suburban Bus Authority Employee's Pension Plan.

The following summarizes the employee contributions made to the MTA Defined Benefit Plan:

Effective January 1, 1994, covered MTA Metro-North Railroad and MTA Long Island Rail Road non-represented employees are required to contribute to the MTA Plan to the extent that their Railroad Retirement Tier II employee contribution is less than the pre-tax cost of the 3% employee contributions. Effective October 1, 2000, employee contributions, if any, were eliminated after ten years of making contributions to the MTA Plan. MTA Metro-North Railroad employees may purchase prior service from January 1, 1983 through December 31, 1993 and MTA Long Island Rail Road employees may purchase prior service from January 1, 1988 through December 31, 1993 by paying the contributions that would have been required of that employee for the years in question, calculated as described in the first sentence, had the MTA Plan been in effect for those years.

Police Officers who become participants of the MTA Police Program prior to January 9, 2010 contribute to that program at various rates. Police Officers who become participants on or after January 9, 2010, but before April 1, 2012 contribute 3% up to the completion of 30 years of service, the maximum amount of service credit allowed. Police Officers who become participants on or after April 1, 2012 contribute 3%, with additional new rates starting April 2013, ranging from 3.5%, 4.5%, 5.75%, to 6%, depending on salary level, for their remaining years of service.

Covered MTA Metro-North Railroad represented employees and MTA Long Island Rail Road represented employees who first became eligible to be MTA Plan participants prior to January 30, 2008 contribute 3% of salary. MTA Staten Island Railway employees contribute 3% of salary except for represented employees hired on or after June 1, 2010 who contribute 4%. MTA Long Island Rail Road represented employees who became participants after January 30, 2008 contribute 4% of salary. For the MTA Staten Island Railway employees, contributions are not required after the completion of ten years of credited service. MTA Long Island Rail Road represented employees are required to make the employee contributions for ten years, or fifteen years if hired after certain dates in 2014 as per collective bargaining agreements. Certain Metro-North represented employees, depending on their collective bargaining agreements, are required to make the employee contributions until January 1, 2014, January 1, 2017, June 30, 2017, or the completion of required years of credited service as per the relevant collective bargaining agreements.

Covered MTA Bus represented employees and certain non-represented employees are required to contribute a fixed dollar amount, which varies, by depot. Currently, non-represented employees at certain Depots, contribute \$21.50 (whole dollars) per week. Non-represented employees at Eastchester hired prior to 2007 contribute \$25 (whole dollars) per week. Represented employees at Baisley Park, College Point, Eastchester, Far Rockaway, JFK, LaGuardia and Yonkers Depots contribute \$29.06 (whole dollars) per week; Spring Creek represented employees contribute \$32.00 (whole dollars) per week. Certain limited number of represented employees promoted prior to the resolution of a bargaining impasse continue to participate in the MTA Defined Benefit Plan that was in effect before their promotion. Certain MTA Bus non-represented employees who are formerly employed by the private bus companies (Jamaica, Green, Triboro and Command) at Baisley Park, Far Rockaway, JFK, LaGuardia and Spring Creek Depots who are in the pension program covering only such employees make no contributions to the program. (Note: the dollar figures in this paragraph are in dollars, not in millions of dollars).

5. NYCERS —

NYCERS funding policy is to contribute statutorily-required contributions (“Statutory Contributions”), determined by the Chief Actuary for the New York City Retirement Systems, in accordance with State statutes and City laws, and are generally funded by employers within the appropriate Fiscal Year. The Statutory Contributions are determined under the One-Year Lag Methodology (“OYLM”). Under OYLM, the actuarial valuation date is used for calculating the Employer Contributions for the second following Fiscal Year. Statutory Contributions are determined annually to be an amount that, together with member contributions and investment income, provides for NYCERS’ assets to be sufficient to pay benefits when due.

Member contributions are established by law. NYCERS has both contributory and noncontributory requirements, with retirement age varying from 55 to 70 depending upon when an employee last entered qualifying service.

In general, Tier 1 and Tier 2 member contribution rates are dependent upon the employee’s age at membership and retirement plan election. In general, Tier 3 and Tier 4 members make basic contributions of 3.0% of salary, regardless of age at membership. Effective October 1, 2000, in accordance with Chapter 126 of the Laws of 2000, these members, except for certain Transit Authority employees enrolled in the Transit 20-Year Plan, are not required to make basic contributions after the 10th anniversary of their membership date or completion of ten years of credited service, whichever is earlier. In addition, members who meet certain eligibility requirements will receive one month’s additional service credit for each completed year of service up to a maximum of two additional years of service credit. Effective December 2000, certain Transit Authority Tier 3 and Tier 4 members make basic member contributions of 2.0% of salary, in accordance with Chapter 10 of the Laws of 2000. Certain Tier 2, Tier 3 and Tier 4 members who are participants in special retirement plans are required to make additional member contributions of 1.85%, in addition to their base membership contribution. Tier 6 members are mandated to contribute between 3.0% and 6.0% of salary,

depending on salary level, until they separate from City service or until they retire.

NYCERS established a “special program” for employees hired on or after July 26, 1976. A plan for employees, who have worked 20 years, and reached age 50, is provided to Bridge and Tunnel Officers, Sergeants and Lieutenants and Maintainers. Also, an age 57 retirement plan is available for all other such MTA Bridges and Tunnels employees. Both these plans required increased employee contributions.

Certain retirees also receive supplemental benefits from MTA Bridges and Tunnels. Certain participants are permitted to borrow up to 75% of their own contributions including accumulated interest. These loans are accounted for as reductions in such participants’ contribution accounts. Upon termination of employment before retirement, certain members are entitled to refunds of their own contributions, including accumulated interest, less any outstanding loan balances.

MTA New York City Transit and MTA Bridges and Tunnels are required to contribute at an actuarially determined rate. The contribution requirements of plans members, MTA New York City Transit and MTA Bridges and Tunnels are established and amended by law.

6. NYSLERS —

Employer Contributions - Under the authority of the RSSL, the Comptroller annually certifies the actuarially determined rates expressly used in computing the employers’ contributions based on salaries paid during the NYSLERS fiscal year ending June 30.

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

MTAHQ, MTA Capital Construction and MTA Long Island Bus are required to contribute at an actuarially determined rate.

A summary of the aggregate actual contributions made to each pension plan for the years ended December 31, 2018 and 2017 are as follows:

Year-ended December 31,	2018	2017
(\$ in millions)	Actual Employer Contributions	Actual Employer Contributions
Additional Plan	\$ 59.5	\$ 221.5
MaBSTOA Plan	205.4	202.7
MNR Cash Balance Plan	- *	- *
MTA Defined Benefit Plan	339.8	321.9
NYCERS	807.1	800.9
NYSLERS	14.5	14.0
Total	<u>\$ 1,426.3</u>	<u>\$ 1,561.0</u>

*MNR Cash Balance Plan’s actual employer contribution for the years ended December 31, 2018 and 2017 was \$5 thousand and \$0 thousand, respectively.

Net Pension Liability

The MTA's net pension liabilities for each of the pension plans reported at December 31, 2018 and 2017 were measured as of the fiscal year-end dates for each respective pension plan. The total pension liabilities used to calculate those net pension liabilities were determined by actuarial valuations as of each pension plan's valuation date, and rolled forward to the respective year-ends for each pension plan. Information about the fiduciary net position of each qualified pension plan's fiduciary net position has been determined on the same basis as reported by each respective qualified pension plan. For this purpose, benefits and refunds are recognized when due and payable in accordance with the terms of the respective qualified pension plan, and investments are reported at fair value. The following table provides the measurement and valuation dates used by each pension plan to calculate the MTA's aggregate net pension liability.

Pension Plan	Plan Measurement Date	Plan Valuation Date	Plan Measurement Date	Plan Valuation Date
Additional Plan	December 31, 2017	January 1, 2017	December 31, 2016	January 1, 2016
MaBSTOA Plan	December 31, 2017	January 1, 2017	December 31, 2016	January 1, 2016
MNR Cash Balance Plan	December 31, 2017	January 1, 2018	December 31, 2016	January 1, 2017
MTA Defined Benefit Plan	December 31, 2017	January 1, 2017	December 31, 2016	January 1, 2016
NYCERS	June 30, 2018	June 30, 2016	June 30, 2017	June 30, 2015
NYSLERS	March 31, 2018	April 1, 2017	March 31, 2017	April 1, 2016

Pension Plan Fiduciary Net Position

Detailed information about the fiduciary net position of the Additional Plan, MaBSTOA Plan, MNR Cash Balance Plan, MTA Defined Benefit Plan, NYCERS plan and the NYSLERS plan is available in the separately issued pension plan financial reports for each respective plan.

Actuarial Assumptions

The total pension liabilities in each pension plan's actuarial valuation dates were determined using the following actuarial assumptions for each pension plan, applied to all periods included in the measurement date:

Valuation Date:	Additional Plan		MaBSTOA Plan		MNR Cash Balance Plan	
	January 1, 2017	January 1, 2016	January 1, 2017	January 1, 2016	January 1, 2018	January 1, 2017
Investment Rate of Return	7.00% per annum, net of investment expenses.	7.00% per annum, net of investment expenses.	7.00% per annum, net of investment expenses.	7.00% per annum, net of investment expenses.	4.00% per annum, net of investment expenses.	4.00% per annum, net of investment expenses.
Salary Increases	3.00%	3.00%	Reflecting general wage, merit and promotion increases of 3.5% for operating employees and 4.0% for non- operating employees per year. Larger increases are assumed in the first 5 years of a member's career.	Reflecting general wage, merit and promotion increases of 3.5% for operating employees and 4.0% for non- operating employees per year. Larger increases are assumed in the first 5 years of a member's career.	Not applicable	Not applicable
Inflation	2.50%; 3.50% for Railroad Retirement Wage Base.	2.50%; 3.50% for Railroad Retirement Wage Base.	2.50%.	2.50%.	2.50%	2.30%
Cost-of Living Adjustments	Not applicable	Not applicable	1.375% per annum.	1.375% per annum.	Not applicable	Not applicable
Valuation Date:	MTA Defined Benefit Plan		NYCERS		NYSLERS	
	January 1, 2017	January 1, 2016	June 30, 2016	June 30, 2015	April 1, 2017	April 1, 2016
Investment Rate of Return	7.00% per annum, net of investment expenses.	7.00% per annum, net of investment expenses.	7.00% per annum, net of expenses.	7.00% per annum, net of expenses.	7.00% per annum, including inflation, net of investment expenses.	7.00% per annum, including inflation, net of investment expenses.
Salary Increases	Varies by years of employment, and employee group; 3.0% General Wage Increases for TWU Local 100 MTA Bus hourly employees.	Varies by years of employment, and employee group; 3.0% General Wage Increases for TWU Local 100 MTA Bus hourly employees.	In general, merit and promotion increases plus assumed General Wage increases of 3.0% per year.	In general, merit and promotion increases plus assumed General Wage increases of 3.0% per year.	3.8% in ERS, 4.5% in PFRS	3.8% in ERS, 4.5% in PFRS
Inflation	2.50%; 3.50% for Railroad Retirement Wage Base.	2.50%; 3.00% for Railroad Retirement Wage Base.	2.50%	2.50%	2.50%	2.50%
Cost-of Living Adjustments	55% of inflation assumption or 1.375%, if applicable.	55% of inflation assumption or 1.375%, if applicable.	1.5% per annum for Tiers 1, 2, 4 and certain Tier 3 and Tier 6 retirees. 2.5% per annum for certain Tier 3 and Tier 6 retirees.	1.5% per annum for Tiers 1, 2, 4 and certain Tier 3 and Tier 6 retirees. 2.5% per annum for certain Tier 3 and Tier 6 retirees.	1.30% per annum.	1.30% per annum.

Mortality

Additional Plan / MaBSTOA Plan/ MNR Cash Balance Plan and MTA Defined Benefit Plan:

The actuarial assumptions used in the January 1, 2018, 2017, and 2016 valuations for the MTA plans are based on an experience study covering the period from January 1, 2006 to December 31, 2011. The mortality assumption used in the January 1, 2018 and January 1, 2017 valuations are based on an experience study for all MTA plans covering the period from January 1, 2011 to December 1, 2015. The mortality assumption used in the January 1, 2016 valuation is based on a 2012 experience study for all MTA plans. The pre-retirement and post-retirement healthy annuitant rates are projected on a generational basis using Scale AA, as recommended by the Society of Actuaries Retirement Plans Experience Committee. As generational tables, they reflect mortality improvements both before and after the measurement date.

Pre-retirement: The MTA plans utilized RP-2000 Employee Mortality Table for Males and Females with Blue collar adjustments.

Post-retirement Healthy Lives: Assumption utilized 95% of RP-2000 Healthy Annuitant mortality table for males with Blue Collar adjustments and 116% of the rates from the RP-2000 Healthy Annuitant mortality table for females.

Post-retirement Disabled Lives: Assumption utilized in the January 1, 2017 valuation was the RP-2014 Disabled Annuitant mortality table for males and females. Assumption utilized in the January 1, 2016 valuation was the RP-2000 Disabled Annuitant mortality table for males and females. This assumption was not applicable for the Additional Plan and the MNR Cash Balance Plan.

NYCERS:

Pursuant to Section 96 of the New York City Charter, an independent actuarial firm conducts studies of the actuarial assumptions used to value liabilities of the NYCERS pension plan every two years. In accordance, with the Administrative Code of the City of New York ("ACNY"), the Board of Trustees of NYCERS are to periodically review and adopt actuarial assumptions as proposed by the Actuary for use in the determination of Employer Contributions.

Mortality tables for service and disability pensioners were developed from experience studies of the NYCERS Plan. The mortality tables for beneficiaries were developed from an experience review.

The actuarial assumptions used in the June 30, 2016 and June 30, 2015 valuations are based, in part, on the Gabriel, Roeder, Smith & Company ("GRS") report, on published studies of mortality improvement, and on input from the NYC's outside consultants and auditors, the Actuary proposed, and the Board of Trustees of NYCERS adopted, new post-retirement mortality tables for use in determining employer contributions beginning in Fiscal Year 2016. The new tables of post-retirement are based primarily on the experience of NYCERS and the application of the Mortality Improvement Scale MP-2015, published by the Society of Actuaries in October 2015. Scale MP-2015 replaced Mortality Improvement Scale AA.

NYSLERS:

The actuarial assumptions used in the April 1, 2017 and April 1, 2016 valuations are based on the results of an actuarial experience study for the period April 1, 2010 through March 31, 2015. The annuitant mortality rates are based on the results of the 2015 experience study of the period April 1, 2010 through March 31, 2015, with adjustments for mortality improvement based on the Society of Actuaries' Scale MP-2014.

Expected Rate of Return on Investments

The long-term expected rate of return on pension plan investments for each pension plan is presented in the following table.

Pension Plan	Plan Measurement Date	Rate
Additional Plan	December 31, 2017	7.00%
MaBSTOA Plan	December 31, 2017	7.00%
MNR Cash Balance Plan	December 31, 2017	4.00%
MTA Defined Benefit Plan	December 31, 2017	7.00%
NYCERS	June 30, 2018	7.00%
NYSLERS	March 31, 2018	7.00%

For the Additional Plan, MaBSTOA Plan, MNR Cash Balance Plan, MTA Defined Benefit Plan, NYCERS plan and NYSLERS plan, the long-term expected rate of return on investments was determined using a building-block method in which best-estimate ranges of expected future real rates of return (expected returns, net of plan investment expense and inflation) are developed for each major asset class. These ranges are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation.

The target asset allocation of each of the funds and the expected real rate of returns (“RROR”) for each of the asset classes are summarized in the following tables for each of the pension plans:

Asset Class	Additional Plan		MaBSTOA Plan	
	Target Asset Allocation	Long - Term Expected Real Rate of Return	Target Asset Allocation	Long - Term Expected Real Rate of Return
US Core Fixed Income	10.00%	1.96%	10.00%	1.96%
US High Yield Bonds	8.00%	4.62%	8.00%	4.62%
Global Bonds	10.00%	0.34%	10.00%	0.34%
Emerging Markets Bonds	3.00%	3.30%	3.00%	3.30%
US Large Caps	10.00%	4.31%	10.00%	4.31%
US Small Caps	5.50%	5.57%	5.50%	5.57%
Global Equity	10.00%	4.99%	10.00%	4.99%
Foreign Developed Equity	10.00%	5.57%	10.00%	5.57%
Emerging Markets Equity	3.50%	7.91%	3.50%	7.91%
Global REITs	5.00%	5.62%	5.00%	5.62%
Private Real Estate Property	3.00%	3.64%	3.00%	3.64%
Private Equity	7.00%	8.99%	7.00%	8.99%
Hedge Funds - MultiStrategy	15.00%	3.35%	15.00%	3.35%
	<u>100.00%</u>		<u>100.00%</u>	
Assumed Inflation - Mean		2.50%		2.50%
Assumed Inflation - Standard Deviation		1.85%		1.85%
Portfolio Nominal Mean Return		6.80%		6.80%
Portfolio Standard Deviation		11.54%		11.54%
Long Term Expected Rate of Return selected by MTA		7.00%		7.00%

Asset Class	MTA Defined Benefit Plan		MNR Cash Balance Plan	
	Target Asset Allocation	Long - Term Expected Real Rate of Return	Target Asset Allocation	Long - Term Expected Real Rate of Return
US Core Fixed Income	10.00%	1.96%	100.00%	1.41%
US High Yield Bonds	8.00%	4.62%		
Global Bonds	10.00%	0.34%		
Emerging Markets Bonds	3.00%	3.30%		
US Large Caps	10.00%	4.31%		
US Small Caps	5.50%	5.57%		
Global Equity	10.00%	4.99%		
Foreign Developed Equity	10.00%	5.57%		
Emerging Markets Equity	3.50%	7.91%		
Global REITs	5.00%	5.62%		
Private Real Estate Property	3.00%	3.64%		
Private Equity	7.00%	8.99%		
Hedge Funds - MultiStrategy	15.00%	3.35%		
	<u>100.00%</u>		<u>100.00%</u>	
Assumed Inflation - Mean		2.50%		2.50%
Assumed Inflation - Standard Deviation		1.85%		1.85%
Portfolio Nominal Mean Return		6.80%		3.92%
Portfolio Standard Deviation		11.54%		4.55%
Long Term Expected Rate of Return selected by MTA		7.00%		4.00%

Asset Class	NYCERS		NYSLERS	
	Target Asset Allocation	Long - Term Expected Real Rate of Return	Target Asset Allocation	Long - Term Expected Real Rate of Return
U.S. Public Market Equities	29.00%	6.30%	36.00%	4.55%
International Public Market Equities	13.00%	7.00%	14.00%	6.35%
Emerging Public Market Equities	7.00%	9.50%	0.00%	0.00%
Private Market Equities	7.00%	10.40%	10.00%	7.50%
Fixed Income	33.00%	2.20%	17.00%	1.31%
Alternatives (Real Assets, Hedge Funds)	11.00%	5.50%	3.00%	5.29%
Real Estate			10.00%	5.55%
Absolute Return Strategies			2.00%	3.75%
Opportunistic Portfolio			3.00%	5.68%
Cash			1.00%	-0.25%
Inflation-indexed Bonds			4.00%	1.25%
	<u>100.00%</u>		<u>100.00%</u>	
Assumed Inflation - Mean		2.50%		2.50%
Long Term Expected Rate of Return		7.00%		7.00%

Discount rate

The discount rate used to measure the total pension liability of each pension plan is presented in the following table:

Year ended December 31,	Discount Rate			
	2018		2017	
	Plan Measurement Date	Rate	Plan Measurement Date	Rate
Pension Plan				
Additional Plan	December 31, 2017	7.00%	December 31, 2016	7.00%
MaBSTOA Plan	December 31, 2017	7.00%	December 31, 2016	7.00%
MNR Cash Balance Plan	December 31, 2017	4.00%	December 31, 2016	4.00%
MTA Defined Benefit Plan	December 31, 2017	7.00%	December 31, 2016	7.00%
NYCERS	June 30, 2018	7.00%	June 30, 2017	7.00%
NYSLERS	March 31, 2018	7.00%	March 31, 2017	7.00%

The projection of cash flows used to determine the discount rate assumed that employee contributions will be made at the rates applicable for each pension plan and that employer contributions will be made at the rates determined by each pension plan's actuary. Based on those assumptions, each pension plan's fiduciary net position was projected to be available to make all projected future benefit payments of current and inactive plan members. Therefore, the long-term expected rate of return on pension plan investments was applied to all periods of projected benefit payments to determine the total pension liability.

Changes in Net Pension Liability – Additional Plan, MaBSTOA Plan, MNR Cash Balance Plan and the MTA Defined Benefit Plan

Changes in the MTA's net pension liability for the Additional Plan, MaBSTOA Plan, MNR Cash Balance Plan and the MTA Defined Benefit Plan for the year ended December 31, 2018, based on the December 31, 2017 measurement date, and for the year ended December 31, 2017, based on the December 31, 2016 measurement date, were as follows:

	Additional Plan			MaBSTOA Plan		
	Total Pension Liability	Plan Fiduciary Net Position	Net Pension Liability	Total Pension Liability	Plan Fiduciary Net Position	Net Pension Liability
	(in thousands)					
Balance as of December 31, 2016	\$ 1,526,304	\$ 777,217	\$ 749,087	\$ 3,536,747	\$ 2,555,735	\$ 981,012
Changes for fiscal year 2017:						
Service Cost	1,874	-	1,874	84,394	-	84,394
Interest on total pension liability	101,477	-	101,477	246,284	-	246,284
Effect of economic /demographic (gains) or losses	1,890	-	1,890	11,826	-	11,826
Effect of assumption changes or inputs	-	-	-	6,347	-	6,347
Benefit payments	(159,717)	(159,717)	-	(209,122)	(209,122)	-
Administrative expense	-	(1,070)	1,070	-	(207)	207
Member contributions	-	760	(760)	-	19,713	(19,713)
Net investment income	-	112,614	(112,614)	-	350,186	(350,186)
Nonemployer contributions	-	145,000	(145,000)	-	-	-
Employer contributions	-	76,523	(76,523)	-	202,684	(202,684)
Balance as of December 31, 2017	<u>\$ 1,471,828</u>	<u>\$ 951,327</u>	<u>\$ 520,501</u>	<u>\$ 3,676,476</u>	<u>\$ 2,918,989</u>	<u>\$ 757,487</u>

	Additional Plan			MaBSTOA Plan		
	Total Pension Liability	Plan Fiduciary Net Position	Net Pension Liability	Total Pension Liability	Plan Fiduciary Net Position	Net Pension Liability
	(in thousands)					
Balance as of December 31, 2015	\$ 1,562,251	\$ 726,198	\$ 836,053	\$ 3,391,989	\$ 2,292,316	\$ 1,099,673
Changes for fiscal year 2016:						
Service Cost	2,752	-	2,752	82,075	-	82,075
Interest on total pension liability	104,093	-	104,093	236,722	-	236,722
Effect of economic /demographic (gains) or losses	15,801	-	15,801	13,784	-	13,784
Benefit payments	(158,593)	(158,593)	-	(187,823)	(187,823)	-
Administrative expense	-	(611)	611	-	(186)	186
Member contributions	-	884	(884)	-	18,472	(18,472)
Net investment income	-	58,239	(58,239)	-	212,259	(212,259)
Nonemployer contributions	-	70,000	(70,000)	-	-	-
Employer contributions	-	81,100	(81,100)	-	220,697	(220,697)
Balance as of December 31, 2016	<u>\$ 1,526,304</u>	<u>\$ 777,217</u>	<u>\$ 749,087</u>	<u>\$ 3,536,747</u>	<u>\$ 2,555,735</u>	<u>\$ 981,012</u>

	MNR Cash Balance Plan			MTA Defined Benefit Plan		
	Total	Plan	Net	Total	Plan	Net
	Pension	Fiduciary	Pension	Pension	Fiduciary	Pension
	Liability	Net Position	Liability	Liability	Net Position	Liability
	(in thousands)					
Balance as of December 31, 2016	\$ 566	\$ 574	\$ (8)	\$ 4,761,877	\$ 3,419,971	\$ 1,341,906
Changes for fiscal year 2017:						
Service Cost	-	-	-	148,051	-	148,051
Interest on total pension liability	21	-	21	335,679	-	335,679
Effect of plan changes	-	-	-	76,511	-	76,511
Effect of economic / demographic (gains) or losses	12	-	12	(27,059)	-	(27,059)
Effect of assumption changes or inputs	-	-	-	10,731	-	10,731
Benefit payments	(71)	(71)	-	(232,976)	(232,976)	-
Administrative expense	-	-	-	-	(4,502)	4,502
Member contributions	-	-	-	-	31,027	(31,027)
Net investment income	-	20	(20)	-	516,153	(516,153)
Employer contributions	-	-	-	-	321,861	(321,861)
Balance as of December 31, 2017	<u>\$ 528</u>	<u>\$ 523</u>	<u>\$ 5</u>	<u>\$ 5,072,814</u>	<u>\$ 4,051,534</u>	<u>\$ 1,021,280</u>

	MNR Cash Balance Plan			MTA Defined Benefit Plan		
	Total	Plan	Net	Total	Plan	Net
	Pension	Fiduciary	Pension	Pension	Fiduciary	Pension
	Liability	Net Position	Liability	Liability	Net Position	Liability
	(in thousands)					
Balance as of December 31, 2015	\$ 634	\$ 612	\$ 22	\$ 4,364,946	\$ 3,074,777	\$ 1,290,169
Changes for fiscal year 2016:						
Service Cost	-	-	-	138,215	-	138,215
Interest on total pension liability	24	-	24	308,009	-	308,009
Effect of plan changes	-	-	-	73,521	-	73,521
Effect of economic / demographic (gains) or losses	(15)	-	(15)	86,809	-	86,809
Benefit payments	(77)	(77)	-	(209,623)	(209,623)	-
Administrative expense	-	-	-	-	(3,051)	3,051
Member contributions	-	-	-	-	29,392	(29,392)
Net investment income	-	16	(16)	-	247,708	(247,708)
Employer contributions	-	23	(23)	-	280,768	(280,768)
Balance as of December 31, 2016	<u>\$ 566</u>	<u>\$ 574</u>	<u>\$ (8)</u>	<u>\$ 4,761,877</u>	<u>\$ 3,419,971</u>	<u>\$ 1,341,906</u>

Sensitivity of the Net Pension Liability to Changes in the Discount Rate

The following presents the MTA's net pension liability calculated for the Additional Plan, MaBSTOA Plan, MNR Cash Balance Plan and the MTA Defined Benefit Plan using the discount rate as of each measurement date, as well as what the net pension liability would be if it were calculated using a discount rate that is 1-percentage point lower or 1-percentage point higher than the actual discount rate used for each measurement date:

Measurement Date:	December 31, 2017			December 31, 2016		
	1% Decrease (6.0%)	Discount Rate (7.0%)	1% Increase (8.0%)	1% Decrease (6.0%)	Discount Rate (7.0%)	1% Increase (8.0%)
	(in thousands)			(in thousands)		
Additional Plan	\$ 636,713	\$ 520,501	\$ 419,474	\$ 871,350	\$ 749,087	\$ 642,973
MaBSTOA Plan	1,166,477	757,487	409,121	1,376,916	981,012	643,826
MTA Defined Benefit Plan	1,648,216	1,021,280	492,284	1,936,639	1,341,906	840,176
	1% Decrease (3.0%)	Discount Rate (4.0%)	1% Increase (5.0%)	1% Decrease (3.5%)	Discount Rate (4.5%)	1% Increase (5.5%)
	(in whole dollars)			(in whole dollars)		
MNR Cash Balance Plan	\$ 35,109	\$ 5,235	\$ (21,154)	\$ 25,200	\$ (7,899)	\$ (37,092)

The MTA's Proportion of Net Pension Liability – NYCERS and NYSLERS

The following table presents the MTA's proportionate share of the net pension liability of NYCERS based on the June 30, 2016 and June 30, 2015 actuarial valuations, rolled forward to June 30, 2018 and June 30, 2017, respectively, and the proportion percentage of the aggregate net pension liability allocated to the MTA:

	NYCERS	
	June 30, 2018	June 30, 2017
	(\$ in thousands)	
MTA's proportion of the net pension liability	23.682%	24.096%
MTA's proportionate share of the net pension liability	\$ 4,176,941	\$ 5,003,811

The following table presents the MTA's proportionate share of the net pension liability of NYSLERS based on the April 1, 2017 and April 1, 2016 actuarial valuations, rolled forward to March 31, 2018 and March 31, 2017, respectively, and the proportion percentage of the aggregate net pension liability allocated to the MTA:

	NYSLERS	
	March 31, 2018	March 31, 2017
	(\$ in thousands)	
MTA's proportion of the net pension liability	0.327%	0.311%
MTA's proportionate share of the net pension liability	\$ 10,553	\$ 29,239

The MTA's proportion of each respective Plan's net pension liability was based on the MTA's actual required contributions made to NYCERS for the plan's fiscal year-end June 30, 2018 and 2017 and to NYSLERS for the plan's fiscal year-end March 31, 2018 and 2017, relative to the contributions of all employers in each plan.

Sensitivity of the MTA's Proportionate Share of the Net Pension Liability to Changes in the Discount Rate

The following presents the MTA's proportionate share of the net pension liability for NYCERS and NYSLERS calculated using the discount rate as of each measurement date, as well as what the proportionate share of the net pension liability would be if it were calculated using a discount rate that is 1-percentage point lower or 1-percentage point higher than the actual discount rate used as of each measurement date (\$ in thousands):

Measurement Date:	June 30, 2018			June 30, 2017		
	1% Decrease	Discount Rate	1% Increase	1% Decrease	Discount Rate	1% Increase
	(6.0%)	(7.0%)	(8.0%)	(6.0%)	(7.0%)	(8.0%)
NYCERS	\$ 6,402,891	\$ 4,176,941	\$ 2,298,962	\$ 7,231,780	\$ 5,003,811	\$ 3,046,531

Measurement Date:	March 31, 2018			March 31, 2017		
	1% Decrease	Discount Rate	1% Increase	1% Decrease	Discount Rate	1% Increase
	(6.0%)	(7.0%)	(8.0%)	(6.0%)	(7.0%)	(8.0%)
NYSLERS	\$ 79,847	\$ 10,553	\$ (48,067)	\$ 93,385	\$ 29,239	\$ (24,995)

Pension Expense, Deferred Outflows of Resources and Deferred Inflows of Resources Related to Pensions

For the six-month period ended June 30, 2019 and year ended December 31, 2018, the MTA recognized pension expense related to each pension plan as follows (in \$ thousands):

Pension Plan	June 30, 2019 (Unaudited)	December 31, 2018
Additional Plan	\$ 29,850	\$ 47,936
MaBSTOA Plan	97,539	116,967
MNR Cash Balance plan	-	16
MTA Defined Benefit Plan	158,107	316,900
NYCERS	397,100	510,157
NYSLERS	7,250	13,885
Total	\$ 689,846	\$ 1,005,861

For the six-month period ended June 30, 2019 and year ended December 31, 2018, the MTA reported deferred outflow of resources and deferred inflow of resources for each pension plan as follows (in \$ thousands):

For the Period Ended June 30, 2019 (Unaudited)	Additional Plan		MaBSTOA Plan		MNR Cash Balance Plan		MTA Defined Benefit Plan	
	Deferred Outflows of Resources	Deferred Inflows of Resources	Deferred Outflows of Resources	Deferred Inflows of Resources	Deferred Outflows of Resources	Deferred Inflows of Resources	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between expected and actual experience	\$ -	\$ -	\$ 19,549	\$ 36,673	\$ -	\$ -	\$ 141,294	\$ 23,748
Changes in assumptions	-	-	5,370	-	-	-	9,406	46,880
Net difference between projected and actual earnings on pension plan investments	-	22,499	-	83,734	16	2	-	112,897
Changes in proportion and differences between contributions and proportionate share of contributions	-	-	-	-	-	-	50,989	50,989
Employer contributions to the plan subsequent to the measurement of net pension liability	59,500	-	204,937	-	5	-	341,695	-
Total	<u>\$ 59,500</u>	<u>\$ 22,499</u>	<u>\$ 229,856</u>	<u>\$ 120,407</u>	<u>\$ 21</u>	<u>\$ 2</u>	<u>\$ 543,384</u>	<u>\$ 234,514</u>

For the Period Ended June 30, 2019 (Unaudited)	NYCERS		NYSLERS		TOTAL	
	Deferred Outflows of Resources	Deferred Inflows of Resources	Deferred Outflows of Resources	Deferred Inflows of Resources	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between expected and actual experience	\$ -	\$ 403,424	\$ 3,763	\$ 3,110	\$ 164,606	\$ 466,955
Changes in assumptions	63,653	-	6,998	-	85,427	46,880
Net difference between projected and actual earnings on pension plan investments	-	234,268	-	14,927	16	468,327
Changes in proportion and differences between contributions and proportionate share of contributions	46,817	36,998	3,363	66	101,169	88,053
Employer contributions to the plan subsequent to the measurement of net pension liability	490,450	-	14,501	-	1,111,088	-
Total	<u>\$ 600,920</u>	<u>\$ 674,690</u>	<u>\$ 28,625</u>	<u>\$ 18,103</u>	<u>\$ 1,462,306</u>	<u>\$ 1,070,215</u>

**For the Year Ended
December 31, 2018**

	Additional Plan		MaBSTOA Plan		MNR Cash Balance Plan		MTA Defined Benefit Plan	
	Deferred Outflows of Resources	Deferred Inflows of Resources	Deferred Outflows of Resources	Deferred Inflows of Resources	Deferred Outflows of Resources	Deferred Inflows of Resources	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between expected and actual experience	\$ -	\$ -	\$ 19,549	\$ 36,673	\$ -	\$ -	\$ 141,294	\$ 23,748
Changes in assumptions	-	-	5,370	-	-	-	9,406	46,880
Net difference between projected and actual earnings on pension plan investments	-	22,499	-	83,734	16	2	-	112,897
Changes in proportion and differences between contributions and proportionate share of contributions	-	-	-	-	-	-	50,989	50,989
Employer contributions to the plan subsequent to the measurement of net pension liability	59,500	-	205,433	-	5	-	339,800	-
Total	\$ 59,500	\$ 22,499	\$ 230,352	\$ 120,407	\$ 21	\$ 2	\$ 541,489	\$ 234,514

**For the Year Ended
December 31, 2018**

	NYCERS		NYSLERS		TOTAL	
	Deferred Outflows of Resources	Deferred Inflows of Resources	Deferred Outflows of Resources	Deferred Inflows of Resources	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between expected and actual experience	\$ -	\$ 403,424	\$ 3,763	\$ 3,110	\$ 164,606	\$ 466,955
Changes in assumptions	63,653	-	6,998	-	85,427	46,880
Net difference between projected and actual earnings on pension plan investments	-	234,268	-	14,927	16	468,327
Changes in proportion and differences between contributions and proportionate share of contributions	46,817	36,998	3,363	66	101,169	88,053
Employer contributions to the plan subsequent to the measurement of net pension liability	426,474	-	14,501	-	1,045,713	-
Total	\$ 536,944	\$ 674,690	\$ 28,625	\$ 18,103	\$ 1,396,931	\$ 1,070,215

The annual differences between the projected and actual earnings on investments are amortized over a five-year closed period beginning the year in which the difference occurs.

The following table presents the recognition periods used by each pension plan to amortize the annual differences between expected and actual experience, changes in proportion and differences between employer contributions and proportionate share of contributions, and changes in actuarial assumptions, beginning the year in which the deferred amount occurs.

Pension Plan	Recognition Period (in years)	Differences between expected and actual experience	Changes in proportion and differences between employer contributions and proportionate share of contributions	Changes in actuarial assumptions
Additional Plan		1.00	N/A	N/A
MaBSTOA Plan		6.50	N/A	6.30
MNR Cash Balance Plan		1.00	N/A	1.00
MTA Defined Benefit Plan		8.10	8.10	8.10
NYCERS		6.01	6.01	6.01
NYSLERS		5.00	5.00	5.00

For the six-month period ended June 30, 2019 and year ended December 31, 2018, \$1,111.1 and \$1,045.7 were reported as deferred outflows of resources related to pensions resulting from the MTA's contributions subsequent to the measurement date which will be recognized as a reduction of the net pension liability in the year ending December 31, 2019 and December 31, 2018, respectively. Other amounts reported as deferred outflows of resources and deferred inflows of resources related to pensions at December 31, 2018 will be recognized as pension expense as follows:

	Additional Plan	MaBSTOA Plan	MNR Cash Balance plan	MTA Defined Benefit Plan	NYCERS	NYSLERS	Total
	(in thousands)						
Year Ending December 31:							
2019	\$ 1,989	\$ (4,711)	\$ 5	\$ 25,730	\$ 29,753	\$ 3,386	\$ 56,152
2020	(1,713)	(13,424)	7	6,224	(133,502)	2,884	(139,524)
2021	(12,173)	(50,126)	2	(45,688)	(259,448)	(7,083)	(374,516)
2022	(10,602)	(32,481)	-	(39,989)	(116,871)	(3,166)	(203,109)
2023	-	3,856	-	13,351	(83,319)	-	(66,112)
Thereafter	-	1,398	-	7,547	(833)	-	8,112
	<u>\$ (22,499)</u>	<u>\$ (95,488)</u>	<u>\$ 14</u>	<u>\$ (32,825)</u>	<u>\$ (564,220)</u>	<u>\$ (3,979)</u>	<u>\$ (718,997)</u>

Deferred Compensation Program

Description - The Deferred Compensation Program consists of two defined contribution plans that provide benefits based solely on the amount contributed to each participant's account(s), plus or minus any income, expenses and gains/losses. The Deferred Compensation Program is comprised of the Deferred Compensation Plan For Employees of the Metropolitan Transportation Authority ("MTA"), its Subsidiaries and Affiliates ("457 Plan") and the Thrift Plan For Employees of the Metropolitan Transportation Authority, its Subsidiaries and Affiliates ("401(k) Plan"). Certain MTA Related Groups employees are eligible to participate in both deferred compensation plans. Both Plans are designed to have participant charges, including investment and other fees, cover the costs of administering the Deferred Compensation Program.

Participation in the 401(k) Plan is now available to non-represented employees and, after collective bargaining, most represented employees. All amounts of compensation deferred under the 401(k) Plan, and all income attributable to such compensation, less expenses and fees, are held in trust for the exclusive benefit of the participants and their beneficiaries. Accordingly, the 401(k) Plan is not reflected in the accompanying consolidated statements of net position.

The Deferred Compensation Program is administered and may be amended by the Deferred Compensation Committee.

As the Deferred Compensation Program's asset base and contribution flow increased, participants' investment options were expanded by the Deferred Compensation Committee with the advice of its Financial Advisor to provide greater diversification and flexibility. In 1988, after receiving an IRS determination letter for the 401(k) Plan, the MTA offered its managers the choice of either participating in the 457 Plan or the 401(k) Plan. By 1993, the MTA offered eight investment funds: a Guaranteed Interest Account Fund, a Money Market Fund, a Common Stock Fund, a Managed Fund, a Stock Index Fund, a Government Income Fund, an International Fund and a Growth Fund.

In 1998, the Deferred Compensation Committee approved the unbundling of the Plans. In 2008, the Plans' investment choices were restructured to set up a four-tier strategy:

- Tier 1 – The MTA Asset Allocation Programs offer two options for those participants who would like to make retirement investing easy – the MTA Target Year Funds and Goal maker. Investments will be automatically diversified among a range of investment options.
- Tier 2 - The MTA Index Funds offer a tier of index funds, which invest in the securities of companies that are included in a selected index, such as the Standard & Poor's 500 (large cap) Index or Barclays Capital U.S. Aggregate (bond) index. The typical objective of an index fund is to achieve approximately the same return as that specific market index. Index funds provide investors with lower-cost investments because they are less expensive to administer than actively managed funds.
- Tier 3 – The MTA Actively Managed Portfolios, which are comprised of actively managed portfolios that are directed by one or a team of professional managers who buy and sell a variety of holdings in an effort to outperform selected indices. The funds provide a diversified array of distinct asset classes, with a single option in each class. They combine the value and growth disciplines to create a “core” portfolio for the mid-cap and international categories.
- Tier 4 – The Self-Directed Mutual Fund Option is designed for the more experienced investors. The fund offers access to an expanded universe of mutual funds from hundreds of well-known mutual fund families. Participants may invest only a portion of their account balances in this Tier.

In 2011, the Deferred Compensation Program began offering Roth contributions. Employees can elect after-tax Roth contributions and before-tax contributions in both the 401(k) Plan and the 457 Plan. The total combination of Roth after-tax contributions and regular before-tax contributions cannot exceed the IRS maximum of \$18,500 dollars or \$24,500 dollars for those over age 50 for the year ended December 31, 2018.

The two Plans offer the same array of investment options to participants. Eligible participants in the Deferred Compensation Program include employees (and in the case of MTA Long Island Bus, former employees) of:

- MTA
- MTA Long Island Rail Road
- MTA Bridges and Tunnels
- MTA Long Island Bus
- MTA Metro-North Railroad
- MTA New York City Transit
- MTA Staten Island Rapid Transit
- MTA Capital Construction
- MTA Bus

Matching Contributions - MTA Bus on behalf of certain MTA Bus employees, MTA Metro-North Railroad on behalf of certain MNR employees who opted-out of participation in the MTA Defined Benefit Pension Plan and MTA on behalf of certain represented MTA Business Service Center employees and on behalf of certain MTA Police Officers, make contributions to the 401(k) Plan. The rate for the employer contribution varies.

MTA Bus - Certain members who were employed by Queens Surface Corporation on February 26, 2005, and who became employees of MTA Bus on February 27, 2005, receive a matching contribution equal to 50% of member's before-tax contributions provided that the maximum matching contribution shall not exceed 3% of the member's base pay. MTA Bus also makes a basic contribution equal to 2% of the member's compensation. These members shall vest in the amount in the member's account attributable to the matching contributions and basic contributions as follows:

Years of Service	Vested Percentage
Less than 2	0%
2	20%
3	40%
4	60%
5	80%
6 or more	100%

MTA Metro-North Railroad – MNR employees represented by certain unions and who elected to opt-out of participation in the MTA Defined Benefit Pension Plan receive an annual employer contribution equal to 4% of the member’s compensation. Effective on the first full pay period following the nineteenth anniversary date of an eligible MNR member’s continuous employment, MTA Metro-North Railroad contributes an amount equal to 7% of the member’s compensation. Eligible MNR members vest in these employer contributions as set forth below:

<u>Years of Service</u>	<u>Vested Percentage</u>
Less than 5	0%
5 or more	100%

MTA Headquarters - Police - For each plan year, the MTA shall make contributions to the account of each eligible MTA Police Benevolent Association member in the amounts required by the collective bargaining agreement (“CBA”) and subject to the contribution limits set forth in the CBA. These contributions shall be made monthly and shall be considered MTA Police contributions. Members are immediately 100% vested in these employer contributions.

MTA Headquarters – Commanding Officers - In addition, for each plan year, the MTA shall make contributions to the account of each eligible MTA Police Department Commanding Officers Benevolent Association member in the amounts required by the CBA and subject to the contribution limits set forth in the CBA. These contributions shall be made monthly and shall be considered MTA Police contributions. These members are immediately 100% vested in these employer contributions.

MTA Headquarters – Business Services - Effective January 1, 2011, all newly hired MTA Business Services Center employees represented by the Transportation Communications Union are eligible to receive a matching contribution up to a maximum of 3% of the participant’s compensation. A participant’s right to the balance in his or her matching contributions shall vest upon the first of the following to occur:

- i. Completing 5 years of service,
- ii. Attaining the Normal Retirement Age of 62 while in continuous employment, or
- iii. Death while in continuous employment.

Additional Deposits (Incoming Rollover or Transfers) - Participants in the Deferred Compensation Program are eligible to roll over both their before-tax and after-tax assets from other eligible retirement plans into the 401(k) and 457 Plans. Under certain conditions, both Plans accept rollovers from all eligible retirement plans (as defined by the Code), including 401(a), 457, 401(k), 403(b), and rollover IRAs.

Forfeitures – Non vested contributions are forfeited upon termination of employment. Such forfeitures are used to cover a portion of the pension plan’s administrative expenses.

	<u>December 31, 2018</u>	<u>December 31, 2017</u>
	(In thousands)	
Employer 401K contributions	\$ 4,392	\$ 4,109

5. OTHER POSTEMPLOYMENT BENEFITS

The MTA participates in a defined benefit other postemployment benefits (“OPEB”) plan for its employees, the Metropolitan Transportation Authority Retiree Welfare Benefits Plan (“OPEB Plan”). A description of the Plan follows:

(1) Plan Description

The MTA Retiree Welfare Benefits Plan (“OPEB Plan”) and the related Trust Fund (“Trust”) was established on January 1, 2009 for the exclusive benefit of MTA retired employees and their eligible spouses and dependents, to fund some of the OPEB provided in accordance with the MTA’s various collective bargaining agreements. Postemployment benefits are part of an exchange of salaries and benefits for employee services rendered. Amounts contributed to the OPEB Plan are held in an irrevocable trust and may not be used for any other purpose than to fund the costs of health and welfare benefits of its eligible participants.

The OPEB Plan and the Trust are exempt from federal income taxation under Section 115(1) of the Internal Revenue Code. The OPEB Plan is classified as a single-employer plan.

The OPEB Plan Board of Managers, comprised of the MTA Chairman, MTA Chief Financial Officer and MTA Director of Labor Relations, are the administrators of the OPEB Plan. The MTA Board has the right to amend, suspend or terminate the OPEB Plan.

The separate annual financial statements of the OPEB Plan may be obtained by writing to MTA Comptroller, 2 Broadway, 16th Floor, New York, New York, 10004 or at www.mta.info.

Benefits Provided — The benefits provided by the OPEB Plan include medical, pharmacy, dental, vision, life insurance and a Medicare supplemental plan. The different types of benefits provided vary by agency, employee type (represented employees versus non-represented) and the relevant collective bargaining agreements. Certain benefits are provided upon retirement as defined in the applicable pension plan. Certain agencies provide benefits to certain former employees if separated from service within 5 years of attaining retirement eligibility. Employees of the MTA are members of the following pension plans: the MTA Defined Benefit Plan, the Additional Plan, the MNR Cash Balance Plan, the MaBSTOA Plan, NYCERS, and NYSLERS. Certain represented employees of MTA Metro-North Railroad participate in the 401(k) Plan. Eligible employees of the MTA may elect to join the New York State Voluntary Defined Contribution Plan (“VDC”).

The MTA participates in the New York State Health Insurance Program (“NYSHIP”) and provides medical and prescription drug benefits, including Medicare Part B reimbursements, to many of its retirees. NYSHIP offers a Preferred Provider Organization (“PPO”) plan and several Health Maintenance Organization (“HMO”) plans. Represented MTA New York City Transit employees, other MTA New York City Transit former employees who retired prior to January 1, 1996 or January 1, 2001, MTA Staten Island Railway represented employees as of March 1, 2010, June 1, 2010 or January 1, 2013 depending on the union and MTA Bus retirees do not participate in NYSHIP. These benefits are provided either through a self-insured health plan, a fully insured health plan or an HMO.

The MTA is a participating employer in NYSHIP. The NYSHIP financial report can be obtained by writing to NYS Department of Civil Service, Employee Benefits Division, Alfred E. Smith Office Building, 805 Swan Street, Albany, NY 12239.

OPEB Plan Eligibility — To qualify for benefits under the OPEB Plan, a former employee of the MTA must:

- i. have retired;
- ii. be receiving a pension (except in the case of the 401(k) Plan);
- iii. have at least 10 years of credited service as a member of NYCERS, NYSLERS, the MTA Defined Benefit Plan, the Additional Plan, the MaBSTOA Plan, the MNR Cash Balance Plan, the 401(k) Plan or the VDC; and
- iv. have attained the minimum age requirement (unless within 5 years of commencing retirement for certain members).
A represented retired employee may be eligible only pursuant to the relevant collective bargaining agreement.

Surviving Spouse and Other Dependents —

- Lifetime coverage is provided to the surviving spouse (not remarried) or domestic partner and surviving dependent children to age 26 of retired managers and certain non-represented retired employees.
- Represented retired employees must follow the guidelines of their collective bargaining agreements regarding continued health coverage for a surviving spouse or domestic partner and surviving dependents. The surviving spouse coverage continues until spouse is eligible for Medicare for represented employees of MTA New York City Transit and MTA Staten Island Railway, retiring on or after:
 - o May 21, 2014 for Transport Workers Union (“TWU”) Local 100;
 - o September 24, 2014 for Amalgamated Transit Union (“ATU”) Local 726;
 - o October 29, 2014 for ATU Local 1056;
 - o March 25, 2015 for Transportation Communication Union (“TCU”); and
 - o December 16, 2015 for United Transportation Union (“UTU”) and American Train Dispatchers Association (“ATDA”).
- Lifetime coverage is provided to the surviving spouse (not remarried) or domestic partner and surviving dependents of retired uniform members of the MTA Police Department.
- Lifetime coverage is provided to the surviving spouse (not remarried) or domestic partner and surviving dependent children to age 26 of uniformed members of the MTA Police Department whose death was sustained while in performance of duty.

The OPEB Plan Board of Managers has the authority to establish and amend the benefits that will be covered under the OPEB Plan, except to the extent that they have been established by collective bargaining agreement.

Employees Covered by Benefit Terms — As of July 1, 2017, the date of the most recent actuarial valuation, the following classes of employees were covered by the benefit terms:

	Number of Participants
Active plan members	72,047
Inactive plan members currently receiving benefit payments	45,330
Inactive plan members entitled to but not yet receiving benefit payments	254
Total	<u><u>117,631</u></u>

Contributions — The MTA is not required by law or contractual agreement to provide funding for the OPEB Plan, other than the “pay-as-you-go” (“PAYGO”) amounts. PAYGO is the cost of benefits necessary to provide the current benefits to retirees and eligible beneficiaries and dependents. Employees are not required to contribute to the OPEB Plan. The OPEB Plan Board has the authority for establishing and amending the funding policy. For the year-ended December 31, 2018, the MTA paid \$696.1 of PAYGO to the OPEB Plan.

During 2012, the MTA funded \$250 into the Trust an additional \$50 during 2013. There have been no further contributions made to the Trust. The discount rate estimates investment earnings for assets earmarked to cover retiree health benefits. Under GASB Statement No. 75, the discount rate depends on the nature of underlying assets for funded plans. Since the amount of benefits paid in 2017 exceeded the current market value of the assets, a depletion date is assumed to occur immediately. Therefore, the discount rate is set equal to the municipal bond index. The MTA elected the Bond Buyer General Obligation 20-Bond Municipal Bond Index. As a result, the discount rates as of December 31, 2017 and December 31, 2016, the measurement dates, are 3.44% and 3.78%, respectively.

Employer contributions include the implicit subsidy, or age-related subsidy inherent in the healthcare premiums structure. The implicit subsidy arises when an employer allows a retiree and their dependents to continue on the active plans and pay the active premiums. Retirees are not paying the true cost of their benefits because they have higher utilization rates than actives and therefore, are partially subsidized by the active employees. As shown in the following table, for the year ended December 31, 2017, the employer made a cash payment for retiree healthcare of \$71,101 as part of the employer’s payment for active-employee healthcare benefits. For purposes of GASB Statement No. 75, this payment made on behalf of the active employees should be reclassified as benefit payments for retiree health care to reflect the retirees’ underlying age-adjusted, retiree benefit costs.

Blended and Age-adjusted Premium (in thousands)	2017 Retirees
Total blended premiums	\$579,893
Employment payment for retiree healthcare	<u>71,101</u>
Net Payments	<u><u>\$650,994</u></u>

(2) Actuarial Assumptions

Actuarial valuation involve estimates of the value of reported amounts and assumptions about the probability of occurrence of events far into the future, such as future employment, mortality and health care cost trend. Actuarially determined amounts are subject to continual revision as actual results are compared with past expectations and new estimates are made about the future.

Projections of benefits for financial reporting purposes are based on the substantive plan, which refers to the plan terms as understood by the employer and the plan members at the time of the valuation, including only changes to plan terms that have been made and communicated to employees. The projections include the types of benefits provided at the time of each valuation and the historical pattern of sharing benefit costs between the employer and plan members at that time. The MTA may not be obligated to provide the same types or levels of benefits to retirees in the future.

The total OPEB liability was determined by an actuarial valuation performed on July 1, 2017. Update procedures were used to roll forward the total OPEB liability to December 31, 2017, the measurement date. The actuarial valuations were performed using the following actuarial assumptions, applied to all periods included in the measurement, unless specified:

Valuation date	July 1, 2017
Measurement date	December 31, 2017
Discount rate	3.44%, net of expenses
Inflation	2.50%
Actuarial cost method	Entry Age Normal
Amortization method	Level percentage of payroll
Normal cost increase factor	4.50%
Investment rate of return	6.50%
Salary increases	3%. Varies by years of service and differs for members of the various pension plans

Healthcare Cost Trend — The healthcare trend assumption is based on the Society of Actuaries-Getzen Model version 2017 utilizing the baseline assumptions included in the model, except inflation of 2.5% for medical and pharmacy benefits. Additional adjustments apply based on percentage of costs associated with administrative expenses, aging factors, potential excise taxes due to healthcare reform, and other healthcare reform provisions, separately for NYSHIP and self-insured benefits administered by MTA New York City Transit. The NYSHIP trend reflects actual increases in premiums to participating agencies through 2018. These assumptions are combined with long-term assumptions for dental and vision benefits of an annual trend of 4.0% plus Medicare Part B reimbursements of an annual trend of 4.5%, but not more than projected medical and pharmacy trends excluding any excise tax adjustments. The self-insured trend is applied directly for represented employees of MTA New York City Transit, MTA Staten Island Railway and MTA Bus. For purposes of estimating the impact of the excise tax, the NYSHIP trend for MTA Bridges and Tunnels reflects that certain represented members do not receive prescription drug coverage through NYSHIP.

Healthcare Cost Trend Rates — The following lists illustrative rates for the NYSHIP and self-insured trend assumptions (all amounts are in percentages).

Fiscal Year	NYSHIP		TBTA		Self-Insured	
	< 65	> = 65	< 65	> = 65	< 65	> = 65
2018	8.5	8.2	7.5	4.9	6.8	9.1
2019	6.2	5.5	5.8	3.1	6.2	5.3
2020	5.8	5.3	5.6	3.9	5.8	5.2
2021	5.5	5.2	5.3	4.4	5.5	5.2
2022	7.2	5.1	5.1	5.1	11.1	5.1
2023	6.1	5.1	5.1	5.1	6.0	5.1
2024	6.1	5.0	5.0	5.0	5.9	5.0
2025	5.9	5.0	5.0	5.0	5.8	5.0
2026	5.9	5.0	5.0	5.0	5.8	5.0
2027	5.8	4.9	5.0	4.9	5.7	4.9
2037	5.6	5.0	5.9	5.0	5.5	5.0
2047	5.4	5.9	5.6	4.9	5.3	4.9
2057	5.1	5.4	5.2	4.8	5.1	5.2
2067	4.8	5.0	4.9	4.6	4.8	4.8
2077	4.2	4.3	4.2	4.0	4.1	4.5
2087	4.1	4.2	4.2	4.0	4.1	4.4
2097	4.1	4.2	4.2	4.7	4.1	4.4

For purposes of applying the Entry Age Normal Cost method, the healthcare trend prior to the valuation date are based on the ultimate rates, which are 4.1% for medical and pharmacy costs prior to age 65, 4.2% for NYSHIP costs at age 65 and later (4.6% for certain MTA Bridges and Tunnels represented members), and 4.3% for self-insured medical and pharmacy costs at age 65 and later.

Mortality — Preretirement and postretirement healthy annuitant rates are projected on a generational basis using Scale AA. As a generational table, it reflects mortality improvements both before and after the measurement date. The postretirement mortality assumption is based on an experience analysis covering the period from January 1, 2011 to December 31, 2015 for the MTA-sponsored pension plans.

Preretirement — RP-2000 Employee Mortality Table for Males and Females with blue-collar adjustments. No blue-collar adjustments were used for management members of MTAHQ.

Postretirement Healthy Lives — 95% of the rates from the RP-2000 Healthy Annuitant mortality table for males with blue collar adjustments and 116% of the rates from the RP-2000 Healthy Annuitant mortality table for females. No blue collar or percentage adjustments were used for management members of MTAHQ.

Postretirement Disabled Lives — RP-2014 Disabled Annuitant mortality table for males and females.

(3) Net OPEB Liability

At December 31, 2018, the MTA reported a net OPEB liability of \$20,335. The MTA's net OPEB liability was measured as of the OPEB Plan's fiscal year-end of December 31, 2017. The total OPEB liability used to calculate the net OPEB liability was determined by an actuarial valuation date of July 1, 2017, and rolled forward to December 31, 2017.

OPEB Plan Fiduciary Net Position — The fiduciary net position has been determined on the same basis used by the OPEB plan. The OPEB plan uses the accrual basis of accounting under which contributions from the employer are recognized when paid. Benefits and refunds are recognized when due and payable in accordance with the terms of the Plan. Investments are reported at fair value based on quoted market prices or Net Asset Value. Detailed information about the OPEB plan's fiduciary net position is available in the separately issued financial report or at www.mta.info.

Expected Rate of Return on Investments — The long-term expected rate of return on OPEB plan investments was determined using a building-block method in which best-estimate ranges of expected future real rates of return (expected returns, net of OPEB plan investment expense and inflation) are developed for each major asset class. These ranges are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation. The target allocation and best estimates of arithmetic real rates of return for each major asset class are summarized in the following table:

<u>Asset Class</u>	<u>Target Allocation</u>	<u>Long-Term Expected Arithmetic Real Rate of Return</u>
U.S. core fixed income	13.0%	1.96%
Global bonds	15.0%	0.34%
Emerging markets bonds	5.0%	3.30%
Global equity	35.0%	4.99%
Non-U.S. equity	15.0%	5.84%
Global REITs	5.0%	5.62%
Hedge funds - multistrategy	12.0%	3.35%
Total	100%	
Assumed Inflation - Mean		2.50%
Assumed Inflation - Standard Deviation		1.85%
Portfolio Nominal Mean return		6.29%
Portfolio Standard Deviation		11.37%
Long Term Expected Rate of Return selected by MTA		6.50%

Discount Rate — The discount rate used in this valuation to measure the total OPEB liability was updated to incorporate GASB Statement No. 75 guidance.

The plan's fiduciary net position was not projected to be available to make all projected future benefit payments of current active and inactive employees. Therefore, the discount rate for calculating the total OPEB liability is equal to the single equivalent rate that results in the same actuarial present value as the long-term expected rate of return applied to benefit payments, to the extent that the plan's fiduciary net position is projected to be sufficient to make projected benefit payments, and the municipal bond rate applied to benefit payments, to the extent that the plan's fiduciary net position is not projected to be sufficient. Therefore, the discount rate is set equal to the Bond Buyer General Obligation 20-Bond Municipal Bond Index as of December 31, 2017 of 3.44%.

Changes in Net OPEB Liability — Changes in the MTA's net OPEB liability for the year ended December 31, 2018, based on the December 31, 2017 measurement date, are as follows:

	Total OPEB Liability	Plan Fiduciary Net Position (in thousands)	Net OPEB Liability
Balance as of December 31, 2016	\$18,787,254	\$322,982	\$18,464,272
Changes for the year:			
Service Cost	884,548	-	884,548
Interest on total OPEB liability	731,405	-	731,405
Effect of plan changes	27,785	-	27,785
Effect of economic/demographic gains or losses	13,605	-	13,605
Effect of assumptions changes or inputs	911,465	-	911,465
Benefit payments	(650,994)	(650,994)	-
Employer contributions	-	650,994	(650,994)
Net investment income	-	47,370	(47,370)
Administrative expenses	-	0	0
Net changes	<u>1,917,814</u>	<u>47,370</u>	<u>1,870,444</u>
Balance as of December 31, 2017	<u>\$20,705,068</u>	<u>\$370,352</u>	<u>\$20,334,716</u>

Sensitivity of the Net OPEB Liability to Changes in the Discount Rate — The following presents the net OPEB liability of the MTA, calculated using the discount rate of 3.44%, as well as what the MTA's net OPEB liability would be if it were calculated using a discount rate that is 1-percentage point lower or 1-percentage point higher than the actual discount rate used for the measurement date:

	1% Decrease (2.44%)	Discount Rate (3.44%)	1% Increase (4.44%)
		(in thousands)	
Net OPEB liability	\$23,407,072	\$20,334,716	\$17,817,307

Sensitivity of the Net OPEB Liability to Changes in the Healthcare Cost Trend Rates — The following presents the net OPEB liability of the MTA, calculated using the current healthcare cost trend rates, as well as what the MTA's net OPEB liability would be if it were calculated using trend rates that are 1-percentage point lower or 1-percentage point higher than the actual healthcare trend rate used for the measurement date:

	1% Decrease	Healthcare Cost Current Trend Rate*	1% Increase
		(in thousands)	
Net OPEB liability	\$17,394,102	\$20,334,716	\$24,043,932

*For further details, refer to the Health Care Cost Trend Rates tables in the Actuarial Assumptions section of this Note Disclosure

(4) OPEB Expense and Deferred Outflows of Resources and Deferred Inflows of Resources Related to OPEB

For the six-month period ended June 30, 2019 and year ended December 31, 2018, the MTA recognized OPEB expense of \$325 and \$1.75 billion, respectively.

At June 30, 2019 and December 31, 2018, the MTA reported deferred outflows of resources and deferred inflows of resources related to OPEB as follows (\$ in thousands):

	June 30, 2019		December 31, 2018	
	Deferred Outflows of Resources	Deferred Inflows of Resources	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between expected and actual experience	\$11,767	\$-	\$11,767	\$-
Changes of assumptions	788,294	-	788,294	-
Net difference between projected and actual earnings on OPEB plan investments	-	21,101	-	21,101
Employer contributions to the plan subsequent to the measurement of net OPEB liability	698,335	-	696,065	-
Total	<u>\$1,498,396</u>	<u>\$21,101</u>	<u>\$1,496,126</u>	<u>\$21,101</u>

The annual differences between the projected and actual earnings on investments are amortized over a 5-year closed period beginning the year in which the difference occurs. The annual differences between expected and actual experience and changes in assumptions are amortized over a 7.4-year closed period, beginning the year in which the deferred amount occurs.

For the six-month period ended June 30, 2019 and year ended December 31, 2018, \$698.3 and \$696.1 were reported as deferred outflows of resources related to OPEB. This amount includes both MTA's contributions subsequent to the measurement date and an implicit rate subsidy adjustment that will be recognized as a reduction of the net OPEB liability in the year ended December 31, 2019. Other amounts reported as deferred outflows of resources and deferred inflows of resources related to OPEB at December 31, 2018 will be recognized in OPEB expense as follows (in thousands):

Year ended December 31, :

2019	\$119,734
2020	119,734
2021	119,734
2022	119,734
2023	125,010
Thereafter	<u>175,014</u>
	<u><u>\$778,960</u></u>

6. CAPITAL ASSETS

Capital assets and improvements include all land, buildings, equipment, and infrastructure of the MTA having a minimum useful life of two years and having a cost of more than \$25 thousand.

Capital assets are stated at historical cost, or at estimated historical cost based on appraisals, or on other acceptable methods when historical cost is not available. Capital leases are classified as capital assets in amounts equal to the lesser of the fair market value or the present value of net minimum lease payments at the inception of the lease.

Accumulated depreciation and amortization are reported as reductions of fixed assets. Depreciation is computed using the straight-line method based upon estimated useful lives of 25 to 50 years for buildings, 2 to 40 years for equipment, and 25 to 100 years for infrastructure. Capital lease assets and leasehold improvements are amortized over the term of the lease or the life of the asset whichever is less. Capital assets consist of the following at December 31, 2017, December 31, 2018 and June 30, 2019 (in millions):

	Balance December 31, 2017	Additions / Reclassifications	Deletions / Reclassifications	Balance December 31, 2018	Additions / Reclassifications (Unaudited)	Deletions / Reclassifications (Unaudited)	Balance June 30, 2019 (Unaudited)
Capital assets not being depreciated:							
Land	\$ 217	\$ -	\$ -	\$ 217	\$ 3	\$ -	\$ 220
Construction work-in-progress	16,978	7,528	6,454	18,052	3,146	2,283	18,915
Total capital assets not being depreciated	17,195	7,528	6,454	18,269	3,149	2,283	19,135
Capital assets being depreciated:							
Buildings and structures	17,716	746	5	18,457	133	-	18,590
Bridges and tunnels	3,604	550	-	4,154	16	-	4,170
Equipment:							
Passenger cars and locomotives	13,860	303	785	13,378	223	-	13,601
Buses	3,613	321	126	3,808	322	88	4,042
Infrastructure	23,834	2,438	14	26,258	535	-	26,793
Other	22,706	1,825	12	24,519	896	2	25,413
Total capital assets being depreciated	85,333	6,183	942	90,574	2,125	90	92,609
Less accumulated depreciation:							
Buildings and structures	6,923	495	4	7,414	257	-	7,671
Bridges and tunnels	783	23	-	806	8	-	814
Equipment:							
Passenger cars and locomotives	7,206	397	660	6,943	201	-	7,144
Buses	2,216	233	126	2,323	122	89	2,356
Infrastructure	9,286	803	17	10,072	457	-	10,529
Other	8,054	728	8	8,774	375	1	9,148
Total accumulated depreciation	34,468	2,679	815	36,332	1,420	90	37,662
Total capital assets being depreciated - net	50,865	3,504	127	54,242	705	-	54,947
Capital assets - net	\$ 68,060	\$ 11,032	\$ 6,581	\$ 72,511	\$ 3,854	\$ 2,283	\$ 74,082

Interest capitalized in conjunction with the construction of capital assets for the periods ended June 30, 2019 and December 31, 2018 was \$18.8 and \$49.3, respectively.

Capital assets acquired prior to April 1982 for MTA New York City Transit were funded primarily by NYC with capital grants made available to MTA New York City Transit. NYC has title to a substantial portion of such assets and, accordingly, these assets are not recorded on the books of the MTA. Subsequent acquisitions, which are part of the MTA Capital Program, are recorded at cost by MTA New York City Transit. In certain instances, title to MTA Bridges and Tunnels' real property may revert to NYC in the event the MTA determines such property is unnecessary for its corporate purpose. With respect to MTA Metro-North Railroad, capital assets completely funded by CDOT are not reflected in MTA's financial statements, as ownership is retained by CDOT.

For certain construction projects, the MTA holds in a trust account marketable securities pledged by third-party contractors in lieu of cash retainages. At June 30, 2019 and December 31, 2018, these securities, which are not included in these financial statements, totaled \$84.1 and \$81.7, respectively, and had a market value of \$59.1 and \$53.2, respectively.

7. LONG-TERM DEBT

(In millions)	Original Issuance	December 31, 2018	Issued	Retired	June 30, 2019
			(Unaudited)		(Unaudited)
MTA:					
Transportation Revenue Bonds					
1.37%–6.68% due through 2057	\$ 37,300	\$ 20,923	\$ 931	\$ -	\$ 21,854
Bond Anticipation Notes*					
2.3% due through 2021	10,761	4,007	3,154	1,454	5,707
State Service Contract Bonds					
4.125%–5.70% due through 2031	2,395	-	-	-	-
Dedicated Tax Fund Bonds					
2.05%–5.00% due through 2057	11,039	5,184	-	-	5,184
	61,495	30,114	4,085	1,454	32,745
Net unamortized bond premium	-	1,559	257	174	1,642
	61,495	31,673	4,342	1,628	34,387
TBTA:					
General Revenue Bonds					
1.81%–4.18% due through 2047	16,680	7,663	150	43	7,770
Bond Anticipation Notes					
5.77% due through 2032	400	-	-	-	-
Subordinate Revenue Bonds					
3.13%–5.34% due through 2032	4,066	1,022	-	19	1,003
	21,146	8,685	150	62	8,773
Net unamortized bond premium	-	626	31	39	618
	21,146	9,311	181	101	9,391
MTA Hudson Rail Yards Trust:					
MTA Hudson Rail Yards Trust Obligations					
1.88%–2.65% due through 2056	1,057	1,057	-	105	952
Net unamortized bond premium	-	128	-	12	116
	1,057	1,185	-	117	1,068
Total	\$ 83,698	\$ 42,169	\$ 4,523	\$ 1,846	\$ 44,846
Current portion		\$ 2,552			\$ 1,561
Long-term portion		\$ 39,617			\$ 43,285

* Includes draws on a \$700 taxable revolving credit agreement with JPMorgan Chase Bank, National Association, which is active through August 24, 2022. Draws under the JPMorgan Chase Agreement will be evidenced by revenue anticipation notes ("RANs"). As of June 30, 2019 and December 31, 2018, the outstanding RAN was \$7 and \$7, respectively.

(In millions)	Original Issuance	December 31, 2017	Issued	Retired	December 31, 2018
MTA:					
Transportation Revenue Bonds					
1.37%–6.68% due through 2057	\$ 36,369	\$ 21,028	\$ 680	\$ 785	\$ 20,923
Bond Anticipation Notes					
5.0% due through 2021*	7,607	1,516	3,003	512	4,007
State Service Contract Bonds					
4.125%–5.70% due through 2031	2,395	68	-	68	-
Dedicated Tax Fund Bonds					
2.05%–5.00% due through 2057	11,039	5,371	-	187	5,184
	57,410	27,983	3,683	1,552	30,114
Net unamortized bond premium	-	1,578	279	298	1,559
	57,410	29,561	3,962	1,850	31,673
TBTA:					
General Revenue Bonds					
4.00%–5.77% due through 2050	16,680	7,218	1,055	610	7,663
Bond Anticipation Notes					
5.77% due through 2032	400	165	-	165	-
Subordinate Revenue Bonds					
4.00%–5.77% due through 2032	4,066	1,386	-	364	1,022
	21,146	8,769	1,055	1,139	8,685
Net unamortized bond premium	-	581	129	84	626
	21,146	9,350	1,184	1,223	9,311
MTA Hudson Rail Yards Trust:					
MTA Hudson Rail Yards Trust Obligations					
1.88%–2.65% due through 2056	1,057	1,057	-	-	1,057
Net unamortized bond premium	-	130	-	2	128
	1,057	1,187	-	2	1,185
Total	\$ 79,613	\$ 40,098	\$ 5,146	\$ 3,075	\$ 42,169
Current portion		\$ 1,806			\$ 2,552
Long-term portion		\$ 38,292			\$ 39,617

* Includes draws on a \$700 taxable revolving credit agreement with JPMorgan Chase Bank, National Association, which is active through August 24, 2022. Draws under the JPMorgan Chase Agreement will be evidenced by revenue anticipation notes ("RANs"). As of December 31, 2018 and 2017, the outstanding RAN was \$17 and \$7, respectively.

MTA Transportation Revenue Bonds — Prior to 2019, MTA issued sixty-two Series of Transportation Revenue Bonds secured under its General Resolution Authorizing Transportation Revenue Obligations adopted on March 26, 2002 in the aggregate principal amount of \$31,891. The Transportation Revenue Bonds are MTA's special obligations payable solely from transit and commuter systems revenues and certain state and local operating subsidies.

On February 6, 2019, MTA issued \$454.150 Transportation Revenue Green Bonds, Series 2019A. Proceeds from the transaction were used to pay off the existing outstanding 2017C-1 Transportation Revenue Bond Anticipation Notes in the amount of \$500. The Series 2019A bonds were issued through a competitive bidding process as \$191.345 Subseries 2019A-1, \$162.805 Subseries 2019A-2, and \$100 Subseries 2019A-3. The Subseries 2019A-1 bonds were issued as mandatory tender bonds with an initial purchase date of November 15, 2024. The Subseries 2019A-2 and 2019A-3 bonds were issued as fixed rate tax-exempt bonds with final maturities of November 15, 2045, and November 15, 2046, respectively.

On March 28, 2019, MTA effectuated a mandatory tender and remarketed \$50 MTA Transportation Revenue Bonds, Subseries 2012A-3 because its current interest rate period expired by its terms. The Series 2012A-3 Bonds were remarketed in Term Rate Mode as Floating Rate Tender Notes ("FRNs") with a purchase date of March 1, 2022 and with an interest rate of SIFMA plus 0.50%.

On May 1, 2019, MTA drew \$300 on the Railroad Rehabilitation and Improvement Financing loan ("RRIF Loan") to finance the positive train control project for MTA Long Island Railroad and MTA Metro-North Railroad. The current principal amount outstanding on the Transportation Revenue Bond, Series 2015X is \$440.668 as the first draw on the RRIF Loan (Series 2015X-1) was on September 20, 2016 in the amount of \$146.472. MTA originally entered into a Financing Agreement with the Federal Railroad Administrator, acting on behalf of the United States Secretary of Transportation, on May 5, 2015 to establish the RRIF Loan which is not to exceed \$967.

On May 14, 2019, MTA issued \$177.185 Transportation Revenue Green Bonds, Series 2019B (Climate Bond Certified).

Proceeds from the transaction were used to retire the existing outstanding \$200 Transportation Revenue Bond Anticipation Notes, Series 2017C-2. The Series 2019B bonds were issued as fixed rate tax-exempt bonds with a final maturity of November 15, 2052.

On June 3, 2019, MTA effectuated a mandatory tender and remarketed \$50 MTA Transportation Revenue Variable Rate Bonds, Subseries 2012A-2 because its current interest rate period was set to expire by its terms. The Subseries 2012A-2 bonds were remarketed as Variable Interest Rate Obligations in Weekly Mode supported by an irrevocable direct-pay Letter of Credit (LOC) issued by Bank of Montreal. The LOC will expire on June 2, 2022.

MTA Bond Anticipation Notes — From time to time, MTA issues Transportation Revenue Bond Anticipation Notes in accordance with the terms and provisions of the General Resolution described above in the form of commercial paper to fund its transit and commuter capital needs. The interest rate payable on the notes depends on the maturity and market conditions at the time of issuance. The MTA Act requires MTAHQ to periodically (at least each five years) refund its bond anticipation notes with bonds.

On February 6, 2019, MTA issued \$750 MTA Transportation Revenue Bond Anticipation Notes, Series 2019A to generate new money proceeds to finance existing approved transit and commuter projects and to retire the outstanding Taxable Revenue Anticipation Note. The Series 2019A Notes were priced through a competitive method of sale. The Series 2019A Notes were issued as fixed rate tax-exempt notes with an all-in True Interest Cost of 2.069% and a final maturity of February 3, 2020.

On May 22, 2019, MTA issued \$1,200 MTA Transportation Revenue Bond Anticipation Notes, Series 2019B to generate new money proceeds to finance existing approved transit and commuter projects. The Series 2019B Notes were priced through a competitive method of sale. The Series 2019B Notes were issued as fixed rate tax-exempt notes with an all-in True Interest Cost of 1.665% and a final maturity of May 15, 2022.

MTA Revenue Anticipation Notes — On January 9, 2014, MTA closed a \$350 revolving working capital liquidity facility with the Royal Bank of Canada which is expected to remain in place until July 7, 2017. Draws on the facility will be taxable, as such this facility is intended to be used only for operating needs of MTA and the related entities. On January 31, 2017, MTA drew down \$200 of its \$350 Revolving Credit Agreement with the Royal Bank of Canada, which was entered into on January 1, 2014. The purpose of the draw was to retire Transportation Revenue Bond Anticipation Notes, Subseries 2016A-2. The \$200 draw-down plus accrued interest was repaid on March 31, 2017.

On August 24, 2017, MTA entered into a \$350 taxable Revenue Anticipation Note facility, (the “2017A RAN”), with J.P.Morgan Chase Bank, National Association. An initial draw of \$3.5 was made at closing. This balance will remain throughout the duration of the agreement. The 2017A RAN is available to be used by MTA for any corporate purpose as needed and is structured as a revolving loan facility. The RAN expires on August 24, 2022.

On August 14, 2018, MTA amended the 2017A RAN to (1) correct the designation of the facility to Transportation Revenue Anticipation Notes, Series 2017 (the “Series 2017 RANs”) and (2) increase the maximum amount of the Series 2017 RANs authorized to be issued by \$350, for a maximum principal amount of \$700 at any one-time outstanding. To maintain the 1% draw on the line of credit throughout the duration of the agreement, an additional \$3.5 draw was made on August 14, 2018.

MTA State Service Contract Bonds — Prior to 2019, MTA issued two Series of State Service Contract Bonds secured under its State Service Contract Obligation Resolution adopted on March 26, 2002, in the aggregate principal amount of \$2,395. Currently, there are no outstanding bonds. The State Service Contract Bonds are MTA’s special obligations payable solely from certain payments from the State of New York under a service contract.

MTA Dedicated Tax Fund Bonds — Prior to 2019, MTA issued twenty-two Series of Dedicated Tax Fund Bonds secured under its Dedicated Tax Fund Obligation Resolution adopted on March 26, 2002, in the aggregate principal amount of \$9,769. The Dedicated Tax Fund Bonds are MTA’s special obligations payable solely from monies held in the Pledged Amounts Account of the MTA Dedicated Tax Fund. State law requires that the MTTF revenues and MMTOA revenues (described above in Note 2 under “Nonoperating Revenues”) be deposited, subject to appropriation by the State Legislature, into the MTA Dedicated Tax Fund.

On March 19, 2019, MTA issued \$750 MTA Dedicated Tax Fund Bond Anticipation Notes, Series 2019A to generate new money proceeds to finance existing approved transit and commuter projects. The Series 2019A Notes were priced through a competitive method of sale. The Series 2019A Notes were issued as fixed rate tax-exempt notes with an all-in True Interest Cost of 1.856% and a final maturity of March 1, 2022.

MTA Certificates of Participation — Prior to 2019, MTA (solely on behalf of MTA Long Island Rail Road and MTA Metro-North Railroad), MTA New York City Transit and MTA Bridges and Tunnels executed and delivered three Series of Certificates of Participation in the aggregate principal amount of \$807 to finance certain building and leasehold improvements to an office building at Two Broadway in Manhattan occupied principally by MTA New York City Transit, MTA Bridges and Tunnels, MTA Capital Construction, and MTAHQ. The Certificates of Participation represented proportionate interests in the principal and interest components of Base Rent paid severally, but not jointly, in their respective proportionate shares

by MTA New York City Transit, MTA, and MTA Bridges and Tunnels, pursuant to a Leasehold Improvement Sublease Agreement.

MTA Bridges and Tunnels General Revenue Bonds — Prior to 2019, MTA Bridges and Tunnels issued thirty- one Series of General Revenue Bonds secured under its General Resolution Authorizing General Revenue Obligations adopted on March 26, 2002, in the aggregate principal amount of \$12,899. The General Revenue Bonds are MTA Bridges and Tunnels’ general obligations payable generally from the net revenues collected on the bridges and tunnels operated by MTA Bridges and Tunnels.

On May 23, 2019, MTA issued \$150 Triborough Bridge and Tunnel Authority General Revenue Bonds, Series 2019A to finance bridge and tunnel capital projects. The Series 2019A bonds were issued as tax-exempt fixed rate bonds with an all-in True Interest Cost of 3.708% and a final maturity of November 15, 2049.

MTA Bridges and Tunnels Subordinate Revenue Bonds — Prior to 2019, MTA Bridges and Tunnels issued twelve Series of Subordinate Revenue Bonds secured under its 2001 Subordinate Revenue Resolution Authorizing Subordinate Revenue Obligations adopted on March 26, 2002, in the aggregate principal amount of \$3,871. The Subordinate Revenue Bonds are MTA Bridges and Tunnels’ special obligations payable generally from the net revenues collected on the bridges and tunnels operated by MTA Bridges and Tunnels after the payment of debt service on the MTA Bridges and Tunnels General Revenue Bonds described in the preceding paragraph.

MTA Hudson Rail Yards Trust Obligations — The MTA Hudson Rail Yards Trust Obligations, Series 2016A (“Series 2016A Obligations”) were executed and delivered on September 22, 2016 by Wells Fargo Bank National Association, as Trustee (“Trustee”), to (i) retire the outstanding Transportation Revenue Bond Anticipation Notes, Series 2016A of the MTA, which were issued to provide interim financing of approved capital program transit and commuter projects, (ii) finance approved capital program transit and commuter projects of the affiliates and subsidiaries of the MTA, (iii) fund an Interest Reserve Requirement in an amount equal to one-sixth (1/6) of the greatest amount of Interest Components (as hereinafter defined) in the current or any future year, (iv) fund a portion of the Capitalized Interest Fund requirement, and (v) finance certain costs of issuance.

Pursuant to the Financing Agreement (as hereinafter defined), the MTA has agreed to pay to, or for the benefit of, the Trustee the “MTA Financing Agreement Amount,” consisting of principal and interest components. The Series 2016A Obligations evidence the interest of the Owners thereof in such MTA Financing Agreement Amount payable by the MTA pursuant to the Financing Agreement. The principal amount of the Series 2016A Obligations represent the principal components of the MTA Financing Agreement Amount (“Principal Components”) and the interest represent the interest components of the MTA Financing Agreement Amount (“Interest Components”). The Series 2016A Obligations (and the related Principal Components and Interest Components) are special limited obligations payable solely from the Trust Estate established under the MTA Hudson Rail Yards Trust Agreement, dated as of September 1, 2016 (“Trust Agreement”), by and between the MTA and the Trustee.

The Trust Estate consists principally of (i) the regularly scheduled rent, delinquent rent or prepaid rent (“Monthly Ground Rent”) to be paid by Ground Lease Tenants (the tenants under the Western Rail Yard Original Ground Lease and each Severed Parcel Ground Lease of the Eastern Rail Yard) of certain parcels being developed on and above the Eastern Rail Yard and Western Rail Yard portions of the John D. Caemmerer West Side Yards (“Hudson Rail Yards”) currently operated by The Long Island Rail Road Company (“LIRR”), (ii) monthly scheduled transfers from the Capitalized Interest Fund during the limited period that the Monthly Ground Rent is abated under the applicable Ground Lease, (iii) payments made by the Ground Lease Tenants if they elect to exercise their option to purchase the fee interest in such parcels (“Fee Purchase Payments”), (iv) Interest Reserve Advances and Direct Cost Rent Credit Payments (collectively “Contingent Support Payments”) made by the MTA, (v) rights of the MTA to exercise certain remedies under the Ground Leases and (vi) rights of the Trustee to exercise certain remedies under the Ground Leases and the Fee Mortgages.

Pursuant to the Interagency Financing Agreement, dated as of September 1, 2016 (“Financing Agreement”), by and among the MTA, New York City Transit Authority, Manhattan and Bronx Surface Transit Operating Authority, LIRR, Metro-North Commuter Railroad Company, and MTA Bus Company (collectively, the “Related Transportation Entities”), and the Trustee, the MTA has agreed to pay to the Trustee the MTA Financing Agreement Amount with moneys provided by the Financing Agreement Payments (which are principally the revenues within the Trust Estate) and Interest Reserve Advances. The MTA has established a deposit account with Wells Fargo Bank, National Association, as depository (“Depository”), and the MTA will direct all Ground Lease Tenants to make Monthly Ground Rent and Fee Purchase Payments (payments made by the Ground Lease Tenants if they elect to exercise their option to purchase the fee interest in such parcels) directly to the Depository, which deposits will be transferred daily to the Trustee. In addition, in the event the MTA elects to exercise certain Authority Cure Rights upon the occurrence of a Ground Lease Payment Event of Default or is required to make certain Direct Cost Rent Credit Payments, the MTA will make all payments relating to defaulted and future Monthly Ground Rent directly to the Depository.

Refer to Note 8 for further information on Leases.

Debt Limitation — The New York State Legislature has imposed limitations on the aggregate amount of debt that the MTA and MTA Bridges and Tunnels can issue to fund the approved transit and commuter capital programs. The current aggregate ceiling, subject to certain exclusions, is \$55,497 compared with issuances totaling approximately \$34,849. The MTA expects that the current statutory ceiling will allow it to fulfill the bonding requirements of the approved Capital Programs.

Bond Refundings — From time to time, the MTA and MTA Bridges and Tunnels issue refunding bonds to achieve debt service savings or other benefits. The proceeds of refunding bonds are generally used to purchase U.S. Treasury obligations that are placed in irrevocable trusts. The principal and interest within the trusts will be used to repay the refunded debt. The trust account assets and the refunded debt are excluded from the consolidated statements of net position.

At June 30, 2019 and December 31, 2018, the following amounts of MTA bonds, which have been refunded, remain valid debt instruments and are secured solely by and payable solely from their respective irrevocable trusts.

(In millions)	June 30, 2019 (Unaudited)	December 31, 2018
MTA Transit and Commuter Facilities:		
Transit Facilities Revenue Bonds	\$ 169	\$ 169
Commuter Facilities Revenue Bonds	172	172
Dedicated Tax Fund Bonds	22	42
MTA Bridges and Tunnels:		
General Purpose Revenue Bonds	628	674
Special Obligation Subordinate Bonds	89	102
Total	<u>\$ 1,080</u>	<u>\$ 1,159</u>

For the six months ended June 30, 2019, MTA did not have any refunding transactions. For the six months ended June 30, 2018, MTA did not have any refunding transactions. Details of bond refunding savings as of December 31, 2018 are as follows:

Bonds Refunded in 2018	(In millions)	Series	Date issued	Par value Refunded	Debt Service Savings	Net Present Value of Savings
Transportation Revenue Bonds		TRB 2018B	08/23/2018	\$ 207	\$ 30	\$ 28
MTA Bridges and Tunnels General Revenue Bonds		TBTA 2018B	08/30/2018	270	80	62
		TBTA 2018C	08/30/2018	159	(5)	21
				<u>429</u>	<u>75</u>	<u>83</u>
Total Bond Refunding Savings				<u>\$ 636</u>	<u>\$ 105</u>	<u>\$ 111</u>

For the six-month periods ended June 30, 2019 and 2018, the accounting loss on bond refundings totaled \$0 and the accounting loss on bond refundings totaled \$0, respectively.

Unamortized losses related to bond refundings were as follows:

(In millions)	December 31, 2017	(Gain)/loss on refunding	2017 amortization	December 31, 2018	(Gain)/loss on refunding (Unaudited)	Current year amortization (Unaudited)	June 30, 2019 (Unaudited)
MTA:							
Transportation Revenue Bonds	\$ 728	\$ (2)	\$ (56)	\$ 670	\$ -	\$ (39)	\$ 631
State Service Contract Bonds	(10)	-	(2)	(12)	-	-	(12)
Dedicated Tax Fund Bonds	254	-	(16)	238	-	(8)	230
	<u>972</u>	<u>(2)</u>	<u>(74)</u>	<u>896</u>	<u>-</u>	<u>(47)</u>	<u>849</u>
TBTA:							
General Revenue Bonds	233	1	(25)	209	-	(8)	201
Subordinate Revenue Bonds	30	-	3	33	-	(2)	31
	<u>263</u>	<u>1</u>	<u>(22)</u>	<u>242</u>	<u>-</u>	<u>(10)</u>	<u>232</u>
Total	<u>\$ 1,235</u>	<u>\$ (1)</u>	<u>\$ (96)</u>	<u>\$ 1,138</u>	<u>\$ -</u>	<u>\$ (57)</u>	<u>\$ 1,081</u>

Debt Service Payments — Future principal and interest debt service payments at June 30, 2019 are as follows (in millions):

(Unaudited)	MTA		MTA BRIDGES AND TUNNELS		Debt Service	
	Principal	Interest	Principal	Interest	Principal	Interest
2019	\$ 1,250	\$ 1,468	\$ 311	\$ 170	\$ 1,561	\$ 1,638
2020	2,897	1,384	266	336	3,163	1,720
2021	1,992	1,272	324	322	2,316	1,594
2022	2,561	1,206	335	307	2,896	1,513
2023	975	1,124	362	291	1,337	1,415
2024-2028	5,284	4,240	2,138	1,177	7,422	5,417
2029-2033	6,332	3,128	2,351	701	8,683	3,829
2034-2038	5,468	2,124	1,346	399	6,814	2,523
2039-2043	3,424	1,086	711	135	4,135	1,221
2044-2048	1,945	444	584	30	2,529	474
2049-2053	943	158	45	2	988	160
2054-2058	626	29	-	-	626	29
Thereafter	-	-	-	-	-	-
Total	<u>\$ 33,697</u>	<u>\$ 17,663</u>	<u>\$ 8,773</u>	<u>\$ 3,870</u>	<u>\$ 42,470</u>	<u>\$ 21,533</u>

The above interest amounts include both fixed-rate and variable-rate calculations. The interest rate assumptions for variable rate bonds are as follows:

- *Transportation Revenue Refunding Bonds, Series 2002D* — 4.45% per annum taking into account the interest rate swap plus the current fixed floating rate note spread.
- *Transportation Revenue Refunding Bonds, Series 2002G* — 3.542% per annum taking into account the interest rate swap plus the current fixed floating rate note spread; and 4.00% per annum plus the current fixed floating rate note spread on the unhedged portion.
- *Transportation Revenue Bonds, Series 2005D* — 3.561% per annum taking into account the interest rate swaps.
- *Transportation Revenue Bonds, Series 2005E* — 3.561% per annum taking into account the interest rate swaps and 4.00% per annum on the unhedged portion.
- *Transportation Revenue Bonds, Series 2011B* — 3.542% per annum taking into account the interest rate swaps plus the current fixed floating rate note spread; and 4.00% per annum plus the current fixed floating rate note spread on the unhedged portion.
- *Transportation Revenue Bonds, Series 2012A* — 4.00% per annum plus the current fixed floating rate note spread.
- *Transportation Revenue Bonds, Series 2012G* — 3.563% per annum taking into account the interest rate swaps plus the current fixed floating rate note spread.
- *Transportation Revenue Bonds, Series 2014D-2* — 4.00% per annum plus the current fixed floating rate note spread.
- *Transportation Revenue Bonds, Series 2015A-2* — 4.00% per annum plus the current fixed floating rate note spread.
- *Transportation Revenue Bonds, Series 2015E* — 4.00% per annum.
- *Dedicated Tax Fund Bonds, Series 2002B* — 4.00% per annum on SubSeries 2002B-1; and 4.00% per annum plus the current fixed floating rate note spread.
- *Dedicated Tax Fund Variable Rate Refunding Bonds, Series 2008A* — 3.316% per annum taking into account the interest rate swaps plus the current fixed floating rate note spread; and 4.00% per annum plus the current fixed floating rate note spread on the unhedged portion.
- *Dedicated Tax Fund Refunding Bonds, SubSeries 2008B-3a and 2008B-3c* — 4.00% per annum plus the current fixed floating rate note spread.
- *MTA Bridges and Tunnels Subordinate Refunding Bonds, Series 2000ABCD* — 6.08% per annum taking into account the interest rate swap plus the current fixed floating rate note spread; and 4.00% per annum plus the current fixed floating rate note spread on the unhedged portion.
- *MTA Bridges and Tunnels General Revenue Refunding Bonds, Series 2001C* — 4.00% per annum.
- *MTA Bridges and Tunnels General Revenue Refunding Bonds, Series 2001B* — 4.00% per annum plus the current fixed floating rate note spread.

- *MTA Bridges and Tunnels General Revenue Refunding Bonds, Series 2002F* — 5.404% and 3.076% per annum taking into account the interest rate swaps and 4.00% per annum on portions not covered by the interest rate swaps.
- *MTA Bridges and Tunnels General Revenue Bonds, Series 2003B* — 4.00% per annum; and 4.00% per annum plus the current fixed floating rate note spread on SubSeries 2003B-2.
- *MTA Bridges and Tunnels General Revenue Bonds, Series 2005A* — 4.00% per annum except from November 1, 2027 through November 1, 2030, 3.076% per annum taking into account the interest rate swap.
- *MTA Bridges and Tunnels General Revenue Refunding Bonds, Series 2005B* — 3.076% per annum based on the Initial Interest Rate Swaps plus the current fixed floating rate note spread.
- *MTA Bridges and Tunnels General Revenue Bonds, Series 2008B-2* — 4.00% per annum plus the current fixed floating rate note spread.
- *MTA Bridges and Tunnels General Revenue Bonds, Series 2018D* — 4.00% per annum plus the current fixed floating rate note spread.
- *MTA Bridges and Tunnels General Revenue Bonds, Series 2018E* — 4.00% per annum.

Loans Payable – The MTA and the New York Power Authority (“NYPA”) entered into an updated Energy Services Program Agreement (“ESP Agreement”). The ESP Agreement authorized MTA affiliates and subsidiaries to enter into a Customer Installation Commitment (“CIC”) with NYPA for turn-key, energy efficiency projects, which would usually be long-term funded and constructed by NYPA. The repayment period for the NYPA loan can be up to 20 years, but can be repaid at any time without penalty.

The debt service requirements at June 30, 2019 are as follows:

Loans Payable (in millions)

Year	(Unaudited)	Principal	Interest	Total
2019		\$ 13	\$ 2	\$ 15
2020		15	2	17
2021		14	2	16
2022		13	1	14
2023		11	1	12
2024-2028		36	3	39
2029-2033		19	1	20
2034-2038		0	0	0
Total		<u>\$ 121</u>	<u>\$ 12</u>	<u>\$ 133</u>
Current portion		\$ 13		
Long-term portion		108		
Total NYPA Loans Payable		<u>\$ 121</u>		

The above interest amounts include both fixed and variable rate calculations. Interest on the variable-rate loan is paid at the Securities Industry and Financial Markets Association Municipal Swap Index (“SIFMA”) rate and is reset annually.

Tax Rebate Liability — Under the Internal Revenue Code of 1986, the MTA may accrue a liability for an amount of rebateable arbitrage resulting from investing low-yielding, tax-exempt bond proceeds in higher-yielding, taxable securities. The arbitrage liability is payable to the federal government every five years. No accruals or payments were made during the periods ended June 30, 2019 and December 31, 2018.

Liquidity Facility — MTA and MTA Bridges and Tunnels have entered into several Standby Bond Purchase Agreements (“SBPA”) and Letter of Credit Agreements (“LOC”) as listed on the table below.

Resolution	Series	Swap	Provider (Insurer)	Type of Facility	Exp. Date
Transportation Revenue	2002G-1g	Y	TD Bank, N.A.	LOC	11/1/2021
Transportation Revenue	2005D-2	Y	Helaba	LOC	11/10/2022
Transportation Revenue	2005E-1	Y	PNC Bank, National Association	LOC	8/20/2021
Transportation Revenue	2005E-2	Y	Bank of America, N.A.	LOC	12/10/2021
Transportation Revenue	2.01E+00	Y	PNC Bank, National Association	LOC	8/20/2021
Transportation Revenue	2012A-2	N	Bank of Montreal	LOC	6/2/2022
Transportation Revenue	2012G-2	Y	TD Bank, N.A.	LOC	11/1/2021
Transportation Revenue	2015E-1	N	U.S. Bank National Association	LOC	8/20/2021
Transportation Revenue	2015E-3	N	Bank of America, N.A.	LOC	9/2/2022
Transportation Revenue	2015E-4	N	PNC Bank, National Association	LOC	9/3/2021
Dedicated Tax Fund	2002B-1	N	Bank of Tokyo Mitsubishi	LOC	3/22/2021
Dedicated Tax Fund	2008A-1	Y	TD Bank, N.A.	LOC	6/13/2022
MTA Bridges and Tunnels General Revenue	2001C	Y	State Street	LOC	6/26/2023
MTA Bridges and Tunnels General Revenue	2002F	Y	Citibank, N.A.	LOC	10/29/2021
MTA Bridges and Tunnels General Revenue	2003B-1	N	Bank of America, N.A.	LOC	1/21/2022
MTA Bridges and Tunnels General Revenue	2005A	Y	TD Bank, N.A.	LOC	1/28/2020
MTA Bridges and Tunnels General Revenue	2005B-2	Y	Citibank, N.A.	LOC	1/23/2021
MTA Bridges and Tunnels General Revenue	2005B-3	Y	State Street	LOC	6/26/2023
MTA Bridges and Tunnels General Revenue	2005B-4c	Y	U.S. Bank National Association	LOC	5/26/2022
MTA Bridges and Tunnels General Revenue	2018E	N	Bank of America, N.A.	LOC	12/12/2022

Derivative Instruments — Fair value for the swaps is calculated in accordance with GASB Statement No. 72, utilizing the income approach and Level 2 inputs. It incorporates the mid-market valuation, nonperformance risk of either MTA/MTA Bridges and Tunnels or the counterparty, as well as bid/offer. The fair values were estimated using the zero-coupon method. This method calculates the future net settlement payments required by the swap, assuming that the current forward rates implied by the yield curve correctly anticipate future spot interest rates. These payments are then discounted using the spot rates implied by the current yield curve for hypothetical zero-coupon bonds due on the date of each future net settlement on the swap.

The fair value balances and notional amounts of derivative instruments outstanding at June 30, 2019 and December 31, 2018, classified by type, and the changes in fair value of such derivative instruments from the year ended December 31, 2018 are as follows:

Derivative Instruments - Summary Information

(in \$ millions)

(in \$ millions)						As of June 30, 2019	
Bond Resolution Credit	Underlying Bond Series	Type of Derivative	Cash Flow or Fair Value Hedge	Effective Methodology	Trade/Hedge Association Date	Notional Amount	Fair Value
Cashflow Hedges							
						(Unaudited)	
MTA Bridges and Tunnels Senior Revenue Bonds	2002F & 2003B-2 (Citi 2005B)	Libor Fixed Payer	Cash Flow	Synthetic Instrument	6/2/2005	\$ 189.300	\$ (32.838)
MTA Bridges and Tunnels Senior Revenue Bonds	2005B-2,3,4	Libor Fixed Payer	Cash Flow	Synthetic Instrument	6/2/2005	567.900	(98.513)
MTA Bridges and Tunnels Senior Revenue Bonds	2005A (COPS 2004A)	Libor Fixed Payer	Cash Flow	Synthetic Instrument	4/1/2016	22.650	(2.873)
MTA Bridges and Tunnels Senior Revenue Bonds	2001C (COPS 2004A)	Libor Fixed Payer	Cash Flow	Synthetic Instrument	12/5/2016	21.275	(1.470)
MTA Dedicated Tax Fund Bonds	2008A	Libor Fixed Payer	Cash Flow	Synthetic Instrument	3/8/2005	324.670	(46.377)
MTA Transportation Revenue Bonds	2002D-2	Libor Fixed Payer	Cash Flow	Synthetic Instrument	7/11/2002	200.000	(67.808)
MTA Transportation Revenue Bonds	2005D & 2005E	Libor Fixed Payer	Cash Flow	Synthetic Instrument	9/10/2004	365.860	(68.668)
MTA Transportation Revenue Bonds	2012G	Libor Fixed Payer	Cash Flow	Synthetic Instrument	12/12/2007	356.775	(86.720)
MTA Transportation Revenue Bonds	2002G-1 (COPS 2004A)	Libor Fixed Payer	Cash Flow	Synthetic Instrument	4/1/2016	112.730	(9.046)
MTA Transportation Revenue Bonds	2011B (COPS 2004A)	Libor Fixed Payer	Cash Flow	Synthetic Instrument	4/1/2016	84.520	(15.972)
Total						\$ 2,245.680	\$ (430.285)

Derivative Instruments - Summary Information

(in \$ millions)

Bond Resolution Credit	Underlying Bond Series	Type of Derivative	Cash Flow or Fair Value Hedge	Effective Methodology	Trade/Hedge Association Date	As of December 31, 2018	
						Notional Amount	Fair Value
Cashflow Hedges							
MTA Bridges and Tunnels Senior Revenue Bonds	2002F & 2003B-2 (Citi 2005B)	Libor Fixed Payer	Cash Flow	Synthetic Instrument	6/2/2005	\$ 191.300	\$ (29.658)
MTA Bridges and Tunnels Senior Revenue Bonds	2005B-2,3,4	Libor Fixed Payer	Cash Flow	Synthetic Instrument	6/2/2005	573.900	(88.974)
MTA Bridges and Tunnels Senior Revenue Bonds	2005A (COPS 2004A)	Libor Fixed Payer	Cash Flow	Synthetic Instrument	4/1/2016	22.765	(3.028)
MTA Bridges and Tunnels Senior Revenue Bonds	2001C (COPS 2004A)	Libor Fixed Payer	Cash Flow	Synthetic Instrument	12/5/2016	57.475	(2.409)
MTA Bridges and Tunnels Subordinate Revenue Bonds	2000ABCD	SIFMA Fixed Payer	Cash Flow	Synthetic Instrument	8/12/1998	34.150	(1.450)
MTA Dedicated Tax Fund Bonds	2008A	Libor Fixed Payer	Cash Flow	Synthetic Instrument	3/8/2005	326.860	(45.587)
MTA Transportation Revenue Bonds	2002D-2	Libor Fixed Payer	Cash Flow	Synthetic Instrument	7/11/2002	200.000	(65.547)
MTA Transportation Revenue Bonds	2005D & 2005E	Libor Fixed Payer	Cash Flow	Synthetic Instrument	9/10/2004	380.700	(67.631)
MTA Transportation Revenue Bonds	2012G	Libor Fixed Payer	Cash Flow	Synthetic Instrument	12/12/2007	357.150	(81.075)
MTA Transportation Revenue Bonds	2002G-1 (COPS 2004A)	Libor Fixed Payer	Cash Flow	Synthetic Instrument	4/1/2016	142.015	(11.405)
MTA Transportation Revenue Bonds	2011B (COPS 2004A)	Libor Fixed Payer	Cash Flow	Synthetic Instrument	4/1/2016	56.220	(14.961)
Total						\$ 2,342.535	\$ (411.725)

	Changes In Fair Value Amount Classification (in millions)	Fair Value at June 30, 2019 Amount Classification (in millions)	Notional (in millions)
Government activities	(Unaudited)	(Unaudited)	(Unaudited)
Cash Flow hedges:			
Pay-fixed interest rate swaps	Deferred outflow of resources \$(97.350)	Debt \$(430.285)	\$2,245.680

Swap Agreements Relating to Synthetic Fixed Rate Debt

Board-adopted Guidelines. The Related Entities adopted guidelines governing the use of swap contracts on March 26, 2002. The guidelines were amended and approved by the MTA Board on March 13, 2013. The guidelines establish limits on the amount of interest rate derivatives that may be outstanding and specific requirements that must be satisfied for a Related Entity to enter into a swap contract, such as suggested swap terms and objectives, retention of a swap advisor, credit ratings of the counterparties, collateralization requirements and reporting requirements.

Objectives of synthetic fixed rate debt. To achieve cash flow savings through a synthetic fixed rate, MTA and MTA Bridges and Tunnels have entered into separate pay-fixed, receive-variable interest rate swaps at a cost anticipated to be less than what MTA and MTA Bridges and Tunnels would have paid to issue fixed-rate debt, and in some cases where Federal tax law prohibits an advance refunding to synthetically refund debt on a forward basis.

Terms and Fair Values. The terms, fair values and counterparties of the outstanding swaps of MTA and MTA Bridges and Tunnels are reflected in the following tables (as of June 30, 2019).

Metropolitan Transportation Authority						
Related Bonds	Notional Amount as of 6/30/19 (Unaudited)	Effective Date	Maturity Date	Terms	Counterparty and Ratings(S&P / Moody's / Fitch)	Fair Value as of 6/30/19 (Unaudited)
TRB 2002D-2	\$ 200.000	01/01/07	11/01/32	Pay 4.45%; receive 69% 1M LIBOR	JPMorgan Chase Bank, NA (A+ / Aa2 / AA)	\$ (67.808)
TRB 2005D & 2005E	274.395	11/02/05	11/01/35	Pay 3.561%; receive 67% 1M LIBOR	UBS AG (A+ / Aa3 / AA-)	(51.501)
TRB 2005E	91.465	11/02/05	11/01/35	Pay 3.561%; receive 67% 1M LIBOR	AIG Financial Products ⁽¹⁾ (BBB+ / Baa1 / BBB+)	(17.167)
TRB 2012G	356.775	11/15/12	11/01/32	Pay 3.563%; receive 67% 1M LIBOR	JPMorgan Chase Bank, NA (A+ / Aa2 / AA)	(86.720)
DTF 2008A	324.670	03/24/05	11/01/31	Pay 3.3156%; receive 67% 1M LIBOR	Bank of New York Mellon (AA- / Aa2 / AA)	(46.377)
Total	\$ 1,247.305					\$ (269.573)

¹ Guarantor: American International Group, Inc., parent of AIG Financial Products.

MTA Bridges and Tunnels						
Related Bonds	Notional Amount as of 6/30/19 (Unaudited)	Effective Date	Maturity Date	Terms	Counterparty and Ratings (S&P / Moody's / Fitch)	Fair Value as of 6/30/19 (Unaudited)
TBTA 2002F & 2003B-2	\$ 189.300	07/07/05	01/01/32	Pay 3.076%; receive 67% 1M LIBOR	Citibank, N.A. (A+ / Aa3 / A+)	\$ (32.838)
TBTA 2005B-2	189.300	07/07/05	01/01/32	Pay 3.076%; receive 67% 1M LIBOR	JPMorgan Chase Bank, NA (A+ / Aa2 / AA)	(32.838)
TBTA 2005B-3	189.300	07/07/05	01/01/32	Pay 3.076%; receive 67% 1M LIBOR	BNP Paribas North America (A+ / Aa3 / A+)	(32.838)
TBTA 2005B-4	189.300	07/07/05	01/01/32	Pay 3.076%; receive 67% 1M LIBOR	UBS AG (A+ / Aa3 / AA-)	(32.838)
TRB 2002G-1 & 2011B ¹ TBTA 2005A & 2001C	120.588 ²	04/01/16	01/01/30	Pay 3.52%; receive 67% 1M LIBOR	U.S. Bank N.A. (AA- / A1 / AA-)	(14.680) ²
TRB 2002G-1 & 2011B ¹ TBTA 2005A & 2001C	120.587 ²	04/01/16	01/01/30	Pay 3.52%; receive 67% 1M LIBOR	Wells Fargo Bank, N.A. (A+ / Aa2 / AA-)	(14.680) ²
Total	\$ 998.375					\$ (160.712)

¹ Between November 22, 2016 and December 5, 2016, the Variable Rate Certificates of Participation, Series 2004A were redeemed. Corresponding notional amounts from the Series 2004A COPs were reassigned to MTA Bridges and Tunnels General Revenue Variable Rate Bonds, Series 2001C.

² Pursuant to an Interagency Agreement (following novations from UBS in April 2016), MTA New York City Transit is responsible for 68.7%, MTA is responsible for 21.0%, and TBTA is responsible for 10.3% of the transaction.

LIBOR: London Interbank Offered Rate

TRB: Transportation Revenue Bonds

DTF: Dedicated Tax Fund Bonds

Risks Associated with the Swap Agreements

From MTA's and MTA Bridges and Tunnels' perspective, the following risks are generally associated with swap agreements:

Credit Risk. The risk that a counterparty becomes insolvent or is otherwise not able to perform its financial obligations. To mitigate the exposure to credit risk, the swap agreements include collateral provisions in the event of downgrades to the swap counterparties' credit ratings. Generally, MTA and MTA Bridges and Tunnels' swap agreements contain netting provisions under which transactions executed with a single counterparty are netted to determine collateral amounts. Collateral may be posted with a third-party custodian in the form of cash, U.S. Treasury securities, or certain Federal agency securities. MTA and MTA Bridges and Tunnels require its counterparties to fully collateralize if ratings fall below certain levels (in general, at the Baa1/BBB+ or Baa2/BBB levels), with partial posting requirements at higher rating levels (details on collateral posting discussed further under "Collateralization/Contingencies"). As of June 30, 2019, all of the valuations were in liability positions to MTA and MTA Bridges and Tunnels; accordingly, no collateral was posted by any of the counterparties.

The following table shows, as of June 30, 2019, the diversification, by percentage of notional amount, among the various counterparties that have entered into ISDA Master Agreements with MTA and/or MTA Bridges and Tunnels. The notional amount totals below include all swaps.

Counterparty	S&P	Moody's	Fitch	Notional Amount (in thousands) (Unaudited)	% of Total Notional Amount (Unaudited)
JPMorgan Chase Bank, NA	A+	Aa2	AA	\$746,075	33.22%
UBS AG	A+	Aa3	AA-	463,695	20.65
The Bank of New York Mellon	AA-	Aa2	AA	324,670	14.46
Citibank, N.A.	A+	Aa3	A+	189,300	8.43
BNP Paribas North America, Inc.	A+	Aa3	A+	189,300	8.43
U.S. Bank National Association	AA-	A1	AA-	120,588	5.37
Wells Fargo Bank, N.A.	A+	Aa2	AA-	120,587	5.37
AIG Financial Products Corp.	BBB+	Baa1	BBB+	91,465	4.07
Total				\$2,245,680	100.00%

Interest Rate Risk. MTA and MTA Bridges and Tunnels are exposed to interest rate risk on the interest rate swaps. On the pay-fixed, receive variable interest rate swaps, as LIBOR decreases, MTA and MTA Bridges and Tunnels' net payments on the swaps increase.

Basis Risk. The risk that the variable rate of interest paid by the counterparty under the swap and the variable interest rate paid by MTA or MTA Bridges and Tunnels on the associated bonds may not be the same. If the counterparty's rate under the swap is lower than the bond interest rate, then the counterparty's payment under the swap agreement does not fully reimburse MTA or MTA Bridges and Tunnels for its interest payment on the associated bonds. Conversely, if the bond interest rate is lower than the counterparty's rate on the swap, there is a net benefit to MTA or MTA Bridges and Tunnels.

Termination Risk. The risk that a swap agreement will be terminated and MTA or MTA Bridges and Tunnels will be required to make a swap termination payment to the counterparty and, in the case of a swap agreement which was entered into for the purpose of creating a synthetic fixed rate for an advance refunding transaction may also be required to take action to protect the tax-exempt status of the related refunding bonds.

The ISDA Master Agreement sets forth certain termination events applicable to all swaps entered into by the parties to that ISDA Master Agreement. MTA and MTA Bridges and Tunnels have entered into separate ISDA Master Agreements with each counterparty that govern the terms of each swap with that counterparty, subject to individual terms negotiated in a confirmation. MTA and MTA Bridges and Tunnels are subject to termination risk if its credit ratings fall below certain specified thresholds or if MTA/MTA Bridges and Tunnels commits a specified event of default or other specified event of termination. If, at the time of termination, a swap were in a liability position to MTA or MTA Bridges and Tunnels, a termination payment would be owed by MTA or MTA Bridges and Tunnels to the counterparty, subject to applicable netting arrangements.

The following tables set forth the Additional Termination Events for MTA/MTA Bridges and Tunnels and its counterparties.

MTA Transportation Revenue		
Counterparty Name	MTA	Counterparty
AIG Financial Products Corp.; JPMorgan Chase Bank, NA; UBS AG	Below Baa3 (Moody's) or BBB- (S&P)*	Below Baa3 (Moody's) or BBB- (S&P)*

*Note: Equivalent Fitch rating is replacement for Moody's or S&P.

MTA Dedicated Tax Fund		
Counterparty Name	MTA	Counterparty
Bank of New York Mellon	Below BBB (S&P) or BBB (Fitch)*	Below A3 (Moody's) or A- (S&P)**

*Note: Equivalent Moody's rating is replacement for S&P or Fitch.

**Note: Equivalent Fitch rating is replacement for Moody's or S&P.

MTA Bridges and Tunnels Senior Lien		
Counterparty Name	MTA Bridges and Tunnels	Counterparty
BNP Paribas North America, Inc.; Citibank, N.A.; JPMorgan Chase Bank, NA; UBS AG	Below Baa2 (Moody's) or BBB (S&P)*	Below Baa1 (Moody's) or BBB+ (S&P)*

*Note: Equivalent Fitch rating is replacement for Moody's or S&P.

MTA Bridges and Tunnels Subordinate Lien		
Counterparty Name	MTA Bridges and Tunnels	Counterparty
U.S. Bank National Association; Wells Fargo Bank, N.A.	Below Baa2 (Moody's) or BBB (S&P)*	Below Baa2 (Moody's) or BBB (S&P)**

*Note: Equivalent Fitch rating is replacement for Moody's or S&P. If not below Investment Grade, MTA Bridges and Tunnels may cure such Termination Event by posting collateral at a Zero threshold.

**Note: Equivalent Fitch rating is replacement for Moody's or S&P.

MTA and MTA Bridges and Tunnels' ISDA Master Agreements provide that the payments under one transaction will be netted against other transactions entered into under the same ISDA Master Agreement. Under the terms of these agreements, should one party become insolvent or otherwise default on its obligations, close-out netting provisions permit the non-defaulting party to accelerate and terminate all outstanding transactions and net the amounts so that a single sum will be owed by, or owed to, the non-defaulting party.

Rollover Risk. The risk that the swap agreement matures or may be terminated prior to the final maturity of the associated bonds on a variable rate bond issuance, and MTA or MTA Bridges and Tunnels may be exposed to then market rates and cease to receive the benefit of the synthetic fixed rate for the duration of the bond issue. The following debt is exposed to rollover risk:

Associated Bond Issue	Bond Maturity Date	Swap Termination Date
MTA Bridges and Tunnels General Revenue Variable Rate Bonds, Series 2001C (swaps with U.S. Bank/Wells Fargo)	January 1, 2032	January 1, 2030
MTA Bridges and Tunnels General Revenue Variable Rate Refunding Bonds, Series 2002F (swap with Citibank, N.A.)	November 1, 2032	January 1, 2032
MTA Bridges and Tunnels General Revenue Variable Rate Bonds, Series 2003B (swap with Citibank, N.A.)	January 1, 2033	January 1, 2032
MTA Bridges and Tunnels General Revenue Variable Rate Bonds, Series 2005A (swaps with U.S. Bank/Wells Fargo and Citibank, N.A.)	November 1, 2035	January 1, 2030 (U.S. Bank/Wells Fargo) January 1, 2032 (Citibank)
MTA Transportation Revenue Variable Rate Bonds, Series 2011B (swaps with U.S. Bank/Wells Fargo)	November 1, 2041	January 1, 2030

Collateralization/Contingencies. Under the majority of the swap agreements, MTA and/or MTA Bridges and Tunnels is required to post collateral in the event its credit rating falls below certain specified levels. The collateral posted is to be in the form of cash, U.S. Treasury securities, or certain Federal agency securities, based on the valuations of the swap agreements in liability positions and net of the effect of applicable netting arrangements. If MTA and/or MTA Bridges and Tunnels do not post collateral, the swap(s) may be terminated by the counterparty(ies).

As of June 30, 2019, the aggregate mid-market valuation of the MTA's swaps subject to collateral posting agreements was (\$230.158); as of this date, the MTA was not subject to collateral posting based on its credit ratings (see further details below).

As of June 30, 2019, the aggregate mid-market valuation of MTA Bridges and Tunnels' swaps subject to collateral posting agreements was (\$160.149); as of this date, MTA Bridges and Tunnels was not subject to collateral posting based on its credit ratings (see further details below).

The following tables set forth the ratings criteria and threshold amounts applicable to MTA/MTA Bridges and Tunnels and its counterparties.

MTA Transportation Revenue		
Counterparty	MTA Collateral Thresholds (based on highest rating)	Counterparty Collateral Thresholds (based on highest rating)
AIG Financial Products Corp.; JPMorgan Chase Bank, NA; UBS AG	Baa1/BBB+: \$10 million Baa2/BBB & below: Zero	Baa1/BBB+: \$10 million Baa2/BBB & below: Zero

Note: Based on Moody's and S&P ratings. In all cases except JPMorgan counterparty thresholds, Fitch rating is replacement for either Moody's or S&P, at which point threshold is based on lowest rating.

MTA Dedicated Tax Fund		
Counterparty	MTA Collateral Thresholds	Counterparty Collateral Thresholds (based on lowest rating)
Bank of New York Mellon	N/A—MTA does not post collateral	Aa3/AA- & above: \$10 million A1/A+: \$5 million A2/A: \$2 million A3/A-: \$1 million Baa1/BBB+ & below: Zero

Note: Counterparty thresholds based on Moody's and S&P ratings. Fitch rating is replacement for either Moody's or S&P.

MTA Bridges and Tunnels Senior Lien		
Counterparty	MTA Bridges and Tunnels Collateral Thresholds (based on highest rating)	Counterparty Collateral Thresholds (based on highest rating)
BNP Paribas North America, Inc.; Citibank, N.A.; JPMorgan Chase Bank, NA; UBS AG	Baa1/BBB+: \$30 million Baa2/BBB: \$15 million Baa3/BBB- & below: Zero	A3/A-: \$10 million Baa1/BBB+ & below: Zero

Note: MTA Bridges and Tunnels thresholds based on Moody's, S&P, and Fitch ratings. Counterparty thresholds based on Moody's and S&P ratings; Fitch rating is replacement for Moody's or S&P.

MTA Bridges and Tunnels Subordinate Lien		
Counterparty	MTA Bridges and Tunnels Collateral Thresholds (based on lowest rating)	Counterparty Collateral Thresholds (based on lowest rating)
U.S. Bank National Association; Wells Fargo Bank, N.A.	Baa3/BBB- & below: Zero (note: only applicable as cure for Termination Event)	Aa3/AA- & above: \$15 million A1/A+ to A3/A-: \$5 million Baa1/BBB+ & below: Zero

Note: Thresholds based on Moody's and S&P ratings. Fitch rating is replacement for Moody's or S&P.

Swap payments and Associated Debt. The following tables contain the aggregate amount of estimated variable- rate bond debt service and net swap payments during certain years that such swaps were entered into in order to: protect against the potential of rising interest rates; achieve a lower net cost of borrowing; reduce exposure to changing interest rates on a related bond issue; or, in some cases where Federal tax law prohibits an advance refunding, achieve debt service savings through a synthetic fixed rate. As rates vary, variable-rate bond interest payments and net swap payments will vary. Using the following assumptions, debt service requirements of MTA's and MTA Bridges and Tunnels' outstanding variable-rate debt and net swap payments are estimated to be as follows:

- It is assumed that the variable-rate bonds would bear interest at a rate of 4.0% per annum.
- The net swap payments were calculated using the actual fixed interest rate on the swap agreements.

MTA				
(in millions)				
Period Ended June 30, 2019	Variable-Rate Bonds		Net Swap Payments	Total
	Principal	Interest		
2019	55.6	48.6	(5.2)	99.0
2020	38.4	46.5	(4.9)	80.0
2021	58.3	44.9	(4.7)	98.5
2022	63.3	42.6	(4.4)	101.4
2023	65.7	40.1	(4.1)	101.6
2024-2028	328.7	173.3	(15.5)	486.6
2029-2033	790.8	423.2	(6.5)	1,207.6
2034-2038	108.4	22.7	(1.1)	130.1

MTA Bridges and Tunnels				
(in millions)				
Period Ended June 30, 2019	Variable-Rate Bonds		Net Swap Payments	Total
	Principal	Interest		
2019	43.4	38.0	(6.9)	74.5
2020	25.4	37.0	(6.9)	55.6
2021	26.6	36.0	(6.8)	55.8
2022	27.6	34.9	(6.8)	55.7
2023	28.6	33.8	(6.8)	55.6
2024-2028	201.9	144.5	(32.0)	314.4
2029-2033	644.2	43.2	(10.1)	677.3
2034-2038	-	2.5	-	2.5

8. LEASE TRANSACTIONS

Leveraged Lease Transactions: Qualified Technological Equipment — On December 19, 2002, the MTA entered into four sale/leaseback transactions whereby MTA New York City Transit transferred ownership of certain MTA New York City Transit qualified technological equipment (“QTE”) relating to the MTA New York City Transit automated fare collection system to the MTA. The MTA sold that equipment to third parties and the MTA leased that equipment back from such third parties. Three of those four leases were terminated early and are no longer outstanding. The fourth lease expires in 2022, at which point the MTA has the option of either exercising a fixed-price purchase option for the equipment or returning the equipment to the third-party owner.

Under the terms of the outstanding sale/leaseback agreement the MTA initially received \$74.9, which was utilized as follows: The MTA paid \$52.1 to an affiliate of the lender to the third party, which affiliate has the obligation to pay to MTA an amount equal to the rent obligations under the lease attributable to the debt service on the loan from the third party’s lender. The MTA also purchased U.S. Treasury debt securities in amounts and with maturities, which are expected to be sufficient to pay the remainder of the regularly scheduled lease rent payments under the lease and the purchase price due upon exercise by the MTA of the related purchase option if exercised.

Leveraged Lease Transaction: Subway Cars — On September 3, 2003, the MTA entered into a sale/leaseback transaction whereby MTA New York City Transit transferred ownership of certain MTA New York City Transit subway cars to the MTA, the MTA sold those cars to a third party, and the MTA leased those cars back from such third party. The MTA subleased the cars to MTA New York City Transit. The lease expires in 2033. At the lease expiration, the MTA has the option of either exercising a fixed-price purchase option for the cars or returning the cars to the third-party owner.

Under the terms of the sale/leaseback agreement, the MTA initially received \$168.1, which was utilized as follows: The MTA paid \$126.3 to an affiliate of one of the lenders to the third party, which affiliate has the obligation to pay to the MTA an amount equal to the rent obligations under the lease attributable to the debt service on such loan from such third party’s lender. The obligations of the affiliate of the third party’s lender are guaranteed by American International Group, Inc. The MTA also purchased the Federal National Mortgage Association (“FNMA”) and U.S. Treasury securities in amounts and with maturities which are sufficient to make the lease rent payments equal to the debt service on the loans from the other lender to the third party and to pay the remainder of the regularly scheduled rent due under that lease and the purchase price due upon exercise by the MTA of the fixed price purchase option if exercised. The amount remaining after payment of transaction expenses, \$7.4, was the MTA’s benefit from the transaction.

Leveraged Lease Transactions: Subway Cars — On September 25, 2003 and September 29, 2003, the MTA entered into two sale/leaseback transactions whereby MTA New York City Transit transferred ownership of certain MTA New York City Transit subway cars to the MTA, the MTA sold those cars to third parties, and the MTA leased those cars back from such third parties. The MTA subleased the cars to MTA New York City Transit. Both leases expire in 2033. At the lease expiration, MTAHQ has the option of either exercising a fixed-price purchase option for the cars or returning the cars to the third-party owner.

Under the terms of the sale/leaseback agreements, the MTA initially received \$294, which was utilized as follows: In the case of one of the leases, the MTA paid \$97 to an affiliate of one of the lenders to the third party, which affiliate has the obligation to pay to the MTA an amount equal to the rent obligations under the lease attributable to the debt service on the loan from such third party’s lender. The obligations of the affiliate of such third party’s lender are guaranteed by American International Group, Inc. In the case of the other lease, the MTA purchased U.S. Treasury debt securities in amounts and with maturities, which are sufficient for the MTA to make the lease rent payments equal to the debt service on the loan from the lender to that third party. In the case of both of the leases, the MTA also purchased Resolution Funding Corporation (“REFCO”) debt securities that mature in 2030. Under an agreement with AIG Matched Funding Corp. (guaranteed by American International Group, Inc.), AIG Matched Funding Corp. receives the proceeds from the REFCO debt securities at maturity and is obligated to pay to the MTA amounts sufficient for the MTA to pay the remainder of the regularly scheduled lease rent payments under those leases and the purchase price due upon exercise by the MTA of the purchase options if exercised. The amount remaining after payment of transaction expenses, \$24, was the MTA’s net benefit from these two transactions.

On September 16, 2008, the MTA learned that American International Group, Inc. was downgraded to a level that under the terms of the transaction documents for the sale/leaseback transaction that closed on September 29, 2003, the MTA was required to replace or restructure the applicable Equity Payment Undertaking Agreement provided by AIG Financial Products Corp. and guaranteed by American International Group, Inc. On December 17, 2008, MTA terminated the Equity Payment Undertaking Agreement provided by AIG Financial Products Corp. and guaranteed by American International Group, Inc. and provided replacement collateral in the form of U.S. Treasury strips. REFCO debt security that was being held in pledge was released to MTA. On November 6, 2008, the MTA learned that Ambac Assurance Corp., the provider of the credit enhancement that insures the MTA’s contingent obligation to pay a portion of the termination values upon an early termination in both the September 25, 2003 and September 29, 2003 transactions, was downgraded to a level that required the provision of new credit enhancement facilities for each lease by December 21, 2008.

On December 17, 2008, MTA terminated the Ambac Assurance Corp. surety bond for the lease transaction that closed on September 25, 2003 and since then MTA has provided short-term U.S. Treasury debt obligations as replacement collateral. As of June 30, 2019, the market value of total collateral funds was \$38.3.

On January 12, 2009, MTA provided a short-term U.S. Treasury debt obligation as additional collateral in addition to the Ambac Assurance Corp. surety bond for the lease transaction that closed on September 29, 2003. From time to time, additional collateral has been required to be added such that the total market value of the securities being held as additional collateral are expected to be sufficient to pay the remainder of the regularly scheduled lease rent payments under the lease. As of June 30, 2019, the market value of total collateral funds was \$54.0.

MTA Hudson Rail Yards Ground Leases – In the 1980's, the MTA developed a portion of the Hudson Rail Yards as a storage yard, car wash and repair facility for the Long Island Railroad Company ("LIRR") rail cars entering Manhattan. It was anticipated that, eventually, the air rights above the Hudson Rail Yards would be developed to meet the evolving needs for high-quality commercial, retail, residential and public space in Manhattan. The Hudson Rail Yards is a rectangular area of approximately 26-acres bounded by 10th Avenue on the east, 12th Avenue on the west, 30th Street on the south and 33rd Street on the North. The Hudson Rail Yards is divided into the Eastern Rail Yards ("ERY") and the Western Rail Yards ("WRY"). In 2008, the MTA selected a development team led by the Related Companies, L.P to develop a commercial, residential and retail development on the ERY and the WRY.

To undertake the development of the Hudson Rail Yards, the MTA entered into 99-year ground leases ("Balance Leases") for the airspace above a limiting plane above the tracks (from 31st to 33rd Streets) and the area where there are no rail tracks (from 30th to 31st Streets) within the boundary of the Hudson Rail Yards ("Ground Leased Property"). The Balance Leases do not encumber the railroad tracks, which will continue to be used for transportation purposes.

The following ground leases, each with a 99-year term (beginning December 3, 2012), entered into between the MTA, as landlord, and a special purpose entity controlled by Related-Oxford, as Ground Lease tenants, all of which Ground Leases demise the Eastern Rail Yards ("ERY") and were severed from the ERY Balance Lease, dated as of April 10, 2013:

- the Ground Lease demising the Tower A Severed Parcel, also known as 30 Hudson Yards.
- the Ground Lease demising the Tower D Severed Parcel, also known as 15 Hudson Yards.
- the Ground Lease demising the Tower E Severed Parcel, also known as 35 Hudson Yards.
- the Ground Lease demising the Retail Podium Severed Parcel.
- the Ground Lease demising the Retail Pavilion Parcel.

The 99-year West Side Rail Yard ("WRY") Balance Lease (beginning December 3, 2013) between the MTA and a special purpose entity controlled by Related-Oxford demising the WRY and the Severed Parcel Leases to be entered into upon the creation of Severed Parcels that may be severed from the WRY, at the option of the applicable Ground Lease Tenant, upon satisfaction of certain conditions, in order to construct improvements thereon in accordance with the terms of the applicable Severed Parcel Lease.

Both the ERY and WRY Ground Leases were pledged as security for the Series 2016A Hudson Yards Trust Obligations.

The MTA has also entered into the following ground leases which do not provide a source of payment or security for the Series 2016A Hudson Yards Trust Obligations:

- the now-terminated ground lease demising Tower C, also known as 10 Hudson Yards, as to which the Ground Lease tenant closed on its exercise of its Fee Conversion Option on August 1, 2016 for which MTA received \$120.
- the ground lease demising the Culture Shed, which does not pay any Monthly Ground Rent, and
- the ground lease demising the Open Space Severed Parcel which does not pay any Monthly Ground Rent.

The Severed Parcel Ground Leases required Ground Lease Tenants, at their sole cost and expense, to construct the Long Island Railroad Roof ("LIRR Roof") over the Long Island Railroad tracks in the Hudson Rail Yards, which LIRR Roof will serve as the foundation for substantial portions of the buildings and other improvements being constructed pursuant to each Severed Parcel Ground Lease. Each Ground Lease tenant has the option to purchase fee title to the Ground Leased Property at any time following completion of construction of the building on the Ground Leased Property.

The MTA has classified the ERY and WRY Ground Leases as operating leases. If at the inception of the ground leases, the leases meet one or more of the following four criteria, the lease should be classified as a capital lease. Otherwise, it should be classified as an operating lease. The ERY and WRY Ground Leases did not meet one or more of the following criteria:

- i. The lease transfers ownership of the property to the lessee by the end of the lease term.
- ii. The lease contains a bargain purchase option.
- iii. The lease term is equal to 75 percent or more of the estimated economic life of the leased property.
- iv. The present value at the beginning of the lease term of the minimum lease payments, equals or exceeds 90 percent of the excess of the fair value of the leased property to the lessor at the inception of the lease over any related investment tax credit retained by and expected to be realized by the lessor.

Minimum rent receipts for ERY and WRY Ground Leases are as follows as of June 30, 2019 (unaudited):

Year	ERY		WRY		Total
2019	\$	9	\$	8	\$ 17
2020		19		16	35
2021		19		32	51
2022		19		33	52
2023		19		33	52
Thereafter		868		1,525	2,393
Total	\$	953	\$	1,647	\$ 2,600

Other Lease Transactions — On July 29, 1998 the MTA, (solely on behalf of MTA Long Island Rail Road and MTA Metro-North Railroad, MTA New York City Transit, and MTA Bridges and Tunnels) entered into a lease and related agreements whereby each agency, as sublessee, will rent, an office building at Two Broadway in lower Manhattan. The triple-net-lease has an initial stated term of approximately 50 years, with the right to extend the lease for two successive 15-year periods at a rental of at least 95% of fair market rent. Remaining payments under the lease approximate \$1.1 billion. Under the subleases, the lease is apportioned as follows: MTA New York City Transit, 68.7%, MTA, 21%; and MTA Bridges and Tunnels, 10.3%. However, the involved agencies have agreed to sub-sublease space from one another as necessary to satisfy actual occupancy needs. The agencies will be responsible for obligations under the lease based on such actual occupancy percentages. Actual occupancy percentages at June 30, 2019, for the MTA New York City Transit, MTA Bridges and Tunnels and MTA (including MTA Bus, MTA Capital Construction Company and MTA Business Service Center) were 57.6%, 7.5% and 34.9%, respectively. MTAs' sublease is for a year-to-year term, automatically extended, except upon the giving of a non-extension notice by MTA. The lease is comprised of both operating and capital elements, with the portion of the lease attributable to the land recorded as an operating lease, and the portion of the lease attributable to the building recorded as a capital lease. The total annual rental payments over the initial lease term are \$1,602 with rent being abated from the commencement date through June 30, 1999. The office building at 2 Broadway, is principally occupied by MTA New York City Transit, MTA Bridges and Tunnels, MTA Capital Construction, and MTAHQ.

MTA reflected a capital lease obligation as of June 30, 2019 and December 31, 2018 of \$234 and \$234, respectively. The MTA made rent payments of \$14 and \$25 for the period ended June 30, 2019 and December 31, 2018, respectively. MTA pays the lease payments on behalf of MTA New York City Transit and MTA Bridges and Tunnels and subsequently makes monthly chargebacks in the form of rental payments. During 2018, the total of the rental payments charged to MTA New York City Transit and MTA Bridges and Tunnels was \$4.52 and \$1.84 less, respectively, than the lease payment made by MTA on behalf of MTA New York City Transit and MTA Bridges and Tunnels.

The adjusted capital lease for the aforementioned building is being amortized over the remaining life of the lease. The cost of the building and related accumulated amortization at June 30, 2019 and December 31, 2018, is as follows (in millions):

	June 30, 2019 (Unaudited)	December 31, 2018
Capital lease - building	\$196	\$196
Less accumulated amortization	(94)	(92)
Capital lease - building - net	<u>\$102</u>	<u>\$104</u>

On April 8, 1994, the MTA amended its lease for the Harlem/Hudson line properties, including Grand Central Terminal. This amendment initially extends the lease term, previously expiring in 2031, an additional 110 years and, pursuant to several other provisions, an additional 133 years. In addition, the amendment grants the MTA an option to purchase the

leased property after the 25th anniversary of the amended lease, subject to the owner's right to postpone such purchase option exercise date for up to an additional 15 years if the owner has not yet closed the sale, transfer or conveyance of an aggregate amount of 1,000,000 square feet or more of development rights appurtenant to Grand Central Terminal and the associated zoning lots. The amended lease comprises both operating (for the lease of land) and capital (for the lease of buildings and track structure) elements.

In August 1988, the MTA entered into a 99-year lease agreement with Amtrak for Pennsylvania Station. This agreement, with an option to renew, is for rights to the lower concourse level and certain platforms.

The \$45 paid to Amtrak by the MTA under this agreement is included in other assets. This amount is being amortized over 30 years.

Total rent expense under operating leases approximated \$36.5 and \$36.2 for the periods ended June 30, 2019 and 2018, respectively.

At June 30, 2019, the future minimum lease payments under non-cancelable leases are as follows (in millions):

Years	Operating		Capital	
	(Unaudited)			
2019	\$	52	\$	24
2020		77		33
2021		75		24
2022		80		75
2023		80		19
2024–2028		416		107
2029–2033		446		557
2034–2038		313		158
2039–2043		275		175
2044–2048		264		174
Thereafter		261		200
Future minimum lease payments	\$	<u>2,339</u>		1,546
Amount representing interest				(1,099)
Total present value of capital lease obligations				447
Less current present value of capital lease obligations				11
Noncurrent present value of capital lease obligations			\$	<u>436</u>

Capital Leases Schedule

For the Period Ended June 30, 2019

Description	December 31,				June 30,
	2018	Increase	Decrease	2019	
			(Unaudited)	(Unaudited)	
Sumitomo	\$ 15	\$ -	\$ -	\$ -	15
Met Life	6	-	-	-	6
Met Life Equity	19	-	-	-	19
Bank of New York	22	-	-	-	22
Bank of America	39	-	-	-	39
Bank of America Equity	16	-	-	-	16
Sumitomo	27	1	-	-	28
Met Life Equity	55	-	-	-	55
Grand Central Terminal & Harlem Hudson Railroad Lines	14	-	1	1	13
2 Broadway Lease Improvement	177	-	-	-	177
2 Broadway	57	-	-	-	57
Total MTA Capital Lease	\$ 447	\$ 1	\$ 1	\$ 1	447
Current Portion Obligations under Capital Lease	4				11
Long Term Portion Obligations under Capital Lease	\$ 443				\$ 436

Capital Leases Schedule

For the Year Ended December 31, 2018

Description	December 31, 2017	Increase	Decrease	December 31, 2018
Sumitomo	\$ 15	\$ -	\$ -	\$ 15
Met Life	6	-	-	6
Met Life Equity	19	-	-	19
Bank of New York	22	-	-	22
Bank of America	37	2	-	39
Bank of America Equity	16	-	-	16
Sumitomo	31	1	5	27
Met Life Equity	52	3	-	55
Grand Central Terminal & Harlem Hudson Railroad Lines	14	-	-	14
2 Broadway Lease Improvement	173	4	-	177
2 Broadway	55	2	-	57
Total MTA Capital Lease	\$ 440	\$ 12	\$ 5	\$ 447
Current Portion Obligations under Capital Lease	4			4
Long Term Portion Obligations under Capital Lease	\$ 436			\$ 443

9. FUTURE OPTION

In 2010, MTA and MTA Long Island Railroad entered into an Air Space Parcel Purchase and Sale Agreement (“Agreement”) with Atlantic Yards Development Company, LLC (“AADC”) pursuant to which AADC has obtained an exclusive right to purchase fee title to a parcel (subdivided into six sub-parcels) of air space above the MTA Long Island Railroad Vanderbilt Yard in Brooklyn, New York. Initial annual payments of \$2 (covering all six sub-parcels) commenced on June 1, 2012 and were paid on the following three anniversaries of that date. Starting on June 1, 2016, and continuing on each anniversary thereof through and including June 1, 2031, an annual option payment in the amount of \$11 is due. The Agreement provides that all such payments are (i) fully earned by MTA as of the date due in consideration of the continuing grant to AADC of the rights to purchase the air space sub-parcels, (ii) are non-refundable except under certain limited circumstances and (iii) shall be deemed to be payments on account of successive annual options granted to AADC.

After AADC and its affiliates have completed the new yard and transit improvements to be constructed by them at and in the vicinity of the site, AADC has the right from time to time until June 1, 2031, to close on the purchase of any or all of the six air rights sub-parcels. The purchase price for the six sub-parcels is an amount, when discounted at 6.5% per annum from the date of each applicable payment that equals a present value of \$80 as of January 1, 2010. The purchase price of any particular air space sub-parcel is equal to a net present value as of January 1, 2010 (calculated based on each applicable payment) of the product of that sub-parcel’s percentage of the total gross square footage of permissible development on all six air space sub-parcels multiplied by \$80.

10. ESTIMATED LIABILITY ARISING FROM INJURIES TO PERSONS

A summary of activity in estimated liability as computed by actuaries arising from injuries to persons, including employees, and damage to third-party property for the period ended June 30, 2019 and year ended December 31, 2018 is presented below (in millions):

	June 30, 2019 (Unaudited)	December 31, 2018
Balance - beginning of year	\$ 4,254	\$ 3,851
Activity during the year:		
Current year claims and changes in estimates	426	870
Claims paid	(268)	(467)
Balance - end of year	4,412	4,254
Less current portion	(462)	(454)
Long-term liability	\$ 3,950	\$ 3,800

See Note 2 for additional information on MTA’s liability and property disclosures.

11. COMMITMENTS AND CONTINGENCIES

The MTA Group monitors its properties for the presence of pollutants and/or hazardous wastes and evaluates its exposure with respect to such matters. When the expense, if any, to clean up pollutants and/or hazardous wastes is estimable it is accrued by the MTA (see Note 12).

Management has reviewed with counsel all actions and proceedings pending against or involving the MTA Group, including personal injury claims. Although the ultimate outcome of such actions and proceedings cannot be predicted with certainty at this time, management believes that losses, if any, in excess of amounts accrued resulting from those actions will not be material to the financial position, results of operations, or cash flows of the MTA.

Under the terms of federal and state grants, periodic audits are required and certain costs may be questioned as not being appropriate expenditures under the terms of the grants. Such audits could lead to reimbursements to the grantor agencies. While there have been some questioned costs in recent years, ultimate repayments required of the MTA have been infrequent.

Financial Guarantee — Moynihan Station Development Project - On May 22, 2017, the MTA Board approved entering into various agreements, including a Joint Services Agreement (“JSA”), necessary to effectuate Phase 2 of the Moynihan Station Development Project (the “Project”), which will entail the redevelopment of the James A. Farley Post Office Building to include a new world-class train hall to be shared by National Railroad Passenger Corporation (“Amtrak”), the Long Island Rail Road and Metro-North Commuter Railroad (the “Train Hall”), as well as retail and commercial space (Retail and Commercial Space).

On July 21, 2017, New York State Urban Development Corporation d/b/a Empire State Development (“ESD”) executed a TIFIA Loan Agreement with the United States Department of Transportation (the “TIFIA Lender”) in an amount of up to \$526 (the “TIFIA Loan”), with a final maturity date of the earlier of (1) October 30, 2055 and (2) the last semi-annual payment date occurring no later than the date that is thirty-five (35) years following the date on which the Train Hall is substantially completed. The proceeds of the TIFIA Loan are being used to pay for costs of the construction of the Train Hall. The TIFIA Loan is secured by a mortgage on the Train Hall property. The principal and interest on the TIFIA Loan is payable from a pledged revenue stream that primarily consists of PILOT payments to be paid by certain tenants in the Retail and Commercial Space. The amount of the PILOT payments is fixed through September, 2030 and is thereafter calculated based upon the assessed value of the properties as determined by New York City. The TIFIA Loan is further supported by a TIFIA Debt Service Reserve Account, which is funded in an amount equal to the sum of the highest aggregate TIFIA debt service amounts that will become due and payable on any two consecutive semi-annual payment dates in a five-year prospective period.

Simultaneously with the execution of the TIFIA Loan Agreement, the JSA was entered into by and among the MTA, the TIFIA Lender, ESD, and Manufacturers and Traders Trust Company (as Pilot trustee). Under the JSA, MTA is obligated to satisfy semi-annual deficiencies in the TIFIA Debt Service Reserve Account. MTA’s obligations under the JSA are secured by the same moneys available to MTA for the payment of the operating and maintenance expenses of the operating agencies.

MTA’s obligation under the JSA remains in effect until the earliest to occur of (a) the MTA JSA Release Date (as defined in the JSA and generally summarized below), (b) the date on which the TIFIA Loan has been paid in full and (c) foreclosure by the TIFIA Lender under the Mortgage (as defined in the TIFIA Loan Agreement).

The obligations of the MTA under the JSA will be terminated and released on the date (the “MTA JSA Release Date”) on which each of the following conditions have been satisfied: (a) substantial completion of (1) the Train Hall Project and initiation by LIRR and Amtrak of transportation operations therein, and (2) the Retail and Commercial Space; (b) all material construction claims have been discharged or settled; (c) the PILOT payments have been calculated based upon assessed value for at least three years (i.e., 2033); (d) certain designated defaults or events of default under the TIFIA Loan Agreement have not occurred and are continuing; and (e) either of the following release tests shall have been satisfied:

- Release Test A: (a) certain debt service coverage ratios have equaled or exceeded levels set forth in the JSA, taking into consideration assessment appeals; (b) occupancy levels have equaled or exceeded levels set forth in the JSA; and (c) the TIFIA Loan is rated no lower than “BBB-” or “Baa3” by one rating agency, all as more fully described in the JSA; or
- Release Test B: the TIFIA Loan is rated no lower than “A-” or “A3” by two rating agencies, all as more fully described in the JSA.

On the date the JSA was executed and delivered, MTA deposited \$20 into an account, which MTA invests, to be used in accordance with the JSA to reimburse MTA in the event it is obligated under the JSA to make semi-annual deficiency payments to the TIFIA Debt Service Reserve Account.

On June 12, 2017, the MTA entered into a Memorandum of Understanding with ESD and the New York State Division of the Budget (the “Division”) whereby the Division agreed that in the event in any given year during the term of the JSA (i) the MTA is required to make a semi-annual deficiency payment to the TIFIA Debt Service Reserve Account, and (ii)

the Division has determined that the MTA has incurred an expense that would otherwise have been incurred by the State of New York (the "State Expense"), the Division will consider entering into a cost recovery agreement with the MTA pursuant to subdivision 4 of Section 2975 of the Public Authorities Law (the "PAL") for such year that will provide that in lieu of paying the full assessment pursuant to subdivisions 2 and 3 of Section 2975 of the PAL in any such year, any such assessment shall be reduced by the State Expense.

12. POLLUTION REMEDIATION COST

In accordance with GASB Statement No. 49, *Accounting and Financial Reporting for Pollution Remediation Obligations*, an operating expense provision and corresponding liability measured at its current value using the expected cash flow method is recognized when an obligatory event occurs. Pollution remediation obligations are estimates and subject to changes resulting from price increase or reductions, technology, or changes in applicable laws or regulations. The MTA does not expect any recoveries of cost that would have a material effect on the recorded obligations.

The MTA recognized pollution remediation expenses of \$5 and \$4 for the periods ended June 30, 2019 and 2018, respectively. A summary of the activity in pollution remediation liability at June 30, 2019 and December 31, 2018 were as follows:

	June 30, 2019 (Unaudited)	December 31, 2018
Balance at beginning of year	\$ 139	\$ 79
Current year expenses/changes in estimates	5	106
Current year payments	(5)	(46)
Balance at end of year	139	139
Less current portion	30	31
Long-term liability	<u>\$ 109</u>	<u>\$ 108</u>

The MTA's pollution remediation liability primarily consists of future remediation activities associated with asbestos removal, lead abatement, ground water contamination, arsenic contamination and soil remediation.

13. CURRENT AND NON-CURRENT LIABILITIES

Changes in the activity of current and non-current liabilities for the periods ended June 30, 2019 and December 31, 2018 are presented below:

	Balance December 31, 2017	Additions	Reductions	Balance December 31, 2018	Additions (Unaudited)	Reductions (Unaudited)	Balance June 30, 2019 (Unaudited)
Current liabilities:							
Accounts payable	\$ 607	\$ -	\$ (137)	\$ 470	\$ 124	\$ -	\$ 594
Interest	204	6	-	210	155	-	365
Salaries, wages and payroll taxes	307	20	-	327	-	(17)	310
Vacation and sick pay benefits	988	32	-	1,020	19	-	1,039
Current portion — retirement and death benefits	14	2	-	16	4	-	20
Capital accrual	412	325	-	737	-	(334)	403
Unearned premiums	255	9	-	264	-	(20)	244
Other accrued expenses	606	87	-	693	-	(79)	614
Unearned revenues	594	210	-	804	46	-	850
Total current liabilities	<u>\$ 3,987</u>	<u>\$ 691</u>	<u>\$ (137)</u>	<u>\$ 4,541</u>	<u>\$ 348</u>	<u>\$ (450)</u>	<u>\$ 4,439</u>
Non-current liabilities:							
Contract retainage payable	\$ 376	\$ 30	\$ -	\$ 406	\$ 5	\$ -	\$ 411
Other long-term liabilities	347	29	-	376	-	(28)	348
Total non-current liabilities	<u>\$ 723</u>	<u>\$ 59</u>	<u>\$ -</u>	<u>\$ 782</u>	<u>\$ 5</u>	<u>\$ (28)</u>	<u>\$ 759</u>

14. FUEL HEDGE

MTA partially hedges its fuel cost exposure using financial hedges. All MTA fuel hedges provide for up to 24 monthly settlements. The table below summarizes twenty-four (24) active ultra-low sulfur diesel (“ULSD”) hedges in whole dollars:

Counterparty	Goldman Sachs	Goldman Sachs	Goldman Sachs	Goldman Sachs	Goldman Sachs	Goldman Sachs	Goldman Sachs	Goldman Sachs
Trade Date	7/26/2017	8/29/2017	9/22/2017	10/26/2017	11/29/2017	12/27/2017	1/31/2018	2/28/2018
Effective Date	7/1/2018	8/1/2018	9/1/2018	10/1/2018	11/1/2018	12/1/2018	1/1/2019	2/1/2019
Termination Date	6/30/2019	7/31/2019	8/31/2019	9/30/2019	10/31/2019	11/30/2019	12/31/2019	1/31/2020
Price/Gal	\$1.6180	\$1.6315	\$1.7205	\$1.7635	\$1.8520	\$1.9050	\$1.9570	\$1.8815
Original Notional Quantity	2,914,252	2,914,252	2,914,244	2,612,515	2,870,561	2,870,574	2,870,565	2,786,237

Counterparty	Goldman Sachs	Macquarie Energy LLC	Goldman Sachs	Goldman Sachs	BOA Merrill	Goldman Sachs	Goldman Sachs	Cargill
Trade Date	3/28/2018	4/24/2018	5/29/2018	6/26/2018	7/31/2018	8/29/2018	9/25/2018	10/30/2018
Effective Date	3/1/2019	4/1/2019	5/1/2019	6/1/2019	7/1/2019	8/1/2019	9/1/2019	10/1/2019
Termination Date	2/29/2020	3/31/2020	4/30/2020	5/31/2020	6/30/2020	7/31/2020	8/31/2020	9/30/2020
Price/Gal	\$1.9805	\$2.0795	\$2.1590	\$2.1755	\$2.1730	\$2.2145	\$2.2885	\$2.2455
Original Notional Quantity	2,853,500	2,799,258	2,841,090	2,841,069	2,820,856	2,831,924	2,831,922	2,831,934

Counterparty	BOA Merrill	BOA Merrill	Cargill	Cargill	Goldman Sachs	Goldman Sachs	Goldman Sachs	Goldman Sachs
Trade Date	11/27/2018	1/3/2019	1/29/2019	2/28/2019	3/28/2019	4/30/2019	5/28/2019	6/25/2019
Effective Date	11/1/2019	12/1/2019	1/1/2020	2/1/2020	3/1/2020	4/1/2020	5/1/2020	6/1/2020
Termination Date	10/31/2020	11/30/2020	12/31/2020	1/31/2021	2/28/2021	3/31/2021	4/30/2021	5/31/2021
Price/Gal	\$1.9213	\$1.7885	\$1.9390	\$2.0518	\$2.0045	\$2.0650	\$1.9675	\$1.9200
Original Notional Quantity	3,023,197	2,856,019	2,856,014	2,793,123	2,849,714	2,874,889	2,851,286	2,851,258

The monthly settlements are based on the daily prices of the respective commodities whereby MTA will either receive a payment, or make a payment to the various counterparties depending on the average monthly price of the commodities in relation to the contract prices. At a contract’s termination date, the MTA will take delivery of the fuel. As of June 30, 2019, the total outstanding notional value of the ULSD contracts was 53 million gallons with a negative fair market value of \$4.9 (unaudited). The valuation of each trade was based on discounting future net cash flows to a single current amount (the income approach) using observable commodity futures prices (Level 2 inputs).

15. CONDENSED COMPONENT UNIT INFORMATION

The following tables present condensed financial information for MTA's component units (in millions).

		Metro - North Railroad	Long Island Railroad	New York City Transit Authority	Triborough Bridge and Tunnel Authority	Eliminations	Consolidated Total
June 30, 2019 (Unaudited)	MTA						
Current assets	\$ 7,424	\$ 196	\$ 227	\$ 617	\$ 906	\$ (340)	\$ 9,030
Capital assets	11,375	5,173	7,108	43,957	6,469	-	74,082
Other Assets	12,036	5	-	1	455	(11,503)	994
Intercompany receivables	1,803	95	176	633	13	(2,720)	-
Deferred outflows of resources	1,578	318	431	1,827	494	(181)	4,467
Total assets and deferred outflows of resources	\$ 34,216	\$ 5,787	\$ 7,942	\$ 47,035	\$ 8,337	\$ (14,744)	\$ 88,573
Current liabilities	\$ 3,426	\$ 283	\$ 252	\$ 1,907	\$ 832	\$ (179)	\$ 6,521
Non-current liabilities	38,197	2,071	3,703	21,717	10,380	(163)	75,905
Intercompany payables	1,724	131	122	924	482	(3,383)	-
Deferred inflows of resources	146	68	88	758	52	-	1,112
Total liabilities and deferred inflows of resources	\$ 43,493	\$ 2,553	\$ 4,165	\$ 25,306	\$ 11,746	\$ (3,725)	\$ 83,538
Net investment in capital assets	\$ (27,861)	\$ 5,160	\$ 7,109	\$ 43,780	\$ 2,027	\$ (156)	\$ 30,059
Restricted	2,280	-	-	-	697	(436)	2,541
Unrestricted	16,304	(1,926)	(3,332)	(22,051)	(6,133)	(10,427)	(27,565)
Total net position	\$ (9,277)	\$ 3,234	\$ 3,777	\$ 21,729	\$ (3,409)	\$ (11,019)	\$ 5,035
For the period ended June 30, 2019 (Unaudited)							
Fare revenue	\$ 112	\$ 366	\$ 371	\$ 2,242	\$ -	\$ -	\$ 3,091
Vehicle toll revenue	-	-	-	-	996	-	996
Rents, freight and other revenue	40	28	20	245	11	(21)	323
Total operating revenue	152	394	391	2,487	1,007	(21)	4,410
Total labor expenses	547	458	557	3,307	128	-	4,997
Total non-labor expenses	253	190	191	1,033	118	(24)	1,761
Depreciation	51	115	202	970	82	-	1,420
Total operating expenses	851	763	950	5,310	328	(24)	8,178
Operating (deficit) surplus	(699)	(369)	(559)	(2,823)	679	3	(3,768)
Subsidies and grants	583	58	-	39	4	(39)	645
Tax revenue	3,509	-	-	1,246	-	(900)	3,855
Interagency subsidy	358	171	233	115	-	(877)	-
Interest expense	(747)	-	-	(1)	(141)	(5)	(894)
Other	(378)	-	-	6	2	535	165
Total non-operating revenues (expenses)	3,325	229	233	1,405	(135)	(1,286)	3,771
Gain (Loss) before appropriations	2,626	(140)	(326)	(1,418)	544	(1,283)	3
Appropriations, grants and other receipts externally restricted for capital projects	(636)	180	558	222	(352)	1,107	1,079
Change in net position	1,990	40	232	(1,196)	192	(176)	1,082
Net position, beginning of period	(11,267)	3,194	3,545	22,925	(3,601)	(10,843)	3,953
Net position, end of period	\$ (9,277)	\$ 3,234	\$ 3,777	\$ 21,729	\$ (3,409)	\$ (11,019)	\$ 5,035
For the period ended June 30, 2019 (Unaudited)							
Net cash (used in) / provided by operating activities	\$ (607)	\$ (192)	\$ (299)	\$ (1,819)	\$ 797	\$ (28)	\$ (2,148)
Net cash provided by / (used in) non-capital financing activities	1,646	263	419	2,348	(389)	(1,502)	2,785
Net cash (used in) / provided by capital and related financing activities	(1,764)	(21)	(16)	(525)	(230)	1,484	(1,072)
Net cash provided by / (used in) investing activities	744	(50)	(100)	(16)	(159)	46	465
Cash at beginning of period	430	26	9	66	10	-	541
Cash at end of period	\$ 449	\$ 26	\$ 13	\$ 54	\$ 29	\$ -	\$ 571

		Metro- North Railroad	Long Island Railroad	New York City Transit Authority	Triborough Bridge and Tunnel Authority	Eliminations	Consolidated Total
December 31, 2018	MTA						
Current assets	\$ 5,337	\$ 206	\$ 244	\$ 633	\$ 461	\$ (116)	\$ 6,765
Capital assets	11,032	5,092	6,826	43,195	6,366	-	72,511
Other Assets	11,825	5	-	-	4	(10,772)	1,062
Intercompany receivables	696	95	153	1,627	730	(3,301)	-
Deferred outflows of resources	1,528	315	435	1,738	487	(143)	4,360
Total assets and deferred outflows of resources	\$ 30,418	\$ 5,713	\$ 7,658	\$ 47,193	\$ 8,048	\$ (14,332)	\$ 84,698
Current liabilities	\$ 4,374	\$ 316	\$ 272	\$ 1,900	\$ 836	\$ (89)	\$ 7,609
Non-current liabilities	34,509	2,070	3,705	21,609	10,249	(120)	72,022
Intercompany payables	2,655	65	48	-	512	(3,280)	-
Deferred inflows of resources	147	68	88	759	52	-	1,114
Total liabilities and deferred inflows of resources	\$ 41,685	\$ 2,519	\$ 4,113	\$ 24,268	\$ 11,649	\$ (3,489)	\$ 80,745
Net investment in capital assets	\$ (26,670)	\$ 5,079	\$ 6,826	\$ 43,018	\$ 2,026	\$ (279)	\$ 30,000
Restricted	1,716	-	-	-	902	(728)	1,890
Unrestricted	13,687	(1,885)	(3,281)	(20,093)	(6,529)	(9,836)	(27,937)
Total net position	\$ (11,267)	\$ 3,194	\$ 3,545	\$ 22,925	\$ (3,601)	\$ (10,843)	\$ 3,953
For the period ended June 30, 2018 (Unaudited)							
Fare revenue	\$ 111	\$ 359	\$ 359	\$ 2,207	\$ -	\$ -	\$ 3,036
Vehicle toll revenue	-	-	-	-	952	-	952
Rents, freight and other revenue	42	25	20	223	11	(22)	299
Total operating revenue	153	384	379	2,430	963	(22)	4,287
Total labor expenses	622	491	616	3,791	152	44	5,716
Total non-labor expenses	246	189	185	995	114	(30)	1,699
Depreciation	51	115	196	905	69	-	1,336
Total operating expenses	919	795	997	5,691	335	14	8,751
Operating (deficit) surplus	(766)	(411)	(618)	(3,261)	628	(36)	(4,464)
Subsidies and grants	697	71	-	249	4	(249)	772
Tax revenue	3,307	-	-	1,427	-	(1,119)	3,615
Interagency subsidy	373	210	331	114	-	(1,028)	-
Interest expense	(587)	-	-	(3)	(137)	(6)	(733)
Other	(847)	-	1	1	-	937	92
Total non-operating revenues (expenses)	2,943	281	332	1,788	(133)	(1,465)	3,746
Loss before appropriations	2,177	(130)	(286)	(1,473)	495	(1,501)	(718)
Appropriations, grants and other receipts externally restricted for capital projects	(787)	161	530	(109)	(276)	1,235	754
Change in net position	1,390	31	244	(1,582)	219	(266)	36
Net position, beginning of the period	(10,023)	3,838	4,246	21,148	(4,042)	(9,943)	5,224
Net position, end of period	\$ (8,633)	\$ 3,869	\$ 4,490	\$ 19,566	\$ (3,823)	\$ (10,209)	\$ 5,260
For the period ended June 30, 2018 (Unaudited)							
Net cash (used in) / provided by operating activities	\$ (558)	\$ (238)	\$ (371)	\$ (1,719)	\$ 747	\$ (4)	\$ (2,143)
Net cash provided by / (used in) non-capital financing activities	1,776	303	456	2,404	(378)	(1,648)	2,913
Net cash (used in) / provided by capital and related financing activities	(1,629)	(31)	5	(523)	(228)	1,648	(758)
Net cash provided by / (used in) investing activities	692	(35)	(70)	(173)	(89)	4	329
Cash at beginning of period	199	15	5	56	8	-	283
Cash at end of period	\$ 480	\$ 14	\$ 25	\$ 45	\$ 60	\$ -	\$ 624

16. SUBSEQUENT EVENTS

On July 9, 2019, MTA priced \$300 MTA Transportation Revenue Bond Anticipation Notes, Series 2019C to generate new money proceeds to finance existing approved transit and commuter projects related to the State funding commitment for the 2015-2019 Capital Program. The Series 2019C Notes were issued as fixed rate tax-exempt notes with an all-in True Interest Cost of 1.492% and a final maturity of July 1, 2020.

On July 15, 2019, MTA effectuated the early mandatory redemption of a portion of the MTA Hudson Rail Yards Trust Obligations, Series 2016A maturing on November 15, 2046 in the Principal Component of \$68. This is due to the payment of Fee Purchase Payments in connection with three commercial condominium units to be owned and occupied by Wells Fargo and KKR.

On July 30, 2019, MTA executed a 2,788,533 gallon ultra-low sulfur diesel fuel hedge with Goldman, Sachs & Co./J. Aron at an all-in price of \$1.8875 (whole dollars) per gallon. The hedge covers the period from July 2020 through June 2021.

On August 8, 2019, MTA issued \$422 MTA Transportation Revenue Green Bonds, Series 2019C, to (i) retire the outstanding Transportation Revenue Bond Anticipation Notes, Series 2018A, and (ii) pay certain financing, legal and miscellaneous expenses. The series 2019C bonds mature on November 15 in the years: 2038 - 2049.

On August 16, 2019, the Revenue Anticipation Note facility with JPMorgan Chase was amended, increasing the line of credit to \$800. To maintain the 1% draw on the line of credit throughout the duration of the agreement, an additional \$1 draw was made on August 16, 2019.

On August 16, 2019, MTA entered into a \$200 taxable revolving credit agreement with Bank of America, National Association that is active through August 24, 2022. Draws under the credit agreement will be evidenced by RANs. Funds may be used for operational or capital purposes.

On August 27, 2019, MTA executed a 2,842,790 gallon ultra-low sulfur diesel fuel hedge with Macquarie at an all-in price of \$1.7790 (whole dollars) per gallon. The hedge covers the period from August 2020 through July 2021.

On September 6, 2019, MTA issued \$1.2 billion MTA Transportation Revenue Bond Anticipation Notes, Series 2019D, consisting of \$1 billion Subseries 2019D-1 and \$200 Subseries 2019D-2. The Series 2019D bonds were issued to (i) finance existing approved transit and commuter projects, (ii) pay capitalized interest on the Subseries 2019D-1 Notes through maturity, and (iii) pay certain financing, legal and miscellaneous expenses.

The New York State Fiscal Year 2019-2020 Enacted Budget established the Central Business District Tolling Program (CBD Tolling Program), the goals of which are to reduce traffic congestion in the Manhattan Central Business District, improve air quality, and provide a stable and reliable funding source for the repair and revitalization of the MTA's public transportation systems. The CBD Tolling Program revenues are not expected to begin to flow to MTA until at least early 2021. MTA Bridges and Tunnels is directed to establish the CBD Tolling Capital Lockbox Fund. Monies in the fund cannot be commingled with any other MTA Bridges and Tunnel monies. Funds on deposit in the CBD Tolling Capital Lockbox Fund shall be applied to: (1) operating, administration and other necessary expenses relating to the program, or to DOT pursuant to the MOU; and (2) costs of MTA capital projects included in the 2020-2024 Capital Program or any successor capital program. The 2019-2020 State Enacted Budget further provides that capital project costs paid for by the CBD Tolling Capital Lockbox Fund are subject to the following revenue split: (1) 80 percent for MTA New York City Transit, MABSTOA, MTA Staten Island Railway and MTA Bus capital project costs, with priority given to subway system, new signaling, new subway cars, track and car repair, accessibility, buses and bus system improvements and further investments in expanding transit availability in the outer boroughs; (2) 10 percent for MTA Long Island Rail Road capital projects, including parking facilities, rolling stock, capacity enhancements, accessibility and expanding transit availability; and (3) 10 percent for MTA Metro-North Railroad capital projects including parking facilities, rolling stock, capacity enhancements, accessibility and expanding transit availability.

The 2019-2020 State Enacted Budget also establishes two additional sources of annually recurring MTA capital program subsidy revenues. These are (i) a portion of new City property derived real estate transfer tax receipts and (ii) certain incremental City-based internet sales tax allocations. The real estate transfer tax is derived from two new real estate transfer taxes imposed in the City on transfers of high value residential properties beginning with conveyances occurring on or after July 1, 2019. The internet sales tax is MTA's allocated portion of the State and City sales taxes, including those collected from Internet marketplace providers based outside the State under changes in the sales tax law effected in the 2019-2020 State Enacted Budget.

REQUIRED SUPPLEMENTARY INFORMATION

Schedule of Changes in the MTA's Net Pension Liability and Related Ratios for Single Employer Pension Plans

(\$ in thousands)

Plan Measurement Date (December 31):	Additional Plan				MaBSTOA Plan			
	2017	2016	2015	2014	2017	2016	2015	2014
Total pension liability:								
Service cost	\$ 1,874	\$ 2,752	\$ 3,441	\$ 3,813	\$ 84,394	\$ 82,075	\$ 77,045	\$ 72,091
Interest	101,477	104,093	106,987	110,036	246,284	236,722	232,405	223,887
Effect of economic / demographic (gains) or losses	1,890	15,801	6,735	-	11,826	13,784	(68,997)	-
Effect of assumption changes or inputs	-	-	-	-	6,347	-	-	-
Differences between expected and actual experience	-	-	-	-	-	-	-	(1,596)
Benefit payments and withdrawals	(159,717)	(158,593)	(157,071)	(156,974)	(209,122)	(187,823)	(179,928)	(175,447)
Net change in total pension liability	(54,476)	(35,947)	(39,908)	(43,125)	139,729	144,758	60,525	118,935
Total pension liability—beginning	1,526,304	1,562,251	1,602,159	1,645,284	3,536,747	3,391,989	3,331,464	3,212,529
Total pension liability—ending (a)	1,471,828	1,526,304	1,562,251	1,602,159	3,676,476	3,536,747	3,391,989	3,331,464
Plan fiduciary net position:								
Employer contributions	76,523	81,100	100,000	407,513	202,684	220,697	214,881	226,374
Nonemployer contributions	145,000	70,000	-	-	-	-	-	-
Member contributions	760	884	1,108	1,304	19,713	18,472	16,321	15,460
Net investment income	112,614	58,239	527	21,231	350,186	212,260	(24,163)	105,084
Benefit payments and withdrawals	(159,717)	(158,593)	(157,071)	(156,974)	(209,122)	(187,823)	(179,928)	(175,447)
Administrative expenses	(1,070)	(611)	(1,218)	(975)	(208)	(186)	(88)	(74)
Net change in plan fiduciary net position	174,110	51,019	(56,654)	272,099	363,253	263,420	27,023	171,397
Plan fiduciary net position—beginning	777,217	726,198	782,852	510,753	2,555,736	2,292,316	2,265,293	2,093,896
Plan fiduciary net position—ending (b)	951,327	777,217	726,198	782,852	2,918,989	2,555,736	2,292,316	2,265,293
Employer's net pension liability—ending (a)-(b)	\$ 520,501	\$ 749,087	\$ 836,053	\$ 819,307	\$ 757,487	\$ 981,011	\$ 1,099,673	\$ 1,066,171
Plan fiduciary net position as a percentage of the total pension liability	64.64%	50.92%	46.48%	48.86%	79.40%	72.26%	67.58%	68.00%
Covered payroll	\$ 20,500	\$ 29,312	\$ 39,697	\$ 43,267	\$ 749,666	\$ 716,527	\$ 686,674	\$ 653,287
Employer's net pension liability as a percentage of covered payroll	2539.03%	2555.56%	2106.09%	1893.61%	101.04%	136.91%	160.14%	163.20%

Note: Information was not readily available for periods prior to 2014. This schedule is intended to show information for ten years. Additional years will be displayed as they become available.

REQUIRED SUPPLEMENTARY INFORMATION

Schedule of Changes in the MTA's Net Pension Liability and Related Ratios for Single Employer Pension Plans

(continued)

(\$ in thousands)

	MNR Cash Balance Plan				MTA Defined Benefit Plan			
Plan Measurement Date (December 31):	2017	2016	2015	2014	2017	2016	2015	2014
Total pension liability:								
Service cost	\$ -	\$ -	\$ -	\$ -	\$ 148,051	\$ 138,215	\$ 124,354	\$ 121,079
Interest	21	24	29	32	335,679	308,009	288,820	274,411
Effect of economic / demographic (gains) or losses	12	(15)	(10)	-	(27,059)	86,809	121,556	2,322
Effect of assumption changes or inputs	-	-	18	-	10,731	-	(76,180)	-
Effect of plan changes	-	-	-	-	76,511	73,521	6,230	-
Benefit payments and withdrawals	(71)	(77)	(113)	(88)	(232,976)	(209,623)	(199,572)	(191,057)
Net change in total pension liability	(38)	(68)	(76)	(56)	310,937	396,931	265,208	206,755
Total pension liability—beginning	566	634	710	766	4,761,877	4,364,946	4,099,738	3,892,983
Total pension liability—ending (a)	528	566	634	710	5,072,814	4,761,877	4,364,946	4,099,738
Plan fiduciary net position:								
Employer contributions	-	23	18	-	321,861	280,768	221,694	331,259
Member contributions	-	-	-	-	31,027	29,392	34,519	26,006
Net investment income	20	16	6	41	516,153	247,708	(45,122)	102,245
Benefit payments and withdrawals	(71)	(77)	(113)	(88)	(232,976)	(209,623)	(199,572)	(191,057)
Administrative expenses	-	-	3	(3)	(4,502)	(3,051)	(1,962)	(9,600)
Net change in plan fiduciary net position	(51)	(38)	(86)	(50)	631,563	345,194	9,557	258,853
Plan fiduciary net position—beginning	574	612	698	748	3,419,971	3,074,777	3,065,220	2,806,367
Plan fiduciary net position—ending (b)	523	574	612	698	4,051,534	3,419,971	3,074,777	3,065,220
Employer's net pension liability—ending (a)-(b)	\$ 5	\$ (8)	\$ 22	\$ 12	\$ 1,021,280	\$ 1,341,906	\$ 1,290,169	\$ 1,034,518
Plan fiduciary net position as a percentage of the total pension liability	99.05%	101.41%	96.53%	98.36%	79.87%	71.82%	70.44%	74.77%
Covered payroll	\$ 471	\$ 846	\$ 1,474	\$ 2,274	\$ 1,857,026	\$ 1,784,369	\$ 1,773,274	\$ 1,679,558
Employer's net pension liability as a percentage of covered payroll	1.06%	-0.95%	1.49%	0.53%	55.00%	75.20%	72.76%	61.59%

Note: Information was not readily available for periods prior to 2014. This schedule is intended to show information for ten years. Additional years will be displayed as they become available.

REQUIRED SUPPLEMENTARY INFORMATION
Schedule of the MTA's Proportionate Share of the Net Pension Liabilities of Cost-Sharing Multiple-Employer Pension Plans

(\$ in thousands)

	NYCERS Plan			
	June 30, 2018	June 30, 2017	June 30, 2016	June 30, 2015
Plan Measurement Date:				
MTA's proportion of the net pension liability	23.682%	24.096%	23.493%	23.585%
MTA's proportionate share of the net pension liability	\$ 4,176,941	\$ 5,003,811	\$ 5,708,052	\$ 4,773,787
MTA's actual covered payroll	\$ 3,216,837	\$ 3,154,673	\$ 3,064,007	\$ 2,989,480
MTA's proportionate share of the net pension liability as a percentage of the MTA's covered payroll	129.846%	158.616%	186.294%	159.686%
Plan fiduciary net position as a percentage of the total pension liability	78.826%	74.805%	69.568%	73.125%
	NYSLERS Plan			
	March 31, 2018	March 31, 2017	March 31, 2016	March 31, 2015
Plan Measurement Date:				
MTA's proportion of the net pension liability	0.327%	0.311%	0.303%	0.289%
MTA's proportionate share of the net pension liability	\$ 10,553	\$ 29,239	\$ 48,557	\$ 9,768
MTA's actual covered payroll	\$ 105,269	\$ 96,583	\$ 87,670	\$ 87,315
MTA's proportionate share of the net pension liability as a percentage of the MTA's covered payroll	10.025%	30.273%	55.386%	11.187%
Plan fiduciary net position as a percentage of the total pension liability	98.240%	94.703%	90.685%	97.947%

Note: Information was not readily available for periods prior to 2015. This schedule is intended to show information for ten years. Additional years will be displayed as they become available. The data provided in this schedule is based on the measurement date used by NYCERS and NYSLERS for the net pension liability.

REQUIRED SUPPLEMENTARY INFORMATION

Schedule of the MTA's Contributions for All Pension Plans for the Year Ended December 31,

(\$ in thousands)

	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009
Additional Plan*										
Actuarially Determined Contribution	\$ 59,196	\$ 76,523	\$ 83,183	\$ 82,382	\$ 112,513	\$ -	\$ -	\$ -	\$ -	\$ -
Actual Employer Contribution	59,500	221,523	151,100	100,000	407,513	-	-	-	-	-
Contribution Deficiency (Excess)	<u>\$ (304)</u>	<u>\$ (145,000)</u>	<u>\$ (67,917)</u>	<u>\$ (17,618)</u>	<u>\$ (295,000)</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>
Covered Payroll	<u>\$ 13,076</u>	<u>\$ 20,500</u>	<u>\$ 29,312</u>	<u>\$ 39,697</u>	<u>\$ 43,267</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>
Contributions as a % of Covered Payroll	466.49%	1080.62%	515.49%	251.91%	941.87%	N/A	N/A	N/A	N/A	N/A
MaBSTOA Plan										
Actuarially Determined Contribution	\$ 202,509	\$ 202,924	\$ 220,697	\$ 214,881	\$ 226,374	\$ 234,474	\$ 228,918	\$ 186,454	\$ 200,633	\$ 204,274
Actual Employer Contribution	205,434	202,684	220,697	214,881	226,374	234,474	228,918	186,454	200,633	204,274
Contribution Deficiency (Excess)	<u>\$ (2,925)</u>	<u>\$ 240</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>
Covered Payroll	<u>\$ 776,200</u>	<u>\$ 749,666</u>	<u>\$ 716,527</u>	<u>\$ 686,674</u>	<u>\$ 653,287</u>	<u>\$ 582,081</u>	<u>\$ 575,989</u>	<u>\$ 579,696</u>	<u>\$ 591,073</u>	<u>\$ 569,383</u>
Contributions as a % of Covered Payroll	26.47%	27.04%	30.80%	31.29%	34.65%	40.28%	39.74%	32.16%	33.94%	35.88%
Metro-North Cash Balance Plan*										
Actuarially Determined Contribution	\$ 5	\$ -	\$ 23	\$ -	\$ 5	\$ -	\$ -	\$ -	\$ -	\$ -
Actual Employer Contribution	5	-	23	14	-	-	-	-	-	-
Contribution Deficiency (Excess)	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ (14)</u>	<u>\$ 5</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>
Covered Payroll	<u>\$ 268</u>	<u>\$ 471</u>	<u>\$ 846</u>	<u>\$ 1,474</u>	<u>\$ 2,274</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>
Contributions as a % of Covered Payroll	2.03%	0.00%	2.68%	0.96%	0.00%	N/A	N/A	N/A	N/A	N/A
MTA Defined Benefit Plan*										
Actuarially Determined Contribution	\$ 331,566	\$ 316,916	\$ 290,415	\$ 273,700	\$ 271,523	\$ -	\$ -	\$ -	\$ -	\$ -
Actual Employer Contribution	339,800	321,861	280,767	221,694	331,259	-	-	-	-	-
Contribution Deficiency (Excess)	<u>\$ (8,234)</u>	<u>\$ (4,945)</u>	<u>\$ 9,648</u>	<u>\$ 52,006</u>	<u>\$ (59,736)</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>
	<u>\$ 2,030,695</u>	<u>\$ 1,857,026</u>	<u>\$ 1,784,369</u>	<u>\$ 1,773,274</u>	<u>\$ 1,679,558</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>
Covered Payroll	<u>\$ 2,030,695</u>	<u>\$ 1,857,026</u>	<u>\$ 1,784,369</u>	<u>\$ 1,773,274</u>	<u>\$ 1,679,558</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>
Contributions as a % of Covered Payroll	16.83%	17.33%	15.73%	12.50%	19.72%	N/A	N/A	N/A	N/A	N/A

* For the MTA Defined Benefit Plan, Additional Plan and Metro-North Cash Balance Plan, information was not readily available for periods

REQUIRED SUPPLEMENTARY INFORMATION
Schedule of the MTA's Contributions for All Pension Plans for the Year Ended December 31,
(continued)
(\$ in thousands)

	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009
NYCERS										
Actuarially Determined Contribution	\$ 807,097	\$ 800,863	\$ 797,845	\$ 736,212	\$ 741,223	\$ 736,361	\$ 731,983	\$ 657,771	\$ 574,555	\$ 548,721
Actual Employer Contribution	807,097	800,863	797,845	736,212	741,223	736,361	731,983	657,771	574,555	548,721
Contribution Deficiency (Excess)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Covered Payroll	\$ 3,974,494	\$ 3,768,885	\$ 3,523,993	\$ 3,494,907	\$ 3,617,087	\$ 2,943,195	\$ 2,925,834	\$ 2,900,630	\$ 2,886,789	\$ 2,800,882
Contributions as a % of										
Covered Payroll	20.31%	21.25%	22.64%	21.07%	20.49%	25.02%	25.02%	22.68%	19.90%	19.59%
NYSLERS **										
Actuarially Determined Contribution	\$ 14,501	\$ 13,969	\$ 12,980	\$ 15,792	\$ 13,816	\$ -	\$ -	\$ -	\$ -	\$ -
Actual Employer Contribution	14,501	13,969	12,980	15,792	13,816	-	-	-	-	-
Contribution Deficiency (Excess)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Covered Payroll	\$ 109,210	\$ 103,787	\$ 94,801	\$ 86,322	\$ 84,041	\$ -	\$ -	\$ -	\$ -	\$ -
Contributions as a % of										
Covered Payroll	13.28%	13.46%	13.69%	18.29%	16.44%	N/A	N/A	N/A	N/A	N/A

** For the NYSLERS plan, information was not readily available for periods prior to 2014. This schedule is intended to show information for ten years. Additional years will be displayed as they become available.

REQUIRED SUPPLEMENTARY INFORMATION

Notes to Schedule of the MTA's Contributions for All Pension Plans

	Additional Plan			
Valuation Dates:	January 1, 2017	January 1, 2016	January 1, 2015	January 1, 2014
Measurement Date:	December 31, 2017	December 31, 2016	December 31, 2015	December 31, 2014
Actuarial cost method:	Entry Age Normal Cost	Entry Age Normal Cost	Entry Age Normal Cost	Entry Age Normal Cost
Amortization method:	Period specified in current valuation report (closed 17 year period beginning January 1, 2016) with level dollar payments.	Period specified in current valuation report (closed 17 year period beginning January 1, 2016) with level dollar payments.	Period specified in current valuation report (closed 18 year period beginning January 1, 2015) with level dollar payments.	Period specified in current valuation report (closed 19 year period beginning January 1, 2014) with level dollar payments.
Asset Valuation Method:	Actuarial value equals market value less unrecognized gains/losses over a 5-year period. Gains/losses are based on market value of assets.	Actuarial value equals market value less unrecognized gains/losses over a 5-year period. Gains/losses are based on market value of assets.	Actuarial value equals market value less unrecognized gains/losses over a 5-year period. Gains/losses are based on market value of assets.	Actuarial value equals market value less unrecognized gains/losses over a 5-year period. Gains/losses are based on market value of assets.
Salary increases:	3.00%	3.00%	3.00%	3.00%
Actuarial assumptions:				
Discount Rate:	7.00%	7.00%	7.00%	7.00%
Investment rate of return :	7.00%, net of investment expenses.	7.00%, net of investment expenses.	7.00%, net of investment expenses.	7.00%, net of investment expenses.
Mortality:	Based on experience of all MTA members reflecting mortality improvement on a generational basis using scale AA.	Based on experience of all MTA members reflecting mortality improvement on a generational basis using scale AA.	Based on experience of all MTA members reflecting mortality improvement on a generational basis using scale AA.	Based on experience of all MTA members reflecting mortality improvement on a generational basis using scale AA. As generational tables, they reflect mortality improvements both before and after the measurement date. Mortality assumption is based on a 2012 experience study for all MTA plans.
Pre-retirement:	RP-2000 Employee Mortality Table for Males and Females with blue collar adjustments.	RP-2000 Employee Mortality Table for Males and Females with blue collar adjustments.	RP-2000 Employee Mortality Table for Males and Females with blue collar adjustments.	RP-2000 Employee Mortality Table for Males and Females with blue collar adjustments.
Post-retirement Healthy Lives:	95% of the rates from the RP-2000 Healthy Annuitant mortality table for males with blue collar adjustments and 116% of the rates from the RP-2000 Healthy Annuitant mortality table for females.	95% of the rates from the RP-2000 Healthy Annuitant mortality table for males with blue collar adjustments and 116% of the rates from the RP-2000 Healthy Annuitant mortality table for females.	95% of the rates from the RP-2000 Healthy Annuitant mortality table for males with blue collar adjustments and 116% of the rates from the RP-2000 Healthy Annuitant mortality table for females.	95% of the rates from the RP-2000 Healthy Annuitant mortality table for males with blue collar adjustments and 116% of the rates from the RP-2000 Healthy Annuitant mortality table for females.
Post-retirement Disabled Lives:	N/A	N/A	N/A	N/A
Inflation/Railroad Retirement Wage Base:	2.50%; 3.50%	2.50%; 3.50%	2.50%; 3.50%	2.50%; 3.50%
Cost-of-Living Adjustments:	N/A	N/A	N/A	N/A

REQUIRED SUPPLEMENTARY INFORMATION

Notes to Schedule of the MTA's Contributions for All Pension Plans

MaBSTOA Plan				
Valuation Dates:	January 1, 2017	January 1, 2016	January 1, 2015	January 1, 2014
Measurement Date:	December 31, 2017	December 31, 2016	December 31, 2015	December 31, 2014
Actuarial cost method:	Frozen Initial Liability (FIL)	Frozen Initial Liability (FIL)	Frozen Initial Liability (FIL)	Frozen Initial Liability (FIL)
Amortization method:	For FIL bases, period specified in current valuation 30-year level dollar. Future gains/losses are amortized through the calculation of the normal cost in accordance with the FIL cost method amortized based on expected working lifetime, weighted by salary, of the projected population.	For FIL bases, period specified in current valuation 30-year level dollar. Future gains/losses are amortized through the calculation of the normal cost in accordance with the FIL cost method amortized based on expected working lifetime, weighted by salary, of the projected population.	For FIL bases, period specified in current valuation 30-year level dollar. Future gains/losses are amortized through the calculation of the normal cost in accordance with the FIL cost method amortized based on expected working lifetime, weighted by salary, of the projected population.	For FIL bases, period specified in current valuation 30-year level dollar. Future gains/losses are amortized through the calculation of the normal cost in accordance with the FIL cost method amortized based on expected working lifetime, weighted by salary, of the projected population.
Asset Valuation Method:	Actuarial value equals market value less unrecognized gains/losses over a 5-year period. Gains/losses are based on market value of assets.	Actuarial value equals market value less unrecognized gains/losses over a 5-year period. Gains/losses are based on market value of assets.	Actuarial value equals market value less unrecognized gains/losses over a 5-year period. Gains/losses are based on market value of assets.	Actuarial value equals market value less unrecognized Market value restart as of 1/1/96, then gains/losses over a 5-year period. Gains/losses are five-year moving average of market values based on market value of assets.
Salary increases:	Varies by years of employment and employment type.	Varies by years of employment and employment type.	Varies by years of employment and employment type.	In general, merit and promotion increases plus assumed general wage increases of 3.5% to 15.0% for operating employees and 4.0% to 7.0% for nonoperating employees per year, depending on years of service.
Actuarial assumptions:				
Discount Rate:	7.00%	7.00%	7.00%	7.00%
Investment rate of return :	7.00%, net of investment expenses.	7.00%, net of investment expenses.	7.00%, net of investment expenses.	7.00%, net of investment expenses.
Mortality:	Based on experience of all MTA members reflecting mortality improvement on a generational basis using scale AA.	Based on experience of all MTA members reflecting mortality improvement on a generational basis using scale AA.	Based on experience of all MTA members reflecting mortality improvement on a generational basis using scale AA.	Pre-retirement and post-retirement healthy annuitant rates are projected on a generational basis using Scale AA. As generational tables, they reflect mortality improvements both before and after the measurement date. Mortality assumption is based on a 2012 experience study for all MTA plans.
Pre-retirement:	RP-2000 Employee Mortality Table for Males and Females with blue collar adjustments.	RP-2000 Employee Mortality Table for Males and Females with blue collar adjustments.	RP-2000 Employee Mortality Table for Males and Females with blue collar adjustments.	RP-2000 Employee Mortality Table for Males and Females with blue collar adjustments.
Post-retirement Healthy Lives:	95% of the rates from the RP-2000 Healthy Annuitant mortality table for males with blue collar adjustments and 116% of the rates from the RP-2000 Healthy Annuitant mortality table for females.	95% of the rates from the RP-2000 Healthy Annuitant mortality table for males with blue collar adjustments and 116% of the rates from the RP-2000 Healthy Annuitant mortality table for females.	95% of the rates from the RP-2000 Healthy Annuitant mortality table for males with blue collar adjustments and 116% of the rates from the RP-2000 Healthy Annuitant mortality table for females.	95% of the rates from the RP-2000 Healthy Annuitant mortality table for males with blue collar adjustments and 116% of the rates from the RP-2000 Healthy Annuitant mortality table for females.
Post-retirement Disabled Lives:	RP-2014 Disabled Annuitant mortality table for males and females.	75% of the rates from the RP-2000 Healthy Annuitant mortality table for males and females.	75% of the rates from the RP-2000 Healthy Annuitant mortality table for males and females.	75% of the rates from the RP-2000 Healthy Annuitant mortality table for males and females.
Inflation/Railroad Retirement Wage Base:	2.50%	2.50%	2.50%	2.50%
Cost-of-Living Adjustments:	1.375% per annum	1.375% per annum	1.375% per annum	1.375% per annum

REQUIRED SUPPLEMENTARY INFORMATION

Notes to Schedule of the MTA's Contributions for All Pension Plans

(continued)

	MNR Cash Balance Plan			
Valuation Dates:	January 1, 2018	January 1, 2017	January 1, 2016	January 1, 2014
Measurement Date:	December 31, 2017	December 31, 2016	December 31, 2015	December 31, 2014
Actuarial cost method:	Unit Credit Cost	Unit Credit Cost	Unit Credit Cost	Unit Credit Cost
Amortization method:	One-year amortization of the unfunded liability, if any.	One-year amortization of the unfunded liability, if any.	One-year amortization of the unfunded liability, if any.	Period specified in current valuation report (closed 10 year period beginning January 1, 2008 - 4 year period for the January 1, 2014 valuation).
Asset Valuation Method:	Actuarial value equals market value.	Actuarial value equals market value.	Actuarial value equals market value.	Effective January 1, 2015, the Actuarially Determined Contribution (ADC) will reflect one-year amortization of the unfunded accrued liability in accordance with the funding policy adopted by the MTA.
Salary increases:	N/A	N/A	N/A	There were no projected salary increase assumptions used in the January 1, 2014 valuation as the participants of the Plan were covered under the Management Plan effective January 1, 1989. For participants of the Plan eligible for additional benefits, these benefits were not valued as the potential liability is de minimus.
Actuarial assumptions:				
Discount Rate:	4.00%	4.00%	4.00%	4.50%
Investment rate of return :	4.00%, net of investment expenses.	4.00%, net of investment expenses.	4.00%, net of investment expenses.	4.50%, net of investment expenses.
Mortality:	Based on experience of all MTA members reflecting mortality improvement on a generational basis using scale AA. Mortality assumption is based on a 2017 experience study for all MTA plans.	Based on experience of all MTA members reflecting mortality improvement on a generational basis using scale AA. Mortality assumption is based on a 2012 experience study for all MTA plans.	Based on experience of all MTA members reflecting mortality improvement on a generational basis using scale AA. Mortality assumption is based on a 2012 experience study for all MTA plans.	Based on experience of all MTA members reflecting mortality improvement on a generational basis using scale AA. As generational tables, they reflect mortality improvements both before and after the measurement date. Mortality assumption is based on a 2012 experience study for all MTA plans.
Pre-retirement:	RP-2000 Employee Mortality Table for Males and Females with blue collar adjustments.	RP-2000 Employee Mortality Table for Males and Females with blue collar adjustments.	RP-2000 Employee Mortality Table for Males and Females with blue collar adjustments.	RP-2000 Employee Mortality Table for Males and Females with blue collar adjustments.
Post-retirement Healthy Lives:	95% of the rates from the RP-2000 Healthy Annuitant mortality table for males with blue collar adjustments and 116% of the rates from the RP-2000 Healthy Annuitant mortality table for females.	95% of the rates from the RP-2000 Healthy Annuitant mortality table for males with blue collar adjustments and 116% of the rates from the RP-2000 Healthy Annuitant mortality table for females.	95% of the rates from the RP-2000 Healthy Annuitant mortality table for males with blue collar adjustments and 116% of the rates from the RP-2000 Healthy Annuitant mortality table for females.	95% of the rates from the RP-2000 Healthy Annuitant mortality table for males with blue collar adjustments and 116% of the rates from the RP-2000 Healthy Annuitant mortality table for females.
Post-retirement Disabled Lives:	N/A	N/A	N/A	N/A
Inflation/Railroad Retirement Wage Base:	2.50%	2.30%	2.30%	2.50%
Cost-of-Living Adjustments:	N/A	N/A	N/A	N/A

REQUIRED SUPPLEMENTARY INFORMATION

Notes to Schedule of the MTA's Contributions for All Pension Plans

(continued)

	MTA Defined Benefit Plan			
Valuation Dates:	January 1, 2017	January 1, 2016	January 1, 2015	January 1, 2014
Measurement Date:	December 31, 2017	December 31, 2016	December 31, 2015	December 31, 2014
Actuarial cost method:	Entry Age Normal Cost	Entry Age Normal Cost	Entry Age Normal Cost	Entry Age Normal Cost
Amortization method:	For Frozen Initial Liability ("FIL") bases, period specified in current valuation report. Future gains/ losses are amortized through the calculation of the normal cost in accordance with FIL cost method amortized based on expected working lifetime, weighted by salary, of the projected population for each group.	For Frozen Initial Liability ("FIL") bases, period specified in current valuation report. Future gains/ losses are amortized through the calculation of the normal cost in accordance with FIL cost method amortized based on expected working lifetime, weighted by salary, of the projected population for each group.	For Frozen Initial Liability ("FIL") bases, period specified in current valuation report. Future gains/ losses are amortized through the calculation of the normal cost in accordance with FIL cost method amortized based on expected working lifetime, weighted by salary, of the projected population for each group.	For Frozen Initial Liability ("FIL") bases, period specified in current valuation report. Future gains/ losses are amortized through the calculation of the normal cost in accordance with FIL cost method amortized based on expected working lifetime, weighted by salary, of the projected population for each group.
Asset Valuation Method:	Actuarial value equals market value less unrecognized gains/ losses over a 5-year period. Gains/losses are based on market value of assets.	Actuarial value equals market value less unrecognized gains/ losses over a 5-year period. Gains/losses are based on market value of assets.	Actuarial value equals market value less unrecognized gains/ losses over a 5-year period. Gains/losses are based on market value of assets.	Actuarial value equals market value less unrecognized gains/ losses over a 5-year period. Gains/losses are based on market value of assets.
Salary increases:	Varies by years of employment, and employee group. 3.5% for MTA Bus hourly employees.	Varies by years of employment, and employee group. 3.5% for MTA Bus hourly employees.	Varies by years of employment, and employee group. 3.5% for MTA Bus hourly employees.	Varies by years of employment, and employee group.
Actuarial assumptions:				
Discount Rate:	7.00%	7.00%	7.00%	7.00%
Investment rate of return :	7.00%	7.00%	7.00%	7.00%
Mortality:	Pre-retirement and post-retirement healthy annuitant rates are projected on a generational basis using Scale AA. As a general table, it reflects mortality improvements both before and after the measurement date.	Pre-retirement and post-retirement healthy annuitant rates are projected on a generational basis using Scale AA. As a general table, it reflects mortality improvements both before and after the measurement date.	Pre-retirement and post-retirement healthy annuitant rates are projected on a generational basis using Scale AA. As a general table, it reflects mortality improvements both before and after the measurement date.	Pre-retirement and post-retirement healthy annuitant rates are projected on a generational basis using Scale AA, as recommended by the Society of Actuaries Retirement Plans Experience Committee. Mortality assumption is based on a 2012 experience study for all MTA plans.
Pre-retirement:	RP-2000 Employee Mortality Table for Males and Females with blue collar adjustments.	RP-2000 Employee Mortality Table for Males and Females with blue collar adjustments.	RP-2000 Employee Mortality Table for Males and Females with blue collar adjustments.	RP-2000 Employee Mortality Table for Males and Females with blue collar adjustments.
Post-retirement Healthy Lives:	95% of the rates from the RP-2000 Healthy Annuitant mortality table for males with blue collar adjustments and 116% of the rates from the RP-2000 Healthy Annuitant mortality table for females.	95% of the rates from the RP-2000 Healthy Annuitant mortality table for males with blue collar adjustments and 116% of the rates from the RP-2000 Healthy Annuitant mortality table for females.	95% of the rates from the RP-2000 Healthy Annuitant mortality table for males with blue collar adjustments and 116% of the rates from the RP-2000 Healthy Annuitant mortality table for females.	95% of the rates from the RP-2000 Healthy Annuitant mortality table for males with blue collar adjustments and 116% of the rates from the RP-2000 Healthy Annuitant mortality table for females.
Post-retirement Disabled Lives:	RP-2014 Disabled Annuitant mortality table for males and females	75% of the rates from the RP-2000 Healthy Annuitant mortality table for males and females. At age 85 and later for males and age 77 and later for females, the disability rates are set to the male and females healthy rates, respectively.	75% of the rates from the RP-2000 Healthy Annuitant mortality table for males and females. At age 85 and later for males and age 77 and later for females, the disability rates are set to the male and females healthy rates, respectively.	75% of the rates from the RP-2000 Healthy Annuitant mortality table for males and females. At age 85 and later for males and age 77 and later for females, the disability rates are set to the male and females healthy rates, respectively.
Inflation/Railroad Retirement Wage Base:	2.50%; 3.50%	2.50%; 3.50%	2.50%; 3.50%	2.50%; 3.00%
Cost-of-Living Adjustments:	55% of inflation assumption or 1.375%, if applicable.	55% of inflation assumption or 1.375%, if applicable.	55% of inflation assumption or 1.375%, if applicable.	55% of inflation assumption or 1.375%, if applicable.

REQUIRED SUPPLEMENTARY INFORMATION

Notes to Schedule of the MTA's Contributions for All Pension Plans

(continued)

	NYCERS Plan			
Valuation Dates:	June 30, 2016	June 30, 2015	June 30, 2014	June 30, 2013
Measurement Date:	June 30, 2018	June 30, 2017	June 30, 2016	June 30, 2015
Actuarial cost method:	Entry Age Normal Cost	Entry Age Normal Cost	Entry Age Normal Cost	Entry Age Normal Cost
Amortization method:	Increasing Dollar for Initial Unfunded; Level Dollar for Post 2010 Unfunded.	Increasing Dollar for Initial Unfunded; Level Dollar for Post 2010 Unfunded.	Increasing Dollar for Initial Unfunded; Level Dollar for Post 2010 Unfunded.	Increasing Dollar for Initial Unfunded; Level Dollar for Post 2010 Unfunded.
Asset Valuation Method:	Modified six-year moving average of market values with a Market Value Restart as of June 30, 2011.	Modified six-year moving average of market values with a Market Value Restart as of June 30, 2011.	Modified six-year moving average of market values with a Market Value Restart as of June 30, 2011.	Modified six-year moving average of market values with a Market Value Restart as of June 30, 2011.
Salary increases:	3% per annum.	3% per annum.	3% per annum.	3% per annum.
Actuarial assumptions:				
Discount Rate:	7.00%	7.00%	7.00%	7.00%
Investment rate of return :	7.00%, net of investment expenses.	7.00%, net of investment expenses.	7.00%, net of investment expenses.	7.00%, net of investment expenses.
Mortality:	Mortality tables for service and disability pensioners were developed from an experience study of NYCERS's pensioners. The mortality tables for beneficiaries were developed from an experience review of NYCERS' beneficiaries. The most recently completed study was published by Gabriel Roeder & Company ("GRS"), dated October 2015, and analyzed experience for Fiscal Years 2010 through 2013.	Mortality tables for service and disability pensioners were developed from an experience study of NYCERS's pensioners. The mortality tables for beneficiaries were developed from an experience review of NYCERS' beneficiaries. The most recently completed study was published by Gabriel Roeder & Company ("GRS"), dated October 2015, and analyzed experience for Fiscal Years 2010 through 2013.	Mortality tables for service and disability pensioners were developed from an experience study of NYCERS's pensioners. The mortality tables for beneficiaries were developed from an experience review of NYCERS' beneficiaries. The most recently completed study was published by Gabriel Roeder & Company ("GRS"), dated October 2015, and analyzed experience for Fiscal Years 2010 through 2013.	Mortality tables for service and disability pensioners were developed from an experience study of NYCERS's pensioners. The mortality tables for beneficiaries were developed from an experience review of NYCERS' beneficiaries. The most recently completed study was published by Gabriel Roeder & Company ("GRS"), dated October 2015, and analyzed experience for Fiscal Years 2010 through 2013.
Pre-retirement:	N/A	N/A	N/A	N/A
Post-retirement Healthy Lives:	N/A	N/A	N/A	N/A
Post-retirement Disabled Lives:	N/A	N/A	N/A	N/A
Inflation/Railroad Retirement Wage Base:	2.50%	2.50%	2.50%	2.50%
Cost-of-Living Adjustments:	1.5% per annum for Auto COLA and 2.5% per annum for Escalation.	1.5% per annum for Auto COLA and 2.5% per annum for Escalation.	1.5% per annum for Auto COLA and 2.5% per annum for Escalation.	1.5% per annum for Auto COLA and 2.5% per annum for Escalation.

REQUIRED SUPPLEMENTARY INFORMATION

Notes to Schedule of the MTA's Contributions for All Pension Plans

(continued)

	NYSLERS Plan			
Valuation Dates:	April 1, 2017	April 1, 2016	April 1, 2015	April 1, 2014
Measurement Date:	March 31, 2018	March 31, 2017	March 31, 2016	March 31, 2015
Actuarial cost method:	Aggregate Cost method	Aggregate Cost method	Aggregate Cost method	Aggregate Cost method
Amortization method:	Evenly over the remaining working lifetimes of the active membership.	Evenly over the remaining working lifetimes of the active membership.	Evenly over the remaining working lifetimes of the active membership.	Evenly over the remaining working lifetimes of the active membership.
Asset Valuation Method:	5 year level smoothing of the difference between the actual gain and the expected gain using the assumed investment rate of return.	5 year level smoothing of the difference between the actual gain and the expected gain using the assumed investment rate of return.	5 year level smoothing of the difference between the actual gain and the expected gain using the assumed investment rate of return.	5-year level smoothing of the difference between the actual gain and the expected gain using the assumed investment rate of return.
Salary increases:	3.80%	3.80%	3.80%	4.90%
Actuarial assumptions:				
Discount Rate:	7.00%	7.00%	7.00%	7.50%
Investment rate of return :	7.00%, net of investment expenses.	7.00%, net of investment expenses.	7.00%, net of investment expenses.	7.5%, net of investment expenses.
Mortality:	Annuitant mortality rates are based on NYSLERS's 2015 experience study of the period April 1, 2010 through March 31, 2015 with adjustments for mortality improvements based on the Society of Actuaries's Scale MP-2014.	Annuitant mortality rates are based on NYSLERS's 2010 experience study of the period April 1, 2005 through March 31, 2010 with adjustments for mortality improvements based on the Society of Actuaries's Scale MP-2014.	Annuitant mortality rates are based on NYSLERS's 2010 experience study of the period April 1, 2005 through March 31, 2010 with adjustments for mortality improvements based on the Society of Actuaries's Scale MP-2014.	Annuitant mortality rates are based on NYSLERS's 2010 experience study of the period April 1, 2005 through March 31, 2010 with adjustments for mortality improvements based on the Society of Actuaries's Scale MP-2014.
Pre-retirement:	N/A	N/A	N/A	N/A
Post-retirement Healthy Lives:	N/A	N/A	N/A	N/A
Post-retirement Disabled Lives:	N/A	N/A	N/A	N/A
Inflation/Railroad Retirement Wage Base:	2.50%	2.50%	2.50%	2.70%
Cost-of-Living Adjustments:	1.3% per annum.	1.3% per annum.	1.3% per annum.	1.4% per annum.

(A Component Unit of the State of New York)

REQUIRED SUPPLEMENTARY INFORMATION

Notes to Schedule of MTA's Contributions for All Pension Plans

(concluded)

Significant methods and assumptions used in calculating the actuarially determined contributions of an employer's proportionate share in Cost Sharing, Multiple-Employer pension plans, the NYCERS plan and the NYSLERS plan, are presented as notes to the schedule.

Factors that significantly affect trends in the amounts reported are changes of benefit terms, changes in the size or composition of the population covered by the benefit terms, or the use of different assumptions. Following is a summary of such factors:

Changes of Benefit Terms:

There were no significant legislative changes in benefit for the June 30, 2016 valuation for the NYCERS plan.

There were no significant legislative changes in benefit for the April 1, 2017 valuation for the NYSLERS plan.

Changes of Assumptions:

There were no significant changes in the economic and demographic assumptions used in the June 30, 2016 valuation for the NYCERS plan.

There were no significant changes in the economic and demographic assumptions used in the April 1, 2017 valuation for the NYSLERS plan.

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REQUIRED SUPPLEMENTARY INFORMATION

Schedule of Changes in the MTA's Net OPEB Liability and Related Ratios and Notes to Schedule

(\$ in thousands)	<u>OPEB Plan</u>
Plan Measurement Date (December 31):	<u>2017</u>
Total OPEB liability:	
Service cost	\$ 884,548
Interest on total OPEB liability	731,405
Effect of plan changes	27,785
Effect of economic/demographic (gains) or losses	13,605
Effect of assumption changes or inputs	911,465
Benefit payments	<u>(650,994)</u>
Net change in total OPEB liability	1,917,814
Total OPEB liability—beginning	<u>18,787,254</u>
Total OPEB liability—ending (a)	<u>20,705,068</u>
Plan fiduciary net position:	
Employer contributions	650,994
Net investment income	47,370
Benefit payments	<u>(650,994)</u>
Net change in plan fiduciary net position	47,370
Plan fiduciary net position—beginning	<u>322,982</u>
Plan fiduciary net position—ending (b)	<u>370,352</u>
Net OPEB liability—ending (a)-(b)	<u><u>\$ 20,334,716</u></u>
Plan fiduciary net position as a percentage of the total OPEB liability	1.79%
Covered payroll	\$ 5,394,332
Net OPEB liability as a percentage of covered payroll	<u><u>376.96%</u></u>

Notes to Schedule:

Changes of benefit terms: In the July 1, 2017 actuarial valuation, there were no changes to the benefit terms.

Changes of assumptions: In the July 1, 2017 actuarial valuation, there was a change in assumptions. The discount rate used to measure liabilities was updated to incorporate GASB 75 guidance and changed to reflect the current municipal bond rate.

Note: This schedule is intended to show information for ten years. However, until a full 10-year trend has been compiled, information is presented only for the years for which the required supplementary information is available.

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REQUIRED SUPPLEMENTARY INFORMATION

Schedule of the MTA's Contributions to the OPEB Plan for the years ended December 31:

(\$ in thousands)	<u>2018</u>	<u>2017</u>
Actuarially Determined Contribution	N/A	N/A
Actual Employer Contribution (1)	\$ 696,065	\$ 650,994
Contribution Deficiency (Excess)	<u>N/A</u>	<u>N/A</u>
Covered Payroll	\$ 6,903,700	\$ 5,394,200
Actual Contribution as a Percentage of Covered Payroll	<u>10.08%</u>	<u>12.07%</u>

⁽¹⁾ Actual employer contribution includes the implicit rate of subsidy adjustment of \$74,484 and \$71,101 for the years ended December 31, 2018 and 2017, respectively.

Note: This schedule is intended to show information for ten years. However, until a full 10-year trend has been compiled, information is presented only for the years for which the required supplementary information is available.

(A Component Unit of the State of New York)

REQUIRED SUPPLEMENTARY INFORMATION

Notes to Schedule of the MTA's Contributions to the OPEB Plan:

Valuation date	July 1, 2017
Measurement date	December 31, 2017
Discount rate	3.44%, net of expenses
Inflation	2.50%
Actuarial cost method	Entry Age Normal
Amortization method	Level percentage of payroll
Normal cost increase factor	4.50%
Investment rate of return	6.50%
Salary increases	3%. Varies by years of service and differs for members of the various pension plans.

Note: This schedule is intended to show information for ten years. However, until a full 10-year trend has been compiled, information is presented only for the years for which the required supplementary information is available.

(A Component Unit of the State of New York)

SUPPLEMENTARY INFORMATION

Pension And Other Employee Benefit Trust Funds

Combining Statement of Fiduciary Net Position as of December 31, 2018

(\$ in thousands)	Pension Funds				Other Employee Benefit Trust Funds		
	Defined Benefit Pension Plan	LIRR Company Plan for Additional Pensions	MaBSTOA Plan	Metro-North Cash Balance Plan	Other Post-employment Benefit Plan	Deferred Compensation 401K Plan	Total
ASSETS:							
Cash	\$ 6,539	\$ 1,228	\$ 5,418	\$ -	\$ -	\$ -	\$ 13,185
Receivables:							
Employee loans	-	-	37,605	-	-	159,462	197,067
Participant and union contributions	-	-	-	-	-	-	-
Investment securities sold	-	58	760	-	-	-	818
Accrued interest and dividends	2,745	516	1,263	2	14	-	4,540
Other receivables	1,845	93	-	-	-	-	1,938
Total receivables	4,590	667	39,628	2	14	159,462	204,363
Investments at fair value:							
Investments measured at readily determined fair value	787,191	147,855	387,520	474	-	-	1,323,040
Investments measured at net asset value	3,234,904	671,157	2,502,012	-	351,538	2,286,394	9,046,005
Investments at contract value	-	-	-	-	-	1,313,496	1,313,496
Total investments	4,022,095	819,012	2,889,532	474	351,538	3,599,890	11,682,541
Total assets	<u>\$ 4,033,224</u>	<u>\$ 820,907</u>	<u>\$ 2,934,578</u>	<u>\$ 476</u>	<u>\$ 351,552</u>	<u>\$ 3,759,352</u>	<u>\$ 11,900,089</u>
LIABILITIES:							
Accounts payable and accrued liabilities	5,752	1,035	1,567	-	-	721	9,075
Payable for investment securities purchased	2,699	507	2,250	5	-	-	5,461
Accrued benefits payable	-	-	2,247	-	172	-	2,419
Accrued postretirement death benefits (PRDB) payable	-	-	3,344	-	-	-	3,344
Accrued 55/25 Additional Members Contribution (AMC) payable	-	-	6,181	-	-	-	6,181
Other liabilities	293	48	-	-	-	-	341
Total liabilities	8,744	1,590	15,589	5	172	721	26,821
NET POSITION:							
Restricted for pensions	4,024,480	819,317	2,918,989	471	-	-	7,763,257
Restricted for postemployment benefits other than pensions	-	-	-	-	351,380	-	351,380
Restricted for other employee benefits	-	-	-	-	-	3,758,631	3,758,631
Total net position	4,024,480	819,317	2,918,989	471	351,380	3,758,631	11,873,268
Total liabilities and net position	<u>\$ 4,033,224</u>	<u>\$ 820,907</u>	<u>\$ 2,934,578</u>	<u>\$ 476</u>	<u>\$ 351,552</u>	<u>\$ 3,759,352</u>	<u>\$ 11,900,089</u>

See Independent Auditors' Review Report and notes to the consolidated interim financial statements.

(A Component Unit of the State of New York)

SUPPLEMENTARY INFORMATION

Pension And Other Employee Benefit Trust Funds

Combining Statement of Fiduciary Net Position as of December 31, 2017

(\$ in thousands)	Pension Funds				Other Employee Benefit Trust Funds		
	Defined Benefit Pension Plan	LIRR Company Plan for Additional Pensions	MaBSTOA Plan	Metro-North Cash Balance Plan	Other Post- employment Benefit Plan	Deferred Compensation 401K Plan	Total
ASSETS:							
Cash	\$ 11,812	\$ 1,575	\$ 5,418	\$ -	\$ -	\$ -	\$ 18,805
Receivables:							
Employee loans	-	-	37,605	-	-	146,347	183,952
Participant and union contributions	-	(6)	-	-	-	-	(6)
Investment securities sold	-	363	760	3	-	-	1,126
Accrued interest and dividends	1,882	399	1,263	3	7	-	3,554
Other receivables	1,896	(53)	-	-	-	-	1,843
Total receivables	3,778	703	39,628	6	7	146,347	190,469
Investments at fair value:							
Investments measured at readily determined fair value	675,779	183,875	387,520	527	-	-	1,247,701
Investments measured at net asset value	3,369,189	765,925	2,502,012	-	370,596	2,397,108	9,404,830
Investments at contract value	-	-	-	-	-	1,224,190	1,224,190
Total investments	4,044,968	949,800	2,889,532	527	370,596	3,621,298	11,876,721
Total assets	\$ 4,060,558	\$ 952,078	\$ 2,934,578	\$ 533	\$ 370,603	\$ 3,767,645	\$ 12,085,995
LIABILITIES:							
Accounts payable and accrued liabilities	4,730	(149)	1,567	-	-	675	6,823
Payable for investment securities purchased	3,575	900	2,250	10	-	-	6,735
Accrued benefits payable	-	-	2,247	-	251	-	2,498
Accrued postretirement death benefits (PRDB) payable	-	-	3,344	-	-	-	3,344
Accrued 55/25 Additional Members Contribution (AMC) payable	-	-	6,181	-	-	-	6,181
Other liabilities	719	-	-	-	-	-	719
Total liabilities	9,024	751	15,589	10	251	675	26,300
NET POSITION:							
Restricted for pensions	4,051,534	951,327	2,918,989	523	-	-	7,922,373
Restricted for postemployment benefits other than pensions	-	-	-	-	370,352	-	370,352
Restricted for other employee benefits	-	-	-	-	-	3,766,970	3,766,970
Total net position	4,051,534	951,327	2,918,989	523	370,352	3,766,970	12,059,695
Total liabilities and net position	\$ 4,060,558	\$ 952,078	\$ 2,934,578	\$ 533	\$ 370,603	\$ 3,767,645	\$ 12,085,995

See Independent Auditors' Review Report and notes to the consolidated interim financial statements.

(A Component Unit of the State of New York)

SUPPLEMENTARY INFORMATION

Pension And Other Employee Benefit Trust Funds

Combining Statement of Changes in Fiduciary Net Position for the year ended December 31, 2018

(\$ in thousands)	Pension Funds				Other Employee Benefit Trust Funds		
	Defined Benefit Pension Plan	LIRR Additional Plan	MaBSTOA Plan	Metro-North Cash Balance Plan	Other Post-employment Benefit Plan	Deferred Compensation 401K Plan	Total
ADDITIONS:							
Contributions:							
Employer contributions	\$ 338,967	\$ 59,500	\$ 202,684	\$ 5	\$ 616,638	\$ 4,392	1,222,186
NonEmployer contributions	-	-	-	-	-	-	-
Implicit rate subsidy contribution	-	-	-	-	74,484	-	74,484
Participant rollovers	-	-	-	-	-	21,673	21,673
Member contributions	29,902	334	19,713	-	-	283,818	333,767
Total contributions	368,869	59,834	222,397	5	691,122	309,883	1,652,110
Investment income:							
Net (depreciation) / appreciation							
in fair value of investments	(169,255)	(35,344)	363,877	(15)	(22,591)	(139,054)	(2,382)
Dividend income	56,670	11,441	24,125	-	5,203	-	97,439
Interest income	9,254	1,715	6,092	16	161	-	17,238
Less: Investment expenses	47,091	8,547	43,908	-	1,689	-	101,235
Investment income, net	(150,422)	(30,735)	350,186	1	(18,916)	(139,054)	11,060
Other additions: Loan repayments - interest	0	0	0	0	0	7,529	7,529
Total additions	218,447	29,099	572,583	6	672,206	178,358	1,670,699
DEDUCTIONS:							
Benefit payments and withdrawals	242,149	159,565	209,121	58	616,638	-	1,227,531
Implicit rate subsidy payments	-	-	-	-	74,484	-	74,484
Transfer to other plans	200	-	-	-	-	93,187	93,387
Distribution to participants	-	-	-	-	-	87,379	87,379
Administrative expenses	3,152	1,544	208	-	56	721	5,681
Other deductions	-	-	-	-	-	5,410	5,410
Total deductions	245,501	161,109	209,329	58	691,178	186,697	1,493,872
Net increase (decrease) in fiduciary net position	(27,054)	(132,010)	363,254	(52)	(18,972)	(8,339)	176,827
NET POSITION:							
Restricted for Benefits:							
Beginning of year	4,051,534	951,327	2,555,735	523	370,352	3,766,970	11,696,441
End of year	\$ 4,024,480	\$ 819,317	\$ 2,918,989	\$ 471	\$ 351,380	\$ 3,758,631	\$ 11,873,268

See Independent Auditors' Review Report and notes to the consolidated interim financial statements.

(A Component Unit of the State of New York)

SUPPLEMENTARY INFORMATION

Pension And Other Employee Benefit Trust Funds

Combining Statement of Changes in Fiduciary Net Position for the year ended December 31, 2017

(\$ in thousands)	Pension Funds				Other Employee Benefit Trust Funds		
	Defined Benefit Pension Plan	LIRR Additional Plan	MaBSTOA Plan	Metro-North Cash Balance Plan	Other Post-employment Benefit Plan	Deferred Compensation 401K Plan	Total
ADDITIONS:							
Contributions:							
Employer contributions	\$ 321,861	\$ 76,523	\$ 202,684	\$ -	\$ 579,893	\$ 4,109	1,185,070
NonEmployer contributions	-	145,000	-	-	-	-	145,000
Implicit rate subsidy contribution	-	-	-	-	71,101	-	71,101
Participant rollovers	-	-	-	-	-	22,430	22,430
Member contributions	30,994	760	19,713	-	-	251,122	302,589
Total contributions	352,855	222,283	222,397	-	650,994	277,661	1,726,190
Investment income:							
Net appreciation/ (depreciation)							
in fair value of investments	527,182	115,106	363,877	4	42,470	416,584	1,465,223
Dividend income	35,211	7,599	24,125	-	6,697	-	73,632
Interest income	6,522	1,036	6,092	16	64	-	13,730
Less: Investment expenses	52,762	11,127	43,908	-	1,861	-	109,658
Investment income, net	516,153	112,614	350,186	20	47,370	416,584	1,442,927
Other additions: Loan repayments - interest	0	0	0	0	0	6,337	6,337
Total additions	869,008	334,897	572,583	20	698,364	700,582	3,175,454
DEDUCTIONS:							
Benefit payments and withdrawals	231,321	159,717	209,121	71	579,893	-	1,180,123
Implicit rate subsidy payments	-	-	-	-	71,101	-	71,101
Transfer to other plans	1,622	-	-	-	-	66,031	67,653
Distribution to participants	-	-	-	-	-	73,733	73,733
Administrative expenses	4,502	1,070	208	-	-	675	6,455
Other deductions	-	-	-	-	-	4,895	4,895
Total deductions	237,445	160,787	209,329	71	650,994	145,334	1,403,960
Net increase (decrease) in fiduciary net position	631,563	174,110	363,254	(51)	47,370	555,248	1,771,494
NET POSITION:							
Restricted for Benefits:							
Beginning of year	3,419,971	777,217	2,555,735	574	322,982	3,211,722	10,288,201
End of year	\$ 4,051,534	\$ 951,327	\$ 2,918,989	\$ 523	\$ 370,352	\$ 3,766,970	\$ 12,059,695

See Independent Auditors' Review Report and notes to the consolidated interim financial statements.

(A Component Unit of the State of New York)

SUPPLEMENTARY INFORMATION

SCHEDULE OF CONSOLIDATED RECONCILIATION BETWEEN FINANCIAL PLAN AND FINANCIAL STATEMENTS FOR THE PERIOD ENDED JUNE 30, 2019

(\$ in millions)

(Unaudited)

Category	Financial Plan Actual	Statement GAAP Actual	Variance
REVENUE:			
Farebox revenue	\$ 3,091	\$ 3,091	\$ -
Vehicle toll revenue	996	996	-
Other operating revenue	352	323	(29)
Total revenue	4,439	4,410	(29)
OPERATING EXPENSES:			
Labor:			
Payroll	2,636	2,644	8
Overtime	492	494	2
Health and welfare	657	659	2
Pensions	675	677	2
Other fringe benefits	451	450	(1)
Postemployment benefits	325	325	-
Reimbursable overhead	(243)	(252)	(9)
Total labor expenses	4,993	4,997	4
Non-labor:			
Electric power	223	223	-
Fuel	93	93	-
Insurance	3	3	-
Claims	215	215	-
Paratransit service contracts	246	246	-
Maintenance and other operating contracts	351	330	(21)
Professional service contract	236	218	(18)
Pollution remediation project costs	5	5	-
Materials and supplies	322	322	-
Other business expenses	107	106	(1)
Total non-labor expenses	1,801	1,761	(40)
Depreciation	1,420	1,420	-
Total operating expenses	8,214	8,178	(36)
NET OPERATING LOSS	\$ (3,775)	\$ (3,768)	\$ 7

(A Component Unit of the State of New York)

SUPPLEMENTARY INFORMATION

SCHEDULE OF CONSOLIDATED SUBSIDY ACCRUAL RECONCILIATION BETWEEN FINANCIAL PLAN AND FINANCIAL STATEMENTS FOR THE PERIOD ENDED JUNE 30, 2019

(\$ in millions)

(Unaudited)

	Financial Plan Actual	Financial Statement GAAP Actual	Variance	
Accrued Subsidies				
Mass transportation operating assistance	\$ 1,824	\$ 1,824	\$ -	
Mass transit trust fund subsidies	315	315	-	
Mortgage recording tax 1 and 2	215	215	-	
MRT transfer	-	(2)	(2)	{1}
Urban tax	347	347	-	
State and local operating assistance	217	217	-	
Station maintenance	85	85	-	
Connecticut Department of Transportation (CDOT)	57	58	1	{1}
Subsidy from New York City for MTA Bus and SIRTOA	301	252	(49)	{1}
Build American Bonds Subsidy	45	44	(1)	{1}
Mobility tax	1,154	1,154	-	
NYC Assistance Fund	143	76	(67)	{1}
Other non-operating income	-	80	80	{2}
	<u>4,703</u>	<u>4,665</u>	<u>(38)</u>	
 Total accrued subsidies				
	4,703	4,665	(38)	
Net operating deficit before subsidies and debt service	(3,775)	(3,768)	7	
Debt Service	(1,314)	(894)	420	
Conversion to Cash basis: Depreciation	1,420	-	(1,420)	
Conversion to Cash basis: GASB 68 pension adjustment	(85)	-	85	
Conversion to Cash basis: Pollution & Remediation	5	-	(5)	
	<u>5</u>	<u>-</u>	<u>(5)</u>	
 Total net operating surplus/(deficit) before appropriations, grants and other receipts restricted for capital projects				
	<u>\$ 954</u>	<u>\$ 3</u>	<u>\$ (951)</u>	

{1} The Financial Plan records on a cash basis while the Financial Statement records on an accrual basis.

{2} The Financial Plan records do not include other non-operating income or changes in market value.

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SUPPLEMENTARY INFORMATION

SCHEDULE OF FINANCIAL PLAN TO FINANCIAL STATEMENTS RECONCILIATION RECONCILING ITEMS

FOR THE PERIOD ENDED JUNE 30, 2019

(\$ in millions)

Financial Plan Actual Operating Loss at June 30, 2019	\$ (3,775)
The Financial Plan Actual Includes:	
1 Higher other operating revenues	(29)
2 Lower labor expenses	(4)
3 Higher non-labor expense primarily from higher maintenance expense projections	40
4 Other expense adjustments	-
Total operating reconciling items	7
Financial Statements Operating Loss at June 30, 2019	(3,768)
Financial Plan Surplus after Subsidies and Debt Service	954
The Audited Financial Statements Includes:	
1 Debt service bond principal payments	420
2 Adjustments for non-cash liabilities:	
Depreciation	(1,420)
Unfunded OPEB expense	-
Unfunded GASB No. 68 pension adjustment	85
Other non-cash liability adjustment	(5)
The Financial Statement includes:	
3 Lower dedicated taxes and subsidies	(38)
4 Total operating reconciling items (from above)	7
Financial Statement Gain Before Capital Appropriations	\$ 3

Report on

2017 Inspection of Deloitte & Touche LLP
(Headquartered in New York, New York)

Issued by the

Public Company Accounting Oversight Board

December 20, 2018

THIS IS A PUBLIC VERSION OF A PCAOB INSPECTION REPORT

PORTIONS OF THE COMPLETE REPORT ARE OMITTED
FROM THIS DOCUMENT IN ORDER TO COMPLY WITH
SECTIONS 104(g)(2) AND 105(b)(5)(A)
OF THE SARBANES-OXLEY ACT OF 2002

PCAOB RELEASE NO. 104-2019-001

2017 INSPECTION OF DELOITTE & TOUCHE LLP

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PART I – INSPECTION PROCEDURES AND CERTAIN OBSERVATIONS

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EXECUTIVE SUMMARY

In 2017, the Public Company Accounting Oversight Board ("PCAOB" or "the Board") conducted an inspection of the registered public accounting firm Deloitte & Touche LLP ("the Firm") pursuant to the Sarbanes-Oxley Act of 2002 ("the Act"). The inspection procedures included reviews of portions of the Firm's work on 55 issuer audits, which generally related to issuer year ends in 2016.

The inspection team identified matters that it considered to be deficiencies in the performance of the work it reviewed. In 11 audits, certain of these deficiencies were of such significance that it appeared to the inspection team that the Firm, at the time it issued its audit report, had not obtained sufficient appropriate audit evidence to support its opinion. These deficiencies are described in Part I.A of the report.

The Board cautions against using the number of audits with deficiencies in the public portion of a report to draw conclusions about the frequency of deficiencies throughout the firm's practice. The audits to be reviewed are most often selected based on perceived risk and not through a practice designed to identify a representative sample that could be extrapolated to the firm's entire practice. The portions of these audits that are reviewed often involve the most risky areas of the financial statements. Thus, much of the audit work that is inspected presents, in the inspection team's view, a heightened possibility of auditing deficiencies.

In the 2017 inspection, the inspection team also assessed the Firm's system of quality control related to issuer audits. Pursuant to the Act, any criticisms or discussions of defects or potential defects in that system will remain nonpublic unless the Firm fails to address those criticisms or defects to the Board's satisfaction, within 12 months of the issuance of this report.

Audit Opinions Affected by the Identified Deficiencies

Fifty-two of the 55 engagements inspected were integrated audits of both internal control and the financial statements. As depicted in the table below, the inspection team identified deficiencies in both financial statement audits and audits of internal control over financial reporting ("ICFR"). In one of the audits described in Part I.A of this report, after the primary inspection procedures, the Firm revised its opinion on the effectiveness of the issuer's ICFR to express an adverse opinion.

	Number of Audits
Audits for which deficiencies included in Part I.A related to both the financial statement audit and the ICFR audit	<u>2 Audits:</u> Issuers F and H
Audits for which deficiencies included in Part I.A related to the ICFR audit only	<u>6 Audits:</u> Issuers A, B, E, G, I, and J
Audits for which deficiencies included in Part I.A related to the financial statement audit only	<u>3 Audits:</u> Issuers C, D, and K
Total	11

Most Frequently Identified Audit Deficiencies

The following table lists, in summary form, the types of deficiencies that appear most frequently in Part I.A of this report and shows which issuer audits included these deficiencies.

Issue	Part I.A Audits
Failure to sufficiently test the design and/or operating effectiveness of controls that included a review element and that the Firm selected for testing	<u>7 Audits:</u> Issuers A, B, E, F, G, H, and I
Failure to identify and test any controls that addressed the risks related to a particular account or assertion	<u>3 Audits:</u> Issuers E, F, and H
Failure to test that the relevant criteria for revenue recognition were met	<u>3 Audits:</u> Issuers C, D, and F

Areas in which Audit Deficiencies Were Most Frequently Identified

The following table lists, in summary form, the three financial statement accounts or auditing areas in which the deficiencies that are included in Part I.A of this report most frequently occurred.

Area	Part I.A Audits
Revenue, including deferred revenue	<u>6 Audits:</u> Issuers C, D, E, F, H, and I
Business combinations	<u>2 Audits:</u> Issuers E and F
Inventory	<u>2 Audits:</u> Issuers E and K

PART I

INSPECTION PROCEDURES AND CERTAIN OBSERVATIONS

Inspections are designed and performed to assess compliance with applicable standards and requirements. The inspection team reviews both (1) selected audits and (2) policies and procedures related to quality control processes. The primary procedures¹ for the inspection were performed from October 2016 to April 2018. Inspectors conducted field work at the Firm's National Office and inspected issuer audits performed by 31 of the Firm's approximately 62 U.S. practice offices.

Part I.A includes a description of all audit deficiencies that reach a defined level of significance, which is described below. These deficiencies are categorized in various ways in both Part I.B and the Executive Summary. Part I.C of this report provides certain demographic information about all of the audits inspected. Part I.D provides a general description of the procedures performed in an annual inspection.

Inspections are designed to identify deficiencies in audit work and defects or potential defects in the firm's system of quality control. This focus on deficiencies and defects necessarily carries through to inspection reports and, therefore, the reports are not intended as balanced report cards or overall rating tools. Further, the lack of discussion within a report of an aspect of the inspected firm's quality control system should not be interpreted to imply that the Board has reached a conclusion about that aspect. Similarly, an inspection of an annually inspected firm does not involve the review of all of the firm's audits, nor is it designed to identify every deficiency in the reviewed audits. Accordingly, an inspection report should not be understood to provide any assurance that a firm's audit work, or the relevant issuers' financial statements or reporting on ICFR, are free of any deficiencies not described in that report.

The inspection team's evaluation of the Firm's quality control system included both (1) a review of certain aspects of the Firm's quality control system and (2) an assessment of whether the deficiencies identified in individual audits indicate defects or potential defects in the Firm's quality control system.

¹ For this purpose, the time span for "primary procedures" includes field work, other review of audit work papers, and the evaluation of the Firm's quality control policies and procedures through review of documentation and interviews of Firm personnel. The time span does not include (1) inspection planning, which may commence months before the primary procedures, and (2) inspection follow-up procedures, wrap-up, analysis of results, and the preparation of the inspection report, which generally extend beyond the primary procedures.

A. Review of Audit Engagements

The inspection procedures included reviews of portions of 54 issuer audits performed by the Firm and a review of the Firm's audit work on one other issuer audit engagement in which the Firm played a role but was not the principal auditor.

Certain of the deficiencies were of such significance that the inspection team determined that the Firm issued an opinion without obtaining sufficient appropriate audit evidence that the financial statements were free of material misstatement and/or the issuer maintained effective ICFR. These deficiencies are described in Part I.A. The descriptions in Part I.A include references to the auditing standards that most directly relate to those deficiencies. (See Appendix B for the text of these standards.) References to provisions of the auditing standards that generally address all aspects of the audit are provided only when lack of compliance with these standards is the primary reason for the deficiency.²

Inclusion in an inspection report does not mean that the deficiency remained unaddressed after the inspection team brought it to the firm's attention. In many cases, the Firm has since performed remedial actions intended to address the deficiencies.³ That an audit deficiency reached the level of significance to be included in Part I.A of an inspection report does not mean that the financial statements are misstated or that there are undisclosed material weaknesses in ICFR. It is often not possible for the inspection team to reach a conclusion on those points because the inspection team usually has only the information the auditor retained and the issuer's public disclosures. Even when not associated with a disclosed misstatement or previously unidentified material weakness, an auditor's failure to obtain sufficient appropriate audit evidence is a serious matter.

² These broadly applicable provisions are described in Part I.B of this report.

³ Depending upon the circumstances, compliance with PCAOB standards may require the firm to perform additional audit procedures, or to inform a client of the need for changes to its financial statements or reporting on internal control, or to take steps to prevent reliance on its previously expressed audit opinions. An inspection normally includes a review, on a sample basis, of the adequacy of a firm's compliance with these requirements, either with respect to previously identified deficiencies or deficiencies identified during that inspection. Failure by a firm to take appropriate actions could be a basis for criticisms of the firm's quality control system or Board disciplinary sanctions.

The audit deficiencies that were so significant that it appeared that the audit opinion was unsupported are described in Parts I.A.1 through I.A.11, below. Issuer audits are generally presented in the order of significance of the deficiencies identified in the inspections of those audits; severity is assessed based on extent of the deficiencies identified in the audit, financial statement accounts affected, and/or potential consequences of the audit deficiency.

Audit Deficiencies

A.1. Issuer A

In this audit of an issuer in the financials industry sector, the Firm failed to, in the following respects, obtain sufficient appropriate audit evidence to support its audit opinion on the effectiveness of ICFR –

- The Firm's procedures to test controls over the valuation of a significant portion of the issuer's investment portfolio were insufficient. This portion consisted of investments either that were categorized as level 3 within the hierarchy set forth in Financial Accounting Standards Board ("FASB") Accounting Standards Codification ("ASC") Topic 820, *Fair Value Measurement*, or the value of which had a significant effect on certain income statement accounts. The Firm selected for testing three controls over the assumptions used in the valuation of these investments –
 - The first control consisted of a review of the issuer's valuation guidelines, which set forth a range of possible assumptions to be used to value these investments. The Firm's procedures to test this control were limited to inquiring of the control owner, inspecting the support for a change to the guidelines for one of the assumptions, and inspecting emails evidencing the control owner's approval of the valuation guidelines.
 - The second control consisted of a review of the reasonableness of the specific assumptions used in the valuation of these investments, including an evaluation of whether the assumptions were consistent with the issuer's valuation guidelines. The Firm's procedures to test this control were limited to inquiring of certain control owners, inspecting the support reviewed by the control owners to evaluate whether the assumptions were consistent with the valuation guidelines, and obtaining evidence of the control owners' approval.

- The third control consisted of meetings to review and approve the conclusions resulting from the second control. The Firm's procedures to test this control were limited to inquiring of the meeting attendees, inspecting the documents discussed in the meetings, and inspecting the meeting minutes.

For each of these three controls, the Firm failed to evaluate the nature of the review procedures performed, including the criteria used by the control owners to identify matters for follow up and whether those matters were appropriately resolved. (AS 2201.42 and .44)

- The Firm's procedures to test controls over the valuation of, and disclosures related to, another significant portion of the issuer's investment portfolio, which was categorized as level 2 within the hierarchy set forth in FASB ASC Topic 820, were insufficient. The Firm selected for testing two controls that consisted of reviews of the valuation of those investments that had missing, stale, or potentially unrealizable values. The control owners used four reports to identify the investments that met these criteria. While the Firm tested information technology general controls over the system that generated these reports, it failed to identify and test any controls over the completeness of the information within three of the four reports. (AS 2201.39)

A.2. Issuer B

In this audit of an insurance provider operating in the health care industry sector, the Firm failed to obtain sufficient appropriate audit evidence to support its audit opinion on the effectiveness of ICFR. Specifically –

- For one of its segments, the issuer estimated the incurred but not reported claims, which represented a significant portion of total liabilities, using loss triangles that included monthly historical claims incurred and claims paid for multiple periods ("historical data"). The Firm identified a risk of material misstatement related to the possible use of inaccurate data to estimate this liability. The Firm selected for testing three controls that consisted of comparisons of the historical data totals to the claims processing systems and the general ledger. These controls, however, were not designed to address the risk of material misstatement related to whether the historical data were included in the loss triangles in the appropriate period and in the appropriate amount, and the Firm failed to identify and test any other controls that did so. (AS 2201.39)

- For another of the issuer's segments, the Firm selected for testing a control that included a review of the assumptions used to estimate the liability for future policy benefits, which represented a significant portion of the issuer's total liabilities. The Firm's procedures to test this aspect of the control were limited to inquiring of the control owners and reading correspondence between management and the issuer's external actuary regarding changes to an assumption for one product. The Firm failed to ascertain and evaluate the nature of the specific procedures that the control owners performed. (AS 2201.42 and .44)

A.3. Issuer C

In this audit of an issuer in the information technology industry sector, the Firm failed to obtain sufficient appropriate audit evidence to support its audit opinion on the financial statements. The majority of the issuer's revenue was derived from multiple-element arrangements. These arrangements included (1) a software deliverable billed as base license fees and license fees related to transaction volume (collectively, "total license fees") and (2) a maintenance deliverable, which consisted of software updates and product support services, with stated renewal rates. The issuer used the stated renewal rates for the maintenance deliverable as vendor-specific objective evidence ("VSOE") of fair value when the stated renewal rates were considered to be substantive. The issuer determined whether the renewal rates for the maintenance deliverable were substantive based on analyses of whether the maintenance renewal rate as a percentage of the base license fees did not fall significantly below a range indicative of normal pricing practices. Based on these analyses, the issuer concluded that VSOE did exist, and it recognized the consideration allocated to the software deliverable as revenue upon delivery of the software to the customer and the consideration allocated to the maintenance deliverable ratably over the term of the arrangement. The Firm failed to perform sufficient procedures to evaluate whether the stated renewal rates for maintenance were substantive, as follows –

- There was significant variation in the ratio of the license fees related to transaction volume to the total license fees for the issuer's contracts. The issuer, however, considered only the base license fees when determining whether the stated renewal rates for maintenance were substantive. The Firm failed to evaluate whether this exclusion of the license fees related to transaction volume from the determination was appropriate. (AS 2810.30)
- In evaluating whether the stated renewal rates for maintenance were representative of the price the customer would be required to pay when

the maintenance is sold separately, the Firm failed to take into account its understanding that the software updates included in the maintenance deliverables were generally critical to the customers' operations. (AS 2810.30)

A.4. Issuer D

In this audit of an issuer in the health care industry sector, the Firm failed to obtain sufficient appropriate audit evidence to support its audit opinion on the financial statements, as its procedures to test revenue were insufficient. The issuer recognized revenue upon the sale of its products to distributors based, in part, on having the ability to reliably estimate product returns and rebate reserves ("revenue deductions"). The Firm performed procedures to test the issuer's estimates of revenue deductions and concluded that there was sufficient, reliable data available to develop these estimates. The Firm, however, also identified deficiencies in the issuer's controls over these estimates, as well as significant audit adjustments to these estimates that resulted, in part, from the issuer's use of unsupported assumptions in its calculation of revenue deductions. The Firm failed to evaluate whether the identified control deficiencies and audit adjustments were an indication that the issuer lacked the ability to reliably estimate revenue deductions, despite the availability of sufficient, reliable data, and, if so, whether it was appropriate for the issuer to recognize revenue upon the sale of its products to distributors. (AS 2810.30)

A.5. Issuer E

In this audit of an issuer in the health care industry sector, the Firm failed to obtain sufficient appropriate audit evidence to support its audit opinion on the effectiveness of ICFR –

- For certain of the issuer's subsidiaries, which generated a significant portion of total revenue, the issuer entered into contracts that contained multiple deliverables. For each contract, the contract terms, the identified deliverables, and the amount of consideration allocated to each deliverable were entered into the issuer's system to create sales orders and record revenue. The Firm failed to identify and test any controls over the accuracy and completeness of the entry of these data into the issuer's system. (AS 2201.39)
- During the year, the issuer acquired a business, and it used cash-flow forecasts to determine the fair value of certain acquired intangible assets. The Firm selected for testing a control over the accounting for business

combinations that included a review of the reasonableness of the assumptions used in the cash-flow forecasts. The Firm's procedures to test this aspect of the control consisted of inquiring of management and inspecting emails for evidence of review and approval. The Firm failed to evaluate the nature of the review procedures performed by the control owner, including the criteria used to identify matters for follow up and the resolution of those matters. (AS 2201.42 and .44)

- The Firm's procedures related to controls over the existence of the majority of the issuer's inventory were insufficient. The Firm identified and tested one control that consisted of a review of the issuer's reconciliation of its cycle-count results to the inventory system and its investigation of variances for individual items. This control was not designed to address the sufficiency of the inventory items counted, the frequency of the counts, and the aggregate deviations identified in the counts, and the Firm failed to identify and test any other controls that did so. (AS 2201.39)

A.6. Issuer F

In this audit of an issuer in the industrials industry sector, the Firm failed to obtain sufficient appropriate audit evidence to support its audit opinions on the financial statements and on the effectiveness of ICFR. Specifically –

- The Firm's procedures to test revenue for many of the issuer's locations, which represented a significant portion of the issuer's total revenue and which the Firm determined presented a risk of material misstatement in the aggregate, consisted of (1) testing entity-level controls consisting of reviews of financial results, (2) performing tests of transaction-level controls and tests of details related to revenue at three of these locations, and (3) performing analytical procedures. The Firm's substantive procedures were insufficient, as the tests of details provided assurance only for the three locations subjected to that testing; the untested locations, in the aggregate, were multiple times the Firm's established level of materiality and presented a reasonable possibility of material misstatement. The analytical procedures that were performed for certain of these locations provided little to no substantive assurance as they were performed as part of the Firm's risk assessment and were not designed to provide substantive assurance. (AS 2301.08)

- The Firm's procedures related to revenue recognized from multiple-element arrangements for one of the issuer's segments, which was multiple times the Firm's established level of materiality, were insufficient as described below.
 - The Firm identified and tested three controls to address the risk of material misstatement related to this revenue, including the risk related to the identification of units of accounting. These controls consisted of (1) the annual review of whether products sold to customers during the year had a stand-alone value, (2) the review of adjustments to record the delivered elements based on their relative selling prices, and (3) the review of the recording and reconciliation of deferred revenue. These controls, however, were not designed to address the evaluation of whether the deliverables in these arrangements represented separate units of accounting, and the Firm failed to identify and test any other controls that did so. (AS 2201.39)
 - The Firm failed to perform any substantive procedures to test whether the deliverables identified within these multiple-element arrangements represented separate units of accounting. (AS 2810.30)
- During the year, the issuer acquired a business, and it used cash-flow forecasts to determine the fair value of certain acquired intangible assets. The Firm selected for testing two controls over the accounting for business combinations that included a review of the revenue and profit margin assumptions used in the cash-flow forecasts. The Firm's procedures to test these controls consisted of (1) inquiring of the control owners, (2) inspecting evidence that indicated the reviews had occurred, (3) testing the mathematical accuracy of certain calculations, and (4) comparing certain amounts used in the valuation to other documentation. The Firm, however, failed to evaluate the nature of the procedures performed by the control owners to review the revenue and profit margin assumptions that the issuer used in the forecasts, including the criteria used to identify matters for follow up and the resolution of those matters. (AS 2201.42 and .44)

A.7. Issuer G

In this audit of an issuer in the health care industry sector, the Firm failed to obtain sufficient appropriate audit evidence to support its audit opinion on the effectiveness of ICFR, as its procedures to test controls over goodwill were insufficient. The issuer performed analyses to assess the possible impairment of goodwill, and to determine the amount of recorded impairment charges, using the income approach and the market approach. The Firm selected for testing four controls over goodwill that included reviews of the following significant assumptions used in these analyses: (1) revenue and profit margin multiples used in the market approach, (2) forecasted revenue growth rates and profit margins used in the income approach, and (3) the fair value of long-lived assets used in the measurement of the impairment charge. The Firm limited its procedures to test the aspects of these controls related to these assumptions to (1) inquiring of the control owners and comparing certain information provided by one control owner to the prior-year work papers for consistency; (2) obtaining and inspecting certain documents created or used in the operation of the controls; (3) for one control, inspecting an email as evidence that the review had occurred; and (4) for another control, tracing certain amounts to the general ledger. The Firm failed to evaluate the nature of the review procedures performed by the control owners regarding these assumptions, including the criteria used to identify matters for follow up and the resolution of such matters. (AS 2201.42 and .44)

A.8. Issuer H

In this audit of an issuer in the information technology industry sector, the Firm failed to obtain sufficient appropriate audit evidence to support its audit opinions on the financial statements and on the effectiveness of ICFR. The issuer used a service organization to process transactions for a significant portion of its total revenue. The Firm's procedures related to this revenue were insufficient. Specifically –

- The Firm obtained a service auditor's report that described certain complementary user controls that the issuer needed to have in place in order to achieve the control objectives described in the service auditor's report. Those complementary controls included (1) a control over the accuracy and completeness of the customer data provided to the service organization and (2) a control to review the accuracy of the amounts billed by the service organization. The Firm identified and tested one control that it intended to address the objectives of these complementary controls. This control consisted of (1) a review of monthly customer billing amounts, and an investigation of differences from prior-month amounts above an established threshold, and (2) a review of monthly revenue journal entries

and related revenue amounts. This control, however, did not address the accuracy and completeness of customer data provided to the service organization, and the Firm failed to identify and test any other control that did so. In addition, the Firm's procedures to test the aspect of the control that addressed the accuracy of the amounts billed by the service organization were insufficient, as its procedures were limited to inquiring of the control owner. (AS 2201.39, .42, .44, and .B22)

- The Firm designed certain of its substantive procedures – including its sample sizes – based on a level of control reliance that was not supported due to the deficiencies in the Firm's testing of controls that are described above. As a result, the sample sizes the Firm used to test this revenue were too small to provide sufficient evidence. (AS 2301.16, .18, and .37; AS 2315.19, .23, and .23A)

A.9. Issuer I

In this audit of an issuer in the energy industry sector, the Firm failed to obtain sufficient appropriate audit evidence to support its audit opinion on the effectiveness of ICFR, as its procedures to test controls over revenue were insufficient. The issuer recognized a majority of its revenue using the percentage-of-completion method of accounting. The Firm selected for testing three controls that addressed the occurrence and allocation of revenue; these controls involved monthly reviews of reports related to the status of each project, including estimated costs to complete and gross margin by project. The Firm's procedures to test the operating effectiveness of two of the controls consisted of inquiring of the control owners and inspecting documentation evidencing the control owners' reviews. The Firm, however, failed to (1) determine whether the control owners used the established criteria for investigation and (2) ascertain, in most of the instances selected for testing, whether the items identified for follow up were resolved. The Firm concluded that the third control would operate at a level of precision that could detect a material misstatement only in combination with one of the other two controls, and its procedures to test that control were not sufficient as described above. (AS 2201.44)

A.10. Issuer J

In this audit of an issuer in the industrials industry sector, the Firm failed to obtain sufficient appropriate audit evidence to support its audit opinion on the effectiveness of ICFR. The Firm determined that five of the controls that it identified and selected for testing were not effective. The Firm and the issuer evaluated the severity of the deficiencies associated with these five controls and concluded that the deficiencies

represented material weaknesses related to relevant assertions for certain significant accounts. Certain of the controls with deficiencies were also identified to address relevant assertions for other significant accounts. The Firm, however, failed to evaluate whether these deficiencies represented additional material weaknesses. (AS 2201.62)

A.11. Issuer K

In this audit of an issuer in the industrials industry sector, the Firm failed to obtain sufficient appropriate audit evidence to support its audit opinion on the financial statements, as its procedures to test the existence of inventory were not sufficient. The issuer's in-transit inventory and inventory held at public warehouses in foreign locations each totaled more than double the Firm's established level of materiality. For in-transit inventory, the Firm failed to perform any procedures. For the inventory held at the foreign external warehouses, which represented a significant proportion of the issuer's current assets, the Firm's only procedure was to obtain confirmations from the custodians, which was insufficient given the significance of the inventory held at these warehouses. (AS 2301.36; AS 2510.14)

B. Auditing Standards

Each deficiency described in Part I.A above could relate to several provisions of the auditing standards that govern the conduct of audits. The paragraphs of the standards that are cited in Part I.A for each deficiency are only those that most directly relate to the deficiency. The deficiencies also may relate, however, to other paragraphs of those standards and to other auditing standards, including those concerning due professional care, responses to risk assessments, and audit evidence.

Many audit deficiencies involve a lack of due professional care. Paragraphs .02, .05, and .06 of AS 1015, *Due Professional Care in the Performance of Work*, require the independent auditor to plan and perform his or her work with due professional care and set forth aspects of that requirement. AS 1015.07-.09, and paragraph .07 of AS 2301, *The Auditor's Responses to the Risks of Material Misstatement*, specify that due professional care requires the exercise of professional skepticism. These standards state that professional skepticism is an attitude that includes a questioning mind and a critical assessment of the appropriateness and sufficiency of audit evidence.

AS 2301.03, .05, and .08 require the auditor to design and implement audit responses that address the risks of material misstatement. Paragraph .04 of AS 1105, *Audit Evidence*, requires the auditor to plan and perform audit procedures to obtain sufficient appropriate audit evidence to provide a reasonable basis for the audit opinion. Sufficiency is the measure of the quantity of audit evidence, and the quantity needed is

affected by the risk of material misstatement (in the audit of financial statements) or the risk associated with the control (in the audit of ICFR) and the quality of the audit evidence obtained. Appropriateness is the measure of the quality of audit evidence; to be appropriate, evidence must be both relevant and reliable in providing support for the related conclusions.

B.1. List of Specific Auditing Standards Referenced in Part I.A

The table below lists the specific auditing standards that are referenced in Part I.A of this report, cross-referenced to the issuer audits for which each standard is cited. For each auditing standard, the table also provides the number of distinct deficiencies for which the standard is cited for each of the relevant issuer audits. This information identifies only the number of times that the standard is referenced, regardless of whether the reference includes multiple paragraphs or relates to multiple financial statement accounts.

PCAOB Auditing Standards	Audits	Number of References per Audit
<i>AS 2201, An Audit of Internal Control Over Financial Reporting That Is Integrated with An Audit of Financial Statements</i>	Issuer A	2
	Issuer B	2
	Issuer E	3
	Issuer F	2
	Issuer G	1
	Issuer H	1
	Issuer I	1
	Issuer J	1
<i>AS 2301, The Auditor's Responses to the Risks of Material Misstatement</i>	Issuer F	1
	Issuer H	1
	Issuer K	1
<i>AS 2315, Audit Sampling</i>	Issuer H	1
<i>AS 2510, Auditing Inventories</i>	Issuer K	1
<i>AS 2810, Evaluating Audit Results</i>	Issuer C	2
	Issuer D	1
	Issuer F	1

B.2. Financial Statement Accounts or Auditing Areas Related to Identified Audit Deficiencies

The table below lists the financial statement accounts or auditing areas related to the deficiencies included in Part I.A of this report and identifies the audits described in Part I.A where deficiencies relating to the respective areas were observed.

	AS 2201	AS 2301	AS 2315	AS 2510	AS 2810
Business combinations	E, F				
Impairment of goodwill	G				
Income taxes	J				
Insurance-related assets and insurance-related liabilities, including insurance reserves	B				
Inventory	E	K		K	
Investment securities	A				
Revenue, including deferred revenue	E, F, H, I	F, H	H		C, D, F

B.3. Audit Deficiencies by Industry

The table below lists the industries⁴ of the issuers for which audit deficiencies were discussed in Part I.A of this report and cross references the issuers to the specific auditing standards related to the deficiencies.

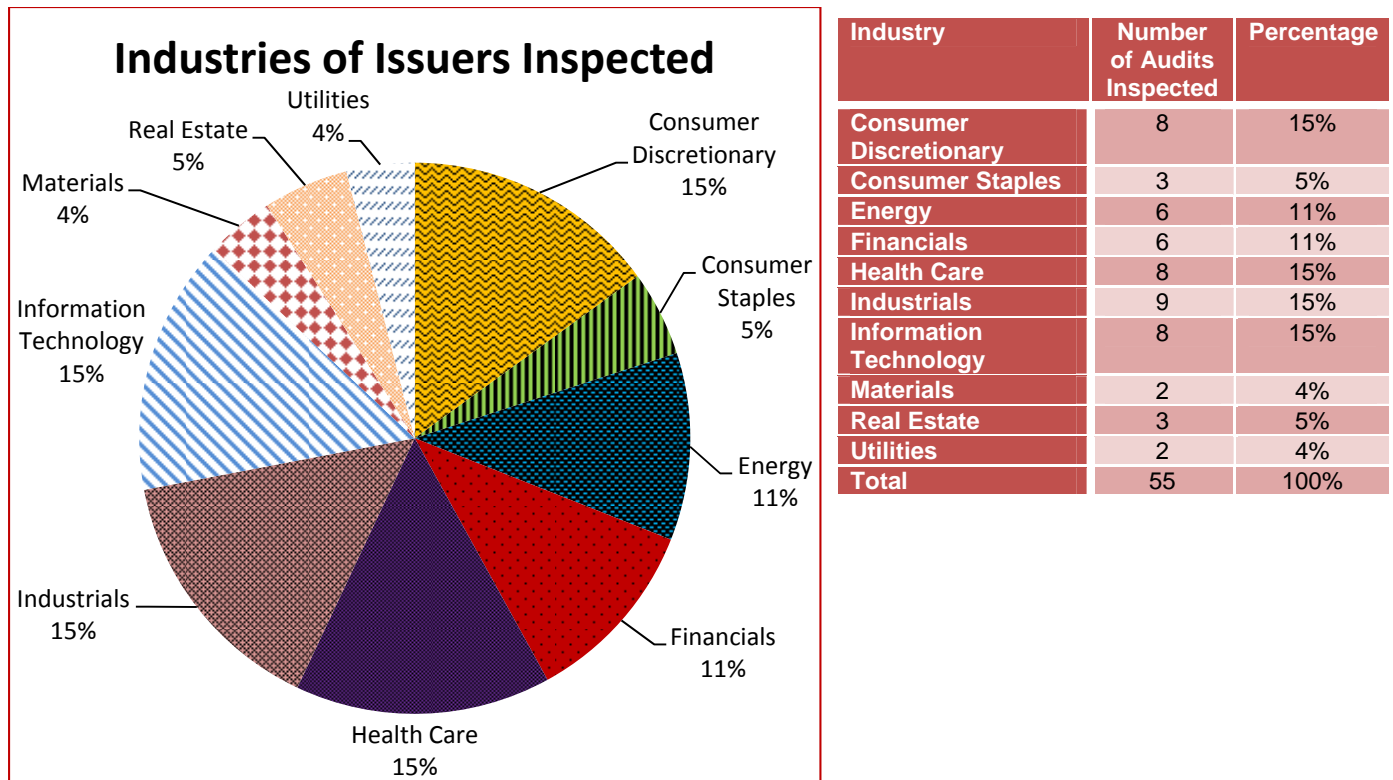
	AS 2201	AS 2301	AS 2315	AS 2510	AS 2810
Energy	I				
Financials	A				
Health Care	B, E, G				D
Industrials	F, J	F, K		K	F
Information Technology	H	H	H		C

⁴ The majority of industry sector data is based on Global Industry Classification Standard ("GICS") data obtained from Standard & Poor's ("S&P"). In instances where GICS for an issuer is not available from S&P, classifications are assigned based upon North American Industry Classification System data.

C. Data Related to the Issuer Audits Selected for Inspection⁵

C.1. Industries of Issuers Inspected

The chart below categorizes the 55 issuers whose audits were inspected in 2017, based on the issuer's industry.⁶

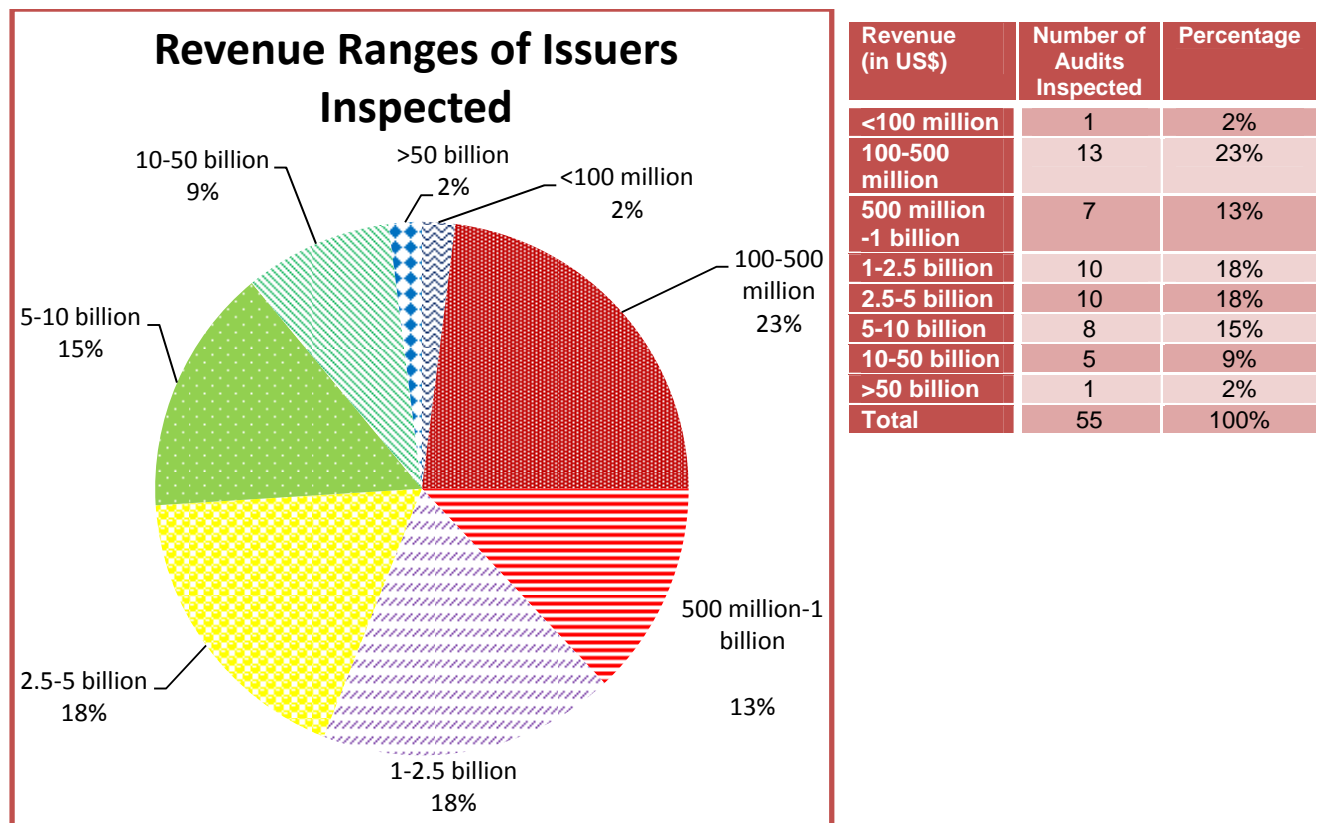


⁵ Where the audit work inspected related to an engagement in which the Firm played a role but was not the principal auditor, the industry and the revenue included in the tables and charts in this section are those of the entity for which an audit report was issued by the primary auditor. As discussed above, the inspection process included reviews of portions of 54 selected issuer audits completed by the Firm and the Firm's audit work on one other issuer audit engagement in which it played a role but was not the principal auditor.

⁶ See Footnote 4 for additional information on how industry sectors were classified.

C.2. Revenue Ranges of Issuers Inspected

The chart below categorizes, based upon revenue, the 55 issuers whose audits were inspected in 2017.⁷ This presentation of revenue data is intended to provide information related to the size of issuers whose audits were inspected and is not indicative of whether the inspection included a review of the Firm's auditing of revenue in the issuer audits selected for review.



⁷ The revenue amounts reflected in the chart are for the issuer's fiscal year end that corresponds to the audit inspected by the PCAOB. The revenue amounts were obtained from S&P and reflect a standardized approach to presenting revenue amounts.

D. Information Concerning PCAOB Inspections that is Generally Applicable to Annually Inspected Firms

This section provides a brief description of the procedures that are often performed in annual inspections of auditing firms.

D.1. Reviews of Audit Work

The inspection team selects the audits, and the specific portions of those audits, that it will review, and the inspected firm is not allowed an opportunity to limit or influence the selections. For each specific portion of the audit that is selected, the inspection team reviews the engagement team's work papers and interviews engagement personnel regarding those portions. If the inspection team identifies a potential issue that it is unable to resolve through discussion with the firm and review of any additional work papers or other documentation, the inspection team ordinarily provides the firm with a written comment form on the matter and the firm is allowed the opportunity to provide a written response to the comment form. If the response does not resolve the inspection team's concerns, the matter is considered a deficiency and is evaluated for inclusion in the inspection report. Identified deficiencies in the audit work that exceed a significance threshold (which is described in Part I.A of the inspection report) are summarized in the public portion of the inspection report.⁸

Audit deficiencies that the inspection team may identify include a firm's failure to identify, or to address appropriately, financial statement misstatements, including failures to comply with disclosure requirements,⁹ as well as a firm's failure to perform, or

⁸ The discussion in this report of any deficiency observed in a particular audit reflects information reported to the Board by the inspection team and does not reflect any determination by the Board as to whether the Firm has engaged in any conduct for which it could be sanctioned through the Board's disciplinary process. In addition, any references in this report to violations or potential violations of law, rules, or professional standards are not a result of an adjudicative process and do not constitute conclusive findings for purposes of imposing legal liability.

⁹ When it comes to the Board's attention that an issuer's financial statements appear not to present fairly, in a material respect, the financial position, results of operations, or cash flows of the issuer in conformity with the applicable financial reporting framework, the Board's practice is to report that information to the Securities and Exchange Commission ("SEC" or "the Commission"), which has jurisdiction to determine proper accounting in issuers' financial statements. Any description in this report of financial statement misstatements or failures to comply with

to perform sufficiently, certain necessary risk assessment procedures, tests of controls, and substantive audit procedures.

In reaching its conclusions about whether a deficiency exists, an inspection team considers whether audit documentation or any other evidence that a firm might provide to the inspection team supports the firm's contention that it performed a procedure, obtained evidence, or reached an appropriate conclusion. In some cases, the conclusion that a firm did not perform a procedure may be based on the absence of documentation and the absence of persuasive other evidence, even if the firm claimed to have performed the procedure. AS 1215, *Audit Documentation*, provides that, in various circumstances including PCAOB inspections, a firm that has not adequately documented that it performed a procedure, obtained evidence, or reached an appropriate conclusion must demonstrate with persuasive other evidence that it did so, and that oral assertions and explanations alone do not constitute persuasive other evidence. In the case of every matter cited in the public portion of a final inspection report, the inspection team has carefully considered any contention by the firm that it did so but just did not document its work, and the inspection team has concluded that the available evidence does not support the contention that the firm sufficiently performed the necessary work.

D.2. Review of a Firm's Quality Control System

QC 20, *System of Quality Control for a CPA Firm's Accounting and Auditing Practice*, provides that an auditing firm has a responsibility to ensure that its personnel comply with the applicable professional standards. This standard specifies that a firm's system of quality control should encompass the following elements: (1) independence, integrity, and objectivity; (2) personnel management; (3) acceptance and continuance of issuer audit engagements; (4) engagement performance; and (5) monitoring.

The inspection team's assessment of a firm's quality control system is derived both from the results of its procedures specifically focused on the firm's quality control policies and procedures, and also from inferences that can be drawn from deficiencies in the performance of individual audits. Audit deficiencies, whether alone or when aggregated, may indicate areas where a firm's system has failed to provide reasonable assurance of quality in the performance of audits. Even deficiencies that do not result in an insufficiently supported audit opinion or a failure to obtain sufficient appropriate audit evidence to fulfill the objectives of the firm's role in an audit may indicate a defect or

SEC disclosure requirements should not be understood as an indication that the SEC has considered or made any determination regarding these issues unless otherwise expressly stated.

potential defect in a firm's quality control system.¹⁰ If identified deficiencies, when accumulated and evaluated, indicate defects or potential defects in the firm's system of quality control, the nonpublic portion of this report would include a discussion of those issues. When evaluating whether identified deficiencies in individual audits indicate a defect or potential defect in a firm's system of quality control, the inspection team considers the nature, significance, and frequency of the deficiencies;¹¹ related firm methodology, guidance, and practices; and possible root causes.

Inspections also include a review of certain of the firm's practices, policies, and processes related to audit quality, which constitute a part of the firm's quality control system. The inspection team customizes the procedures it performs with respect to the firm's practices, policies, and processes related to audit quality, bearing in mind the firm's structure, procedures performed in prior inspections, past and current inspection observations, an assessment of risk related to each area, and other factors. The areas generally considered for review include (1) management structure and processes, including the tone at the top; (2) practices for partner management, including allocation of partner resources and partner evaluation, compensation, admission, and disciplinary actions; (3) policies and procedures for considering and addressing the risks involved in accepting and retaining issuer audit engagements, including the application of the firm's risk-rating system; (4) processes related to the firm's use of audit work that the firm's foreign affiliates perform on the foreign operations of the firm's U.S. issuer audits; and (5) the firm's processes for monitoring audit performance, including processes for identifying and assessing indicators of deficiencies in audit performance, independence policies and procedures, and processes for responding to defects or potential defects in quality control. A description of the procedures generally applied to these areas is below.

¹⁰ Not every audit deficiency suggests a defect or potential defect in a firm's quality control system, and this report does not discuss every audit deficiency the inspection team identified.

¹¹ An evaluation of the frequency of a type of deficiency may include consideration of how often the inspection team reviewed audit work that presented the opportunity for similar deficiencies to occur. In some cases, even a type of deficiency that is observed infrequently in a particular inspection may, because of some combination of its nature, its significance, and the frequency with which it has been observed in previous inspections of the firm, be cause for concern about a quality control defect or potential defect.

D.2.a. Review of Management Structure and Processes, Including the Tone at the Top

Procedures in this area are designed to focus on (1) how management is structured and operates the firm's business, and the implications that the management structure and processes have on audit performance and (2) whether actions and communications by the firm's leadership – the tone at the top – demonstrate a commitment to audit quality. To assess this area, the inspection team may interview firm personnel, including firm leadership, and review significant management reports, communications, and documents, as well as information regarding financial metrics and other processes that the firm uses to plan and evaluate its business.

D.2.b. Review of Practices for Partner Management, Including Allocation of Partner Resources and Partner Evaluation, Compensation, Admission, and Disciplinary Actions

Procedures in this area are designed to focus on (1) whether the firm's processes related to partner evaluation, compensation, admission, termination, and disciplinary actions could be expected to encourage an appropriate emphasis on audit quality and technical competence, as distinct from marketing or other activities of the firm; (2) the firm's processes for allocating its partner resources; and (3) the accountability and responsibilities of the different levels of firm management with respect to partner management. The inspection team may interview members of the firm's management and review documentation related to certain of these topics. In addition, the inspection team's evaluation may include the results of interviews of audit partners regarding their responsibilities and allocation of time. Further, the inspection team may review a sample of partners' personnel files.

D.2.c. Review of Policies and Procedures for Considering and Addressing the Risks Involved in Accepting and Retaining Issuer Audit Engagements, Including the Application of the Firm's Risk-Rating System

The inspection team may consider the firm's documented policies and procedures in this area. In addition, the inspection team may select certain issuer audits to (1) evaluate compliance with the firm's policies and procedures for identifying and assessing the risks involved in accepting or continuing the issuer audit engagements and (2) observe whether the audit procedures were responsive to the risks of material misstatement identified during the firm's process.

D.2.d. Review of Processes Related to a Firm's Use of Audit Work that the Firm's Foreign Affiliates Perform on the Firm's U.S. Issuer Audits

The inspection team may review the firm's policies and procedures related to its supervision and control of work performed by foreign affiliates on the firm's U.S. issuer audits, review available information relating to the most recent internal inspections of foreign affiliated firms, interview members of the firm's leadership, and review the U.S. engagement teams' supervision concerning, and procedures for control of, the audit work that the firm's foreign affiliates performed on a sample of audits.

D.2.e. Review of a Firm's Processes for Monitoring Audit Performance, Including Processes for Identifying and Assessing Indicators of Deficiencies in Audit Performance, Independence Policies and Procedures, and Processes for Responding to Defects or Potential Defects in Quality Control

D.2.e.i. Review of Processes for Identifying and Assessing Indicators of Deficiencies in Audit Performance

Procedures in this area are designed to identify and assess the processes the firm uses to monitor audit quality for individual engagements and for the firm as a whole. The inspection team may interview members of the firm's management and review documents relating to the firm's identification and evaluation of, and response to, possible indicators of deficiencies in audit performance. In addition, the inspection team may review documents related to the design and operation of the firm's internal inspection program, and may compare the results of its review to those from the internal inspection's review of the same audit work.

D.2.e.ii. Review of Response to Defects or Potential Defects in Quality Control

The inspection team may review steps the firm has taken to address possible quality control deficiencies and assess the design and effectiveness of the underlying processes. In addition, the inspection team may inspect audits of issuers whose audits had been reviewed during previous PCAOB inspections of the firm to ascertain whether the audit procedures in areas with previous deficiencies have improved.

D.2.e.iii. Review of Certain Other Policies and Procedures Related to Monitoring Audit Quality

The inspection team may assess policies, procedures, and guidance related to aspects of independence requirements and the firm's consultation processes, as well as the firm's compliance with these requirements and processes. In addition, the inspection team may review documents, including certain newly issued policies and procedures, and interview firm management to consider the firm's methods for developing audit policies, procedures, and methodologies, including internal guidance and training materials.

END OF PART I

PARTS II AND III OF THIS REPORT ARE NONPUBLIC
AND ARE OMITTED FROM THIS PUBLIC DOCUMENT

APPENDIX A

RESPONSE OF THE FIRM TO DRAFT INSPECTION REPORT

Pursuant to section 104(f) of the Act, 15 U.S.C. § 7214(f), and PCAOB Rule 4007(a), the Firm provided a written response to a draft of this report. Pursuant to section 104(f) of the Act and PCAOB Rule 4007(b), the Firm's response, minus any portion granted confidential treatment, is attached hereto and made part of this final inspection report.¹²

¹² The Board does not make public any of a firm's comments that address a nonpublic portion of the report unless a firm specifically requests otherwise. In some cases, the result may be that none of a firm's response is made publicly available. In addition, pursuant to section 104(f) of the Act and PCAOB Rule 4007(b), if a firm requests, and the Board grants, confidential treatment for any of the firm's comments on a draft report, the Board does not include those comments in the final report at all. The Board routinely grants confidential treatment, if requested, for any portion of a firm's response that addresses any point in the draft that the Board omits from, or any inaccurate statement in the draft that the Board corrects in, the final report.

December 14, 2018

Mr. George Botic
Director
Division of Registration and Inspections
Public Company Accounting Oversight Board
1666 K Street NW
Washington, DC 20006

Re: Deloitte & Touche LLP – Response to Part I of Draft Report on 2017 Inspection (PUBLIC)

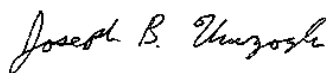
Dear Mr. Botic:

Deloitte & Touche LLP is pleased to submit this response to the draft Report on the 2017 Inspection of Deloitte & Touche LLP (the Draft Report) of the Public Company Accounting Oversight Board (the PCAOB or the Board). We believe that the PCAOB's inspection process serves an important role in the achievement of our shared objectives of improving audit quality and serving investors and the public interest. We are committed to continuing to work with the PCAOB to further strengthen trust in the integrity of the independent audit.


We have evaluated the matters identified by the Board's inspection team for each of the issuer audits described in Part I of the Draft Report and have taken actions as appropriate in accordance with PCAOB standards to comply with our professional responsibilities under AS 2901, *Consideration of Omitted Procedures After the Report Date*, and AS 2905, *Subsequent Discovery of Facts Existing at the Date of the Auditor's Report*.

Executing high quality audits is our number one priority. In order to drive continuous improvements in quality, we are transforming the audit to leverage innovative technologies, along with enhancing the skillsets of our talent to prepare them for a digitally driven future. We are confident that our ongoing digital transformation, along with the investments we continue to make in our audit processes, policies, and quality controls, are resulting in significant enhancements to our audit quality.

Sincerely,



Joseph B. Ucuzoglu
Chairman and Chief Executive Officer
Deloitte & Touche LLP



Catherine M. Engelbert
Chief Executive Officer
Deloitte

In the United States, Deloitte refers to one or more of the US member firms of Deloitte Touche Tohmatsu Limited, their related entities that operate using the "Deloitte" name in the United States and their respective affiliates. Please see www.deloitte.com/us/about for a detailed description of our legal structure.

APPENDIX B

AUDITING STANDARDS REFERENCED IN PART I

This appendix provides the text of the auditing standard paragraphs that are referenced in Part I.A of this report. Footnotes that are included in this appendix, and any other Notes, are from the original auditing standards that are referenced. While this appendix contains the specific portions of the relevant standards cited with respect to the deficiencies in Part I.A of this report, other portions of the standards (including those described in Part I.B of this report) may provide additional context, descriptions, related requirements, or explanations; the complete standards are available on the PCAOB's website at <http://pcaobus.org/STANDARDS/Pages/default.aspx>.

AS 2201, An Audit of Internal Control Over Financial Reporting That Is Integrated with An Audit of Financial Statements		
USING A TOP-DOWN APPROACH		
Selecting Controls to Test		
AS 2201.39	The auditor should test those controls that are important to the auditor's conclusion about whether the company's controls sufficiently address the assessed risk of misstatement to each relevant assertion.	Issuers A, B, E, F, and H
TESTING CONTROLS		
Testing Design Effectiveness		
AS 2201.42	<p>The auditor should test the design effectiveness of controls by determining whether the company's controls, if they are operated as prescribed by persons possessing the necessary authority and competence to perform the control effectively, satisfy the company's control objectives and can effectively prevent or detect errors or fraud that could result in material misstatements in the financial statements.</p> <p>Note: A smaller, less complex company might achieve its control objectives in a different manner from a larger, more complex organization. For example, a smaller, less complex company might have fewer employees in the accounting function, limiting opportunities to segregate duties and leading the company to implement alternative controls to achieve its control objectives. In such circumstances, the auditor should evaluate whether those alternative controls are effective.</p>	Issuers A, B, E, F, G, and H

AS 2201, An Audit of Internal Control Over Financial Reporting That Is Integrated with An Audit of Financial Statements		
Testing Operating Effectiveness		
AS 2201.44	<p>The auditor should test the operating effectiveness of a control by determining whether the control is operating as designed and whether the person performing the control possesses the necessary authority and competence to perform the control effectively.</p> <p>Note: In some situations, particularly in smaller companies, a company might use a third party to provide assistance with certain financial reporting functions. When assessing the competence of personnel responsible for a company's financial reporting and associated controls, the auditor may take into account the combined competence of company personnel and other parties that assist with functions related to financial reporting.</p>	Issuers A, B, E, F, G, H, and I
EVALUATING IDENTIFIED DEFICIENCIES		
AS 2201.62	<p>The auditor must evaluate the severity of each control deficiency that comes to his or her attention to determine whether the deficiencies, individually or in combination, are material weaknesses as of the date of management's assessment. In planning and performing the audit, however, the auditor is not required to search for deficiencies that, individually or in combination, are less severe than a material weakness.</p>	Issuer J
APPENDIX B - Special Topics		
USE OF SERVICE ORGANIZATIONS		
AS 2201.B22	<p>If the service auditor's report on controls placed in operation and tests of operating effectiveness contains a qualification that the stated control objectives might be achieved only if the company applies controls contemplated in the design of the system by the service organization, the auditor should evaluate whether the company is applying the necessary procedures.</p>	Issuer H

AS 2301, <i>The Auditor's Responses to the Risks of Material Misstatement</i>		
RESPONSES INVOLVING THE NATURE, TIMING, AND EXTENT OF AUDIT PROCEDURES		
AS 2301.08	The auditor should design and perform audit procedures in a manner that addresses the assessed risks of material misstatement for each relevant assertion of each significant account and disclosure.	Issuer F
TESTING CONTROLS		
Testing Controls in an Audit of Financial Statements		
AS 2301.16	<i>Controls to be Tested.</i> If the auditor plans to assess control risk at less than the maximum by relying on controls, ¹² and the nature, timing, and extent of planned substantive procedures are based on that lower assessment, the auditor must obtain evidence that the controls selected for testing are designed effectively and operated effectively during the entire period of reliance . ¹³ However, the auditor is not required to assess control risk at less than the maximum for <i>all</i> relevant assertions and, for a variety of reasons, the auditor may choose not to do so.	Issuer H
<u>Footnotes to AS 2301.16</u> ¹² Reliance on controls that is supported by sufficient and appropriate audit evidence allows the auditor to assess control risk at less than the maximum, which results in a lower assessed risk of material misstatement. In turn, this allows the auditor to modify the nature, timing, and extent of planned substantive procedures. ¹³ Terms defined in Appendix A, <i>Definitions</i> , are set in boldface type the first time they appear.		
AS 2301.18	<i>Evidence about the Effectiveness of Controls in the Audit of Financial Statements.</i> In designing and performing tests of controls for the audit of financial statements, the evidence necessary to support the auditor's control risk assessment depends on the degree of reliance the auditor plans to place on the effectiveness of a control. The auditor should obtain more persuasive audit evidence from tests of controls the greater the reliance the auditor places on the effectiveness of a control. The auditor also should obtain more persuasive evidence about the effectiveness of controls for each relevant assertion for which the audit approach consists primarily of tests of controls, including situations in which substantive procedures alone cannot provide sufficient appropriate audit evidence.	Issuer H

AS 2301, <i>The Auditor's Responses to the Risks of Material Misstatement</i>		
SUBSTANTIVE PROCEDURES		
AS 2301.36	The auditor should perform substantive procedures for each relevant assertion of each significant account and disclosure, regardless of the assessed level of control risk.	Issuer K
AS 2301.37	As the assessed risk of material misstatement increases, the evidence from substantive procedures that the auditor should obtain also increases. The evidence provided by the auditor's substantive procedures depends upon the mix of the nature, timing, and extent of those procedures. Further, for an individual assertion, different combinations of the nature, timing, and extent of testing might provide sufficient appropriate evidence to respond to the assessed risk of material misstatement.	Issuer H

AS 2315, <i>Audit Sampling</i>		
SAMPLING IN SUBSTANTIVE TESTS OF DETAILS		
Planning Samples		
AS 2315.19	After assessing and considering the levels of inherent and control risks, the auditor performs substantive tests to restrict detection risk to an acceptable level. As the assessed levels of inherent risk, control risk, and detection risk for other substantive procedures directed toward the same specific audit objective decreases, the auditor's allowable risk of incorrect acceptance for the substantive tests of details increases and, thus, the smaller the required sample size for the substantive tests of details. For example, if inherent and control risks are assessed at the maximum, and no other substantive tests directed toward the same specific audit objectives are performed, the auditor should allow for a low risk of incorrect acceptance for the substantive tests of details. ³ Thus, the auditor would select a larger sample size for the tests of details than if he allowed a higher risk of incorrect acceptance.	Issuer H

Footnote to AS 2315.19

³ Some auditors prefer to think of risk levels in quantitative terms. For example, in the circumstances described, an auditor might think in terms of a 5 percent risk of incorrect acceptance for the substantive test of details. Risk levels used in sampling applications in other fields are not necessarily relevant in determining appropriate levels for applications in auditing because an audit includes many interrelated tests and sources of evidence.

AS 2315, Audit Sampling		
AS 2315.23	To determine the number of items to be selected in a sample for a particular substantive test of details, the auditor should take into account tolerable misstatement for the population; the allowable risk of incorrect acceptance (based on the assessments of inherent risk, control risk, and the detection risk related to the substantive analytical procedures or other relevant substantive tests); and the characteristics of the population, including the expected size and frequency of misstatements.	Issuer H
AS 2315.23A	Table 1 of the Appendix describes the effects of the factors discussed in the preceding paragraph on sample sizes in a statistical or nonstatistical sampling approach. When circumstances are similar, the effect on sample size of those factors should be similar regardless of whether a statistical or nonstatistical approach is used. Thus, when a nonstatistical sampling approach is applied properly, the resulting sample size ordinarily will be comparable to, or larger than, the sample size resulting from an efficient and effectively designed statistical sample.	Issuer H

AS 2510, Auditing Inventories		
INVENTORIES HELD IN PUBLIC WAREHOUSES		
AS 2510.14	<p>If inventories are in the hands of public warehouses or other outside custodians, the auditor ordinarily would obtain direct confirmation in writing from the custodian. If such inventories represent a significant proportion of current or total assets, to obtain reasonable assurance with respect to their existence, the auditor should apply one or more of the following procedures as he considers necessary in the circumstances.</p> <ol style="list-style-type: none"> Test the owner's procedures for investigating the warehouseman and evaluating the warehouseman's performance. Obtain an independent accountant's report on the warehouseman's control procedures relevant to custody of goods and, if applicable, pledging of receipts, or apply alternative procedures at the warehouse to gain reasonable assurance that information received from the warehouseman is reliable. Observe physical counts of the goods, if practicable and reasonable. If warehouse receipts have been pledged as collateral, confirm with lenders pertinent details of the pledged receipts (on a test basis, if appropriate). 	Issuer K

AS 2810, Evaluating Audit Results		
EVALUATING THE PRESENTATION OF THE FINANCIAL STATEMENTS, INCLUDING THE DISCLOSURES		
AS 2810.30	<p>The auditor must evaluate whether the financial statements are presented fairly, in all material respects, in conformity with the applicable financial reporting framework.</p> <p>Note: AS 2815, The Meaning of "Present Fairly in Conformity with Generally Accepted Accounting Principles," establishes requirements for evaluating the presentation of the financial statements. AS 2820, Evaluating Consistency of Financial Statements, establishes requirements regarding evaluating the consistency of the accounting principles used in financial statements.</p> <p>Note: The auditor should look to the requirements of the Securities and Exchange Commission for the company under audit with respect to the accounting principles applicable to that company.</p>	Issuers C, D, and F

MTA AUDIT SERVICES

2019 Audit Plan Status

September 25, 2019



2019 Audit Plan Status

Financial/Operational/Technology

- Projects Completed = 91
- Recommendations = 288
- Savings/Cost Efficiencies = \$ 21.4 M

Contracts

- Projects Completed = 128
- Pre-Award OH Reviews = 55
- \$ Audited = \$ 601.6 M
- Questioned Costs = \$ 26.9 M



2019 Audit Areas

Service Delivery	Safety	Capital Program
NYC Transit Fast Forward LIRR Forward MNR Way Ahead LIRR & MNR On-Time Perf. Amtrak Agreements Customer Communications Paratransit NYC Transit Electronic Shop Car Maintenance Bus Depot Facilities Bridge & Tunnel Facilities	LIRR & MNR Positive Train Control Track Flagging Sandy Project Safety LIRR & MNR SAFER Program Hours of Service	All Agency Superstorm Sandy LIRR 3 rd Track NYC Transit 2 nd Avenue LIRR East Side Access Agencies CPM Policies
Finance	Procurement	Human Resources
Pensions Treasury Payroll Overtime Timekeeping Accounts Payable Enterprise Asset Management Enterprise Risk Management Audit Recommendations Year-End Financial Statements	Board Cost Containment Enterprise Procurement Guidelines Enterprise Market Place Agencies Inventory Management M/WBE Program Agencies Operating Contracts	NYC Transit Employee Availability Medical Benefits Operational Training Mandatory Training
	Revenue	Technology
	NYC Transit Fare Evasion New Fare Media Program MetroCard Program E-ZPass Customer Services MTA Rental & Advertising Railroads On-Board Revenue	PeopleSoft System Cybersecurity Change Management Applications Controls Data Centers Disaster Recovery Technology Consultants

2019 - Highlights

- ❑ **Overtime (NYCT, MNR, B&T)**
- ❑ **Prescription Drug Plan – EGWP Enrollment**
- ❑ **Audit of As-Needed Contracts**
- ❑ **Third Party Contracts**
- ❑ **Pension QA & On Board Revenue Program**



2019 Audit Plan

Superstorm Sandy Recovery Oversight Audits (Since 2013)

- Total Grant Expenditures	=	\$2.33 Billion
- Total \$ Audited	=	\$495 Million
- Projects Completed	=	120
- Recommendations	=	320
- Follow-up Audits Completed	=	10
- Total Cost Adjustments	=	\$ 60.2 Million
- Use of External Monitors	=	6 Projects (\$1.34 Million)
- DOT/IG Reviews	=	4
- FTA Reviews	=	7



Looking Ahead

- ❑ **Prioritize the remaining 2019 Audits**
- ❑ **Align our functional audit risk assessment with the MTA Transformation Plan**
- ❑ **Continue to coordinate audit activities with:**
 - **External Auditors**
 - **City/State Controller's Office**
 - **MTA Chief Compliance Office**
 - **MTA Inspector General Office**
- ❑ **Improve the tracking process for recommendations.**
 - **Validate the implementation of all recommendations.**



QUESTIONS?



Metropolitan Transportation Authority
Department of Diversity and Civil Rights

Status of Closed Contracts
as of June 30, 2019

September 25, 2019



MTA Headquarters DDCR Update

Inactive Contracts – Status as of June 30, 2019

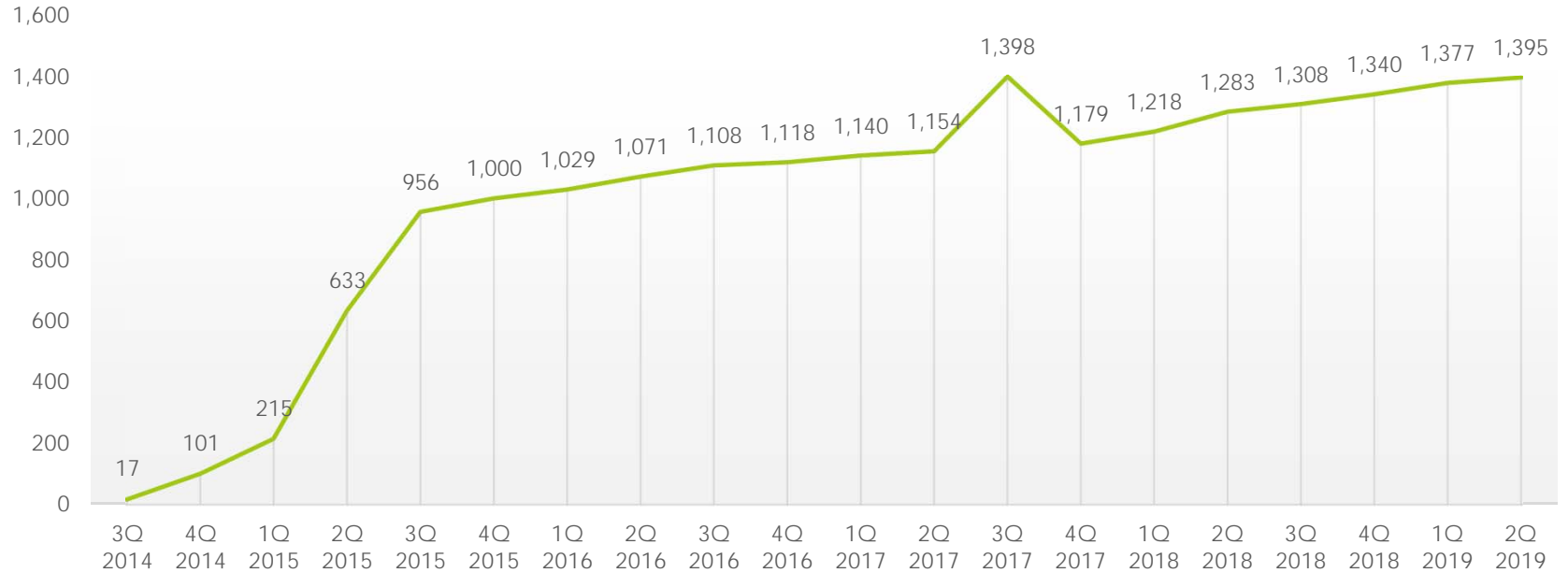
Inactive Contracts with Goals	#
1. Total Contracts Reviewed and Closed	1,090
2. Contracts Administratively Closed	305 ¹
Sub-Total	1,395 (95%)
3. Closeouts in Progress	42
4. Contracts Pending Agency Action	32
Total	1,469 (100%)

1. Contracts administratively closed because of the age of the contract (beyond the established seven-year record retention period).



MTA Headquarters DDCR Update

DDCR Contract Closeout Progression 1Q 2015 through 2Q 2019²



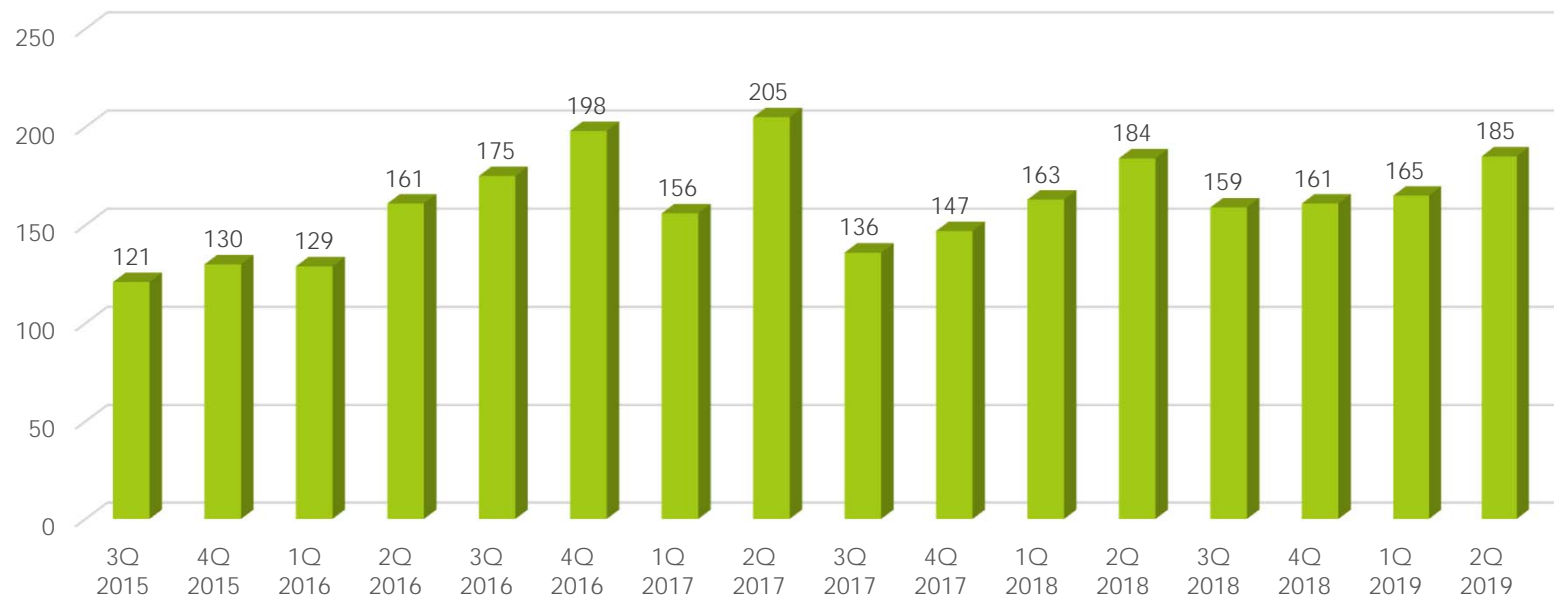
2. The decrease in closeouts between 3Q 2017 and 4Q 2017 is due to approx. 200 contracts being closed out in error, requiring subsequent re-activation.



MTA Headquarters DDCR Update

DDCR Project Site Visits: 3Q 2015 – 2Q 2019

Total Site Visits Performed = 2,575



MTA Headquarters DDCR Update

Goal Attainment on LIRR'S Third Track Projects As of 07/31/19

Managed By	Contract #	Prime Contractor	Current Contract Value	Start Date	Projected End Date	Assigned Goals	Current Attainment	Percentage of Completion
MTACC	6240 ³	3rd Track Constructors	\$1,481,324,614	1/26/2018	TBD	MBE - 15%	MBE - 4%	26.2%
						WBE - 15%	WBE - 6.2%	
						SDVOB - 6%	SDVOB - 0.2%	
MTACC	PS 868	Arup-Jacobs Joint Venture	\$66,818,615	12/22/2017	TBD	MBE - 15%	MBE - 14.2%	36.3%
						WBE - 15%	WBE - 18.1%	
						SDVOB - 6%	SDVOB - 2.7%	

3. Goal attainment on these contracts is as of July 31, 2019.





THE METROPOLITAN TRANSPORTATION AUTHORITY

AUDIT COMMITTEE

This Charter for the Audit Committee was adopted by the Board Chair and a majority of the members of the Board of the Metropolitan Transportation Authority, a public benefit corporation established under the laws of the State of New York (together with any other entity or corporation for which the members of the Metropolitan Transportation Authority serve as a board of directors, the “MTA”), as amended on March 21, 2018.

I. PURPOSE

The Audit Committee (the “Committee”) shall assist and provide guidance to the Board Chair and the Board in monitoring and overseeing (a) the conduct of the MTA’s financial reporting process, the application of accounting principles, and the engagement of the MTA’s outside accountants; (b) the MTA’s internal controls and risk management systems; and (c) general matters relating to legal, regulatory and ethical compliance at the MTA (hereinafter referred to as the “Purpose”).

II. COMMITTEE AUTHORITY

The Committee’s role is one of oversight. In carrying out this oversight function, the chairperson of the Committee (the “Committee Chair”) and the vice-chairperson of the Committee (the “Committee Vice-Chair”) shall have additional responsibilities, as set forth in Section VI of this Charter. The Committee Chair and/or the Committee Vice-Chair regularly shall report to the entire Committee their findings with respect to these additional responsibilities and refer to the entire Committee for its consideration any matter relating thereto as the Committee Chair and/or the Committee Vice-Chair deem necessary or appropriate. MTA Audit Services’ and Corporate Compliance’s organizational independence is derived from their reporting structure as they report to the MTA Audit Committee and MTA Board Chair.

Notwithstanding these oversight responsibilities, the MTA and each of its subsidiary corporations and affiliates are responsible for preparing their own financial statements and the respective outside auditors are responsible for auditing the respective financial statements. The Committee, the Committee Chair, and the Committee Vice-Chair recognize that the Auditor General and the outside auditors have more time, knowledge and detailed information about the MTA and each of its subsidiary corporations and affiliates than do Committee members. Consequently, in carrying out its oversight responsibilities, no member of the Committee shall be deemed to provide (i) any expert or special assurance as to the financial statements of the MTA or of any subsidiary corporation or affiliate or (ii) any professional certification as to the work of any outside auditor.

In discharging its role, the Committee is empowered to investigate any matter brought to its attention. To facilitate any such investigation, the Committee Chairman and/or Vice Chairman shall have access to all books, records, facilities and staff of the MTA (including any of its subsidiary corporations or affiliates).

The foregoing is not intended to alter or curtail existing rights of individual board members to access books, records or staff in connection with the performance of their fiduciary duties as board members. With the prior approval of the Board Chair or a majority of the Board, the Committee may retain, compensate and/or terminate outside counsel, auditors or other experts as it deems necessary and will receive adequate funding from the MTA to engage such advisors in accordance with MTA procedures. A majority vote during a Board meeting at which a quorum is present shall constitute such approval by the Board.

III. COMMITTEE MEMBERSHIP

The Committee shall consist of at least 3 or more members of the Board, appointed by the Board Chair. If not otherwise a member of the Committee, each Vice-Chair of the Board shall be an ex officio member of the Committee. The Board Chair shall appoint the chairperson and vice chairperson of the Committee. In the absence of the chairperson at a meeting of the Committee, the vice chairperson shall chair such meeting. In the absence of the chairperson and the vice chairperson, the Board Chair shall appoint a temporary chairperson to chair such meeting. A member of the Committee may be removed, for cause or without cause, by the Board Chair.

At least one committee member shall have accounting or financial management expertise. No member of the Committee shall be employed by (a) the MTA, or (b) a private entity that does, or is likely to do, business with the MTA.

IV. COMMITTEE MEETINGS

The Committee shall meet on a regularly-scheduled basis at least 4 times per year, and more frequently as circumstances dictate. The Committee will cause to be kept adequate minutes of all its proceedings and records of any action taken and will report on its proceedings and any action taken to the next full meeting of the Board. Committee members will be furnished with copies of the minutes of each meeting. Meetings of the Committee shall be open to the public, and the Committee shall be governed by the rules regarding public meetings set forth in the applicable provisions of the Public Authorities Law and Article 7 of the Public Officers Law that relate to public notice, public speaking and the conduct of executive session. The Committee may form and assign responsibilities to subcommittees when appropriate.

The Committee may request that any member of the Board, the Auditor General, the Chief Compliance Officer, any officer or staff of the MTA, or any other persons whose advice and counsel are sought by the Committee, attend any meeting of the Committee to provide such pertinent information at the Committee requests. The Auditor General shall (1) furnish the Committee with all material information pertinent to matters appearing on the Committee agenda relating to the Purpose, (2) provide the chairperson of the Committee with all information regarding the Purpose that is material to the Committee's monitoring and oversight of the Purpose, and (3) inform the chairperson of the Committee of any matters not

already on the Committee agenda that should be added to the agenda in order for the Committee to be adequately monitoring and overseeing the Purpose.

V. COMMITTEE REPORTS

The chairperson of the Committee shall report on the Committee's proceedings, and any recommendations made.

VI. KEY RESPONSIBILITIES OF COMMITTEE CHAIR AND VICE-CHAIR

The following responsibilities are set forth as a guide. The Committee chairperson and the Committee Vice-chairperson are authorized to carry out these and such other responsibilities assigned by the Committee, the Board Chair or the Board, from time to time, and take any actions reasonably related to the mandate of this Charter.

To assist the Committee in fulfilling its purpose, the Committee chairperson and/or the Committee Vice-chairperson shall:

Auditors, Financial Statements & Accounting Policies:

1. review and discuss with the Auditor General, the relevant MTA employees, the outside auditor, and the internal auditors any audit problems or difficulties encountered in the course of audit work, including any restrictions on the scope of activities or access to required information and advise the Committee as to how to resolve any disagreements regarding financial reporting;
2. review and discuss with the Auditor General and outside auditor significant accounting and reporting issues, including complex or unusual transactions and highly judgmental areas, and recent professional and regulatory pronouncements, and understand their impact on the financial statements;
3. inquire as to the outside auditor's view of the accounting treatment related to significant new transactions or other significant matters or events not in the ordinary course of business;
4. review and discuss with the Auditor General, the relevant MTA employees, and the outside auditor and any material financial or non-financial arrangements that do not appear on the financial statements of the MTA (or of any subsidiary corporation or affiliate);
5. review and discuss with the Auditor General and the outside auditor: (i) any accounting adjustments that were noted or proposed by the auditors but were "passed" (as immaterial or otherwise), (ii) any communications between the audit team and the audit firm's national office respecting auditing or accounting issues presented by the engagement and (iii) any "management" or "internal control" letter issued, or proposed to be issued, by any outside auditor to the MTA (including to any subsidiary corporation or affiliate);
6. review with the Auditor General and the outside auditor the periodic financial statements and footnotes of the MTA (and of each subsidiary corporation or affiliate, as applicable) and discussing the adequacy of the system of internal controls and the appropriateness of

the accounting principles used, and the judgments made, in the preparation of such periodic financial statements;

7. meet annually (or more frequently if necessary) with each respective outside auditor (without the Auditor General or any other officers or staff of the MTA present) to discuss the periodic financial statements of the MTA (and of each subsidiary corporation or affiliate, as applicable);

Internal Controls & Risk Management:

8. together with the Auditor General and the Chief Compliance Officer, review, discuss and (if necessary) investigate compliance with MTA policies and/or refer instances of non-compliance to the MTA Inspector General for investigation;
9. review and discuss with the Auditor General, the Chief Compliance Officer, the relevant employees of the MTA, and the outside auditor: (i) any significant deficiencies in the design or operation of the internal controls of the MTA, including information technology security and system controls (ii) any fraud, whether or not material, involving MTA and (iii) related findings and recommendations of the outside auditors together with management's responses;
10. review the scope of the external auditors' assessment of internal controls over financial reporting, and obtain reports on significant findings and recommendations, together with management's responses;
11. review and discuss with the Auditor General, the Chief Compliance Officer, the relevant MTA employees, and the outside auditor the MTA's risk assessment and risk management systems, and oversee the underlying policies with respect to risk assessment and risk management;
12. together with the Auditor General and the Chief Compliance Officer, serve as the point of contact for the MTA Inspector General, including by reviewing all reports and draft reports delivered to the MTA by the MTA Inspector General, and being available to meet with the MTA Inspector General as part of the Inspector General's audits of the MTA's books and records;
13. recognizing the statutory obligations of the MTA Inspector General, and without denigrating from those obligations, seek to communicate with the MTA Inspector General with respect to any matter the Committee Chair and/or Vice Chair, the entire Committee, the Board Chair, the Board or the MTA Inspector General deem appropriate;

Miscellaneous:

14. submit to the entire Committee for its consideration any matters (including matters relating to the foregoing) that the Committee Chair and/or Committee Vice-Chair deem should appropriately be considered by the entire Committee; and
15. report regularly to the Committee on the findings and recommendations of the Committee Chair and the Committee Vice-Chair relating to the foregoing, and on any other matters the

Committee Chair and/or the Committee Vice-Chair deem appropriate or the Committee, the Board Chair or the Board request.

VII. KEY RESPONSIBILITIES OF THE COMMITTEE

The following responsibilities are set forth as a guide with the understanding that the Committee may diverge as appropriate given the circumstances. The Committee is authorized to carry out these and such other responsibilities assigned by the Board Chair or the Board, from time to time, and take any actions reasonably related to the mandate of this Charter.

To fulfill its purpose, the Committee shall:

Auditors, Financial Reporting & Accounting Policies:

1. in consultation with the Auditor General and the officer primarily responsible for the finances of the MTA and each subsidiary corporation and affiliate, oversee the work of the MTA's outside auditor and provide guidance to the Board Chair and the Board with respect to the appointment (and if appropriate dismissal), evaluation, compensation of the outside MTA's auditors;
2. review and provide guidance to the Board with respect to pre-approving all auditing and non-auditing services provided by the outside auditor to the MTA;
3. provide guidance to the Board with respect to, and approve, the annual audit plan and any subsequent major changes to it and the risk assessment as proposed by the Auditor General in consultation with the MTA Chairman/CEO and the President of each subsidiary and affiliated corporation;
4. review and discuss with the Auditor General, relevant MTA employees, and the outside auditor: (i) any significant audit findings during the year, including the status of previous audit recommendations; (ii) internal audit's activity's performance relative to its plan; (iii) any changes required in the scope of the audit plan; (iv) the audit budget and staffing; and (v) the coordination of audit efforts, status of the internal audit plan and the adequacy of internal audit resources (both numbers and capabilities);
5. on a regular basis, meet with the external auditors to discuss any matters that the committee or internal audit believes should be discussed;
6. review the external auditors' proposed audit scope and approach, including coordination of audit effort with internal audit;
7. review and discuss with the Auditor General, relevant MTA employees, and the outside auditor accounting policies that may be viewed as critical, all matters required to be communicated to the committee under generally accepted auditing standards, as well as any recent or proposed significant changes in MTA accounting policies; and inquire as to the outside auditors' views as to the application of accounting principles;
8. monitor the consistency and comparability of the financial reporting processes of the MTA;

9. monitor the integrity, consistency and comparability of the financial reports and other financial information provided by the MTA to any other governmental or regulatory body, the public or other users thereof, including reconciliations where necessary;
10. review and provide guidance to the Board with respect to the appointment, compensation, and (if necessary) dismissal of the Auditor General;
11. at least annually, review with the Auditor General a report by the outside auditor describing: (i) such outside auditor's internal quality-control procedures; (ii) any material issues raised by the most recent internal quality-control review, or peer review, of the firm, or by any inquiry or investigation by governmental or professional authorities, within the preceding five years, regarding one or more independent audits carried out by the firm, and any steps taken to deal with any such issues; and (iii) all relationships between the outside auditor and the MTA (or any subsidiary corporation or affiliate);
12. on an annual basis, in each case together with the Auditor General: (i) review a formal written statement from the outside auditor delineating all relationships between such outside auditor and the MTA; (ii) actively engage in a dialogue with the outside auditor with respect to any disclosed relationships or services that may impact the objectivity and independence of such outside auditor and take appropriate action in response to such outside auditor's report to satisfy itself of such auditor's independence; (iii) consider whether, in the interest of assuring continuing independence of the outside auditor, the MTA's respective outside auditors should be rotated; and (iv) set clear hiring policies for employees or former employees of the outside auditors;

Internal Controls & Risk Management:

13. review and discuss with the Auditor General, the Chief Compliance Officer, the relevant MTA employees, and the outside auditor the adequacy of the MTA's internal and disclosure controls and procedures;
14. together with the Chief Compliance Officer, review and discuss with the relevant MTA employees, and the outside auditor any significant risks or exposures and assess the steps such employees have taken to minimize such risks;
15. review periodically with the Chief Compliance Officer and the General Counsels of the MTA and each subsidiary corporation and affiliate: (i) legal and regulatory matters that may have a material impact on the financial statements of the MTA (or any subsidiary corporation or affiliate); and (ii) the scope and effectiveness of compliance policies and programs;

Ethics & Conflicts of Interests:

16. together with the Chief Compliance Officer, review periodically with the relevant MTA employees (i) the process for communicating the code of conduct to company personnel; (ii) the level of compliance with all applicable ethics codes, guidelines, and regulations; and, (iii) the performance of the MTA Ethics and Compliance programs;

Miscellaneous:

17. set the annual work plan for the Committee;
18. conduct an annual self-evaluation of the performance of the Committee, including its effectiveness and compliance with this Charter;
19. review and reassess the adequacy of this Charter annually;
20. approve the internal audit charter;
21. consider any matter referred to the entire Committee by the Committee Chair and/or Vice-Chair; and
22. report regularly to the Board on Committee findings and recommendations and any other matters the Committee deems appropriate, or the Board Chair or the Board request.