Metropolitan Transportation Authority

Audit Committee Meeting

October 2020

Committee Members

J. Barbas, Chair
F. Borelli
D. Jones
R. Linn
R. Mujica, Jr.

Audit Committee Meeting

MTA Board Room - 20th Floor
2 Broadway

Wednesday, 10/28/2020
10:00 AM - 5:00 PM ET

MINUTES OF MEETING
AUDIT COMMITTEE OF THE BOARD
WEDNESDAY, JULY 22, 2020 – 10 A.M.
RONAN BOARD ROOM – 20TH FLOOR
2 BROADWAY

Because of the ongoing COVID-19 public health crisis, the MTA Chairman convened a one-day, virtual Board and Committee meeting session on July 22, 2020, which included the following committees:

- Long Island Rail Road and Metro-North Railroad;
- New York City Transit;
- MTA Bridges and Tunnels;
- Finance;
- Safety;
- Audit;
- Corporate Governance; and
- Capital Program Oversight Committee

To see a summary of the meeting and the actions taken by the Audit Committee, please refer to the July 22, 2020 Board minutes in the July Board Book available here on the Board materials website: https://new.mta.info/transparency/board-and-committee-meetings/july-2020.

MTA Chairman Foye introduced Acting Auditor General Michele Woods (AAG). The AAG stated that there were 13 items on the Work Plan, and one item has been postponed. The IT report on Security of Sensitive Data will be made at the October Audit Committee. Six of the remaining 12 items on the plan are from our External Audit firm and require a vote to accept the reports:

1) The Financial Statements for the 1st quarter 2020
2) The 2019 Pension Audits
3) The Single Audit Report
4) The Investment Compliance Report
5) The 2019 Review of the MTA/IG's Office Expenses, and
6) The MTA's Consolidated Management Letter Report

The reports on these items have been provided to the Audit Committee and are included in the Audit Committee materials. Jill Strohmeyer from Deloitte and Noemi Lopez, the Acting MTA Comptroller were available to answer any questions. A motion was made and seconded to accept these six items.

There were four information items which relate to the operation of the MTA's Compliance Program. The items included:

1) The Enterprise Risk Management Update;
2) The Ethics and Compliance Status Report;
3) The Financial Interest Report; and
4) The Report on Open Audit Recommendations.

Lamond Kearse, the MTA's Chief Ethics, Risk & Compliance Officer was available to answer any questions on these reports. Next, the Department of Diversity and Civil Rights has prepared an update on the status of the performance measures and compliance monitoring used by DDCR in tracking the critical tasks. Michael Garner, the MTA's Chief Diversity Officer, was available to answer any questions. The final item was the MTA Audit Services' mid-year Status Report. Through the first six months of this year we have completed 34 operational and assurance audits, and issued 51 findings with recommendations to improve transparency, governance, and internal controls. These audits identified potential cost savings and efficiency opportunities of $6.1 million at the agencies. We also performed 176 audits related to Capital Projects. The third-party questioned costs for these audits were $37.5 million year to date. MTA Audit has worked with the agencies to focus on new areas of risk during the COVID emergency, including emergency contracts and cleaning initiatives. The AAG will be working with the agency presidents to prioritize the remaining operational audits in the 2020 Audit Plan. Finally, the On-Board Program at the railroads was on pause from mid-March through June. This program was resumed on July 1st. This concluded the July Audit Committee Work Plan.

Respectfully submitted,

Michele S Woods

Michele Woods
Auditor General

Metropolitan Transportation Authority

2021 AUDIT COMMITTEE WORK PLAN

I. RECURRING AGENDA ITEMS	Responsibility
Each Meeting:	
Approval of Minutes	Committee Chair & Members
Audit Work Plan	Committee Chair & Members
As Appropriate:	
Pre-Approval of Audit and Non-Auditing Services	Committee Chair & Members
Follow-Up Items	Auditor General
Status of Audit Activities	Auditor General/MTA IG/ CCO/CFO/ Controllers/External Auditor/
Executive Sessions	Committee Chair & Members

II. SPECIFIC AGENDA ITEMS

January 2021

Quarterly Financial Statements – 3rd Quarter 2020	External Auditor/CFOs/Controllers
Enterprise Risk Management Update and Internal Control Guidelines	Chief Compliance Officer
Compliance with the Internal Control Act	Chief Compliance Officer/Agency ICOs
2020 Audit Plan Status Report	Auditor General
2021 Audit Plan	Auditor General
Information Technology Report	Chief Information Officer
DDCR Performance Measures	Chief Diversity Officer
Open Audit Recommendations	Agency ICOs/Chief Compliance Officer

May 2021

2020 Audited Financial Statements	External Auditor/CFOs/Controllers
Management's Review of Consolidated Financial Statements	Comptroller
Open Audit Recommendations	Agency ICOs/Chief Compliance Officer
Contingent Liabilities/Third Party Lawsuits (Executive Session)	General Counsels/External Auditor

July 2021

Quarterly Financial Statements – 1st Quarter 2021	External Auditor/CFOs
Pension Audits (2020)	External Auditor/Comptroller
Management's Review of Pension Audits	Comptroller
Single Audit Report	External Auditor/CFOs
Investment Compliance Report	External Auditor
Management Letter Reports	External Auditor/CFOs/Controllers
Review of MTA/IG's Office (FY 2020)	External Auditor
Enterprise Risk Management Update	Chief Compliance Officer
Ethics and Compliance Program	Chief Compliance Officer
Financial Interest Reports	Chief Compliance Officer
MTAAS 2021 Audit Plan Status Report	Auditor General
DDCR Performance Measures	Chief Diversity Officer
Open Audit Recommendations	Agency ICOs/Chief Compliance Officer

October 2021

Quarterly Financial Statements – 2nd Quarter 2021	External Auditor/CFOs
Appointment of External Auditors	Committee Chair & Members
Audit Approach Plans/Coordination	External Auditor
Review of Audit Committee Charter	CCO and Committee Chair
Security of Sensitive Data & Systems (Executive Session)	Chief Information Officer
Open Audit Recommendations	Agency ICOs/Chief Compliance Officer
Annual Audit Committee Report	Committee Chair

2021 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 2021

Quarterly Financial Statements - 3rd Quarter 2020
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 2020.

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 the 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.

MTAAS 2020/2021 Audit Plans

i. 2020 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 2020.

ii 2021 Audit Plan
A discussion by Audit Services of the areas scheduled to be reviewed in 2021 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.

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 year.

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.

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.

MAY 2021

2020 Financial Statements
The MTA public accounting firm will review the results and conclusions of their examination of the 2020 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 2020 MTA consolidated financial statements, including changes in capital, net assets, other assets and operating revenues and expenses.

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.

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.

JULY 2021

Quarterly Financial Statements – 1st Quarter 2021
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 2021.

Pension Audits

i Management's Review of MTA-Managed/Controlled Pension Plan Financial Statements
The MTA Comptroller will present a management's review of the 2020 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.

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.

Review of the MTA Inspector General's Office
Representatives of MTA's public accounting firm will provide the results of their 2020 "agreed-upon" review procedures on the MTA/IG's operating expenses to ensure compliance with applicable policies and procedures.

Enterprise Risk Management Update
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 and 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 2021 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.

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.

OCTOBER 2021

Quarterly Financial Statements – 2nd Quarter 2021
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 2021.

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
Representatives of MTA's public accounting firm will review their audit approach for the 2022 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).

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.

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.

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 2021. 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.

DRAFT

Metropolitan Transportation Authority

(A Component Unit of the State of New York)

Independent Auditors' Review Report

Interim Financial Statements as of and
for the Six-Month Period Ended June 30, 2020

(A Component Unit of the State of New York)

MANAGEMENT'S DISCUSSION AND ANALYSIS

AS OF JUNE 30, 2020 AND DECEMBER 31, 2019 AND FOR THE SIX-MONTH PERIODS ENDED JUNE 30, 2020 AND 2019

($ In Millions, except as noted)

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.

The Reporting entity includes:

(1) the Primary Government is comprised of the following:

- 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 Construction and Development Company ("MTA Construction and Development"), formerly called MTA Capital Construction Company, 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 Primary Government provides transportation services in the New York metropolitan area, operations of seven bridges and two tunnels within New York City and primary insurance coverage. The Primary Government engages in Business-Type Activities.

(2) Fiduciary Funds comprised of Pension and Other Employee Benefit Trust Funds:

- Pension Trust Funds:
  - MTA Defined Benefit Pension 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 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")

The financial results of the Primary Government are reported as consolidated financial statements.

OVERVIEW OF THE CONSOLIDATED INTERIM FINANCIAL STATEMENTS

Introduction

This report consists of: 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, 2020 and December 31, 2019 and for the six-month periods ended June 30, 2020 and 2019. 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 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 Statements 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 Statements 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 statements of fiduciary net position and the combining statements 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 statements of revenues, expenses and changes in net position.

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, 2020 and December 31, 2019 and for the six-month periods ended June 30, 2020 and 2019. 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

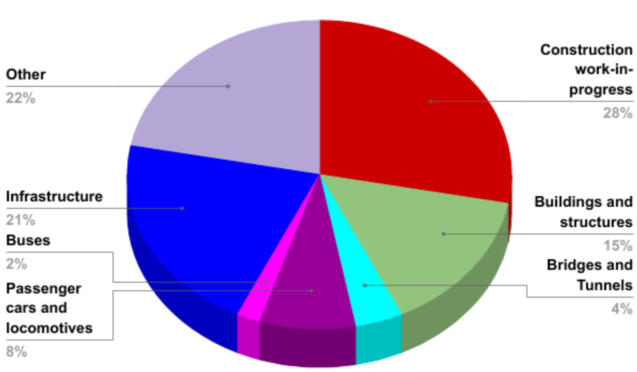
Capital assets include, but are not limited to: bridges, structures, tunnels, construction of buildings and the acquisition of buses, equipment, passenger cars, and locomotives.

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.

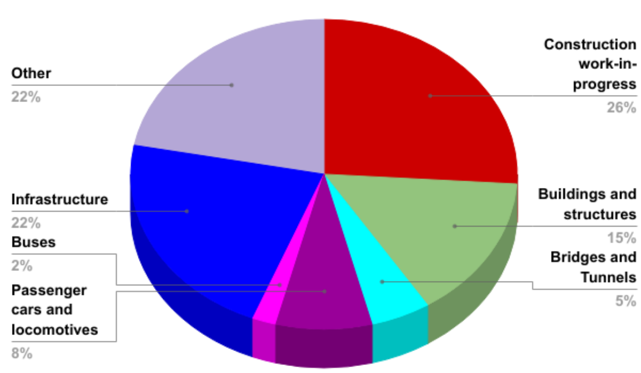
Deferred outflows of resources reflect: changes in fair market values of hedging derivative instruments that are determined to be effective, unamortized loss on refunding, deferred outflows from pension activities, and deferred outflows from OPEB activities.

(In millions)	June 30, 2020 (Unaudited)	December 31, 2019	Increase / (Decrease)
Capital assets — net (see Note 6)	$ 78,399	$ 77,502	$ 897
Other assets	14,213	8,857	5,356
Total Assets	92,612	86,359	6,253
Deferred outflows of resources	5,225	5,300	(75)
Total assets and deferred outflows of resources	$ 97,837	$ 91,659	$ 6,178

Capital Assets, Net - June 30, 2020 (Unaudited)



Capital Assets, Net - December 31, 2019



Significant Changes in Assets and Deferred Outflows of Resources Include:

June 30, 2020 versus December 31, 2019

- Net capital assets increased at June 30, 2020 by $897 or 1.2%. There was an increase in construction in progress of $1,582, an increase in infrastructure of $329, an increase in other capital assets of $238, an increase in passenger cars and locomotives of $109, an increase in buses of $29, an increase in land of $25, an increase in bridges and tunnels of $24 and an increase in buildings and structures of $23. The increases were offset by a net increase in accumulated depreciation of $1,462. 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 the subway action plan.
  - Infrastructure work including:
    - Repairs and improvements of all MTA Bridge and Tunnels' facilities.
    - Constructing of third track between Floral Park and Hicksville by MTA Long Island Railroad.
    - 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 $5,356 or 60.5%. The major items contributing to this change include:
  - An increase in current and non-current receivables of $2,496 primarily due to an increase from State and regional mass transit tax of $2,340, an increase in State and local operating assistance of $174, an increase in Station Maintenance receivable of $87, an increase in Federal and State grants for capital projects of $24, an increase in receivable from Connecticut Department of Transportation of $22, a decrease in other receivable from New York City and New York State of $94, a decrease in Mortgage Recording tax of $12, and a net decrease in other current and non-current receivables of $45.
  - An increase in cash of $49 from net cash flow activities.
  - An increase in investments of $2,800 mainly due to the issuance of new debt.
  - A net increase in various other current and noncurrent assets of $11.
- Deferred outflows of resources decreased by $75 or 1.4%. This was primarily due to a decrease in deferred outflows related to unamortized loss of $95, a decrease in deferred outflows related to other post-employment benefits of $76, a decrease in deferred outflows related to pensions of $16 and an increase in deferred outflows related to change in the fair value of derivative instruments of $112.

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

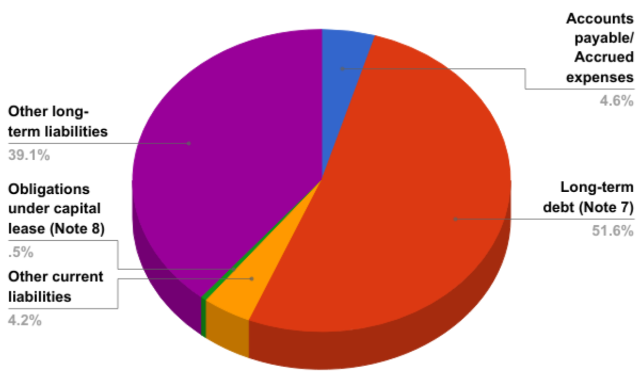
Current liabilities include: accounts payable, accrued expenses, current portions of long-term debt, capital lease obligations, pollution remediation liabilities, unredeemed fares and tolls, and other current liabilities.

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

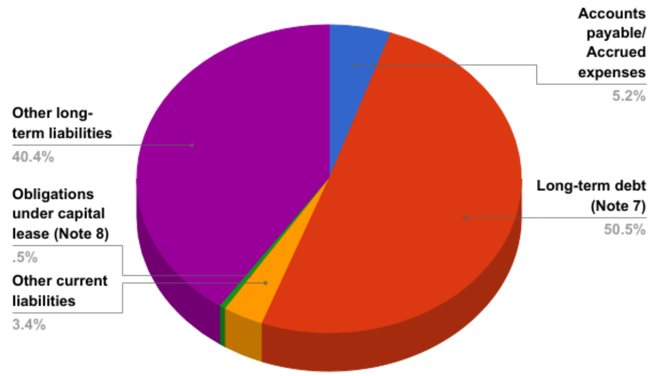
Deferred inflows of resources reflect unamortized gains on refunding, pension related deferred inflows, and deferred inflows from OPEB activities.

(In millions)	June 30, 2020 (Unaudited)	December 31, 2019	Increase / (Decrease)
Current liabilities	$ 7,950	$ 7,494	$ 456
Non-current liabilities	80,410	77,085	3,325
Total liabilities	88,360	84,579	3,781
Deferred inflows of resources	2,627	2,629	(2)
Total liabilities and deferred inflows of resources	$ 90,987	$ 87,208	$ 3,779

Total Liabilities - June 30, 2020 (Unaudited)



Total Liabilities - December 31, 2019



Significant Changes in Liabilities and Deferred Inflows of Resources Include:

June 30, 2020 versus December 31, 2019

- Current liabilities increased by $456 or 6.1%. The net decrease in current liabilities was primarily due to a decrease in accrued expenses of $458, due to a decrease in capital accruals of $617, a decrease in other and accrued expenses of $59, an increase in interest payable of $46, and an increase in employee related accruals of $172. In addition, there was an increase in accounts payable due to vendors of $126, an increase in derivative fuel hedge liability of $25, an increase current portion of long term debt of $777, a decrease in current portion of obligations under capital lease of $10, and a net decrease in other current assets of $4.
- Non-current liabilities increased by $3,325 or 4.3%. This increase was mainly due to:
  - An increase in the non-current portion of long-term debt of $3,072 primarily due to 2020 bond issuances (See Note 7).
  - An increase in estimated liability arising from injuries to persons (Note 10) of $194 due to revised calculations of the workers' compensation reserve.
  - An increase in derivative liabilities of $109 resulting mainly from changes in market valuation and a reduction in the notional amount of derivative contracts.
  - A decrease in obligations under capital leases of $13
  - A net decrease in other various non-current liabilities of $37.
- Deferred inflows of resources decreased by $2 or 0.1%, 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, 2020 (Unaudited)	December 31, 2019	Increase / (Decrease)
Net investment in capital assets	$ 30,301	$ 31,147	$ (846)
Restricted for debt service	1,062	554	508
Restricted for claims	256	219	37
Restricted for other purposes	1,052	1,207	(155)
Unrestricted	(25,821)	(28,676)	2,855
Total Net Position	$ 6,850	$ 4,451	$ 2,399

Significant Changes in Net Position Include:

June 30, 2020 versus December 31, 2019

At June 30, 2020, total net position increased by $2,399 or 53.9%, when compared with December 31, 2019. This change is a result of net non-operating revenues of $7,045 and appropriations, grants and other receipts externally restricted for capital projects of $911 offset by operating losses of $5,557.

The net investment in capital assets decreased by $846 or 2.7%. Funds restricted for debt service, claims and other purposes increased by $390 or 19.7% in the aggregate, mainly due to scheduled debt service payments. Unrestricted net position increased by $2,855 or 10.%.

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

(In millions)	Six-Month Period Ended June 30, 2020 (Unaudited)	Six-Month Period Ended June 30, 2019 (Unaudited)	Increase / (Decrease)
Operating revenues			
Passenger and tolls	$ 2,309	$ 4,087	$ (1,778)
Other	249	323	(74)
Total operating revenues	2,558	4,410	(1,852)
Non-operating revenues			
Grants, appropriations and taxes	4,502	4,192	310
Other	3,419	475	2,944
Total non-operating revenues	7,921	4,667	3,254
Total revenues	10,479	9,077	1,402
Operating expenses			
Salaries and wages	3,073	3,138	(65)
Retirement and other employee benefits	1,746	1,534	212
Postemployment benefits other than pensions	330	325	5
Depreciation and amortization	1,480	1,420	60
Other expenses	1,486	1,761	(275)
Total operating expenses	8,115	8,178	(63)
Non-operating expenses			
Interest on long-term debt	874	894	(20)
Other net non-operating expenses	2	2	-
Total non-operating expenses	876	896	(20)
Total expenses	8,991	9,074	(83)
Gain before appropriations, grants and other receipts externally restricted for capital projects	1,488	3	1,485
Appropriations, grants and other receipts externally restricted for capital projects	911	1,079	(168)
Change in net position	2,399	1,082	1,317
Net position, beginning of period	4,451	3,953	498
Net position, end of period	$ 6,850	$ 5,035	$ 1,815

Revenues and Expenses, by Major Source:

Period ended June 30, 2020 versus 2019

Total operating revenues decreased by $1,852 or 42.0%. The decrease was mainly due to the Stay At Home Executive Order issued by New York State governor in March in response to the COVID-19 pandemic. The decrease in fare revenue and toll revenue of $1,516 and $262 respectively reflects the ongoing impact of the COVID-19 pandemic resulting in a sharp drop in utilization of services . Other operating revenues decreased by $74 when compared with the same period in 2019 due to lower advertising revenues and lower paratransit reimbursement subsidy.

- Total non-operating revenues increased by $3,254 or 69.7%.
  - Total grants, appropriations, and taxes increased by $310 primarily due to an increase in Mass Transportation operating assistance of $319, an increase from New York City Assistance Fund of $52, an increase in Internet Sales Tax of $85, an increase in Mansion Tax of $104, a decrease in Urban Tax of $149, a decrease in Mass Transportation Trust Fund from New York State of $57, a decrease in Payroll Mobility Tax of $21, and a decrease in Aid Trust subsidies of $23.
  - Other non-operating revenues increased by $2,944 primarily due to an increase in funds from the Coronavirus Aid, Relief, and Economic Security (CARES) Act of $2,916, an increase in subsidies from the Connecticut Department of Transportation for the MTA Metro-North Railroad of $36, an increase in operating subsidies from New York City of $6 for MTA Bus and MTA Staten Island Railway, an increase in Station maintenance of $2, and a decrease in other net non-operating revenue of $16.
- Labor costs increased by $152 or 3.%. The major changes within this category are:
  - Salaries, wages and overtime decreased by $65 primarily due to lower overtime by the MTA New York City Transit.
  - Retirement and employee benefits increased by $212 based on changes in the actual estimates as a result of GASB 68.
  - Postemployment benefits other than pensions increased by $5 based on changes in the actuarial estimated as a result of GASB 75.
- Non-labor operating costs decreased by $215 or 6.8%. The variance was primarily due to:
  - A decrease in paratransit service contracts of $85 due to lower paratransit trips resulting in lower expenses.
  - A decrease in material and supplies by $62, mainly due to revised maintenance and repairs requirements for transit and commuter systems.
  - A decrease in professional service contracts of $18 due to changes in consulting services requirements.
  - A decrease in maintenance and other contracts by $9 due to changes in maintenance work requirements.
  - A decrease in electric power of $43 and fuel of $33 mainly due to the Stay At Home Executive Order issued by New York State governor in March in response to the COVID-19 pandemic. This resulted in lower consumption due to operating on a reduced service schedule.
  - A net decrease in other various expenses of $29.
  - An increase in depreciation of $60 primarily due to assets placed in service in the current year.
  - An increase in claims arising from injuries to persons of $4 based on changes in estimated claim provisions.
- Total net non-operating expenses decreased by $20 or 2.2%, due to a decrease in interest on long-term debt of $20.
- Appropriations, grants and other receipts externally restricted for capital projects decreased by $168 or 15.6% 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. 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 2020 decreased substantially relative to 2019, with ridership down by 696.3 million trips (54.9%). The initial impact of social distancing from personal actions taken and Governor Cuomo's PAUSE Executive Order, effective March 22nd limiting non-essential activities due to the COVID-19 pandemic, resulted in a severe decline in the utilization of MTA services that has only recently begun to turn around as the region moves through the State-mandated re-opening phases; at the end of June, New York City had just entered the second of five re-opening phases. During the first half of 2020 compared with 2019, MTA New York City Transit subway ridership declined by 447.9 million trips (53.2%), MTA New York City Transit bus declined by 162.3 million trips (58.4%), MTA Long Island Rail Road ridership declined by 25.7 million trips (57.5%), MTA Metro-North Railroad declined by 24.7 million trips (58.0%), MTA Bus declined by 34.5 million trips (57.7%), and MTA Staten Island Railway declined by 1.2 million trips (56.3%). Vehicle traffic at MTA Bridges and Tunnels facilities through the second quarter decreased by 47.8 million crossings (29.6%) compared with 2019 levels. Since March 20, 2020, entry onto most buses has been through the rear door only, and fares have not been collected in these instances. The 2019 New York State Budget approved congestion pricing in Manhattan south of 60th Street, which is scheduled to go into effect in 2021 but awaits approval by the Federal Highway Administration to proceed—this will likely impact ridership and vehicle crossings once implemented.

Seasonally adjusted non-agricultural employment in New York City for the second quarter was lower in 2020 than in 2019 by 858.6 thousand jobs (18.4%). On a quarter-to-quarter basis, New York City employment lost 873.1 thousand jobs, the second consecutive quarterly decline after thirty-seven consecutive quarterly increases—the prior decline occurred in the third quarter of 2010.

National economic growth, as measured by Real Gross Domestic Product ("RGDP"), decreased at an annualized rate of 32.9% in the second quarter of 2020, according to the most recent advance estimate released by the Bureau of Economic Analysis. The decline in second quarter GDP reflected the response to COVID-19, as stay-at-home orders issued in March and April were partially lifted in some areas of the country in May and June, and government pandemic assistance payments were distributed to households and businesses. This led to rapid shifts in activity, as businesses and schools continued remote work and consumers and businesses canceled, restricted, or redirected their spending. The full economic effects of the COVID-19 pandemic cannot be quantified in the GDP estimate for the second quarter of 2020 because the impacts are generally embedded in source data and cannot be separately identified. The decrease in real GDP in the second quarter reflected decreases in personal consumption expenditures, exports, private inventory investment, nonresidential fixed investment, residential fixed investment, and state and local government spending that were partly offset by an increase in federal government spending. Imports, which are a subtraction in the calculation of GDP, decreased. The decrease in personal consumption expenditures reflected decreases in services, led by health care, and goods, led by clothing and footwear. The decrease in exports primarily reflected a decrease in goods, led by capital goods. The decrease in private inventory investment primarily reflected a decrease in retail, led by motor vehicle dealers. The decrease in nonresidential fixed investment primarily reflected a decrease in equipment, led by transportation equipment, while the decrease in residential investment primarily reflected a decrease in new single-family housing. In the first quarter of 2020, annualized RGDP decreased 5.0 percent.

The New York City metropolitan area's price inflation, as measured by the Consumer Price Index for All Urban Consumers ("CPI-U"), was higher than the national average in the second quarter of 2020, with the metropolitan area index increasing 1.29% while the national index increased 0.36%, when compared with the second quarter of 2019. Regional prices for energy products declined 11.42%, while the national price of energy products declined 16.44%. In the metropolitan area, the CPI-U exclusive of energy products increased by 2.08%, while nationally, inflation exclusive of energy products increased 1.69%. The spot price for New York Harbor conventional gasoline decreased even further, by 54.5%, from an average price of $1.90 per gallon to an average price of $0.86 per gallon between the second quarters of 2019 and 2020.

The Federal Open Market Committee ("FOMC") lowered its target for the Federal Funds rate twice during the first quarter of 2020, by a half point on March 3, 2020 to the target range of 1.00% to 1.25%, followed by a full point decline on March 15, 2020 to a target range of 0.00% to 0.25%, where it remains. The COVID-19 outbreak and the measures taken to protect public health have induced sharp declines in economic activity and a surge in job losses, with weaker demand and significantly lower oil prices holding down consumer price inflation. Financial conditions have improved, in part reflecting policy measures to support the economy and the flow of credit to U.S. households and businesses. The ongoing public health crisis weighs heavily on economic activity, employment, and inflation in the near term, and poses considerable risks over the medium term. Considering these developments, the FOMC has maintained the target range for the federal funds rate at 0% to one-quarter percent and expects to maintain this target range until there is confidence the economy has weathered recent events and is on track to achieve maximum employment and price stability goals. The FOMC continues to monitor the situation and intends to utilize its tools and act as appropriate to support the economy. In determining the timing and size of future adjustments to the stance of monetary policy, the FOMC will assess realized and expected economic conditions relative to its maximum employment objective and its symmetric 2 percent inflation objective. This assessment will include, but not be limited to, labor market conditions, indicators of inflation pressures and inflation expectations, and readings on financial and international developments. The Federal Reserve intends to support the flow of credit to households and businesses over the coming months by increasing its holdings of Treasury securities and agency residential and commercial-backed securities, at least at the current pace to sustain smooth market functioning.

On March 27, 2020, President Trump signed the Coronavirus Aid, Relief, and Economic Security (CARES) Act to blunt the impact of the economic downturn set in motion by the COVID-19 pandemic by dedicating government funding to support large and small businesses, individuals and families, gig-economy workers and independent contractors, and hospitals. Key aspects of the CARES Act include a $367 billion loan and grant program for small businesses, of which $349 billion covers the Paycheck Protection Program (PPP), used for small businesses to maintain their payrolls; expansion of unemployment benefits to include people furloughed, gig-economy workers, and freelancers, with benefits increased by $600 per week for a period of four months; direct stimulus payments to families of $1,200 per adult and $500 per child for households earning up to $75,000 annually; over $130 billion to hospitals, health care systems, and health care providers; $500 billion fund for loans to corporations; cash grants of $25 billion for airlines, $4 billion for air cargo carriers, and $3 billion for airline contractors for payroll support; a ban on stock buybacks for large companies receiving government loans for one year beyond the term of assistance, and; $150 billion to state and local governments. At $2.3 trillion, the CARES Act dwarfs the next largest rescue package in U.S. history, the $831 billion 2009 Recovery Act.

For the MTA, the CARES Act provided $4.0 billion in funding, which has assisted in covering operating losses, but is expected to be depleted by late July. With the aid of a detailed economic study led by McKinsey & Company, MTA projects the full 2020 financial impact of the COVID-19 pandemic to be $7.75 billion, and the 2021 financial impact is projected to be $6.55 billion. Included in that figure are reductions of between $1.7 billion in State and local taxes dedicated to MTA in 2020 and $1.9 billion in 2021, including reductions from the Mortgage Recording Tax and the Urban Tax.

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. Real estate transaction activity has also been severely affected by social distancing during the COVID-19 pandemic. Mortgage Recording Tax collections through the second quarter of 2020 were higher than through the second quarter of 2019 by $13.3 (6.3%), although the favorable change was limited to the first quarter of the year; receipts in the second quarter of 2020 were $43.6 (32.3%) lower than receipts from the first quarter of 2020. Average monthly receipts in the second quarter of 2020 were $25.9 (40.8%) lower than the monthly average for 2006, just prior to the steep decline in Mortgage Recording Tax revenues during the Great Recession. 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 $133.9 (36.6%) lower through the second quarter of 2020 than receipts through the second quarter of 2019; receipts in the second quarter of 2020 were $79.6 (51.2%) lower than receipts from the first quarter of 2020. Average monthly receipts in the second quarter of 2020 were $35.0 (47.6%) lower than the monthly average for 2007, just prior to the steep decline in Urban Tax revenues during the Great Recession.

Results of Operations

MTA Bridges and Tunnels - For the period ended June 30, 2020, operating revenue decreased by $264 compared to the six months ended June 30, 2019. Paid traffic for the second quarter of 2020 totaled 44.6 million crossings, which was 40.7 million, or 47.7% lower than the second quarter of 2019. The decline is due to the Stay At Home Executive Order issued by the Governor in March in response to the COVID-19 pandemic. Paid traffic has seen a rebound in each successive month within the second quarter; April 2020 vs April 2019 saw a 64.5% decrease, May 2020 vs May 2019 saw a 48.9% decrease, while June 2020 vs June 2019 saw a 30.5% decrease. As we enter the summer months, coupled with the easing of the Stay At Home Executive Order as we enter later phases of the shutdown, MTA Bridges and Tunnels should continue to see improvements in its paid traffic performance moving forward. Toll revenue through June 2020 totaled $734, which was $262, or 26.3%, less than the first half of 2019.

MTA New York City Transit - For the period ended June 30, 2020, revenue from fares was $1,174, a decrease of $1,068, or 47.6%, compared to June 30, 2019. For the same comparative period, total operating expenses were higher by $31, or 0.6%, totaling $5,341 for the six months ended June 30, 2020.

MTA Long Island Rail Road – Total operating revenue for the period ended June 30, 2020 was $194, which was lower by $197, or 50.4%, compared to June 30, 2019. For the same comparative period, operating expenses were lower by $31, or 3.3%, totaling $919 for the six months ended June 30, 2020.

MTA Metro-North Railroad – For the six months ended June 30, 2020, operating revenues totaled $194, a decrease of $200, or 50.8%, compared to June 30, 2019. During the same period, operating expenses decreased by $6, or 0.8%, to $757. For the six months ended June 30, 2020, fare revenue decreased by 53.3% to $171 compared to June 30, 2019. Passenger fares accounted for 88.1% and 92.9% of operating revenues in 2020 and 2019, 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, 2020 was $214 compared to $215 at June 30, 2019.

Capital Programs

At June 30, 2020, $1,590 had been committed and $117 had been expended for the 2020-2024 MTA Bridges and Tunnels Capital Program, $25,998 had been committed and $14,761 had been expended for the combined 2015-2019 MTA Capital Programs and the 2015-2019 MTA Bridges and Tunnels Capital Program, and $28,382 had been committed and $25,343 had been expended for the combined 2010-2014 MTA Capital Programs and the 2010-2014 MTA Bridges and Tunnels Capital Program, and $24,101 had been committed and $23,832 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.

2020-2024 Capital Program – Capital programs totaling $54,799 covering the years 2020-2024 for: (1) the commuter railroad operations of the MTA conducted by MTA Long Island Rail Road and MTA Metro-North Railroad (the "2020–2024 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 "2020–2024 Transit Capital Program") were originally approved by the MTA Board on September 25, 2019. The capital programs were subsequently submitted to the Capital Program Review Board ("CPRB") on October 1, 2019 and approved on January 1, 2020. The capital program for the toll bridges and tunnels operated by MTA Bridges and Tunnels (the "2020–2024 MTA Bridges and Tunnels Capital Program") was approved by the MTA Board on September 25, 2019 and was not subject to CPRB approval.

The combined funding sources for the 2020–2024 MTA Capital Programs and the 2020-2024 MTA Bridges and Tunnels Capital Program, include $15,000 in Central Business District tolling sources, $10,000 in new revenue sources, $9,792 in MTA bonds, $3,327 in MTA Bridges and Tunnels bonds, $10,680 in Federal funds, $3,000 in State of New York funding, and $3,000 in City of New York funding.

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 May 31, 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. On September 25, 2019, the MTA Board approved a full amendment to increase the 2015-2019 Capital Programs to $33,913 reflecting updated project timing and cost estimates, new needs, and changing priorities. On February 21, 2020, the CPRB deemed approved the revised 2015-2019 Capital Programs for the Transit and Commuter systems totaling $30,977, as submitted. The revised 2015-2019 MTA Bridges and Tunnels Capital Program totaling $2,936, as approved by the MTA Board in September 2019, was not subject to CPRB approval.

By June 30, 2020, the revised 2015-2019 Capital Programs provided $33,913 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; $6,096 relates to ongoing repairs of, and replacements to, the commuter system operated by MTA Long Island Rail Road and MTA Metro-North Railroad; $7,520 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 $8,474 in MTA bonds, $2,936 in MTA Bridges and Tunnels dedicated funds, $9,064 in State of New York funding, $7,445 in Federal funds, $2,667 in City of New York funding, $2,145 in pay-as-you-go ("PAYGO") capital, $959 from asset sale/leases, and $223 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. On September 25, 2019, the MTA Board approved an amendment to decrease the 2010-2014 Capital Programs to $31,704 reflecting administrative budget adjustments and updated project cost and timing assumptions. In February 21, 2020, the CPRB deemed approved the revised 2010-2014 Capital Programs for the Transit and Commuter systems totaling $28,917, as submitted. The revised 2010-2014 MTA Bridges and Tunnels Capital Program totaling $2,787, as approved by the MTA Board in September 2019, was not subject to CPRB approval.

By June 30, 2020, the 2010-2014 MTA Capital provided $31,704 in capital expenditures, of which $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; $3,925 relates to ongoing repairs of, and replacements to, the commuter system operated by MTA Long Island Rail Road and MTA Metro-North Railroad; $5,861 relates to the expansion of existing rail networks for both the transit and commuter systems to be managed by MTA Capital Construction; $254 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 $7,757 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 $11,635 in MTA Bonds, $2,022 in MTA Bridges and Tunnels dedicated funds, $7,377 in Federal Funds, $132 in MTA Bus Federal and City Match, $719 from City Capital Funds, and $1,293 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 $6,697 in insurance and federal reimbursement proceeds (including interim borrowing by MTA to cover delays in the receipt of such proceeds), $18 in pay-as-you-go capital, supplemented, to the extent necessary, by external borrowing of up to $1,042 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, 2020, the 2005-2009 MTA Capital Programs budget increased by $692 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 $24,409 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; $3,727 relates to ongoing repairs of, and replacements to, the commuter system operated by MTA Long Island Rail Road and MTA Metro-North Railroad; $166 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 $1,288 from other sources.

CURRENTLY KNOWN FACTS, DECISIONS, OR CONDITIONS

The 2019 MTA November Financial Plan

The November Plan, which was approved by the Board in December 2019, projected cash balances of $11 in 2020 and $33 in 2021, with deficits of $212 in 2022 and $426 in 2023.

The 2020 MTA February Financial Plan

The February Financial Plan incorporates several significant changes to the 2020 Adopted Budget and 2020-2023 Financial Plan which was approved in December. This Plan reflects the approved settlement with Local 100 of the Transport Workers Union, which represents approximately 37,000 employees at MTA New York City Transit and MTA Bus. The agreement provides for annual wage increases of 2 percent retroactive to May 2019, 2.25 percent in May 2020, 2.5 percent in May 2021 and 2.75 percent in May 2022. Several contractual provisions, including changes in co-payments for emergency room visits and varying tiers of prescription medications, along with improvements in employee availability, result in an average annual net increase of 2.3 percent over the 48-month term of the contract. The November Financial Plan assumed annual 2 percent increases, and the February Plan reflects the net additional expense greater than the 2 percent assumption in the MTA New York City Transit and MTA Bus financial plans, totaling $91 over the Plan period.

The plan proposes to invest: (1) $40.8 billion in MTA New York City Transit's subway and bus equipment and infrastructure, (2) $5.7 billion for MTA Long Island Rail Road track upgrades, station accessibility, rolling stock, and signals and switches, (3) $4.7 billion for MTA Metro-North Railroad station improvements, including accessibility, and rolling stock, and (4) $0.3 billion in other capital projects.

The Fiscal Year 2021 New York State Executive Budget, released by Governor Cuomo in mid- January, includes provisions for additional Metropolitan Mass Transportation Operating Assistance (MMTOA) for the MTA totaling $755 over the Plan period, along with an improvement of $11 in projected Petroleum Business Tax receipts in 2020.

The Plan reflects debt service savings of $145 through the Plan period based on revised cash flow funding assumptions for MTA Bridges and Tunnels' 2020-2024 Capital Program. The February Plan also reflects a significant increase in debt issuance and debt service, but will not impact the MTA operating budget. Financial support for the 2020-2024 Capital Program will include $7.3 billion of bonds supported by Central Business District Tolling lockbox revenues, including Internet Marketplace Sales Tax and Mansion Tax receipts. Debt service is $742 over the Plan period and will be paid directly from capital lockbox revenues. While this will result in increased debt service, MTA supported debt service will remain below 20 percent of operating revenue during the Plan period.

The 2020 February Plan includes important policy actions that were captured "below-the-line" in the November Plan. With Board approval secured, these items—which have no impact on the bottom line—are now included within the MTA baseline:

Fare Evasion Deterrence – a renewed emphasis to gain control of, and reduce, fare evasion and to address assaults on transit workers.

Improved Overtime Spending Controls – Constraints have been implemented to better utilize "controllable" overtime and ensure usage is fiscally responsible.

Additional Revenue Achieved from Fare Evasion Initiatives – Subway and bus fare evasion mitigation efforts to increase farebox revenue.

The 2020 February Plan also includes one November Plan "below-the-line" action that has been included within the MTA baseline, but reflects a re-estimate that has a fiscal impact on the bottom line:

Vacancy Savings – The MTA identified and eliminated non-represented Administrative positions that became vacant through the third quarter of 2019 and had not been filled due to MTA policy, which restricted new hiring. The November Plan estimated savings of $74 in 2020, $83 in 2021, $85 in 2022, and $87 in 2023.

Impacts from Global Coronavirus Pandemic

On March 12, 2020, the World Health Organization declared the current novel coronavirus ("COVID-19") outbreak to be a pandemic in the face of the global spread of the virus. By order of Governor Cuomo ("New York State on PAUSE"), effective March 2020, all non-essential businesses Statewide were required to be closed, among other restrictive social distancing and related measures. The impact of social distancing and subsequent State governmental orders limiting non-essential activities caused by the COVID-19 pandemic resulted in a severe decline in the utilization of MTA services, dramatic declines in MTA public transportation system ridership and fare revenues, and MTA Bridge and Tunnel crossing traffic and toll revenues. Although certain restrictions have been subsequently lifted, it is expected that limitations will remain in place for some time.

- ***Ridership and Traffic Update.*** As of June 22, 2020, ridership on MTA facilities continue to be dramatically below 2019 year-to-year levels. Compared to 2019 results, ridership is down 82 percent on the subways, 52 percent for combined MTA New York City Transit and MTA Bus ridership, 87 percent on MTA Metro-North Railroad, and 84 percent on MTA Long Island Rail Road. For the period from June 1, 2020 through June 24, 2020, crossings at MTA Bridges and Tunnels facilities are down by an estimated 32% compared to 2019. This data represents an improvement in preliminary results for the period from May 1, 2020 through May 31, 2020, which showed a decrease in traffic of approximately 49% compared to 2019.
- ***Federal Aid Status (CARES Act)***. On June 25, 2020, FTA approved an amendment to the initial CARES Act grant adding approximately $98 million in additional formula grant allocations to MTA for a CARES Act grant total of $4.009 billion. As of August 19, 2020, a total of $4.009 billion has been released to MTA for operating assistance that occurred from January 20, 2020 through July 31, 2020. The MTA has exhausted all CARES Act funding received in the first congressional relief package.
- ***Additional Federal Aid Status.*** The Health and Economic Recovery Omnibus Emergency Solutions Act ("HEROES" Act) passed the U.S. House of Representatives on May 25, 2020. Such aid would be supplemental to the $4.009 billion approved in the CARES Act. The HEROES Act would provide an additional $3.9 billion in federal funding requested by MTA to cover the remaining estimated operating losses in 2020 only as documented in the McKinsey Report. McKinsey & Company was contracted by MTA to analyze the potential impact of the COVID-19 pandemic on MTA's 2020 calendar year revenues. As of the date of this report, the U.S. Senate has not acted on the HEROES Act.
- ***MTA Liquidity Resources.*** As of August 28,2020, MTA currently has liquidity resources, consisting of a current running cash balance, internal available flexible funds, OPEB resources and commercial bank lines of credit plus interest earnings totaling $1.852 billion (total commercial bank lines of credit are $2.150 billion, of which $484 million have been drawn by MTA, with $186 of that remaining unspent, together with $1.666 billion undrawn). These funds provide a temporary funding "bridge" to a permanent solution to the lost revenue and higher expenses. They must be repaid or replaced. Use of these monies will leave MTA with a significant gap in funding for both the operating budget and capital plan over the longer term and will likely result in additional debt issuance and unfunded operating needs.

- ***Municipal Liquidity Facility***. On June 4, 2020, New York State designated the MTA as an eligible issuer under the Federal Reserve's Municipal Liquidity Facility $500 billion lending program. The Federal Reserve Board established the program facility in late April 2020, under the CARES Act, to enable states and municipalities to borrow from a $500 billion fund to help manage cash flow stresses caused by the coronavirus pandemic. The program allows states and smaller counties to receive three-year loans of up to 20% of their pre-COVID general revenue. In August 2020, the MTA was unable to borrow $451 million from the traditional bond markets due to higher interest rate demanded by lenders. The MTA went to the Federal Reserve to take advantage of the emergency program and sold $451 million directly to the Liquidity Facility.
- ***Subway System Closure.*** On May 6, 2020, effective in the early morning, the MTA began and is continuing its unprecedented closure of the subway system overnight from 1 – 5 a.m. for daily deep cleaning. The MTA expects to spend approximately $500 million on direct COVID-19 pandemic -related expenses in 2020, primarily for MTA's round-the-clock sanitizing of public and employee areas.
- ***Projected COVID-19 Pandemic Budgetary Impacts***. MTA's July Financial Plan ("July Plan") was presented to the MTA Board on July 22, 2020. The July Plan presented both known and forecasted impacts of COVID-19. MTA management projected a $6.6 billion budget gap for MTA's 2021 fiscal year (based upon the midpoint scenario of the McKinsey report). However, there are no provisions in the HEROES Act, or any other currently approved federal assistance, to assist with such projected losses anticipated in 2021. Absent the billions in federal funding necessary for ensuring that the MTA system can function at pre-COVID-19 pandemic levels, management is considering any and all options to address such shortfall.
- ***Emergency MTA Board Meeting.*** On August 26, 2020, MTA management presented a financial update to the MTA Board. MTA projects total deficits attributable to COVID-19 pandemic impacts in the July Plan (calendar years 2020 through 2024) of approximately $16.2 billion. Actions identified to date will not be sufficient to fully address these forecasted deficits and MTA management has provided to the Board additional extraordinary actions that can be taken to partially address the projected budget gaps. Due to the shutdown of the regional economy and its impact on the use of MTA's services, as well as the impact on economically sensitive subsidy revenues, MTA is in historically unprecedented fiscal distress and has requested $12 billion in additional federal aid just to get through 2021. This request accounts for the estimated fare, toll and dedicated tax revenue loss as described in the July Financial Plan, and the delay of the Central Business District Tolling Program.

  Deficit Reduction Options to be Implemented Immediately - The initial deficit reduction options, consisting of additional spending reductions (overtime spending reduction, consulting contracts reductions, and other non-personnel expense reductions), reduction or delay of the Capital Program, and the use of OPEB Trust Proceeds, total approximately $1.2 billion a year for the next two years. These reduction options will not close MTA's projected budget gap for the remainder of 2020, nor will these actions address the even larger deficit projected for 2021. Expenses cannot be reduced quickly and significantly enough to offset the 40% reduction in revenue MTA has experienced and which MTA management is projecting.

  Additional Options for Deficit Reduction – Without the $12 billion in federal aid, MTA management is considering the following options to address the deficit shortfall:

  - *Potential Fare and Toll Increases* – An additional 1% fare increase and an additional $1 (dollar) toll increase in both 2021 and 2023 above the 4% biennial, subject to MTA Board approval and to a public hearing process.
  - *Reductions in Force* – $125 million per thousand positions eliminated, subject to MTA Board approval.
  - *Potential Service Reductions* – MTA New York City Transit could be forced to reduce service by up to 40% on subways, buses and MTA Staten Island Railway. MTA Long Island Rail Road and MTA Metro-North Railroad could be forced to reduce service by up to 50%. MTA Bridges and Tunnels could be forced to change its toll structure and reduce staff, impacting regional mobility. Certain potential service reductions are also subject to a public hearing process.
  - *Potential Capital Projects Impacts* – MTA Construction and Development could be forced to continue to keep the 2020-2024 capital projects on "pause".
  - *Potential Expense Deferrals and Wage Freeze Options* – Additional MTA management options to manage cash flow would be expenses deferrals (payroll tax deferral, NYCERS and NYSLRS pension plan payment deferral, and MTA-Sponsored Pension Plan Deferrals) and wage freeze (either permanent or postponement).

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. A total of $5.659 billion in FTA Emergency Relief Funding has been executed: seven repair/local priority resiliency grants totaling $4.552 billion and seventeen competitive resiliency grants totaling $1.107 billion. As of June 30, 2020, MTA has drawn down a total of $2.816 billion in grant reimbursement for eligible operating and capital expenses. The balance of funds to be drawn down from all twenty-four 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.

In addition, MTA has submitted pending grant requests for the remaining FTA emergency relief allocation in Federal Fiscal Year 2020.

Labor Update

In January 2020 the MTA Board approved a labor agreement in which the New York City Transit Authority/Manhattan and Bronx Surface Transit Operating Authority, together with the MTA Bus Company, settled new terms with the Transport Workers Union, Local 100 ("TWU Local 100"). As a pattern-setting agreement covering the period May 16, 2019 to May 15, 2023, it establishes parameters for future agreements with almost all other MTA unions. With this development, the MTA was poised to begin a new round of collective bargaining with nearly all of its represented employees. However, the havoc caused by the emergence in the second quarter of the COVID-19 virus in and around New York City has posed numerous challenges, financially and logistically, to the normal functions of the MTA, and collective bargaining efforts have been delayed. As a consequence, no new labor agreements were reached during the second quarter.

The following describes in greater detail the status of MTA's labor relations bargaining activity through June 30, 2020.

MTA Long Island Rail Road – As of June 30, 2020, MTA Long Island Rail Road has approximately 7,533 employees. Approximately 6,547 of the railroad's employees are represented by 12 different unions in 19 bargaining units. MTA Long Island Rail Road, having reached agreement with all its unions for the period from December 16, 2016 through April 16, 2019, is in position to begin a new round of collective bargaining, as all of its represented population is covered by agreements now considered amendable under the Railway Labor Act.

MTA Metro-North Railroad – After the passage in January of two new labor agreements - both with divisions of the Association of Commuter Rail Employees ("ACRE"), as described in the first quarter labor narrative - only one other bargaining unit remained without new settlement terms for the 2017-2019 round of bargaining: MTA Metro-North Railroad-ACRE Division 166, representing around 284 Signalmen. Including this group, at the end of the second quarter, the railroad's entire represented population of around 5,536 union members is covered by agreements considered amendable under the Railway Labor Act.

MTA Headquarters – As of June 30, 2020, nearly all of MTA Headquarters' represented employees are under expired labor agreements. Labor agreements with MTA Police members of the Police Benevolent Association ("PBA") and of the Commanding Officers Association ("COA") expired in October 2018, and negotiations to establish new terms with these MTA Police unions, currently covering approximately 868 and 24 represented employees, respectively, or nearly half of MTA Headquarters' represented population, were delayed during the second quarter by the circumstances surrounding the COVID-19 pandemic. Also, at the start of the second quarter, MTA Headquarters' agreements with the Transportation Communications unions ("TCU"), currently representing approximately 841 employees who work at MTA Headquarters, had all expired. These include around 365 IT employees of TCU Local 982, whose agreement expired on December 31, 2019; and 258 Business Service Center, Pensions and Procurement employees, represented by TCU Local 643, whose agreement expired March 31, 2020.

MTA New York City Transit Authority/Manhattan and Bronx Surface Transit Operating Authority – In January 2020, the MTA Board approved a new labor agreement between MTA New York City Transit and its largest union, the Transport Workers Union Local 100 ("TWU Local 100"); the TWU Local 100 employees at MTA Bus Company were also collectively a party to this agreement, which covered approximately 38,000 members in total. The new TWU Local 100 agreement establishes a collective bargaining pattern for most of the remaining represented population at MTA New York City Transit. MTA New York City Transit employs approximately 41,375 people, 39,837 of whom are represented by 12 unions with 19 bargaining units.

MTA Bus Company – MTA Bus Company has 4,067 employees (full and part time), approximately 3,856 of whom are represented by two different unions (four bargaining units). The largest of these is TWU Local 100, whose members were co-parties to the agreement approved by the MTA Board in January 2020.

By the end of the first quarter, MTA Bus Company's other collective bargaining units—ATU Local 1179, ATU Local 1181 and TWU Local 106—all had expired labor agreements.

MTA Bridges and Tunnels – MTA Bridges and Tunnels has 1,256 employees, approximately 858 of whom were represented by three different labor unions (four bargaining units). As of June 30, 2020, approximately 56% of MTA Bridges and Tunnels' represented employees have expired labor agreements, and that number is expected to increase above 95% in the next quarter. Throughout the second quarter, approximately 339 Maintainers, members of DC 37 Local 1931, remained under an effective labor agreement; however, this is set to expire in July 2020. The most recent Memorandum of Understanding between the agency and the MTA Bridges and Tunnels Officers Benevolent Association ("BTOBA"), having been passed by the MTA Board in June 2019, expired in September of the same year, and its members remained without a successor agreement in the second quarter of 2020. Negotiations with the Superior Officers Benevolent Association ("SOBA") representing 149 supervisory officers, which expired March 14, 2012, have advanced to mediation. SOBA is ineligible to seek binding interest arbitration. Finally, the first quarter's Board-approved labor agreement with approximately 34 administrative and clerical employees represented by the American Federation of State, County and Municipal Employees, District Council 37, Local 1655 ("DC37 Local 1655") remains in effect until May 25, 2021.

MTA Staten Island Railway – During the second quarter of 2020, MTA Staten Island Railway had 347 employees, approximately 321 of whom were represented by four different unions. In the second quarter, labor agreements with all the railway's unions had already expired, and new terms have not yet been reached with any of these groups.

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(A Component Unit of the State of New York)

CONSOLIDATED INTERIM STATEMENT OF NET POSITION AS OF JUNE 30, 2020 AND CONSOLIDATED STATEMENT OF NET POSITION AS OF DECEMBER 31, 2019

($ In millions)

	Business-Type Activities	
	June 30, 2020 (Unaudited)	December 31, 2019
ASSETS AND DEFERRED OUTFLOWS OF RESOURCES		
CURRENT ASSETS:		
Cash unrestricted (Note 3)	$ 520	$ 305
Cash restricted (Note 3)	83	249
Unrestricted investments (Note 3)	3,727	3,304
Restricted investments (Note 3)	4,477	2,167
Restricted investments held under capital lease obligations (Notes 3 and 8)	99	107
Receivables:		
Station maintenance, operation, and use assessments	205	118
State and regional mass transit taxes	2,482	142
Mortgage Recording Tax receivable	37	49
State and local operating assistance	220	46
Other receivable from New York City and New York State	134	228
Connecticut Department of Transportation	22	-
Due from Build America Bonds	1	1
Capital project receivable from federal and state government	22	25
Other	473	449
Less allowance for doubtful accounts	(241)	(200)
Total receivables — net	3,355	858
Materials and supplies	733	659
Prepaid expenses and other current assets (Note 2)	100	155
Total current assets	13,094	7,804
NON-CURRENT ASSETS:		
Capital assets (Note 6):		
Land and construction work-in-progress	21,988	20,381
Other capital assets (net of accumulated depreciation)	56,411	57,121
Unrestricted investments (Note 3)	92	66
Restricted investments (Note 3)	685	641
Restricted investments held under capital lease obligations (Notes 3 and 8)	294	289
Other non-current receivables	30	31
Receivable from New York State	10	10
Other non-current assets	8	16
Total non-current assets	79,518	78,555
TOTAL ASSETS	92,612	86,359
DEFERRED OUTFLOWS OF RESOURCES:		
Accumulated decreases in fair value of derivative instruments (Note 7)	531	419
Loss on debt refunding (Note 7)	906	1,001
Deferred outflows related to pensions (Note 4)	2,327	2,343
Deferred outflows related to OPEB (Note 5)	1,461	1,537
TOTAL DEFERRED OUTFLOWS OF RESOURCES	5,225	5,300
TOTAL ASSETS AND DEFERRED OUTFLOWS OF RESOURCES	$ 97,837	$ 91,659

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

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(A Component Unit of the State of New York)

CONSOLIDATED INTERIM STATEMENT OF NET POSITION AS OF JUNE 30, 2020 AND CONSOLIDATED STATEMENT OF NET POSITION AS OF DECEMBER 31, 2019
($ In millions)

	Business-Type Activities	
	June 30, 2020 (Unaudited)	December 31, 2019
LIABILITIES, DEFERRED INFLOWS OF RESOURCES AND NET POSITION		
CURRENT LIABILITIES:		
Accounts payable	$ 569	$ 443
Accrued expenses:		
Interest	333	287
Salaries, wages and payroll taxes	426	350
Vacation and sick pay benefits	1,061	1,040
Current portion — retirement and death benefits	90	15
Current portion — estimated liability from injuries to persons (Note 10)	501	501
Capital accruals	267	884
Accrued expenses	454	491
Other	466	488
Total accrued expenses	3,598	4,056
Current portion — loan payable (Note 7)	14	16
Current portion — long-term debt (Note 7)	2,987	2,210
Current portion — obligations under capital lease (Note 8)	4	14
Current portion — pollution remediation projects (Note 12)	30	31
Derivative fuel hedge liability (Note 14)	26	1
Unearned revenues	722	723
Total current liabilities	7,950	7,494
NON-CURRENT LIABILITIES:		
Net pension liability (Note 4)	7,584	7,584
Estimated liability arising from injuries to persons (Note 10)	4,280	4,086
Post-employment benefits other than pensions (Note 5)	19,582	19,582
Loan payable (Note 7)	100	108
Long-term debt (Note 7)	47,007	43,935
Obligations under capital leases (Note 8)	425	438
Pollution remediation projects (Note 12)	113	120
Contract retainage payable	436	430
Derivative liabilities (Note 7)	539	430
Other long-term liabilities	344	372
Total non-current liabilities	80,410	77,085
TOTAL LIABILITIES	88,360	84,579
DEFERRED INFLOWS OF RESOURCES:		
Gain on debt refunding	18	20
Deferred Inflows related to pensions (Note 4)	934	934
Deferred inflows related to OPEB (Note 5)	1,675	1,675
TOTAL DEFERRED INFLOWS OF RESOURCES	2,627	2,629
NET POSITION:		
Net investment in capital assets	30,301	31,147
Restricted for debt service	1,062	554
Restricted for claims	256	219
Restricted for other purposes (Note 2)	1,052	1,207
Unrestricted	(25,821)	(28,676)
TOTAL NET POSITION	6,850	4,451
TOTAL LIABILITIES, DEFERRED INFLOWS OF RESOURCES AND NET POSITION	$ 97,837	$ 91,659

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, 2020 AND 2019

($ In millions)

	Business-Type Activities	
	June 30, 2020 (Unaudited)	June 30, 2019 (Unaudited)
OPERATING REVENUES:		
Fare revenue	$ 1,575	$ 3,091
Vehicle toll revenue	734	996
Rents, freight, and other revenue	249	323
Total operating revenues	2,558	4,410
OPERATING EXPENSES:		
Salaries and wages	3,073	3,138
Retirement and other employee benefits	1,746	1,534
Postemployment benefits other than pensions (Note 5)	330	325
Electric power	180	223
Fuel	60	93
Insurance	3	3
Claims	219	215
Paratransit service contracts	161	246
Maintenance and other operating contracts	321	330
Professional service contracts	200	218
Pollution remediation projects (Note 12)	3	5
Materials and supplies	260	322
Depreciation (Note 2)	1,480	1,420
Other	79	106
Total operating expenses	8,115	8,178
OPERATING LOSS	(5,557)	(3,768)
NON-OPERATING REVENUES (EXPENSES):		
Grants, appropriations and taxes:		
Tax-supported subsidies — NYS:		
Mass Transportation Trust Fund subsidies	258	315
Metropolitan Mass Transportation Operating Assistance subsidies	2,143	1,824
Payroll Mobility Tax subsidies	990	1,011
MTA Aid Trust Account subsidies	120	143
Internet sales tax subsidies	85	-
Tax-supported subsidies — NYC and Local:		
Mortgage Recording Tax subsidies	214	215
Urban Tax subsidies	198	347
Mansion Tax	104	-
Other subsidies:		
Operating Assistance - 18-B program	217	217
Build America Bond subsidy	45	44
NYC Assistance Fund	128	76
Subtotal grants, appropriations and taxes	$ 4,502	$ 4,192

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

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(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, 2020 AND 2019

($ In millions)

	Business-Type Activities	
	June 30, 2020 (Unaudited)	**June 30, 2019 (Unaudited)**
NON-OPERATING REVENUES (EXPENSES):		
Connecticut Department of Transportation	$ 94	$ 58
Subsidies paid to Dutchess, Orange, and Rockland Counties	(2)	(2)
Interest on long-term debt (Note 2)	(874)	(894)
Station maintenance, operation and use assessments	87	85
Operating subsidies recoverable from NYC	258	252
Federal Transit Administration reimbursement related to CARES Act COVID-19	2,916	-
Other net non-operating expenses	64	80
Net non-operating revenues	7,045	3,771
GAIN BEFORE APPROPRIATIONS, GRANTS AND OTHER RECEIPTS EXTERNALLY RESTRICTED FOR CAPITAL PROJECTS	1,488	3
APPROPRIATIONS, GRANTS AND OTHER RECEIPTS EXTERNALLY RESTRICTED FOR CAPITAL PROJECTS	911	1,079
CHANGE IN NET POSITION	2,399	1,082
NET POSITION— Beginning of period	4,451	3,953
NET POSITION — End of period	$ 6,850	$ 5,035

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, 2020 AND 2019

($ In millions)

	Business-Type Activities	
	June 30, 2020 (Unaudited)	**June 30, 2019 (Unaudited)**
CASH FLOWS FROM OPERATING ACTIVITIES:		
Passenger receipts/tolls	$ 2,312	$ 4,083
Rents and other receipts	267	394
Payroll and related fringe benefits	(4,824)	(5,053)
Other operating expenses	(1,166)	(1,572)
Net cash used by operating activities	(3,411)	(2,148)
CASH FLOWS FROM NONCAPITAL FINANCING ACTIVITIES:		
Grants, appropriations, and taxes	2,043	2,749
Operating subsidies from CDOT	62	43
Subsidies paid to Dutchess, Orange, and Rockland Counties	(8)	(7)
Federal Transit Administration reimbursement related to CARES Act COVID-19	2,916	-
Net cash provided by noncapital financing activities	5,013	2,785
CASH FLOWS FROM CAPITAL AND RELATED FINANCING ACTIVITIES:		
MTA bond proceeds	3,554	1,103
MTA Bridges and Tunnels bond proceeds	631	182
MTA bonds refunded/reissued	(886)	(100)
MTA anticipation notes proceeds	1,627	2,885
MTA anticipation notes redeemed	(1,750)	(1,000)
MTA credit facility proceeds	995	365
MTA credit facility refunded	-	(365)
Capital lease payments and terminations	(14)	(1)
Federal and local grants	751	717
Other capital financing activities	(248)	256
Payment for capital assets	(2,742)	(3,150)
Debt service payments	(1,086)	(1,096)
Internet and Mansion Tax	189	-
Net cash provided by / (used by) capital and related financing activities	1,021	(204)
CASH FLOWS FROM INVESTING ACTIVITIES:		
Purchase of long-term securities	(4,404)	(2,109)
Sales or maturities of long-term securities	2,251	1,478
Net (purchases) sales or maturities of short-term securities	(471)	168
Earnings on investments	50	60
Net cash used by investing activities	(2,574)	(403)
NET INCREASE IN CASH	49	30
CASH — Beginning of period	554	541
CASH — End of period	$ 603	$ 571

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, 2020 AND 2019

($ In millions)

	Business-Type Activities	
	June 30, 2020 (Unaudited)	**June 30, 2019 (Unaudited)**
RECONCILIATION OF OPERATING LOSS TO NET CASH USED BY OPERATING ACTIVITIES:		
Operating loss (Note 2)	$ (5,557)	$ (3,768)
Adjustments to reconcile to net cash used in operating activities:		
Depreciation and amortization	1,481	1,418
Net increase in payables, accrued expenses, and other liabilities	580	169
Net decrease in receivables	82	5
Net decrease in materials and supplies and prepaid expenses	3	28
NET CASH USED BY OPERATING ACTIVITIES	$ (3,411)	$ (2,148)
NONCASH INVESTING, CAPITAL AND RELATED FINANCING ACTIVITIES:		
Noncash investing activities:		
Interest expense includes amortization of net (premium) / discount (Note 2)	$ 36	$ 63
Interest expense which was capitalized	-	19
Total Noncash investing activities	36	82
Noncash capital and related financing activities:		
Capital assets related liabilities	267	403
Capital leases related liabilities	429	447
Total Noncash capital and related financing activities	696	850
TOTAL NONCASH INVESTING, CAPITAL AND RELATED FINANCING ACTIVITIES	$ 732	$ 932

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, 2019 AND 2018

($ In thousands)

	Fiduciary Activities	
	December 31, 2019	**December 31, 2018**
ASSETS:		
Cash	$ 14,500	$ 21,685
Receivables:		
Employee loans	208,405	196,266
Participant and union contributions	20	-
Investment securities sold	1,140	730
Accrued interest and dividends	4,865	4,606
Other receivables	2,182	1,937
Total receivables	216,612	203,539
Investments at fair value:		
Investments measured at readily determined fair value	1,692,908	1,368,589
Investments measured at net asset value	10,485,234	8,915,496
Investments at contract value	1,435,218	1,313,496
Total investments	13,613,360	11,597,581
Total assets	$ 13,844,472	$ 11,822,805
LIABILITIES:		
Accounts payable and accrued liabilities	$ 6,191	$ 8,888
Payable for investment securities purchased	7,600	5,354
Accrued benefits payable	141	1,109
Accrued postretirement death benefits (PRDB) payable	3,360	2,921
Accrued 55/25 Additional Members Contribution (AMC) payable	5,787	5,982
Other liabilities	585	341
Total liabilities	23,664	24,595
NET POSITION:		
Restricted for pensions	8,916,007	7,688,199
Restricted for postemployment benefits other than pensions	414,827	351,380
Restricted for other employee benefits	4,489,974	3,758,631
Total net position	13,820,808	11,798,210
Total liabilities and net position	$ 13,844,472	$ 11,822,805

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, 2019 AND 2018

($ In thousands)

	Fiduciary Activities	
	December 31, 2019	**December 31, 2018**
ADDITIONS:		
Contributions:		
Employer contributions	$ 1,278,819	$ 1,224,930
Non-Employer contributions	-	-
Implicit rate subsidy contribution	70,138	74,484
Participant rollovers	23,941	21,673
Member contributions	353,488	336,008
Total contributions	1,726,386	1,657,095
Investment income:		
Net (depreciation) / appreciation in fair value of investments	1,816,319	(464,140)
Dividend income	93,262	110,573
Interest income	25,627	19,021
Less:		
Investment expenses	55,822	92,896
Investment income, net	1,879,386	(427,442)
Other additions:		
Loan repayments - interest	8,979	7,529
Total additions	3,614,751	1,237,182
DEDUCTIONS:		
Benefit payments and withdrawals	1,303,892	1,232,179
Implicit rate subsidy payments	70,138	74,484
Transfer to other plans	98,556	93,387
Distribution to participants	107,396	87,379
Administrative expenses	5,382	5,305
Other deductions	6,789	5,410
Total deductions	1,592,153	1,498,144
Net (decrease) / increase in fiduciary net position	2,022,598	(260,962)
NET POSITION:		
Restricted for Benefits:		
Beginning of year	11,798,210	12,059,172
End of year	$ 13,820,808	$ 11,798,210

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, 2020 AND DECEMBER 31, 2019 AND FOR THE SIX-MONTH PERIODS ENDED JUNE 30, 2020 AND 2019

($ 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"), which are listed below. The Business-Type activities in these consolidated financial statements purport the operations of the MTA Group.

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 Construction and Development ("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 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, 2020 and 2019 totaled $4.5 billion and $4.2 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 fiduciary component units comprise the fiduciary activities of the MTA and are categorized within Pension and Other Employee Benefit Trust Funds.

- <u>Pension Trust Funds</u>
  - 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”)
- <u>Other Employee Benefit Trust Funds</u>
  - 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. For reporting purposes, the financial results of the MNR Cash Balance Plan are not material and therefore not included in the fiduciary statements.

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, 2020.

GASB Statement No. 89, *Accounting for Interest Cost Incurred Before the End of a Construction Period*, establishes accounting requirements for interest cost incurred before the end of a construction period. Such interest cost includes all interest that previously was accounted for in accordance with the requirements of paragraphs 5–22 of Statement No. 62, *Codification of Accounting and Financial Reporting Guidance Contained in Pre-November 30, 1989 FASB and AICPA Pronouncements*, which are superseded by this Statement. This Statement requires that interest cost incurred before the end of a construction period be recognized as an expense in the period in which the cost is incurred for financial statements prepared using the economic resources measurement focus. As a result, interest cost incurred before the end of a construction period will not be included in the historical cost of a capital asset reported in a business-type activity or enterprise fund. The requirements of GASB Statement No. 89 are effective for reporting periods beginning after December 31, 2021. Earlier application is encouraged. Effective January 1, 2020, the MTA early implemented the provisions of GASB Statement No. 89. As a result of the implementation of this Statement, all interest incurred during the period ended June 30, 2020 is reported as an expense in the Statement of Revenues, Expenses and Changes in Net Position.

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	*Leases*	2022
91	*Conduit Debt Obligations 2021*	2022
92	*Omnibus 2020*	2022
93	*Replacement of Interbank Offered Rates*	2022
94	*Public-Private and Public-Public Partnerships and Availability Payment Arrangements*	2023
96	*Subscription-based Information Technology Arrangements*	2023
97	*Certain Component Unit Criteria, and Accounting and Financial Reporting for Internal Revenue Code Section 457 Deferred Compensation Plans- an amendment of GASB Statememts No. 14 and No. 84, and a supersession of GASB Statement No. 32*	2022

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 Construction and Development, 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, 2020 and December 31, 2019.

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

Materials and Supplies — Materials and supplies are valued at average cost, net of obsolescence reserve at June 30, 2020 and December 31, 2019 of $197 and $184, 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, 2020, the MTA paid to Dutchess, Orange and Rockland Counties the 2019 excess amounts of MRT-1 and MRT-2 totaling $5.3.
- 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.

Dedicated Revenues - In April 2019, the approved 2019-2020 New York State Budget enacted legislation that included new, dedicated revenue streams for the MTA. The additional sources of revenue include a Central Business District Tolling Program, which has an implementation date of December 31, 2020. The Central Business District Tolling Program will assess a toll for vehicles entering the Central Business District, defined as south of 60th Street in Manhattan, but will exclude vehicles traveling on the FDR Drive or the West Side Highway, which includes the Battery Park underpass and or any surface roadway portion of the Hugh L. Carey Tunnel that connects to West Street.

The enacted State Budget also included provisions for a new Real Property Transfer Tax Surcharge (referred to as the "Mansion Tax") on high-priced residential property sales in New York City and an Internet Marketplace Sales Tax. The Mansion Tax went into effect on July 1, 2019 and increases the transfer tax on a sliding scale by a quarter percent starting at $2, with a combined top rate of 4.15%, on the sale of New York City residential properties valued at $25 or above. The Internet Marketplace Sales Tax went into effect on June 1, 2019 and requires internet marketplace providers to collect and remit sales tax from out of state retailers on their sites that have gross receipts exceeding $300,000 (dollars) and delivering more than one hundred sales into New York State in the previous four quarters. The sales tax will be collected at the normal rate of 4% plus local sales tax.

The proceeds from the Central Business District Tolling Program, the Internet Marketplace Sales Tax and the Real Property Transfer Tax Surcharge will be deposited into the MTA's Central Business District Tolling Program capital lock box and may only be used to support financing of the 2020-2024 Capital Program.

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 2018 and 2019.

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 $1.8 in the six months ended June 30, 2020 and $1.9 in the six months ended June 30, 2019 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, 2020 and 2019 were $12.1 and $11.3, respectively. The amounts recovered for the periods ended June 30, 2020 and 2019 were approximately $7.9 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 $77.7 for the six months ended June 30, 2020 and $121.3 for the six months ended June 30, 2019.

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, 2020, the balance of the assets in this program was $179.6.

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, 2020, 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 $1 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, 2020, 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 $1 per occurrence limit excess of a $2 self-insured retention.

On December 15, 2019, 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, 2020, FMTAC renewed the all-agency property insurance program. For the annual period commencing May 1, 2020, 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 $500 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. In addition to the noted $25 per occurrence deductible, MTA is self-insured above the deductible for $44.464 within the overall $500 per occurrence property program, as follows: $0.685 (or 1.37%) of the $50 excess $50 layer, plus $13.4 (or 26.8%) of $50 excess $150 layer, plus $6.85 (or 13.7%) of the $50 excess $200 layer, plus $17.35 (or 34.71%) of the $50 excess $250 layer and $6.18 (or 12.36%) of the $50 excess $300 layer.

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 $500 per occurrence noted above, FMTAC's property insurance program has been expanded to include a further layer of $100 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 12, 2020 to April 30, 2023. The expanded protection is reinsured by MetroCat Re Ltd. 2020-1, a Bermuda special purpose insurer independent from the MTA and formed to provide FMTAC with capital markets based property reinsurance. The MetroCat Re Ltd. 2020-1 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 80% of "certified" losses, as covered by the Terrorism Risk Insurance Program Reauthorization Act ("TRIPRA") of 2019. The remaining 20% 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 $200. The United States government's reinsurance is in place through December 31, 2027.

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) 20% of any "certified" act of terrorism up to a maximum recovery of $215 for any one occurrence and in the annual aggregate (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 $200 TRIPRA trigger up to a maximum recovery of $200 for any occurrence and in the annual aggregate.

Additionally, MTA purchases coverage for acts of terrorism which are not certified under TRIPRA to a maximum of $215. 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, 2021.

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 accordance with the provisions 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, 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. As of June 30, 2020, restricted cash represents $83 received by the MTA from the State of New York and New York City for the Subway Action Plan.

Cash, including deposits in transit, consists of the following at June 30, 2020 and December 31, 2019 (in millions):

	June 30, 2020		December 31, 2019	
	Carrying Amount	Bank Balance	Carrying Amount	Bank Balance
	(Unaudited)			
FDIC insured or collateralized deposits	$ 368	$ 376	$ 105	$ 104
Uninsured and not collateralized	235	200	449	405
Total Balance	$ 603	$ 576	$ 554	$ 509

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 statues 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, 2020 and December 31, 2019 (in millions):

Investments by fair value level	June 30, 2020	Fair Value Measurements Level 1	Fair Value Measurements Level 2	December 31, 2019	Fair Value Measurements Level 1	Fair Value Measurements Level 2
	(Unaudited)	(Unaudited)				
Debt Securities:						
U.S. treasury securities	$ 7,359	$ 7,080	$ 279	$ 5,105	$ 4,753	$ 352
U.S. government agency	400	-	400	359	-	359
Commercial paper	680	-	680	175	-	175
Asset-backed securities	47	-	47	46	-	46
Commercial mortgage-backed securities	146	-	146	110	-	110
Foreign bonds	30	30	-	19	19	-
Corporate bonds	200	200	-	138	138	-
Tax Benefit Lease Investments:						
U.S. treasury securities	202	202	-	189	189	-
U.S. government agency	146	77	69	128	69	59
Repurchase agreements	50	50	-	182	182	-
Total investments by fair value level	9,260	$ 7,639	$ 1,621	6,451	$ 5,350	$ 1,101
Other	114			123		
Total Investments	$ 9,374			$ 6,574		

Investments classified as Level 1 of the fair value hierarchy, totaling $7,639 and $5,350 as of June 30, 2020 and December 31, 2019, 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 $469 and $418, U.S, treasury securities totaling $279 and $352, commercial paper totaling $680 and $175, asset-backed securities totaling $47 and $46, and commercial mortgage-backed securities totaling $146 and $110 as of June 30, 2020 and December 31, 2019, 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 0.27% and 1.62% for the six months ended June 30, 2020 and year ended December 31, 2019, respectively.

Credit Risk — At June 30, 2020 and December 31, 2019, 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, 2020 (Unaudited)	Percent of Portfolio	December 31, 2019	Percent of Portfolio
A-1+	$ 273	3%	$ 235	4%
A-1	679	7%	175	3%
AAA	301	3%	256	4%
AA+	69	1%	59	1%
AA	47	1%	33	1%
A	122	1%	88	1%
B	1	0%	-	0%
BBB	68	1%	41	1%
Not rated	62	1%	202	3%
U.S. Government	7,638	82%	5,362	82%
Total	9,260	100%	6,451	100%
Equities and capital leases	114		123	
Total investment	$ 9,374		$ 6,574	

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, 2020 (Unaudited)		December 31, 2019	
	Fair Value	Duration	Fair Value	Duration
(In millions)		(in years)		(in years)
U.S. Treasuries	$ 7,359	3.69	$ 5,105	4.36
Federal Agencies	400	6.56	359	5.98
Tax benefits lease investments	348	7.54	317	7.37
Repurchase agreements	50	-	182	-
Commercial paper	680	-	175	-
Asset-backed securities (1)	47	1.95	46	1.95
Commercial mortgage-backed securities (1)	146	4.51	110	3.85
Foreign bonds (1)	30	6.51	19	6.25
Corporates (1)	200	5.22	138	4.56
Total fair value	9,260		6,451	
Modified duration		3.72		4.34
Investments with no duration reported	114		123	
Total investments	$ 9,374		$ 6,574	

(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 Pension 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 composed 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 Additional Plan is a fiduciary component unit of the MTA and is reflected in the Pension and Other Employee Benefit Trust Funds section of the MTA's basic financial statements.

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, MTA 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 MaBSTOA Plan is a fiduciary component unit of the MTA and is reflected in the Pension and Other Employee Benefit Trust Funds section of the MTA's basic financial statements.

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 Railroad 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 Railroad 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 Railroad, 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 MTA Defined Benefit Plan is a fiduciary component unit of the MTA and is reflected in the Pension and Other Employee Benefit Trust Funds section of the MTA's basic financial statements.

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 is a fiduciary component unit of The City and is in the Pension and Other Employee Benefit Trust Funds section of New York City's Comprehensive Annual Financial Report ("CAFR").

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' plan. 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 Railroad 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 nonrepresented 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 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 55/25Plan 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, 57/25Plan 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, La Guardia, 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, La Guardia 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, La Guardia 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, La Guardia 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 ⅓ 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 ⅓ of FAS; (b) performance of duty, which is payable if a participant is disabled in the performance of duty and is ½ 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 ¾ 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, La Guardia 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, La Guardia, 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 nonrepresented 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, 2019, January 1, 2018 and January 1, 2017, the dates of the most recent actuarial valuations, membership data for the following pension plans are as follows:

Membership at:	January 1, 2019	January 1, 2018			
	MNR Cash Balance Plan	Additional Plan	MaBSTOA Plan	MTA Defined Benefit Plan	TOTAL
Active Plan Members	2	84	8,918	18,631	27,635
Retirees and beneficiaries receiving benefits	25	5,755	5,661	11,132	22,573
Vested formerly active members not yet receiving benefits	15	24	1,000	1,472	2,511
Total	42	5,863	15,579	31,235	52,719

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

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 Railroad's Board of Managers of Pensions (1.5% in 2018 and 2017), 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 Railroad's Board of Managers of Pensions (1.5% in 2018 and 2017).

Funding for the Additional Plan by the MTA Long Island Railroad is provided by MTA. Certain funding by MTA is made to the MTA Long Island Railroad on a discretionary basis. The continuance of the MTA Long Island Railroad'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 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 Railroad 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 Railroad 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 Railroad 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 Railroad 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 Railroad 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 Construction and Development, 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, 2019 and 2018 are as follows:

Year-ended December 31,	**2019**	**2018**
($ in millions)	Actual Employer Contributions	Actual Employer Contributions
Additional Plan	$ 62.8	$ 59.5
MaBSTOA Plan	206.4	205.4
MNR Cash Balance Plan	- *	- *
MTA Defined Benefit Plan	343.9	339.8
NYCERS	952.6	807.1
NYSLERS	14.9	14.5
Total	$ 1,580.6	$ 1,426.3

*MNR Cash Balance Plan's actual employer contribution for the years ended December 31, 2019 and 2018 was $0 thousand and $5 thousand, respectively.

Net Pension Liability

The MTA's net pension liabilities for each of the pension plans reported at December 31, 2019 and 2018 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, 2018	January 1, 2018	December 31, 2017	January 1, 2017
MaBSTOA Plan	December 31, 2018	January 1, 2018	December 31, 2017	January 1, 2017
MNR Cash Balance Plan	December 31, 2018	January 1, 2019	December 31, 2017	January 1, 2018
MTA Defined Benefit Plan	December 31, 2018	January 1, 2018	December 31, 2017	January 1, 2017
NYCERS	June 30, 2019	June 30, 2018	June 30, 2018	June 30, 2016
NYSLERS	March 31, 2019	April 1, 2018	March 31, 2018	April 1, 2017

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:

	Additional Plan		MaBSTOA Plan		MNR Cash Balance Plan	
Valuation Date:	**January 1, 2018**	**January 1, 2017**	**January 1, 2018**	**January 1, 2017**	**January 1, 2019**	**January 1, 2018**
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

	MTA Defined Benefit Plan		NYCERS		NYSLERS	
Valuation Date:	**January 1, 2018**	**January 1, 2017**	**June 30, 2018**	**June 30, 2016**	**April 1, 2018**	**April 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 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, 2019, 2018, and 2017 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, 2019, 2018, and 2017 valuations are based on an experience study for all MTA plans covering the period from January 1, 2011 to December 31, 2015. 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, 2018 and 2017 valuation was the RP-2014 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, 2018 and June 30, 2016 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, 2018 and April 1, 2017 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 improvements 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, 2018	7.00%
MaBSTOA Plan	December 31, 2018	7.00%
MNR Cash Balance Plan	December 31, 2018	4.00%
MTA Defined Benefit Plan	December 31, 2018	7.00%
NYCERS	June 30, 2019	7.00%
NYSLERS	March 31, 2019	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:

	Additional Plan		MaBSTOA Plan	
Asset Class	Target Asset Allocation	Long - Term Expected Real Rate of Return	Target Asset Allocation	Long - Term Expected Real Rate of Return
US Core Fixed Income	9.00%	2.03%	9.00%	2.03%
US Long Bonds	1.00%	2.44%	1.00%	2.44%
US Bank / Leveraged Loans	7.00%	3.08%	7.00%	3.08%
US Inflation-Indexed Bonds	2.00%	1.16%	2.00%	1.16%
US High Yield Bonds	4.00%	3.93%	4.00%	3.93%
Emerging Markets Bonds	2.00%	3.76%	2.00%	3.76%
US Large Caps	12.00%	4.71%	12.00%	4.71%
US Small Caps	6.00%	5.93%	6.00%	5.93%
Foreign Developed Equity	12.00%	6.15%	12.00%	6.15%
Emerging Markets Equity	5.00%	8.22%	5.00%	8.22%
Global REITs	1.00%	5.80%	1.00%	5.80%
Private Real Estate Property	4.00%	3.69%	4.00%	3.69%
Private Equity	9.00%	9.50%	9.00%	9.50%
Commodities	1.00%	2.85%	1.00%	2.85%
Hedge Funds - MultiStrategy	16.00%	3.28%	16.00%	3.28%
Hedge Funds - Event-Driven	6.00%	3.38%	6.00%	3.38%
Hedge Funds - Equity Hedge	3.00%	3.85%	3.00%	3.85%
	100.00%		100.00%	
Assumed Inflation - Mean		2.50%		2.50%
Assumed Inflation - Standard Deviation		1.65%		1.65%
Portfolio Nominal Mean Return		7.19%		7.19%
Portfolio Standard Deviation		10.87%		10.87%
Long Term Expected Rate of Return selected by MTA		7.00%		7.00%

	MTA Defined Benefit Plan		MNR Cash Balance Plan	
Asset Class	Target Asset Allocation	Long - Term Expected Real Rate of Return	Target Asset Allocation	Long - Term Expected Real Rate of Return
US Core Fixed Income	9.00%	2.03%	100.00%	1.58%
US Long Bonds	1.00%	2.44%	-	-
US Bank / Leveraged Loans	7.00%	3.08%	-	-
US Inflation-Indexed Bonds	2.00%	1.16%	-	-
US High Yield Bonds	4.00%	3.93%	-	-
Emerging Markets Bonds	2.00%	3.76%	-	-
US Large Caps	12.00%	4.71%	-	-
US Small Caps	6.00%	5.93%	-	-
Foreign Developed Equity	12.00%	6.15%	-	-
Emerging Markets Equity	5.00%	8.22%	-	-
Global REITs	1.00%	5.80%	-	-
Private Real Estate Property	4.00%	3.69%	-	-
Private Equity	9.00%	9.50%	-	-
Commodities	1.00%	2.85%	-	-
Hedge Funds - MultiStrategy	16.00%	3.28%	-	-
Hedge Funds - Event-Driven	6.00%	3.38%	-	-
Hedge Funds - Equity Hedge	3.00%	3.85%	-	-
	100.00%		100.00%	
Assumed Inflation - Mean		2.50%		2.50%
Assumed Inflation - Standard Deviation		1.65%		1.65%
Portfolio Nominal Mean Return		7.19%		4.09%
Portfolio Standard Deviation		10.87%		3.90%
Long Term Expected Rate of Return selected by MTA		7.00%		4.00%

	NYCERS		NYSLERS	
Asset Class	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%	7.00%	36.00%	4.55%
International Public Market Equities	13.00%	7.10%	14.00%	6.35%
Emerging Public Market Equities	7.00%	9.40%	0.00%	0.00%
Private Market Equities	7.00%	10.50%	10.00%	7.50%
Fixed Income	33.00%	2.20%	17.00%	1.31%
Alternatives (Real Assets, Hedge Funds)	11.00%	5.70%	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%
	100.00%		100.00%	
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:

	Discount Rate			
Year ended December 31,	**2019**		**2018**	
Pension Plan	**Plan Measurement Date**	**Rate**	**Plan Measurement Date**	**Rate**
Additional Plan	December 31, 2018	7.00%	December 31, 2017	7.00%
MaBSTOA Plan	December 31, 2018	7.00%	December 31, 2017	7.00%
MNR Cash Balance Plan	December 31, 2018	4.00%	December 31, 2017	4.00%
MTA Defined Benefit Plan	December 31, 2018	7.00%	December 31, 2017	7.00%
NYCERS	June 30, 2019	7.00%	June 30, 2018	7.00%
NYSLERS	March 31, 2019	7.00%	March 31, 2018	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, 2019, based on the December 31, 2018 measurement date, and for the year ended December 31, 2018, based on the December 31, 2017 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, 2017	$ 1,471,828	$ 951,327	$ 520,501	$ 3,676,476	$ 2,918,989	$ 757,487
Changes for fiscal year 2018:						
Service Cost	1,057	-	1,057	86,979	-	86,979
Interest on total pension liability	97,611	-	97,611	256,084	-	256,084
Effect of economic /demographic (gains) or losses	213	-	213	5,412	-	5,412
Benefit payments	(159,565)	(159,565)	-	(213,827)	(213,827)	-
Administrative expense	-	(1,180)	1,180	-	(196)	196
Member contributions	-	333	(333)	-	21,955	(21,955)
Net investment income	-	(31,098)	31,098	-	(87,952)	87,952
Employer contributions	-	59,500	(59,500)	-	205,433	(205,433)
Balance as of December 31, 2018	$ 1,411,144	$ 819,317	$ 591,827	$ 3,811,124	$ 2,844,402	$ 966,722

	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	$ 1,471,828	$ 951,327	$ 520,501	$ 3,676,476	$ 2,918,989	$ 757,487

	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, 2017	$ 528	$ 523	$ 5	$ 5,072,814	$ 4,051,534	$ 1,021,280
Changes for fiscal year 2018:						
Service Cost	-	-	-	162,273	-	162,273
Interest on total pension liability	20	-	20	358,118	-	358,118
Effect of plan changes	-	-	-	61,890	-	61,890
Effect of economic / demographic (gains) or losses	(11)	-	(11)	75,744	-	75,744
Benefit payments	(58)	(58)	-	(242,349)	(242,349)	-
Administrative expense	-	-	-	-	(3,152)	3,152
Member contributions	-	-	-	-	29,902	(29,902)
Net investment income	-	1	(1)	-	(150,422)	150,422
Employer contributions	-	5	(5)	-	338,967	(338,967)
Balance as of December 31, 2018	$ 479	$ 471	$ 8	$ 5,488,490	$ 4,024,480	$ 1,464,010

	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	$ 528	$ 523	$ 5	$ 5,072,814	$ 4,051,534	$ 1,021,280

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, 2018**			**December 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%)
	(in thousands)			(in thousands)		
Additional Plan	$ 701,222	$ 591,827	$ 496,547	$ 636,713	$ 520,501	$ 419,474
MaBSTOA Plan	1,388,193	966,722	607,684	1,166,477	757,487	409,121
MTA Defined Benefit Plan	2,146,497	1,464,010	888,282	1,648,216	1,021,280	492,284

	1% Decrease (3.0%)	Discount Rate (4.0%)	1% Increase (5.0%)	1% Decrease (3.0%)	Discount Rate (4.0%)	1% Increase (5.0%)
	(in whole dollars)			(in whole dollars)		
MNR Cash Balance Plan	$ 35,157	$ 8,252	$ (15,544)	$ 35,109	$ 5,235	$ (21,154)

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, 2018 and June 30, 2016 actuarial valuations, rolled forward to June 30, 2019 and June 30, 2018, respectively, and the proportion percentage of the aggregate net pension liability allocated to the MTA:

	NYCERS	
	June 30, 2019	June 30, 2018
	($ in thousands)	
MTA's proportion of the net pension liability	24.493%	23.682%
MTA's proportionate share of the net pension liability	$ 4,536,510	$ 4,176,941

The following table presents the MTA's proportionate share of the net pension liability of NYSLERS based on the April 1, 2019 and April 1, 2018 actuarial valuations, rolled forward to March 31, 2019 and March 31, 2018, respectively, and the proportion percentage of the aggregate net pension liability allocated to the MTA:

	NYSLERS	
	March 31, 2019	March 31, 2018
	($ in thousands)	
MTA's proportion of the net pension liability	0.345%	0.327%
MTA's proportionate share of the net pension liability	$ 24,472	$ 10,553

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, 2019 and 2018 and to NYSLERS for the plan's fiscal year-end March 31, 2019 and 2018, 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, 2019**			**June 30, 2018**		
	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	$ 6,997,746	$ 4,536,510	$ 2,458,418	$ 6,402,891	$ 4,176,941	$ 2,298,962

Measurement Date:	**March 31, 2019**			**March 31, 2018**		
	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	$ 106,997	$ 24,472	$ (44,854)	$ 79,847	$ 10,553	$ (48,067)

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

For the six-month period ended June 30, 2020 and year ended December 31, 2019, the MTA recognized pension expense related to each pension plan as follows (in $ thousands):

Pension Plan	**June 30, 2020**	**December 31, 2019**
	(Unaudited)	
Additional Plan	$ 31,500	$ 57,499
MaBSTOA Plan	96,808	160,176
MNR Cash Balance plan	-	(3)
MTA Defined Benefit Plan	167,977	391,556
NYCERS	438,316	926,721
NYSLERS	7,711	17,569
Total	**$ 742,312**	**$ 1,553,518**

For the six-month period ended June 30, 2020 and year ended December 31, 2019, 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, 2020 (Unaudited)	**Additional Plan**		**MaBSTOA Plan**	
	Deferred Outflows of Resources	Deferred Inflows of Resources	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between expected and actual experience	$ -	$ -	$ 20,188	$ 25,455
Changes in assumptions	-	-	4,394	-
Net difference between projected and actual earnings on pension plan investments	50,828	-	148,979	-
Changes in proportion and differences between contributions and proportionate share of contributions	-	-	-	-
Employer contributions to the plan subsequent to the measurement of net pension liability	62,774	-	210,087	-
Total	$ 113,602	$ -	$ 383,648	$ 25,455

For the Period Ended June 30, 2020 (Unaudited)	**MNR Cash Balance Plan**		**MTA Defined Benefit Plan**	
	Deferred Outflows of Resources	Deferred Inflows of Resources	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between expected and actual experience	$ -	$ -	$ 181,199	$ 20,403
Changes in assumptions	-	-	8,081	37,113
Net difference between projected and actual earnings on pension plan investments	24	-	226,387	-
Changes in proportion and differences between contributions and proportionate share of contributions	-	-	36,724	36,724
Employer contributions to the plan subsequent to the measurement of net pension liability	-	-	347,054	-
Total	$ 24	$ -	$ 799,445	$ 94,240

For the Period Ended June 30, 2020 (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	$ 379,340	$ 315,130	$ 4,819	$ 1,643	$ 585,546	$ 362,631
Changes in assumptions	2,898	190,222	6,152	-	21,525	227,335
Net difference between projected and actual earnings on pension plan investments	-	281,488	-	6,281	426,218	287,769
Changes in proportion and differences between contributions and proportionate share of contributions	163,385	19,945	3,827	-	203,936	56,669
Employer contributions to the plan subsequent to the measurement of net pension liability	454,858	-	14,851	-	1,089,624	-
Total	$ 1,000,481	$ 806,785	$ 29,649	$ 7,924	$ 2,326,849	$ 934,404

For the Year Ended December 31, 2019	Additional Plan Deferred Outflows of Resources	Additional Plan Deferred Inflows of Resources	MaBSTOA Plan Deferred Outflows of Resources	MaBSTOA Plan Deferred Inflows of Resources	MNR Cash Balance Plan Deferred Outflows of Resources	MNR Cash Balance Plan Deferred Inflows of Resources	MTA Defined Benefit Plan Deferred Outflows of Resources	MTA Defined Benefit Plan Deferred Inflows of Resources
Differences between expected and actual experience	$ -	$ -	$ 20,188	$ 25,455	$ -	$ -	$ 181,199	$ 20,403
Changes in assumptions	-	-	4,394	-	-	-	8,081	37,113
Net difference between projected and actual earnings on pension plan investments	50,828	-	148,979	-	24	-	226,387	-
Changes in proportion and differences between contributions and proportionate share of contributions	-	-	-	-	-	-	36,724	36,724
Employer contributions to the plan subsequent to the measurement of net pension liability	62,773	-	206,390	-	-	-	343,871	-
Total	$ 113,601	$ -	$ 379,951	$ 25,455	$ 24	$ -	$ 796,262	$ 94,240

For the Year Ended December 31, 2019	NYCERS Deferred Outflows of Resources	NYCERS Deferred Inflows of Resources	NYSLERS Deferred Outflows of Resources	NYSLERS Deferred Inflows of Resources	TOTAL Deferred Outflows of Resources	TOTAL Deferred Inflows of Resources
Differences between expected and actual experience	$ 379,340	$ 315,130	$ 4,819	$ 1,643	$ 585,546	$ 362,631
Changes in assumptions	2,898	190,222	6,152	-	21,525	227,335
Net difference between projected and actual earnings on pension plan investments	-	281,488	-	6,281	426,218	287,769
Changes in proportion and differences between contributions and proportionate share of contributions	163,385	19,945	3,827	-	203,936	56,669
Employer contributions to the plan subsequent to the measurement of net pension liability	478,069	-	14,851	-	1,105,954	-
Total	$ 1,023,692	$ 806,785	$ 29,649	$ 7,924	$ 2,343,179	$ 934,404

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.

Recognition Period (in years) **Pension Plan**	**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	N/A
MNR Cash Balance Plan	1.00	N/A	N/A
MTA Defined Benefit Plan	8.20	8.20	N/A
NYCERS	6.10	6.10	6.10
NYSLERS	5.00	5.00	5.00

For the six-month period ended June 30, 2020 and year ended December 31, 2019, $1,089.6 and $1,106.0 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, 2020 and December 31, 2019, respectively. Other amounts reported as deferred outflows of resources and deferred inflows of resources related to pensions at December 31, 2019 will be recognized as pension expense as follows:

Year Ending December 31:	**Additional Plan**	**MaBSTOA Plan**	**MNR Cash Balance plan**	**MTA Defined Benefit Plan**	**NYCERS**	**NYSLERS**	**Total**
				(in thousands)			
2020	$ 17,116	$ 45,985	$ 11	$ 103,010	$ (67,848)	$ 6,673	$ 104,947
2021	6,656	9,282	6	51,099	(198,105)	(3,822)	(134,884)
2022	8,227	26,928	4	56,798	(50,325)	328	41,960
2023	18,829	63,265	4	110,137	(15,141)	3,694	180,788
2024	-	2,230	-	17,934	63,793	-	83,957
Thereafter	-	416	-	19,171	6,465	-	26,053
	$ 50,828	$ 148,106	$ 25	$ 358,149	$ (261,161)	$ 6,873	$ 302,821

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 $19,000 dollars or $25,000 dollars for those over age 50 for the year ended December 31, 2019.

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 – Effective in 2019, there are no employees receiving these employer contributions. Prior to 2019, 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 contributions vest 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:

Years of Service	Vested Percentage
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:

1. Completing 5 years of service,
2. Attaining the Normal Retirement Age of 62 while in continuous employment, or
3. 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 accepts 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.

	December 31, 2019	December 31, 2018
	(In thousands)	
Employer 401K contributions	$ 4,402	$ 4,392

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 OPEB Plan is a fiduciary component unit of the MTA and is in the Pension and Other Employee Benefit Trust Funds section of the MTA's basic financial statements.

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:
  - 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	117,631

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 years ended December 31, 2019 and 2018, the MTA paid $737.3 and $696.1 of PAYGO to the OPEB Plan, respectively. The PAYGO amounts include an implicit rate subsidy adjustment of $76.8 and $74.5 for the years ended December 31, 2019 and 2018, respectively.

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 2018 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, 2018 and December 31, 2017, the measurement dates, are 4.10% and 3.44%, 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 years ended December 31, 2018 and 2017, the employer made a cash payment for retiree healthcare of $74,484 and $71,101, respectively, 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	**2018 Retirees**	**2017 Retirees**
(in thousands)		
Total blended premiums	$616,638	$579,893
Employment payment for retiree healthcare	74,484	71,101
Net Payments	$691,122	$650,994

(2) Actuarial Assumptions

Actuarial valuation involves 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, 2018 and December 31, 2017, the measurement dates. 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	July 1, 2017
Measurement date	December 31, 2018	December 31, 2017
Discount rate	4.1%, net of expenses	3.44%, net of expenses
Inflation	2.50%	2.50%
Actuarial cost method	Entry Age Normal	Entry Age Normal
Amortization method	Level percentage of payroll	Level percentage of payroll
Normal cost increase factor	4.50%	4.50%
Salary increases	Varies by years of service and differs for members of the various pension plans	Varies by years of service and differs for members of the various pension plans
Investment rate of return	6.50%	6.50%

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. 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.

The valuation reflects the actuary's understanding of the impact in future health costs due to the Affordable Care Act ("ACA") passed into law in March 2010. An excise tax for high cost health coverage or "Cadillac" health plans was included in ACA. The provision levies a 40% tax on the value of health plan costs that exceed certain thresholds for single coverage or family coverage. In December 2019, the President signed into law the "Further Consolidated Appropriations Act, 2020" (the "Act"), which included the permanent repeal of the "Cadillac" tax, effective January 1, 2020. The impact of the elimination of the "Cadillac" tax on the MTA's OPEB liability is approximately a decrease of $742.0 million and will be reflected in the next valuation dated July 1, 2019 and in the reporting year-ended December 31, 2020.

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

	NYSHIP		TBTA		Self-Insured	
Fiscal Year	**< 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, 2019 and 2018, the MTA reported a net OPEB liability of $19,582 and $20,335, respectively. The MTA's net OPEB liability was measured as of the OPEB Plan's fiscal year-end of December 31, 2018. 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, 2018.

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%	2.03%
Global bonds	15.0%	0.41%
Emerging markets bonds	5.0%	3.76%
Global equity	35.0%	5.65%
Non-U.S. equity	15.0%	6.44%
Global REITs	5.0%	5.80%
Hedge funds - multistrategy	12.0%	3.28%
Total	**100%**	
Assumed Inflation - Mean		2.50%
Assumed Inflation - Standard Deviation		1.65%
Portfolio Nominal Mean return		6.65%
Portfolio Standard Deviation		10.39%
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, 2018 of 4.10%.

Changes in Net OPEB Liability — Changes in the MTA's net OPEB liability for the year ended December 31, 2019, based on the December 31, 2018 measurement date, and for the year ended December 31, 2018, based on the December 31, 2017 measurement date, were as follows:

	Total OPEB Liability	Plan Fiduciary Net Position	Net OPEB Liability
		(in thousands)	
Balance as of December 31, 2017	$ 20,705,068	$ 370,352	$ 20,334,716
Changes for the year:			
Service Cost	1,002,930	-	1,002,930
Interest on total OPEB liability	734,968	-	734,968
Effect of plan changes	1,580	-	1,580
Effect of economic/demographic gains or losses	(19,401)	-	(19,401)
Effect of assumptions changes or inputs	(1,800,135)	-	(1,800,135)
Benefit payments	(691,122)	(691,122)	-
Employer contributions	-	691,122	(691,122)
Net investment income	-	(18,916)	18,916
Administrative expenses	-	(56)	56
Net changes	(771,180)	(18,972)	(752,208)
Balance as of December 31, 2018	$ 19,933,888	$ 351,380	$ 19,582,508

	Total OPEB Liability	Plan Fiduciary Net Position	Net OPEB Liability
		(in thousands)	
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)
Net changes	1,917,814	47,370	1,870,444
Balance as of December 31, 2017	$ 20,705,068	$ 370,352	$ 20,334,716

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 as of each measurement date, 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:

Measurement Date:		**December 31, 2018**	
	1% Decrease (3.10%)	**Discount Rate (4.10%)**	**1% Increase (5.10%)**
		(in thousands)	
Net OPEB liability	$22,402,766	$19,582,508	$17,257,324

Measurement Date:		**December 31, 2017**	
	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 healthcare cost trend rates as of each measurement date, 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:

Measurement Date:		**December 31, 2018**	
	1% Decrease	**Healthcare Cost Current Trend Rate***	**1% Increase**
		(in thousands)	
Net OPEB liability	$16,727,628	$19,582,508	$23,171,172

Measurement Date:		**December 31, 2017**	
	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, 2020 and year ended December 31, 2019, the MTA recognized OPEB expense of $330 and $1.61 billion, respectively.

At June 30, 2020 and December 31, 2019, the MTA reported deferred outflows of resources and deferred inflows of resources related to OPEB as follows ($ in thousands):

	June 30, 2020		December 31, 2019	
	Deferred Outflows of Resources	Deferred Inflows of Resources	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between expected and actual experience	$ 9,928	$ 16,780	$ 9,928	$ 16,780
Changes of assumptions	665,123	1,556,874	665,123	1,556,874
Net difference between projected and actual earnings on OPEB plan investments	18,564	-	18,564	-
Changes in proportion and differences between contributions and proportionate share of contributions	101,229	101,229	101,229	101,229
Employer contributions to the plan subsequent to the measurement of net OPEB liability	666,058	-	742,438	-
Total	$ 1,460,902	$ 1,674,883	$ 1,537,282	$ 1,674,883

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, 2020 and year ended December 31, 2019, $666.1 and $742.4 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, 2020. Other amounts reported as deferred outflows of resources and deferred inflows of resources related to OPEB at December 31, 2019 will be recognized in OPEB expense as follows (in thousands):

Year ended December 31, :	
2020	$ (117,552)
2021	(117,552)
2022	(117,552)
2023	(112,276)
2024	(120,874)
Thereafter	(294,233)
	$ (880,039)

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, 2018, December 31, 2019 and June 30, 2020 (in millions):

	Balance December 31, 2018	Additions / Reclassifications	Deletions / Reclassifications	Balance December 31, 2019	Additions / Reclassifications (Unaudited)	Deletions / Reclassifications (Unaudited)	Balance June 30, 2020 (Unaudited)
Capital assets not being depreciated:							
Land	$ 217	$ 6	$ -	$ 223	$ 25	$ -	$ 248
Construction work-in-progress	18,052	8,372	6,266	20,158	3,035	1,453	21,740
Total capital assets not being depreciated	18,269	8,378	6,266	20,381	3,060	1,453	21,988
Capital assets being depreciated:							
Buildings and structures	18,457	1,103	1	19,559	51	28	19,582
Bridges and tunnels	4,154	72	-	4,226	24	-	4,250
Equipment:							
Passenger cars and locomotives	13,378	498	4	13,872	109	-	13,981
Buses	3,808	473	604	3,677	41	12	3,706
Infrastructure	26,258	1,491	21	27,728	329	-	28,057
Other	24,519	2,114	20	26,613	242	4	26,851
Total capital assets being depreciated	90,574	5,751	650	95,675	796	44	96,427
Less accumulated depreciation:							
Buildings and structures	7,414	530	-	7,944	271	3	8,212
Bridges and tunnels	806	27	-	833	19	-	852
Equipment:							
Passenger cars and locomotives	6,943	403	4	7,342	203	-	7,545
Buses	2,323	250	604	1,969	131	12	2,088
Infrastructure	10,072	862	21	10,913	426	-	11,339
Other	8,774	798	19	9,553	430	3	9,980
Total accumulated depreciation	36,332	2,870	648	38,554	1,480	18	40,016
Total capital assets being depreciated - net	54,242	2,881	2	57,121	(684)	26	56,411
Capital assets - net	$ 72,511	$ 11,259	$ 6,268	$ 77,502	$ 2,376	$ 1,479	$ 78,399

Effective January 1, 2020, in accordance with GASB Statement No. 89, the MTA no longer capitalizes interest costs related to the construction of capital assets. Interest capitalized in conjunction with the construction of capital assets for December 31, 2019 was $43.7.

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, 2020 and December 31, 2019, these securities, which are not included in these financial statements, totaled $111.0 and $107.8, respectively, and had a market value of $79.4 and $83.3, respectively.

7. LONG-TERM DEBT

(In millions)	Original Issuance	December 31, 2019	Issued	Retired	June 30, 2020
MTA:			(Unaudited)		(Unaudited)
Transportation Revenue Bonds					
1.62%–5.15% due through 2057	$ 42,110	$ 21,650	$ 3,057	$ 276	$ 24,431
Bond Anticipation Notes*					
2.29% due through 2023	18,049	7,508	2,495	1,750	8,253
Dedicated Tax Fund Bonds					
1.86%–4.89% due through 2057	11,039	5,024	-	-	5,024
	71,198	34,182	5,552	2,026	37,708
Net unamortized bond premium	-	1,648	248	261	1,635
	71,198	**35,830**	**5,800**	**2,287**	**39,343**
TBTA:					
General Revenue Bonds					
1.88%–4.28% due through 2050	17,657	7,782	525	48	8,259
Subordinate Revenue Bonds					
3.13%-5.34% due through 2032	4,066	936	-	-	936
	21,723	8,718	525	48	9,195
Net unamortized bond premium	-	618	102	35	685
	21,723	**9,336**	**627**	**83**	**9,880**
MTA Hudson Rail Yards Trust:					
MTA Hudson Rail Yards Trust Obligations					
1.88%–2.65% due through 2056	1,057	872	-	190	682
Net unamortized bond premium	-	107	(15)	3	89
	1,057	**979**	**(15)**	**193**	**771**
Total	**$ 93,978**	**$ 46,145**	**$ 6,412**	**$ 2,563**	**$ 49,994**
Current portion**		$ 2,210			$ 2,987
Long-term portion		$ 43,935			$ 47,007

* Includes draws on a $800 taxable revolving credit agreement with JPMorgan Chase Bank, National Association, which is active through August 24, 2022, and a $400 taxable revolving credit agreement with Bank of America, National Association, which is active through August 24, 2022. Draws under the JPMorgan Chase Agreement and the Bank of America agreement are evidenced by revenue anticipation notes ("RANs"). As of June 30, 2020 and December 31, 2019, the outstanding RAN was $1,003 and $8, respectively.

** As a result of certain MTA issuances of Bonds and Bond Anticipation Notes, the current portion of the BANs that were reclassified as long-term were $450 and $2,200 as of June 30, 2020 and December 31, 2019, respectively.

(In millions)	Original Issuance	December 31, 2018	Issued	Retired	December 31, 2019
MTA:					
Transportation Revenue Bonds					
1.43%–5.15% due through 2057	$ 37,965	$ 20,923	$ 1,596	$ 869	$ 21,650
Bond Anticipation Notes*					
1.33% due through 2022	13,062	4,007	5,455	1,954	7,508
Dedicated Tax Fund Bonds					
1.86%–4.89% due through 2057	11,039	5,184	-	160	5,024
	62,066	30,114	7,051	2,983	34,182
Net unamortized bond premium	-	1,559	514	425	1,648
	62,066	**31,673**	**7,565**	**3,408**	**35,830**
TBTA:					
General Revenue Bonds					
1.81%–4.18% due through 2047	17,132	7,663	452	333	7,782
Subordinate Revenue Bonds					
3.13%-5.34% due through 2032	4,066	1,022	-	86	936
	21,198	8,685	452	419	8,718
Net unamortized bond premium	-	626	47	55	618
	21,198	**9,311**	**499**	**474**	**9,336**
MTA Hudson Rail Yards Trust:					
MTA Hudson Rail Yards Trust Obligations					
1.88%–2.65% due through 2056	1,057	1,057	-	185	872
Net unamortized bond premium	-	128	-	21	107
	1,057	**1,185**	**-**	**206**	**979**
Total	**$ 84,321**	**$ 42,169**	**$ 8,064**	**$ 4,088**	**$ 46,145**
Current portion**		$ 2,552			$ 2,210
Long-term portion		$ 39,617			$ 43,935

* Includes draws on a $800 taxable revolving credit agreement with JPMorgan Chase Bank, National Association, which is active through August 24, 2022. Draws under the JPMorgan Chase Agreement are evidenced by revenue anticipation notes ("RANs"). As of December 31, 2019 and 2018, the outstanding RAN was $8 and $7, respectively.

** On January 16, 2020 and May 14, 2020, MTA issued $925 MTA Transportation Revenue Green Bonds, Series 2020A ("the Series 2020A Bonds"), with maturities from May 15, 2024 to November 15, 2054, and $1,725 MTA Transportation Revenue Green Bonds, Series 2020C ("the Series 2020C Bonds"), with maturities from November 15, 2045 to November 15, 2049, respectively. Both the Series 2020A Bonds and the Series 2020C Bonds were issued for purposes of (i) retiring, together with other MTA funds, certain outstanding Transportation Revenue Bond Anticipation Notes ("BANs"), (ii) refunding certain the MTA Transportation Revenue Bonds("TRBs"), (iii) financing existing approved transit and commuter projects, (iv) paying capitalized interest, and (v) paying certain financing, legal and miscellaneous expenses. As a result of these issuances, the current portion of the BANs, $2,200, was reclassified as long-term as of December 31, 2019.

In addition, on February 15, 2020, MTA effectuated a $27 early mandatory redemption of a portion of the Hudson Rail Yards Trust Obligations, Series 2016A. As a result, $27 was reclassified from long-term to current as of December 31, 2019.

MTA Transportation Revenue Bonds — Prior to 2020, MTA issued sixty-five 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 $32,944. 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 January 16, 2020, MTA issued $924.750 of Transportation Revenue Bonds, Series 2020A to retire the existing outstanding Transportation Revenue Bond Anticipation Notes("BANs"), Series 2019A; and to refund the Transportation Revenue Bonds, Subseries 2016C-2b. The Series 2020A bonds were priced as $686.840 Subseries 2020A-1 and $237.910 Subseries 2020A-2. The Subseries 2020A-1 bonds were issued as fixed rate tax-exempt bonds with a final maturity of November 15, 2054. The Subseries 2020A-2 bonds were issued as mandatory tender bonds with an initial purchase date of May 15, 2024.

On February 3, 2020, MTA effectuated a mandatory tender and remarketed $75 MTA Transportation Revenue Variable Rate Refunding Bonds, Subseries 2012G-3 because its current interest rate period expired by its terms. The Series 2012G-3 Bonds were remarketed in Term Rate Mode as Floating Rate Tender Notes with a purchase date of February 1, 2025 and with an interest rate of SIFMA plus 0.43%.

On March 19, 2020, Moody's placed MTA's Transportation Revenue Bonds (A1) and BANs (MIG 1) as Ratings Under Review for possible downgrade.

On March 20, 2020, Fitch Ratings placed MTA's Transportation Revenue Bonds (AA-) and BANs (F1+) as Ratings Watch Negative.

On March 24, 2020, S&P Global Ratings downgraded MTA's Transportation Revenue Bonds from 'A' to 'A-' with a negative outlook, under its Mass Transit Enterprise Ratings criteria.

On March 24, 2020, Kroll Bond Rating Agency placed MTA's Transportation Revenue Bonds (AA+) under outlook Watch Downgrade.

On March 27, 2020, $75 of Transportation Revenue Refunding Bonds, Subseries 2020B-1 Bonds were purchased, pursuant to a Continuing Covenant Agreement, between MTA and PNC Bank, National Association, as purchaser, and $87.660 of Transportation Revenue Refunding Bonds, Subseries 2020B-2 Bonds were purchased, pursuant to a Continuing Covenant Agreement, between MTA and Bank of America, N.A., as purchaser. Proceeds from the transaction will be used to exchange and finance certain Hudson Rail Yards Refunding Trust Obligations, Series 2020A. The Subseries 2020B-1 bonds have a mandatory purchase date of April 1, 2021. The Subseries 2020B-2 bonds have a mandatory tender date of March 24, 2022.

On April 2, 2020, Fitch Ratings downgraded MTA's Transportation Revenue Bonds from AA- to A+, and Transportation Revenue BANs from F1+ to F1, and put the Transportation Revenue Bonds on a Negative Outlook.

On April 6, 2020, $50 of MTA Transportation Revenue Variable Rate Bonds, Subseries 2002D-2a-1 were purchased, pursuant to a Continuing Covenant Agreement, between MTA and JP Morgan Chase Bank, N.A., as purchaser, as the current interest rate period related to the Subseries 2002D-2a-1 was expiring by its terms. The Subseries 2002D-2a-1 bonds have a mandatory purchase date of March 31, 2021.

On April 16, 2020 Moody's Investors Services downgraded MTA's Transportation Revenue Bonds from A1 to A2, and Transportation Revenue BANs from MIG 1 to MIG 2, and put the Transportation Revenue Bonds on a Negative Outlook.

On May 4, 2020 S&P Global Ratings placed MTA's Transportation Revenue Bonds on CreditWatch negative.

On May 5, 2020, MTA priced and remarketed $248.045 of Transportation Revenue Bonds, Subseries 2015A-2 as its current interest rate period was set to expire by its terms. The Subseries 2015A-2 bonds were remarketed in Term Rate Mode as mandatory tender bonds with a purchase date of May 15, 2030.

On May 14, 2020, MTA issued $1,725 of Transportation Revenue Green Bonds, Series 2020C. Proceeds from the transaction were used to finance existing approved transit and commuter projects, and to retire the following outstanding Bond Anticipation Notes:

Subseries Number	Maturity Date	Par Amount
MTA TRB BANs 2018B-1	May 15, 2020	800
MTA TRB BANs 2019B-2	May 15, 2020	200

The Series 2020C bonds were issued as $1,125 Subseries 2020C-1 and $600 Subseries 2020C-2. The Subseries 2020C-1 bonds were priced as fixed rate tax-exempt Climate Bond Certified bonds with a final maturity of November 15, 2055. The Subseries 2020C-2 bonds were issued as fixed rate taxable Climate Bond Certified bonds with a final maturity of November 15, 2049.

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 January 8, 2020, MTA issued $1,500 of MTA Transportation Revenue Bond Anticipation Notes, Series 2020A to generate new money proceeds to: finance existing approved transit and commuter projects; and to finance those existing approved transit and commuter projects related to the State funding commitment for the 2015-2019 Capital Program. The Series 2020A Notes were priced as $800 Subseries 2020A-1 and $700 Subseries 2020A-2S. The Subseries 2020A-1 notes were issued as fixed rate tax-exempt notes with a final maturity of February 1, 2023 and the Subseries 2020A-2S notes were issued as fixed rate tax-exempt notes with a final maturity of February 1, 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 JPMorgan 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.

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 ("BANA") that is active through August 24, 2022. Draws under the BANA Agreement will be evidenced by RANs. Funds may be used for operational or capital purposes.

On March 20, 2020, MTA drew down the remaining $792 of its $800 Revolving Credit Agreement with JPMorgan Chase Bank National Association and $200 of its Revolving Credit Agreement with Bank of America National Association.

On April 22,2020, MTA drew down $2.5 of its taxable Revolving Credit Agreement with Bank of America National Association.

On May 22, 2020, MTA entered into a $950 taxable term credit agreement with JPMorgan Chase Bank National Association, as administrative agent, and Industrial and Commercial Bank of China Limited, New York Branch, and Bank of China, New York Branch, collectively as lenders. Funds drawn from this credit agreement may be used for operational or capital purposes. The credit agreement is active through May 22, 2022.

MTA State Service Contract Bonds — Prior to 2020, 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 2020, 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 April 9, 2020, Fitch Ratings downgraded enhanced MTA Dedicated Tax Fund Bonds, Subseries 2002B-1 from AAA to AA as result of its downgrade of the Letter of Credit provider MUFG Bank, Ltd.

On April 10, 2020, Fitch Ratings placed MTA's Dedicated Tax Fund bonds on negative outlook because of the same outlook being placed on the State of New York's Issuer Default Rating.

MTA Certificates of Participation — Prior to 2020, 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 Construction and Development, 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 2020, MTA Bridges and Tunnels issued thirty- three 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 $13,249. 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 January 24, 2020, MTA effectuated a mandatory tender and remarketed $102.1 of Triborough Bridge and Tunnel Authority General Revenue Variable Rate Bonds, Series 2005A because the irrevocable direct-pay letter of credit ("LOC") issued by TD Bank, N.A. was expiring by its terms. The LOC related to the Series 2005A bonds was substituted with an irrevocable direct-pay LOC issued by Barclays Bank PLC. The new LOC will expire on February 2, 2024. The Series 2005A bonds will continue as Variable Interest Rate Obligations in Weekly Mode.

On March 26, 2020, S&P Global Ratings placed TBTA General Revenue and Subordinate Revenue Bonds on a negative outlook as part of action on the U.S. Transportation Infrastructure sector.

On March 31, 2020, Kroll Bond Rating Agency placed TBTA General Revenue Bonds (AA) and TBTA Subordinate Revenue Bonds (AA-) under outlook Watch Downgrade.

On April 8, 2020, Moody's Investors Services placed TBTA General Revenue and Subordinate Revenue Bonds on a negative outlook.

On May 27, 2020, MTA issued $525 of Triborough Bridge and Tunnel Authority General Revenue Bonds, Series 2020A to finance bridge and tunnel capital projects. The Series 2020A bonds were issued as tax-exempt fixed rate bonds with a final maturity of November 15, 2054.

MTA Bridges and Tunnels Subordinate Revenue Bonds — Prior to 2020, 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 depositary ("Depositary"), 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 Depositary, 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 Depositary.

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.

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 $90,100 compared with issuances totaling approximately $37,592. 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, 2020 and December 31, 2019, 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, 2020 (Unaudited)	December 31, 2019
MTA Transit and Commuter Facilities:		
Transit Facilities Revenue Bonds	$ 148	$ 148
Commuter Facilities Revenue Bonds	150	150
Dedicated Tax Fund Bonds	22	22
MTA Bridges and Tunnels:		
General Purpose Revenue Bonds	539	628
Special Obligation Subordinate Bonds	74	89
Total	$ 933	$ 1,037

For the six months ended June 30, 2020, MTA did not have any refunding transactions. For the six months ended June 30, 2019, MTA did not have any refunding transactions. Details of bond refunding savings as of December 31, 2019 are as follows (in millions):

Refunding Bonds Issued in 2019	Series	Date issued	Par value Refunded	Debt Service Savings (Increase)	Net Present Value of Savings
Transportation Revenue Bonds	TRB 2019D-1	11/07/2019	$ 140	$ (7)	$ 5
	TRB 2019D-2	11/07/2019	101	(62)	9
			241	(69)	14
MTA Bridges and Tunnels General Revenue Bonds	TBTA 2019B	09/25/2019	102	(59)	5
Total Bond Refunding Savings			$ 343	$ (128)	$ 19

Unamortized losses related to bond refundings were as follows:

(In millions)	December 31, 2018	(Gain)/loss on refunding	2019 amortization	December 31, 2019	(Gain)/loss on refunding (Unaudited)	Current year amortization (Unaudited)	June 30, 2020 (Unaudited)
MTA:							
Transportation Revenue Bonds	$ 670	$ -	$ (100)	$ 570	$ -	$ (77)	$ 493
State Service Contract Bonds	(12)	-	-	(12)	-	-	(12)
Dedicated Tax Fund Bonds	238	-	(16)	222	-	(8)	214
	896	-	(116)	780	-	(85)	695
TBTA:							
General Revenue Bonds	209	-	(17)	192	-	(8)	184
Subordinate Revenue Bonds	33	-	(4)	29	-	(2)	27
	242	-	(21)	221	-	(10)	211
Total	$ 1,138	$ -	$ (137)	$ 1,001	$ -	$ (95)	$ 906

Debt Service Payments — Future principal and interest debt service payments at June 30, 2020 are as follows (in millions):

(Unaudited)	MTA		MTA BRIDGES AND TUNNELS		Debt Service	
	Principal	Interest	Principal	Interest	Principal	Interest
2020	$ 2,682	$ 1,496	$ 305	$ 211	$ 2,987	$ 1,707
2021	1,698	1,429	270	389	1,968	1,818
2022	5,484	1,359	323	376	5,807	1,735
2023	1,750	1,280	350	361	2,100	1,641
2024	988	1,140	377	344	1,365	1,484
2025-2029	5,501	4,673	2,172	1,432	7,673	6,105
2030-2034	6,436	3,672	2,035	973	8,471	4,645
2035-2039	5,505	2,628	1,267	662	6,772	3,290
2040-2044	3,155	1,492	972	389	4,127	1,881
2045-2049	3,008	789	818	170	3,826	959
2050-2054	1,542	246	306	41	1,848	287
2055-2059	641	20	-	-	641	20
Thereafter	-	-	-	-	-	-
Total	$ 38,390	$ 20,224	$ 9,195	$ 5,348	$ 47,585	$ 25,572

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 Loans Payable debt service requirements at June 30, 2020 are as follows (in millions):

Year	**(Unaudited)**	**Principal**	**Interest**	**Total**
2020		$ 13	$ 2	$ 15
2021		13	2	15
2022		11	2	13
2023		14	2	16
2024		8	3	11
2025-2029		36	5	41
2030-2034		17	1	18
2035-2039		2	0	2
Total		$ 114	$ 17	$ 131
Current portion		$ 14		
Long-term portion		100		
Total NYPA Loans Payable		$ 114		

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, 2020 and December 31, 2019.

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-1	Y	PNC Bank, National Association	LOC	8/20/2021
Transportation Revenue	2012A-2	N	Bank of Montreal	LOC	6/2/2022
Transportation Revenue	2012G-1	Y	Barclays Bank	LOC	10/31/2023
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	Barclays Bank	LOC	1/24/2024
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, 2020 and December 31, 2019, classified by type, and the changes in fair value of such derivative instruments from the year ended December 31, 2019 are as follows (in $ millions):

Derivative Instruments - Summary Information as of June 30, 2020

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	2005B-[2,3,4]	Libor Fixed Payer	Cash Flow	Synthetic Instrument	6/2/2005	$ 564.900	$ (137.274)
MTA Bridges and Tunnels Senior Revenue Bonds	2002F & 2003B-2 (Citi 2005B)	Libor Fixed Payer	Cash Flow	Synthetic Instrument	6/2/2005	188.300	(45.759)
MTA Bridges and Tunnels Senior Revenue Bonds	2005A (COPS 2004A)	Libor Fixed Payer	Cash Flow	Synthetic Instrument	4/1/2016	21.780	(3.399)
MTA Bridges and Tunnels Senior Revenue Bonds	2001C (COPS 2004A)	Libor Fixed Payer	Cash Flow	Synthetic Instrument	12/5/2016	10.000	(1.587)
MTA Dedicated Tax Fund Bonds	2008A	Libor Fixed Payer	Cash Flow	Synthetic Instrument	3/8/2005	304.000	(57.768)
MTA Transportation Revenue Bonds	2002D-2	Libor Fixed Payer	Cash Flow	Synthetic Instrument	7/11/2002	200.000	(75.683)
MTA Transportation Revenue Bonds	2005D & 2005E	Libor Fixed Payer	Cash Flow	Synthetic Instrument	9/10/2004	350.420	(80.062)
MTA Transportation Revenue Bonds	2012G	Libor Fixed Payer	Cash Flow	Synthetic Instrument	12/12/2007	356.375	(104.145)
MTA Transportation Revenue Bonds	2002G-1 (COPS 2004A)	Libor Fixed Payer	Cash Flow	Synthetic Instrument	4/1/2016	97.215	(9.497)
MTA Transportation Revenue Bonds	2011B (COPS 2004A)	Libor Fixed Payer	Cash Flow	Synthetic Instrument	4/1/2016	92.455	(20.105)
					Total	**$ 2,185.445**	**$ (535.279)**

Derivative Instruments - Summary Information as of December 31, 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	$ (32.439)
MTA Bridges and Tunnels Senior Revenue Bonds	2005B-2,3,4	Libor Fixed Payer	Cash Flow	Synthetic Instrument	6/2/2005	567.900	(97.316)
MTA Bridges and Tunnels Senior Revenue Bonds	2005A (COPS 2004A)	Libor Fixed Payer	Cash Flow	Synthetic Instrument	4/1/2016	22.650	(2.699)
MTA Bridges and Tunnels Senior Revenue Bonds	2005C (COPS 2004A)	Libor Fixed Payer	Cash Flow	Synthetic Instrument	12/5/2016	21.275	(1.280)
MTA Dedicated Tax Fund Bonds	2008A	Libor Fixed Payer	Cash Flow	Synthetic Instrument	3/8/2005	304.000	(44.413)
MTA Transportation Revenue Bonds	2002D-2	Libor Fixed Payer	Cash Flow	Synthetic Instrument	7/11/2002	200.000	(67.381)
MTA Transportation Revenue Bonds	2005D & 2005E	Libor Fixed Payer	Cash Flow	Synthetic Instrument	9/10/2004	350.420	(67.540)
MTA Transportation Revenue Bonds	2012G	Libor Fixed Payer	Cash Flow	Synthetic Instrument	12/12/2007	356.375	(86.689)
MTA Transportation Revenue Bonds	2002G-1 (COPS 2004A)	Libor Fixed Payer	Cash Flow	Synthetic Instrument	4/1/2016	112.730	(7.972)
MTA Transportation Revenue Bonds	2011B (COPS 2004A)	Libor Fixed Payer	Cash Flow	Synthetic Instrument	4/1/2016	84.520	(15.530)
					Total	$ 2,209.170	$ (423.259)

	Changes In Fair Value		Fair Value at June 30, 2020		Notional
	Classification	Amount (in millions)	Classification	Amount (in millions)	(in millions)
Government activities		(Unaudited)		(Unaudited)	(Unaudited)
Cash Flow hedges:					
Pay-fixed interest rate swaps	Deferred outflow of resources	$(112.020)	Debt	$(535.279)	$2,185.445

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, 2020).

Metropolitan Transportation Authority						
Related Bonds	**Notional Amount as of 6/30/20 (Unaudited)**	**Effective Date**	**Maturity Date**	**Terms**	**Counterparty and Ratings(S&P / Moody's / Fitch)**	**Fair Value as of 6/30/20 (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)	$ (75.683)
TRB 2005D & 2005E	262.815	11/02/05	11/01/35	Pay 3.561%; receive 67% 1M LIBOR	UBS AG (A+ / Aa3 / AA-)	(60.046)
TRB 2005E	87.605	11/02/05	11/01/35	Pay 3.561%; receive 67% 1M LIBOR	AIG Financial Products [(1)] (BBB+ / Baa1 / BBB+)	(20.016)
TRB 2012G	356.375	11/15/12	11/01/32	Pay 3.563%; receive 67% 1M LIBOR	JPMorgan Chase Bank, NA (A+ / Aa2 / AA)	(104.145)
DTF 2008A	304.000	03/24/05	11/01/31	Pay 3.3156%; receive 67% 1M LIBOR	Bank of New York Mellon (AA- / Aa2 / AA)	(57.768)
Total	**$ 1,210.795**					**$ (317.658)**

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

MTA Bridges and Tunnels						
Related Bonds	**Notional Amount as of 6/30/20 (Unaudited)**	**Effective Date**	**Maturity Date**	**Terms**	**Counterparty and Ratings (S&P / Moody's / Fitch)**	**Fair Value as of 6/30/20 (Unaudited)**
TBTA 2002F & 2003B-2	$ 188.300	07/07/05	01/01/32	Pay 3.076%; receive 67% 1M LIBOR	Citibank, N.A. (A+ / Aa3 / A+)	$ (45.759)
TBTA 2005B-2	188.300	07/07/05	01/01/32	Pay 3.076%; receive 67% 1M LIBOR	JPMorgan Chase Bank, NA (A+ / Aa2 / AA)	(45.758)
TBTA 2005B-3	188.300	07/07/05	01/01/32	Pay 3.076%; receive 67% 1M LIBOR	BNP Paribas US Wholesale Holdings, Corp. (1) (A+ / Aa3 / AA-)	(45.758)
TBTA 2005B-4	188.300	07/07/05	01/01/32	Pay 3.076%; receive 67% 1M LIBOR	UBS AG (A+ / Aa3 / AA-)	(45.758)
TRB 2002G-1 & 2011B TBTA 2005A & 2001C [2]	110.725 [3]	04/01/16	01/01/30	Pay 3.52%; receive 67% 1M LIBOR	U.S. Bank N.A. (AA- / A1 / AA-)	(17.294) [3]
TRB 2002G-1 & 2011B TBTA 2005A & 2001C [2]	110.725 [3]	04/01/16	01/01/30	Pay 3.52%; receive 67% 1M LIBOR	Wells Fargo Bank, N.A. (A+ / Aa2 / AA-)	(17.294) [3]
Total	**$ 974.650**					**$ (217.621)**

1 Guarantor: BNP Paribas.

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 June 30, 2020, 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, 2020, 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	$744,675	34.07%
UBS AG	A+	Aa3	AA-	451,115	20.64
The Bank of New York Mellon	AA-	Aa2	AA	304,000	13.91
Citibank, N.A.	A+	Aa3	A+	188,300	8.62
BNP Paribas US Wholesale Holdings, Corp..	A+	Aa3	AA-	188,300	8.61
U.S. Bank National Association	AA-	A1	AA-	110,725	5.07
Wells Fargo Bank, N.A.	A+	Aa2	AA-	110,725	5.07
AIG Financial Products Corp.	BBB+	Baa1	BBB+	87,605	4.01
Total				**$2,185,445**	**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 US Wholesale Holdings, Corp.; 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, 2041	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, 2020, the aggregate mid-market valuation of the MTA's swaps subject to collateral posting agreements was $331.2; 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, 2020, the aggregate mid-market valuation of MTA Bridges and Tunnels' swaps subject to collateral posting agreements was $227.1; 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

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 US Wholesale Holdings, Corp.; 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, 2020	Variable-Rate Bonds		Net Swap Payments	Total
	Principal	Interest		
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)	101.5
2023	65.7	40.1	(4.1)	101.6
2024	68.2	37.5	(3.8)	101.8
2025-2029	356.5	173.7	(13.8)	516.5
2030-2034	729.7	391.9	(4.8)	1,116.9
2035-2039	93.5	18.5	(0.6)	111.5

MTA Bridges and Tunnels (in millions)				
Period Ended June 30, 2020	Variable-Rate Bonds		Net Swap Payments	Total
	Principal	Interest		
2020	25.4	37.0	(6.9)	55.5
2021	26.6	36.0	(6.8)	55.9
2022	27.6	34.9	(6.8)	55.7
2023	28.6	33.8	(6.8)	55.6
2024	57.2	31.5	(6.4)	82.3
2025-2029	289.2	133.1	(30.5)	391.8
2030-2034	499.7	23.6	(5.2)	518.1
2035-2039	-	2.0	-	2.0

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, 2020, the market value of total collateral funds was $39.3.

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, 2020, the market value of total collateral funds was $55.4.

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, 2020 (unaudited):

Year	ERY	WRY	Total
2020	$ 6	$ 12	$ 18
2021	9	33	42
2022	9	33	42
2023	10	33	43
2024	10	36	46
Thereafter	4,010	14,317	18,327
Total	**$ 4,054**	**$ 14,464**	**$ 18,518**

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, 2020, for the MTA New York City Transit, MTA Bridges and Tunnels and MTA (including MTA Bus, MTA Construction and Development and MTA Business Service Center) were 52.8%, 7.5% and 39.7%, 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 Construction and Development, and MTAHQ.

MTA reflected a capital lease obligation as of June 30, 2020 and December 31, 2019 of $237 and $237, respectively. The MTA made rent payments of $14 and $28 for the period ended June 30, 2020 and December 31, 2019, 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 2019, the total of the rental payments charged to MTA New York City Transit and MTA Bridges and Tunnels was $5.01 and $2.24 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, 2020 and December 31, 2019, is as follows (in millions):

	June 30, 2020 (Unaudited)	December 31, 2019
Capital lease - building	$196	$196
Less accumulated amortization	(97)	(95)
Capital lease - building - net	$99	$101

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.

On February 28, 2020, the MTA exercised its right to purchase Grand Central Terminal for $33. Both the operating and capital leases were removed from the balance sheet and the building will now be depreciated as an asset.

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 $34.5 and $36.5 for the periods ended June 30, 2020 and 2019, respectively.

At June 30, 2020, the future minimum lease payments under non-cancelable leases are as follows (in millions):

Years	**Operating**	**Capital**
	(Unaudited)	
2020	$ 52	$ 23
2021	76	23
2022	83	74
2023	82	18
2024	84	21
2025–2029	429	108
2030–2034	458	557
2035–2039	277	157
2040–2044	273	174
2045–2049	201	132
Thereafter	-	-
Future minimum lease payments	$ 2,015	1,287
Amount representing interest		(858)
Total present value of capital lease obligations		429
Less current present value of capital lease obligations		4
Noncurrent present value of capital lease obligations		$ 425

Capital Leases Schedule

For the period ended June 30, 2020

Description	**December 31, 2019**	**Increase**	**Decrease**	**June 30, 2020**
		(Unaudited)		(Unaudited)
Sumitomo	$ 15	$ -	$ -	$ 15
Met Life	6	-	-	6
Met Life Equity	19	-	-	19
Bank of New York	22	-	-	22
Bank of America	42	-	9	33
Bank of America Equity	16	-	-	16
Sumitomo	24	-	1	23
Met Life Equity	58	-	-	58
Grand Central Terminal & Harlem Hudson Railroad Lines	13	-	13	-
2 Broadway Lease Improvement	179	-	-	179
2 Broadway	58	-	-	58
Total MTA Capital Lease	$ 452	$ -	$ 23	$ 429
Current Portion Obligations under Capital Lease	14			4
Long Term Portion Obligations under Capital Lease	$ 438			$ 425

Capital Leases Schedule

For the Year Ended December 31, 2019

Description	December 31, 2018	Increase	Decrease	December 31, 2019
Sumitomo	$ 15	$ -	$ -	$ 15
Met Life	6	-	-	6
Met Life Equity	19	-	-	19
Bank of New York	22	-	-	22
Bank of America	39	3	-	42
Bank of America Equity	16	-	-	16
Sumitomo	27	1	4	24
Met Life Equity	55	3	-	58
Grand Central Terminal & Harlem Hudson Railroad Lines	14	-	1	13
2 Broadway Lease Improvement	177	2	-	179
2 Broadway	57	1	-	58
Total MTA Capital Lease	$ 447	$ 10	$ 5	$ 452
Current Portion Obligations under Capital Lease	4			14
Long Term Portion Obligations under Capital Lease	$ 443			$ 438

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, 2020 and year ended December 31, 2019 is presented below (in millions):

	June 30, 2020 (Unaudited)	December 31, 2019
Balance - beginning of year	$ 4,587	$ 4,254
Activity during the year:		
Current year claims and changes in estimates	425	884
Claims paid	(231)	(551)
Balance - end of year	4,781	4,587
Less current portion	(501)	(501)
Long-term liability	$ 4,280	$ 4,086

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 $5 for the periods ended June 30, 2020 and 2019, respectively. A summary of the activity in pollution remediation liability at June 30, 2020 and December 31, 2019 were as follows:

	June 30, 2020 (Unaudited)	December 31, 2019
Balance at beginning of year	$ 151	$ 139
Current year expenses/changes in estimates	3	42
Current year payments	(11)	(30)
Balance at end of year	143	151
Less current portion	30	31
Long-term liability	$ 113	$ 120

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. NON-CURRENT LIABILITIES

Changes in the activity of non-current liabilities for the periods ended June 30, 2020 and December 31, 2019 are presented below:

	Balance December 31, 2018	Additions	Reductions	Balance December 31, 2019	Additions (Unaudited)	Reductions (Unaudited)	Balance June 30, 2020 (Unaudited)
Non-current liabilities:							
Contract retainage payable	$ 406	$ 24	$ -	430	$ 6	$ -	$ 436
Other long-term liabilities	376	-	(4)	372	-	(28)	344
Total non-current liabilities	**$ 782**	**$ 24**	**$ (4)**	**$ 802**	**$ 6**	**$ (28)**	**$ 780**

14. Novel Coronavirus (COVID-19)

On March 12, 2020, the World Health Organization declared the current novel coronavirus ("COVID-19") outbreak to be a pandemic in the face of the global spread of the virus. The outbreak of COVID-19, a respiratory disease caused by a new strain of coronavirus, was first detected in China and has since spread globally, including to the United States and to New York State. On March 7, 2020, Governor Cuomo declared a Disaster Emergency in the State of New York. On March 13, 2020, President Trump declared a national state of emergency as a result of the COVID-19 pandemic. By order of Governor Cuomo ("New York State on PAUSE"), effective March 22, 2020, all non-essential businesses Statewide were required to be closed, among other restrictive social distancing and related measures. The PAUSE order was lifted on May 15, 2020 for five New York regions that met the requirements to start opening. However, a new order was signed by Governor Cuomo on May 15, 2020 extending the PAUSE to June 13, 2020 for New York City, Long Island and the Hudson Valley. The impact of social distancing and subsequent State governmental orders limiting non-essential activities caused by the COVID-19 pandemic resulted in a sharp decline in the utilization of MTA services, dramatic declines in MTA public transportation system ridership and fare revenues, and MTA Bridge and Tunnel crossing traffic and toll revenues.

The Coronavirus Aid, Relief and Economic Security Act, also known as the CARES Act, is a $2.2 trillion economic stimulus bill passed by Congress and signed into law by the President on March 27, 2020 in response to the economic fallout of the

COVID-19 pandemic in the United States. The CARES Act through the Federal Transit Administration's ("FTA") formula funding provisions is providing approximately $4 billion to MTA. Funding will be provided at a 100 percent Federal share, with no local match required, and is available to support operating, capital and other expenses generally eligible under those programs and incurred beginning on January 20, 2020, to prevent, prepare for, and respond to the COVID-19 pandemic, including operating service for essential workers, such as medical personnel and first responders. On May 8, 2020, the FTA approved MTA's initial grant application of $3.9 billion. On June 25, 2020, FTA approved an amendment to the initial CARES Act grant adding approximately $98 million in additional formula grant allocations to MTA for a CARES Act grant total of $4.009 billion. As of June 30, 2020, a total of $2.916 billion has been released to MTA for operating assistance that occurred from January 20, 2020 through May 31, 2020.

15. 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	BOA_ Merrill	Goldman Sachs	Goldman Sachs	Cargill	BOA_ Merrill	BOA_Merrill	Cargill	Cargill
Trade Date	7/31/2018	8/29/2018	9/25/2018	10/30/2018	11/27/2018	1/3/2019	1/29/2019	2/28/2019
Effective Date	7/1/2019	8/1/2019	9/1/2019	10/1/2019	11/1/2019	12/1/2019	1/1/2020	2/1/2020
Termination Date	6/30/2020	7/31/2020	8/31/2020	9/30/2020	10/31/2020	11/30/2020	12/31/2020	1/31/2021
Price/Gal	$2.1730	$2.2145	$2.2885	$2.2455	$1.9213	$1.7885	$1.9390	$2.0518
Original Notional Quantity	2,820,856	2,831,924	2,831,922	2,831,934	3,023,197	2,856,019	2,856,014	2,793,123

Counterparty	Goldman Sachs	Goldman Sachs	Goldman Sachs	Goldman Sachs	Goldman Sachs	Macquarie Energy LLC	BOA_ Merrill	Goldman Sachs
Trade Date	3/28/2019	4/30/2019	5/28/2019	6/25/2019	7/30/2019	8/27/2019	9/30/2019	10/29/2019
Effective Date	3/1/2020	4/1/2020	5/1/2020	6/1/2020	7/1/2020	8/1/2020	9/1/2020	10/1/2020
Termination Date	2/28/2021	3/31/2021	4/30/2021	5/31/2021	6/30/2021	7/31/2021	8/31/2021	9/30/2021
Price/Gal	$2.0045	$2.0650	$1.9675	$1.9200	$1.8875	$1.7790	$1.8075	$1.8420
Original Notional Quantity	2,849,714	2,874,889	2,851,286	2,851,258	2,788,533	2,842,790	2,844,946	2,839,784

Counterparty	Goldman Sachs	BOA_ Merrill	BOA_ Merrill	Goldman Sachs	Cargill	Macquarie Energy LLC	Goldman Sachs	BOA_ Merrill
Trade Date	11/26/2019	12/30/2019	1/30/2020	2/25/2020	3/24/2020	4/30/2020	5/27/2020	6/30/2020
Effective Date	11/1/2020	12/1/2020	1/1/2021	2/1/2021	3/1/2021	4/1/2021	5/1/2021	6/1/2021
Termination Date	10/31/2021	11/30/2021	12/31/2021	1/31/2022	2/28/2022	3/31/2022	4/30/2022	5/31/2022
Price/Gal	$1.8875	$1.9040	$1.7100	$1.8420	$1.3473	$2.0795	$1.8600	$1.7100
Original Notional Quantity	2,839,778	2,839,796	2,839,808	2,841,331	2,819,772	2,819,762	2,819,768	2,819,748

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, 2020, the total outstanding notional value of the ULSD contracts was 52.7 million gallons with a negative fair market value of $25.8 (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).

16. CONDENSED COMPONENT UNIT INFORMATION

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

June 30, 2020 (Unaudited)	MTA	Metro - North Railroad	Long Island Railroad	New York City Transit Authority	Triborough Bridge and Tunnel Authority	Eliminations	Consolidated Total
Current assets	$ 10,870	$ 244	$ 241	$ 523	$ 1,600	$ (384)	$ 13,094
Capital assets	12,157	5,541	8,258	45,536	6,907	-	78,399
Other Assets	13,766	-	-	1	467	(13,115)	1,119
Intercompany receivables	1,969	164	365	923	37	(3,458)	-
Deferred outflows of resources	1,671	430	555	2,253	548	(232)	5,225
Total assets and deferred outflows of resources	**$ 40,433**	**$ 6,379**	**$ 9,419**	**$ 49,236**	**$ 9,559**	**$ (17,189)**	**$ 97,837**
Current liabilities	$ 4,588	$ 294	$ 288	$ 2,055	$ 833	$ (108)	$ 7,950
Non-current liabilities	41,745	2,149	3,773	22,021	10,940	(218)	80,410
Intercompany payables	2,560	169	128	899	473	(4,229)	-
Deferred inflows of resources	254	145	264	1,855	109	-	2,627
Total liabilities and deferred inflows of resources	**$ 49,147**	**$ 2,757**	**$ 4,453**	**$ 26,830**	**$ 12,355**	**$ (4,555)**	**$ 90,987**
Net investment in capital assets	$ (30,399)	$ 5,528	$ 8,230	$ 45,284	$ 2,161	$ (503)	$ 30,301
Restricted	2,100	-	-	-	706	(436)	2,370
Unrestricted	19,585	(1,906)	(3,264)	(22,878)	(5,663)	(11,695)	(25,821)
Total net position	**$ (8,714)**	**$ 3,622**	**$ 4,966**	**$ 22,406**	**$ (2,796)**	**$ (12,634)**	**$ 6,850**
For the period ended June 30, 2020 (Unaudited)							
Fare revenue	$ 52	$ 171	$ 178	$ 1,174	$ -	$ -	$ 1,575
Vehicle toll revenue	-	-	-	-	734	-	734
Rents, freight and other revenue	29	23	16	192	9	(20)	249
Total operating revenue	**81**	**194**	**194**	**1,366**	**743**	**(20)**	**2,558**
Total labor expenses	562	466	547	3,458	116	-	5,149
Total non-labor expenses	220	167	165	858	104	(28)	1,486
Depreciation	38	124	207	1,025	86	-	1,480
Total operating expenses	**820**	**757**	**919**	**5,341**	**306**	**(28)**	**8,115**
Operating (deficit) surplus	**(739)**	**(563)**	**(725)**	**(3,975)**	**437**	**8**	**(5,557)**
Subsidies and grants	641	93	-	158	4	(52)	844
Tax revenue	3,725	-	-	402	-	(119)	4,008
Interagency subsidy	159	231	250	42	-	(682)	-
Interest expense	(709)	-	-	(1)	(156)	(8)	(874)
Other	542	212	350	2,094	190	(321)	3,067
Total non-operating revenues (expenses)	**4,358**	**536**	**600**	**2,695**	**38**	**(1,182)**	**7,045**
Gain (Loss) before appropriations	3,619	(27)	(125)	(1,280)	475	(1,174)	1,488
Appropriations, grants and other receipts externally restricted for capital projects	19	189	674	(288)	(155)	472	911
Change in net position	3,638	162	549	(1,568)	320	(702)	2,399
Net position, beginning of period	(12,352)	3,460	4,417	23,974	(3,116)	(11,932)	4,451
Net position, end of period	**$ (8,714)**	**$ 3,622**	**$ 4,966**	**$ 22,406**	**$ (2,796)**	**$ (12,634)**	**$ 6,850**
For the period ended June 30, 2020 (Unaudited)							
Net cash (used by) / provided by operating activities	$ (306)	$ (502)	$ (678)	$ (2,623)	$ 537	$ 161	$ (3,411)
Net cash provided by / (used by) non-capital financing activities	3,686	555	792	3,664	(249)	(3,435)	5,013
Net cash provided by / (used by) capital and related financing activities	433	(15)	(13)	(531)	367	780	1,021
Net cash (used by) / provided by investing activities	(3,893)	(50)	(100)	(522)	(503)	2,494	(2,574)
Cash at beginning of period	312	37	7	49	149	-	554
Cash at end of period	**$ 232**	**$ 25**	**$ 8**	**$ 37**	**$ 301**	**$ -**	**$ 603**

December 31, 2019	MTA	Metro-North Railroad	Long Island Railroad	New York City Transit Authority	Triborough Bridge and Tunnel Authority	Eliminations	Consolidated Total
Current assets	$ 6,051	$ 225	$ 228	$ 651	$ 702	$ (53)	$ 7,804
Capital assets	12,160	5,477	7,881	45,323	6,661	-	77,502
Other Assets	12,948	4	-	1	4	(11,904)	1,053
Intercompany receivables	724	90	167	1,372	739	(3,092)	-
Deferred outflows of resources	1,643	426	559	2,323	527	(178)	5,300
Total assets and deferred outflows of resources	**$ 33,526**	**$ 6,222**	**$ 8,835**	**$ 49,670**	**$ 8,633**	**$ (15,227)**	**$ 91,659**
Current liabilities	$ 4,210	$ 306	$ 258	$ 1,974	$ 823	$ (77)	$ 7,494
Non-current liabilities	39,106	2,171	3,771	21,867	10,318	(148)	77,085
Intercompany payables	2,306	140	125	-	499	(3,070)	-
Deferred inflows of resources	256	145	264	1,855	109	-	2,629
Total liabilities and deferred inflows of resources	**$ 45,878**	**$ 2,762**	**$ 4,418**	**$ 25,696**	**$ 11,749**	**$ (3,295)**	**$ 87,208**
Net investment in capital assets	$ (29,362)	$ 5,449	$ 7,853	$ 45,064	$ 2,097	$ 46	$ 31,147
Restricted	1,668	-	-	-	1,169	(857)	1,980
Unrestricted	15,342	(1,989)	(3,436)	(21,090)	(6,382)	(11,121)	(28,676)
Total net position	**$ (12,352)**	**$ 3,460**	**$ 4,417**	**$ 23,974**	**$ (3,116)**	**$ (11,932)**	**$ 4,451**
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	598	58	-	39	4	(54)	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)	**3,340**	**229**	**233**	**1,405**	**(135)**	**(1,301)**	**3,771**
Gain (Loss) before appropriations	2,641	(140)	(326)	(1,418)	544	(1,298)	3
Appropriations, grants and other receipts externally restricted for capital projects	(636)	180	558	222	(352)	1,107	1,079
Change in net position	2,005	40	232	(1,196)	192	(191)	1,082
Net position, beginning of the period	(11,267)	3,194	3,545	22,925	(3,601)	(10,843)	3,953
Net position, end of period	**$ (9,262)**	**$ 3,234**	**$ 3,777**	**$ 21,729**	**$ (3,409)**	**$ (11,034)**	**$ 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	(964)	(21)	(16)	(525)	(230)	1,552	(204)
Net cash provided by / (used in) investing activities	(56)	(50)	(100)	(16)	(159)	(22)	(403)
Cash at beginning of period	430	26	9	66	10	-	541
Cash at end of period	**$ 449**	**$ 26**	**$ 13**	**$ 54**	**$ 29**	**$ -**	**$ 571**

17. SUBSEQUENT EVENTS

On July 1, 2020, MTA liquidated the escrow securing the MTA Special Obligation Taxable Refunding Bonds, Series 2014. Proceeds from the liquidation of all securities held in escrow including any cash balances, were applied to the redemption of the remaining outstanding Series 2014 bonds.

On July 7, 2020, S&P Global Ratings downgraded MTA's Transportation Revenue Bonds from 'A-' to 'BBB+' with a negative outlook, under its Mass Transit Enterprise Ratings criteria.

On July 23, 2020, the Urban Development Corporation (dba "Empire State Development" or "ESD"), on behalf of the State of New York, issued its State Personal Income Tax Revenue Bonds, Series 2020C ("ESD Series 2020C Bonds"). A portion of the proceeds of the ESD Series 2020C Bonds, $1.1 billion, were applied to the retirement of certain short-term notes issued by MTA on behalf of the existing $7.3 billion commitment of NYS toward the MTA's 2015-2019 Capital Program. The proceeds were applied as follows: (i) $413.517, plus interest, to retire Transportation Revenue Anticipation Notes, Series 2020A ("Series 2020A RANs"), (ii) $104.672, plus interest, to retire Transportation Revenue Anticipation Notes, Series 2020B ("Series 2020B RANs"), and (iii) $600, plus interest, to retire Transportation Revenue Bond Anticipation Notes, Series 2019E.

On July 28, 2020, MTA executed a 2,819,761 gallon ultra-low sulfur diesel fuel hedge at an all-in price of $1.420 (whole dollars) per gallon. The hedge covers the period from July 2021 through June 2022.

On August 26, 2020, $450.720 of MTA Transportation Revenue Bond Anticipation Notes, Series 2020B were issued and purchased, pursuant to a Note Purchase Agreement, between MTA and Municipal Liquidity Facility LLC. Proceeds from the transaction were used to retire the existing outstanding MTA Transportation Revenue Bond Anticipation Notes, Subseries 2018C-1. The Series 2020B notes are fixed rate tax-exempt notes with a final maturity of August 1, 2023.

On August 27, 2020, MTA executed a 2,819,736 gallon ultra-low sulfur diesel fuel hedge at an all-in price of $1.434 (whole dollars) per gallon. The hedge covers the period from August 2021 through July 2022.

On September 11, 2020, Moody's Investors Service ("Moody") downgraded the rating on Metropolitan Transportation Authority's, NY (MTA) Transportation Revenue Bonds to A3 from A2 and affirmed the MIG 2 rating on MTA's Transportation Revenue Bond Anticipation Notes. Moody's assigned an A3 rating to MTA's $900 Transportation Revenue Green Bonds, Series 2020D (Climate Bond Certified). The outlook is negative.

On September 18, 2020, MTA issued $900 Transportation Revenue Green Bonds, Series 2020D (Climate Bond Certified) (the "Series 2020D Bonds"), maturing each November 15 from 2043 through 2050. The Series 2020D Bonds were issued to (i) finance existing approved transit and commuter projects, (ii) pay capitalized interest on the Series 2020D Bonds, and (iii) pay certain financing, legal, and miscellaneous expenses.

On September 21, 2020, Moody's Investors Service downgraded the rating to A3 from A2 on the Metropolitan Transportation Authority, NY (MTA) Hudson Rail Yards Trust Obligations, Series 2016 A. The outlook on the rating is revised to negative from stable. The downgrade to A3 incorporates a weakening of the liquidity support provided by the MTA, as reflected by the recent downgrade of the MTA's Transportation Revenue Bonds from A2/Neg to A3/Neg.

On September 29, 2020, MTA executed a 2,862,960 gallon ultra-low sulfur diesel fuel hedge at an all-in price of $1.3145 (whole dollars) per gallon. The hedge covers the period from September 2021 through August 2022.

On October 1, 2020, MTA effectuated a mandatory tender and remarketed $99 MTA Bridges and Tunnels General Revenue Variable Rate Bonds, Series 2018D, which will bear interest in a Fixed Rate Mode. Full details can be found in the Remarketing circular.

On October 5, 2020, KBRA downgraded MTA's Transportation Revenue Bonds from AA+ to AA, removed the Watch Downgrade and assigned a Negative Outlook, while affirming K1+ on MTA's Transportation Revenue BANs. KBRA's lower rating reflects the expectation that the sharp decline in ridership due to COVID-19 will continue well into 2021.

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REQUIRED SUPPLEMENTARY INFORMATION

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

($ in thousands)

	Additional Plan					MaBSTOA Plan				
Plan Measurement Date (December 31):	2018	2017	2016	2015	2014	2018	2017	2016	2015	2014
Total pension liability:										
Service cost	$ 1,057	$ 1,874	$ 2,752	$ 3,441	$ 3,813	$ 86,979	$ 84,394	$ 82,075	$ 77,045	$ 72,091
Interest	97,611	101,477	104,093	106,987	110,036	256,084	246,284	236,722	232,405	223,887
Effect of economic / demographic (gains) or losses	213	1,890	15,801	6,735	-	5,412	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	(159,565)	(159,717)	(158,593)	(157,071)	(156,974)	(213,827)	(209,122)	(187,823)	(179,928)	(175,447)
Net change in total pension liability	(60,684)	(54,476)	(35,947)	(39,908)	(43,125)	134,648	139,729	144,758	60,525	118,935
Total pension liability—beginning	1,471,828	1,526,304	1,562,251	1,602,159	1,645,284	3,676,476	3,536,747	3,391,989	3,331,464	3,212,529
Total pension liability—ending (a)	1,411,144	1,471,828	1,526,304	1,562,251	1,602,159	3,811,124	3,676,476	3,536,747	3,391,989	3,331,464
Plan fiduciary net position:										
Employer contributions	59,500	76,523	81,100	100,000	407,513	205,433	202,684	220,697	214,881	226,374
Nonemployer contributions	-	145,000	70,000	-	-	-	-	-	-	-
Member contributions	333	760	884	1,108	1,304	21,955	19,713	18,472	16,321	15,460
Net investment income	(31,098)	112,614	58,239	527	21,231	(87,952)	350,186	212,260	(24,163)	105,084
Benefit payments and withdrawals	(159,565)	(159,717)	(158,593)	(157,071)	(156,974)	(213,827)	(209,122)	(187,823)	(179,928)	(175,447)
Administrative expenses	(1,180)	(1,070)	(611)	(1,218)	(975)	(196)	(208)	(186)	(88)	(74)
Net change in plan fiduciary net position	(132,010)	174,110	51,019	(56,654)	272,099	(74,587)	363,253	263,420	27,023	171,397
Plan fiduciary net position—beginning	951,327	777,217	726,198	782,852	510,753	2,918,989	2,555,736	2,292,316	2,265,293	2,093,896
Plan fiduciary net position—ending (b)	819,317	951,327	777,217	726,198	782,852	2,844,402	2,918,989	2,555,736	2,292,316	2,265,293
Employer's net pension liability—ending (a)-(b)	$ 591,827	$ 520,501	$ 749,087	$ 836,053	$ 819,307	$ 966,722	$ 757,487	$ 981,011	$ 1,099,673	$ 1,066,171
Plan fiduciary net position as a percentage of the total pension liability	58.06%	64.64%	50.92%	46.48%	48.86%	74.63%	79.40%	72.26%	67.58%	68.00%
Covered payroll	$ 13,076	$ 20,500	$ 29,312	$ 39,697	$ 43,267	$ 776,200	$ 749,666	$ 716,527	$ 686,674	$ 653,287
Employer's net pension liability as a percentage of covered payroll	4526.06%	2539.03%	2555.56%	2106.09%	1893.61%	124.55%	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):	2018	2017	2016	2015	2014	2018	2017	2016	2015	2014
Total pension liability:										
Service cost	$ -	$ -	$ -	$ -	$ -	$ 162,273	$ 148,051	$ 138,215	$ 124,354	$ 121,079
Interest	20	21	24	29	32	358,118	335,679	308,009	288,820	274,411
Effect of economic / demographic (gains) or losses	(11)	12	(15)	(10)	-	75,744	(27,059)	86,809	121,556	2,322
Effect of assumption changes or inputs	-	-	-	18	-	-	10,731	-	(76,180)	-
Effect of plan changes	-	-	-	-	-	61,890	76,511	73,521	6,230	-
Benefit payments and withdrawals	(58)	(71)	(77)	(113)	(88)	(242,349)	(232,976)	(209,623)	(199,572)	(191,057)
Net change in total pension liability	(49)	(38)	(68)	(76)	(56)	415,676	310,937	396,931	265,208	206,755
Total pension liability—beginning	528	566	634	710	766	5,072,814	4,761,877	4,364,946	4,099,738	3,892,983
Total pension liability—ending (a)	479	528	566	634	710	5,488,490	5,072,814	4,761,877	4,364,946	4,099,738
Plan fiduciary net position:										
Employer contributions	5	-	23	18	-	338,967	321,861	280,768	221,694	331,259
Member contributions	-	-	-	-	-	29,902	31,027	29,392	34,519	26,006
Net investment income	1	20	16	6	41	(150,422)	516,153	247,708	(45,122)	102,245
Benefit payments and withdrawals	(58)	(71)	(77)	(113)	(88)	(242,349)	(232,976)	(209,623)	(199,572)	(191,057)
Administrative expenses	-	-	-	3	(3)	(3,152)	(4,502)	(3,051)	(1,962)	(9,600)
Net change in plan fiduciary net position	(52)	(51)	(38)	(86)	(50)	(27,054)	631,563	345,194	9,557	258,853
Plan fiduciary net position—beginning	523	574	612	698	748	4,051,534	3,419,971	3,074,777	3,065,220	2,806,367
Plan fiduciary net position—ending (b)	471	523	574	612	698	4,024,480	4,051,534	3,419,971	3,074,777	3,065,220
Employer's net pension liability—ending (a)-(b)	$ 8	$ 5	$ (8)	$ 22	$ 12	$ 1,464,010	$ 1,021,280	$ 1,341,906	$ 1,290,169	$ 1,034,518
Plan fiduciary net position as a percentage of the total pension liability	98.33%	99.05%	101.41%	96.53%	98.36%	73.33%	79.87%	71.82%	70.44%	74.77%
Covered payroll	$ 268	$ 471	$ 846	$ 1,474	$ 2,274	$ 2,030,695	$ 1,857,026	$ 1,784,369	$ 1,773,274	$ 1,679,558
Employer's net pension liability as a percentage of covered payroll	2.99%	1.06%	-0.95%	1.49%	0.53%	72.09%	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				
Plan Measurement Date:	June 30, 2019	June 30, 2018	June 30, 2017	June 30, 2016	June 30, 2015
MTA's proportion of the net pension liability	24.493%	23.682%	24.096%	23.493%	23.585%
MTA's proportionate share of the net pension liability	$ 4,536,510	$ 4,176,941	$ 5,003,811	$ 5,708,052	$ 4,773,787
MTA's actual covered payroll	$ 3,385,743	$ 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	113.989%	129.846%	158.616%	186.294%	159.686%
Plan fiduciary net position as a percentage of the total pension liability	78.836%	78.826%	74.805%	69.568%	73.125%

	NYSLERS Plan				
Plan Measurement Date:	March 31, 2019	March 31, 2018	March 31, 2017	March 31, 2016	March 31, 2015
MTA's proportion of the net pension liability	0.345%	0.327%	0.311%	0.303%	0.289%
MTA's proportionate share of the net pension liability	$ 24,472	$ 10,553	$ 29,239	$ 48,557	$ 9,768
MTA's actual covered payroll	$ 109,252	$ 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	22.400%	10.025%	30.273%	55.386%	11.187%
Plan fiduciary net position as a percentage of the total pension liability	96.267%	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.

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REQUIRED SUPPLEMENTARY INFORMATION

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

($ in thousands)

	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010
Additional Plan*										
Actuarially Determined Contribution	$ 62,774	$ 59,196	$ 76,523	$ 83,183	$ 82,382	$ 112,513	$ -	$ -	$ -	$ -
Actual Employer Contribution	62,774	59,500	221,523	151,100	100,000	407,513	-	-	-	-
Contribution Deficiency (Excess)	$ -	$ (304)	$ (145,000)	$ (67,917)	$ (17,618)	$(295,000)	$ -	$ -	$ -	$ -
Covered Payroll	$ 7,236	$ 13,076	$ 20,500	$ 29,312	$ 39,697	$ 43,267	$ -	$ -	$ -	$ -
Contributions as a % of Covered Payroll	480.09%	466.49%	1080.62%	515.49%	251.91%	941.87%	N/A	N/A	N/A	N/A
MaBSTOA Plan										
Actuarially Determined Contribution	$ 209,314	$ 202,509	$ 202,924	$ 220,697	$ 214,881	$ 226,374	$ 234,474	$ 228,918	$ 186,454	$ 200,633
Actual Employer Contribution	206,390	205,434	202,684	220,697	214,881	226,374	234,474	228,918	186,454	200,633
Contribution Deficiency (Excess)	$ 2,924	$ (2,925)	$ 240	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Covered Payroll	$ 786,600	$ 776,200	$ 749,666	$ 716,527	$ 686,674	$ 653,287	$ 582,081	$ 575,989	$ 579,696	$ 591,073
Contributions as a % of Covered Payroll	26.59%	26.47%	27.04%	30.80%	31.29%	34.65%	40.28%	39.74%	32.16%	33.94%
Metro-North Cash Balance Plan*										
Actuarially Determined Contribution	$ 8	$ 5	$ -	$ 23	$ -	$ 5	$ -	$ -	$ -	$ -
Actual Employer Contribution	-	5	-	23	14	-	-	-	-	-
Contribution Deficiency (Excess)	$ -	$ -	$ -	$ -	$ (14)	$ 5	$ -	$ -	$ -	$ -
Covered Payroll	$ 278	$ 268	$ 471	$ 846	$ 1,474	$ 2,274	$ -	$ -	$ -	$ -
Contributions as a % of Covered Payroll	2.99%	2.03%	0.00%	2.68%	0.96%	0.00%	N/A	N/A	N/A	N/A
MTA Defined Benefit Plan*										
Actuarially Determined Contribution	$ 349,928	$ 331,566	$ 316,916	$ 290,415	$ 273,700	$ 271,523	$ -	$ -	$ -	$ -
Actual Employer Contribution	343,862	339,800	321,861	280,767	221,694	331,259	-	-	-	-
Contribution Deficiency (Excess)	$ 6,066	$ (8,234)	$ (4,945)	$ 9,648	$ 52,006	$ (59,736)	$ -	$ -	$ -	$ -
Covered Payroll	$ 2,052,657	$ 2,030,695	$ 1,857,026	$ 1,784,369	$ 1,773,274	$ 1,679,558	$ -	$ -	$ -	$ -
Contributions as a % of Covered Payroll	16.19%	16.83%	17.33%	15.73%	12.50%	19.72%	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 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 Contributions for All Pension Plans for the Year Ended December 31,

($ in thousands)

	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010
NYCERS										
Actuarially Determined Contribution	$ 952,616	$ 807,097	$ 800,863	$ 797,845	$ 736,212	$ 741,223	$ 736,361	$ 731,983	$ 657,771	$ 574,555
Actual Employer Contribution	952,616	807,097	800,863	797,845	736,212	741,223	736,361	731,983	657,771	574,555
Contribution Deficiency (Excess)	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Covered Payroll	$ 3,948,283	$ 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
Contributions as a % of Covered Payroll	23.97%	20.31%	21.25%	22.64%	21.07%	20.49%	25.02%	25.02%	22.68%	19.90%
NYSLERS **										
Actuarially Determined Contribution	$ 14,851	$ 14,501	$ 13,969	$ 12,980	$ 15,792	$ 13,816	$ -	$ -	$ -	$ -
Actual Employer Contribution	14,851	14,501	13,969	12,980	15,792	13,816	-	-	-	-
Contribution Deficiency (Excess)	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Covered Payroll	$ 106,913	$ 109,210	$ 103,787	$ 94,801	$ 86,322	$ 84,041	$ -	$ -	$ -	$ -
Contributions as a % of Covered Payroll	13.60%	13.28%	13.46%	13.69%	18.29%	16.44%	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, 2018	January 1, 2017	January 1, 2016	January 1, 2015	January 1, 2014
Measurement Date:	December 31, 2018	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	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 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.	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%	3.00%
Actuarial assumptions:					
Discount Rate:	7.00%	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.	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.	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.	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.	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	N/A
Inflation/Railroad Retirement Wage Base:	2.50%; 3.50%	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	N/A

REQUIRED SUPPLEMENTARY INFORMATION

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

	MaBSTOA Plan				
Valuation Dates:	January 1, 2018	January 1, 2017	January 1, 2016	January 1, 2015	January 1, 2014
Measurement Date:	December 31, 2018	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)	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.	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 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.	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%	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.	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.	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.	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.	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.	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%	2.50%
Cost-of-Living Adjustments:	1.375% per annum	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, 2019	January 1, 2018	January 1, 2017	January 1, 2016	January 1, 2014
Measurement Date:	December 31, 2018	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	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.	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.	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	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%	4.00%	4.50%
Investment rate of return :	4.00%, net of investment expenses.	4.00%, net of investment expenses.	4.00%, net of investment expenses.	4.00%, 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 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.	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.	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	N/A
Inflation/Railroad Retirement Wage Base:	2.50%	2.50%	2.30%	2.30%	2.50%
Cost-of-Living Adjustments:	N/A	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, 2018	January 1, 2017	January 1, 2016	January 1, 2015	January 1, 2014
Measurement Date:	December 31, 2018	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	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.	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.	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. 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%	7.00%
Investment rate of return :	7.00%	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 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. Ortality 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.	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.	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	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%; 3.50%	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.	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, 2018	June 30, 2016	June 30, 2015	June 30, 2014	June 30, 2013
Measurement Date:	June 30, 2019	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	Entry Age Normal Cost
Amortization method:	Increasing Dollar for Initial Unfunded; Level Dollar for Post 2010 Unfundeds.	Increasing Dollar for Initial Unfunded; Level Dollar for Post 2010 Unfundeds.	Increasing Dollar for Initial Unfunded; Level Dollar for Post 2010 Unfundeds.	Increasing Dollar for Initial Unfunded; Level Dollar for Post 2010 Unfundeds.	Increasing Dollar for Initial Unfunded; Level Dollar for Post 2010 Unfundeds.
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.	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.	3% per annum.
Actuarial assumptions:					
Discount Rate:	7.00%	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.	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.	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	N/A
Post-retirement Healthy Lives:	N/A	N/A	N/A	N/A	N/A
Post-retirement Disabled Lives:	N/A	N/A	N/A	N/A	N/A
Inflation/Railroad Retirement Wage Base:	2.50%	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.	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, 2018	April 1, 2017	April 1, 2016	April 1, 2015	April 1, 2014
Measurement Date:	March 31, 2019	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	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.	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.	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%	3.80%	4.90%
Actuarial assumptions:					
Discount Rate:	7.00%	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.	7.00%, 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' Scale MP-2014.	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' 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' 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' 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' Scale MP-2014.
Pre-retirement:	N/A	N/A	N/A	N/A	N/A
Post-retirement Healthy Lives:	N/A	N/A	N/A	N/A	N/A
Post-retirement Disabled Lives:	N/A	N/A	N/A	N/A	N/A
Inflation/Railroad Retirement Wage Base:	2.50%	2.50%	2.50%	2.50%	2.70%
Cost-of-Living Adjustments:	1.3% per annum.	1.3% per annum.	1.3% per annum.	1.3% 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, 2018 valuation for the NYCERS plan.

There were no significant legislative changes in benefit for the April 1, 2018 valuation for the NYSLERS plan.

Changes of Assumptions:

There were no significant changes in the economic and demographic used in the June 30, 2018 valuation for the NYCERS plan.

There were no significant changes in the economic and demographic assumptions used in the April 1, 2018 valuation for the NYSLERS plan.

(A Component Unit of the State of New York)

REQUIRED SUPPLEMENTARY INFORMATION (UNAUDITED)

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

($ in thousands)

Plan Measurement Date (December 31):	**2018**	**2017**
Total OPEB liability:		
Service cost	$ 1,002,930	$ 884,548
Interest on total OPEB liability	734,968	731,405
Effect of plan changes	1,580	27,785
Effect of economic/demographic (gains) or losses	(19,401)	13,605
Effect of assumption changes or inputs	(1,800,135)	911,465
Benefit payments	(691,122)	(650,994)
Net change in total OPEB liability	(771,180)	1,917,814
Total OPEB liability—beginning	20,705,068	18,787,254
Total OPEB liability—ending (a)	19,933,888	20,705,068
Plan fiduciary net position:		
Employer contributions	691,122	650,994
Net investment income	(18,916)	47,370
Benefit payments	(691,122)	(650,994)
Administrative expenses	(56)	-
Net change in plan fiduciary net position	(18,972)	47,370
Plan fiduciary net position—beginning	370,352	322,982
Plan fiduciary net position—ending (b)	351,380	370,352
Net OPEB liability—ending (a)-(b)	$ 19,582,508	$ 20,334,716
Plan fiduciary net position as a percentage of the total OPEB liability	1.76%	1.79%
Covered payroll	$ 6,903,700	$ 5,394,332
Net OPEB liability as a percentage of covered payroll	283.65%	376.96%

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.

(A Component Unit of the State of New York)

REQUIRED SUPPLEMENTARY INFORMATION

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

($ in thousands)	2019	2018	2017
Actuarially Determined Contribution	N/A	N/A	N/A
Actual Employer Contribution (1)	$ 737,297	$ 696,065	$ 650,994
Contribution Deficiency (Excess)	N/A	N/A	N/A
Covered Payroll	$ 6,901,690	$ 6,903,700	$ 5,394,200
Actual Contribution as a Percentage of Covered Payroll	10.68%	10.08%	12.07%

(1) Actual employer contribution includes the implicit rate of subsidy adjustment of $76,758 and $74,484 for the years ended December 31, 2019 and 2018, 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	July 1, 2017
Measurement date	December 31, 2018	December 31, 2017
Discount rate	4.10%, net of expenses	3.44%, net of expenses
Inflation	2.50%	2.50%
Actuarial cost method	Entry Age Normal	Entry Age Normal
Amortization method	Level percentage of payroll	Level percentage of payroll
Normal cost increase factor	4.50%	4.50%
Investment rate of return	6.50%	6.50%
Salary increases	3%. Varies by years of service and differs for members of the various pension plans.	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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(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, 2019

($ in thousands)	Pension Funds			Other Employee Benefit Trust Funds		
	Defined Benefit Pension Plan	LIRR Company Plan for Additional Pensions	MaBSTOA Plan	Other Post-employment Benefit Plan	401K Plan	Total
ASSETS:						
Cash	$ 6,892	$ 1,114	$ 6,494	$ -	$ -	$ 14,500
Receivables:						
Employee loans	-	-	40,091	-	168,314	208,405
Participant and union contributions	-	20	-	-	-	20
Investment securities sold	-	104	1,036	-	-	1,140
Accrued interest and dividends	2,949	477	1,419	20	-	4,865
Other receivables	2,149	33	-	-	-	2,182
Total receivables	5,098	634	42,546	20	168,314	216,612
Investments at fair value:						
Investments measured at readily determined fair value	999,705	161,583	531,620	-	-	1,692,908
Investments measured at net asset value	3,776,051	676,685	2,730,290	414,929	2,887,279	10,485,234
Investments at contract value	-	-	-	-	1,435,218	1,435,218
Total investments	4,775,756	838,268	3,261,910	414,929	4,322,497	13,613,360
Total assets	$ 4,787,746	$ 840,016	$ 3,310,950	$ 414,949	$ 4,490,811	$ 13,844,472
LIABILITIES:						
Accounts payable and accrued liabilities	4,067	(342)	1,629	-	837	6,191
Payable for investment securities purchased	3,594	581	3,425	-	-	7,600
Accrued benefits payable	-	-	19	122	-	141
Accrued postretirement death benefits (PRDB) payable	-	-	3,360	-	-	3,360
Accrued 55/25 Additional Members Contribution (AMC) payable	-	-	5,787	-	-	5,787
Other liabilities	516	69	-	-	-	585
Total liabilities	8,177	308	14,220	122	837	23,664
NET POSITION:						
Restricted for pensions	4,779,569	839,708	3,296,730	-	-	8,916,007
Restricted for postemployment benefits other than pensions	-	-	-	414,827	-	414,827
Restricted for other employee benefits	-	-	-	-	4,489,974	4,489,974
Total net position	4,779,569	839,708	3,296,730	414,827	4,489,974	13,820,808
Total liabilities and net position	$ 4,787,746	$ 840,016	$ 3,310,950	$ 414,949	$ 4,490,811	$ 13,844,472

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, 2018

($ in thousands)	Pension Funds			Other Employee Benefit Trust Funds		
	Defined Benefit Pension Plan	LIRR Company Plan for Additional Pensions	MaBSTOA Plan	Other Post-employment Benefit Plan	Deferred Compensation 401K Plan	Total
ASSETS:						
Cash	$ 13,224	$ 2,484	$ 5,977	$ -	$ -	$ 21,685
Receivables:						
Employee loans	-	-	36,804	-	159,462	196,266
Participant and union contributions	-	-	-	-	-	-
Investment securities sold	-	58	672	-	-	730
Accrued interest and dividends	2,745	516	1,331	14	-	4,606
Other receivables	1,845	92	-	-	-	1,937
Total receivables	4,590	666	38,807	14	159,462	203,539
Investments at fair value:						
Investments measured at readily determined fair value	787,191	147,855	433,543	-	-	1,368,589
Investments measured at net asset value	3,228,219	669,902	2,379,443	351,538	2,286,394	8,915,496
Investments at contract value	-	-	-	-	1,313,496	1,313,496
Total investments	4,015,410	817,757	2,812,986	351,538	3,599,890	11,597,581
Total assets	$ 4,033,224	$ 820,907	$ 2,857,770	$ 351,552	$ 3,759,352	$ 11,822,805
LIABILITIES:						
Accounts payable and accrued liabilities	5,752	1,035	1,380	-	721	8,888
Payable for investment securities purchased	2,699	507	2,148	-	-	5,354
Accrued benefits payable	-	-	937	172	-	1,109
Accrued postretirement death benefits (PRDB) payable	-	-	2,921	-	-	2,921
Accrued 55/25 Additional Members Contribution (AMC) payable	-	-	5,982	-	-	5,982
Other liabilities	293	48	-	-	-	341
Total liabilities	8,744	1,590	13,368	172	721	24,595
NET POSITION:						
Restricted for pensions	4,024,480	819,317	2,844,402	-	-	7,688,199
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	2,844,402	351,380	3,758,631	11,798,210
Total liabilities and net position	$ 4,033,224	$ 820,907	$ 2,857,770	$ 351,552	$ 3,759,352	$ 11,822,805

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, 2019

($ in thousands)	Pension Funds			Other Employee Benefit Trust Funds		
	Defined Benefit Pension Plan	LIRR Additional Plan	MaBSTOA Plan	Other Post-employment Benefit Plan	Deferred Compensation 401K Plan	Total
ADDITIONS:						
Contributions:						
Employer contributions	$ 344,714	$ 62,774	$ 206,390	$ 660,539	$ 4,402	1,278,819
Non-Employer contributions	-	-	-	-	-	-
Implicit rate subsidy contribution	-	-	-	70,138	-	70,138
Participant rollovers	-	-	-	-	23,941	23,941
Member contributions	31,503	249	23,551	-	298,185	353,488
Total contributions	376,217	63,023	229,941	730,677	326,528	1,726,386
Investment income:						
Net (depreciation) / appreciation in fair value of investments	608,991	108,457	429,459	60,104	609,308	1,816,319
Dividend income	48,512	8,309	31,364	5,077	-	93,262
Interest income	12,628	2,216	10,534	249	-	25,627
Less: Investment expenses	22,867	3,642	27,530	1,783	-	55,822
Investment income, net	647,264	115,340	443,827	63,647	609,308	1,879,386
Other additions: Loan repayments - interest	0	0	0	0	8,979	8,979
Total additions	1,023,481	178,363	673,768	794,324	944,815	3,614,751
DEDUCTIONS:						
Benefit payments and withdrawals	264,878	157,254	221,221	660,539	-	1,303,892
Implicit rate subsidy payments	-	-	-	70,138	-	70,138
Transfer to other plans	106	-	-	-	98,450	98,556
Distribution to participants	-	-	-	-	107,396	107,396
Administrative expenses	3,408	718	219	200	837	5,382
Other deductions	-	-	-	-	6,789	6,789
Total deductions	268,392	157,972	221,440	730,877	213,472	1,592,153
Net increase (decrease) in fiduciary net position	755,089	20,391	452,328	63,447	731,343	2,022,598
NET POSITION:						
Restricted for Benefits:						
Beginning of year	4,024,480	819,317	2,844,402	351,380	3,758,631	11,798,210
End of year	$ 4,779,569	$ 839,708	$ 3,296,730	$ 414,827	$ 4,489,974	$ 13,820,808

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	Other Post-employment Benefit Plan	Deferred Compensation 401K Plan	Total
ADDITIONS:						
Contributions:						
Employer contributions	$ 338,967	$ 59,500	$ 205,433	$ 616,638	$ 4,392	$ 1,224,930
Non-Employer contributions	-	-	-	-	-	-
Implicit rate subsidy contribution	-	-	-	74,484	-	74,484
Participant rollovers	-	-	-	-	21,673	21,673
Member contributions	29,902	333	21,955	-	283,818	336,008
Total contributions	368,869	59,833	227,388	691,122	309,883	1,657,095
Investment income:						
Net appreciation/ (depreciation) in fair value of investments	(169,255)	(35,344)	(97,896)	(22,591)	(139,054)	(464,140)
Dividend income	56,670	11,441	37,259	5,203	-	110,573
Interest income	9,254	1,715	7,891	161	-	19,021
Less: Investment expenses	47,091	8,910	35,206	1,689	-	92,896
Investment income, net	(150,422)	(31,098)	(87,952)	(18,916)	(139,054)	(427,442)
Other additions: Loan repayments - interest	0	0	0	0	7,529	7,529
Total additions	218,447	28,735	139,436	672,206	178,358	1,237,182
DEDUCTIONS:						
Benefit payments and withdrawals	242,149	159,565	213,827	616,638	-	1,232,179
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	1,180	196	56	721	5,305
Other deductions	-	-	-	-	5,410	5,410
Total deductions	245,501	160,745	214,023	691,178	186,697	1,498,144
Net increase (decrease) in fiduciary net position	(27,054)	(132,010)	(74,587)	(18,972)	(8,339)	(260,962)
NET POSITION:						
Restricted for Benefits:						
Beginning of year	4,051,534	951,327	2,918,989	370,352	3,766,970	12,059,172
End of year	$ 4,024,480	$ 819,317	$ 2,844,402	$ 351,380	$ 3,758,631	$ 11,798,210

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, 2020
($ in millions)

Category (Unaudited)	Financial Plan Actual	Statement GAAP Actual	Variance
REVENUE:			
Farebox revenue	$ 1,574	$ 1,575	$ 1
Vehicle toll revenue	735	734	(1)
Other operating revenue	3,237	249	(2,988)
Total revenue	5,546	2,558	(2,988)
OPERATING EXPENSES:			
Labor:			
Payroll	2,652	2,669	17
Overtime	400	404	4
Health and welfare	673	670	(3)
Pensions	736	791	55
Other fringe benefits	476	475	(1)
Postemployment benefits	256	330	74
Reimbursable overhead	(180)	(190)	(10)
Total labor expenses	5,013	5,149	136
Non-labor:			
Electric power	183	180	(3)
Fuel	60	60	-
Insurance	3	3	-
Claims	219	219	-
Paratransit service contracts	161	161	-
Maintenance and other operating contracts	341	321	(20)
Professional service contract	233	200	(33)
Pollution remediation project costs	3	3	-
Materials and supplies	260	260	-
Other business expenses	80	79	(1)
Total non-labor expenses	1,543	1,486	(57)
Depreciation	1,480	1,480	-
Other Expenses Adjustment	36	-	(36)
Total operating expenses	8,072	8,115	43
NET OPERATING LOSS	$ (2,526)	$ (5,557)	$ (3,031)

(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, 2020
($ in millions)

(Unaudited) Accrued Subsidies	Financial Plan Actual	Financial Statement GAAP Actual	Variance	
Mass transportation operating assistance	$ 2,144	$ 2,143	$ (1)	{1}
Mass transit trust fund subsidies	207	258	51	{1}
Mortgage recording tax 1 and 2	214	214	-	{1}
MRT transfer	-	(2)	(2)	{1}
Urban tax	198	198	-	{1}
State and local operating assistance	217	217	-	{1}
Station maintenance	86	87	1	{1}
Connecticut Department of Transportation (CDOT)	94	94	-	{1}
Subsidy from New York City for MTA Bus and SIRTOA	74	258	184	{1}
Build American Bonds Subsidy	-	45	45	{1}
Mobility tax	834	1,110	276	{1}
Assistance Fund (For hire vehicle)	161	128	(33)	{1}
Real Property Transfer Tax Surcharge (Mansion Tax)	92	104	12	{1}
Internet Marketplace Tax	85	85	-	{1}
Transfer to Central Business District Capital Lockbox	(177)	-	177	{1}
Other non-operating income	4	64	60	{2}
Federal Transit Administration reimbursement related to CARES Act	-	2,916	2,916	{2}
Total accrued subsidies	**4,233**	**7,919**	**3,686**	
Net operating deficit before subsidies and debt service	(2,526)	(5,557)	(3,031)	
Debt Service	(1,397)	(874)	523	
Conversion to Cash basis: Depreciation	1,480	-	(1,480)	
Conversion to Cash basis: GASB 75 OPEB adjustment	(12)	-	12	
Conversion to Cash basis: GASB 68 pension adjustment	(6)	-	6	
Conversion to Cash basis: Pollution & Remediation	3	-	(3)	
Total net operating surplus/(deficit) before appropriations, grants and other receipts restricted for capital projects	**$ 1,775**	**$ 1,488**	**$ (287)**	

{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.

(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 JUNE 30, 2020
($ in millions)

Financial Plan Actual Operating Loss at June 30, 2020			**$ (2,526)**
The Financial Plan Actual Includes:			
1	Higher other operating revenues primarily from CARES Act funding, which is reported in the Financial Statements as non-operating revenues as per GASB guidance.		(2,988)
2	Lower labor expense primarily from lower OPEB expense projections		(136)
3	Higher non-labor expense primarily from higher professional service contracts		57
4	Other expense adjustments		36
Total operating reconciling items			**(3,031)**
Financial Statements Operating Loss at June 30, 2020			**(5,557)**
Financial Plan Surplus after Subsidies and Debt Service			**1,775**
The Audited Financial Statements Includes:			
1	Debt service bond principal payments		523
2	Adjustments for non-cash liabilities:		
	Depreciation	(1,480)	
	Unfunded OPEB expense	12	
	Unfunded GASB No. 68 pension adjustment	6	
	Other non-cash liability adjustment	(3)	(1,465)
The Financial Statement includes:			
3	Higher subsidies and other non-operating revenues and expenses, which includes CARES Act funding		3,686
4	Total operating reconciling items (from above)		(3,031)
Financial Statement Gain Before Capital Appropriations			**$ 1,488**

2018 Inspection
Deloitte & Touche LLP

(Headquartered in New York, New York)

April 28, 2020

PCAOB
Public Company Accounting Oversight Board

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. 104-2020-008

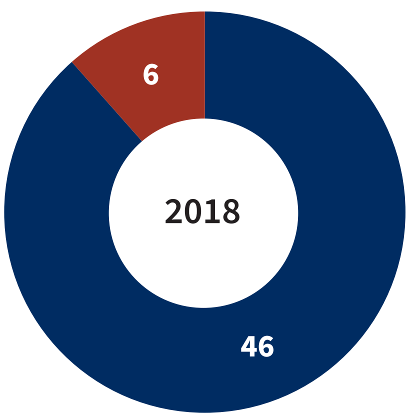
Executive Summary

Our 2018 inspection report on Deloitte & Touche LLP provides information on our inspection to assess the firm's compliance with Public Company Accounting Oversight Board ("PCAOB") standards and rules and other applicable regulatory and professional requirements. This executive summary offers a high-level overview of: (1) Part I.A of the report, which discusses deficiencies ("Part I.A deficiencies") in certain issuer audits that were of such significance that we believe the firm, at the time it issued its audit report(s), had not obtained sufficient appropriate audit evidence to support its opinion on the issuer's financial statements and/or internal control over financial reporting ("ICFR"), and (2) Part I.B of the report, which discusses deficiencies that do not relate directly to the sufficiency or appropriateness of evidence the firm obtained to support its opinion(s) but nevertheless relate to instances of non-compliance with PCAOB standards or rules.

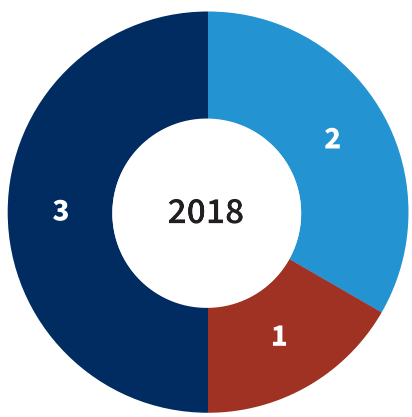
The fact that we have included a deficiency in this report — other than those deficiencies for audits with incorrect opinions on the financial statements and/or ICFR — does not necessarily mean that the issuer's financial statements are materially misstated or that undisclosed material weaknesses in ICFR exist. If a deficiency is included in Part I.A or Part I.B of this report, it does not necessarily mean that the firm has not addressed the deficiency.

Overview of the 2018 Deficiencies Included in Part I

Six of the 52 issuer audits we reviewed in 2018 are included in Part I.A of this report due to the significance of the deficiencies identified. The identified deficiencies related to the firm's testing of controls over and/or substantive testing of insurance-related assets and liabilities, including insurance reserves; investment securities; revenue and related accounts; and deposit liabilities.



- Audits without Part I.A deficiencies
- Audits with Part I.A deficiencies



- Deficiencies in both financial statement and ICFR audits
- Deficiencies in the financial statement audit only
- Deficiencies in the ICFR audit only

The most common Part I.A deficiencies in 2018 related to testing controls over the accuracy and completeness of data or reports, testing the design or operating effectiveness of controls selected for testing, and evaluating significant assumptions or data that the issuer used in developing an estimate.

Other deficiencies identified during the 2018 inspection that do not relate directly to the sufficiency or appropriateness of evidence the firm obtained to support its opinion(s), which appear in Part I.B, related to retention of audit documentation and Form AP.

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2018 Inspection

During the PCAOB's 2018 inspection of Deloitte & Touche LLP, we assessed the firm's compliance with laws, rules, and professional standards applicable to the audits of public companies.

We selected for review 52 audits of issuers with fiscal years generally ending in 2017. For each issuer audit selected, we reviewed a portion of the audit. We also evaluated elements of the firm's system of quality control.

What's Included in this Inspection Report

This report includes the following sections:

- **Overview of the 2018 Inspection and Historical Data by Inspection Year:** Information on our inspection, historical data, and common deficiencies.
- **Part I – Inspection Observations:**
  - **Part I.A:** Deficiencies that were of such significance that we believe the firm, at the time it issued its audit report(s), had not obtained sufficient appropriate audit evidence to support its opinion on the issuer's financial statements and/or ICFR.
  - **Part I.B:** Deficiencies that do not relate directly to the sufficiency or appropriateness of evidence the firm obtained to support its opinion(s) but nevertheless relate to instances of non-compliance with PCAOB standards or rules.
- **Part II – Observations Related to Quality Control:** Criticisms of, or potential defects in, the firm's system of quality control. Section 104(g)(2) of the Sarbanes-Oxley Act ("the Act") restricts us from publicly disclosing Part II deficiencies unless the firm does not address the criticisms or potential defects to the Board's satisfaction no later than 12 months after the issuance of this report.
- **Appendix A – Firm's Response to the Draft Inspection Report:** The firm's response to a draft of this report, excluding any portion granted confidential treatment.

2018 Inspection Approach

In selecting issuer audits for review, we use both risk-based and random methods of selection. We make most selections based on (1) our internal evaluation of audits we believe have a heightened risk of material misstatement, including those with challenging audit areas, and (2) other risk-based characteristics, including issuer and firm considerations. We select the remaining audits randomly to provide an element of unpredictability.

When we review an audit, we do not review every aspect of the audit. Rather, we generally focus our attention on audit areas we believe to be of greater complexity, areas of greater significance or with a heightened risk of material misstatement to the issuer's financial statements, and areas of recurring deficiencies. We may also select some audit areas for review in a manner designed to incorporate unpredictability.

Our selection of audits for review does not constitute a representative sample of the firm's total population of issuer audits. Additionally, our inspection findings are specific to the particular portions of the issuer audits reviewed. They are not an assessment of all of the firm's audit work nor of all of the audit procedures performed for the audits reviewed.

View the details on the scope of our inspections and our inspections procedures.

Overview of the 2018 Inspection and Historical Data by Inspection Year

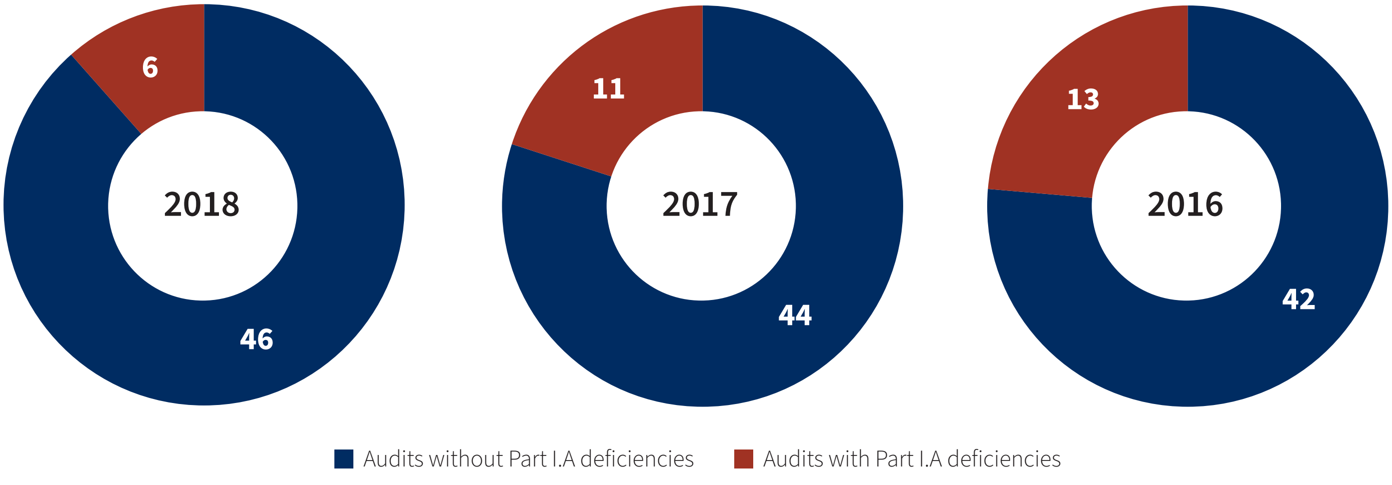
The following information provides an overview of our inspections in 2018 of the firm's issuer audits as well as data from the previous two inspections. We use a combination of risk-based and random methods to select audits for review and to identify areas on which we focus our inspection. Because our inspection process evolves over time, it can, and often does, focus on a different mix of audits and focus areas from year to year and firm to firm. As a result of this variation, we caution that our inspection results are not necessarily comparable over time or among firms.

Audits Reviewed

	2018	2017	2016
Total audits reviewed	52	55	55
Audits in which the firm was the principal auditor	51	54	54
Audits in which the firm was not the principal auditor	1	1	1
Integrated audits of financial statements and ICFR	49	52	53
Risk-based selections	42	45	45
Random selections	10	10	10

Part I.A Deficiencies in Audits Reviewed

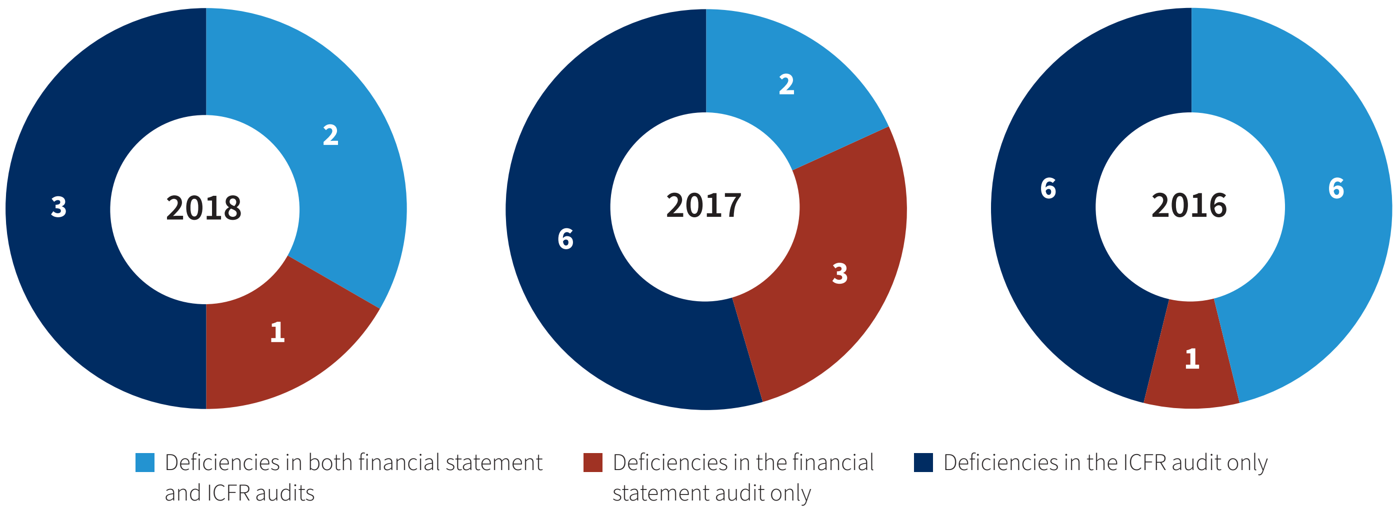
In 2018 and 2017, all audits appearing in Part I.A were selected for review using risk-based criteria. In 2016, 12 of the 13 audits appearing in Part I.A were selected for review using risk-based criteria.



If a deficiency is included in Part I.A of our report, it does not necessarily mean that the firm has not addressed the deficiency. In many cases, the firm has performed remedial actions after the issue was identified. Depending on the circumstances, remedial actions may include performing additional audit procedures, informing management of the issuer of the need for changes to the financial statements or reporting on ICFR, or taking steps to prevent reliance on prior audit reports. Our inspection normally includes a review, on a sample basis, of the adequacy of a firm's remedial actions, either with respect to previously identified deficiencies or deficiencies identified during that inspection. If a firm does not take appropriate actions to address deficiencies, we may criticize its system of quality control or pursue a disciplinary action.

The fact that we have included a deficiency in our report — other than those deficiencies for audits with incorrect opinions on the financial statements and/or ICFR — does not necessarily mean that the issuer's financial statements are materially misstated or that undisclosed material weaknesses in ICFR exist. It is often not possible for us to reach a conclusion on those points based on our inspection procedures and related findings because, for example, we have only the information that the auditor retained and the issuer's public disclosures. We do not have direct access to the issuer's management, underlying books and records, and other information.

Audits Affected by the Deficiencies Identified in Part I.A



In connection with our 2017 and 2016 inspection procedures for one audit in each year, the issuer revised its report on ICFR, and the firm revised its opinion on the effectiveness of the issuer's ICFR to express an adverse opinion and reissued its report.

The following tables and graphs summarize inspection-related information, by inspection year, for 2018 and the previous two inspections. We caution any comparison of the data provided without reading the descriptions of the underlying deficiencies in each respective inspection report.

Most Frequently Identified Part I.A Deficiencies

Deficiencies in audits of financial statements	Audits with Part I.A deficiencies		
	2018	2017	2016
Did not sufficiently evaluate significant assumptions or data that the issuer used in developing an estimate	2	0	5

Deficiencies in ICFR audits	Audits with Part I.A deficiencies		
	2018	2017	2016
Did not identify and/or sufficiently test controls over the accuracy and completeness of data or reports	3	2	4
Did not perform sufficient testing of the design and/or operating effectiveness of controls selected for testing	2	7	9

Audit Areas Most Frequently Reviewed

This table reflects the five focus areas we have selected most frequently for review in each inspection year (and the related Part I.A deficiencies). For the issuer audits selected for review, we selected these areas because they were generally significant to the issuer's financial statements, may have included complex issues for auditors, and/or involved complex judgments in (1) estimating and auditing the reported value of related accounts and disclosures and (2) implementing and auditing the related controls.

2018			2017			2016		
Audit area	Audits reviewed	Audits with Part I.A deficiencies	Audit area	Audits reviewed	Audits with Part I.A deficiencies	Audit area	Audits reviewed	Audits with Part I.A deficiencies
Revenue and related accounts	47	1	**Revenue and related accounts**	49	6	**Revenue and related accounts**	48	3
Business combinations	17	0	**Inventory**	22	2	**Inventory**	20	2
Inventory	16	0	**Goodwill and intangible assets**	21	1	**Goodwill and intangible assets**	16	1
Goodwill and intangible assets	12	0	**Long-lived assets**	15	0	**Long-lived assets**	15	3
Income taxes	10	0	**Business combinations**	11	2	**Business combinations**	10	1

Audit Areas with Frequent Part I.A Deficiencies

This table reflects the focus areas with the most frequently identified Part I.A deficiencies in each inspection year with the corresponding results for the other two years presented.

Audit area	2018		2017		2016	
	Audits with Part I.A deficiencies	Audits reviewed	Audits with Part I.A deficiencies	Audits reviewed	Audits with Part I.A deficiencies	Audits reviewed
Insurance-related assets and liabilities, including insurance reserves	3	5	1	3	0	2
Revenue and related accounts	1	47	6	49	3	48
Investment securities	1	7	1	7	3	8
Deposit liabilities	1	1	0	2	0	0
Inventory	0	16	2	22	2	20
Business combinations	0	17	2	11	1	10
Long-lived assets	0	9	0	15	3	15

Insurance-related assets and liabilities, including insurance reserves: The deficiencies in 2018 related to substantive testing of, and testing controls over, the accuracy of claims data used by the issuer to determine the estimated liabilities. The deficiencies in 2017 related to testing controls over insurance-related liabilities.

Revenue and related accounts: The deficiencies in 2018 related to testing controls over revenue. The deficiencies in 2017 and 2016 related to substantive testing of, and testing controls over, revenue.

Investment securities: The deficiencies in 2018, 2017, and 2016 primarily related to testing controls over the valuation of investment securities.

Deposit liabilities: The deficiency in 2018 related to substantive testing of the recorded balance of deposit liabilities.

Inventory: The deficiencies in 2017 related to substantive testing of the existence of inventory and testing cycle-count controls. The deficiencies in 2016 related to substantive testing of the existence and valuation of inventory and testing controls over the valuation of inventory.

Business combinations: The deficiencies in 2017 related to testing controls involving the issuer's review of assumptions used to value acquired intangible assets. The deficiencies in 2016 related to testing controls over the valuation of acquired loans.

Long-lived assets: The deficiencies in 2016 related to substantive testing of, and testing controls over, long-lived assets evaluated for potential impairment.

Auditing Standards Associated with Identified Part I.A Deficiencies

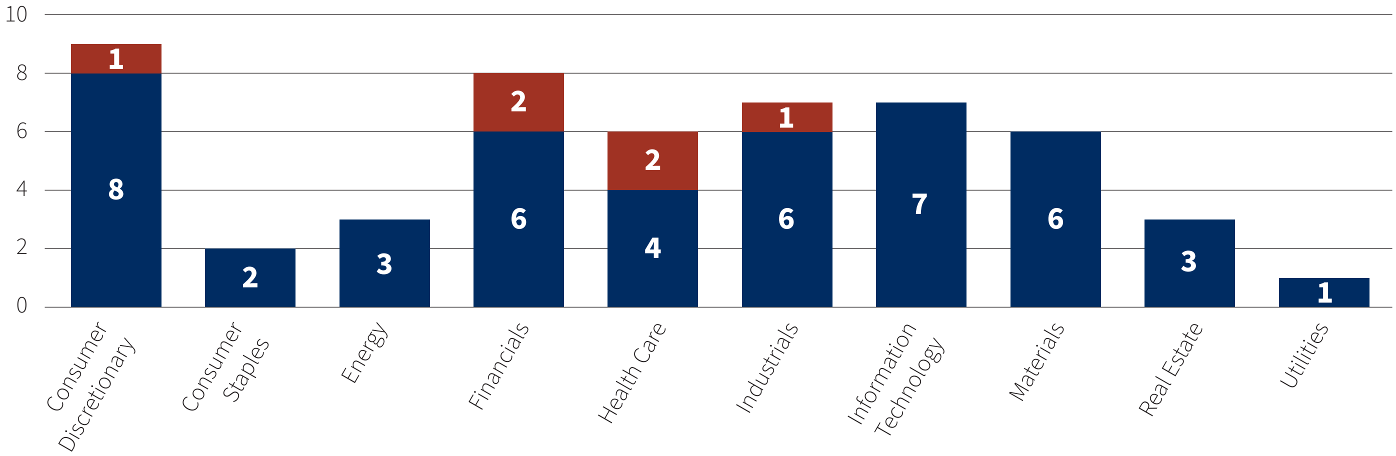
The following lists the auditing standards referenced in Part I.A of the 2018 and the previous two inspection reports and the number of times that the standard is cited in Part I.A.

PCAOB Auditing Standards	2018	2017	2016
AS 1105, ***Audit Evidence***	2	0	1
AS 2110, ***Identifying and Assessing Risks of Material Misstatement***	0	0	1
AS 2201, ***An Audit of Internal Control Over Financial Reporting That Is Integrated with An Audit of Financial Statements***	5	13	21
AS 2301, ***The Auditor's Responses to the Risks of Material Misstatement***	0	3	4
AS 2305, ***Substantive Analytical Procedures***	0	0	1
AS 2310, ***The Confirmation Process***	1	0	0
AS 2315, ***Audit Sampling***	0	1	1
AS 2501, ***Auditing Accounting Estimates***	0	0	4
AS 2502, ***Auditing Fair Value Measurements and Disclosures***	0	0	1
AS 2503, ***Auditing Derivative Instruments, Hedging Activities, and Investments in Securities***	0	0	1
AS 2510, ***Auditing Inventories***	0	1	1
AS 2801, ***Subsequent Events***	0	0	1
AS 2810, ***Evaluating Audit Results***	0	4	0

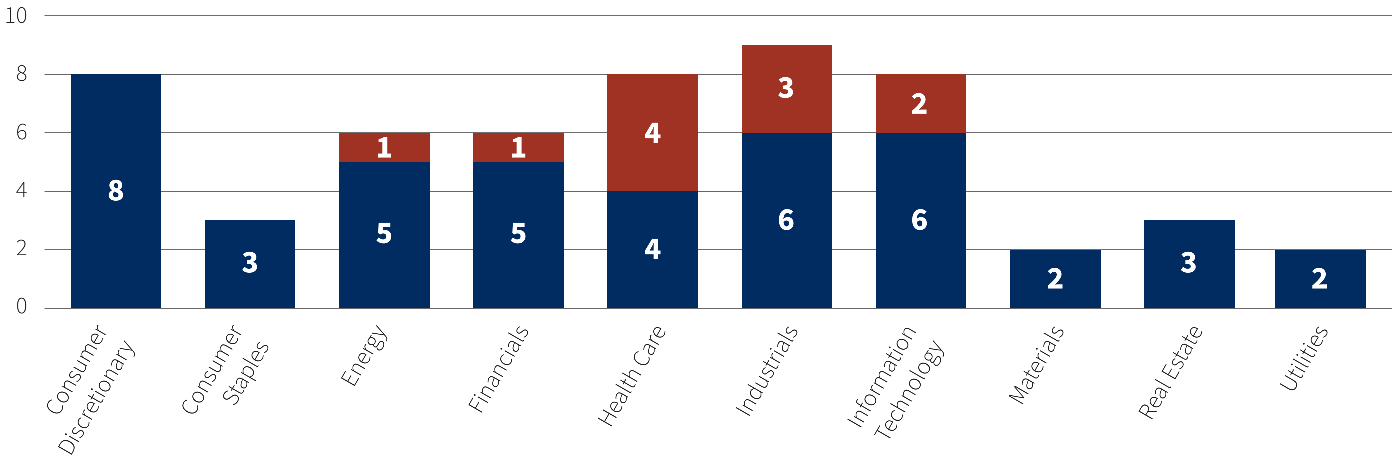
Inspection Results by Issuer Industry Sector

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 data for an issuer is not available from S&P, classifications are assigned based upon North American Industry Classification System data.

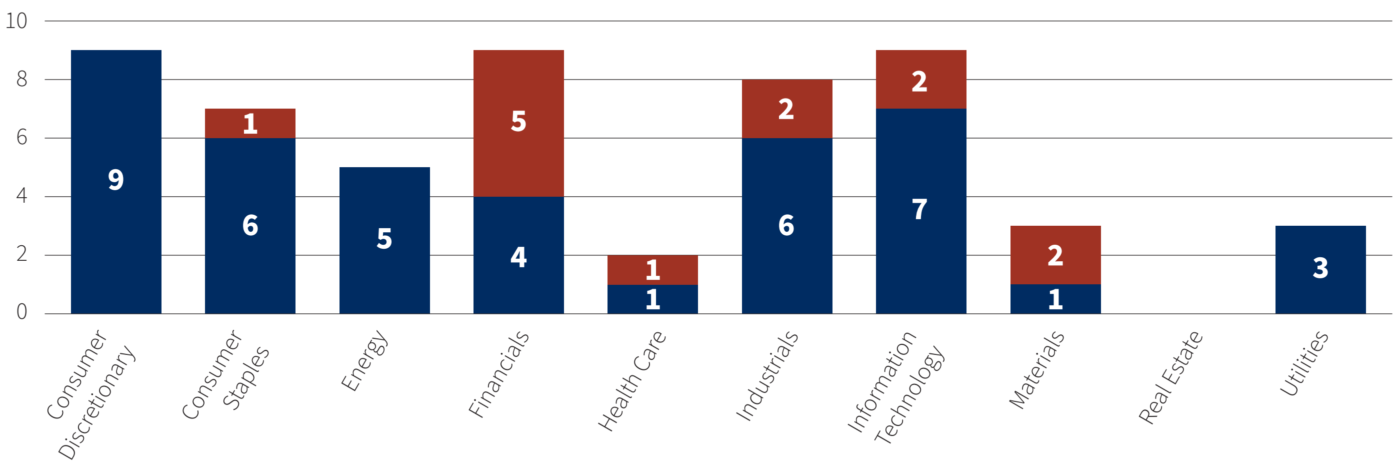
2018



2017



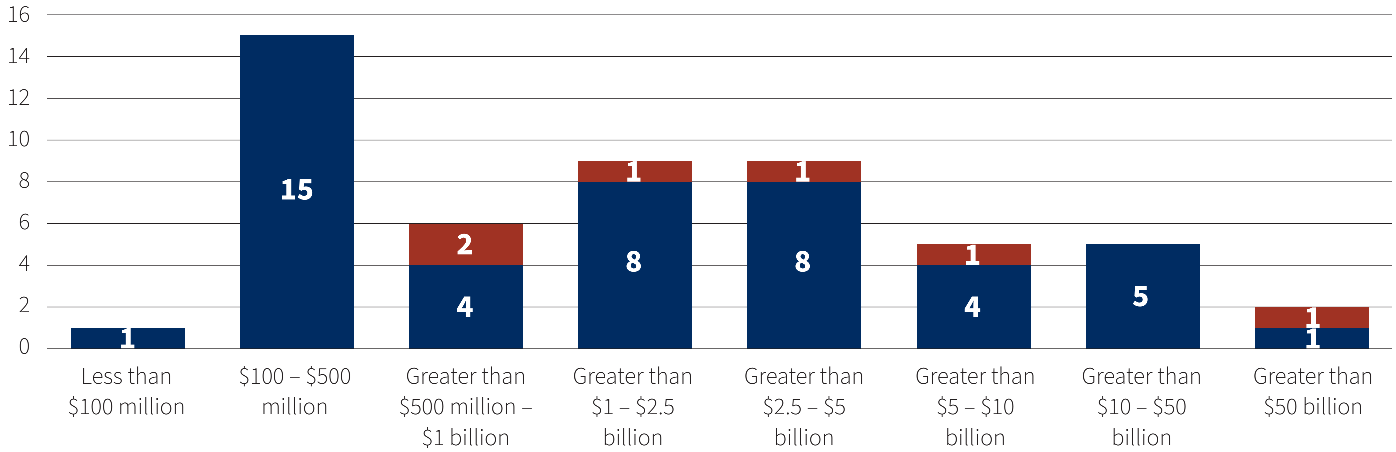
2016



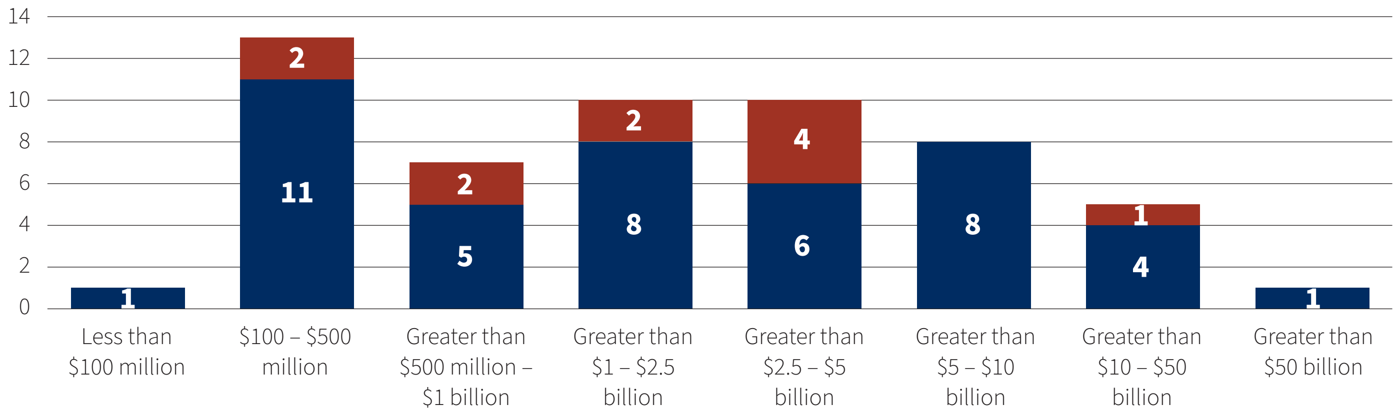
Audits without Part I.A deficiencies　Audits with Part I.A deficiencies

Inspection Results by Issuer Revenue Range

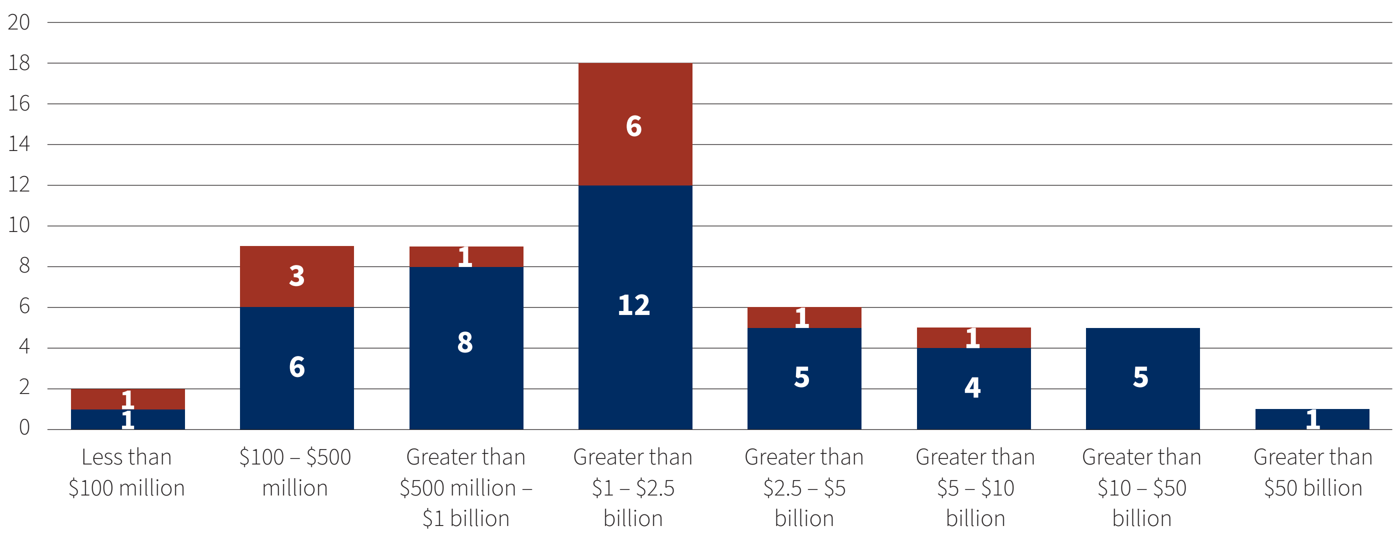
2018



2017



2016



Classification of Audits with Part I.A Deficiencies

Within Part I.A of this report, we classify each issuer audit in one of the categories discussed below based on the Part I.A deficiency or deficiencies identified in our review.

The sole purpose of this classification system is to group and present issuer audits by the number of Part I.A deficiencies we identified within the audit as well as to highlight audits with an incorrect opinion on the financial statements and/or ICFR.

Audits with an Incorrect Opinion on the Financial Statements and/or ICFR

This classification includes instances where an audit deficiency was identified in connection with our inspection and, as a result, an issuer's financial statements were determined to be materially misstated, and the issuer restated its financial statements. It also includes instances where an audit deficiency was identified in connection with our inspection and, as a result, an issuer's ICFR was determined to be ineffective, or there were additional material weaknesses that the firm did not identify, and the firm withdrew its opinion, or modified its report, on ICFR.

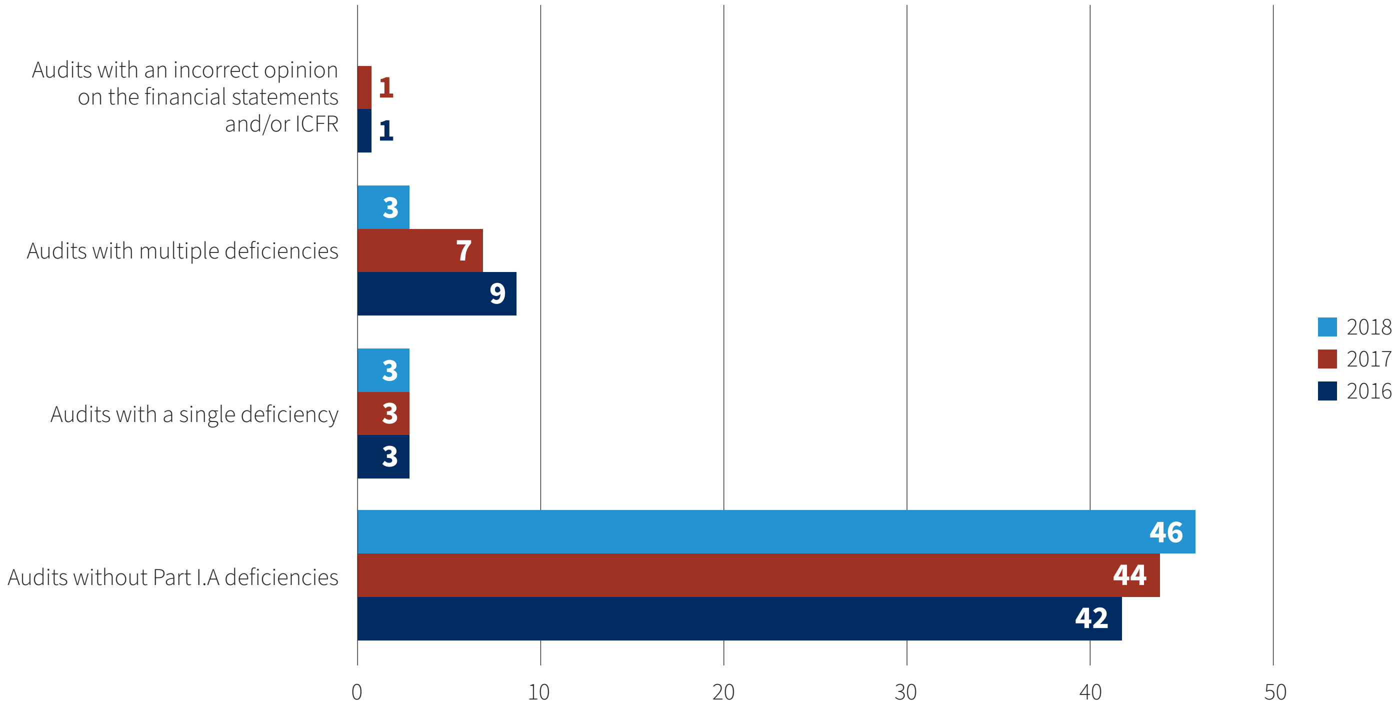
Audits with Multiple Deficiencies

This classification includes instances where multiple deficiencies were identified that related to a combination of one or more financial statement accounts, disclosures, and/or important controls in an ICFR audit.

Audits with a Single Deficiency

This classification includes instances where a single deficiency was identified that related to a financial statement account or disclosure or to an important control in an ICFR audit.

Number of Audits in Each Category



Part I: Inspection Observations

Part I.A of our report discusses deficiencies that were of such significance that we believe the firm, at the time it issued its audit report(s), had not obtained sufficient appropriate audit evidence to support its opinion on the issuer's financial statements and/or ICFR. Part I.B discusses deficiencies that do not relate directly to the sufficiency or appropriateness of evidence the firm obtained to support its opinion(s) but nevertheless relate to instances of non-compliance with PCAOB standards or rules. Consistent with the Act, it is the Board's assessment that nothing in Part I of this report deals with a criticism of or potential defect in the firm's quality control system. Any such criticisms or potential defects are discussed in Part II. Further, you should not infer from any Part I deficiency or combination of deficiencies that a quality control finding is identified in Part II.

Part I.A: Audits with Unsupported Opinions

This section of our report discusses the deficiencies identified, by specific issuer audit reviewed, in the audit work supporting the firm's opinion on the issuer's financial statements and/or ICFR.

We identify each issuer by a letter (e.g., Issuer A) and industry sector. Each deficiency could relate to several auditing standards, but we reference the PCAOB standard(s) that most directly relates to the requirement with which the firm did not comply.

Issuer audits are presented below within their respective deficiency classifications (as discussed previously). Within the classifications, we generally present the audits based on our assessment as to the relative significance of the identified deficiencies taking into account the significance of the financial statement accounts and/or disclosures affected, and/or the nature or extent of the deficiencies.

Audits with an Incorrect Opinion on the Financial Statements and/or ICFR

None

Audits with Multiple Deficiencies

Issuer A – Consumer Discretionary

Type of audit and related area affected

In our review, we identified deficiencies in the ICFR audit related to **Revenue**.

Description of the deficiencies identified

The issuer generated certain revenue at numerous locations from sales of multiple types of products. The firm selected for testing controls over this revenue that included (1) reviews of each location's monthly operating results and (2) reviews of monthly and year-to-date revenue for each type of product. The firm did not evaluate the specific review procedures that the control owners performed to evaluate whether the amounts recognized as revenue were appropriate. (AS 2201.42 and .44)

Issuer B – Industrials

Type of audit and related area affected

In our review, we identified deficiencies in the financial statement and ICFR audits related to **Liabilities for Unpaid Insurance Claims**.

Description of the deficiencies identified

The issuer was self-insured for certain liabilities, and it used a service organization to administer the majority of the related claims. The claims data processed by this service organization were used to estimate the issuer's liabilities for unpaid insurance claims. The firm selected for testing a control over the accuracy of these claims data that consisted of claim audits performed by the service organization. The firm obtained the service auditor's report on the operating effectiveness of the service organization's controls but did not identify that the service auditor's testing of this control did not address the accuracy of the claims data. (AS 2201.B21)

The firm's approach for testing the liabilities for unpaid insurance claims was to develop an independent estimate. The firm did not perform substantive procedures to test, or (as discussed above) to sufficiently test controls over, the accuracy of claims data used in its independent estimate, beyond comparing a sample of claims from the service organization's claims processing system to claims data in the same system. (AS 1105.10)

Issuer C – Health Care

Type of audit and related area affected

In our review, we identified deficiencies in the financial statement and ICFR audits related to **Liabilities for Self-Insurance Reserves**.

Description of the deficiencies identified

The issuer used claims activity reports to estimate its self-insurance reserves. The firm selected for testing a control that included a review of these claims activity reports for accuracy. The firm did not evaluate the specific procedures that the control owner performed to address the accuracy of certain data, including claims' incident dates, in the claims activity reports. (AS 2201.42 and .44)

The firm's approach for testing the self-insurance reserves was to develop an independent estimate. The firm did not perform substantive procedures to test, or (as discussed above) to sufficiently test controls over, the accuracy of claims' incident dates used in its independent estimate, beyond comparing the incident dates in the claims activity reports to the system that generated those reports. (AS 1105.10)

Audits with a Single Deficiency

Issuer D – Financials

Type of audit and related area affected

In our review, we identified a deficiency in the ICFR audit related to **Investments**.

Description of the deficiency identified

The firm selected for testing a control over the valuation of certain investments that consisted of the review of analyses and memoranda summarizing established fair values. The firm did not evaluate the review procedures that the control owners performed, including the criteria that the control owners used to identify items for follow up and whether those items were appropriately resolved. (AS 2201.42 and .44)

Issuer E – Health Care

Type of audit and related area affected

In our review, we identified a deficiency in the ICFR audit related to **Liabilities for Incurred But Not Reported Claims**.

Description of the deficiency identified

The issuer used historical claims data to estimate the liabilities for incurred but not reported claims. These data consisted of numerous loss triangles that included monthly historical claims incurred and claims adjudicated or paid for multiple periods. For one of the issuer's reporting segments, the firm selected for testing an automated application control over the generation of reports containing historical claims data. The firm did not test the configuration of the automated control or perform other procedures that would have provided sufficient appropriate audit evidence that the automated control was designed and operating effectively. (AS 2201.42, .44, and .B9)

Issuer F – Financials

Type of audit and related area affected

In our review, we identified a deficiency in the financial statement audit related to **Deposit Liabilities**.

Description of the deficiency identified

The firm sent positive confirmation requests to the issuer's customers for a sample of deposit liabilities. For the items in its sample for which the requested confirmations were not returned, the firm did not perform alternative procedures that provided sufficient evidence that the recorded amounts of the deposit liabilities were accurate as of the confirmation date. (AS 2310.31)

Part I.B: Other Instances of Non-Compliance with PCAOB Standards or Rules

This section of our report discusses any deficiencies we identified that do not relate directly to the sufficiency or appropriateness of evidence the firm obtained to support its opinion(s) but nevertheless relate to instances of non-compliance with PCAOB standards or rules. When we review an audit, we do not review every aspect of the audit. As a result, the areas below were not reviewed on every audit inspected.

The deficiencies below are presented in numerical order based on the PCAOB standard or rule with which the firm did not comply. We identified the following deficiencies:

- In 13 of 52 audits reviewed, the firm did not include all relevant work papers in the final set of audit documentation it was required to assemble. In these instances, the firm was non-compliant with AS 1215, *Audit Documentation*.
- In eight of 26 audits reviewed where one or more other accounting firms participated in the firm's audit, the firm's report on Form AP omitted information related to the participation in the audit by certain other accounting firms that was required to be reported. In these instances, the firm was non-compliant with PCAOB Rule 3211, *Auditor Reporting of Certain Audit Participants*.

Part II: Observations Related To Quality Control

Part II of our report discusses criticisms of, and potential defects in, the firm's system of quality control.

Deficiencies are included in Part II if an analysis of the inspection results, including the results of the reviews of individual audits, indicates that the firm's system of quality control does not provide reasonable assurance that firm personnel will comply with applicable professional standards and requirements. Generally, the report's description of quality control criticisms is based on observations from our inspection procedures.

Any changes or improvements to its system of quality control that the firm may have brought to the Board's attention may not be reflected in this report, but are taken into account during the Board's assessment of whether the firm has satisfactorily addressed the quality control criticisms or defects no later than 12 months after the issuance of this report.

Criticisms of, and potential defects in, the firm's system of quality control, to the extent any are identified, are nonpublic when the reports are issued. If a firm does not address to the Board's satisfaction any criticism of, or potential defect in, the firm's system of quality control within 12 months after the issuance of our report, any such deficiency will be made public.

Appendix A: Firm's Response to the 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, excluding any portion granted confidential treatment, is attached hereto and made part of this final inspection report.

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, 15 U.S.C. § 7214(f), 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. 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.

Deloitte.

30 Rockefeller Plaza
New York, NY 10112
USA

March 20, 2020

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 2018 Inspection (PUBLIC)

Dear Mr. Botic:

Deloitte & Touche LLP is pleased to submit this response to the draft Report on the 2018 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,

Lara Abrash
Chairman and Chief Executive Officer
Deloitte & Touche LLP

Joseph B. Ucuzoglu
Chief Executive Officer
Deloitte

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 forgoing, 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 of 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.

Corporate Compliance

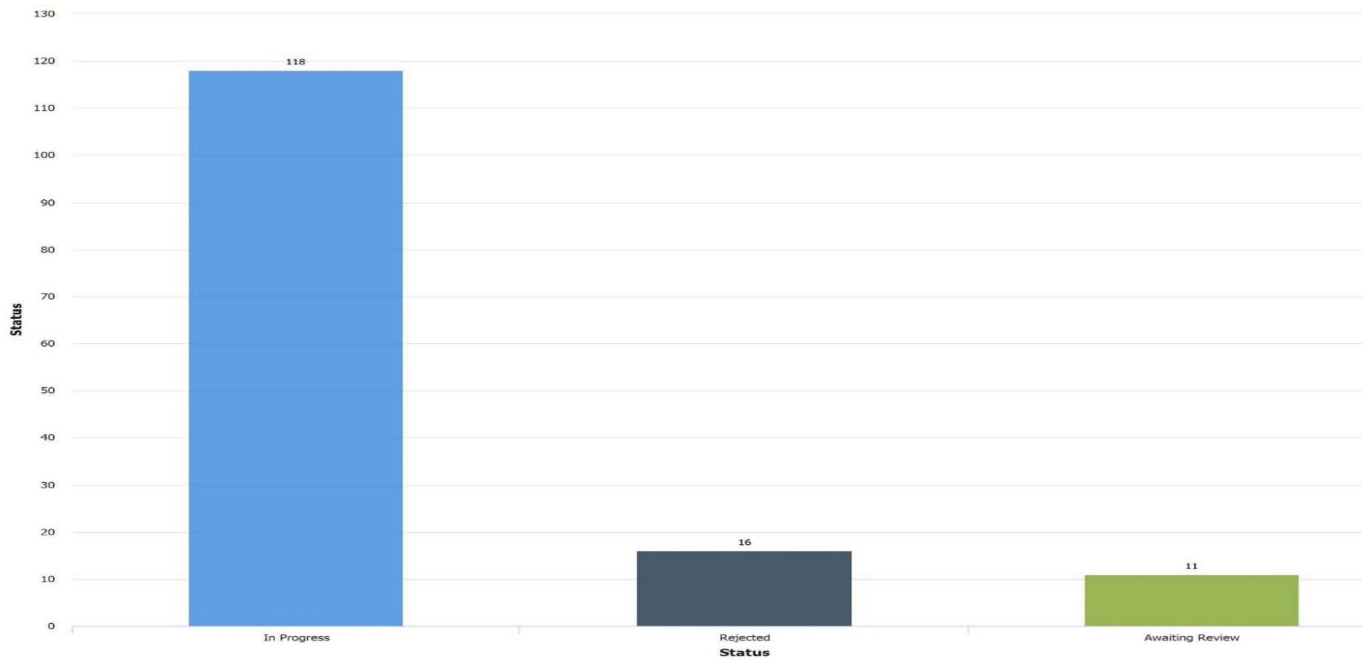
Remediation Plans- Six Months Past Due

Audit Committee
October 2020

Executive Summary

Period Snapshot
Remediation plans are being tracked and managed in RSA Archer
New review and approval process to close remediation plans and related findings
System provides increased transparency and accountability
Reviewing open remediation plans to determine actual implementation status
Currently 118 remediation in progress

Audit Committee Report-Remediation Plan Six Months Past Due

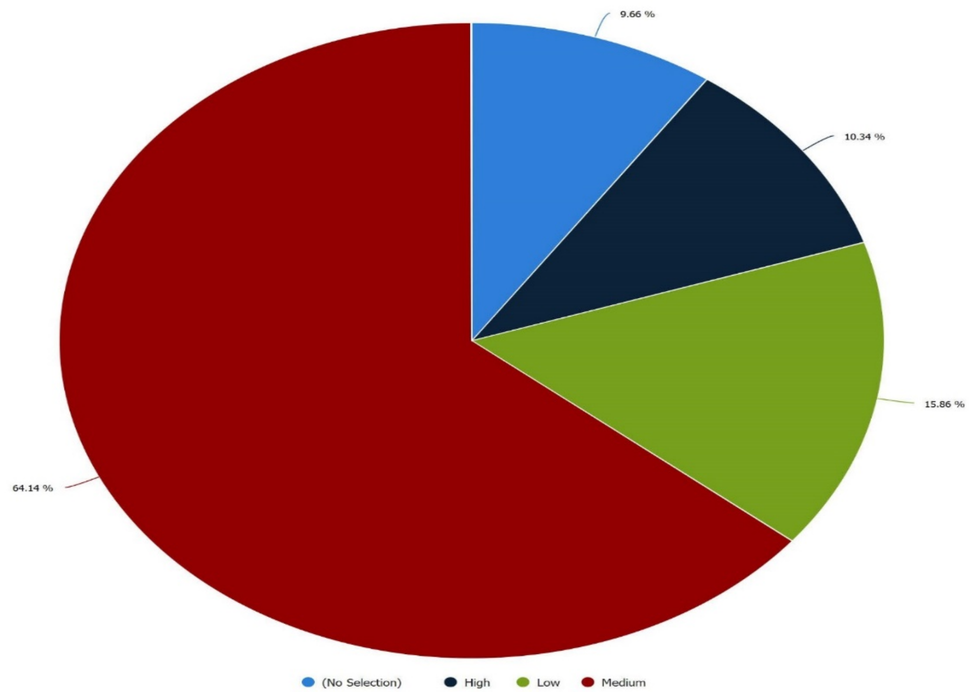


In Progress: Departments are ascertaining actual status, documenting completed plans and working on implementing incomplete plans

Rejected: Departments submitted documentation that plans were implemented that was not excepted by Compliance or Audit

Awaiting Review: Departments submitted documentation that plans were implemented that is being reviewed Compliance or Audit

Audit Committee Report-Remediation Plans by Criticality



MTA AUDIT SERVICES

2020 Audit Plan Status

October 28, 2020

2020 Audit Plan Status

Financial/Operational/Technology

Projects Completed	51
Findings with Recommendations	98
Savings/Cost Efficiencies	$ 10.8 M

Contracts

Projects Completed	218
Pre-Award	15
Overhead Reviews	131
Contract Close-outs	52
Claims	1
$ Audited	$ 684.4 M
Questioned Costs	$ 38.4 M

2020 – Significant Audits

	Cost Savings/ Avoidance
Financial/Operational/Technology	
❖ Homeless Outreach Services	$ 2.1 M
❖ Advertising License Agreement	$ 2.3 M
❖ Money Room Cash Processing	$ 340K
Operating Contracts	
❖ Escalator Services	$ 300K
❖ Tree Clearing Services	$ 200K

2020 – Significant Audits

Financial/Operational/Technology

- ❖ **Sea Beach Line Project**
- ❖ **Mobile Wash**
- ❖ **CBTC Cybersecurity**
- ❖ **Manhattanville Depot**

2020 – Significant Contracts

Contract Reviews	Cost Savings/ Avoidance
❖ Contract Option Reviews	$ 29.53M
❖ East Side Access	$ 2.58M
❖ 2nd Avenue	$ 1.73M
❖ Sole Source	$ 1.05M
❖ Final Audit	$ 560K

2020 – Sandy Audit Unit

Superstorm Sandy Audit Unit
Recovery Oversight Audits
(Since 2013)

Total Grant Expenditures	$2.94 Billion
Costs Audited	$521.2 Million
Projects/Recommendations	133/361
Follow-up Audits Completed	11
Total Cost Adjustments	$62 Million

2020 - Pension Support Program

Pension Quality Assurance Support Program:

- The Quality Assurance (QA) group continued to review calculations for new retirees, Retroactive Wage Adjustments (RWA) and other calculation adjustments.

- Plans reviewed include the LIRR's Defined Benefit (DB) Open and Closed Pension Plan, MNR DB Pension Plan, MTA Police DB Pension Plan, and MTA Bus Plan.

- The Pension QA Group reviewed 1,103 pension files from January 2020 through September 2020.

QA Results

➢ Errors with No Financial Impact	119
➢ Errors Identified with Financial Impact	95
➢ Total cost impact over the expected life of retiree	$3.7M

2020 - On Board Program

Railroad Onboard Revenue Program:

- MTA Audit Services perform observations onboard the LIRR and MNR trains to ensure that conductors are collecting the correct fare and they are in compliance with operating processes.

- Monthly reporting is provided to both agencies for: 1) fare not collected, 2) incorrect fare collected, 3) conductor not seen and, 4) other special observation request results.

- The program was put on hold from March 17, to June 30, 2020, due to the Covid-19 emergency; and then resumed July 1st.

Revenue tests completed in 2020:

➢ LIRR	2,518
➢ MNR	2,443

2020 Audit Areas

Service Delivery

Positive Train Control
207th Street Over-haul Shop
On-Time Performance
Vacuum Trains
R179 Warranties √√
Paratransit
Bridge Inspection & Repair
Infrastructure
Car Equipment √
Rail Control Center √√
Operations Training
Bus Depot Operations √
Bridge & Tunnel Operations √
SIR Inspection & Maintenance

Finance

Timekeeping √√, √, √,
Overtime √√, √, √, √, √
Accounts Payable √√, √
Other Business Expenses √
Pensions √√, √
Treasury/Investments √√, √√
Year-End Financial Statements √√
Audit Recommendations √

Safety

Fare Evasion √
Homeless Outreach √ √
Sandy Project Safety/Oversight √
LIRR Drug Testing
MNR Environmental Review
B&T Hazardous Waste Management

Human Resources

FMLA
OPEB Current Payments √√
Other Fringe Benefits √
Health and Welfare √
Medical Claim/ & Eligibility
Employee Availability
Hiring Process

Revenue

Claims/Insurance/Other Revenue √
NYC Transit AFC Revenue √
Bus Farebox Revenue
LIRR/MNR eTIX √√
B&T Cashless Tolling √
MTA Rental & Advertising √ √
Railroads On-Board Revenue √√, √√

Capital Program

Superstorm Sandy √√
EFA Charges √
Prevailing Wages √√, √
Contract Management
Consultant Management
Third Party Contracts √√, √

Procurement

Professional Services Contract √√
Materials & Supplies Contract √
Operating Contracts √
Procurement Cards

Technology

Back-up & Recovery √
Shadow IT Functions √
Cybersecurity √ √
Change Management √
User Developed Applications √
Business Continuity/D.R.
IT Asset Management
Application Rationalization

Looking Ahead

- Work with Agency Management for 2021 Audit Planning
- Continue to coordinate audit activities with:
  - External Auditors
  - City/State Controller's Office
  - MTA Chief Compliance Office
  - MTA Inspector General Office
- Work with Internal Control Officers to validate the implementation of recommendations and reduce the backlog of past due recommendations.

QUESTIONS?